

A PREHISTORIC AND ANGLO-SAXON BURIAL GROUND PORTS DOWN, PORTSMOUTH

ABSTRACT

A Bronze Age 'Wessex' cremation which, it must be supposed was surmounted by a barrow¹, together with secondary Bronze Age burials, provided a focus for Saxon interments.

The Saxon cemetery comprised at least 20 graves which contained some 25-30 inhumations. Although these included women and children, the majority (approx. 70 per cent) were adult males, one of whom (No. 6) was clearly a warrior and another (No. 16) appears to have died as a result of sword wounds.

Only three graves, Nos. 3, 4 and 6, contained grave goods. The principal finds, a shield-boss from grave No. 6 and a knife from No. 3, are discussed by Miss V. I. Evison on page 33 and attributed to the second half of the seventh century.

At least three graves (Nos. 5, 9 and 17) had been reused for later interments and the disjointed rearrangement of the primaries, evident in graves Nos. 5 and 9, indicate a lapse of some considerable time between the burial of the first and later occupants.

It seems probable that the Saxon cemetery served the hamlet of Wymering which lies immediately below the site to the south.

THE EXCAVATION

By A. CORNEY

INTRODUCTION

IN MARCH 1948, Portsmouth Corporation workmen widening the junction of the Cosham-Southwick (A.333) road with the Military (B.2177) road (Nat. Grid. 41/64870656) on Ports Down, discovered four Anglo-Saxon inhumations (Nos. 1-4). Mr. J. Neufville Taylor, then on the staff of the Portsmouth City Museums, notified the Ministry of Works and arrangements were made for Group Captain G. M. Knocker of the Inspectorate of Ancient Monuments to co-operate with the Museum staff in an exploratory excavation.

An area of about 50 feet by 60 feet in the north segment of the cross-roads was examined by trenching and the Bronze Age cremations, the Food Vessel², and two more Saxon graves, Nos. 5 and 6, were discovered and excavated.

In April 1956, before Mr. Neufville Taylor's report was published³, an engineering project involving the complete reconstruction of the road junction, revealed the presence of further burials. With the willing co-operation of the contractors, Messrs.

¹ It is emphasised that the excavators observed no evidence of a barrow but the use of this site for Saxon burials carries the implication that a barrow did at one time exist here and it could well be that it was destroyed by the intensive military use of the Down in the 19th century.

² J. Neufville Taylor, in his Provisional Report, represented this pot as belonging to the Early Iron Age. The present writer has adopted the attribution of P. Ashbee, Esq.

³ A provisional report was published in *The Portsmouth Reader*, vol 11, no. 3 (1948).

Warings Ltd., a rescue excavation was organised for which, once again, the Ministry of Works provided practical help in the person of Group Captain Knocker.

The roadworks which initiated this second excavation, involved extensive disturbance to the whole area of the site and the graves were revealed fortuitously. Several were badly damaged by bulldozer or mechanical excavator, while the remains of at least four individuals (Nos. 18-22) recovered from spoil heaps, represent graves destroyed without recognition.

A further eleven Saxon graves were examined (Nos. 7-17) eight of which were undamaged. None contained grave goods.

Mr. J. Neufville Taylor readily consented to the results of his work in 1948 being incorporated here and placed all his material at the writer's disposal. Miss V. I. Evison and Paul Ashbee Esq., kindly undertook to do the comparative studies of Anglo-Saxon and Bronze Age finds respectively and D. R. Brothwell Esq., to provide the osteological report.

THE SITE (fig. 3)

Ports Down is a six mile long, isolated, chalk ridge lying east-west across the top of Portsmouth Harbour. The burial-ground occupied an exposed position on the ridge at 350 feet O.D. To the west, the Down climbs the remaining 50 feet to its highest point 1,500 yards distant and this gentle slope is maintained to the east. Southward it plunges steeply towards the harbour three-quarters of a mile away and to the north, falls equally abruptly towards the low-lying Tertiary Beds which separate Ports Down from Butser Hill and the main line of the Hampshire Downs.

In 1948, the excavators observed two parallel banks, some 5 feet high, separated by a shallow ditch orientated east and west across the site. Grave No. 6 provides evidence that this feature postdated the burials and it is probable that, with other earthworks of like character in the vicinity of the site, it resulted from intensive military use of the Down in the 19th century.

The remains of lynchets are discernable on the north slope of the Down below the site and there is a scatter of Romano-British potsherds over the area; the greatest concentration being at a point some 300 yards east of the burial-ground.

The site was on land owned by the War Department and permission to excavate was obtained from the Garrison Adjutant and the War Department's Land Agent.

THE BRONZE AGE FEATURES

The cremation was contained in a roughly circular pit about 3 feet in diameter with the bottom 1 foot below the chalk surface. Mixed with the charred bone fragments and charcoal were 107 discoidal shale beads and 16 amber beads. A conical gold-covered shale button was lying point downwards on top of the cremation debris in the centre of the pit and at the same level, against the side of the pit, were the complete fragments of an incense cup.

A second cremation in a roughly circular pit, 3 feet in diameter, with the bottom 6 inches below the chalk horizon, was found approximately 40 feet south-west of the above. There were no associated finds.

Midway between these two cremations, a feature, thought to be a third cremation burial, was excavated but was found to comprise only a quantity of fire-crackled flints.

A PREHISTORIC & ANGLO-SAXON BURIAL GROUND

PORTS DOWN · PORTSMOUTH

□ Anglo-Saxon Grave

■ Food-Vessel

● 'Wessex' Cremation

○ Undated Cremation

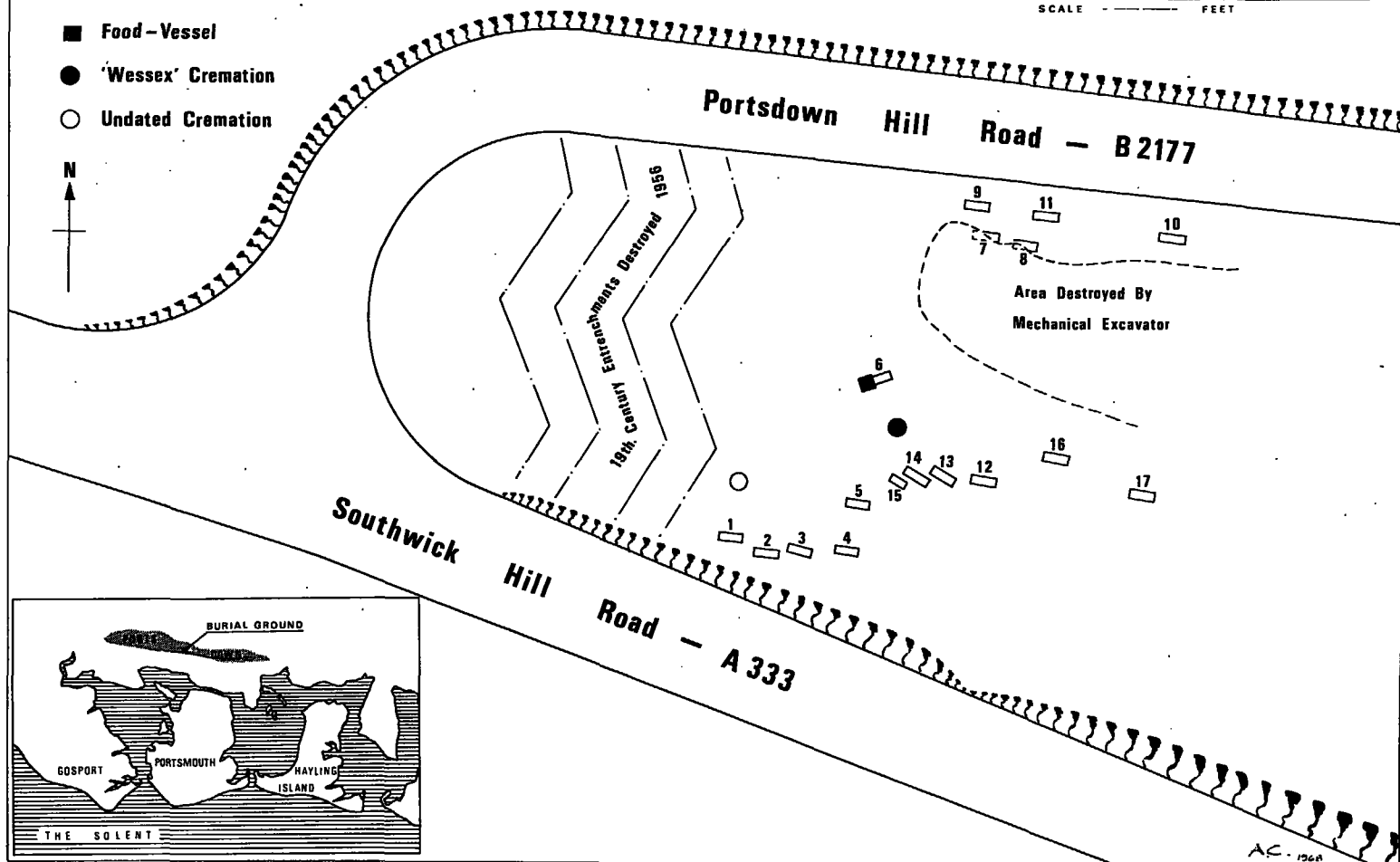
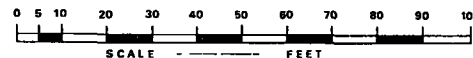


Fig. 3. General plan

The Food Vessel

A crushed pot was found on the surface of the chalk at a depth of 1 foot 5 inches. It was in a rectangle of grey filling which appeared as an extension to the western end of Grave No. 6 and was thought by the excavators to represent a prehistoric burial which had been cut through by the Saxon interment.

