

SNAPE ANGLO-SAXON CEMETERY: Excavations and Surveys 1824–1992

East Anglian Archaeology

Suffolk County Council, 2001

EAST ANGLIAN ARCHAEOLOGY



Frontispiece

Area A under excavation with the presumed site of the ship mound behind in the garden and with scheduled tumulus in the background to the south (right) of the road.

In Memoriam Mary Harrison, 1912—1999
Sine qua non.

Snape Anglo-Saxon Cemetery: Excavations and Surveys 1824–1992

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and Tim Pestell**

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Cover illustrations

(front) Grave 47 shield boss laid over bow of logboat.

(back) Grave 47 showing stain of logboat.

Photos: Tim Pestell

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Summary

The Snape Anglo-Saxon cemetery stands in the Sandlings area of east Suffolk. The first recorded excavations on the site were conducted in 1862–3 by the landowner, Septimus Davidson and some friends. In trenching the largest barrow they encountered rivets, and by careful excavation were able to reveal the remains of a complete Anglo-Saxon ship burial, the first to be found in England. Although already robbed, they recovered a number of items including a gold Germanic finger-ring, now in the British Museum, which showed that the burial had been of the highest status. Their excavations also revealed a large number of Anglo-Saxon cremation burials. Subsequently the site was almost forgotten until in 1970 a dowser found an Anglo-Saxon urn in the field to the north of the road, and in 1972 a sewer trench excavated along the road yielded a further nine cremations, one in a bronze bowl (published by West and Owles, 1973).

In 1985 a research project was initiated under the aegis of the Snape Historical Trust. Excavations have shown the site to be a mixed cremation and inhumation cemetery. Amongst the inhumations, a wide variety of burial

practices has been noted, including the use of two, and possibly three, dugout logboats as burial containers. Other graves made extensive use of organics, in some instances of textile, including the first observed use of *Rippenköper* weave in England (grave 37). The grave-goods were within the normal range of material to be expected in an Anglo-Saxon cemetery, more exotic finds including a lyre (grave 32) and a horse's head with tack (grave 47). Finds show the cremation burials to date from the late 5th to 7th centuries, and the inhumations to date from the mid 6th to 7th centuries. Other features excavated included ring-ditches, some associated with inhumations, and six burnt stone features, apparently surrounding mound 4.

This report attempts to publish all the material known to have been excavated from the cemetery although the urns and their contents from the 1862–3 excavations have become dispersed over the years and many undoubtedly lost. The 1970 and 1972 finds have also been re-examined, re-drawn and are here republished.

The final draft of the text was submitted by the authors in May 1998.

Résumé

Le cimetière anglo-saxon de Snape est situé dans la région des Sandlings à l'est du Suffolk. Les premières fouilles attestées du site datent des années 1862–63 et furent dirigées par le propriétaire Septimus Davidson aidé par quelques amis. En creusant le plus grand tumulus, ils trouvèrent des rivets et, en procédant avec précaution, ils parvinrent à dégager les vestiges d'une sépulture déposée dans un navire anglo-saxon. Il s'agissait d'un ensemble complet qui constitua la première découverte de ce type en Angleterre. Ils réussirent également à entrer en possession de plusieurs objets qui avaient été dérobés auparavant, comme une bague germanique en or. Ce bijou, qui est à l'heure actuelle exposé au British Museum, prouve que le défunt avait une position sociale très élevée. Les fouilles entreprises révélèrent également la présence d'un grand nombre de sépultures anglo-saxonnes par crémation. Par la suite, le site sortit presque complètement des mémoires jusqu'à la découverte en 1970 par un radiesthésiste d'une urne anglo-saxonne enfouie dans un champ au nord de la route. Enfin, en 1972, le creusement d'une tranchée pour les égouts permit de mettre à jour neuf nouvelles crémations, dont l'une était placée dans un vase en bronze (voir la publication de West et Owles, 1973).

En 1985, un projet de recherche fut lancé sous l'égide du Snape Historical Trust. Des fouilles révélèrent que nous avions affaire à un cimetière où avaient lieu à la fois des inhumations et des crémations. Dans le cas des inhumations, on peut noter la grande variété des pratiques

funéraires: ainsi, deux, voire trois barques en rondins servaient à accueillir le corps du défunt. D'autres sépultures contenaient également en abondance des éléments naturels tels que des textiles; on trouve par exemple dans la tombe 37 le premier tissu *Rippenköper* dont on ait trouvé la trace en Angleterre. Les objets funéraires mis à jour correspondent à ce qu'on trouve habituellement dans un cimetière anglo-saxon, à l'exception de quelques découvertes originales, telles qu'une lyre (tombe 32) ou une tête de cheval accompagnée de la sellerie (tombe 47). Les éléments rassemblés permettent de dater les crémations de la fin du cinquième au septième siècle, et les inhumations du milieu du sixième au septième siècle. Des fouilles ont également menées dans des fossés circulaires dont certains étaient associés à des inhumations, et six pierres brûlées, qui apparemment entouraient le tertre 4, ont été exhumées.

