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EXCAVATIONS AT SUTTON HOO IN 1938

By R. L. S. BRUCE-MITFORD, F.S.A.

The finds made at Sutton Hoo in 1938 have been thought to be relatively insignificant, apart from the occurrence of a small boat, or perhaps, as it now seems, part of one, in one of the three barrows (Nos. 2, 3 and 4 on the plan, Fig. 1) then opened. The finds, however, have a very special importance, apparent to us in retrospect. They form part of the evidence for interpreting the highly significant group of tumuli in which was discovered, in 1939, the great ship-burial, of world interest. They are part of the context of the great ship-burial, and, since apparently earlier in date,[1] of its history. The finds made in 1938, moreover, if few and fragmentary, are of unusual interest.

The results of the 1938 excavations at Sutton Hoo were first made public, in very summary form, by Mr. C. W. Phillips in the introduction to his account of the 1939 excavation in *Antiquaries Journal*, xx, 1940 (pp. 152–3), A brief note on the boat was published by Guy Maynard in *Mariner's Mirror*, 28, (1942), pp. 314–5. Mr. Phillips' account was followed in the British Museum's publication, *The Sutton Hoo Ship-Burial, a Provisional Guide*, (1947), and repeated in its many reprints. It was, however, as was Mr. Maynard's provisional account of the boat, substantially incorrect. Both were corrected and enlarged upon in 1963 by Mr. Charles Green in his *Sutton Hoo*. Mr. Green's fuller account of the 1938 excavations was based on records in the Ipswich Museum. While correcting mistakes in the earlier accounts, however, it also, as a consequence of ambiguities or discrepancies in the records, is incorrect in a number of respects. The present paper offers, so far as the records allow, a definitive account of the 1938 work. It is also the official account, incorporating the substance of the Ipswich Museum's report as prepared for publication by Mr. Maynard, the Curator at the time.

Two sets of materials exist from which to reconstruct the 1938 excavations. In the Ipswich Museum are versions of Mr. Basil Brown's field plans, sections and notes, re-drawn and edited by the Ipswich Museum staff; and secondly there are Mr. Brown's original un-edited field plans, diaries, note-books and some photographs, remaining in his possession. The two sets of documents do not always agree. Members of the Ipswich Museum staff paid frequent visits to the site, and retained their own impressions and

[1] See p. 36.

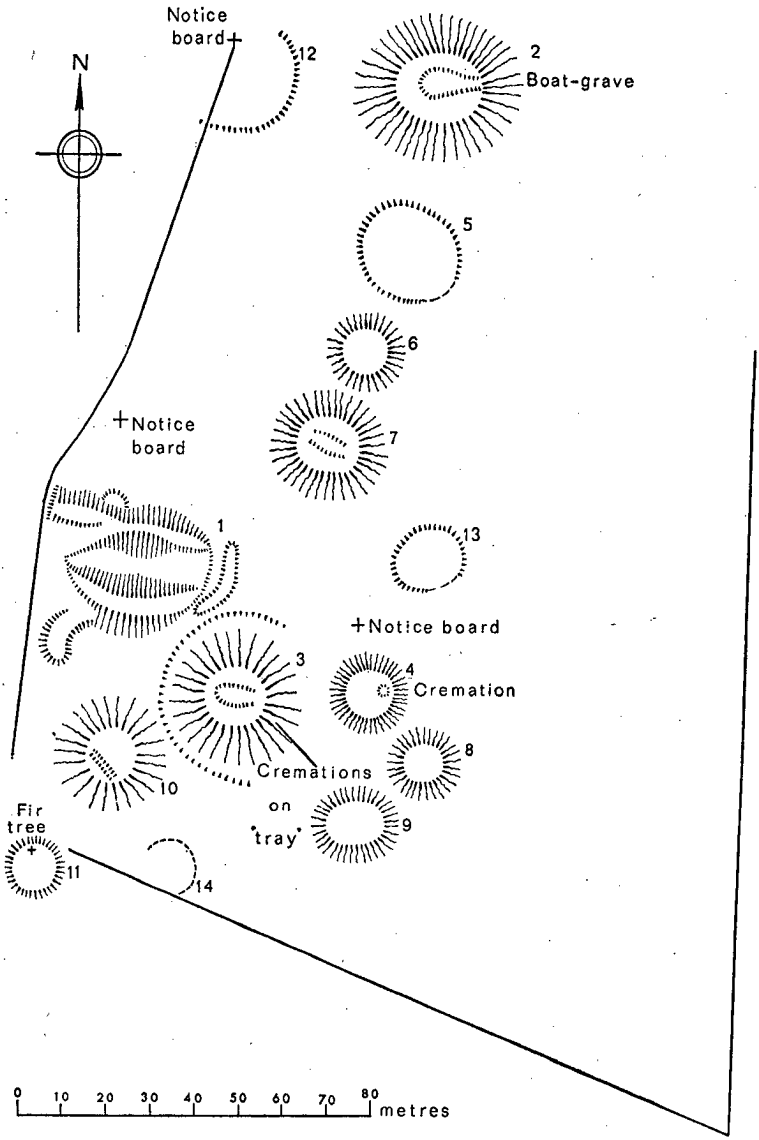


FIG. 1.—Plan of the burial mounds at Sutton Hoo, based on a new survey by the Archaeology Division of H.M. Ordnance Survey, carried out in September 1964 and April 1965. (See, however, Postscript, p. 38).

recollections. After much investigation it seems best to edit and print Mr. Maynard's account, with comments in the footnotes. Mr. Brown's plans and sections are not, in general, adequately or reliably measured, but it also seems worth reproducing (Figs. 2, 4 and 11) the Ipswich Museum's fair copies based on them. These serve to explain and illustrate the written account and give a general picture of the way in which the mounds were opened and of the phenomena observed.

The contents of each of the three mounds, in the order in which they were opened, Nos. 3, 2 and 4, is first given in inventory form. This is followed by the edited version of Mr. Maynard's account of the excavations, and a commentary by the present writer. After this comes detailed description and some discussion of the individual finds. Finally an attempt is made to appraise the finds and their significance and to date the mounds. The objects described are all in the Ipswich Museum. The descriptions of the textile fragment and impressions in Mound 3 (Inv. Nos. 6, 9) kindly supplied by the late Mrs. G. M. Crowfoot (Plate IV *h* and *i*).

INVENTORY OF FINDS

MOUND No. 3

('BUTCHER'S TRAY': INTACT CREMATION)

*1 Portion of a hard limestone plaque, engraved in low relief with a winged figure of late-classical or Byzantine character, probably a Victory. (Plate II *a*).

2 Bronze lid, with a baluster-like handle rising vertically from it, carrying two links of a bronze chain. (Plate II *b*; Fig. 3 *b*).

3 Iron axe-head, with portion of wooden handle. (Plate III *a*; Fig. 3 *a*).

*4 Pottery sherd, decorated, from the shoulder of a pot. (Plate III *c*; Fig. 3 *c*).

*5 Pottery sherd, plain, showing the basal angle of a pot. (Plate III *b*; Fig. 3 *c*).

6 Textile fragment, impregnated with rust. (Plate IV *i*).

7 Six fragments of flat bone strip with incised geometric designs. (Plate IV *a–f*; Fig. 3 *d–i*).

8 Fragment of bone facing, with incised patterns, apparently from a comb. (Plate IV *g*; Fig. 3 *j*).

9 Iron and textile concretion with flat lacquer-like surface on one face. (Plate IV *h*).

10 Two groups of fragments of cremated bone unidentifiable and now mixed with one another. Several fragments are 'definitely non-human'. (See p. 20).

* Lost or mislaid at the time of publication.

MOUND No. 2

(BOAT-GRAVE: RANSACKED)

1 Gilt-bronze disc with zoomorphic interlace ornament, probably from a shield. (Plate VI *a*; Fig. 5).

2 Two pieces (made up from several fragments) of a squat jar in blue glass, with overtrails in the same colour. (Plate VII *a*; Fig. 7 *b*).

3 Gilt-bronze stud, hemispherical, with a peripheral collar of beaded wire, probably from a large belt-buckle. (Plate VII *b*; Fig. 9 *h*).

4 Fragments of silver-gilt foil stamped with a zoomorphic design, from a great drinking-horn. (Plate VII *d*; Fig. 6).

5 Part of a strip of cast bronze, gilt, of zoomorphic form, with two attachment-rivets, probably from a shield. (Plate VI *b*; Fig. 8).

6 Small silver buckle-loop, with tongue (detached). (Plate VII *c*; Fig. 9 *i*).

7 Bronze ring, holding a smaller ring with a triangular attachment plate. (Fig. 9 *a*).

8 Pointed end of a pattern-welded sword-blade. (Plate VIII).

9 Parts of a small iron knife, much rusted. (Fig. 9 *b*).

10 Parts of a second, smaller, iron knife, much rusted. (Fig. 9 *c*).

11 Three fragments of an iron knife blade, with remains of sheath. (Fig. 9 *d*).

12 Fragment of leather rust-impregnated double sheath with bronze bindings, containing parts of two small knife-blades, running in opposite directions. (Plate X *d* i-iv; Fig. 7 *a*).

13 Wedge-like wood and iron object, or spike, with knob on a square stem protruding at one end, with wood and sand incrustations. Apparently a foot of a wooden bucket or tub. (See No. 17). (Plate X *c*; Fig. 10 *f*).

14 Iron nail. (Fig. 9 *e*).

15 Forty-five clench-nails or rivets from the boat, in two sizes. (Plate XI).

16 Iron ring, with piece of iron rod of circular cross-section attached. (Fig. 9 *f*).

17 Broken lengths of iron bands and other fittings from a wooden tub. (See also No. 13). (Plate IX; Fig. 10).

18 Segmented blue faience bead, Bronze Age, from the mound. (Plate X *b*; Fig. 9 *g*).

MOUND No. 4

(LOOTED CREMATION)

1 Fragments of thin sheet bronze, some showing traces of textiles, with parts of rim, from a bowl.

2 Part of a small bone or ivory gaming piece or counter. (Plate X *a*).

3 Scrap of iron slag found amongst the cremated bones.

4 Fragments of calcined bone identified as including those of an adult human, a horse and perhaps a smaller animal.

THE 1938 EXCAVATIONS

The following account of the 1938 excavations is based on a typescript provided by Mr. Guy Maynard:—

The work in 1938, which led on directly to the great discovery of the following year, arose from the desire of the owner of the estate, the late Mrs. E. M. Pretty, J.P., of Sutton Hoo House, to know something of the origin and age of the mounds which formed a group on her estate. Mr. Maynard, having been consulted at the instance of the late Mr. Vincent Redstone, F.S.A., of Woodbridge, suggested that the actual excavation of one or more of the mounds should be carried out, under his general direction and supervision, by Mr. Basil Brown of Rickinghall, Suffolk, at the time employed by him on behalf of the Ipswich Museum in clearing the remains of the Roman villa discovered at Stanton Chair, near Ixworth, Suffolk. This course was agreed to, Mrs. Pretty meeting all expenses incurred and providing additional help from her estate staff. The position and general character of the barrow group is familiar from accounts of the 1939 discovery (Fig. 1 is based on a new 1964 Survey by the Archaeology Department of the Ordnance Survey, and shows two additional mounds (Nos. 12, 13) not previously recorded).[2] The broken crowns of most of the mounds indicated that they had already received the attention of grave-robbers and no great hopes were entertained by Mr. Maynard that any undisturbed deposits would be found.

MOUND No. 3

('BUTCHER'S TRAY' CREMATION)

Plate I, Fig. 2

The first opened (No. 3 on plan) was estimated to be eighty-five feet in diameter and about five feet in height. An approach trench

[2] No. 12 was first recognised in 1948 by the writer; and No. 13 noted by Mr. Basil Brown in 1938.

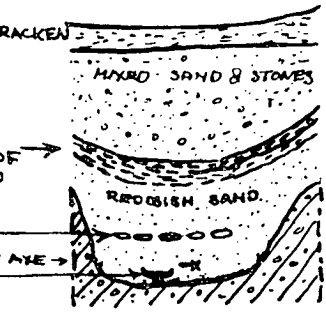
from the west, four feet wide, was started well outside the mound and cut down through the superficial accumulation to the clean undisturbed sand of the site. It showed that the mound had been surrounded by a slight ditch. As the pilot trench proceeded into the mound, signs of excavation below the original surface of the heath were seen in a thin layer of ash curving down towards the central area. This was followed, and a wide clearance made to locate the position of the deposit. Eventually, and only when the search had nearly been abandoned, this was found somewhat off the presumed centre of the mound. An elongated area of darkened material proved to be composed of extremely decayed wood fibres amongst which the medullary rays characteristic of oak were observed. The wood was subsequently identified as oak. It lay at the bottom of a bowl-shaped hollow dug to some five feet below the surrounding surface. In appearance it resembled a butcher's carrying tray, being somewhat dished out or recessed, the edges standing up slightly all round. (Plate I).

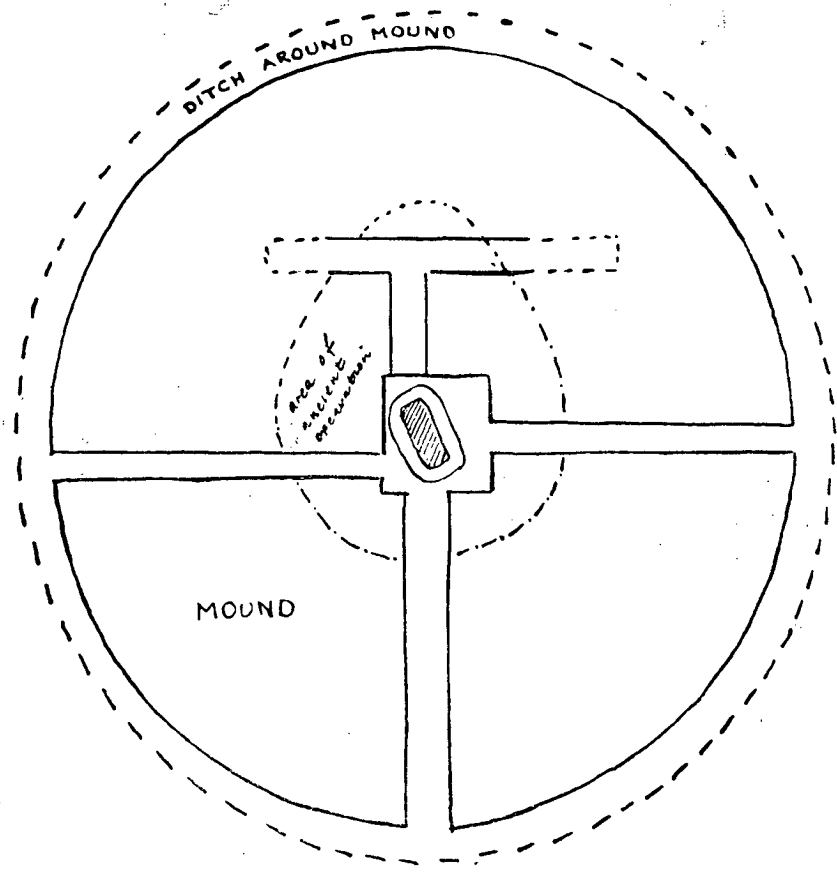
The objects found lay on or beside the tray, as follows.

On the east end, perhaps partly spilled off it, was a small patch of calcined bones. At this end of the tray and off it was also a single fragment of decorated bone veneer, with part of a design showing a double circle and radii, thought at first by Mr. Brown to be bronze (Plate IV *a*). On the west end was a second small heap of burnt bone, and near this a sherd of decorated pottery, from the shoulder of a vessel (Plate III *c*; Fig. 3 *c*). Also on the tray in its western half were a piece of hardstone, dove-grey in colour and bearing clear evidence of burning, engraved on one face in low relief with a winged Victory of late Roman or Byzantine type (Plate II *a*); several small, flat fragments of thin bone, on the smoothed-down surface of which a design of concentric circles and lines had been incised, with small holes presumably for pegs or rivets (Plate IV *b–g*); a bronze lid with part of an attachment chain, the latter detached when found (Plate II *b*); a small fragment of textile impregnated with rust (Plate IV *i*); and the iron and textile concretion (Plate IV *h*).

Outside the tray, but close to its southern edge, at the western end, lay the corroded remains of a large iron axe which still retained part of its haft (Plate III *a*; Fig. 3 *a*).

Nothing was noticed to indicate that the remains had been covered by a roof or 'grave-house', although it is possible that the 'tray' was originally the bottom of a trunk or chest of the solid 'dug-out' type, the sides and top of which had disintegrated to such an extent as not to be noticed. This may well have been the case, as the greater degree of moisture of the undisturbed sand at the





Museum from a copy of Mr. Basil Brown's field plans and notes.

