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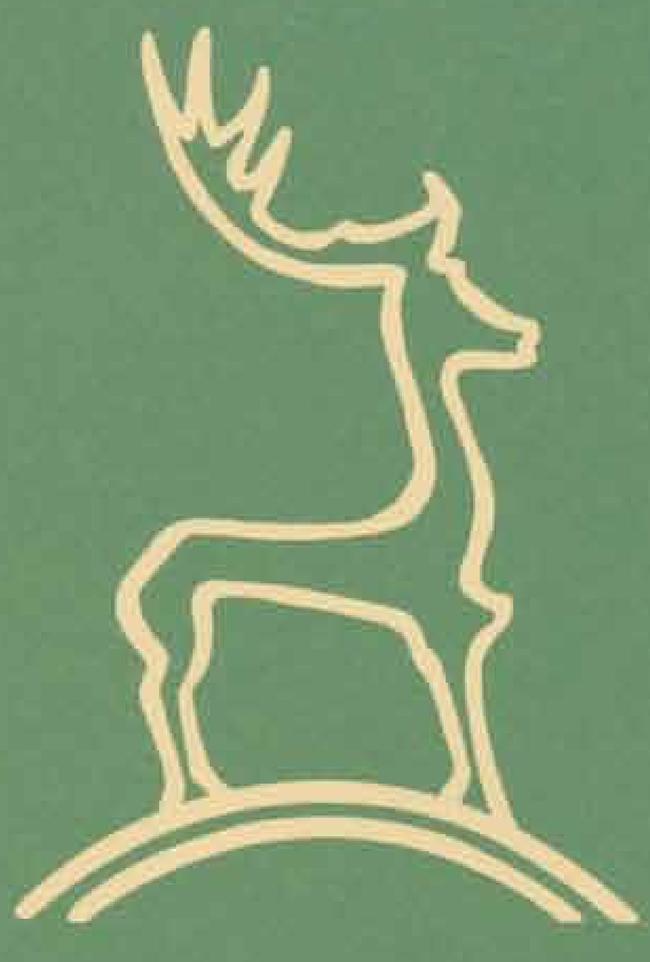
BULLETIN

OF THE

SUTTON HOO

RESEARCH COMMITTEE



No.6 April 1989

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PREFACE

The summer of 1989 marks the 50th anniversary of the discovery of the ship burial beneath Mound 1 at Sutton Hoo – the point of departure for much research and for the present campaign. Following three seasons of intensive evaluation, which saw a new methodology applied to archaeological intervention in the countryside, a further three seasons of excavation have provided a new interpretation and context for the site where this great discovery was made. In the Anglo-Saxon cemetery, the sequences of activity in Mounds 2 and 5 have been resolved, and the ritual behaviour of an elite revealed in ever increasing scale and clarity. The prehistoric sequence which preceded the Anglo-Saxon cemetery is now concentrated within the Late Neolithic/Early Bronze Age – an episode of colonisation of new land in the 'Beaker period'.

The preliminary interpretation of Sutton Hoo's context has been greatly assisted by the work of John Newman (reported here), and by excavations in progress at Anglo-Saxon cemeteries in Ipswich and Snape. These are not yet ready for interim reports but have provided evidence of ranking and ritual which has gone far to enhance Sutton Hoo's special status.

Much work remains to be done. The validity of the research design relies on the mapping of a large area, currently due to be completed by 1992. In this anniversary year, the main research effort will be directed towards the excavation of Mound 7. The excavation of Mound 6 should follow in 1990 – 1. Preliminary planning is also underway for the long term curation and access of the monument after 1992, and we have taken a fresh look at the presentation policy in the light of modern heritage strategies.

In a year in which much has been achieved it is sad to have to inform readers of the death of Mr Robert Pretty to whom, and to whose family, Sutton Hoo owes so much. His was the initiative which set the present campaign in motion, and his unselfish and percipient actions, more than any others, have allowed the site to assume its rightful status as a precious source of public pleasure and scientific evidence for the character of an early English nation-state; a resource which is truly priceless.

Martin Carver

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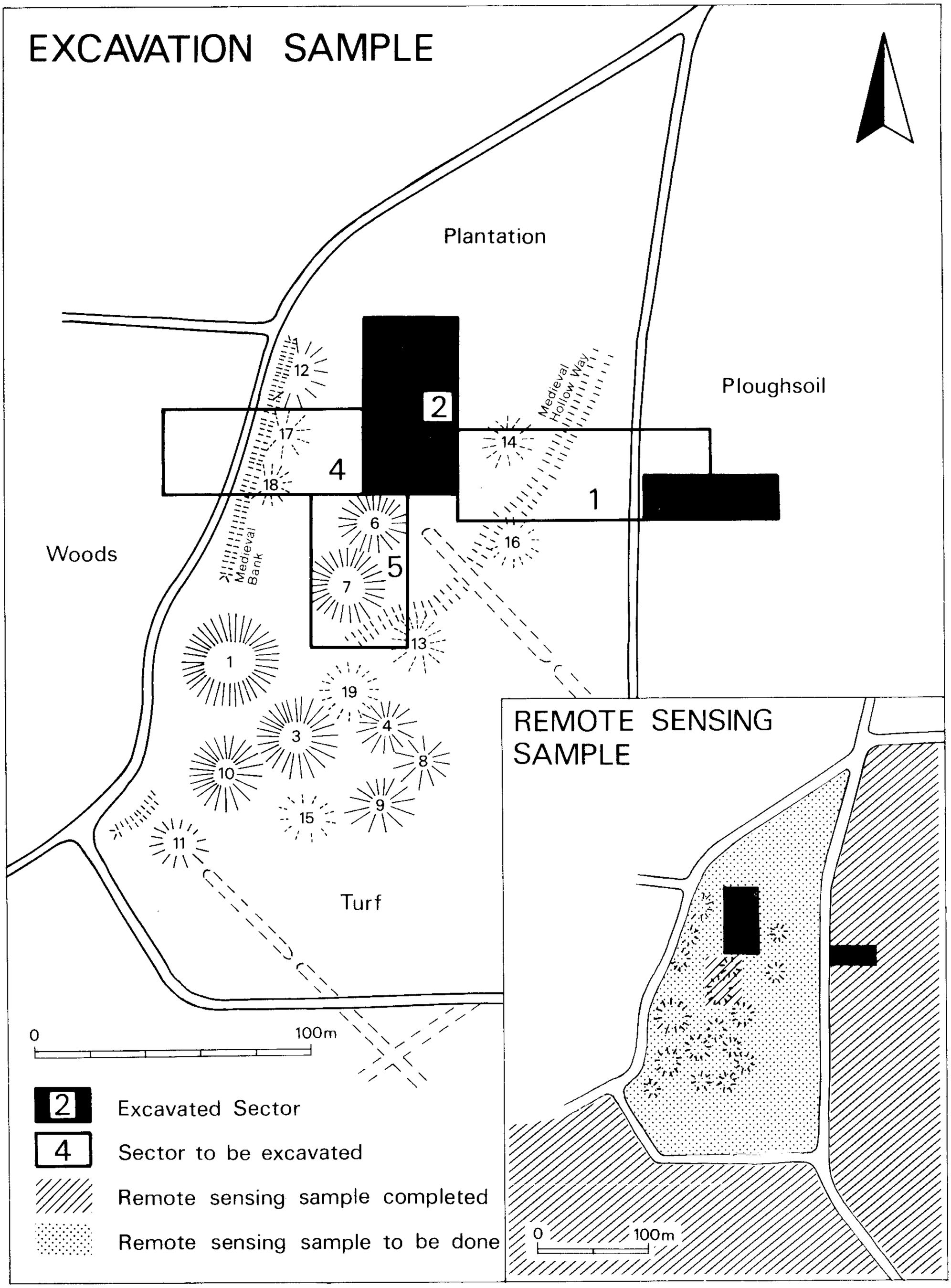

Fig. 1: Sutton Hoo: Excavations complete and in progress, 1989 (Royle).

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INT. 41 EARLY MEDIEVAL FEATURES