Le présent rapport s'efforce de rendre compte de tous les objets qui ont été trouvés dans le cimetière, même si les urnes mises à jour lors des fouilles de 1862–63 ont été dispersées ainsi que leur contenu au fil des années et que beaucoup sont désormais perdues. Les découvertes de 1970 et de 1972 ont également fait l'objet d'un nouvel examen; elles ont été redessinées et sont présentées dans la publication.

La version définitive du présent texte fut proposée par les auteurs en mai 1998.

Zusammenfassung

Der angelsächsische Friedhof von Snape liegt im Sandlings-Gebiet von Ost-Suffolk. Die ersten verzeichneten, 1862–63 durchgeführten Grabungen dort gehen auf den Landbesitzer Septimus Davidson und einige seiner Freunde zurück. Beim Ausheben des größten Grabhügels stießen sie auf Nieten. Durch vorsichtiges Weitergraben gelang es ihnen, die Überreste eines vollständigen angelsächsischen Schiffgrabs freizulegen, dem ersten in England gefundenen. Obwohl bereits geplündert, kam eine Reihe von Objekten zum Vorschein, die deutlich machten, dass hier eine Person von höchstem Rang begraben lag – darunter ein goldener germanischer Fingerring, der nun im British Museum aufbewahrt wird. Ihre Grabung förderte außerdem eine Vielzahl angelsächsischer Urnengräber zutage. In der Folgezeit geriet die Stätte in Vergessenheit, bis 1970 ein Rutengänger im Feld nördlich der Straße auf eine angelsächsische Urne stieß und 1972 beim Ausheben eines Abwasserkanals entlang der Straße Überreste von neun weiteren Feuerbestattungen auftauchten, eine davon in einem Bronzegefäß (1973 von West und Owles veröffentlicht).

Wie ein 1985 unter der Schirmherrschaft des Snape Historical Trust begonnenes Grabungsprojekt zeigte, beherbergt die Stätte eine Mischung aus Urnen- und Erdgräbern. Die Erdgräber wiesen auf eine Vielzahl von Bestattungssitten hin; unter anderem kamen zwei,

vielleicht sogar drei ausgehöhlte Baumstämme (Einbäume) als Grabbehälter zum Vorschein. In anderen Gräbern fand sich viel organisches Material, in einigen Fällen Textilien, darunter der in England erstmals verzeichnete Gebrauch von Rippenköpergewebe (Grab 37). Als Grabbeigaben wurden die für einen angelsächsischen Friedhof typischen Materialien festgestellt. Zu den exotischeren Funden zählten eine Leier (Grab 32) und ein Pferdeköpfe mit Sattel- und Zaumzeug (Grab 47). Die Feuerbestattungen konnten auf die Zeit des späten 5. bis 7. Jahrhunderts, die Erdbestattungen auf die Zeit zwischen der Mitte des 6. und dem 7. Jahrhundert datiert werden. Des Weiteren förderte die Ausgrabung Kreisgräben zutage, von denen einige mit Erdgräbern in Verbindung standen, und sechs Feuerstellen, die Steinfunde mit Brandspuren enthielten, offenbar um Hügel Nummer 4.

Der vorliegende Bericht versucht, alles bekannte Material aus den verschiedenen Grabungen zu dokumentieren, auch wenn die 1862–63 freigelegten Urnen und ihr Inhalt über die Jahre hinweg verstreut wurden und viele zweifelsohne verloren gegangen sind. Auch die 1970 und 1972 gemachten Funde wurden neu untersucht, neu gezeichnet und im vorliegenden Band neu veröffentlicht.

Die endgültige Textfassung der Autoren stammt vom Mai 1998.