These finds are described in detail and discussed by P. Ashbee Esq. on pages 26 to 33.

THE ANGLO-SAXON BURIALS (fig. 4)

The graves were roughly rectangular with rounded corners and with the possible exception of No. 6, no larger than was necessary to accommodate the bodies. They were cut into the natural chalk to a depth of 2 feet to 2 feet 6 inches, above which was some 10 to 12 inches of topsoil. All of the graves were orientated to within a few degrees of east-west with the heads to the west. Some attempt at east-west alignment was noticeable with graves Nos. 1-4 and possibly Nos. 7-11. No other signs of an ordered arrangement were observed although Nos. 13-15 could be seen to comprise an associated group and were found to contain children.

Only three burials, Nos. 3, 4 and 6 had objects with the skeletons. There was no evidence of the use of coffins but three graves, Nos. 12, 13 and 14 had a flint or flints set into the foot. One, No. 10, had flints set into the side. Unless otherwise stated, the bodies were on their backs with legs straight and arms straight along the sides.

Nos. 1, 2, 3 and 4

Discovered and removed by workmen. All were said to be orientated as above. Adult males.

Finds: An iron knife (pl. II, D) was found in grave No. 3 and described as 'being near the left hand'. An iron buckle (pl. II, E) was found in No. 4 but its position is not recorded.

No. 5

The bones of an adult female representing the primary burial, were found scattered in the filling above the secondary. Secondary interment: an adult male. Head facing left, left forearm across pelvis with hand on top of right femur.

No. 6 (fig. 4)

This burial was partly under a bank; a later feature, probably a result of military activity in the 19th century.

The grave is recorded as unusually large, measuring 7 feet 6 inches by 3 feet. The bottom was only 1 foot below the chalk surface but was covered with an excess of topsoil (1 foot 3 inches to 2 feet 10 inches), some of which represented the bank.

The skeleton, presumably that of an adult male, was found to be disturbed; only the lower part being intact. The femurs were broken off just above the knees and above, only the left ulna and possibly the right collar bone, were found *in situ*. Excepting for a few misplaced fragments, the remainder of the skeleton was missing. The lower legs and feet suggested a skeleton extended on its back.

This grave was interpreted by the excavators as having been robbed but a more likely explanation would be that it was damaged by the removal of soil to form the bank.

Finds: Shield-boss and grip (pl. II, A, B, c) positioned over top of left tibia. An iron rivet was found beneath the shield-boss and another between the tibiae, approximately 9 inches from the boss. In the disturbed area, two small iron nails or pins were found, one against the inner side of the left ulna and the other 5 inches from it in the presumed position of the spine.

About 1 foot beyond the west end of this grave and on the surface of the chalk, i.e. 1 foot higher than the floor of the grave, was the pot described under 'Bronze Age Features – Food Vessel' above. This was in a rectangle of grey filling, the sides of which appeared as an extension to the Saxon grave. The excavators' interpretation was that the Saxon grave had cut through and almost obliterated a prehistoric burial.

No. 7

Only the east end of the grave had survived the mechanical excavator. Half of each femur and the lower legs were intact and show that the skeleton, a probable male, was on its left side with knees tightly flexed.

No. 8

Western half of grave destroyed by mechanical excavator. The pelvis and legs show that the skeleton, a male(?), was extended on its back. A calotte and arm bones, salvaged by workmen and said to be from this grave, have been shown to belong elsewhere.

No. 9

This grave was 8 feet long and 2 feet wide. It contained the skeletons of three males, two of which had been pushed to the sides and ends of the grave to accommodate the final interment. This last occupied the centre of the grave, extended on its back with skull facing right.

Most of the bones of the previous burials were ranged along the south side of the grave with one skull which was beside the final interment's ankles. The third skull, together with some arm bones, was at the head of the grave.

No. 10 (fig. 4)

Adult female. Right forearm across body with hand on left elbow. Left hand slightly bent with hand on pelvis.

Flints: Four flints, each no larger than a clenched fist were set in the side of the grave, ranged from opposite the left side of the skull to the left elbow.

No. 11

Adult, probably male. Top half of skeleton badly eroded. Left forearm slightly bent with hand on pelvis.

No. 12 (fig. 4)

Adult female. Badly eroded. Body on its back with lower half twisted to the right and knees flexed. Left forearm across body with hand on right hip. Left humerus displaced and lying beside skull.

Flints: Two flints, each about the size of a clenched fist were at the foot of the grave.

A PREHISTORIC AND ANGLO-SAXON BURIAL GROUND, PORTS DOWN

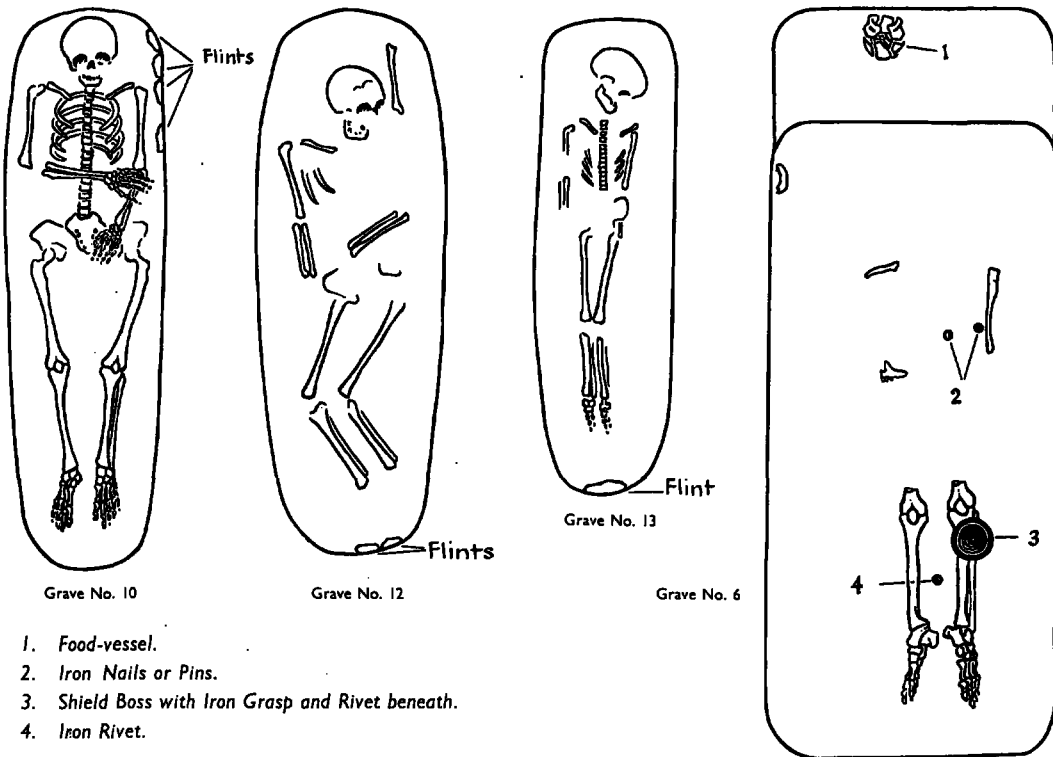


Fig. 4. The burials.

No. 13

A child of about eight years. Skeleton badly eroded. On its back with skull facing right.

Flint: A single large flint about 9 inches by 4 inches by 4 inches was at the foot of the grave.

No. 14 (fig. 4)

A child of about twelve years. Extended; skull facing left.

Flint: A single large flint, about 9 inches by 4 inches by 4 inches was found at the foot of the grave.