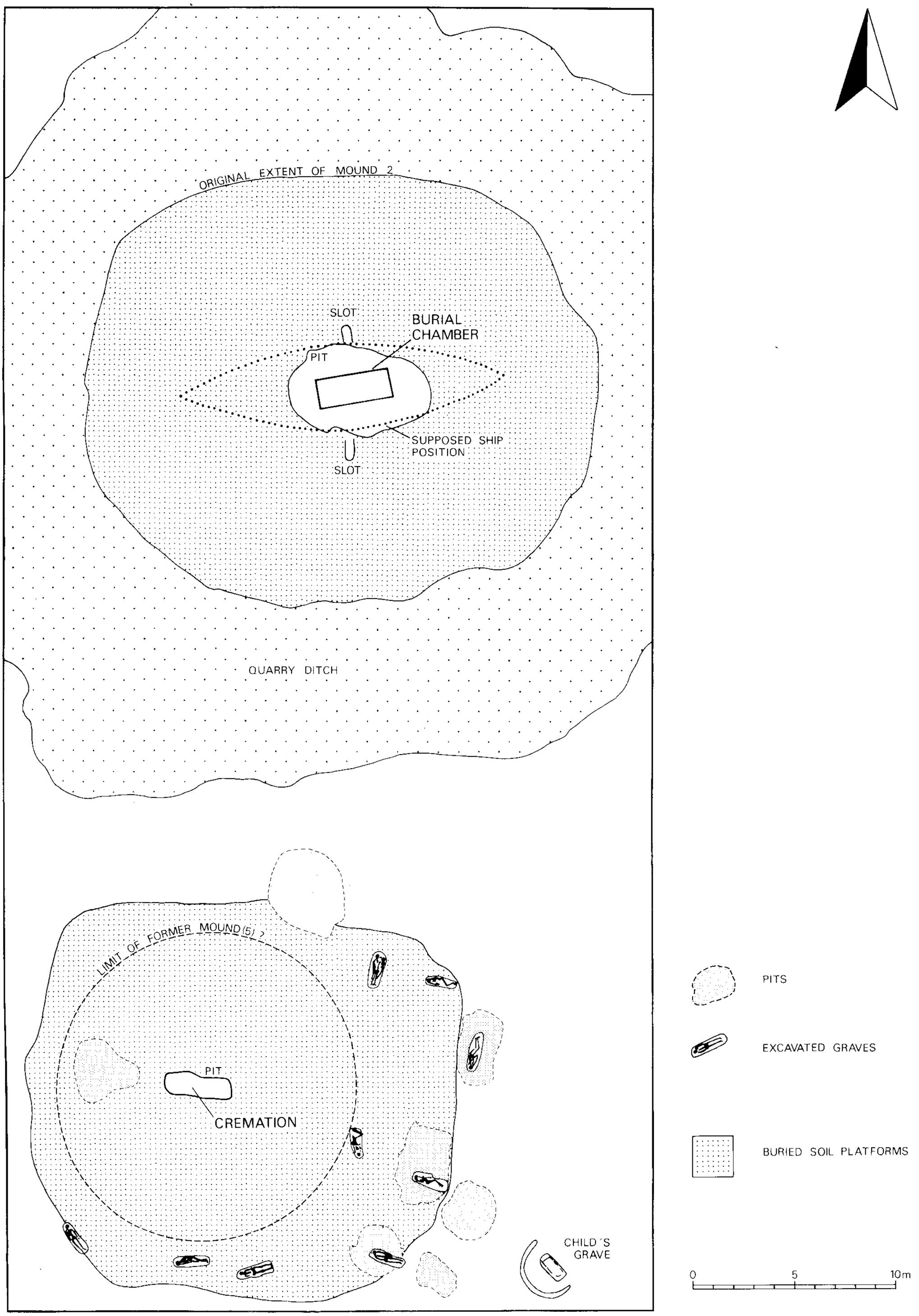


Fig. 2: Intervention 41: Early Medieval features (Royle).

ANGLO-SAXON DISCOVERIES AT SUTTON HOO, 1987-8

EXCAVATIONS IN INTERVENTION 41

Intervention 41, an area 32 x 64m on the northern end of the cruciform transect of the excavation sample, is the largest area to be opened on the scheduled monument at Sutton Hoo. This excavation was expected to reveal a wide range of Anglo-Saxon burial rite, developing over a long time span (Carver 1986, 41). The reality proved otherwise. Burial rite is as varied as ever, but the burials are sparsely distributed, close in date, and can probably all be attributed to the actions and signals of an elite class.

The discoveries fall into two parts: Mound 2 and its large quarry ditch to the north, Mound 5 and its attendant inhumations to the south. No cremations of Anglo-Saxon date were found in this large area, and an Anglo-Saxon cremation phase at Sutton Hoo seems increasingly unlikely.

MOUND 2

The sequence of activities on this much-visited and turbulent piece of ground has now been resolved in general, although detailed analyses are still underway. In the early 7th century AD a chamber grave 3.8 by 1.5m, and at least 2m deep was excavated and revetted with vertical, slightly overlapping timber planks. Some cross members would have been required to keep this rather elementary shoring in place, but no structural evidence for these could be distinguished in the thin layers (5 to 10mm deep) which survived on the chamber floor.

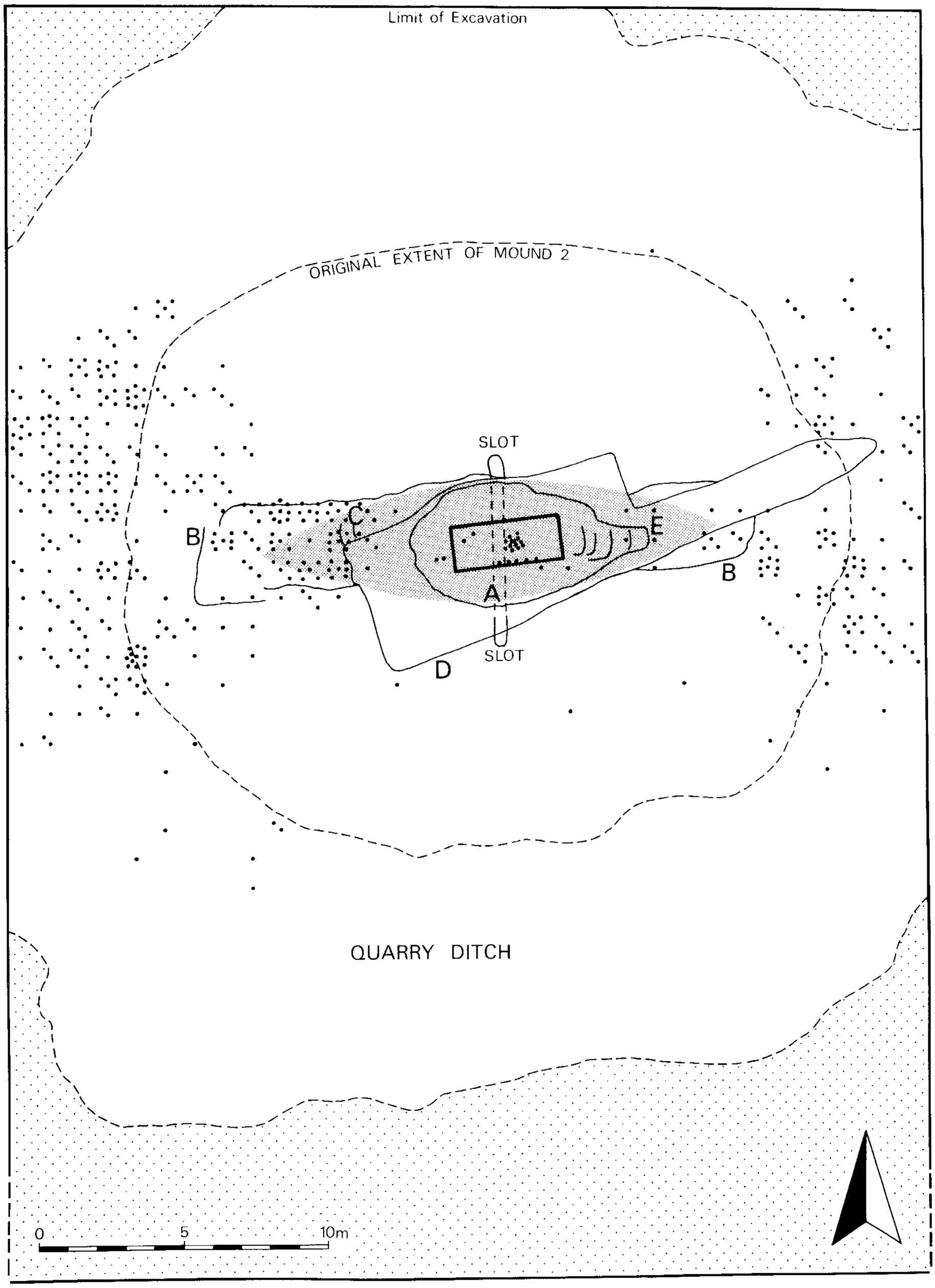
Thanks to chemical analysis of the natural sand beneath the chamber (p.21 Fig. 11), and the careful distinction of colour patterns left by robbed finds in the ultimate surviving tread layer, it has been possible to collate direct and circumstantial evidence for the burial. This suggests that the body lay head to west in a flexed position at the west end of the chamber, and his grave goods (it was a man) included a large iron-bound bucket with bronze fittings, a sword, shield, glass vessel, silver bound box and other items (see below, p.11).

This assemblage, in every way comparable with Mound 1, and close in date and status, was not laid in a boat, but in a chamber. A boat was however included in the funeral rites. Virtually nothing structural remained in situ, but the dispersed rivet assemblage allows us to postulate a vessel between 10 and 18m long, which was laid across the top of the chamber making in the subsoil an ovoid dent which persisted (A on Fig. 3). Two opposed slots running N – S suggest that a beam c. 40cm thick was employed to bear the weight of the boat amidships. It is not yet known for certain (and may never be) which way up the vessel was lying, although the ovoid dent favours pressure from the hull rather than the gunwales. The boat lies over the chamber rather in the manner proposed for an example from Haithabu (Müller-Wille, 1974).

On top of this ritual contrivance a large mound was heaped; at first comprising the upcast from the central pit, on top of which was piled loam and natural sand from a quarry ditch cut through the relict ploughland. The quarry ditch was wide and shallow, and rough 'causeways' were left in it to the north, south, west and possibly east. When the quarry ditch had been fully exploited, the mound stood about a metre high. Almost immediately it began to subside back into its quarry ditch, assisted by the action of rainwater. A second phase of construction swiftly followed. This time the workforce used only loamy sand (ie topsoil). Some turf was certainly included at this stage, but most loads seem to have been of ploughsoil. The final height reached is calculated at 3m or more.