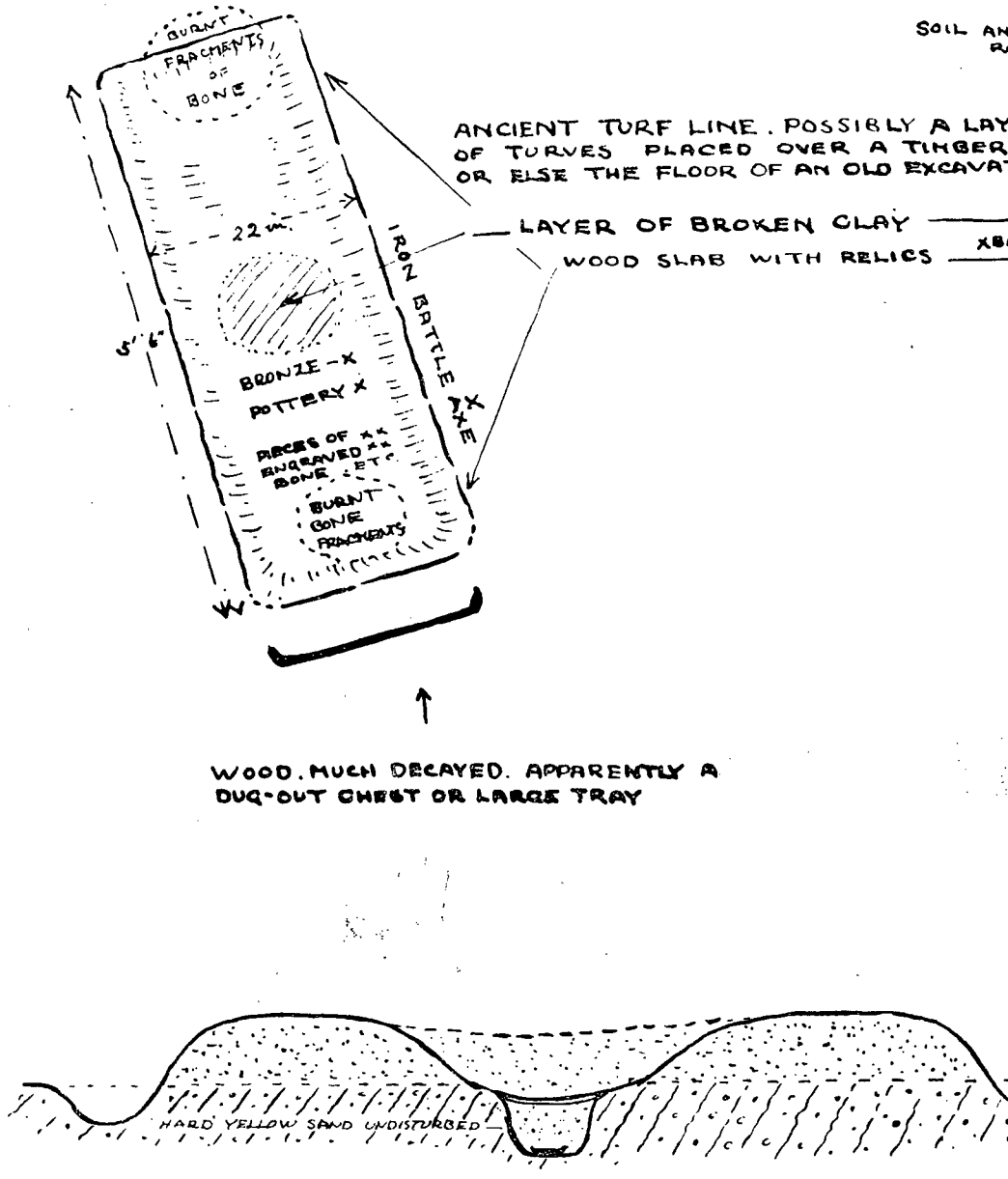


FIG. 2.—Plans and sections of Mound 3, as prepared in the Ipswi

bottom of the pit would tend to preserve the wood, while the wood in the disturbed looser filling of the grave was destroyed. This was the case in the 1939 ship-burial, in which the only actual timber still remaining was found on the floor of the ship. Presumably the cremation took place nearby, and the surviving scraps of skeletal material and grave goods were gathered up and placed on or by the wooden tray, which was then buried with sand and soil and the mound created above.

The approximate positions of the objects [3] were recorded by Mr. Brown, and some were subsequently lifted by Mr. H. E. P. Spencer, of the Ipswich Museum staff. The wooden slab, owing to its extremely fragile condition, broke up whilst an attempt was being made to lift it, but the more substantial pieces were recovered and taken to the Ipswich Museum.

This grave does not appear to have been robbed. The wooden 'tray' was undisturbed, either by digging or by the feet of grave robbers. The finds, noticeably the small heaps of calcined bone, were not notably scattered. While the mound itself may have been opened the deposit, being somewhat 'off centre',[4] could easily have been missed, as in fact it very nearly was in the present excavation.

MOUND No. 2
(BOAT-GRAVE)
Plate V, Fig. 4

The results thus obtained stimulated Mrs. Pretty's interest and a second mound was opened. This was No. 2, the second largest of the group, measuring approximately one hundred feet across and still standing between seven and eight feet high.

Mr. Brown laid out the approach trench on the same compass bearing as that of the wooden object in the first mound—a little off the direct east-west line—having surmised that other interments in the group might well have been similarly aligned; reasoning which was to have important results later on. The first indication of the nature of the burial came from the discovery well within the mound, although away from the grave itself, of two corroded iron objects which immediately recalled the large iron clench nails in the Aldeburgh Museum. These latter came from the mound excavated at Snape in Suffolk in 1862 [5] where the outline of a vessel some 50 feet long had been revealed by the rows of such nails which had fastened the timbers together. These two were found in

[3] Fig. 2.
[4] But see p. 12,
[5] 'The Snape boat-grave' by R. L. S. Bruce-Mitford, *Proc. Suff. Inst. Arch.*, XXVI (1952), pp. 1–26.

the six foot pilot-trench and there may well have been others nearby. The sand below bore indications of fire.

As the trench was extended into the mound Mr. Brown noticed that the original surface of the heathland, clearly marked by a layer of sand darkened by decayed vegetation, was overlaid, towards the centre of the mound, by a spread of clean yellow sand. This could only have come from some deep excavation in the subsoil and was clearly distinguishable from the body of the mound, which was mainly composed of stacked turves and surface scraping. Nearer the centre the old darkened surface-line itself disappeared over what was evidently the area of a filled-in pit some twenty feet long by about six feet wide.

In removing the filling from this old excavation indications of considerable disturbance were seen, suggesting that the pit had been dug into by grave robbers. There were traces of decayed wood and eventually towards the bottom pieces of iron-work were found, one of which, the broken-off end of a sword blade, was sticking up in a near-vertical position. As the pit was cleared a dark layer appeared round its sides, eventually revealing itself as the outline of a boat, about 20 feet long on the gunwale line and some eighteen feet along the floor. It was pointed in normal boat fashion at the western end, but was broad at the eastern. The craft seemed practically flat-bottomed,[6] and whereas the bow rose in a well-marked curve from the floor, the eastern end seemed to finish abruptly against the vertical wall of undisturbed sand (Plate V).

The outline of the boat, which had been preserved by the discolouration of the sand due to the decay of the timber, has aroused much discussion both as to elevation and plan, since the boats of the early peoples of north-western Europe generally appear to have been pointed at both ends. It is true that the Snape craft as revealed by the nail plan had a somewhat broadly-rounded stern, but the craft narrowed considerably from midships aft, the elevation of the stern end corresponding with that of the bow, giving a figure altogether different from that of the Sutton Hoo boat. Nor, it may be pointed out, did the latter agree with the plan of the great vessel found in 1939.

The apparent elevation of the stern [7] was thus different from that in both the Snape and Sutton Hoo (1939) boats. It is possible that the stern was filled in with one wide slab of wood, but no indication of nails fastening the side timbers to such a stern piece

[6] But this was no doubt due to subsidence of the side and bottom of the vessel. The same appearance was observed in the Snape boat, *Proc. Suff. Inst. Arch.*, XXVI (1952), pp. 6, 8, Fig. 4 *et passim.*

[7] But the eastern end of the 1939 ship, it should be noted, was the bow.

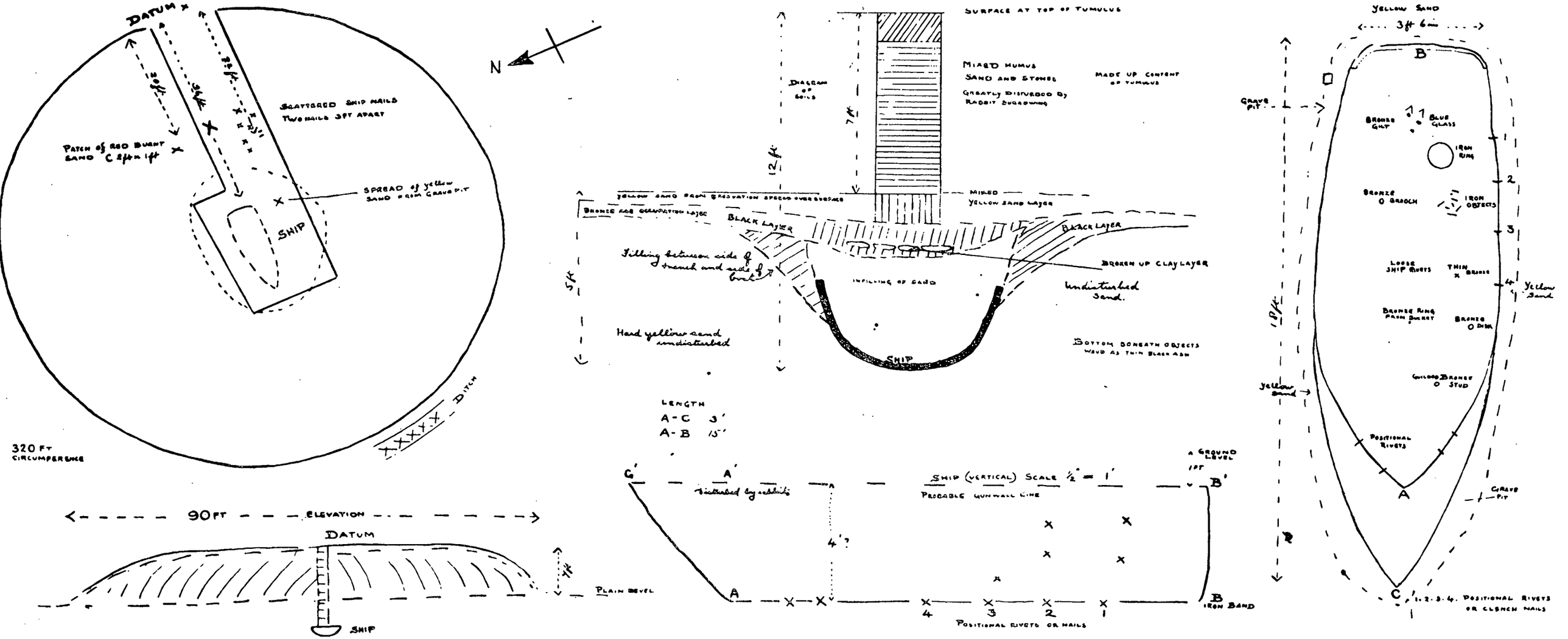


FIG. 4.—Plans and sections of Mound 2 as prepared in the Ipswich Museum from a copy of Mr. Basil Brown's field plans and notes.

was seen in position. On the floor of the pit, however, at the extreme eastern end, were the remains of iron bands (Inv. No. 17) to be described below, the contour and position of which suggested at first that they had in some way been connected with the structure of this end of the boat. While this may have been the case the unusual plan together with the evidence of burning in association with the presence of boat nails outside the pit, but within the mound, has prompted an interpretation which would link together the circumstances and explain both—namely that the grave contains part only of the craft—the rest, possibly a third or half,[8] having been cut off and used for a funeral pyre. Such an interpretation would link the rite of barrow inhumation with the well attested practice of burning the funeral ship.[9] The burial had obviously been looted, but objects found which had either been missed or discarded were sufficient to show that the grave had been sumptuously furnished.

Near the west or pointed end was a small gold-plated bronze hemispherical stud (Plate VII *b*). About halfway towards the east or truncated end was a fine gold-plated bronze disc covered with intricate interlace ornament in relief (Plate VI *a*). Near this was a bronze ring with an attached bronze tab such as might have been stitched into leatherwork (Fig. 9 *a*).

A little nearer the east or blunt end were a few fragments of thin gilt-bronze foil stamped with zoomorphic or 'animal' design (Plate VII *d*; Fig. 6); from this part of the boat also came a fragment of gilded cast bronze strip terminating in an animal head motif; one of the minute nails used for its attachment was in position in the bronze (Plate VI *b*);[10] the loop of a small silver buckle together with its loose tongue (Plate VII *c*) and fragments of a fine bowl of dark blue glass ornamented with raised and interlacing trails (Plate VII *a*; Fig. 7 *b*). In this area, a little abaft of amidships, were iron objects, comprising a small iron nail (Fig. 9 *e*), the end of a sword blade with part of the wooden scabbard still cemented to it by iron corrosion products (Plate VIII *a*); two much corroded small iron knives, the point and a part of the blade of a larger knife or dagger in its sheath (Fig. 9 *b–d*), an iron ring or buckle (Fig. 9 *f*) and an undetermined iron object (Plate X *c*; Fig. 10 *f*). Also a portion of a leather sheath, containing parts of two small knife blades, running in opposite directions (Plate X *d*, i-iv; Fig. 7 *a*).

At the extreme eastern or blunt end of the pit and on the floor level of the boat were found two sets of iron banding in such a

[8] But see p. 35 where it is suggested that some 5 ft. was cut off.

[9] For doubts about this supposed burning of the cut off end see p. 15.

[10] The plan, Fig. 4, refers to this incorrectly as a brooch.

position as to suggest that, as noted above, they had in some way been connected with the structure of the stern. The ironwork was obviously incomplete as it did not extend completely across the 'stern', a gently curved portion at the north, or 'starboard' end, being unrepresented on the south, where the iron bands were missing.

Each set was of two kinds. An upper band, broad and flat, and a lower, narrow and thickened along its entire length by a bold rib on what may be termed its outer face. The two sets were separated by about 9 inches. It was thought at the time of discovery and before removal that these were strengthening bands passing across the stern, despite their curious position on the floor line of the boat, to which, however, they might have fallen during the decay of the woodwork. It has been remarked, however, that no nail heads or indications of spikes have been detected to suggest attachment to the timbers, the fibres of which can be seen crossing the bands at right angles, a circumstance which suggests that they may have been parts of the shrunk-on hoops of some form of wooden 'hoop-and-stave' box or tub. If the iron bands represent some form of receptacle their position would be in keeping with the evidence from the 1939 ship-burial where the majority of the cauldrons and domestic objects were massed at the eastern end of the treasure chamber.[11]

The trace of timber seen during the clearance of the upper part of the filling of the grave may well have been from a protective cover or roof erected over the deposit, as in the case of the 1939 ship, which had collapsed under the weight of the mound and was subsequently dug through by the robbers. During the work Brown reported finding patches of greasy clay thought to have come from the estuary and entirely foreign to the site. In view of the discovery of the clay-lined 'libation-pan' during the excavation of the ship-burial in the following year it seems probable that the clay came from a similar clay-lined hollow for libations which had been broken up in the earlier opening.

MOUND No. 4
(LOOTED CREMATION)

Subsequently a third mound, No. 4, was opened. This was found to be riddled with rabbit burrowings and had evidently been dug into before. The mound measured about 70 feet across from north to south by about 60 from east to west. In the central area a pit 7 feet long by 3 feet wide and 3 feet deep had been sunk

[11] Additional fragments in fact exist which clinch the identification of these remains as deriving from an iron-bound tub. Inv. 17, and p. 31.

below the original surface. The sand filling this depression was greatly disturbed and no traces of any structure, boat, grave-house, coffin or chest were seen nor were there any pieces of iron work to suggest their former presence. Scattered through the sand, but mainly in the eastern part of the pit, only a few coming from the western end, were many small fragments of thin bronze, possibly from a bowl, also some small fragments of calcined bone. In the southern side the grave pit appeared to have been cut down through an earlier excavation, filled with ashes, possibly a cooking hole of the Bronze Age occupation of the heath. The dimensions of the grave suggest that it may have been similar in general character to that in the first mound opened, but the disturbance had been so complete that no confirmation could be obtained.

Mrs. Pretty, who had borne the entire cost of the operations, very generously presented the objects to the Ipswich Museum, where they are preserved.

COMMENTARY

MOUND No. 3

('BUTCHER'S TRAY' CREMATION)

Mr. Maynard's account (p. 5) and Mr. Brown's diaries make it clear that No. 3, the mound containing the 'butcher's tray', or hollowed-out wooden trencher, on or by which cremated remains had been deposited, was the first mound to be dug.[12] The point that needs to be established in connection with this grave, the 'butcher's tray' burial, is whether it was intact, or had been disturbed. It has been said of the oval hollow noted before excavation in the centre of the mound:[13] 'A superficial examination might have led to this being taken for a robber pit, but excavation showed this not to be true. Though the hollow had been dug to a point a little below the original surface-level, it had not penetrated deeply into the grave. Its base proved to be lined with a fine black silty deposit, which led to the suggestion that it had been constructed as a dewpond. But whatever its precise use, it had certainly contained water at one time and had not been dug to expose the grave'. The sections drawn in the Ipswich Museum (see Fig. 2) show the burial pit sealed by a thickish dark soil layer which lay at the bottom of the oval hollow referred to. This was interpreted as an 'ancient turf line', or 'possibly a layer of turves placed over a timber roof, or else the floor of an old excavation'. The dark

[12] Not No. 4, as Mr. Green states in his book, *Sutton Hoo* (1963), p. 25.
[13] Charles Green, *op. cit.*, p. 26.

layer is shown as sealing the burial pit below from the fill of a broader and shallower excavation that had taken place above it. The possibility remains, however, that a robbers' excavation which had reached the primary deposit had been left partially filled in, that a turf line had grown at the bottom of the hollow, and that at a later period the depression had been filled up. The turf layer, or dark soil spread, is thus of itself scarcely proof that the grave had not been reached at an earlier period, before the turf stratum was formed. The turf stratum might even represent a second attempt at robbery abandoned prematurely, following an earlier successful attempt.