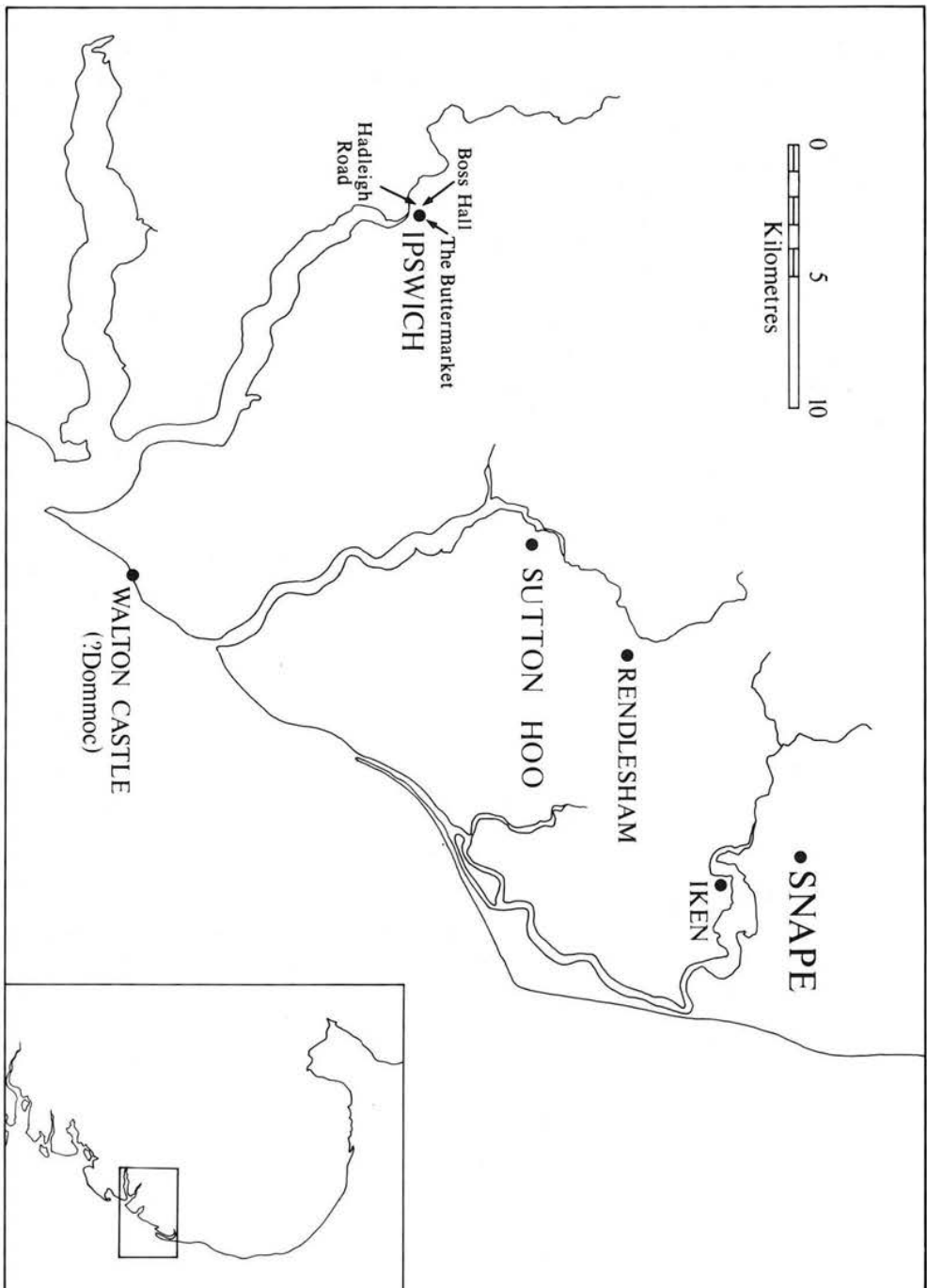


Figure 1 Location map, showing important Anglo-Saxon sites in the area, including cemetery sites in Ipswich

Chapter 1. Introduction

by William Filmer-Sankey

I. Introduction

The present project on the Snape Anglo-Saxon cemetery began in 1984. Its overall aim initially was to bring together all existing information on the site, which was widely scattered, and to suggest areas where current *lacunae* could be filled by judicious excavation. The project was conceived at the same time as the renewed work at Sutton Hoo and its aims were always seen as contributing to the wider context of Sutton Hoo and the emergence of the East Anglian kingdom. In particular, it was thought to be important to provide information on such matters as the cemetery's size, nature and state of preservation, which could be compared with that from Sutton Hoo, so as to put both sites in their wider context.

Inevitably, the Research Strategy changed as the project evolved. In particular, as information on the seriously damaged parts of the cemetery became available, it was decided that excavation on a larger scale than originally envisaged was necessary to record those areas in imminent danger of total destruction by ploughing.

This report is not just an account of the excavations which took place from 1986–1992. It attempts to assemble all the available evidence for the cemetery into a coherent whole. In line with current English Heritage guidelines and with previous practice in *East Anglian Archaeology*, it begins by outlining the history of investigation and excavation on the site, from 1827–1992 (Chapters 2 and 3). It then brings together all the available evidence in the form of a catalogue (Chapter 4). Finally, in Chapters 5, 6 and 7, we have selected for interpretation and discussion those areas where we believe that the site has provided new information, whether on the detail of Anglo-Saxon burial rite, on the mechanics of organic survival, or on the emergence of the Anglo-Saxon kingdom of East Anglia.