The great weight of earth caused the collapse of the ship over the chamber, depositing rivetted strakes in the void beneath. The mound was then robbed, those undertaking the work following the extant rivet pattern and effectively disturbing them all (Fig. 3, B). The majority of the grave goods was removed, leaving only the dozen finds subsequently retrieved by Basil Brown in 1938, and some 140 scraps of gold, silver and bronze recovered from sieving in 1986-7. The robbers cut steps (C) leading down into the chamber from the west, and their trench must mark, if approximately, the original position of the ship. The evidence for dating this robbing is inconclusive. The fact that a body stain was detected in the natural sand suggests that the corpse had reached an advanced point in the decay trajectory. On the other hand, the unconventional posture of the body might suggest that it had been pushed aside while still articulated and decayed subsequently. It has been suggested that the rivet pattern may indicate that the boat had been dismembered (ie with an axe), although it is more likely that it had already decayed beyond the point of structural coherence. Further analysis is intended to attempt to resolve these issues.

The robbers left their excavation open to the weather, and backfilling followed at a later date. When Basil Brown entered the mound with a trench laid out ENE – WSW (Fig. 3, D), he too cut steps, this time on the eastern lip of the chamber (E). If the rivets which Basil Brown found were really attached to their strakes, they must have fallen down from above, and these together with the rain wash at the west end easily (and understandably) persuaded him that he was inside a small boat buried at a low level (Fig. 4). In reality the 'transom stern' of this 'boat' was the east wall of the burial chamber, the remaining walls of which lay only millimetres beyond Brown's limit of excavation.



- Ship Rivet / Rivet Fragment - plotted to the nearest metre

A Burial Chamber Pit - 7th cent. AD
B Robbers' Trench - ?
C Robbers' Steps
D Basil Brown's Trench - 1938
E Basil Brown's Steps

Burial Chamber

Supposed Ship Position

Fig. 3: Mound 2: burial chamber, robber trench, 1938 excavation and rivet plan (Royle).

MOUND 5

The evidence that there *was* a Mound 5 is strictly circumstantial; the soil platform so designated comprised only buried soil with no trace either of surface degradation, or of upcast piled upon it. No edge of a burial mound was detected, the edge of the buried soil platform being simply the limit of later ploughing. Nevertheless, this ploughing (Medieval) must have then respected an obstacle of some kind, and the locus offered is quite compatible with that of a collapsed mound c. 15m in diameter (Fig. 2). Within such a circle no graves have yet been found apart from one grave-shaped pit at the centre. This pit, located by Longworth and Kinnes in 1968 (Longworth and Kinnes, 1980) was the depository for a cremation which had been deliberately (and accurately) visited at least once in antiquity (Fig. 5). Grave goods had accompanied the cremation, including shears, textiles and playing pieces, allowing the possibility that the burial is that of a female (p.13 below).

Around the southern and eastern periphery of the mound-zone lay ten graves, set radially or tangentially; also six pits, with a possible seventh within the mound area. With one exception the graves contained sand-bodies of a now familiar type, including one double burial and three cases with marked distortion in the neck area suggesting broken necks or decapitation. The one exception was the grave of an infant lying in an oak coffin, with a spear head and belt buckle. This lay in the SE corner of INT. 41 and had at one time been covered by a miniature mound about 2.5m in diameter. The pits are exceedingly difficult to interpret. In four cases, a grave lay coincidentally across a pit, and in two of these it was possible to demonstrate stratigraphically that the grave was the later feature. One of these pits was found to have contained horns (not yet identified) – a deposit disturbed, of course, by the action of grave digging.

INT. 41 has offered us a fascinating preliminary image for the Sutton Hoo cemetery, one which deserves to be sharpened by careful analysis of the opaque stratigraphy. Mound-burial in three different sizes represents a man, possibly a woman, and an infant. The horn deposit recalls ritual behaviour discerned at Yeavering (Hope-Taylor, 1977), while the unfurnished graves and their disposition suggest fealty, if not sacrifice, connected with the occupant of Mound 5. The absence of any graves of intermediate rank further fuels the identification of Sutton Hoo as a separate burial ground, reserved for the elite.

INTERVENTION 44, MOUNDS 6 AND 7

The southern run of the N – S transect (INT. 44) forms the Sutton Hoo Research Trust's next research target in the current strategy. Excavation began in 1988 and will continue throughout 1989 and 90. The stripping of both mounds to Horizon 2 has suggested that Mound 6 has certainly been entered before, but the condition of Mound 7 remains unknown. Stray finds from burrowing rabbits include a gilt-bronze sword pyramid from Mound 6 and part of a large millefiori bead from Mound 7. These finds are consistent with the dynastic character of Sutton Hoo suggested by Mounds 1, 3 and 4 in the south and Mounds 2 and 5 to the north. Excavation of Mounds 6 and 7 will complete the sequence (Fig. 1).

Martin Carver

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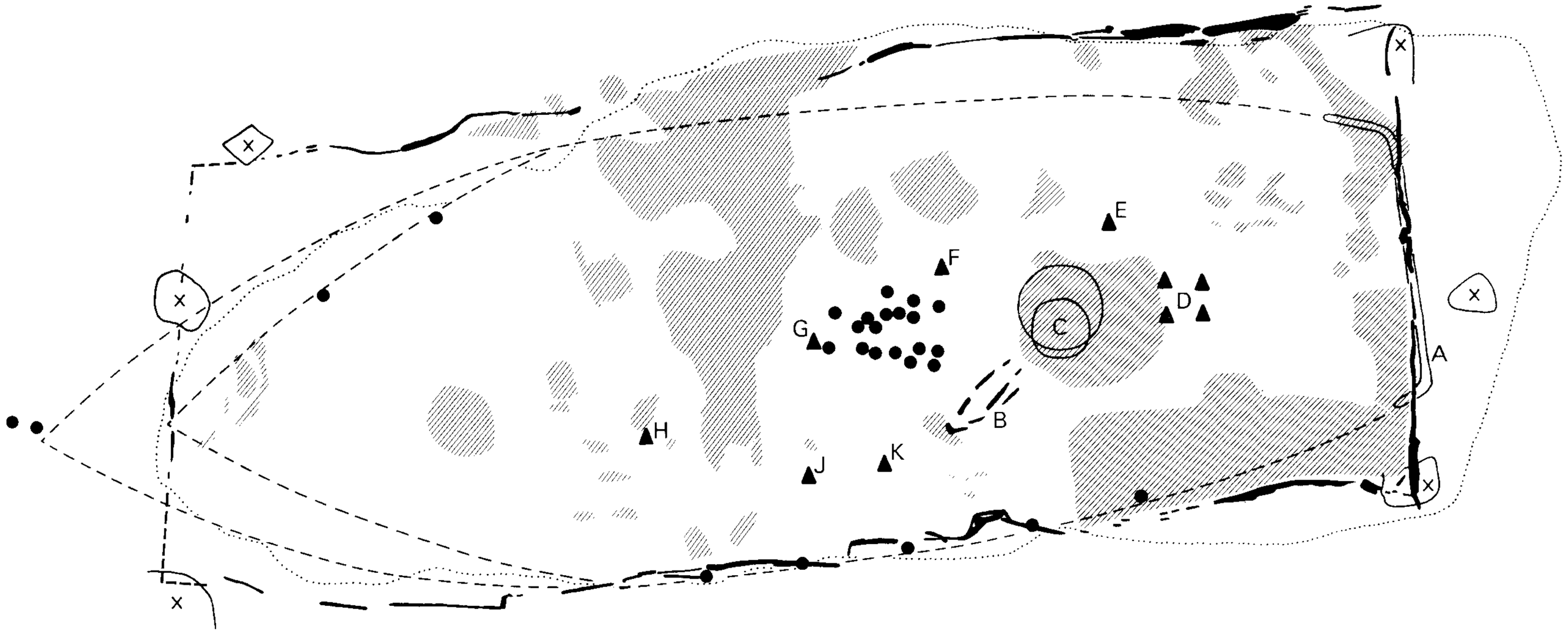
Grateful thanks to Ole Crumlin-Pedersen for useful discussion on site.

MOUND 2: THE SHIP

In his excavation diary for 14 July 1938 Basil Brown wrote: "as we excavate the pit grave there is a line of dark soil with an occasional ship rivet at the sides, so the deduction is that it has contained a small ship or a large boat, but these remains have certainly been subjected to disturbances other than those definitely due to rabbits." By 21 July the pit grave was defined as 'the ship' and Brown wrote "As the bottom of the ship approached interesting finds began to increase . . . many loose ship rivets and at the east end of the ship was an iron band marking the extremity of the vessel; by this, and the dark coloured sand at the sides and the size of the pit grave cut in the undisturbed hard yellow sand, it could be seen that the vessel was of comparatively small size and of similar build to the Snape ship and this was further confirmed by a few positional rivets, also the black of the bottom and its area could be well studied." On Tuesday, 26 July he wrote that he was "clearing along the bottom of the ship and sieving all. The bottom of the ship as seen by thin wood (or what was once this wood) appears to be flat, but this may be due to the pressure of the mound above and not its original form. There is no sign of a keel however." The next day, when he was approaching the limits of the pit he describes how "the black lines on each side of the pit are curving to bow shape – the pit itself is also following this form without any question, ie boat shaped." (Bruce-Mitford 1974, 149-152).

From Brown's excavation notes it is clear that he was convinced that the feature he was excavating beneath Mound 2 was a boat orientated with the prow to the west. It is also clear that he was very aware

BURIAL CHAMBER : MOUND 2



1938 EXCAVATION

1987 EXCAVATION

Reduced from 1938 sketch (scale and accuracy unreliable) to fit the boat-shaped pit re-excavated in 1987.