No. 15

Grave 4 feet long by 1 foot 6 inches wide. Remains of an infant, badly eroded. Left forearm across body. Lower half twisted right with knees flexed.

No. 16

Adult male. Extended. Damage to skull suggests that occupant was killed by sword? wounds.

No. 17

Grave badly disturbed by mechanical excavator and could not be properly examined. Remains represent two burials, a youth and an adult male. The order and arrangement is not known.

Skeletal remains recovered by workmen represent at least four individuals, three adult males and one female.

THE WESSEX GRAVE

By PAUL ASHBEE*

The Bronze Age grave and pit, and their contents, described in detail below, were initially observed as three infilled, roughly circular pits, and part of a fourth, which had been, apparently, roughly rectangular, cut through by a later interment. Their excavation disclosed in the first, a cremation burial accompanied by a slotted 'incense' cup, a gold encased lignite button and beads of lignite and amber, in the second, an unfurnished cremation burial, in the third a deposit of fired flints, and in the fourth a crushed food-vessel.

Since 1948 the cremations and grave furniture have been housed in the Portsmouth City Museums. This report has been prepared with the co-operation and kind encouragement of that institution's Curator of Antiquities, Mr. A. Corney. Details of the graves, pit and other features have been taken from the recorded observations made at the time of excavation. Consultations with Dr. I. F. Smith have aided and supported my contentions regarding the origins and affinities of the food-vessel¹.

THE SITE

Two groups of barrows have been set upon the Ports Down ridge, one at the eastern end and another in the middle. It is to this last group that the graves described in this paper would appear to belong. Their details and dimensions have been listed by Mr. L. V. Grinsell², but, with one exception, nothing is known of their contents or structure. This barrow, known as Gob's Barrow, situated just by the George Inn, seems to have been a twin, which had beneath one part of it a contracted inhumation burial furnished with a flint dagger and a Necked Beaker.

THE GRAVES AND PIT

The Wessex Grave

Excavation revealed a sub-rectangular grave about 4 feet 3 inches in length and 3 feet in width with, apparently, a flat bottom about 12 inches below the surface of the chalk, which was cloaked by about 12 inches of topsoil. Cremated bones and charcoal had been heaped in the middle. Mixed with the bones and charcoal were 107 discoidal lignite and 16 amber beads as were also snail shells (*Pomatias elegans* (Mull.) and *Sonyodiscus rotom datus* (Mull.) identified by Mr. A. S. Kennard), and the remains

¹ Dr. I. F. Smith is to be thanked for her scrutiny of the vessel and stimulating conversations upon the subject matter of the paper.

² *Proc. HFC*, xiv, 361.

*This account was written in 1957. P.A.

of small rodents. A gold-cased conical shale button was lying point downwards in the centre of the top of the pile, while at the same level, and against the side of the pit, were the sherds of a slotted incense cup.

The Second Grave

A pit described as 'similar to the first' contained 'charred bone fragments (a cremation?) and charcoal'.

The Third Pit

It was recorded that an area uncovered some 20 feet to the south-west of the Wessex Grave had every appearance of containing another cremation grave. Indeed, size, depth and character of the filling were the same. From, apparently, about it, came numerous fire-marked flint nodules.

The Rectangular Pit

This was recorded as 'a rectangle of grey filling which appeared as an extension to the western end of (Anglo-Saxon) Grave No. 6' and was thought by the excavators to represent a prehistoric burial cut through when the Saxon grave had been dug. In this, lying crushed upon its side, were the sherds of a food-vessel. Its depth from the surface was noted as 1 foot 5 inches and as about 12 inches of topsoil mantled the chalk hereabouts it would seem that the remaining part of this pit or grave was only about 5 inches in depth.

THE FURNITURE FROM THE WESSEX GRAVE (pl. I; fig. 5)

(1) *The Incense Cup* (pl. I and fig. 5, no. 7)

This cup is 2.2 inches in height, 3.75 inches in diameter at the shoulder and 3.5 inches in diameter at the base. It is of dark-faced lightly tempered ware. The upper part of this vessel, which is in form a truncated bicone, is ornamented with two pairs of encircling lines of impressed 'cord', or, as seems more likely here, thong ornament, while a further encircling line, set just below the shoulder, accentuates this feature. Sub-rectangular stab impressions, at intervals of about 0.4 inches, ornament the flat rim. Sixteen equally spaced vertical slots encircle and penetrate the lower half of the vessel.

(2) *The Conical Gold Button* (pl. I and fig. 5, no. 1)

A convex profile and base accentuate the conical form which is 1.125 inches diameter at the base and 0.875 inch in height. This button has been made in two parts; the sheet-gold envelope and the lignite core.

The sheet-gold envelope covers the surface of the cone with the exception of the base. It has been beaten out, presumably from a single selected piece of gold, to a thickness of approximately 0.065 millimetre. Possibly on account of their relatively accurate coincidence, the lignite core may have been used as a 'former' in the later stages of this process. A small turn-over of the gold envelope around the base secured it to its core. Bruising and pitting of the plain surface of the gold could denote discrepancies in the beating technique, as may the brittleness, furrowing and distortion, aggravated perhaps by the expansion and splitting of the lignite core, and be evidence of want of annealing.

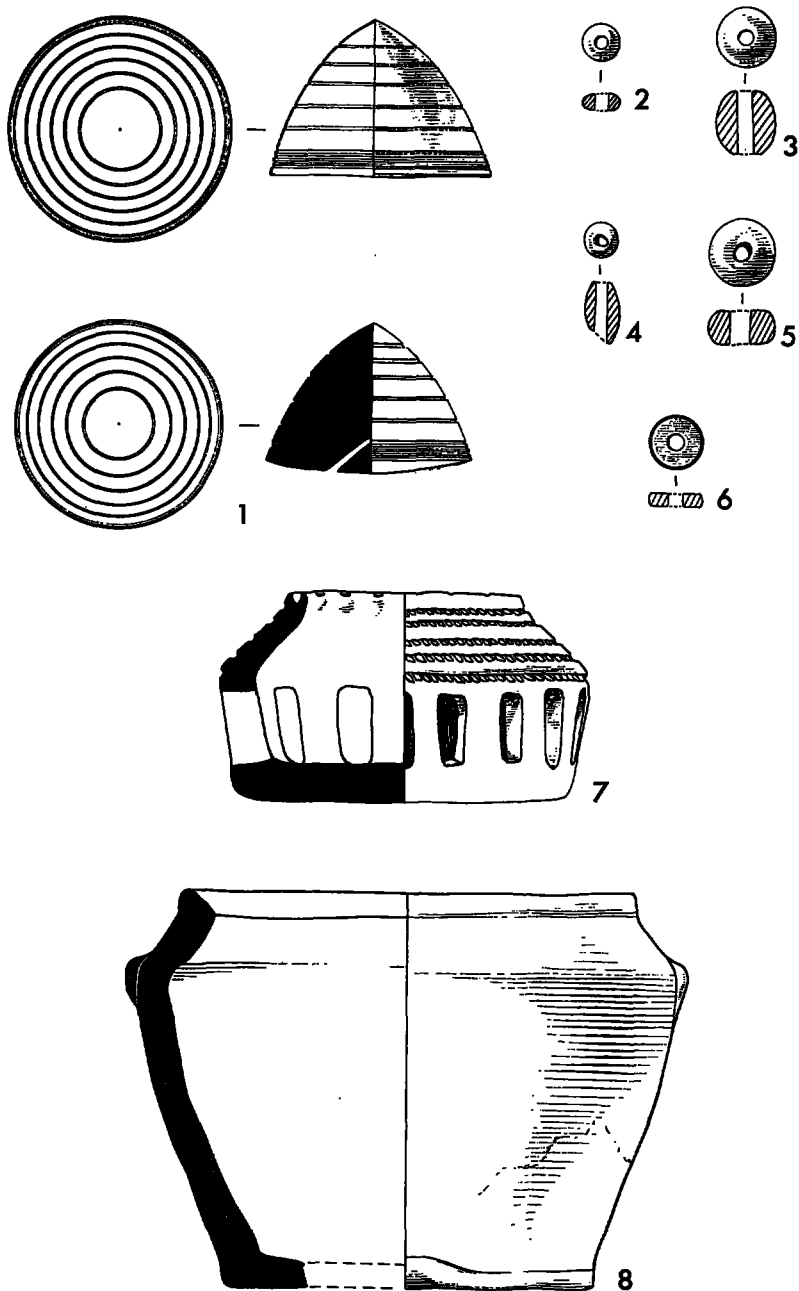


Fig. 5. Finds from the Wessex grave (page 27).