Under this dark stratum, and quite separate from it, but well above the 'butcher's tray' in the bottom of the pit, was what Mr. Green refers to as 'a thin layer of clay which reached almost to the sides of the pit and thus effectively sealed the base of the grave'. This layer of clay seemed to Mr. Green to establish further that the burial below was intact. It was, however, found by Mr. Brown 'in a broken-up state'. The Ipswich Museum plan shows it as a small circular patch only some fifteen inches in diameter in no way sealing the bottom of the much broader pit.[14] Mr. Maynard, however, for quite different reasons, thought the burial probably intact (p. 7): 'It is by no means certain that this grave has been robbed. The wooden tray was undisturbed either by digging or by being walked on. The finds were in small heaps of calcined bones which were not scattered'.

Mr. Maynard's own impression is that as the deposit was off centre it may well have been missed, as it nearly was in 1939. One factor may seem to tell against this and suggest that the grave goods had been disturbed. The fragments of decorated bone veneer (Inv. Nos. 7 and 8) were at the west end of the tray, with the grave goods. One fragment of this material, however, originally taken by Mr. Brown as being of bronze, because of its discolouration (Plate IV *a*) was found well clear of the east end of the tray. This fragment, however, could possibly have been originally gathered up along with the cremated bones found deposited on or just off this end of the tray; or been dropped there at the time of the burial or it might have been displaced in the process of collapse of some kind of burial chamber. It is noteworthy that having gone below the dark earth stratum that filled the bottom of the hollow, Mr. Brown encountered nothing but clean sand until he reached the grave goods—not a picture suggestive of robbery. All things

[14] The section (Fig. 2) which is not apparently to scale, shows it by contrast as some seven feet long, if one uses the width of the tray (22 in.) as a criterion. Mr. Brown's own plan shows it as a layer extending right across the pit and unbroken.

considered, the probability seems to be that the cremation in Mound 3 was intact.

The clay layer, to judge by the surviving records, bears little resemblance to the more shaped and solid basin found over the great ship-grave in 1939. However, the presence in the sand filling of the burial pit of this layer of an exotic substance imported to the site, suggests a ritual use of clay, as in the 1939 grave. Lumps of clay were also recorded above the centre of the boat in Mound 2 (p. 14) (see, however, Postscript, p. 38).

If the 'butcher's tray' burial is an intact cremation, it presents a number of odd features which should be noted. First, there were two deposits of cremated bone at opposite ends of the tray. These must have been deposited without containers since no trace of any were found. In other words, the tray itself must have been regarded as a container. This recalls an apparently similar use of the great Anastasius dish in the 1939 burial, which seems to have carried on its upper surface a deposit of cremated bone.[15] A single decorated pottery sherd (Plate III *c*) was found with the bone pile on the west end of the tray where the grave goods were. If the burial is intact, this solitary sherd cannot represent a pottery container for the cremated bones. It might be the sherd of a vessel ritually broken.

A second sherd, undecorated, showing the angle of base and body (Plate III *b*) is attributed to this mound.[16] It could, to judge by the fabric, be from one and the same vessel as the decorated sherd. There is, however, no mention of it in Mr. Brown's original plans or notes, or in the versions of Mr. Brown's field plans prepared by Mr. H. E. P. Spencer in the Ipswich Museum.

Unfortunately the two groups of cremated bone from this grave are now mixed and none of the material can be identified zoologically.

It is to be noted that the tray was aligned nearly east-west.

The surviving objects suggest that the burial was that of a man of some importance. The *francisca* or throwing-axe indicates that it is a male burial. The imported bronze vessel represented by the lid (Plate II *b*) alone suggests status, to judge by the general richness of graves in which imported Coptic bowls, commoner than ewers of this type, are found; and the remarkable limestone plaque, unique in this country, which must also be of Mediterranean

[15] British Museum *Provisional Guide*, Fifth impression, Preface. Chemical evidence suggesting the original presence on the dish of as much as 2 lbs. of cremated bone has been established. No actual bone remains survived.

[16] A plan by Mr. Maynard shows it amongst the bones at the opposite or east end of the tray, but I have been able to find no evidence to support this.

origin, conveys the same impression. Axes, also, occur only very rarely in Anglo-Saxon graves.

MOUND No. 2

(BOAT-GRAVE)

The boat-grave in Mound 2 must be accepted as robbed. It is true that Mr. Green (p. 28) says: 'It was noted also that, after the boat-grave had been re-filled, the surplus yellow sand from the original digging of the grave pit had been spread in a broad oval layer some 30 feet wide over the grave and its surrounding natural surface. This appeared to be unbroken over the boat. If so the grave furniture was intact and had not been robbed in the past'. Evidence, however, for supposing that this layer, observed by Mr. Brown, was intact over the ship, is lacking. Brown's diary for 14 July 1938 records the finding at a high level in the fill of a piece of bone and some glass fragments. They were found actually above the level of the top of the pit dug into the natural subsoil to receive the boat. The fill of the burial-pit, 'disturbed or discoloured sand, which had been weathered for a time, with many stones which had apparently been thrown in on top, and pieces of greasy clay which had been broken into patches, the large stones measuring six to eight inches in diameter . . .' gives a clear impression of disturbance. The extremely fragmentary nature of the finds in what was evidently an inhumation, the occurrence of bone and glass at high levels, the fact that the tip of the sword (the rest of it missing) was found pointing vertically upwards, indicate clearly that the grave had been robbed. The thin black layer, representing the sides of the boat, in which iron rivets were found, *in situ*, 'had certainly been subjected to disturbances other than those due to rabbits'.[17]

The burial, as indicated above, appears to have been a straightforward inhumation. Only one of the surviving finds (No. 5 in the inventory) suggests contact with fire. The evidence of its exposure to heat is unmistakable. Its presence amongst other pieces showing no sign of heat is not explicable. It would be tempting to think that this piece may perhaps have come from Mound No. 3. However, the item in Mr. Brown's plan (Fig. 4) is referred to as a 'bronze brooch'. It is described in this guise in his diary under 21 July as amongst the objects found in the boat (see, however, Postscript, p. 38).

C. W. Phillips wrote of this grave, incorrectly, and the British Museum *Provisional Guide* repeated, that 'there were traces of a burial by cremation'; and refers to the fragments of the blue glass

[17] Mr. Brown's diary, 14 July 1938.

bowl (which were, in fact, found in this grave, not on the 'butcher's tray') as 'fused'. They are not in the slightest degree fused. The boat itself, as to the part of it at least which was deposited to hold the grave goods, had not been burnt. The picture is on the contrary that of a richly furnished inhumation which had been ransacked.

The discovery of rivets, low in the mound, in the approach trench, outside the area of the central pit; and, at a lower level near by, of reddened soil indicating burning, gave rise to the suggestion that the part of the boat that may be missing—the cut-off end—was burnt on the old ground surface adjacent to the pit, on a funeral pyre. This seems a highly doubtful interpretation. Brown began his approach trench on 6 July. On the 7th he recorded in his diary that 'it was obvious that there was a chaotic condition of the material constituting the mound due to disturbances'. On this day he discovered 'some pieces of iron including the remnant of a ship-rivet'. The same day he found 'a patch of black earth almost certainly due to burning: there were associated with this many sherds of Bronze Age pottery and I decided to sift all this layer'. The Bronze Age date of this hearth and its associated sherds was confirmed by the discovery in the sifting process of the segmented faience bead (Plate X *b*). It was on 11 July (after the week-end) that Brown recorded 'on the old ground surface found the existence of a fire. Above this a few loose ship-rivets were found'. The patch of 'red burnt sand' referred to, and the rivets, are shown on the Ipswich Museum's version of the plan (Fig. 4). On the plan the patch is given a dimension of 2 feet by 1 foot, and Mr. Brown's original plan shows it as a small patch. It would not seem to be possible to regard it as anything to do with a funeral pyre, which must have left substantial and extensive traces. The probability is that this was another Bronze Age hearth, and that the rivets, said to be above it, had been thrown out by the grave robbers. The extent of the disturbance the central area had undergone is to be judged by the fact that from the remains of a boat, 20 ft. long, only about forty-five rivets in all, instead of several hundred, were recovered, and of these only seven were found *in situ*.

This grave, like that with the 'butcher's tray', was a man's, as the sword, the great belt-buckle represented by the gilded stud, and fragments suggestive of a shield and of a great drinking horn, imply. It was certainly a rich grave. If it was a ransacked inhumation, as seems clear, it no doubt originally numbered amongst its contents, like the Snape boat, objects of gold and silver.

MOUND No. 4

(LOOTED CREMATION)

In the third mound, No. 4, a scatter of burnt bone fragments was found, associated with fragments of a thin bronze bowl. Since the bowl fragments are not burnt, but represented considerable portions of a sizeable vessel (Inv. No. 1), it seems likely that in this mound the cremated remains had been placed in a bronze container instead of the usual pottery urn. In the recently excavated cemetery at Loveden Hill in Lincolnshire, two cremations were found contained in bronze hanging-bowls (*Medieval Archaeology*, I (1957), p. 148).

Of the three mounds excavated in 1938, therefore, two appear to have been cremations, of which one was certainly robbed and virtually empty, and the other probably intact: whilst the third, the boat-grave, appears to have been an inhumation, like the 1939 ship-burial, but very thoroughly robbed.

DETAILED DESCRIPTION OF FINDS

MOUND No. 3

('BUTCHER'S TRAY' CREMATION)

1. *Portion of an oval plaque* of hard grey (?) limestone finely carved in low relief with a winged figure, probably a Victory, facing right. The figure shows a bare right shoulder with drapery crossing the right upper arm in three folds. The nearer wing breaks the margin of the plaque's field, the line of which may be seen above and behind the figure's head. The farther wing protrudes from behind the nearer wing and runs out at the edge of the plaque. The background [18] is covered with small scales. The figure's head is bent slightly forward, and the hair is swept up at the back. The ear appears as a small hole within a crescent. The pose of the figure and the inclination of the head, and the line of the drapery over the arm, suggest that the arm or arms were held out in front of the figure. The plaque shows clear traces of burning. The surface is cracked and finely crackled in places, e.g. on the shoulder of the figure and in the margin by the shoulder of the wing. These areas are also somewhat discoloured. Dimensions, 3.7 by 2.6 cms.: thickness, 3 mm. (Plate II *a*).

The plaque fragment was examined in 1948 by Professor Bernard Ashmole, at the time Keeper of Greek and Roman An-

[18] But see p. 17, fn. 19 below.

tiquities in the British Museum, who offered the following opinion:–

> The plaque may well have come from Alexandria. The stone is like that used for a lot of local Alexandrian sculpture, examples of which are to be seen in the Museum of University College, London. The figure may be either Eros or a Victory. Victory is the commoner subject and perhaps the more likely. The scene might be of a Victory sacrificing, or crowning an Emperor. If the figure were female it would be Victory. It is extremely fine work, of the highest quality. The scale-work covering the background is unique.[19] The technique is akin to that of cameo or intaglio carving, and too delicate to be compared with the 4th-5th century consular diptychs.

The object from which the fragment came must have been remarkable. Professor Ashmole thought it might have depicted the scene of two Victories crowning an emperor, the whole of about 4 by 3 inches, with the bottom slightly narrower than the top. The line of the field at the top which converges sharply with the upper edge of the plaque, would perhaps suggest a less broad, more rounded field, better suited to a single Victory sacrificing. The pure classical style suggests a 3rd century date, but examples of fine style sometime occur later, in particular in Alexandria. Byzantine works of the 6th century, like the Archangel Michael panel in the British Museum, may also attain this exceptional quality and refinement of execution.

2. *Bronze lid of a ewer or jug*, of small diameter, surmounted by a baluster-handle terminating in a ring cast in one piece with the rest. Attached to the ring, two links of bronze chain and part of a third. The cast ring surmounting the baluster-handle is flattened on top and shows considerable interior wear. H. $2\frac{1}{4}$ ins. (5.7 cms.). Diam. of lid $1\frac{3}{4}$ ins. (4.5 cms.). Depth of collar below flange, $\frac{9}{16}$ ins. (1.5 cms.). Probably of Byzantine, Coptic or East Christian origin (Plate II *b*; Fig. 3 *b*).

3. *Iron axe-head*, of a throwing axe or *francisca*, slightly distorted and heavily oxidised, the upper and lower extremities of the cutting edge broken off. Part of the wooden haft remains in position. Radiography reveals no inlays, but helps in establishing the correct profile. L. $7\frac{3}{8}$ ins. (18.8 cms.); w. of cutting-edge esti-

[19] It may be that the scaly background is in reality the inner surface of the further wing, whose pinions emerge into the margin from behind the nearer wing. However, the characterless uniformity and minuteness of the pattern, and the difficulty of reconciling the angle and extent of the defining curve with the position of the head, and the angle of the pinions in the margin, might seem to render this inlikely.

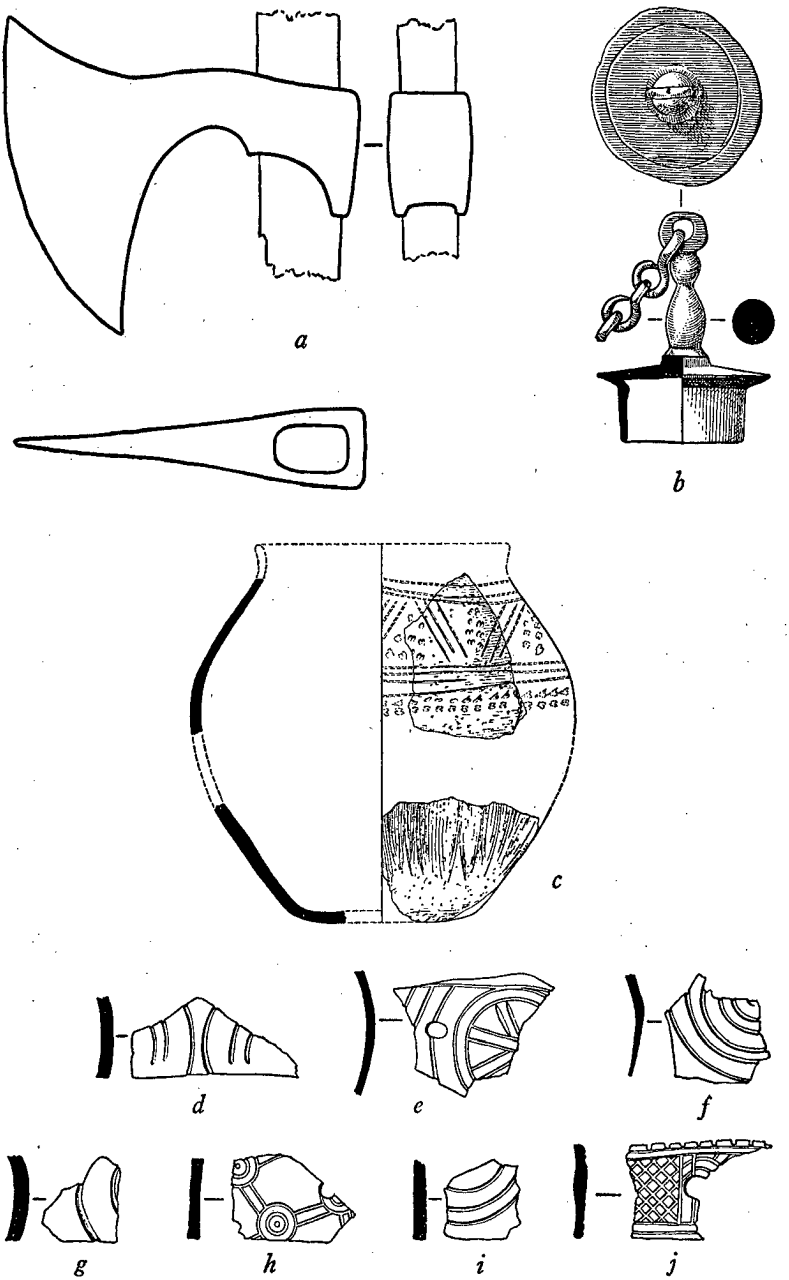


FIG. 3.—Objects from Mound 3, the 'butcher's tray' cremation: *a* Reconstruction of iron throwing axe or *francisca; b* Bronze lid, with chain; *c* Reconstruction of decorated urn; *d–i* Decorated bone facings perhaps from a box or casket; *j* Decorated bone facing from a comb or comb-case.

(Scales: *a*, $\frac{1}{4}$; *b*, $\frac{1}{2}$; *c*, $\frac{1}{4}$; *d–j*, $\frac{1}{1}$).

mated $6\frac{3}{4}$ ins. (17 cms.); dimensions of rear end, $1\frac{3}{4}$ by $2\frac{3}{8}$ ins. (4.5 by 6 cms.); l. of wooden handle preserved 5 ins. (12.5 cms.). (Plate III *a*; Fig. 3 *a*).