Basil Brown's boat

Ship rivets

A Iron band
B Sword and iron objects
C Iron circle of bucket
D Blue glass fragments
E Gilt bronze
F Bronze brooch
G Bronze ring
H Stud
J Bronze disk
K Bronze fragment

Line of burial chamber walls - decayed wood

Positions of possible timber uprights

Object stances

Basil Brown's boat-shaped pit

0 0.5 1m

Fig. 4: Mound 2 burial chamber, Basil Brown's boat and find spots (Royle).

of inconsistencies in the boat's appearance – for example the flat bottom which he explains in a logical way. Although the boat was atypical in that it apparently had a transom stern and no convincing *in situ* strake rivets, his interpretation of the feature as the remains of a boat was initially not questioned. But eventually the shape and construction were challenged: maritime archaeologists could not accept a transom stern on an Early Medieval boat. It was generally accepted that the boat would originally have been double ended and that the other end was either cut off, or still lay buried beneath the eastern flank of the mound.

In 1984 work began on excavating Basil Brown's backfilled 'boat' pit with two principal objectives: the first to examine the composition of the mound from inside without actually destroying any of its undisturbed structure, and second to redefine and interpret the boatlike shape that Brown encountered in 1938. The project eventually presented us with a devastating series of problems.

The boat-like shape excavated by Basil Brown did not resolve itself more clearly but remained obstinately of the form indicated by Brown and his photographic record. Its interpretation as a destroyed boat was complicated by the chance recovery in the deep east-facing section of the modern excavation of a boat-like transverse profile at what seemed to be an absurdly high level. This combined a shallow U-shaped cross-section with a dark projection that closely resembled a smaller version of the shadowy keel or end-posts of the ship in Mound 1. This soil profile and the remainder of the dark edges of Brown's boat-shaped pit proved on excavation to be no more than a few mm thick; beneath lay the chamber grave which formed the focus of the Mound 2 burial (see above).

While the feature within the section was just capable of sustaining a nautical interpretation, its siting on the edge of, and towards the top of the pit that was supposed to have contained the boat, was immediately suspect in the accepted terms of a model based on the Sutton Hoo Mound 1 or Snape ship burial prototypes. However by 1987 the total excavation of Mound 2 had demonstrated that there simply was no ship-trench cut into the buried soil beneath the mound, and the Mound 1 practice had not been followed here. Yet nearly 500 ship's rivets had been recovered in two areas of spoil to the east and to the west of the burial pit (Fig. 3). The 'boat' section together with the rivet spread consequently assumed a new significance – that of a ship, or part of a ship, placed over a strongly-built wooden burial chamber (see above).

Because the ship had been completely disturbed during robbing, the character and dispersal of the rivets provide the principal clues to its architecture. Of the 466 rivets and pieces of rivet, the complete examples number 107, and these are almost indistinguishable in size from the strake rivets of both the Sutton Hoo Mound 1 and the Snape 1 burial ships. The wood-grain preserved by the corroding iron shows that the planking was broadly of equivalent weight to that in these two ships, and the most common plank thickness at the strake overlap was 20mm. The very few gunwale spikes (6 confirmed examples) and rib-bolts (3) are also indistinguishable from the Mound 1 examples. Of the 466 strake rivets, 241 preserve the relationship of the rove to the shank and of these 155 show the rove angled over the shank. Such rivets are found on the garboard strake high in the bow or stern (Evans and Bruce-Mitford 1975, 390) where the end-posts develop a characteristic V-shape cross-section that inevitably leads to the angling of the roves of the lower garboard rivets (ibid., Fig. 290). This high percentage of garboard strake/end-post rivets suggest that the sample, small though it is (just 23% of the number of rivets found *in situ* in Mound 1 for example) came from the ends of a ship.

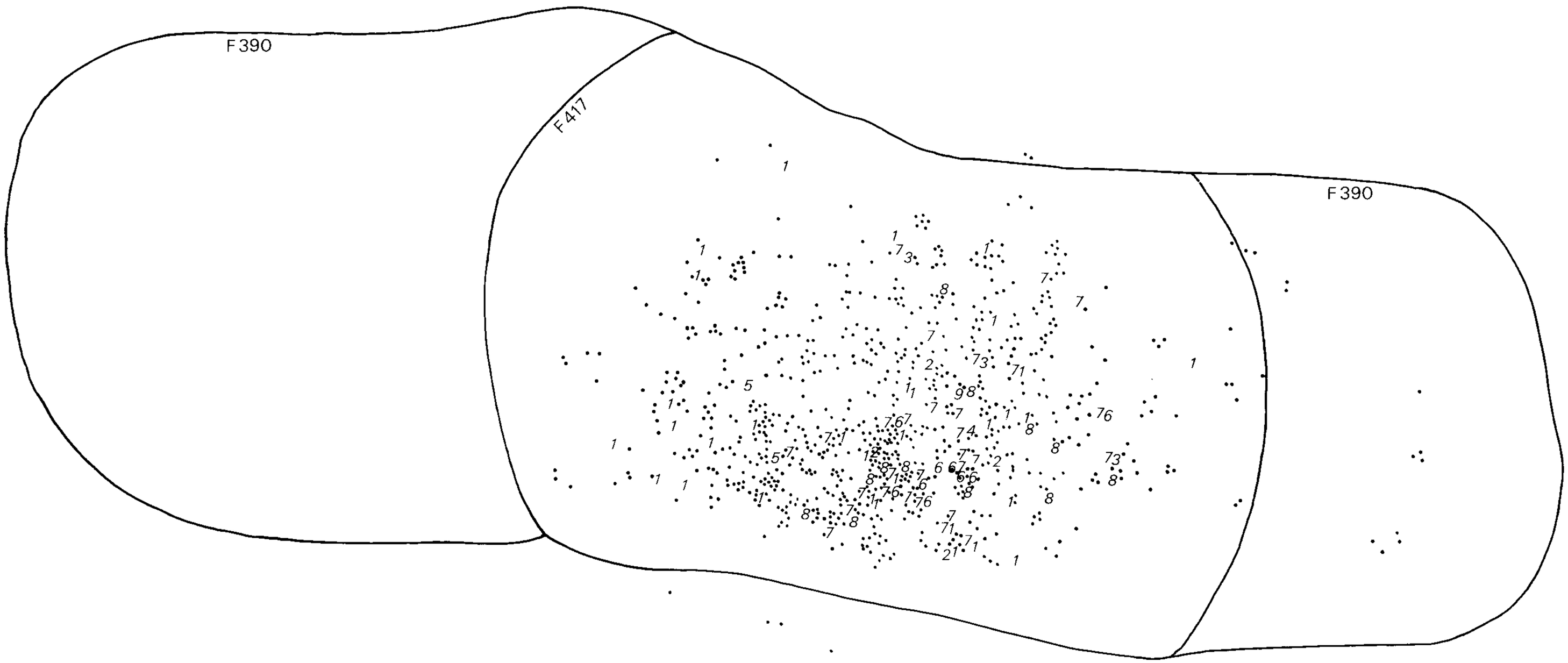
A preliminary attempt at a model for the construction and burial of this Mound 2 ship can be made on the basis of the information we have from the 1938, 1939 and 1986-7 excavations.

In Mound 1, the total complement of rivets suggested by the reconstructed plan is 1980 in 110 rows along the keel (27.25m) and 1116 in the narrower configurations at the sides and stern (a further 13m each along the curve). Each side had 9 strakes. Rivets with angled roves, attributed to those joins of strakes with stem and stern posts, number about 72 per end, or 144 in all.

From these figures it can be deduced that the figure of 155 rivets with angled roves recovered from Mound 2 is not just a high proportion of the hypothetical total – it is around the whole complement required for a ship with a high rising stem and stern, with at least 9 strakes a side. The high proportion of angled-rove survival also implies that it is the central hull which has been most, and the ship-ends which have been the least, dispersed by the robbing operation. We have no direct clues for the length of the ship along the keel; but given the prominent character supposed for stem and stern, it can hardly have been less than 10-12m. When the 1986 excavation began, we were alive to the possibility of there being a vessel within or beneath the make-up of Mound 2, this being the configuration suggested after the 1984 exploratory excavations (Carver 1986, Fig. 29). However at no time did excavators observe any regularity in the rivet positions, either of attitude or spacing; nor has any since been detected. The 'robber trench' (see Fig. 3) is unnecessarily large and long to achieve the penetration of the chamber. The most plausible explanation is that it equates with the original position of the ship, the rivets of which were sought out and dispersed by the robbers. The oval hole which persisted in buried soil above the chamber grave lends additional credence to the model: this ovoid depression is the result of pressure from the hull. The distur-

SUTTON HOO INT. 41

MOUND 5 CENTRAL CREMATION



- CREMATED BONE FRAGMENTS

1 BRONZE BOWL FRAGMENTS
2 SILVER CUP - RIM
3 DECORATED BONE COMB
4 IVORY ?LYRE ATTACHMENT
5 KNIFE IN SHEATH
6 METAL SHEARS
7 TEXTILE
8 BONE GAMING - PIECES
9 FUSED GLASS

0 5m

Fig. 5: Mound 5: central cremation (Royle).

bance of the ship most probably happened after the wood had decayed; neither the rivet dispersal pattern nor the low proportion of straight rivets suggests the removal of whole timbers. If the ship had already suffered structural collapse (see above), a higher proportion of the hull rivets would have ended within the void of the burial chamber, to be removed with the grave goods which are also conspicuously absent.

This model allows for a ship some 20m long with 9 strakes each side placed over the burial chamber. A similar rite was employed in the 9th century burial at Haithabu (Müller-Wille 1974, Abb. 13). On this model some 900 rivets are missing, and the possibility must again be considered that these are the "2 bushels of iron screw-bolts" removed during an excavation in 1860 (Carver 1986, 7).