Near the base of this beaten-out cone cover, a band of four impressed lines encircle it. The top and bottom lines have within them fine punched dots set close together (about $\frac{1}{4}$ to the inch), while the middle two are plain. Between this band of ornament and the apex are five more equidistantly set encircling lines having also within them similar punched dots. Such a system of ornamentation has been termed line-pointillé³.

Such a core of lignite as this example can only have been prepared by lathe-turning; only such process would account for its regular form, which with the convex planes recalls an archaic bee-skep. Four close-set right-angular bottomed grooves encircle the lower part of the cone, while there are five more equidistant encircling lines between this band and the apex. Indeed, cone and cover accurately coincide.

In the base of the solid cone are two oblique holes meeting within the cone and thus forming a V-boring for attachment.

(3) *The Beads* (pl. I and fig. 5, nos. 2-6)

One hundred and seven lignite and 16 amber beads were collected. Those of lignite are of the thin barrel-disc variety⁴, of an average 0.28 inch in diameter, varying from 0.31 to 0.25 inch and from 0.04 to 0.08 inch in thickness. Axial holes are from 0.05 to 0.08 inch in diameter.

Three types of amber beads represented are oblate, short barrel and ellipsoidal. The smallest is 0.1 inch and the largest 0.3 inch in diameter.

It will be observed that the beads are a graduated series and thus a necklace with the precious glowing amber, together with, perhaps, even the gold 'button' as a pendant, should be envisaged. Decay and breaking of the string would make their infiltration into the pile of cremated bones possible. In conclusion this is a convenient point to observe that no article of furniture from this grave had been damaged by fire.

(4) *The Food-vessel* (fig. 5, no. 8)

The ware, which is dark but red faced or even slipped, has been tempered with crushed calcined flint of which jagged pieces protrude, while the opposing lugs appear to have been pinched up and not applied. Grains of water-worn quartz may have been an original constituent of the clay. Height 4.2 inches; diameter at shoulder 5.4 inches; diameter at rim 4.6 inches.

THE AFFINITIES OF THE GRAVES AND THEIR FURNITURE

That this richly furnished cremation grave and the adjacent grave and pit may, as was suggested in the interim report, have been covered by a barrow seems possible. Indeed, the disturbance of the immediate area plus the possibility that the barrow, like others in the region⁵, may have had a low mound and a broad shallow, readily obliterated, ditch would more than have accounted for its destruction.

The sub-rectangular graves, which would in each instance have been large enough to house a contracted corpse, but which contained heaped cremations, can be classed with a number of such graves, of varying dimensions. They have been collected by

³ PPS, iv, 79.

⁴ The definitions of H. C. Beck. in *Archaeologia*, lxxvii, 1-76 have been followed here. Thereafter for convenience the term 'disc-beads' has been used.

⁵ *Proc. HFC*, xix, 118.

Grinsell⁶ and to them may be added the burial beneath the Bishop's Waltham Great Barrow⁷. A grave under the Pewit Farm Bell Barrow⁸ in Berkshire and another under Wiltshire's Aldbourne Barrow G CCLXXX⁹, although larger, are directly comparable, as is the grave under the Bishop's Waltham Great Barrow on account of their large oval or slightly squared form. Such a grave form seems entirely typical of Beaker graves when it normally contains a contracted or flexed inhumation burial. Elongated slot-like graves of commensurate length but usually only about 1 foot 6 inches in width, such as those encountered by Greenwell¹⁰ beneath the Wiltshire barrows Aldbourne G CCLXXVII and CCLXXVIII or found in a satellite situation under the Tregulland Barrow¹¹ were conceivably a sparingly executed version and thus a devolution of the more generous form.

Although it must be conceded that the third pit, which was empty but which had fire-marked flint nodules about it, may have been, if its origins were not natural, an unused grave, it seems possible that it was a representative of the series termed 'ritual'¹². Sometimes these are said to have contained charcoal or traces of organic matter¹³, at other times they would seem to have been refilled with soil and turves¹⁴. Such pits have been found not only beneath round barrows but also under earthen long barrows¹⁵ and certain chambered cairns¹⁶.

In default of more concise details and complete barrow excavations it is difficult to assess their incidence and affinities. It would be tempting to regard the fire-marked nodules as the site of the funeral pyre, a contention impossible to prove or disprove, in this circumstance. However, in view of the thin soil mantle recent fires cannot be entirely excluded while if burnt in prehistoric times they might equally well represent the clearance of brushwood or even trees from the site selected for the barrow.

The association of slotted cup, a gold-encased button with amber and shale beads together, and furnishing a cremated burial, is directly comparable with the trappings of a burial beneath a great bell-barrow at Wilsford¹⁷ in Wiltshire. Here the cremation had been, presumably set upon the ancient surface and about it were, besides the slotted cup, a gold-covered conical button and three amber pestle beads, two of the celebrated gold-bound amber discs, a gold-covered bronze ingot-torque pendant, a halberd pendant and a circular piece of bone (possible a split cranial roundel) covered with thin gold, besides three scutiform amber pendants. This assemblage is usually considered one of the richest groups from a female burial in the Wessex area¹⁸. A burial on Hengistbury Head¹⁹ in Hampshire had by it comparable objects, but the small gold cones seem likely to have furnished a club or mace like that from the Clandon Barrow²⁰ rather than to have encased buttons.

Slotted miniature vessels of the biconical series to which the Ports Down example unmistakably belongs were Thurnam's²¹ *slashed cup* variety. He commented upon a

⁶ PPS, vii, 102.

⁷ PPS, xxiii, 137-166.

⁸ *Trans. Newbury and Dist. F.C.*, viii, 109-15.

⁹ *Archaeologia*, lii, 50-3.

¹⁰ *Archaeologia*, lii, 48-9.

¹¹ *Antiq. Journ.*, xxxviii, 179.

¹² *Palaeohistoria*, iii, 150-51.

¹³ *Antiq. Journ.*, xxxviii, 178-9.

¹⁴ PPS, iv, 173 (Pit I).

¹⁵ *Archaeologia*, lxxxv, 88.

¹⁶ *Arch. Camb.*, c, 20.

¹⁷ PPS, iv, 105 (no. 71), pl. ix.

¹⁸ *University of London Inst. Arch.*, 10th Ann. Rpt., 53.

¹⁹ Bushe-Fox, *Excavations at Hengistbury Head*, 14-17.

²⁰ PDNHAS, lviii, 23.

²¹ *Archaeologia*, xliii, 367.

resemblance to Stonehenge²² which has not escaped the eye of subsequent writers²³. Apart from the cup, likened by Colt Hoare to the complex monument which lies at the heart of the barrow cemeteries of Salisbury Plain, from the Wilsford bell-barrow and an atypical saltire-embellished A-beaker related cup from Stanton Harcourt²⁴, in Oxfordshire. This series of closely similar vessels has a coastal distribution from Kent to Dorset. From Kent are the examples from Lutinton Wood²⁵ and Tilmanstone²⁶. The last possibly with an inhumation burial. Two more cups are known from the South Downs in Sussex, where they probably came from destroyed barrows; one is from Lancing and the other from Clayton Hill²⁷. The Hengistbury Head barrow²⁸ lies within sight of the sea although the Burleston barrow²⁹ from whence came the Dorset cup is at a great distance therefrom. The Ports Down cup amplifies this pronouncedly southern distribution. Also allied are a small series of cups of almost exactly similar lineaments but unslotted³⁰.

A gold-cased conical lignite button has survived from one other grave³¹ besides classic Wilsford and thus that from Ports Down is a welcome addition to the series. Stukeley³² probably describes such a button from an Amesbury barrow³³ and one may have been found in a barrow-grave at Puddletown in Dorset³⁴. The Ports Down button (1.125 inches diameter at base and 0.875 inch height) is smaller than the Upton Lovel³⁵ button (1.875 inches diameter at base and 1.5 inches high) and also smaller than the Wilsford button (1.75 inches diameter at base and 1.375 inches high) which latter it resembles closely on account of like decoration. The simple line and punched line (termed line-pointillé) ornamentation of the Ports Down button demonstrate its affinities with the Wessex sheet gold trappings. The Wilsford button casing has pointillé lines set in fours; hence its close resemblance to the Ports Down example, while other like embellished and diverse articles must be considered. Foremost is the gold plate of lozenge form from the Clandon Barrow³⁶ which has an outer zone of line-pointillé and an inner which defines a central panel of simple lines. Also vital to this theme is the Cressingham rectangular gold plate³⁷ possibly an aggrandised archer's wrist-guard. Other examples of the use of line-pointillé ornamentation are the Lake³⁸, Manton³⁹ and Wilsford⁴⁰ gold-bound amber discs.