Inevitably, this report contains only a highly edited and selective version of the total information available in the site archive, which has been deposited with the Suffolk Archaeological Unit at Bury St Edmunds, where the SMR number is SNP 007.

II. Location

The Snape Anglo-Saxon Cemetery lies at TM 402593, in the north-east corner of the present parish of Snape, some 550m from the parish boundary with Friston (Figs 1 and 2). Although some individual houses stand either on or close to the site, it is generally remote from modern settlement, with the villages of Snape and Friston 1.5km and 1.25km distant respectively. Snape church, itself isolated from modern settlement, is 800m to the west. The A1094 road to Aldeburgh, which cannot be traced back earlier than the 19th century (Mary Harrison, pers. comm.), runs broadly through the middle of the site. The

wide estuary of the river Alde is 2.5km to the south, and the North Sea at Aldeburgh is 7km to the east.

Although part of the site lies beneath the rough garden of a house called St Margaret's, today's landscape is predominantly agricultural, and rather featureless. Until the agricultural clearances of the 1940s and 50s, however, the site lay within a huge area of acid heathland which stretched from Snape to Aldeburgh and which was used predominantly as sheep walks. Its characteristic 'Sandling' vegetation of heather, gorse and grass reflects the area's underlying geology. The largely stone-free glacial sand of the area is very free-draining, so that the present cultivation of rape, linseed, potatoes and rye is only possible through extensive irrigation during the growing season.

Native English trees do not grow well in such an environment and it is probable that, before the extensive, predominantly pine plantations of the 20th century, the site would have been visible both from the river Alde to the south and from the North Sea to the east (Figs 2 and 3). That such long views were possible is hard to believe today, when the site appears totally remote from the sea. That they could be is proved by an extract from a long poem of indifferent quality which appeared in the *East Anglian Daily Press* in 1912:

*At last, passing Snape Church, on Snape Common,
believe me,
A Friend in the coach, with intent to deceive me,
To a number of sticks my attention directed
Which for May-poles, she said, had been lately
erected.
But that this was mere joking, I very well know
For presently many tall ships passed in view:
And you cannot but guess how my heart was in motion,
When at length we obtained a full view of the Ocean.*

Although it is clear from this that the sea could be seen from a point very close to Snape church, calculation of the exact extent to which the site would have been visible from the sea in the 6th century is difficult. We have no way of knowing either how much coastline has been lost to coastal erosion in the subsequent years or, of even greater importance, where exactly the Alde flowed into the sea at the time. A map of 1588 shows that Aldeburgh extended considerably further to the east, with six streets parallel to the sea, where today there are only two (Arnott 1961, 9). Cartographic evidence from c.1530 onwards charts the gradual southward elongation of the gravel spit, with the consequent movement of the river mouth to the south (Anon 1966). It is undeniably tempting to suggest that the 6th-century Alde flowed out at Slaughden Quay, where the present shingle spit (breached by the 1953 floods) is only c.70 metres wide and where the earliest maps show a creek that might well be a relict entrance. However, this cannot be proved. Fig. 3 thus shows the situation today.