Martin Carver and Angela Evans

FINDS FROM MOUND 2 AND MOUND 5

MOUND 2

In 1938 Basil Brown's excavation of the ransacked burial in Mound 2 recovered very few finds, but these all pointed to a male burial of exceptionally high status. Amongst them were the tip of a pattern welded sword blade within a scabbard and two gilded copper-alloy fittings from the front of a shield board – a stylised dragon's head with gaping jaws and a cast disc decorated with an intricately balanced but asymmetric design of eight animals that interlace in two groups of four. A small gilded stud, some sherds from a squat blue glass jar, a single triangular silver-gilt mount from the mouth of a drinking-horn, as well as fragments of a tub and a bucket, both built of yew-wood staves and bound with iron, were also found (Bruce-Mitford 1975: chapter 2). All the finds, with the exception of the remains of the blue glass jar, have obvious parallels with those in the 1939 ship-burial (Mound 1) and with other contemporary high-status graves (e.g. Taplow and Broomfield: British Museum Publication, forthcoming).

The current excavations have augmented this group of finds with fragments of equally interesting and varied possessions. In one of Basil Brown's spoil heaps, a second gilded copper alloy disc from the shield was found. It survived in excellent condition and retained its large dome-headed central rivet and thin washer. The disc is in effect the decorative collar of a functional rivet that originally pierced the shield-board. No trace of the board has yet been recognised but fragments may be trapped in the mass of corroded iron and organic concretion found on the burial chamber floor (below). Also loose in Brown's upcast was a straight length of delicate silver strip, with tiny silver nails still attached to it. This strip was associated with pieces of silver sheet and one fragment survives still nailed to a piece of silky wood. The silver may thus be the decorative binding and facings of a box. The strip, although plain rather than swaged, resembles silver fittings found on the Taplow burial. More immediately impressive is a heavily gilded silver terminal in the form of a stylised bird's head with a strongly curling beak. This is the terminal of a drinking horn and is indistinguishable from one of the bird-headed terminals found in the Mound 1 ship-burial. Like the silver-gilt foil mount found by Basil Brown in 1938, it must have been made in the same workshop. Short lengths of curved silver rim bindings show that the burial in Mound 2 was also furnished with richly mounted wooden containers and some scraps of silver foil may be the remains of their decorative panels. One or two fragments of tightly curved silver strip may be the rim mounts of small containers similar in size to the walnut burr-wood 'cups' from Mound 1. No trace of the wood belonging to any of these vessels remains associated with the silver mounts, but like the shield board, fragments may be recognised amongst the concreted organic remains from the chamber floor.

From the bottom of the burial chamber came over 200 fragments of visually unintelligible pieces of iron concretion that must have been formed by the corrosion of substantial quantities of iron. Some are large, shapeless lumps of concreted sand, but many are smooth on their lower surfaces as though they had formed directly in contact with something other than the floor of the chamber. Whatever the surface they formed against, it cannot have been either sand or textile as the migrating iron oxides would have enclosed both within corrosion products. The iron pieces contain a complex mass of mineralised organic material: both scraps of textile and slivers of wood which remain to be analysed. Nothing comparable was found in the Mound 1 ship-burial and their structure is puzzling.

On the burial chamber floor, stain patterns suggest the positions of other objects (see p.5 above). Curious swirling lines may be the only evidence of an iron suspension chain that would have supported a copper-alloy cauldron which survived only as fragments found in the backfill of earlier disturbance.

Perhaps the most tantalising finds are the fragments of ship's rivets that were found concentrated in two areas of upcast from the burial chamber, east and west of the robber pit. These rivets apparently represent all that is now left of a clinker-built boat – or part of a boat – that was placed over the burial chamber (p.5 above).

INT. 41 PRE-BARROW CULTIVATION MARKS

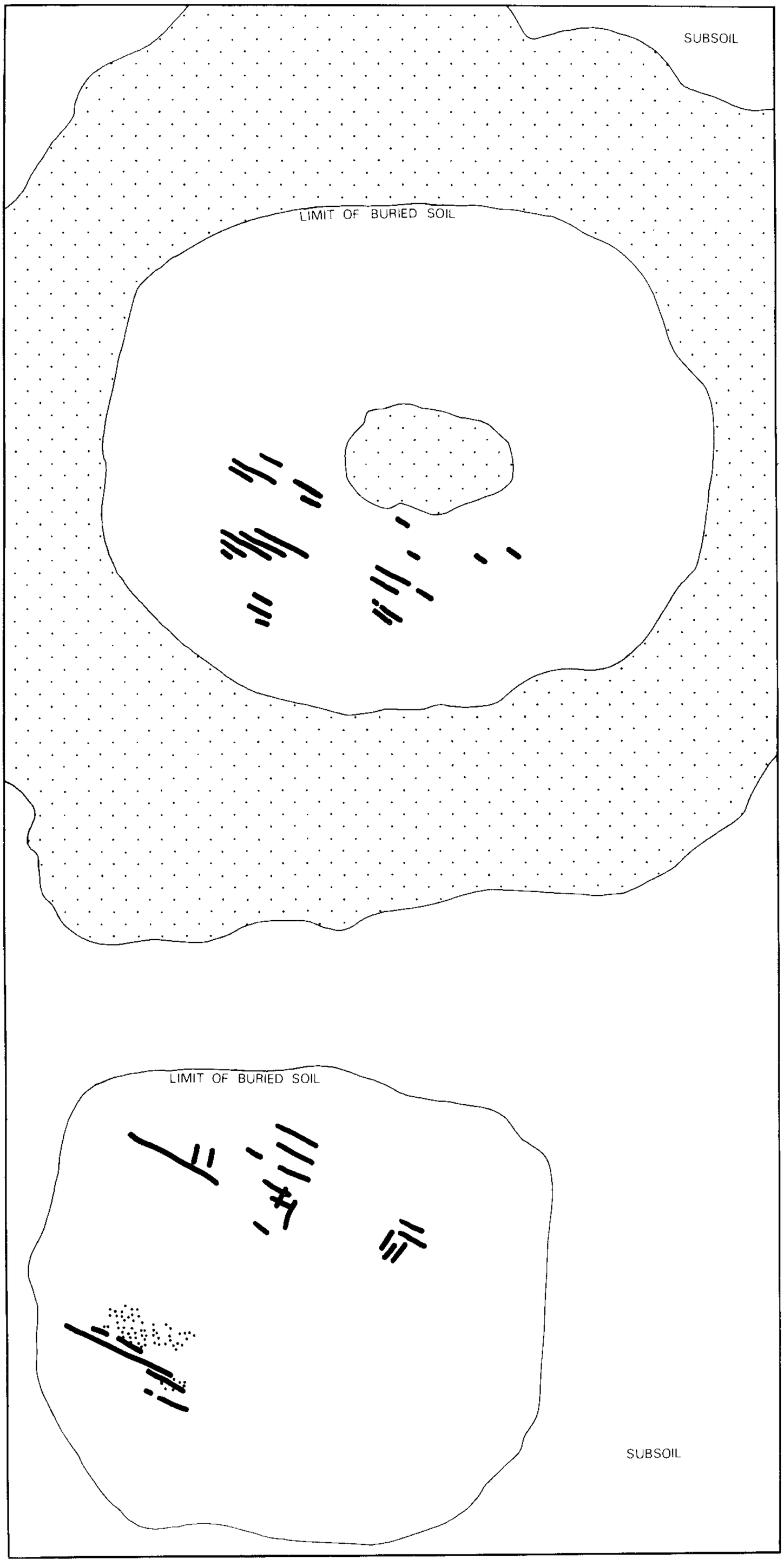


Fig. 6: Int. 41: cultivation marks (Royle).

Although the finds from the re-excavation of Mound 2 are few and fragmentary, they contribute new information which broadens our knowledge of the style of the burial within it. The combination of a sword, a richly ornamented shield, a drinking horn and cups with silver-gilt fittings, small silver mounted containers, mineralised textile, an iron-bound tub and bucket, together with ship rivets and perhaps a cauldron and chain, is one that is immediately familiar from Mound 1. It must suggest that the Mound 2 burial, though robbed of its richest contents, stands in fair comparison to Mound 1. Structurally, the burial is far more complex, and it must be the grave of an immediate member of the East Anglian ruling dynasty.

MOUND 5

During the summer of 1988 the remains of a cremation were excavated in a wrecked burial pit at the centre of Mound 5 (Fig. 5). The grave had been so comprehensively robbed that no evidence for its original structure survived. It is thought that the cremated bone was originally placed in a copper-alloy bowl, but most of it was found in disorganised heaps on the disturbed natural sand at the bottom of the grave. Some was found trampled and scattered by burrowing rabbits who favoured the soft sand of the backfill. The mound had been plundered twice, if not three times, and the thoroughness and accuracy with which it was done betrays a knowledge of the burial location.

Despite the destruction, the surviving finds suggest that the grave may originally have held the cremated remains of a girl or woman, whose possessions reflected her status. The bone survived in various ways and only in very small fragments: some were clearly calcined, other fragments, presumably away from the main strength of the funeral pyre, showed little sign of burning – both are results typical of an Anglo-Saxon cremation. More curious was bone that survived within a sandy lump – a mechanism that must reflect the partial development of sand bodies. Within the sandy carapace was a clean blue-white band of calcined bone that enclosed a dense blue-black apparently carbonised layer. The centre of the lumps was invariably a void. Analysis of these sandy lumps may account for their curious structure but a possible interpretation is that they are somehow a development from bone that was thoroughly carbonised during cremation.