Such a number of disc beads, 107, has only been exceeded by those from the Manton Barrow⁴¹ although those from a barrow on Stockbridge Down⁴² are also directly comparable. In his report on this last site Dr. J. F. S. Stone examined the affinities of necklaces of small cylindrical disc beads of lignite or jet which are from time to time associated with other beads, sometimes exotic. He showed their relative rarity

²² Colt Hoare, *Ancient Wilts.*, i, 201.

²³ J. F. S. Stone, *Wessex* (1958), 110.

²⁴ *Oxoniensia*, v, 161-2; x, 21-32, 40-1.

²⁵ *Arch. Cant.*, xlviii, 243.

²⁶ R. Jessup, *Archaeology of Kent* (1930), 122.

²⁷ G. C. Curwen, *Archaeology of Sussex* (1954), 157, pl. xii, 5 and fig. 44.

²⁸ *Op. cit.*

²⁹ L. V. Grinsell, *Dorset Barrows* (1959), 97.

³⁰ eg. Firle Beacon, Curwen, *Archaeology of Sussex* (1954), pl. xii, 6.

³¹ R. Colt Hoare, *Ancient Wilts.*, i, 98.

³² Stukeley, *Stonehenge*, 45.

³³ Amesbury G. 44, *VCH, Wilts.*, i, pt. i, 213.

³⁴ Grinsell, *Dorset Barrows* (1959), 161.

³⁵ Colt Hoare, *op. cit.*

³⁶ *PDNHAS*, lviii, 22.

³⁷ *Archaeologia*, xliii, 528.

³⁸ Colt Hoare, *Ancient Wilts.*, 212.

³⁹ *WAM*, xxxv, 1-20.

⁴⁰ Colt Hoare, *Ancient Wilts.*, 201-2.

⁴¹ *Op. cit.*

⁴² *Antiq. Journ.*, xx, 44.

south of the Thames and that they are more numerous, commonly in association with food-vessels, in the north⁴³. From this he argued for a southern extension of northern food-vessel elements.

It is to be wondered whether these necklaces were single strands or multi-loops of the type depicted around the neck of goddess figures⁴⁴ and portrayed in gold by the Irish Gorgets⁴⁵. Such a multi-strand necklace may have been formed by the mass of graduated amber beads found recently in an Irish bog⁴⁶. Indeed the splendid lunulae and their jet counterparts seem to be but especial versions of the same basic principle.

Like so many aspects of the British Bronze Age the ultimate origins of these disc bead necklaces of the Ports Down-Manton type may well, directly or indirectly lie with the Early Post Glacial Mesolithic hunters and gatherers. Disc-like beads pierced from one side, made from pieces of shale, such as could be gathered from beach shingle in the neighbourhood, have been found, from time to time, at Nab Head⁴⁷, in Pembrokeshire. About 130 in all have so far been found. Of these one single discovery was 35, graded as though for a single necklace. In the circumstances it seems possible to associate them with the Tardenoisian industry in the humus and subsoil. Moreover such an attribution has been in some measure substantiated by the discovery of not dissimilar beads in the proto-Maglemosian settlement at Star Carr⁴⁸ in Yorkshire. The Star Carr disc-like beads were thin irregularly circular pebbles of lias shale, such as could have been collected at no great distance, perforated with a completely rotary drill, from one side only. Some 20 of these beads were found in two distinct groups⁴⁹.

The Ports Down food-vessel would appear as basically related to, if not a member of the Abercromby Type 3⁵⁰, Southern English group, and lies close to the everted rim series⁵¹, although the rim is by no means so pronounced as that of some specimens. A marked characteristic of the vessel under consideration is that the shoulder diameter is greater than that of the rim. Two of this series exhibit this feature; the vessel allegedly found with a battle-axe at Harlyn Bay⁵² and another from the ancient surface within the Tregulland Barrow⁵³. Also relevant are the vessels from Llandwrog⁵⁴, in Caernarvonshire, and from Taplow⁵⁵ in Berkshire. It should be noted that the first of these pots has long been claimed as representing the Cornish version of the Type 3 food-vessel. Apparently similar small pots were with a bronze fragment, amber and a faience bead at Chard⁵⁶, in Somerset, and in possibly a satellite burial at Upton Lovell⁵⁷ in Wiltshire.

Besides the food-vessel affinities sketched above there is the question of the lugs which might be thought to set it apart from the series. Small pots ranging from tub-like to near-truncated biconical in form and with two or more lugs are known from barrows⁵⁸ and cremation-cemeteries⁵⁹ in widely separated parts of Southern England. Because

⁴³ But see *JRAL*, xxxii, 380.

⁴⁴ eg. O. G. S. Crawford, *The Eye Goddess* (1957), pl. 18.

⁴⁵ *ANL*, iv, 177.

⁴⁶ *JRSAL*, xc, 61-6.

⁴⁷ *Arch. Camb.*, lxxxix, 94, pl. 5.

⁴⁸ *PPS*, xv, 63, pl. xx, a; J. G. D. Clark, *Star Carr* (1954), 165, pl. xx, a.

⁴⁹ Clark, *op. cit.*, 19, fig. 10.

⁵⁰ *PPS*, xxiii, 158-9.

⁵¹ *PPS*, xxiii, 128.

⁵² *Arch. Journ.*, ci, 39, fig. 9, E12.

⁵³ *Antiq. Journ.*, xxxviii, 184.

⁵⁴ *Bulletin Board of Celtic Studies*, xvii, 196-233, fig. 4, 8.

⁵⁵ Reading Museum, Ac. no. March 1909.

⁵⁶ *Proc. Somerset Arch. and Nat. Hist. Soc.*, lxiii, 116.

⁵⁷ Abercromby, ii, 254.

⁵⁸ eg. Abercromby, *op. cit.*, nos. 440, 444, 453, 486; *Arch. Journ.*, ix, ii, see also Greenwell, BB, 364, fig. 147.

⁵⁹ *Antiq. Journ.*, xiii, 419; *Surrey AC, Prehist. Farnham Dist.*, pl. xviii, i.

of this latter location they have been claimed as of Late Bronze Age date by many writers in spite of a number of demonstrably early associations. Lugs, besides being a feature of the pots noted above, are known from one or two Type 3 food-vessels⁶⁰ besides in various forms adorning a wide range of Neolithic bowls and large tub and bucket pots included within the Deverel-Rimbury facies⁶¹. All could well be tenuously and distantly related.

The ultimate Neolithic ancestry of Overhanging-rim Urns and Deverel-Rimbury pottery is now generally accepted⁶². In the same manner it seems possible that the forbears of the Southern and Yorkshire food-vessels might well lie with the Early Neolithic bowls of Type G⁶³, for the distributions of each type coincide in a remarkable manner, although much more careful, critical and, indeed, statistical analysis of pottery forms, fabrics and ornament must be done. This essential continuity of tradition of our Neolithic and Bronze Age cultures⁶⁴ can also be adduced from the barrow cemeteries⁶⁵ and barrow structure⁶⁶. As with the pottery much more work must be undertaken upon all aspects of the monuments and their relationships but none the less a consistent pattern is emerging. Disc-beads of the Ports Down-Manton type are not isolated survivals from the Mesolithic for other examples of a survival or ornament style and even burial rite from that distant time can be marshalled. Pointillé ornament and lozenge patterns seem almost certainly survivals⁶⁷ as do surrounds of red deer antlers in barrow graves⁶⁸, which recall the interments in the Teviec⁶⁹ midden.

The essential origins and continuity of Neolithic and Bronze Age life and tradition are becoming even more clear in all their complexity. The material from the Ports Down graves is in many ways an important addition to the available evidence for a distinctive relatively early phase.

THE SAXON FINDS

By VERA I. EVISON

DESCRIPTIONS

Grave 3

Knife (pl. II, D): Length 20.9 cm. The blade is very slender (1.5 cm. wide), the cutting edge straight, the back edge running parallel until it curves down to meet the point: the tang is comparatively short. Along the back is a groove on each side, running up to the tang but stopping short of the curve to the point. An X-ray photograph shows that

⁶⁰ *Antiq. Journ.*, xxxi, 20, fig. 7, 3.

⁶¹ *Antiq. Journ.*, xiii, 414-54; *PPS*, iv, 186-7.

⁶² Overhanging-rim Urns: *PPS*, iv, 91; V. G. Childe, *Prehistoric Communities of the British Isles* (1947), 146; Deverel-Rimbury pottery: *University London Inst. Arch.* 12th Ann. Rpt., 44-5. V. G. Childe, *The Dawn of European Civilization* (1957), 332, 338.

⁶³ *PPS East Anglia*, vii, 378. (On the other hand this map shows clearly the continuity of culture in each region.)

⁶⁴ *PPS*, iv, 90-3; Childe, *Prehistoric Communities of the British Isles*, 133, 146, 188-9.