4. *Pottery sherd, decorated,* dark greyish-brown in colour, of hard coarse clay, surfaces lightly pitted, from the shoulder of a pot, with lightly incised and impressed decoration rather tentatively and unevenly applied. This consists of three or four incised horizontal grooves running below the base of the neck, and of four horizontal grooves on the bulge of the pot, near the maximum diameter. Between these, on the shoulder, is a zone showing a rough chevron pattern carried out in groups of three incised lines. In the triangular interspaces are vertically-set pairs of impressions from the end of a small bird bone rather hastily applied. Below the horizontal grooves on the bulge of the body pairs of bird bone impressions run horizontally round the pot. The horizontal grooves are irregular and not strictly parallel, no doubt executed either on a slowly rotated wheel, or freehand. Length of sherd, $3\frac{1}{2}$ ins. (9 cms.) (Plate III *c*; Fig. 3 *c*).

5. *Pottery sherd, undecorated,* of dark greyish-brown colour, of hard coarse clay, surfaces lightly pitted, from the base and lower body of a pot, showing light vertical striations on the wall of the pot, and a suggestion of grass markings under the base. Probably from the same vessel as No. 4, but slightly darker in tone (Plate III *b*; Fig. 3 *c*).

6. *Textile fragment,* impregnated with rust, of plain weave, and folded into a double thickness. Probably wool. Thread count approximately 8 warp and 20 weft threads per centimetre. Z spin both as to warp and weft threads (Plate IV *i*).

7. *Six fragments of thin bone,* with incised decoration, in varying degrees distorted and showing signs of discolouration and exposure to heat. A variety of decorative designs is represented. These include up to five concentric circles; a series of plain roundel-like motifs with borders of two circles close together; a roundel-like motif, cut off at one edge by a bounding-line, consisting of a central six-spoked device of pairs of parallel lines, within a circle, enclosed, after a gap, within an outer double-circle; and a squared design showing dot and double circles, evenly spaced, joined up by pairs of parallel lines. All this decoration is of somewhat rough execution. One fragment shows a circular perforation, about 2 mm. diameter, for a rivet or peg.

The six fragments are not recognisably part of a comb or comb-case, and seem more likely to be decorative veneers from a small box of casket (Plate IV *a–f*; Fig. 3 *d–i*).

8. *Fragment of decorative facing apparently of bone comb*, with eight cuts evenly spaced along one edge. The facing has one straight and one divergent and curved edge, that with the cuts; the incised design is apparently of double curves interlaced back to back, but is cut across at right angles by a pair of parallel lines. There is part of a centrally placed rivet-hole. The eight cuts are apparently a form of edge decoration. The intervening ridges are of smoothly rounded section, and do not show the roughness that would be left by broken-off teeth (Plate IV *g*; Fig. 3 *j*).

9. *Iron concretion of uncertain character*, with textile impressions and a flat lacquer-like surface developed at one side. The concretion has been radiographed, but this yields no further information. The concretion carries a textile impression, oxidised, of a cloth different from No. 6 above. An impression of a fine plain weave measuring about 1 cm. by 1.3 cms. is well preserved. This has a thread count of about 32 warp and 32 weft per cm. The warp and weft threads are both Z-spun. The fine equal weave would seem to indicate that this is a linen. On top of this impression probably of linen are folds of twill textile, probably wool. This measures about 2 cms. by 2 cms. Thread counts are about 20 warp and 10 weft threads per cm., both Z-spun (Plate IV *h*).

10. (In a box marked 'Tumulus A', i.e. Mound 3), *Small fragments of cremated bone*, no one of which can be certainly identified as human, and several of which are definitely non-human. The rest unidentifiable. (Extract from the zoological report by Dr. Calvin Wells, the rest of which is given under Mound 4, Inv. No. 4).

MOUND No. 2
(BOAT-GRAVE)

1. *Gilt-bronze disc* (Plate VI *a*; Fig. 5). Diam. 2 ins. (5 cms.), thickness 1/16th (1.25 mm.), decorated all over with cast zoomorphic interlace in a chip-carving technique. The pattern is made up of eight complete animals, each an elongated ribbon with a single hind leg at one end and a head at the other. The eight feet all meet, in affronted pairs, along one diameter of the disc, dividing the expanse of interlace into two parts. In each half the animals are in tightly-interlocked pairs, which back against each other. The ribbon-like bodies carry a pair of parallel grooves along their length. In the two halves of the design, each animal is interlinked once with the corresponding animal in the opposite and addorsed pair (Fig. 5). The animal-heads have sharply-defined angular ceres. From these the jaws, which cross, develop directly, with no chin or eye. The ornamental field is surrounded by a

groove, outside which is a finely hatched raised border. The edge of the disc has a nibbled or grozed appearance all the way round, as though an upstanding flange had been systematically clipped off. In the middle, slightly off centre, a bronze rivet pierces the disc, the domed, roughly circular head showing on the front of the disc. At the back its shank, broken off flush, and of circular

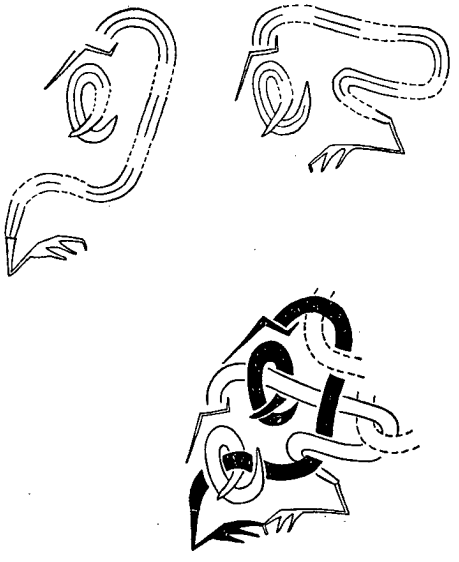


FIG. 5.—Mound 2: Animal ornament on a gilt-bronze ornamental disc, probably from a shield. (Scale: $\frac{2}{3}$).

section, can be seen. The rivet-head is insulated from the surface of the disc by a circular plain iron washer, not gilded, a little larger than the rivet head, and projecting slightly all the way round. The ornamental design is unaffected by this washer, which occupied a space left at the centre. The edges of the disc are bevelled, tapering slightly in from front to back. The disc is heavily worn, all the crests of the ornament and of the milling of the border being abraded, and the underlying bronze exposed.

2. *Blue glass squat jar* (Plate VII *a*; Fig. 7 *b*). Four fragments, two of which each measure some $3\frac{1}{2}$ ins. across. The metal is very clear and a uniform dark blue, which pales against the light. Pronounced wisps of red pigment occur running horizontally in the metal. Bubbles and striations are scarcely visible except for an

FIG. 6.—Mound 2: Animal ornament design of a vandyke from one of the great auroch's horns in the 1939 ship-burial, with fragments of stamped silver-gilt foil from Mound 2 superimposed, showing the use of identical dies. (Scale: $\frac{2}{1}$).

occasional large bubble (one measures 1.5 mm.). The glass is 3 mm. thick at the base of the jar, thinning out at the shoulder to 1 mm. The jar is squat with narrow mouth and low vertical rim. It carries decorative overtrails in the same metal, applied in two zones, one on the shoulder, the other below the base. The upper trails form a zone of reticulated pattern, 4 cms. deep, the loops being irregularly nipped to form a series of diamond shapes, above which a series of inverted curves runs from point to point of the diamonds below. The overtrails below the base form a four-lobed rosette. The trails are uneven, in some places standing out sharply in the three-quarters round, at others fusing with the body. (See Appendix, p. 39 below).

3. *Gilt-bronze hemi-spherical stud* (Plate VII *b*; Fig. 9 *h*). Diam. ½ in. (13 mm.). A solid casting, with shank projecting from the undersurface. The shank, broken off at 1/10 in., is of a rectangular cross-section, measuring 4 by 2 mm. The gilding of this stud is remarkable. As may be seen from the photograph, it is not mercury-gilded. A relatively thick sheet of gold is pressed, and no doubt fixed with adhesive, over the convex surface. Its projecting lower edge was cut into a series of teeth to enable it to be flattened over on the underside of the stud. A gold wire, stamped or fretted into beads, is neatly soldered with gold solder round the circumference, further holding the foil in place. This wire is a single length, its two ends soldered together. The gold surface is in good preservation, showing no wear. It shows hammer-marks. The teeth on the underside of the stud show file-marks, often in three directions. Some beads of the wire show very clearly the 'äquatorschnitt', a lateral cut across the maximum diameter of the bead.

4. *Fragments of silver-gilt foil with zoomorphic design* (Drinking-horn mount) (Plate VII *d*; Fig. 6). Of the four surviving fragments illustrated in Plate VII the largest measures ⅞ by $\frac{9}{16}$ ins. (23 by 18 mm.). They belong to at least two separate triangular vandykes, or pendant triangular decorative mountings, from a drinking horn. The fragments vary in condition and are discoloured. There is no clear indication that the fragments have been subjected to heat, and the variations in colour and condition seems more likely to be due to varying local chemical action in the soil, differently affecting the dispersed fragments, although these fragments would appear from the plan (Fig. 4, 'thin bronze') to have been found fairly close together.

The fragments are stamped with a zoomorphic design, struck from the same die as that of the vandykes decorating the great drinking-horns found in the 1939 ship-burial. The exceptional size of the vandykes, and the fact that two such horns were found

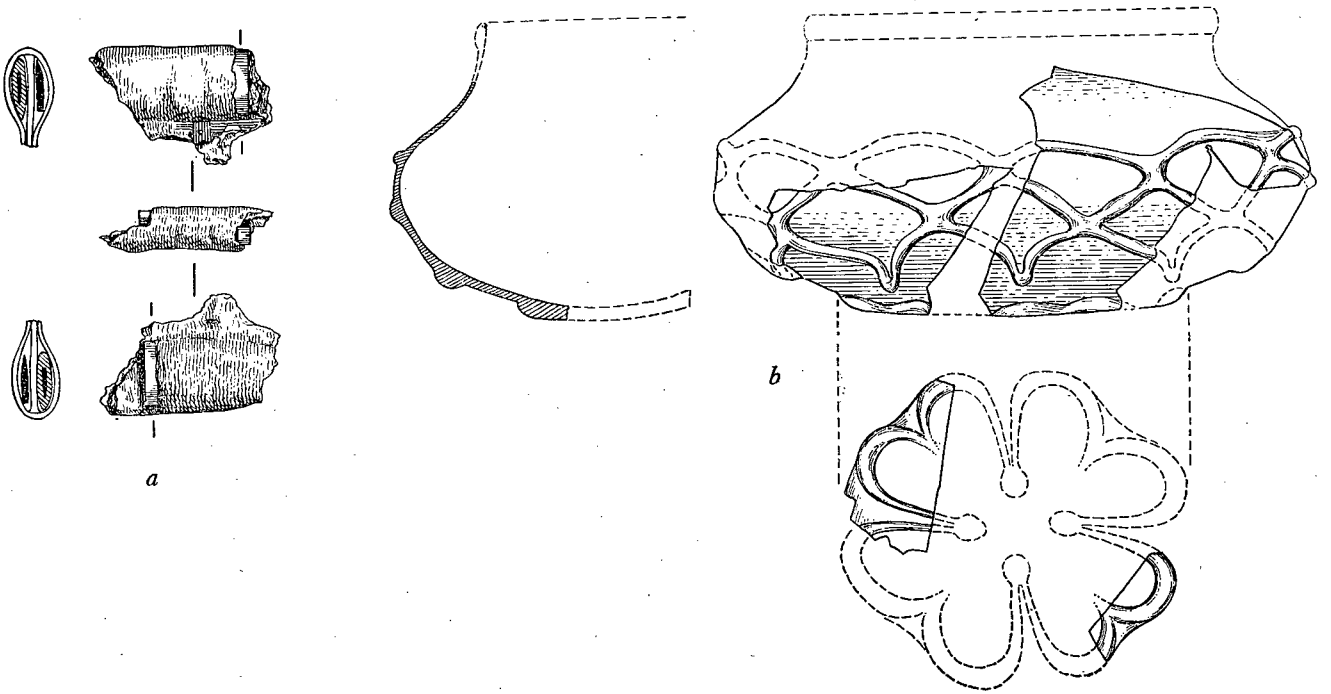


FIG. 7.—Mound 2: *a*, Portion of a double sheath containing parts of two iron knife-blades running in opposite directions; *b*, Blue glass vessel, reconstruction (cf. Plates VII *a* and XII). (Scales: *a*, *b*, $\frac{1}{2}$).

in the 1939 burial, indicates the presence in the 1938 boat-grave of a drinking-horn of the same altogether exceptional dimensions i.e. made from an auroch's horn, and by a craftsman using the same ornamental dies. Fig. 6 shows the 1938 fragments superimposed on a drawing, hitherto unpublished, of the design used for all the vandykes round the mouths of the great horns in the 1939 burial. As in the vandykes of the 1939 horns, the gilding on the 1938 fragments is exceptionally thick, forming a strong independent layer or veneer of metal capable of being picked up separately with tweezers.

5. *Fragment of cast bronze-gilt strip*, of fine quality, showing part of a dragon-head, of relatively large scale (Plate VI *b*; Fig. 8). An eye and teeth are visible. The plain under surface is flat. The strip was fastened to some underlay by silver rivets. Two survive. The fragment measures 4.3 cms. in length. Maximum thickness 1 mm. The longer of the two projects 7½ mm. from the under surface of the mount, indicating that the underlay was at least 3/10th inches thick. The bronze strip was originally heavily gilded, but has been badly damaged by fire. (See, however, Postcript, p. 39). A possible reconstruction of its design is given in Fig. 8. The strip is probably part of a fitting or a decorative appliqué of a shield.

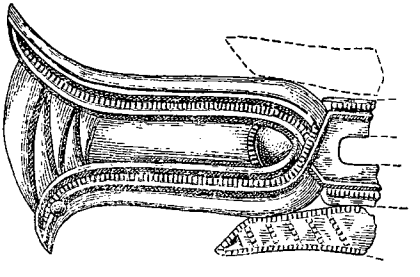


FIG. 8.—Mound 2: Suggested partial reconstruction of dragon's head ornament, probably from a shield. (cf. Plate VI *b*). (Scale: ½).

The sharper outward curve of the end of the lower jaw indicates that the animal head, or part of one, is conceived as in profile. The additional pointed element projecting along the under edge is correctly in position, and was probably balanced by a corresponding piece above. The nature of these projections is not clear. They are slightly reminiscent, especially in conjunction with the crossing over of the mouldings between them, of the tail end of the large appliqué dragon on the front of the Sutton Hoo (1939) shield, and its marginal wings. To the right of the intersection, however, the mouldings form angles and then run straight, and between the straightened elements was open space. This is indicated by gilding preserved on the inner edges. This does not suggest any orthodox development, *i.e.* into a completed animal or bird head (cf. various mounts on the 1939 shield) and it would not be safe on comparative evidence at present available to attempt any further reconstruction. The second silver rivet was presumably set near the point of the upper jaw.

6. *Small silver buckle* (Plate VII *c*; Fig. 9 *i*). Length 2.1 cm. with detached tongue. The loop expands centrally to a maximum width of 4 mm. The bar on which the tongue is hinged is open, having been broken, and the tongue of the buckle is detached. The tongue is of a distinctive shape. The under surface is flat, and the sides and top heavily rounded; but near the base or attachment loop the section is squared. The attachment loop thins down to a narrow flange.

7. *Bronze ring*, pitted and worn, with flat attachment plate joined to the first ring by a smaller ring with which the attachment plate is cast in one piece (Fig. 9 *a*). D. of larger ring 2 ins. (5.1 cms.). Length of attachment plate with its ring, 1.55 ins. (4 cms.). The edges of the plate which is sub-rectangular are slightly bevelled. The escutcheon and rings are undecorated. Both rings are of circular cross-section.

8. *Tip of sword blade*, iron, with remains of wood of scabbard and traces of textile adhering (Plate VIII). Length 5½ ins. (16.5 cms.), maximum breadth 1.8 ins. (4.6 cms.). The blade is pattern-welded. The welding lines appear to run straight to a point 5 ins. (12.7 cms.) from the tip of the blade, when two parallel rows of chevrons, spaced in groups, appear. The blade is narrower than that of the 1939 sword, and the chevron patterning in the welding develops an inch further up from the point.

9. *Iron knife*, much rusted (Fig. 9 *b*), apparently of scramasax form, i.e. a one-edged blade, with characteristic thickened back-development of scramasax type. Much corroded. Length 3.9 ins. (10 cms.).

10. Part of similar but apparently slightly smaller *iron knife* with tip missing (Fig. 9 *c*). Much corroded. Length 3.15 ins. 8 (cms.).

11. Three fragments of an *iron blade* with traces of sheath adhering (Fig. 9 *d*), apparently from a scramasax type, but larger than 9 or 10. Two of the fragments and probably the third join, giving a surviving overall length of 4¼ ins. (11 cms.) and a maximum breadth surviving to 1⅛ ins. (3 cms.). This width compares with the width of No. 9, which is preserved complete, of not more than 1.8 cms.

12. *Portion of double sheath, containing two knife-blades*, running in opposite directions (Plate X *d* i-iv; Fig. 7 *a*). The outer sheath appears to be made from a folded-over piece of leather, the edges

brought together and stitched down one side. On top of the stitching-line, on one face only, is a narrow fluted rivetted strip of bronze, now wholly oxidised and impregnated with rust. Crossing this at right angles is the end of a second fluted strip, held by the same rivet, indicating a feature, perhaps a strap, at right angles to the blades, presumably a suspension device. The two knife-blades may have been of different sizes, since the suspension point is not equidistant between the bronze bands that edge the mouths of their sheaths. These are plain bronze strips, 3 mm. wide, which give a maximum width of the sheath 1.3 mm. in both cases.