The ruined burial contained many fragments of thin copper alloy sheet, many are tiny and less than 2mm across, but others are large enough to show a curve, or to show that the part of the object they came from was basically flat. The metal is too thin to be from a hanging-bowl and the occasional rim fragment together with the very few diagnostic body pieces suggest a shallow flat bottomed bowl with a simple rim (cf. Bradfield School, Broadstairs, grave 0). The bowl was probably the container for the cremated bone and may have been placed on a cloth as several of the fragments have patches of a coarse open-weaved textile still adhering to them. The bowl was probably also covered with cloth, as pieces of a fine flax tabby were found associated with some of the larger copper-alloy fragments.

The dead person had been buried with an interesting range of possessions. Some were clearly included in the cremation fire, like the small lidded gaming pieces. Each of these was made from a tubular length of bone cut from the joint end and capped with a tiny bevelled disc. The lids were glued or wedged in position unlike e.g. the Taplow gaming pieces which were held together with thin copper-alloy rivets. Other possessions that were not obviously burnt were a small pair of iron shears and the blade of a small knife whose stitched leather scabbard was preserved within the corroded iron. At least one small container with a silver rim fitting held to the wooden body by delicate swaged silver clips was placed in the grave. Fragments of the container were found still attached to the metal so that it will be possible to identify the wood used by the Anglo-Saxon craftsman.

Half of a small composite bone comb with carefully executed dot and circle decoration and fastened by copper-alloy rivets survived unburnt, as did an exceptional find of ivory. Only a small piece of the original object was found – a straight sided slab broken off at an opening that may have been a thumb slot. At the unbroken end is a small, highly stylised relief head. It resembles the end of a child's pencil-box and may, in fact, be part of the lid of a narrow box. Nothing quite like it is known from late 6th/early 7th century contexts, but long narrow boxes, often carved in high relief, are known from the late Anglo-Saxon period. These were used for holding quill pens (e.g. BM MLA 70,5-11,1).

Amongst the bone debris were many tiny pieces of mineralised textile of several different weights. The fragments suggest that the burial originally contained not only a considerable quantity of material (cf 27 different textiles from Mound 1) but also a large amount of metal to mineralise them. One tiny find, no bigger than a large grain of sand, may be a chip off a burnt garnet, but of the dead person's finer possessions nothing remains. Amongst the several hundred fragments of bone, which ranged in size from tiny splinters to degraded, possibly unfused, epitheses, was one exceptionally well preserved piece of animal bone, provisionally identified as part of the femur of a dog.

Although so little remains of the overall assemblage, it is clear that the grave was furnished with possessions appropriate to a person of high status. Like Mounds 1, 2 and 3, some of the finds are atypical, like the piece of ivory, and the burial must have been remarkable, probably containing pieces of jewellery appropriate to the dead person's rank. The quality of the surviving finds also reflects the excep-

INT. 41 PREHISTORIC FEATURES

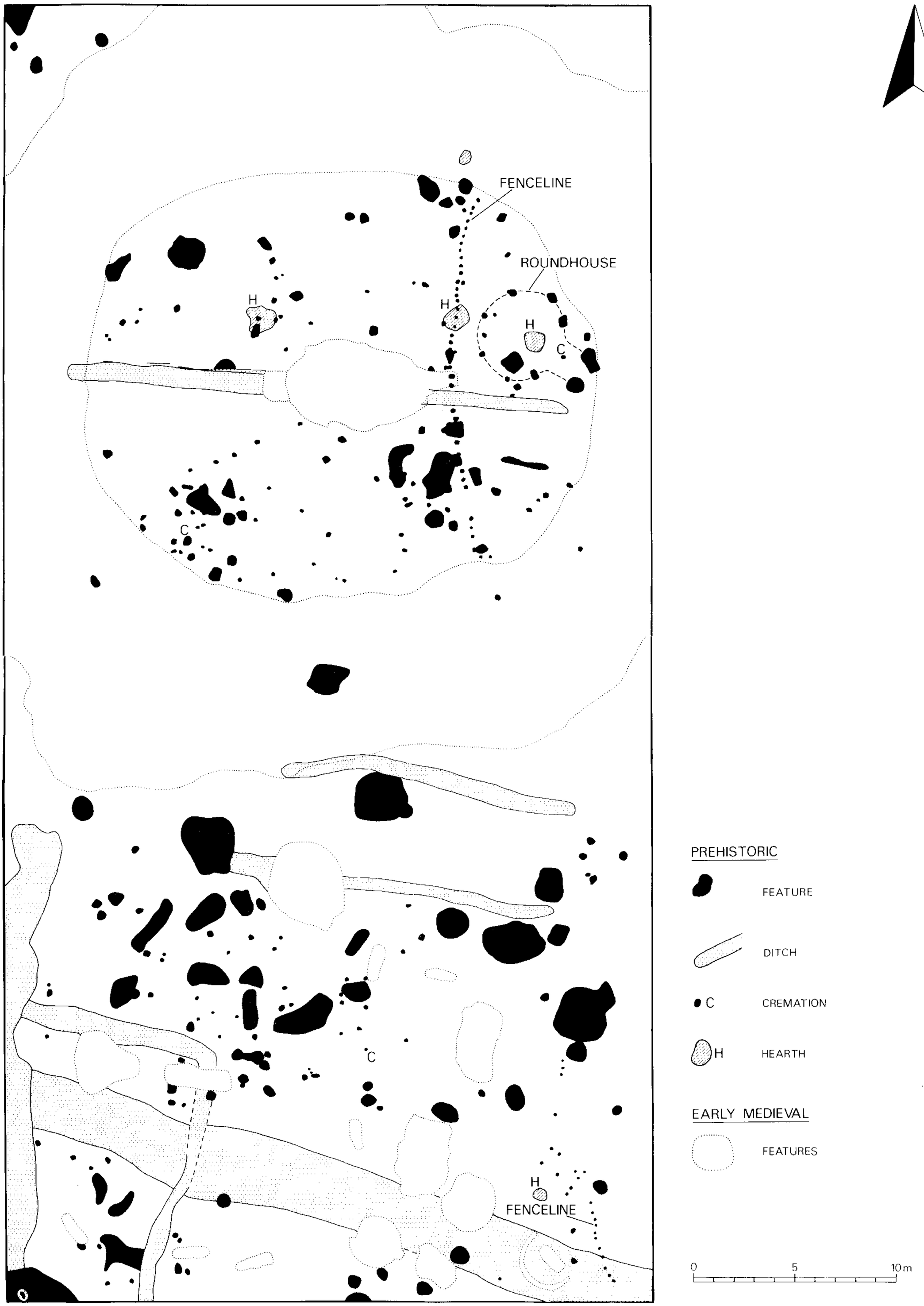


Fig. 7: Int. 41: Prehistoric features (Royle).

tionally high standard of workmanship that is typical of finds from the gravefield as a whole and their rather small size, together with the size and condition of some of the bones, may indicate that the occupant of the grave was immature. It is frustrating that so little was left in Mound 5 for 20th century archaeologists to recover, but we are fortunate that enough material survived to reconstruct a tentative picture of the burial.

Angela Evans

THE PREHISTORIC SETTLEMENT (INT. 41)

Traces of prehistoric settlement at Sutton Hoo survived principally on two islands of buried soil beneath Mound 2 and Mound 5. Beneath Mound 2 the buried soil covered an area of 380m^2 and survived to a maximum depth of 0.40m. Within the buried soil three separate archaeological horizons were detectable (Horizons 4–6). On the surface of Horizon 5, a set of shallow grooves could be seen running in a NW–SE direction. These were either ploughmarks or cultivation trenches of some kind. Each feature varied in length from 0.60–8.00m, although the larger 'ploughmarks' were not continuous but made up of interrupted lengths. The marks ran generally parallel to one another, and were confined to the SW side of the buried soil plateau (Fig. 6).

A similar and deep spread of buried soil made up the very low 'Mound 5'. The buried soil plateau was subcircular in shape with a diameter of 19m, and covered an area of 206m^2. The composition, colour and structure of the buried soil here was similar to that beneath Mound 2, and again there were three distinct horizons within it. Another set of cultivation marks were defined (at Horizon 5), but these were generally narrower than the Mound 2 examples. They varied from 0.30–5.00m in length and ran in both a NW–SE and NE–SW direction. A dense array of circular patches (each c.10cm across) offered an additional and unusual sign of cultivation (perhaps of a root crop) in the prehistoric buried soil. The areas of buried soil beneath Mounds 2 and 5 had not survived complete. Through the excavations for Anglo-Saxon burials, and those carried out by Basil Brown in 1938 (Bruce-Mitford 1974, Bruce-Mitford 1975) and in 1970 by the British Museum (Longworth and Kinnes 1980), it can be estimated that 33m^2 and 76m^2 had been removed from the buried soil of Mounds 2 and 5 respectively.

A combined total of 15,000 finds has been recovered from the buried soil, at level D (ie plotted to nearest centimetre). These finds are of prehistoric date with a bias towards the Late Neolithic/Early Bronze Age. The finds consist of abraded ceramic sherds, a mixed flint assemblage and a scatter of burnt flint fragments, the greater proportion being calcined. Hazelnut shells and soil pollen samples complete the preliminary assemblage.