⁶⁵ Grimes (ed.), *Aspects of Archaeology in Britain and Beyond*, 286, round barrow cemeteries about and set out from long barrows.

⁶⁶ *Antiq. Journ.*, xxxviii, 184.

⁶⁷ J. G. D. Clark, *The Mesolithic Settlements of Northern Europe* (1936), 163, fig. 57.

⁶⁸ *Archaeologia*, xliii, 536; Grinsell in *VCH, Wilts.*, i, pt. i, 246.

⁶⁹ Pequart, Boule and Vallois, *Teviec*, *IPH*, Mem. 18 (1937).

the knife is made of two strips of metal welded together, a clear line about half-way across the blade marking the junction of back and cutting edge. This may mean a strip of pattern-welded metal along the back, or merely the welding on of a cutting edge of steel.

Grave 4

Iron Buckle (pl. II, E): Oval loop with tongue, broken at one side but originally about 4 cm. in width; remains of the belt still curved round loop at tongue-base which appears to be of leather decorated to its full width by close-set lines embossed parallel to the edges of the belt. A radiograph shows no further features.

Grave 6

Shield boss (pl. II, A): Diameter (including flange) 14.8 cm., height 12.7 cm., a sheet of iron folded and riveted in the shape of a straight-sided cone, the lower edge turned out to make a flange 1.2 cm. wide. There are traces of three rivets on this flange equidistant from each other; one remains entire with a bronze washer on the lower end, the width of the shield wood it pierced being 0.8 cm. Traces of wood grain remain across the rivet.

A narrow bar *grip* (pl. II, B) 1.3 cm. wide and becoming slightly wider at each end was originally about 14 cm. long; part of an attaching rivet remains in one end.

Two rivets (pl. II, C) with a disc head at each end pierced wood 1.4 cm. wide; this is considerably wider than the span of the boss rivet, presumably because their function was to fasten to the back of the shield the two ends of a leather loop through which the forearm passed, as on the Sutton Hoo shield, for instance¹.

Two nails (not seen by the writer but here described by J. Neufville Taylor). Iron. The first, found adjacent to the left ulna, is 1.2 inches in length. The point is sharp, the shank triangular in cross-section and the head roughly rounded. The second, found some 5 inches from the first towards the presumed position of the spinal column, is broken but has a thickened shank and a flat head.

COMPARATIVE MATERIAL AND DATE OF THE PORTS DOWN GROUP

The knife generally found in graves of the pagan Anglo-Saxon period is short, simple and sturdy, although it can adopt a variety of shapes.² The knife from Ports Down, grave 3, is longer and more slender than usual, and care in its manufacture is evident from the groove along the back, and the welding on of a separate strip, presumably of superior iron or steel, for the cutting edge. The groove is unusual in knives as early as this, although it frequently occurs on seaxes which are larger versions of knives used as weapons.³ The shape of parallel edges, with the back curving down to the tip, is one of a number current at the time and occurs not infrequently, for example, in some of the Faussett cemeteries, Sibertswold, grave 74, Gilton, grave 35 and Kingston, grave 255.⁴ There is not a large body of information to be drawn on however, as knives have

¹ R. L. S. Bruce-Mitford, *The Sutton Hoo Ship Burial* (1968) fig. 6. *Cemeteries in Cambridgeshire and Suffolk* (1931), fig. 29, 5; *Medieval Archaeology* v (1961), fig. 58, 4.

² *Berks. Arch. Journ.* 61 (1963-4), 29.

³ T. C. Lethbridge, *Recent Excavations in Anglo-Saxon* 6 and 7.

⁴ B. Faussett, *Inventorium Sepulchrale* (1856), pl. xv,

not always been carefully preserved and recorded. The nearby cemetery of Horndean⁵ which is comparable in many respects, contained twenty knives; these have been fully published, and are all simple, smaller, or of different shapes. As to continental records, in his studies on the Trier district, Böhner classes together the knives with straight cutting edge and backs definitely 'broken' or curved, where they belong to his period IV, i.e. the seventh century⁶. In the north Frisian islands a short version from Nebel, Amrum, tumulus 6, has a similar groove along the back, and the contents of this tumulus are dated to the late eighth century⁷. One was found at Dunum, Wittmund, E. Frisia, together with other objects and a cremation in a pot dated to 720-780 A.D.⁸ Such evidence as there is, therefore, directs us away from the pagan period and towards the seventh and eighth centuries.

The shield boss from grave 6 belongs to a series of tall, straight-sided cones⁹, some of which were formed simply by folding a sheet of iron into a cone shape and flattening out a narrow flange. The height of this type ranges from four to six inches, and the diameter is about six inches. The grip is always strap-shaped, and there is sometimes, as here, a pair of small rivets which presumably fixed the ends of the arm-strap to the shield. The type is derived from earlier low, straight cones¹⁰ which are often accompanied by disc-headed rivets in a set of three or four. Other tall, straight cones have a carination, and even some of these clearly show the folded construction¹¹, but the closest parallel is to be found in a boss from Chartham Downs, Kent, recorded only by a drawing¹².

Side by side with this series is the group of tall bosses with curved sides which closely resemble shield bosses of continental origin of sugar-loaf shape. In England both the straight and curved shapes occur in the south, but from the Wash to the Humber only the curved types occur. The incidence of a few of the Ports Down tall cone type in Belgium and on the Rhine may indicate influences or exports from England¹³.

On the Continent the sugar-loaf shield bosses belong to the eighth century, and the graves are those of important men for the burial is often with a horse and under a tumulus separate from other graves. Although horses do not occur in this context in England, some graves are under separate tumuli or contain some item indicating a rich occupant. The fact that, at Ports Down, grave 6 was an extra large grave, some distance away from the other graves but adjacent to two Bronze Age burials suggests that the Saxons had chosen the middle of a prehistoric barrow for the burial of their leader and had buried people of inferior rank at a distance. Some of the unassociated English bosses may, like the Continental ones, belong to the eighth century, while the dating evidence available from associated objects indicates the second half of the seventh century. A grave at Broadstairs which contained a sceatta dated to A.D. 695-705 also contained a bronze buckle with perforated plate, and thus a similar buckle

⁵ HFC XIX (1958) 17-70.

⁶ K. Böhner, *Die Fränkischen Altortümer des Trierer Landes* (1958), 215.

⁷ P. La Baume, 'Die Wikingerzeit auf den Nordfriesischen Inseln', *Jahrbuch des Nordfriesischen Vereins für Heimatkunde und Heimatliebe*, 29 (1952-3), 5-185, Taf. 1, 3.

⁸ P. Schmid, 'Das frühmittelalterliche Gräberfeld von

Dunum, Kr. Wittmund, (Ostfr.), *Niedersachsens Urgeschichte* 36, 1967, 39-73, Abb. 4, 4.

⁹ V. I. Evison, 'Sugar-loaf shield bosses', *Antiquaries Journal*, xliii (1963), 38-66, fig. 1 a, c and e.

¹⁰ *ibid.*, figs. 17, d, 18, f, 19, a and 21, a.

¹¹ *ibid.*, fig. 22, h.

¹² *ibid.*, fig. 5.

¹³ *ibid.*, fig. 10.

found with a tall straight cone boss at Bury St. Edmunds may indicate the end of the century for that grave too.¹⁴ At Ports Down all the graves lay west-east and most contained no furniture at all. These characteristics suggest a Christian cemetery and so also support a dating to the last part of the seventh century.

THE HUMAN REMAINS FROM PORTS DOWN

By D. R. BROTHWELL

PART I. THE ANGLO-SAXON SKELETONS

Introduction

The skeletons submitted for examination vary noticeably in the degree of preservation, some being in much better condition than others. However, this is not an uncommon phenomenon in cemetery material, and there is no reason to believe from this evidence that the burials were separated by any great length of time. Post-mortem deformity due to earth pressure is present in a number of cases. Much of the cranial and post-cranial material is broken, but there is no reason to believe that ante-mortem fracturing produced any of these breaks. There is, however, evidence of wounds inflicted by a metal instrument, possibly a fairly heavy sword. One or two skeletons are incomplete owing to partial destruction by a mechanical excavator. Owing to the rescue nature of this excavation some skeletal fragments are mixed. Where possible, at least the skull remains have been separated on differences of colour and preservation.

General Description of the Skeletons

Remains of P.D. 1-4. The post-cranial material of P.D. 2 and 3 is completely mixed, and it has proved impossible to separate the two. The fragments consist of pelvis, femur, humerus, fibula, vertebrae, ulna, radius, ribs, phalanges, clavicle and scapula.