13. *Object apparently of wood and iron* (Plate X *c*; Fig. 10 *f*), length 3 ins. (8 cms.) consisting of a flat portion 1½ ins. (4 cms.) wide, with a thickish projecting stem of square section terminating in a domed circular or oval head. Radiographs show a hollow foot with a wooden stave running vertically, and apparently a horizontal metal band, which the extra thickness of the object on one face seems to justify. The whole might represent the iron-shod foot of a wooden bucket or tub, visualised as a short wooden leg terminated in a metal cap, the whole heavily rusted. Metal side-pieces may run up from the foot, enclosing the wood of the tub.

14. *Iron nail*, or part of, rusted (Fig. 9 *e*). L. 1¼ ins. (3 cms.) domed or faceted head.

15. *Clench nails or rivets* from the boat, some 45 in number. Heavily oxidised with sand and wood accretions. The inner dimension, between the inner faces of head and rove, is 2 ins. (5 cms.). There appears to be a slight variation in length amongst the larger rivets. The heads appear to be circular and domed, the roves diamond-shaped. The shanks may have been about 1 cm. in diameter. Two of the rivets appear to be shorter than the rest, with an internal measurement of about 1½ ins. (3.9 cms.) and one still shorter (1 in., or 2.5 cms., between inner faces of head and rove) (Plate XI).

16. *Iron ring and attached rod* (Fig. 9 *f*). Diam. of ring 2 ins. (5 cms.), l. of rod preserved, 2½ ins. (7 cms.). Heavily rusted. The inner end of the rod apparently splits to form a loop or ring through which the larger ring passes.

17. *Lengths of iron bands*, with other pieces, perhaps including No. 13, from a wooden tub or bucket (Plate IX; Fig. 10 *b–f*). The bands are stuck together and make up 16 separate pieces, some composed of a number of stuck lengths. The bands are of two types, one broad (approx. ⅞ ins. or just under 1 in. wide (2.0—2.5 cms.). The other narrow, and carrying a raised mid-rib, giving

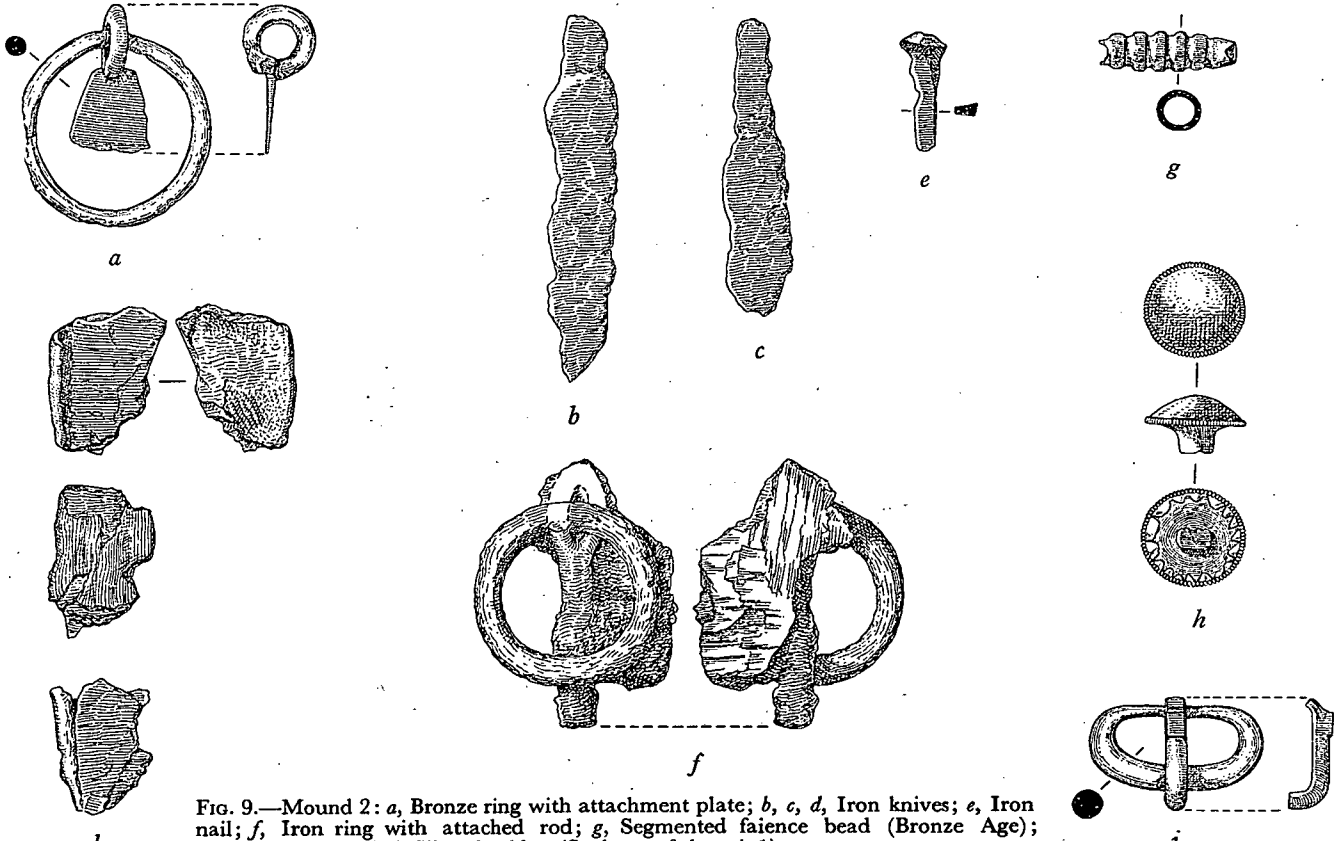


FIG. 9.—Mound 2: *a*, Bronze ring with attachment plate; *b*, *c*, *d*, Iron knives; *e*, Iron nail; *f*, Iron ring with attached rod; *g*, Segmented faience bead (Bronze Age); *h*, Gilt-bronze stud; *i*, Silver buckle. (Scales: *a–f*, ½; *g–i*, 1).

the band a ⊥ section. These bands are ⅜ in. (1 cm.) wide. The 16 separate lengths may be described as follows:—

(*a*) *Broad bands.* The 7 pieces are:—

i. 12½ ins. long and curved. Most of it fits on a 20 in. diameter curve, but one end has straightened out. (5 fragments stuck together). No traces of wood.

ii. 10½ ins. long and curved. Fits a 20 in. diameter curve. The inside has wood remains adhering. The grain is all at right angles to the band and appears to be the remains of strips or staves about 1¼ ins. wide. The outside is covered by iron sheeting with ragged edges. This measures nearly 2 ins. at its widest. The radiograph shows a similar length of T-section narrow band running parallel to it. This is not readily discernible to the naked eye.

iii. About 9 ins. long; broken 20 in. curve. Traces of vertical wood grain on inside. It lies parallel with and is attached to a 15 in. length of narrow band T in section. Most of it fits on a 20 in. curve.

iv. 6¼ ins. long. Slightly curved. No wood remains. It lies parallel to and in edge to edge contact with a 24 in. length of narrow band which survives in a series of broken curves. Some remains of wood with a vertical grain on inside.

v. 5 ins. long. Slightly curved. No wood remains.

vi. 4¾ ins. long. No curvature. No wood remains.

vii. 3¼ ins. long. No curvature. No wood remains.

(*b*) *Narrow bands.* The 12 pieces are:—

i. See (*a*) iii.

ii. See (*a*) iv.

iii. 8½ ins. long. Part fits on a 20 in. diam. curve. No wood remains.

iv. 14½ ins. long. Slight curvature. No wood remains.

v. 4½ ins. long. Slight curvature. No wood remains.

vi. 3½ ins. long. Fits on a 20 in. curve. Some wood remains.

vii. 5½ ins. long. Fits on a 20 in. curve. No wood remains.

viii. 4 ins. long. No curvature. No wood remains.

ix. 1¾ ins. long. No curvature. No wood remains.

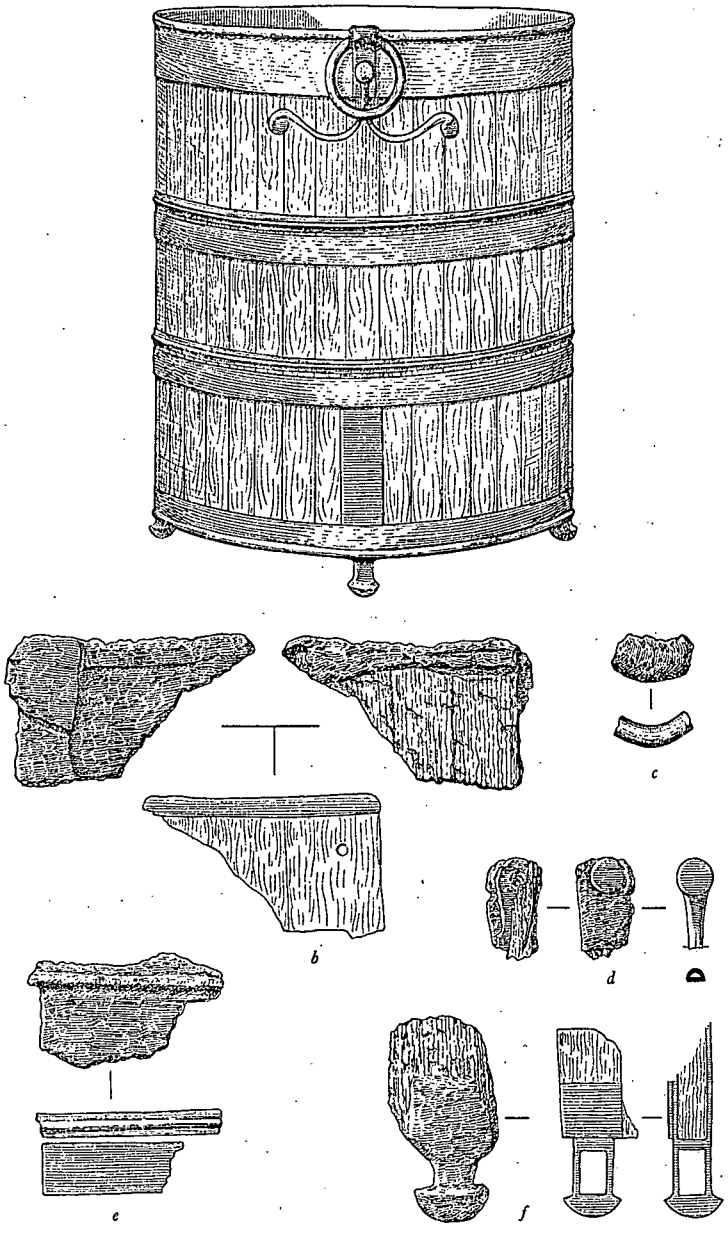


FIG. 10.—Mound 2: *a*, Suggested reconstruction of iron-bound wooden tub; *b*, Fragment of iron and ? bronze band from the rim, with clarification based on a radiograph; *c*, Fragment of suspension ring; *d*, Wood fragment with circular escutcheon of iron, and clarification based on a radiograph; *e*, Iron fragment of broad and narrow band, in their correct relationship, the latter carrying a central thickening or mid-rib, with clarification based on a radiograph; *f*, Iron and wood fragment apparently of a foot, with clarification based on a radiograph. (Scales: *a*, $\frac{1}{6}$; *b–f*, $\frac{2}{3}$).

x. 3 ins. long. No curvature. No wood remains.

xi. See (*a*) ii.

xii. 3 ins. long. No curvature. No wood remains.

Radiography of all the fragments shows no rivet or rivet-hole. It may be inferred that both broad and narrow bands or strips were shrunk-on hoops derived from a wooden tub or large bucket of about 20 ins. diameter. No. 13 in the Inventory may suggest that the tub stood on short feet. In the 1939 great ship burial are remains of a wooden tub or bucket of exactly the same apparent diameter (20 ins.), and some lengths of its iron bindings are now completely flat. It, also, has broad strips 1 in. wide in association with lengths of a narrower strip, in this case of a more rounded cross-section. A projecting feature, somewhat similar to No. 13 in the Inventory, also survives with the remains of this 1939 wooden tub. The identification of the 1938 iron bands as from such a tub is rendered certain by other pieces, a dozen or more in number, associated with them (Fig. 10). These include a substantial rim fragment, showing a metal re-inforced rim and a vertical binding strip; and a fragment showing a small metal escutcheon, diam. 1.5 cms., with central rivet.

18. *Segmented bead of blue faience* (Plate X *b*; Fig. 9 *g*). Bronze Age. l. $\frac{5}{8}$ in. (1.6 cms.). Found in sieving in the approach trench within the perimeter of the barrow, near a burnt stratum or hearth.

The boat itself is discussed on page 35.

MOUND No. 4

(LOOTED CREMATION)

1. *Many small fragments of sheet bronze* from a bowl, diameter approximately 13 ins., with flat out-turned rim apparently $\frac{7}{16}$ ins. wide. Many fragments, including the largest rim fragment, show adhering textile. Not a hanging-bowl.

2. *Small bone or ivory plano-convex gaming counter*, calcined, incomplete, of oval shape, undecorated (Plate X *a* i-iii). Width, $\frac{3}{4}$ ins. (1.8 cms.). Found amongst the cremated bone fragments during zoological examination. The under surface is slightly concave, but the object is probably distorted by heat.

3. *Scrap of iron slag*, probably the result of fusion in the funeral pyre, found amongst the bones during anatomical survey. (See No. 4 below, Box 3, iv). (Perhaps part of a binding strip from a wooden tub, similar to the narrow bands in Mound 2).

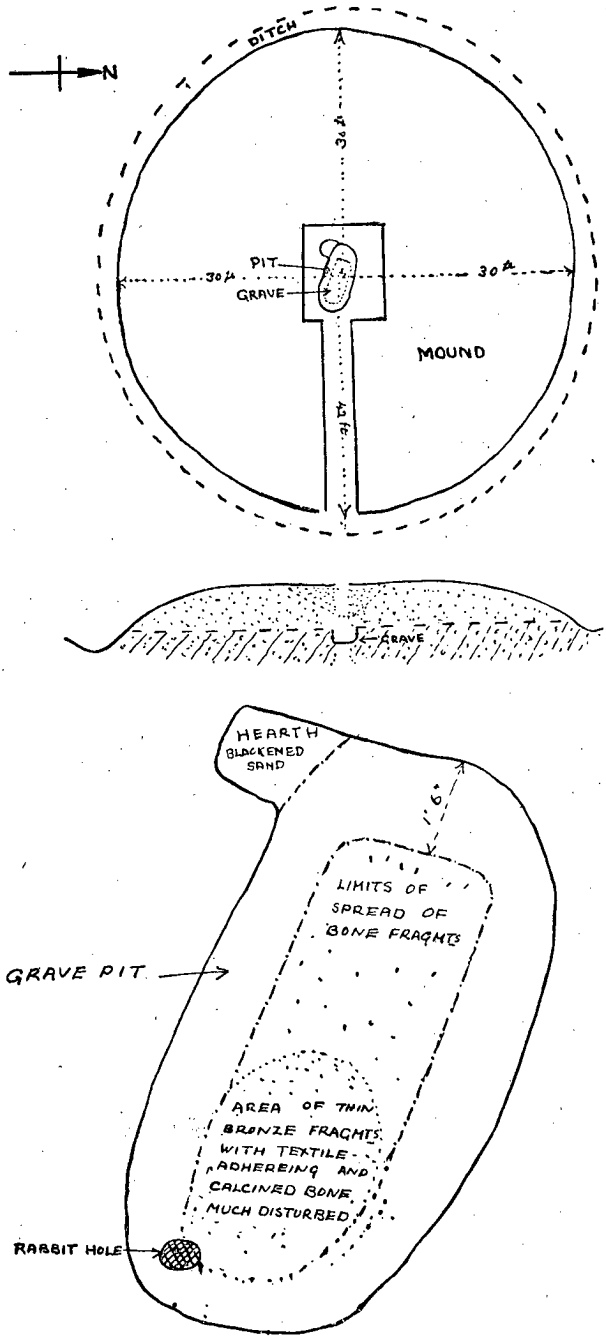
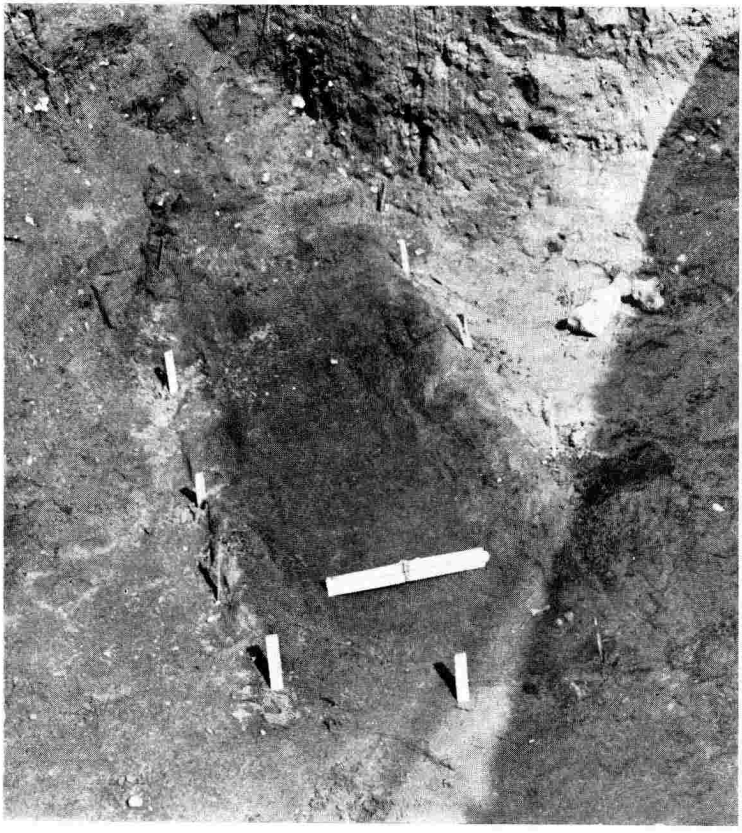


FIG. 11.—Plans and section of Mound 4, as prepared in the Ipswich Museum from a copy of Mr. Basil Brown's field plans and notes.