Apart from the Early Medieval graves and pits scattered around the south side of Intervention 41, the majority of the other features defined on the surface of the subsoil are thought to belong to the prehistoric phase (Fig. 7). The range of features includes postholes, pits and ditches, and two posthole patterns have been recognised: *fences* given by a series of adjacent stake holes, and a *roundhouse* with hearth (see below). The ditches and fences form a distinct and regular pattern throughout the intervention. They are aligned either approximately east-west, or more rarely north-south. The latter alignment is repeated by the excavated fenceline which also runs in a slight arc N–S (Fig. 7). The postholes of the fence are quite regular at 0.2m diameter and 0.15m deep, with a spacing of 0.40m. The evidence for large scale land division is echoed in the field system defined from aerial photographs (Fig. 8). The major elements defining the field system also follow a generally similar N–S and E–W alignment to the defined features of the excavation.

Just north and east of where the fenceline reaches its maximum westward arc a roundhouse has been excavated. The roundhouse is defined by a subcircular setting of posts with an internal area approximately 4m in diameter (Fig. 7). At the SE corner two larger postholes (one unfortunately disturbed by a deep animal burrow) mark the position of an entrance porch. Immediately inside the porch and continuing the subcircular line of postholes was a deposit of cremated bone. Within the roundhouse a central hearth offset slightly to the east was composed of burnt sand and calcined flint. It had been first discovered by Brown in 1938.

Both the roundhouse and the fenceline are thought to belong to the Late Neolithic/Early Bronze Age (ie the 'Beaker period'). At Sutton Hoo the artifactual evidence for occupation at this time is widespread. The settlement would appear to be generally of a domestic nature, involved with land management. It was demonstrated by continuing site evaluation, that if the structures had not been sealed beneath the Anglo-Saxon burial mounds, they would not have been detected (see below, p.25). Few sites in the British Isles have produced convincing evidence for structures of a domestic nature at this time (Simpson 1971, Bamford 1982, Healy 1984). The evidence for dwellings is limited to a range of circular or subcircular settings of posts and gullies. Probably the closest parallel to the Late Neolithic/Early Bronze Age round-house from INT. 41 is the earliest of the two Beaker houses from Gwithian, Cornwall (Megaw 1976).

Andrew Copp

SUTTON HOO 1988
PREHISTORIC BOUNDARY SYSTEMS

Fig. 8: Prehistoric boundary systems from aerial photography (Royle, after Cambridge Committee for Aerial Photography)

EAST ANGLIAN KINGDOM SURVEY – FINAL INTERIM REPORT ON THE SOUTH EAST SUFFOLK PILOT FIELD SURVEY

After five seasons of fieldwork between 1983 and 1988 in south-east Suffolk, the first stage of the 'Area Survey' as envisaged at the beginning of the project has been completed (Carver 1983, 7 and Wade and West 1983, 18). Of the 216 km^2 survey area centred on Woodbridge outlined in the subsequent research design (Wade 1986, 29) 134 km^2 has been covered between Rendlesham in the north-east corner, Clopton in the north-west, Kesgrave in the south-west and Shottisham in the south-east. Within this 134 km^2 nearly 5,500 hectares of arable land has been fieldwalked in twenty metre transects. The only sites examined in more detailed gridded surface collections being Early and Middle Saxon pottery scatters and the complex of prehistoric scatters between Sutton Hoo and Ferry Cliff. This 5,500 hectares may only represent 41% of the 134 km^2 covered but it does represent a much higher percentage of available arable land, areas such as the larger towns and villages of Woodbridge, Kesgrave, Martlesham and Melton making large areas inaccessible for fieldwork. Once these built-up areas are removed from the calculations the 5,500 hectares probably represents around 90% of the arable land potentially available for fieldwork. For this high degree of access the survey is indebted to the numerous landowners and tenants who allowed fieldwork to take place.

The successful completion of this first stage of the area survey in the field has been indicated by the discovery of sites in predicted spots during the last year and a half of fieldwork; an example of such a site being the scatter of Middle and Late Saxon pottery sherds near Bucklesham church. The close relationship between parish churches and 7th/8th century settlements being very marked throughout the survey area. It has therefore proved unnecessary to cover the full 216 km^2 of the survey area and the present winter of 1988/9 can be given over to a period of writing up and evaluating the settlement patterns revealed so far. This can also demonstrate how a flexible approach within the research design can be used to advantage, once a particular area starts yielding repetitive survey discoveries it is time to move on to a new level of research that will give more interesting and worthwhile results. This flexible approach has also been used within the local government framework in which the survey is operating, in that watching briefs on new developments may give insights into normally inaccessible areas or give more information on known sites. Examples of such work include the Early Anglo-Saxon sunken featured building and inhumation within a small ring ditch excavated in advance of quarrying on the edge of the Roman town near Wickham Market (Plouviez 1987, 237); and the scatters of Iron Age, Romano-British, Late Saxon and Medieval pottery currently being examined in conjunction with a metal detector survey on a golf course being constructed on the Ufford/Melton parish boundary. The importance of this latter watching brief being enhanced by the nineteenth century discovery of an Early Anglo-Saxon brooch in Ufford Park which partly coincides with the northern end of the golf course. To date no new Early Saxon finds have been made in this area. A concerted effort has also been made over the last ten years to record as many metalwork finds as possible made by the local detector club. In this part of the survey many members of the Ipswich Club have been very co-operative, as have various other detector users in the area. A large amount of information has now been collected and this must be seen against a continual and inevitable process of site destruction through ploughing, sub-soiling, soil erosion and development. The new Early Anglo-Saxon metalwork finds shown on Figure 9 give some idea of the importance of such work and the large number of new potential Pagan cemeteries – if the traditional equation of certain types of metal object equalling burial site is adhered to. Many of these metalwork finds may indicate burials but it should be remembered that some may be from settlement sites and some could be stray losses. As indicated previously (Newman 1988, 10) metalwork finds are also invaluable for differentiating Iron Age and Early Anglo-Saxon pottery scatters and for identifying sites with 5th century use.

Since the last interim report was written in 1986 fieldwork has been aimed at linking up the areas covered in previous winters. Of the 134 km^2 covered some 93 km^2, or 69%, is made up of light sand and gravel derived soils with the remainder being on boulder clay deposits in the north-east corner of the survey area. As might be expected the great majority of worked flints found have been on the lighter Sandling soils, the use of the boulder clay plateau in the Neolithic and Bronze Age being very sporadic. However, by the Iron Age it is obvious that the more attractive areas of the clayland were being heavily exploited with penetration and settlement spreading up all of the small river valleys from the already well populated Sandling area. The only areas that seem to have been left as forest through this period being the heavier and less attractive clayland, with the parishes of Boulge and Debach falling into this category within the survey area. Throughout the following Romano-British period this process of settlement and population growth continued well into the 4th century with the previously noted site density of one per square kilometre on the boulder clay and one every two square kilometres on the sand and gravels (Fig. 10c).

By comparing Figures 10c and 10d it can be seen how the population level within the area dropped dramatically in the late 4th and 5th centuries. Most of the Romano-British sites known produce coinage indicating occupation into the second or third quarter of the 4th century whilst the number of sites with 5th century material in the Deben Valley now stands at four. Of these 5th century finds one is the well

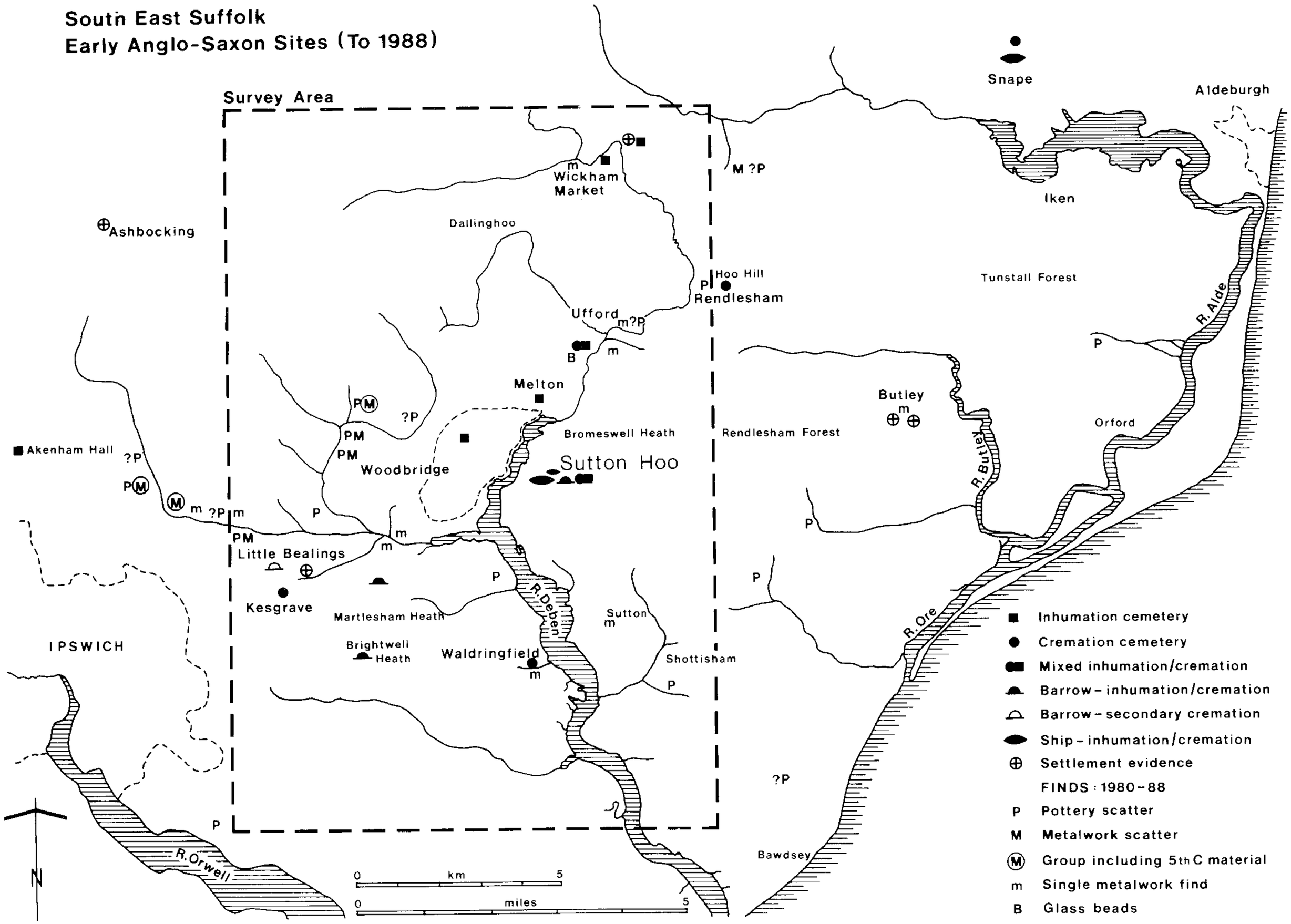


Fig. 9: Early Anglo-Saxon sites in S.E. Suffolk (Newman).