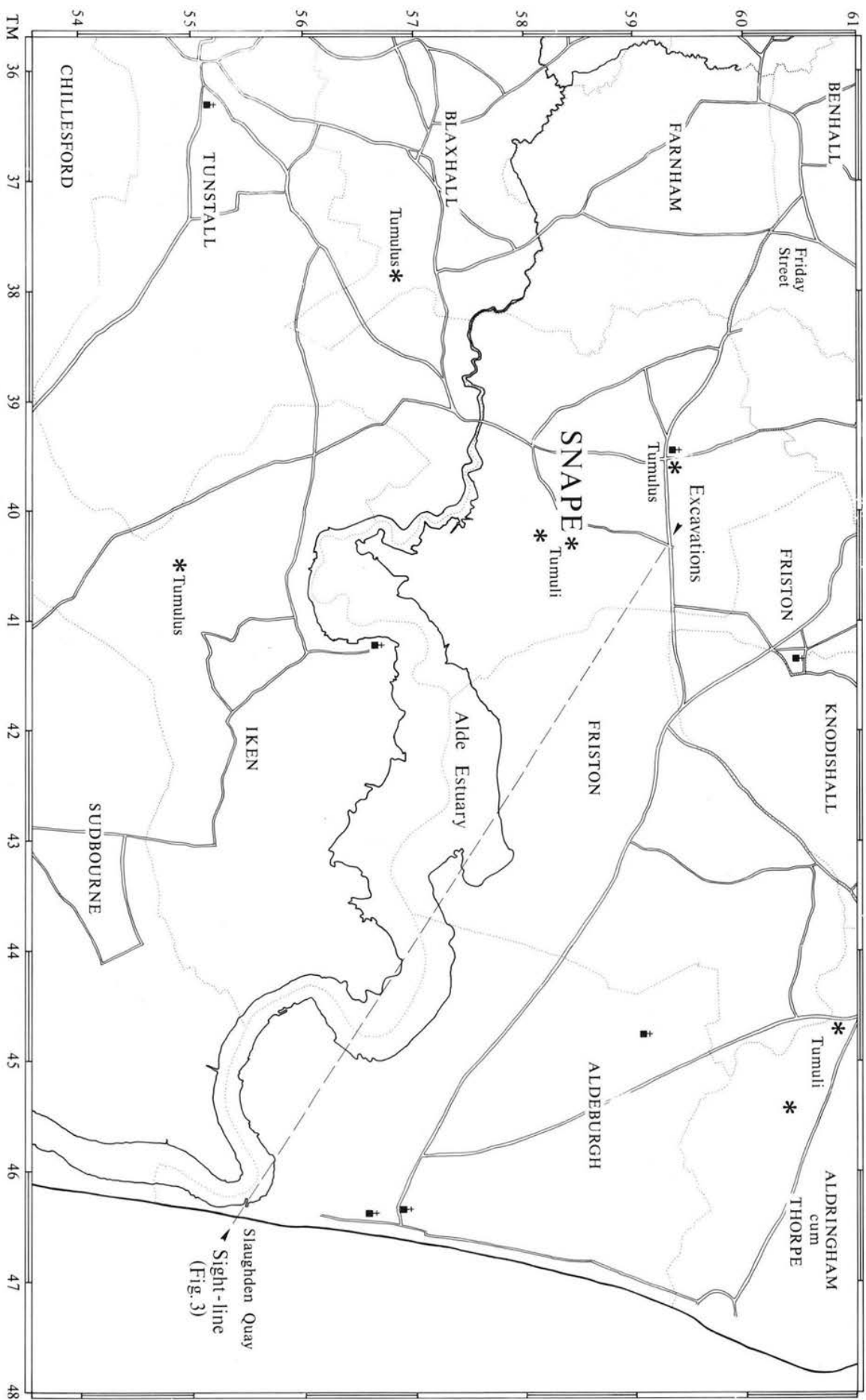


Figure 2 Location map, showing the site of excavations, parish boundaries, tumuli and the Alde Estuary. Scale 1:50,000