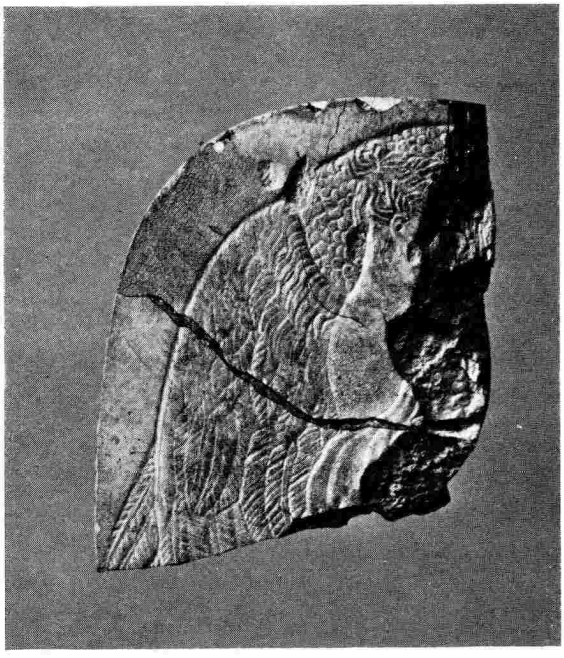
PLATE I



Mound 3. The wooden 'tray' is outlined with pegs. The greater depth of the bottom of the 'tray' may be judged from the situation of the foot rule in relation to the raised edges. The iron axe (Pl. III *a*) is seen in position to the right of the 'tray', in the shadow. (pp. 5, 11). (*Photo: W. H. Needs*)

PLATE II

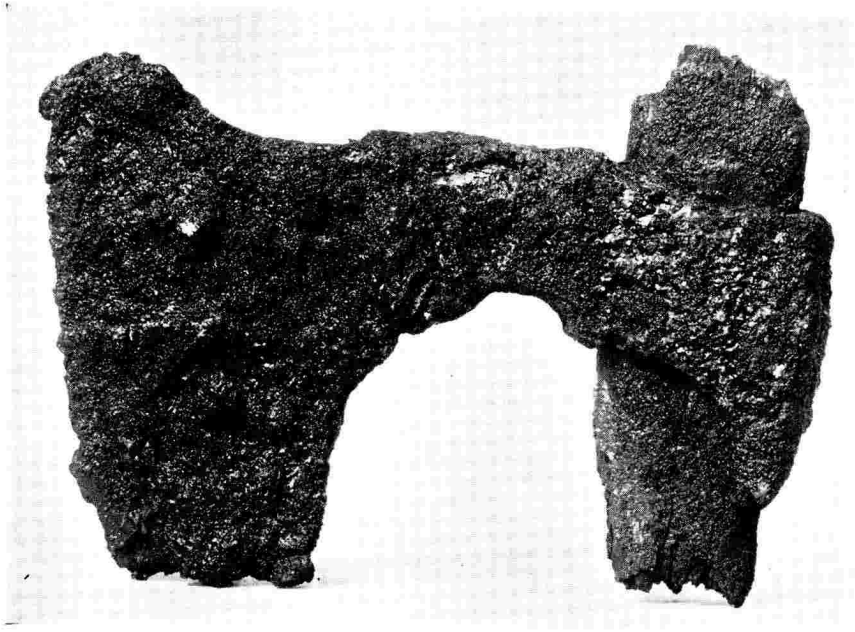
a



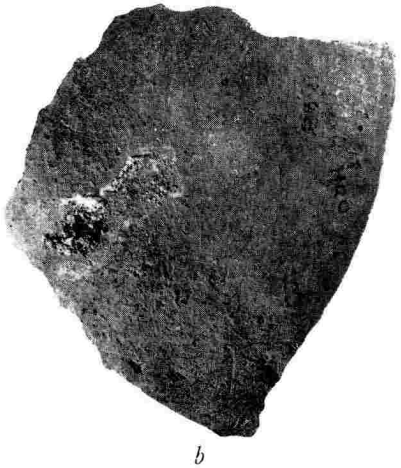
b

Mound 3. *a*, Fragment of hardstone plaque with a figure of a Winged Victory in low relief. The surface shows signs of exposure to heat (p. 16). *b*, Bronze lid with part of chain attached. (pp. 17, 34). (Scales, *a*, $\frac{2}{1}$, *b*, $\frac{1}{1}$). (*Photos: British Museum*)

PLATE III



a

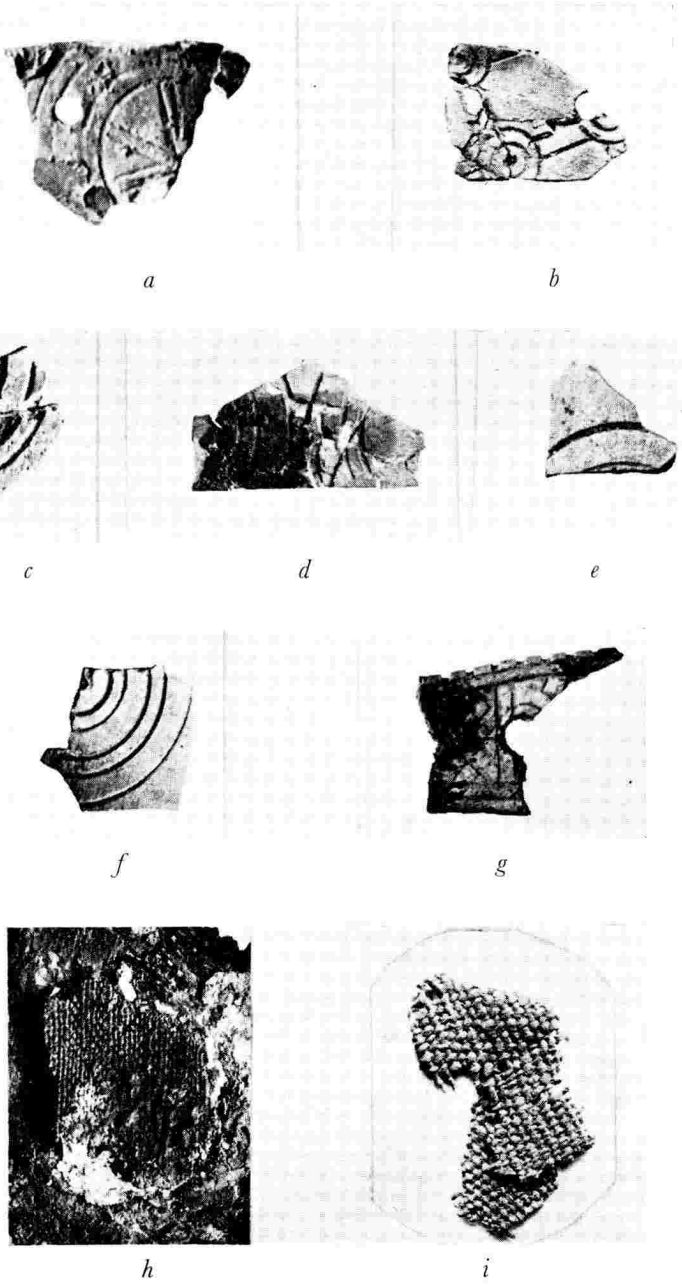


b

c

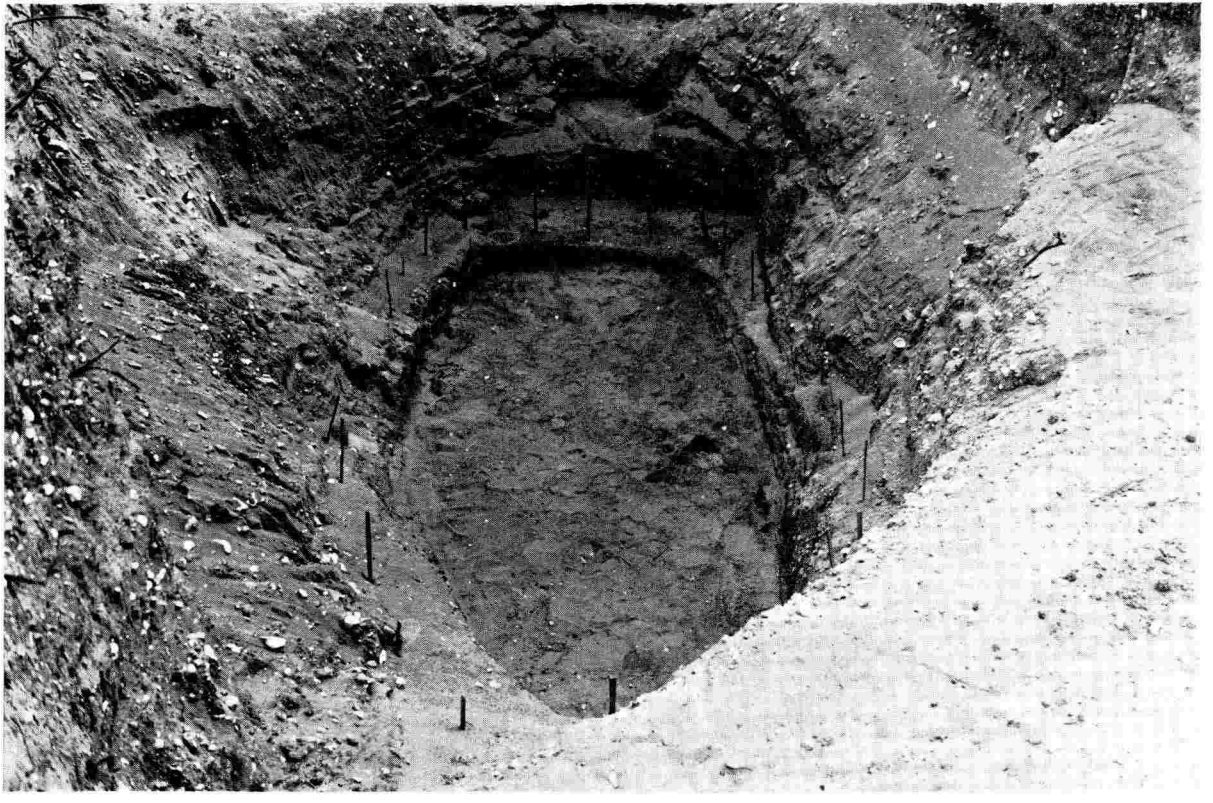
Mound 3. *a*, Iron axe-head, with part of wooden haft (p. 17). *b*, - *c*, two sherds from a pottery vessel (p. 19, Fig. 3 *c*). (Scales, *a*, $\frac{4}{7}$, *b*, *c*, $\frac{2}{3}$). (*Photos: a, British Museum, b, c, G. Keiller*)

PLATE IV



Mound 3. *a–f*, Fragments of decorated bone facings probably from a casket, *g*, Fragment of decorated bone facing from a comb or comb-case (pp. 19, 20). *h*, Fragment of linen textile. *i*, Fragment of wool textile. (pp. 20, 19). (Scales, *a–g*, $\frac{3}{2}$, *h*, *i*, considerably enlarged. (*Photos: a–g, G. Keiller, h, i, British Museum*)

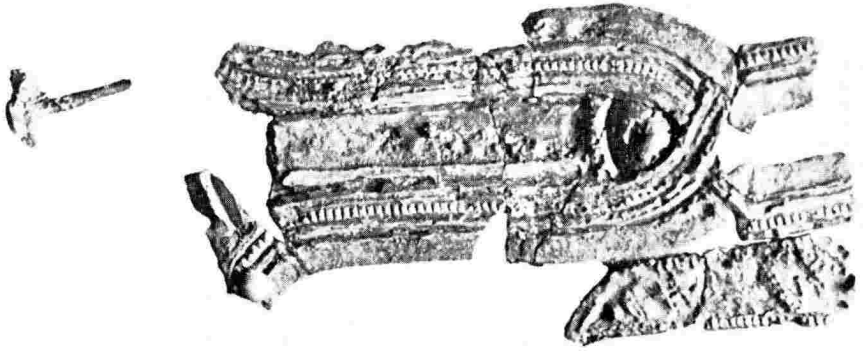
PLATE V



Mound 2. View of the boat excavation, facing east, showing the blunt end of the pit with undisturbed strata. The iron strips from a tub, thought at first to be reinforcements for the squared end of the boat, are in position at floor level at the far end of the excavation. (pp. 8, 35). (*Photo: W. H. Needs*)

PLATE VI

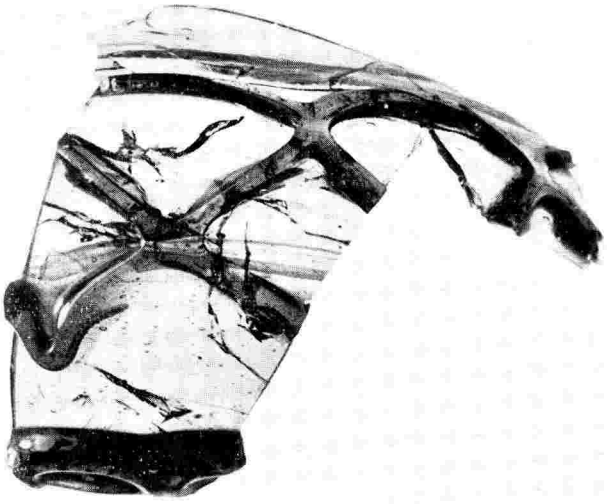
a



b

Mound 2. *a*, Gilt-bronze disc, with animal interlace decoration, from a shield (p. 20, Fig. 5). *b*, Fragment of gilt-bronze dragon-head, probably from a shield (p. 25, Fig. 8). (Scales, *a*, $\frac{4}{5}$, *b*, $\frac{2}{1}$). (*Photos: a, British Museum, b, G. Keiller*)