known urn from Waldringfield churchyard and the other three are new brooch finds from the Fynn valley and its tributaries to the west of Woodbridge. Fieldwork has been successful in discovering scatters of Early Anglo-Saxon pottery at Rendlesham in 1982 prior to the start of this new Sutton Hoo Research Programme and in Capel St Andrew, Hasketon, Martlesham, Playford, Shottisham, Sudbourne and Tuddenham St Martin parishes since 1983. Most of these sites lie within the survey area with the remainder found during other fieldwork carried out in south-east Suffolk. The distribution of Early Anglo-Saxon sites shown in Figure 9 uses a plot of known sites and finds from Carver 1983, 10, plus pottery scatters and metalwork finds from the last ten years. This settlement pattern emphasises the riverine bias of sites, and the close association of domestic settlements and potential Early Anglo-Saxon cemeteries already noted by Vierck (Vierck in Rahtz et al ed. 1980) and by West in the Lark Valley in west Suffolk (West 1985). In south east Suffolk such settlement/cemetery associations can be seen at Rendlesham and Hoo Hill, in Hasketon parish where three areas have produced Early Anglo-Saxon pottery sherds and metalwork scatters, in Playford parish where one site has produced relatively discrete scatters of pottery sherds and metalwork, in Tuddenham St Martin parish where one small area has produced a similar pattern, and in Butley parish where a 6th century saucer brooch has been found close to a small scatter of pottery sherds. In other areas where only pottery scatters are known the lack of possible cemetery finds is due to a lack of metal detector searches.

In the Middle and Late Saxon periods it has been possible to rely much more heavily on pottery finds as the region has distinctive pottery traditions in Ipswich Ware (produced c.650 to 850) and Thetford Ware (produced c.850 to 1150). Very few of the Early Anglo-Saxon settlement sites in south-east Suffolk show a continuity of use into the Middle Saxon period. With the presence of a few sherds of Ipswich Ware on these early sites, the shift in location probably came in the 7th century as it did at West Stow (West 1985). As previously noted (Newman 1988, 10) the major Ipswich Ware scatters have been located near parish churches in the survey area as shown on Figure 10d. This emphasises the importance of these areas as nuclei around which the parish system and Later Saxon and Medieval settlement patterns grew. Of twenty-seven parish churches within the area surveyed, twelve have Ipswich Ware scatters nearby and a further six do not have suitable areas available nearby for fieldwork to take place. The remaining sites close to parish churches fall into a phase of 9th century expansion, such sites being dated through the presence of small quantities of Ipswich Ware as well as Thetford Ware. This expansion takes in the small group of parishes on what was probably less attractive clayland around Bredfield, Boulge and Debach as well as the lesser Domesday Book vills such as Wilford and Bing which are situated close to parish boundaries and never grew to a very large size. It is also possible that heathland parishes such as Brightwell and Newbourne may fall into this phase of Late Saxon expansion as neither has produced large enough quantities of Ipswich Ware to suggest a 7th or 8th century foundation.

From Figures 9 and 10d it can be seen that the area survey has fulfilled its initial goal of locating Early, Middle and Late Saxon sites. A good start has also been made in deciding the function and status of these sites in the landscape. The identification of various Early Anglo-Saxon settlement sites and possible attendant cemeteries is a good example of this. Fitting changes in the settlement pattern into a chronological framework also appears to work well in the survey area, with a clear fall in the number of sites between the 4th and 5th centuries, a steady growth throughout the later 5th and 6th centuries followed by a shift in the 7th century, and then a dramatic increase in the 9th and 10th centuries. The creation of a settlement hierarchy is more difficult but can at least be attempted from information such as size of surface scatter and quantity of Ipswich Ware collected, in some cases metalwork evidence as well can be added. When discussed at the Oxford Symposium in 1979 (Rahtz et al 1980) it was considered that an area survey was essential in any new Sutton Hoo research programme. Hopefully these results confirm this view and show that small scale sample excavation is now needed to refine the existing chronology and help create a secure settlement hierarchy. It is only with such a study of settlements and cemeteries throughout the social hierarchy that a full understanding of Anglo-Saxon Society in East Anglia can be gained.

The Suffolk Archaeological Unit is grateful to all landowners in the area for allowing access to carry out survey work and to the Sutton Hoo Research Trust for grant aid towards the costs involved.

John Newman

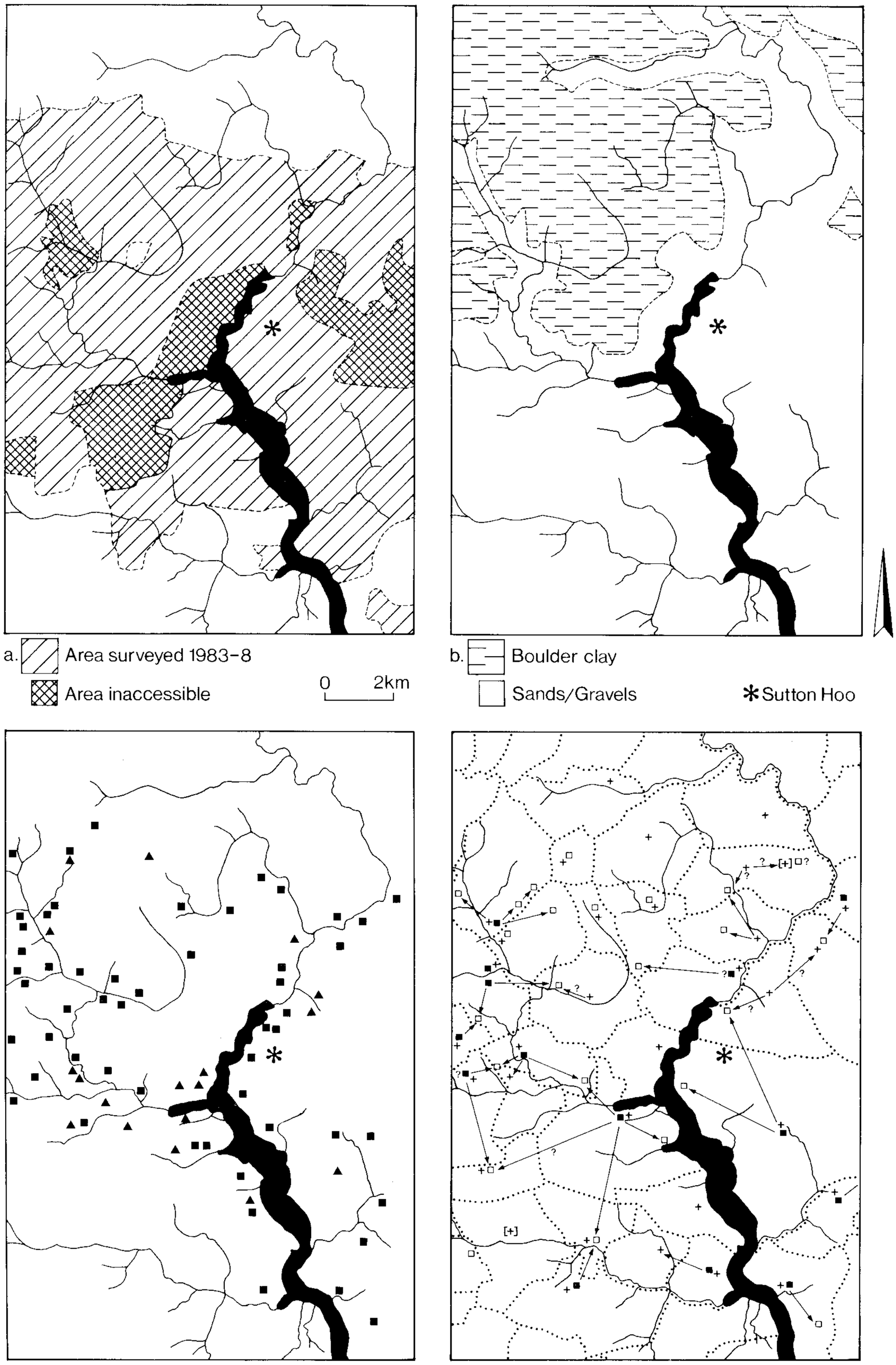


Fig. 10: South East Suffolk Survey (Newman).