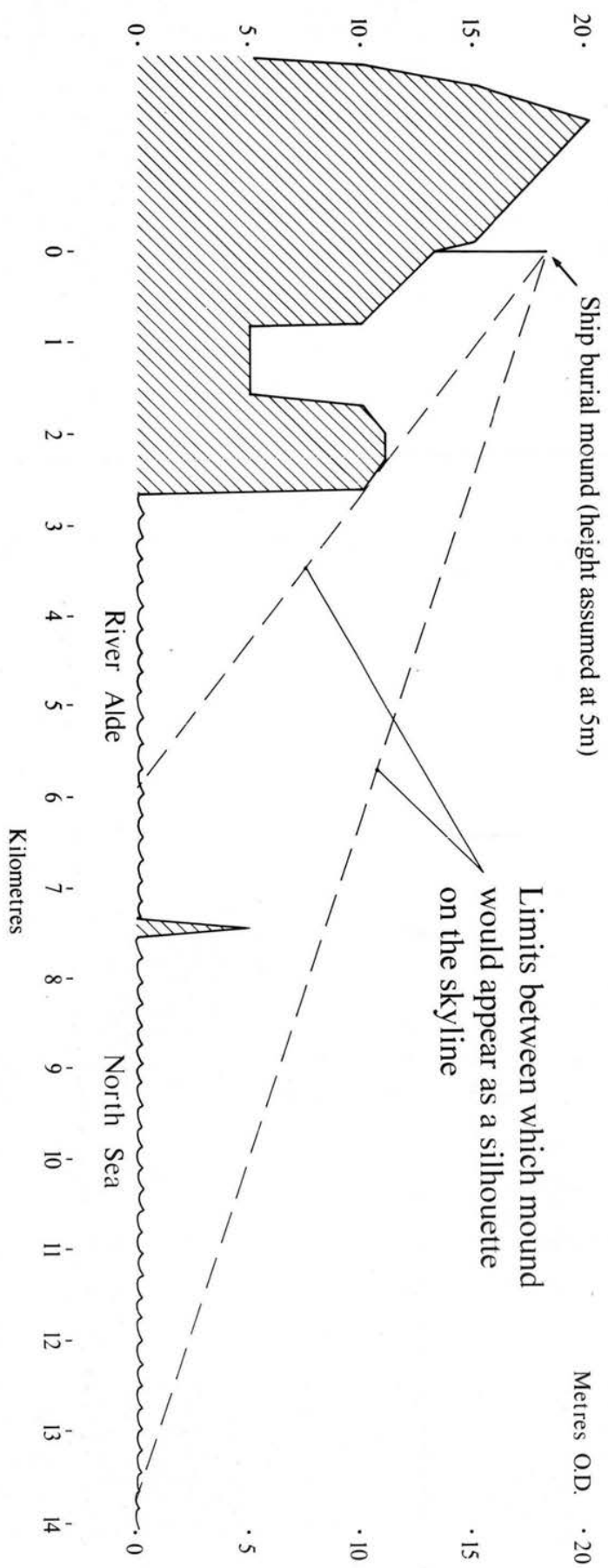
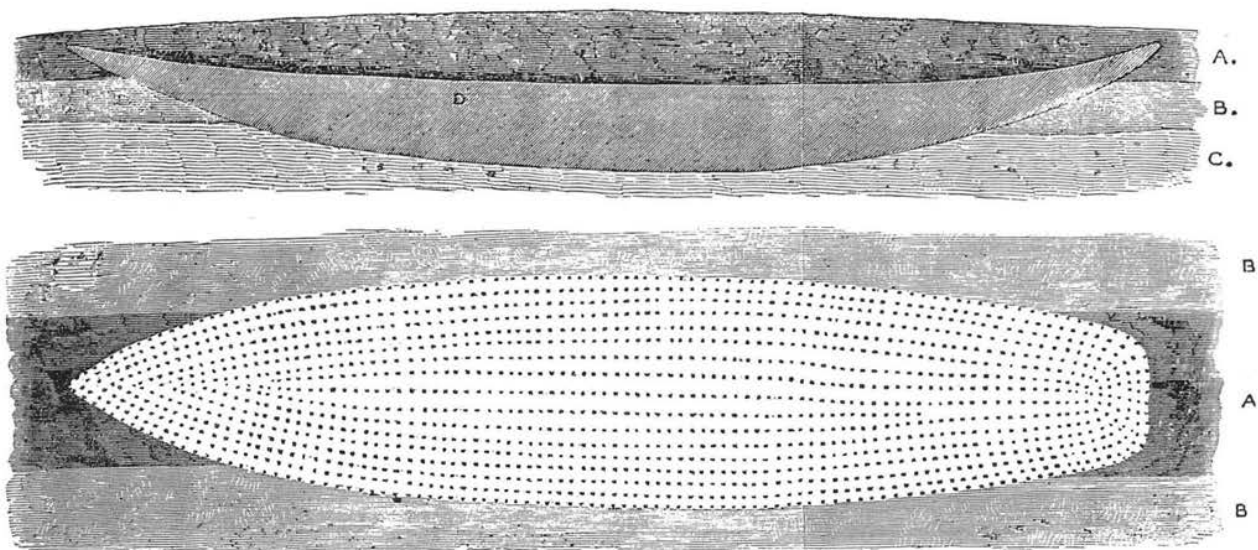
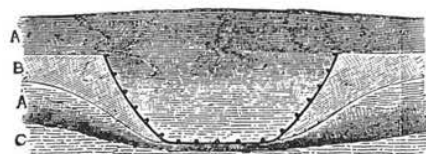


Figure 3 Line of sight from the excavation to the North Sea, illustrating how the ship burial mound could have been visible out to sea



Longitudinal Section and Plan of the Boat found at Snape.—Scale 1 inch to 8 feet.
 A. Black and White Sand. B. Reddish Sand. C. Yellow Sand.



Transverse section of boat. Scale, 1 inch to 8 feet.
 AA. Black and white sand. B. Reddish sand. C. Yellow sand.

Figure 4 Engraving of the ship burial as published in the *Proceedings of the Society of Antiquaries*, 1863 (c.f. Plate I)

Chapter 2. Excavations and Surveys

1827–1984

I. Excavations and Surveys 1827–1984

by William Filmer-Sankey

The first recorded excavation on the site of the cemetery took place in 1827. In this year, according to a letter published in *The Field* in March 1863 written by an unidentified man who had been a boy in Snape at the time, a group of 'seven or eight gentlemen', reported to be Londoners, opened several barrows and found 'quantities of gold rings, brooches, chains, etc.'. From Snape, the group moved across the Alde to open a tumulus on Blaxhall Common (SMR No. BLX 001), where the legend 'Roman Urns found 1827' given on the old 6-inch OS map provides confirmation of their visit. Thereafter unfortunately they disappear along with their finds.