PLATE VII



a

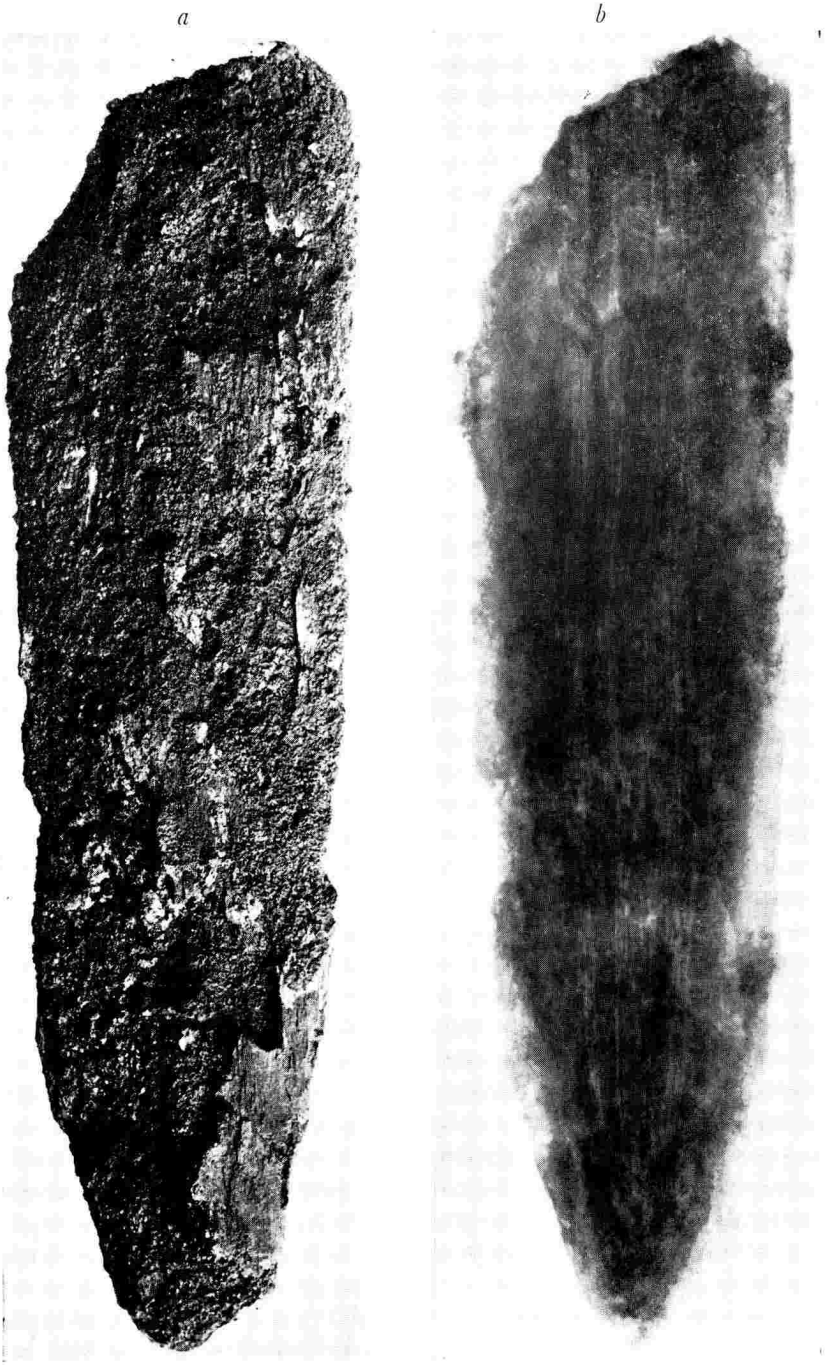
b

c

d

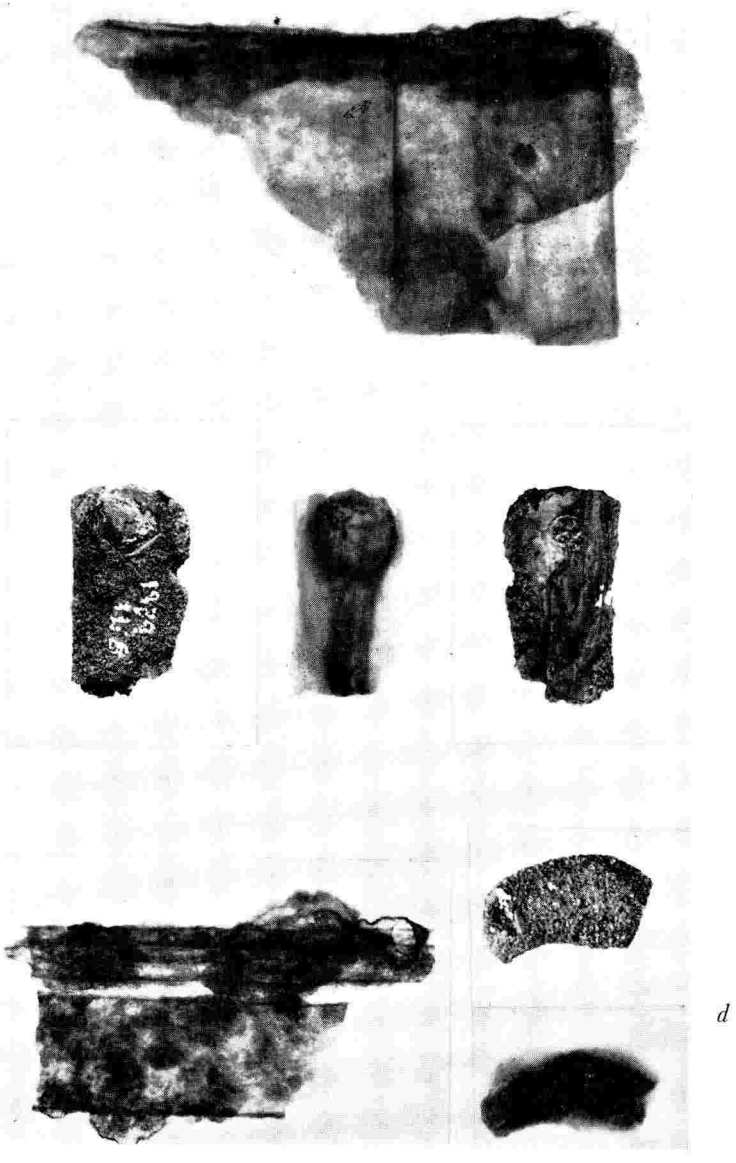
Mound 2. *a*, Fragment of blue glass squat jar, with thick overtrails, showing bubbles in the metal and red streaks running through it (p. 21, Fig. 7 *b*). *b*, Four views of gilt-bronze stud (p. 23, Fig. 9 *h*). *c*, Silver buckle (p. 26, Fig. 9 *i*). *d*, Fragments of silver-gilt triangular mount with stamped animal ornament design, from an auroch's horn (p. 23, Fig. 6). (Scales, *a*, 1/1, *b*–*d* 1/2). (*Photos: G. Keiller*)

PLATE VIII



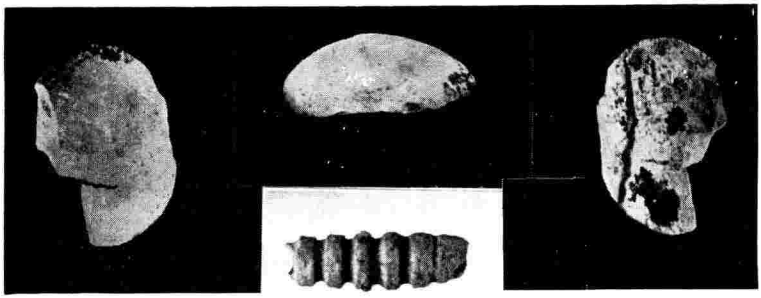
Mound 2. *a*, Tip of sword-blade, with portions of scabbard adhering. *b*, Radiograph of *a* showing pattern-welding: at the right-hand end a chevron pattern can be detected (p. 26). (Scales, $\frac{1}{1}$). (*Photos: British Museum*)

PLATE IX



Mound 2. (cf. Fig. 10). *a*, Radiograph of wood and iron fragment showing metal rim of tub, with outlines of a vertical metal reinforcing strip with rivet hole. *b*, Front and back views and radiograph of fragment of wood and metal showing circular metal strip running downwards from it. *c*, Fragment of iron showing broad and narrow horizontal bands in their correct relative positions. *d*, Fragment of iron ring-handle, with radiograph. (Scales, $\frac{3}{4}$). (*Photos: b, left and right, G. Keiller; the rest, British Museum Research Laboratory*)

PLATE X

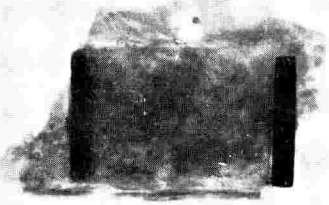


a

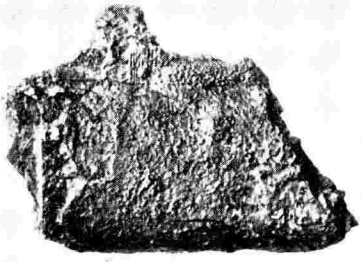
b

c

d i



d ii

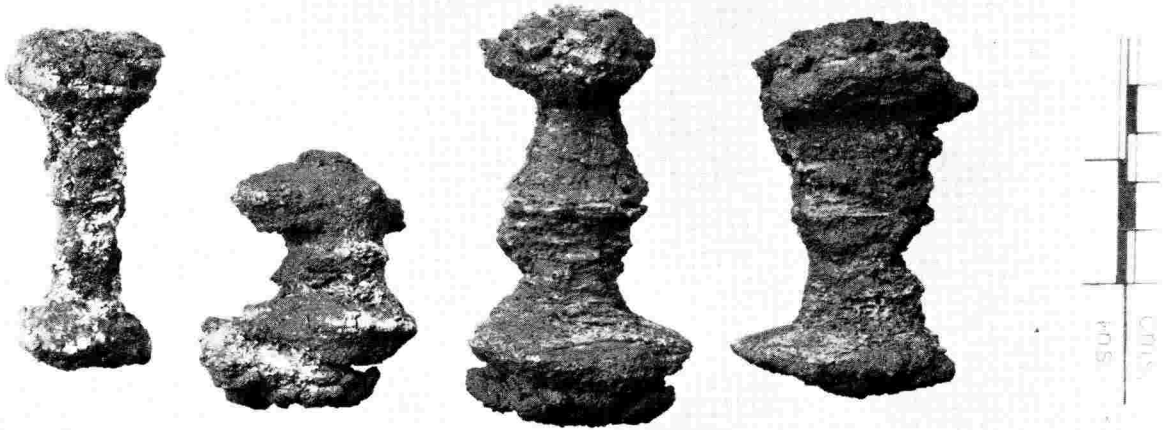


d iii

d iv

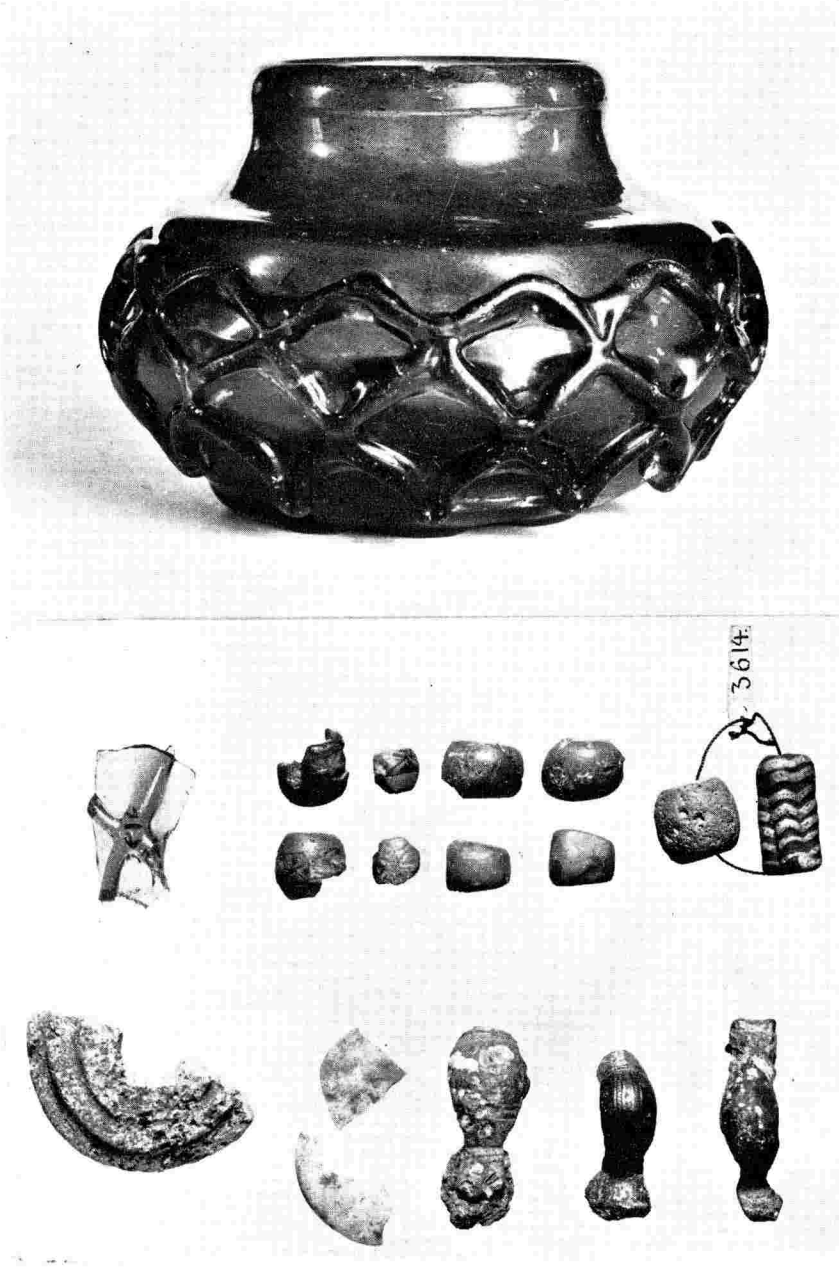
Mounds 2 and 4. *a*, Three views of a fragmentary bone gaming-piece (Mound 4, p. 31). *b*, Segmented faience bead (Bronze Age) (p. 31, Fig. 9 *g*). *c*, Wood and iron object, apparently the foot of an iron-bound wooden tub (p. 27, Fig. 10). *d* (i-iv), Central portion of leather sheath, with rivetted fluted metal bindings, carrying parts of two iron knife blades running in opposite directions (iv). Each sheath is terminated by an oval bronze mounting, clearly seen in radiographs (i) and (ii). A central leather septum separating the two blades can be seen in (iii). (p. 26, Fig. 7 *a*). *b–d*, All Mound 2. (Scales, *a* and *b*, 1:1.4; *c* and *d*, approx. $\frac{1}{1}$. (*Photos: a, b, c and d (iv), G. Keiller; d. i, ii, iii, British Museum Research Laboratory*)

PLATE XI



Typical clench nails from the boat, one of small size. Scales $\frac{1}{4}$. (*Photo: British Museum*)

PLATE XII



Blue glass squat jars with overtrails, found in Norway. *a*, Loland, Vigmostad, Vest Agder (slightly reduced). *b*, Fragments from Tu i Klepp, Joederen, Rogaland, with associated beads, and parts of a stone spindle-whorl and bronze brooches (reduced). (p. 12). (Scales, $\frac{3}{4}$). (*Photos: Universitetets Oldsaksamlingen, Oslo*)

4. *Cremated bone remains.* These were contained in three boxes. The bones were examined by Dr. Calvin Wells, who subsequently obtained confirmatory opinions from Miss J. E. King of the Department of Zoology, the British Museum (Natural History). Dr. Wells reported identifications as follows:—

Box 1. (Marked 'Tumulus E', i.e. Mound No. 4). This contained:—

(i) a small fragment of lingual surface of the symphyseal region of an adult human mandible. It could be seen that all incisors had been present at the time of death.

(ii) A small fragment of endocranial surface of a human frontal bone with part of the wall of the sinus. This also was adult.

(iii) Numerous other fragments unidentifiable; a few might possibly have been human; some were quite definitely not.

(iv) What might have been a slightly damaged gaming piece or counter—apparently of bone but possibly ivory. (Inv. No. 2).

Box 2. (Marked 'Tumulus E'). This contained three fragments apparently of horse.

(i) The distal end of a proximal phalange.

(ii) Fragment of jaw of a young animal.

(iii) An occipital condylar fragment probably from a young colt.

Box 3. (Marked 'Tumulus E'). This contained:

(i) A single fragment of long bone which is undoubtedly human clavicle.

(ii) Many unidentifiable but definitely non-human fragments.

(iii) A number of unidentifiable fragments which could possibly have been human.

(iv) A fragment of some clinker, apparently metallic.[20]

After this report was written the material was kindly examined by Miss J. E. King, British Museum (Natural History). Owing to the smallness and poor condition of the remains she was unable to identify any further fragments or to separate human from non-human with any certainty.

[20] This is a piece of fused iron, apparently of a tubular or circular cross section, Inv. No. 3.

GENERAL DISCUSSION

MOUND No. 3

('BUTCHER'S TRAY' CREMATION)

The distinctive items to survive from this cremation are the bronze lid, the limestone plaque, and the iron axe-head, or *francisca*.

The bronze lid appears to be unique. The diameter (1¼ ins., 3.2 cms.) suggests a vessel with contracted neck, like the ewer from Wheathamstead in the British Museum,[21] and its smaller replica from Athens, also in the Museum's collections; or even a lamp, where the filling apertures are small; or a bronze bottle of one of the types well represented in the Cairo Museum. But the lamps, ewers and bottles have hinged lids, and lack the upstanding baluster and chain top or the deep neck below the flange of the lid, present in the Sutton Hoo example. The normal works of reference,[22] and enquiries at the Benaki Museum in Athens, have failed to produce another like it. It must, however, be of East Mediterranean origin, and belong to the general stream of Oriental trade represented by the various classes of Eastern imports in Anglo-Saxon graves, of which the Coptic bowls, no doubt produced in Alexandria, are the most familiar. It would suggest for the burial a date in the 7th century. The British Museum ewer from Wheathamstead has a baluster-like handle on its lid, but there is no chain, and the lid is hinged.

The limestone plaque is unique in Anglo-Saxon archaeology, nor is any parallel known from any continental grave. It appears to be classical, and does not fit into any Byzantine or Coptic context. It may be significant that somewhat analogous finds survived from the West Mound at Old Uppsala, Sweden. The reference is to the 'pseudo-cameos'—of a greyish-white, glass-like substance—one of which depicted a Cupid blowing a trumpet, and another apparently a version of the well-known Daniel in the Lion's Den scene.[23] These are, however, very different in style, substance and quality from the Sutton Hoo plaque.

The *francisca* is of pure Frankish type. Quite a few rather similar examples have been found in this country, and there are parallels also amongst the material from the Frankish Cemetery at Herpes, Charente, in the British Museum. The *francisca* axe-type has a history

[21] British Museum *Guide to Anglo-Saxon Antiquities* (1923), Fig. 94.

[22] e.g. J. Strzygowski, *Koptische Kunst*, (1904); W. B. Emery and L. P. Kirwan, *The Royal Tombs of Ballana and Qustul* (1935), etc.

[23] S. Lindqvist, *Uppsala Högar och Ottarshögen*, Stockholm, 1936, p. 184–5, Figs. 106–7.

extending over several centuries, and undergoes development from the restrained early versions of the shape, as seen in the example found in the tomb of Childeric I (*d.* 481 A.D.)[24] to more flamboyant or evolved types. Amongst many examples at St. Germain en Laye an unprovenanced example, included in the new displays (No. 19.918), is perhaps closest to the Sutton Hoo example. It makes possible the restoration of the lower point of the blade as shown in Fig. 3 *a*.