The cranial remains of P.D.1 consist of an imperfect vault, a temporal bone and a mandible with the left ramus region missing. From the degree of wear on the molars, it is likely that the person was middle-aged; the size of the supraorbital ridges and mandible suggest that the individual was of male sex. No caries cavities were found in ten teeth. The following measurements could be taken (all in mms.).

$L = 192?$; $ZZ = 45.8$; $RB' = 28.7$; $H_1 = 26.0$; $CH = 65.7$. The skull of P.D. 2A is represented only by a mandible, and this lacks the right condyle and coronoid region. The general size of this bone suggests masculinity, the dentition showing that the person was fully adult. No caries cavities were found in thirteen teeth. Measurements were as follows: $ZZ = 47.8$; $RB' = 36.5$; $H_1 = 37$; $RL = 65$; $M_2H = 26.6$; M angle = $125.5?$ In P.D. 2B, the skull consists of parietal, temporal, frontal and facial fragments. Some parts are extremely eroded. The person was probably of male sex, and the degree of dental wear suggests that he was over thirty years of age. Slight keeling is to be seen on the frontal bone. The palate is rather shallow. Measurements which could be taken are: $G'H = 61$; $G_2 = 40.1$; $NH' = 46.7$; $SC = 8.8$.

¹⁴ *ibid.* fig. 18, c-h.

P.D. 4? Fragmentary remains of skull, tibia, fibula, femur, pelvis, humerus and clavicle. Some bones are very eroded. The person was probably of male sex. The only measurements which could be taken on the vault fragment are: $S_1 = 127$; $S'_1 = 110$; $B' = 94$.

P.D. 5A. Primary burial. The post-cranial remains consist of fragments of femur, vertebrae, scapula, ribs, phalanges, metacarpals, tibia, fibula, patella, humerus, pelvis, and ulna. The maximum length of the femur = 395 mm., and a tibia = 317 mm. From these dimensions a height of 5 feet 0 inches, approximately, was estimated. The individual was not only small in overall height, but in all dimensions of the bones. The skull consists of a cranium with the basal area missing. There is some erosion but no warping. The general size of this and other parts of the skeleton shows the individual to have been a female. No teeth remained in the palate, and at least six out of sixteen had been lost before death.

Measurements are: $L = 166$; $B = 138.5$; $B' = 88.5$; $H' = 122$; $LB = 86.5$; $S_1 = 125$; $S_2 = 114$; $S'_1 = 106.4$; $S'_2 = 103.3$; $G'H = 61.5?$; $GL = 85.6$; $GB = 86.5$; $G'_1 = 40.4?$; $NB = 25.3?$; $NH' = 46.8$; $SC = 8.4$; $DC = 20.0$.

P.D. 5B Secondary burial. There are fragments of ulna, radius, humerus, tibia, fibula, femur, tarsals, metatarsals, phalanges, vertebrae, ribs, scapula, pelvis, clavicle, carpals and metacarpals. The maximum length of the humerus = 328 mm., tibia = 341 mm., and femur = 439 mm., from which an overall stature of 5 feet 6 inches was estimated. There is a fairly complete skull showing but slight erosion and no warping. The individual was an adult male possibly of about 25 ± 5 years, and the fact that the basiphrenoid synchondrosis is still open suggests that he may not have been more than 23 or 24. There are two small wormian bones on the lambdoid and one on the coronal suture. A medium degree of tartar is present, and there is one caries cavity in nineteen teeth.

Measurements are: $L = 198.5$; $B = 138.5$; $B' = 93.8$; $H' = 143.5$; $LB = 103.5$; $S_1 = 140$; $S_2 = 131$; $S_3 = 128$; $S'_1 = 118$; $S'_2 = 121$; $S'_3 = 98.9$; $G'H = 74$; $GL = 96.6$; $GB = 95$; $G'_1 = 46.7$; $G_2 = 42.4$; $NB = 22.2$; $NH' = 57$; $SC = 7.9$; $DC = 18.3$; $DA = 35$; $W_1 = 109?$; $GoGo = 99.5$; $ZZ = 45.9$; $RB' = 37.3$; $H_1 = 35.7$; $ML = 110.5$; $RL = 65.5$; $M_2H = 31.5$; $Cyl = 20.2$; $M \text{ angle} = 120$.

P.D. 6. Remains of the following bones were noted; tarsals, metatarsals, phalanges ulna, fibula, tibia, a palate, humerus, radius and femur. These bones are from at least one individual.

P.D. 7. Lower legs only were found. There were remains of the tibia, fibula, femur, patella, tarsals, metatarsals, and phalanges. No length measurements were possible. The individual was adult and probably male.

P.D. 8. The bones include pelvis, femur, vertebrae, tarsals, metatarsals, phalanges, ulna, radius, and humerus. There is also a fragment of humerus from another body. A notable feature of the femur is a very pronounced gluteal tuberosity. The maximum length of the right femur = 467 mm., right tibia = 366 mm., and right fibula = 365 mm., from which an overall height of 5 feet 7 inches was estimated. There is also a calotte (upper part of the vault), and three other skull fragments from other individuals, the former being from an adult man. Slight erosion was present, but little warping. Only a few skull measurements could be taken, namely: $L = 199?$; $B = 140$; $B' = 100.5$; $S_2 = 131$; $S'_2 = 122$.

P.D. 9. The grave contained one complete extended burial and remains of two others pushed to one side. The main skeleton is fairly complete, any fragmentation being due to post-burial incidents. The fragments of the other two skeletons consist mainly of a number of long-bone, pelvic and cranial fragments. Some of the long-bone fragments were sorted in order to take measurements; muscularity, preservation and colour of the bones were here taken into consideration, as well as overall size.

Skeleton A is probably male. The maximum length of the right femur = 477 mm., the right humerus = 332 mm., and the right tibia = 375 mm. From these three lengths, the height of the individual was estimated at 5 feet 8 inches.

Skeleton B consists of a number of long bones extremely large but too eroded for measurement. They could well be from a male subject.

Skeleton C is probably a young male. The maximum length of the right femur = 420 mm., right tibia = 339 mm., and left humerus = 308 mm.; these give an overall height estimate of 5 feet 4 inches.

In gA, the skull consists of an incomplete calvarium (brain-box), maxillae, a right malar, and most of the mandible. The bones are broken but fairly well preserved, and there is no noticeable deformation. It was estimated that the individual was probably a male of about 30 ± 5 years. There were at least six small wormian bones on the lambdoid suture. Three caries cavities were present in sixteen teeth. On the internal surface of the frontal bone is a small swelling possibly caused by a benign tumour. The frontal sinus is fairly small for a male. Measurements taken are: $L = 192.5$; $S_1 = 130$; $S_2 = 129$; $S_3 = 115.5$; $S'_1 = 112.5$; $S'_2 = 118.5$; $S'_3 = 93$; $G_2 = 38.8$; $NB = 23.6$; $ZZ = 43.9$; $RB' = 29.3$; $H_1 = 34.7$; $M_2H = 30.1$; $CH = 64.1$.

Skull gB consists of an incomplete calotte and most of the mandibular body, the former displaying considerable distortion and erosion. The individual was a male of probably over 40 years. There was possibly a wormian bone at lambda. No calculus (tartar) or caries was present in seven teeth. Two out of sixteen teeth were missing before death. Measurements are: $S_1 = 132$; $S_2 = 134$.

Skull gC consists of a calotte and fragments of the maxilla and a right malar bone. The bones were broken but in good condition, although slight distortion may be present. The individual was probably a young adult male of 20-30 years. There may have been slight calculus, but there are no caries in six teeth. The third molars are abnormally small. The cranial measurements are: $L = 187.5$?; $S_2 = 132$; $S_3 = 104$; $S'_2 = 116.5$; $S'_3 = 87.5$; $G'_1 = 45.5$; $G_2 = 37.3$; $NB = 28.8$.

P.D. 10. The bones represent a fairly complete skeleton. The maximum lengths of the following long-bones were obtained: left humerus = 293 mm., right radius = 232 mm., left femur = 447 mm., left ulna = 245 mm. A stature of 5 feet 3 inches is thus probable. The femur head and neck are directed more upwards than usual, probably indicative of slight *coxa vara*. The skull consists of a calvarium, malars and mandible. Some erosion and warping is present. The sex of the person was female and her age was probably 20-25 years. There is one wormian bone situated on the lambdoid suture. Dental calculus is slight, and there are no caries in seven teeth. A few cranial measurements were possible: $L = 187$?; $S_1 = 128.5$; $S_2 = 120$; $S_3 = 118$.