The mounds were probably opened again by the Ordnance Survey around the middle of the century, though no records of this investigation have been traced (Davidson 1863, 177). In 1862 an excavation of much higher calibre took place. It was initiated by the owner of the land to the north of the present A1094 road, Septimus Davidson. Septimus Davidson was a city solicitor and one time legal adviser to the Ottoman Government (according to his obituary in the *Solicitors' Journal* of 7 February 1885). He does not seem to have had any special training or interest in archaeology, but was simply curious to know what lay beneath the three mounds in his possession. He was assisted by Dr Nicholas Hele, a local surgeon whose writings show a lively curiosity in the area's history, and who went on to excavate (with less success) a group of tumuli at Aldringham; by Francis Francis, whose epitaph in Winchester Cathedral does not mention any special antiquarian interests (he was keen on fishing!); and an enigmatic character known only as 'Mr C'.¹

Although none of the excavators appear to have had any previous excavation experience, or indeed special knowledge of archaeology, they nevertheless carried out the excavation in an exemplary way, for which we owe them a great debt. In the first place, they were not treasure hunters; they were aware of the previous excavations and thus had 'little expectation of gathering any results' (Davidson 1863, 177). The reason for the excavation was their own intellectual curiosity. Their techniques were typical for the period: they started with a pit at the centre of each mound, and then dug outwards. Frequently there were accidents: 'We came upon an urn and crush went the spade through a portion of it, fracturing the rim seriously', but generally they were careful: 'We [...] conducted the digging with the greatest caution, and rather under-digging and mining so as to let the upper mass of the earth, in which the remains might be supposed to lie, to fall in' (Francis 1863a, 61). They were clearly aware of the fragile nature of the evidence and of the need to record *in situ* features such as the rivets of the ship, which they revealed by 'scraping and sweeping with the hands only'.

Our greatest debt to Septimus Davidson and his friends is owed for the prompt and detailed way in which they published the excavation. Very shortly after its completion all the principal parties (with the exception of Mr C) had published accounts. Septimus Davidson had his account read to the meeting of the Society of Antiquaries in January of 1863 (Davidson 1863); Francis Francis wrote two lively articles in *The Field* in January and March 1863, and a paper for the *Archaeological Journal* (Francis 1863a and 1863b); and Dr Hele devoted a chapter of his book *Notes and Jottings about Aldeburgh* to the excavation (Hele 1870). The three authors all give slightly differing perspectives on the excavation, reflecting their particular interests, but all are remarkable for their consistency and for the detail that they give.

From these three accounts, it is possible to form a reasonably accurate view in the first place of what the site looked like, and (in the absence of any cartographic evidence) of how it was laid out.

A group of nine or ten mounds, 'a matter of wonderment to the simple peasant — who in these latitudes is remarkably simple indeed' (Francis 1863a, 61), stood in a group on either side of the Aldeburgh road. Of these nine or ten mounds, five or six are described as 'large' and lay in two lines on either side of and close to the road. The road had indeed 'run so close that it had cut off a considerable slice of one of them' (Francis 1863a, 61). The largest of the mounds, which lay to the south of the road and was thus not excavated in 1862, was 84 feet (25.58m) in diameter and stood 7 to 8 feet (2.13–2.44m) tall. To the north of the road, the central mound was 60–70 feet (18.27–21.3m) in diameter and stood 4½ feet (1.37m) tall. The westernmost was the largest, being 72 feet (21.93m) in diameter and 4½ feet (1.37m) tall. We are not given the dimensions of the easternmost mound, though it was the smallest. It was clear to the excavators that the mounds had originally been much taller, but that their height had been reduced by previous excavation.

Although it is possible to locate these mounds in relation to each other, the lack of any site plan accompanying the accounts, and the subsequent damage to the site (see below, p. 11) make it much harder to relate the mounds to the current topography. Not surprisingly, Septimus Davidson and his friends did not believe it possible for such dominant mounds to be wholly destroyed. We must assume, however, that the two tumuli which appear to the south of the road on the 25-inch OS map correspond to two of them. Those to the north of the road do not appear on any map, and have left no obvious trace on the surface. If we assume that they were broadly across the road from those to the south, they must have lain within the current garden of St Margaret's. We know furthermore that they must have been very close to the road line, since part of one (the westernmost) had been sliced off by the road.

In addition to the five or six large mounds, the excavators also noted the presence of some smaller mounds (by implication, four or five in number), "some of no more than 6–7 feet in diameter" (1.83–2.13m; Davidson 1863, 177). No attempt is made to relate these to the larger mounds, so there is no clue from the accounts as to where they lay.