None of these three objects allows of any close dating of the burial, although the bronze lid suggests that it is probably not earlier than the end of the 6th century. All these objects indicate that the cremation was that of a person of high social standing. The axe, a weapon which indicates a man's grave, stands in marked contrast to the axe-hammer with iron handle found in the 1939 ship-burial, which seems to be a tool rather than a weapon.

MOUND No. 2
(BOAT-GRAVE)

This may be taken as a robbed inhumation in a truncated boat.

It is noteworthy that no trace of bone was recorded. It may be that cremated bone survives better than uncremated bone in this soil.

The Boat. It is not possible to recover much detail of this. Only seven rivets remained *in situ;* the sides of the boat, represented by a dark layer, had been much disturbed. The boat does seem to have had an end cut off. It is not clear whether this was bow or stern, but the fact that in the case of 1939 ship-burial, where the boat was on the same alignment, the east end was the bow, the ship having evidently been drawn up the coombe from the water bow first, suggests that it was probably the bow which had been cut off in the 1938 boat. Plate V shows that general outline of the dark stain as left standing by Mr. Brown, and the direct juxtaposition of the undisturbed face of the natural stratified gravel to the blunt end of the boat is clearly visible. The implausibility of a boat with blunt stern at this date is discussed fully by Mr. Charles Green,[25] and some sort of support for what might seem rather slipshod preparation for a rich burial i.e. by cutting a piece off the boat to make it fit the trench, is provided by his recognition of the use of short lengths of rivetted boat timbers, cut from boats of 20 to

[24] L'Abbé Cochet, *Le Tombeau de Childeric* 1^er^, Paris 1858, p. 119. Other *franciscas*, close to the Sutton Hoo form, are illustrated and discussed on pp. 124 *et seq.*

[25] *Op. cit.*, 55–60: see also R. C. Anderson, *Mariner's Mirror*, vol. 28, 1942, pp. 83–85.

40 ft. in length, as lids for Saxon burials, probably of late 7th or 8th century date, in his excavations at Caistor-on-Sea, Norfolk.[26] No trace of ribs or other internal features survives from the Sutton Hoo 1938 boat. Mr. Green's reconstruction gives it an approximate overall length of 22 ft. 6 ins., with greatest beam of 6 ft., and internal depth amidships of 3 ft.

Date. The date of the burial should be the second quarter or middle of the 7th century, if we place the great ship-burial of 1939 at 654 or 655.[27] It has been argued that the 1939 ship-burial is likely to be the latest of the whole barrow group,[28] although confirmatory evidence from actual excavation of the remaining barrows is needed before such a suggestion is accepted. At any rate the 7th century date for the 1938 boat burial is clear. The use of the same dies in drinking horns in both the 1938 and 1939 graves is suggestive; and general confirmation is provided by the ornament on the gilt-bronze disc (Plate VI *a*; Fig. 5).

The ornament on this disc fits well in the seventh century. Interlace of this tight, all-over kind, in which zoomorphic details are practically submerged, can be seen on the shield-discs and fittings from Caenby, Lincolnshire,[29] the horse-trappings from Faversham, Kent,[30] the Hardingstone mount,[31] and the Sutton Hoo (1939) harp-escutcheons. The great Sutton Hoo buckle itself affords some analogies, though here the zoomorphic details are far more fully and minutely executed and dominate the decorative scheme. Yet the same sort of animals in profile, with ribbed ribbon-bodies, can be seen on the edges of the buckle, and at its middle, the same sort of asymmetrical, closely-knotted interlace. A closer parallel occurs in the Taplow Barrow (constructed perhaps around A.D. 625). The animal on the belt-buckle from the Taplow barrow is embossed on a gold plate and picked out with filigree. It has an eye, and the cere is not so much angular as rounded; but the jaws are almost identical with those on the Sutton Hoo roundel; the bodies are ribbed (with filigree) and the interlace has the same turbulent quality, a lively rhythm more akin to that of the ornament on the Sutton Hoo (1938) disc than to any other piece. That the Sutton Hoo disc is a shield ornament seems very probable. It comes from a man's grave which had also contained a sword. Similar discs are known to have been used to decorate the oaken shield-board from the Caenby find. These were attached to the

[26] *Op. cit.*, p. 57.
[27] *Proc. Suff. Inst. Arch.*, xxv (1949), p. 43.
[28] *Ibid.*, 44, 76.
[29] British Museum *Guide to Anglo-Saxon Antiquities* (1923), Fig. 104.
[30] T. D. Kendrick, *Anglo-Saxon Art*, Pl. xxxvi.
[31] *Ibid.*

shield-board by a central shank, though they were also keyed to the wood by four short radiating peripheral projections not present on the Sutton Hoo disc. The bevelled edges of the Sutton Hoo disc suggest that it was sunk flush into the surface to which it was applied. The Caenby discs, though not bevelled, were similarly counter-sunk, as can be seen from the surviving matrices in the wood. Applied metal discs are a favourite form of ornament on Anglo-Saxon shields,[32] and it is, furthermore difficult to think of any other explanation of the disc. It is certainly not a personal ornament. The identification is a matter of importance, since, as the grave had been thoroughly robbed, no other evidence of a shield survives apart from the dragon's head mount, Inv. No. 5. The blue glass vessel, of Broomfield type, apparently belonging to the output of a Kentish glasshouse, is also of 7th century horizon. Its affinities are dealt with in detail in an Appendix, p. 39.

Item No. 5 in the inventory is unparalleled in English archaeology (Plate VI *b*). A reconstruction of this damaged piece, evidently subjected to heat, is offered in Fig. 8. Had the animal head been displayed flat and symmetrical, seen in plan, as from above, a natural identification would be that it was the termination of a grip-extension from the back of a shield, like those to be seen in the shield in the 1939 ship-burial [33] or like one of the two types of animal head spaced round its rim; or like the grip-extension terminations of shields of a less ambitious character from the Swedish boat graves at Vendel and Valsgärde; or perhaps part of a strap-distributor of the type seen in Grave XIV at Vendel.[34] The head, however, is apparently asymmetrical and seen in profile, which relates it rather to horse headstall or harness trappings also found in these graves.[35]

It might, however, also belong to one of the ornamental side-developments of a shield grip-extension, or to an appliqué dragon on the front of the shield. Such side-developments may be seen in the Sutton Hoo 1939 shield, and the profile head of the appliqué winged dragon on the front of the shield may also be compared.[36]

MOUND No. 4

(LOOTED CREMATION)

The third tumulus excavated, No. 4 (Fig. 1), is not without interest. It was noted by Basil Brown that the grave pit (Fig. 11)

[32] cf. J. R. Mortimer, *Forty years researches in the British and Saxon burial mounds of East Yorkshire*, (1905), Pl. XCV, XCVI, CV, etc.
[33] *Provisional Guide*, Fig. 5, *a*.
[34] T. J. Arne, *La Nécropole de Vendel*, Stockholm, 1927, Pl. XXIX, Fig. 3, and Pl. XLII 8, 9, 10. G. Arwidsson, *Valsgärde* 8, Taf. 16, 408.
[35] G. Arwidsson, *Valsgärde*, 6, Taf. 22, 315, 316.
[36] British Museum, *Provisional Guide*, Pl. 5, *a* and *b*.

was shallow, only two feet below the old ground surface. The cremated bone remains included horse bones as well as those of an adult human. The textile remains adhering to the bronze fragments suggest that the bowl containing the cremation may have been wrapped in cloth. The gaming piece suggests a grave furniture of some interest. A small fragment of fused iron was amongst the bones; its circular or rounded cross-section and measurements suggest part of a reinforced iron binding strip from a wooden tub, being rather similar to the narrow iron strips of ⊥ section from Mound 2.

In general, the tumuli offer further suggestions of affinities with Swedish archaeology. There is the fact of ship-burial, but beyond this the presence of horse and possibly other animal bones in Mound 4;[37] the analogy of the classical limestone plaque with the 'pseudo-cameos' found at Old Uppsala, and the distinctly Swedish aspect of the burnt fragment of a dragon's-head shield-mount, attributed to the boat-grave. Decorated bone facings from a casket and small plano-convex ivory gaming pieces also occur in the mounds at Old Uppsala. The finds enhance the picture of the burial-ground as a whole as one of unusual interest and richness.

POSTSCRIPT

In August 1965, a careful survey of some seven acres of the Sutton Hoo site was carried out under British Museum auspices. After extensive clearing of bracken and cutting of grass, at least two more sizeable barrows, in addition to those shown in Fig. 1, both with low flat profiles, and apparently surrounded by ditches, were clearly seen. One lies just to the south east of Mound 2, the other south of Mound 9. In addition a number of smaller mounds and other features were suggested by surface appearances. The newly-made plan (Fig. 1), although an advance on previously published plans, is thus now seen to be significantly incomplete. Excavations begun in Mound 1 at the same time, primarily to ascertain the present condition of the remains of the ship, which had been left in the soil and only lightly covered over in 1939, have provided fresh information as to soil conditions on the site. On p. 10 it is said that the patches of 'greasy clay' noted by Mr. Basil Brown while excavating beneath Mound 2 were 'thought to have come from the estuary and to be entirely foreign to the site'. An affinity with the 'exotic' clay 'libation pan' found over the 1939 ship-burial was suggested, and this is referred to again on p. 13. The 1965 excavations showed that rafts of clay, often substantial, are of

[37] c.f. the comments in 'The Sutton Hoo ship-burial', *Proc. Suff. Inst. Arch.*, xxv (1950), pp. 64–5.

frequent occurrence in the natural subsoil, and not foreign to the site.

Some corrections are required to other statements made in this paper. The examination of the fragment of a dragon-head from Mound 2 in the Research Laboratory at the British Museum has shown that its purplish-red colour, many cracks and extensive loss of surface, are not due to the action of heat (as I have so confidently asserted on p. 25) but are the result of chemical corrosion and deterioration in the ground. Again, a study of certain boat rivets recovered from Mound 1 in the 1965 excavations has shown that it is possible for a solid iron shaft to corrode outwards in such a manner as to leave an empty space where the solid iron was, within a solid looking tube consisting entirely of corrosion products. On this evidence it is probable that the hollow foot shown in Fig. 10*f*, thought to belong to the iron bound tub from Mound No. 2, was originally solid, the radiograph, which showed a hollow interior, having been wrongly understood.

Mr. Maynard's account further indicates that in the iron binding-strips or hoops of this tub, where broad strips or hoops were closely associated with narrow strips having a raised mid-rib, the narrow strips were underneath the broad ones, not above as shown in the reconstruction drawing. Future discoveries of similar vessels may settle the point beyond doubt.

The cremated bone identifications were obtained from Dr. Calvin Wells by the Ipswich Museum, at the request of Mr. Charles Green, and I am grateful to him for supplying me with a copy of Dr. Wells's report.

APPENDIX

THE BLUE-GLASS VESSEL IN MOUND No. 2

(BOAT-GRAVE)

(Plate VII *a*; Fig. 7 *b*; Inv. No. 2)

This vessel gives a tantalising glimpse of what might have been found in the great ship-burial of 1939 which, mysteriously, although intact and of outstanding richness, was wholly without glass. It is the tenth example known of a distinctive variety of squat jar, type A iv in Dr. Harden's classification under his class VIII (squat jars).[38] These vessels have not yet been recorded from Denmark

[38] *Dark Age Britain*, (Studies presented to E. T. Leeds), Methuen (1956), 'Glass vessels in Britain A.D. 400–1000', Fig. 25, p. 138.

or Sweden, where, especially in Sweden, imported glass vessels from the Rhine factories are quite common; nor are they known anywhere on the Continental mainland. The great majority of vessels in blue glass have been found at Faversham, in Kent, as Dr. Harden shows, being in most cases small squat jars or pouches characteristic of Faversham and, again, not found on the Continent. Of squat jars in blue or green glass from Faversham, three in the British Museum have reticulated trails on the neck only. In spite of their pure clear metal and sophisticated shapes, the blue squat jars of Sutton Hoo/Cuddesdon type, which are not found in the Rhineland, may well be of Anglo-Saxon manufacture, perhaps connected with a blue glass and trailed jar industry based on Faversham, though no example of this distinctive type has come to light there.[39]

The deep red wisps and streaks in the metal (p. 21) may be simple to account for on the technical plane, but the occurrence is rare, and has been fully dealt with by Dr. Greta Arwidsson.[40] An extremely rare and beautiful palm-cup in the British Museum, from Amiens, shows these red streaks used with striking effect in a white metal.

The general date of these vessels of Broomfield-Cuddesdon-Aylesford type is fairly clear from their occurrence in the richer burials of the later pagan period—at Broomfield with a gold cloisonné tray from a buckle-plate matching in style several of the rich Kentish disc-brooches and also reflecting in its all-over spread of garnets and other inlays the general style of the Sutton Hoo (1939) jewellery and Crondall hoard purse-mounts (now lost)[41] and the Forest Gate jewel;[42] at Cuddesdon with an imported Coptic bucket presumably of the Coptic bowl horizon; and if we are right in thinking that the small fragment from the Snape boat-grave represents such another vessel, that burial has been attributed on various grounds to the period 625–635. There seems little doubt that these distinctive vessels began to be made in the first quarter of the 7th century, and that they were circulating in the second quarter. We lose track of them as the grave-record gives out, and no such vessel has occurred in any later context. The vessels are distinctive, and most probably the product of a single workshop, and may as a group be dated to the period about 610 to 650 A.D., or somewhat later.

[39] Harden, *op. cit.*, 146–7.

[40] 'Some glass vessels from the boat-grave cemetery at Valsgärde', *Acta Archaeologica* III, 1932, 152–266.

[41] Catalogue of the Burlington Fine Arts Club Exhibition, *Art in the Dark Ages in Europe*, (1930), Pl. XX, M2.

[42] In the Ashmolean Museum, R. F. Jessup, *Anglo-Saxon Jewellery*, 1950, Pl. XXXII, 3.

The following are the known examples, including several additions to the lists as given by W. A. Thorpe [43] and Harden:—

Site	*Present Location*	*References*
Cuddesdon, Oxfordshire. (Two)	Lost	*Archaeological Journal*, IV, 157–8 (with drawings by O. Jewett showing side and base views).
		J. Y. Akerman, *Remains of Pagan Saxondom*, London MDXXXLV, Pl. VI, Nos. 1–2, pp. 11–12.
		de Baye, *Industrie Anglo-Saxonne* Pl. XIV, 4, and in Harbottle's English translation, '*The Industrial Arts of the Anglo-Saxons*, 1893. (One of the two vessels is reproduced in gold on the front cover.)
Aylesford, Kent. (Two) h. $3\frac{3}{10}$ ins., diam. $4\frac{5}{8}$ ins.	Maidstone Museum	W. A. Thorpe, *English Glass*, (1935), 65–6 and Pl. VII (b).
Broomfield, Essex. (Two)	British Museum	*Victoria County History of Essex*, 1, p. 322, Fig. 19.
		Baldwin Brown, *Arts*, Vol. IV, Pl. CXXVI and p. 485.
		D. B. Harden, *Dark Age Britain*, (1956), pp. 141–2, 164; Pl. XVII, *j*.
Sutton Hoo. (One)	Ipswich Museum	Here published for the first time (Plate VII).
Snape. (One possible)	Lost	*Proc. Suff. Inst. Arch.*, XXVII (1950), 195.

[43] *English Glass*, (1935), pp. 65–6.

Løland, Vigmostad-Vest-Agder, Norway. (One) (h. 7.8 cms., d. 12 cms.) (Plate XII)	Oslo, Universitetets Oldsaksamling (c 19362)	O. Rygh, 'Fortegnelse over detil Universitetets Oldsaksamling i 1898 indkomme sager fra tid før Reformationen', (Aarsberetning 1895, Foregingen til Norske Forntidsmindesmerkes Bevaring 1896 (Kristiana), 104, No. 170. A. W. Brøgger, Borrefundet og Vestfoldkongernes Graver; 20-21, fig. 36. (Skrifter utgit av Videnskapselskapet i Kristiana 1916 (Historisk-Filosofisk Klasse). *Viking Antiquities in Great Britain and Ireland*, Vol. V (British Antiquities found in Norway) by Jan Petersen, 191, No. 2 and Fig. 156, p. 192.
Tu i Klepp, Joederen, Rogaland (fragment) (Plate XII)	Oslo, Universitetets Oldsaksamling (c 3615)	N. Nicolaysen, *Norske Fornlevninger*, (Kristiana) 1862. 6 s. 789–790. Brøgger, *op. cit.* 20–21. Petersen, *op. cit.* p. 191, No. 3.

The intact Løland, Vest-Agder, glass has no very firm associations since the Løland finds were mostly gathered from the river bank, having been washed out from a series of barrows. The Tu i Klepp fragment, on the other hand, was found, in the winter of 1864–5, in a tumulus with a number of small objects (C. 3164, 3616–8) here reproduced with the glass fragment for the first time. As Miss Wencke Slomann informs me, the accepted Norwegian dating of the brooch types represented in the group is 6th century A.D.

I am grateful to Dr. Harden for confirming the absence of examples on the continental mainland. The example referred to by Dr. Brøgger in his discussion of the Borre claw-beaker (A. W. Brøgger, 'Borrefundet og Vestfoldkongernes Graver' *Skrifter utgit av Videnskapselskapet i Kristiana, Historisk-Filosofisk Klasse*, (1916),

20–21) from a Frankish grave at Oberolm, in the Mainz Museum (Linderschmidt, Band I, heft XI, Taf. VII, fig. 3) is of a blue metal, but is a different type of vessel (a claw beaker).