P.D. 11. Fragments of pelvis, tibia, femur, fibula and humerus of an adult individual were noted. There were also pieces of femur, tibia, fibula, ulna and humerus from an

immature person, the bones showing lack of epiphyseal union. The right femur of the adult, a male, has a maximum length of 484 mm., giving a height of 5 feet 9 inches. There are also two fragments of calvarium from the right temporal, parietal and occipital regions. Also present was a fragment of palate and mandible of an individual who was probably 20-30 years old.

P.D. 12. Eroded fragments of femur, tibia, humerus, radius, ulna, fibula, and pelvis. A maximum femoral height of 394 mm. was estimated, suggesting a stature of about 4 feet 11 inches. The skull consists of a calvarium plus a right malar and maxilla, together with a mandible with the left ramus missing. There is some erosion and the frontal region is warped. The person was a female, and may have been 20-30 years old. No dental calculus is present, but there is one caries cavity in five teeth. Measurements are: $L = 166.5$; $B = 126.5$; $B' = 90$; $S_1 = 110$; $S_2 = 119.5$; $S_3 = 109.5$; $S'_1 = 95.5$; $S'_2 = 107.5$; $S'_3 = 93$; $M \text{ angle} = 126^\circ$.

P.D. 13. Remains of seven long-bones, and a very fragmented calotte were identified. The individual was a child of about 8 ± 1 year. The pieces of skull were considerably distorted so that no measurements could be taken.

P.D. 14. The bones represent a child whose age was about 12 years $\pm$ 9 months. The bones include pieces of femur, tibia, humerus, ulna, fibula, pelvis and vertebrae. There is also a fragmented cranium and a mandible, erosion and warping being evident in parts. The teeth are interesting in that the second molars have fully erupted while the canines and premolars are still developing, and the milk molars are still in place on the left side of the jaws. This eruption sequence is not the general rule in modern British children. There is also an anomalous wear condition, the lower milk molars displaying a greater degree of attrition than the upper ones. All the fourteen teeth examined were free from calculus and caries.

P.D. 15. Young child. No bones preserved for examination.

P.D. 16. This is an extremely well-preserved skeleton. The bones sent for examination are from all parts of the body, and there is no doubt that it was quite complete on burial. The maximum length of the left femur = 459 mm., and the left humerus = 328 mm., giving a height estimate of 5 feet 6 inches for the individual. The skull consists of a broken calvarium, a palate, a left malar, and a mandible without most of the right side. The person was a male of about 20-30 years. There was medium calculus, but no caries cavities were noted in twenty-two teeth. There are three areas of the skull showing ante-mortem wounds, probably caused by a fairly large sword. One cut is oblique to the left side of the coronal suture. Another had sliced off the left frontal area in the region where it articulates with the malar. This last cut would also appear to have penetrated down through the face and ended its movement in the left condyle of the mandible, which shows an evident continuation of the stroke. These injuries were quite sufficient to cause his death. The following measurements could be taken: $SC = 8.3$; $RB'' = 31.2$; $H_1 = 31.6$; $CH = 67.1$; $M \text{ angle} = 113^\circ$.

P.D. 17 (A and B). Remains of the following bones were noted: vertebrae, tibia, scapula, fibula, tarsals, femur, ribs, pelvis, radius and ulna. These are clearly from two individuals, one an adult and the other a youth. The femur of the adult (A), has a maximum length of 486 mm., from which an overall height of about 5 feet 9 inches was estimated. There are also the remains of two skulls. Skull 17A is represented by

most of the frontal bone together with a mandible without the left condyle region and right ramus. The frontal is badly eroded. Attrition on the teeth suggests an age of at least 30 years. The sex was clearly male. Calculus was probably slight, but no caries cavities were noted in seven teeth. The canines are slightly displaced and rotated. Only two measurements could be taken, namely: $B' = 95$; $ZZ = 41.5$. In skull 17B, only a fragmented calvarium, palate, left malar, and mandible remain, the bone being well preserved. The third molars have not yet erupted, and the individual is probably 15 ± 1 year. There are at least two wormian bones on the lambdoid suture. To the left of the palate the permanent canine has failed to erupt, even though completely formed, and there is still a socket for the deciduous canine. There is slight to medium calculus on some teeth, but no caries was found in any of the eight.

Miscellaneous. Recovered by workmen. The following bones are represented: femur, tibia, ulna, humerus, vertebrae, ribs, clavicle and radius; also the remains of at least four skulls. One lumbar and one cervical vertebra displayed 'lipping' typical of osteoarthritic change. The last vertebra from one individual is fused with the sacrum in the right lateral area, although the vertebral body and left lateral area are not involved in this union. Also, the left and right sides of the body are asymmetrical in depth (the right being the greater), and there is asymmetry of the left and right superior articular processes. It seems quite probable that this deformity produced some degree of scoliosis during life (i.e. a slightly abnormal spinal curve).

The skull remains have been numbered 18 to 22.

P.D. 18. The skull is a fragmented calotte from a male adult. No further information is possible.

P.D. 19. The skull is represented by a small fragment of frontal, but it is nevertheless still possible to say that the individual was an adult male.

P.D. 20. Frontal, maxillary, and nasal bones are all that remain. There is a partially closed metopic suture which has already obliterated internally. The individual was evidently an adult male.

P.D. 21 consists of most of a calotte. The person was probably an adult female.

P.D. 22 is represented by a calotte and mandible, probably of an adult male. The wear on a third molar suggests an age of over 40 years. This tooth also shows signs of caries.

Also with these skulls were two mandibles, one probably female (21?), and the other male (20?). Of the fourteen teeth which still remain in these specimens, only one shows a small caries cavity on the occlusal surface.

Comments and Conclusions

Considering all that has been said previously, it is evident that males predominate in this cemetery group, females making up only twenty per cent of the number. However, the sample is in fact so small that it would seem unwise to draw any conclusions from this. Most of these people were fully adult (i.e. about eighty per cent), and it is quite probable that most were under the age of forty years. This, of course, conforms with what is thought to be the life expectancy during early historic periods. Moreover, the fact that only one of the skeletons showed signs of injury suggests that the cause of their early death may in most cases have been disease rather than the direct effect of wounds.

From the point of view of the skull measurements, there are far too few to permit statistical analysis, but it may be said that they fall comfortably within the ranges known for the Anglo-Saxon population as a whole. This also applies to the long-bone dimensions and the estimated statures. It need hardly be said that the ranges of 5 feet 4 inches to 5 feet 9 inches for males, and 4 feet 11 inches to 5 feet 3 inches for females, are also well within the modern range of variability in Britain for males and females.

Considering all dentitions together, nearly one hundred and fifty teeth were examined, and of these only five per cent were carious. This very low figure by modern standards, nearly equals that for a much larger sample of Anglo-Saxon teeth collected by the author from various sites in England. The dental health of this small Ports Down community can therefore be said to reflect the standard generally seen at that time.

PART 2. THE CREMATIONS

The Bronze Age Cremation from Grave 7

In size the fragments range from about 5 mm. to over 100 mm., with an average of perhaps 40-50 mm. It is at present impossible to tell from such bones to what extent there was intentional comminution of the remains after burning. It might well be that such a procedure would be dictated by the circumstances of burial (i.e. in open ground, a burial urn, etc.). The majority of pieces were highly porcellanous in texture, but there were also fragments which, although blackened, had clearly not been submitted to such a high temperature. About 600 pieces of long-bones are present, representing bones from both the upper and lower limb. None is sufficiently large to enable sex to be identified for any of these bones. None displayed evidence of immaturity. Various other bones of the body were recognised as follows: 7 pieces of vertebrae, 5 large pelvic fragments; remains of 5 phalanges; a number of tubular curved pieces which are probably ribs; at least 11 fragments of both scapulae; nearly half a clavicle.

Finally, there are 43 fragments of skull. The majority are blackened but few are porcellanous, and there is little fissuring or twisting. This strongly suggests that parts of the body were submitted to far greater temperatures than others, the head region being least affected by the burning. Various parts of the skull were recognised, namely: mandible, occipital, malar, parietal, temporal, maxilla, and frontal. The skull fragments demonstrate conclusively that at least two persons are represented, for there are three mastoid processes, two of a similar size (and possibly from a male), and a smaller third one (which might denote a female). Remains of seven teeth (including two molars and a canine) were also identified.

The Undated Cremation from Ports Down

In general size the bones are similar to those of the previous cremation, although the maximum size does not exceed about 50 mm. Pieces of long-bone again predominate, both upper and lower limbs being represented. The size and robustness of one or two femoral fragments suggests maleness. All the bones are highly porcellanous, and many are twisted and fissured. Slight erosion of the surfaces of the bones suggests a different burial environment to the previous cremation. Other than the long-bones, rib and pelvic fragments were also identified, as well as over a dozen pieces of skull (mainly parietal but also mandible and temporal).