As already noted, the 1862 excavations were confined to the area north of the A1094 road, which was in Septimus Davidson's possession. They began with the centre of the three mounds, which was 60–70 feet in diameter and stood 4½ feet tall. Trenching into the centre, they noted that the soil of the mound was composed of 'a black thin, light, sandy earth, and the surface enriched by the decay of vegetable fibre' (Davidson 1863, 178). With the excavation base clearly well into undisturbed natural soil, trenches were then cut out from the centre, so as to form a continuous east-west cutting through the mound. At about 'half the radius' 'a fragment of a sepulchral urn' was found (cremation grave 53).

No further finds were made, so they then turned their attention to the easternmost mound, the smallest of the three north of the road. Francis Francis describes the make-up of the mound thus:

One very noticeable fact was evident, viz., the traces of large fires which were abundantly visible. The soil was sandy (a sort of peaty sand), and as we cut down through it layers of black matter of a charred appearance and soft greasy feel, were as distinctly visible as are small seams of coal or flint in some formations. In some places (the immediate locality of the fire itself as we supposed them to be) the soil was black and caked as though baked with some other substance which had caused the caking, and this substance I make little doubt in my own mind was neither more nor less originally than human flesh; the bones appertaining to which had been collected and placed in the urns within the barrow. These hard core-like places frequently (though not always by any means) indicated the neighbourhood of an urn. [...] These traces of fire and strata of charred matter occurred everywhere — in all parts of the barrows, apparently without method or regularity. (Francis 1863a, 61).

Francis' implied interpretation, that these are the remains of pyres, is not mentioned by the others, and is hard to evaluate. Nothing similar was encountered in the recent excavations, where the possible pyre was of a quite different nature (see below, p. 252–5). The black and caked nature of the soil might well have been produced by iron-panning, since a broadly similar phenomenon was noted in the natural sand elsewhere on the site. An alternative explanation, suggested by a correspondent to a subsequent issue of *The Field* (in March 1863, 75), is that the black lines reflect the remains of turves, of which the mound was constructed.

Despite the failure to find any further urns or other finds in the easternmost mound, the excavators were not put off. Instead, they began to dig into the westernmost mound, the one which was so close to the road as to have been partially cut away by it. It was 22m in diameter and stood 1.7m tall. Rather than beginning in the middle, they cut in to it 'from margin to margin, so as to make a trench from 6 to 8 feet wide clear through it; the depth of the

trench of course varied from the margin to the centre and thence again to the opposite margin, inasmuch as the base of the cutting was kept to the level of the natural soil on which the tumulus was raised' (Davidson 1863, 178). During this work, five 'mutilated vases' containing 'calcined bones' were encountered. Four were identified as Anglo-Saxon (they include the swastika decorated urn of cremation grave 51). The fifth, which was intact, stood apart both by reason of the fact that it was found upside down, and for its form and size (cremation grave 48, Fig. 111). Though Septimus Davidson thought it 'British', it is in fact a Bronze Age collared urn, which from its intact state must have come from an undisturbed burial which had been incorporated into the Anglo-Saxon mound (see below, p. 233, 265). Septimus Davidson said that it was empty, but Hele (a surgeon) reports that it contained burnt bone, 'the femur or thighbone and part of the pelvis being perfect' (Hele 1870, 26). They also found the remains of two iron spearheads (Fig. 78, *Fi* and *Fii*), in the general vicinity of the Bronze Age urn. They then dug deeper:

They trenched deeply down below [the mound]: the soil here lost all appearance of the black burnt strata or the peaty colour and consisted of a pure bright-yellow or golden sand. While digging in this, they came upon the remains of some woodwork. The wood was of course perfectly decayed though retaining its form and fibre. Carrying the excavation further, the woodwork seemed to form a flooring of some kind. [...] We traced the pieces of iron from one end of the trench to the other, without removing the pieces; the result was this: I think we have most clearly and satisfactorily established that the pieces of iron were large rivets. On either side of the trench there were six rows exactly corresponding, having the appearance of so many steps; in fact they were the ribs of a boat, for the wood between them had all gone to decay. The rivets were horizontal. Proceeding with our investigations, we came to the flooring, where the rivets were vertical, and also to the ends [...] the clear outlines of a vessel were apparent. The boat was 46 to 48 ft long and about 9ft 9ins or 10ft amidships. [...] Subsequently the spot was visited by a naval gentleman who quite confirmed all that remained doubtful as to the woodwork being that of a vessel. (Francis 1863a, 62–3).

Although ship burials had been recognised in Scandinavia prior to this date, this was the first time that one had been identified in England (Müller-Wille 1970, 9). Only two years before, at Sutton Hoo, incompetent excavators seem to have dug through a ship burial without the slightest appreciation of what they had found (Hoppitt 1985). Once again, we must be grateful that the Snape excavators' painstaking technique, combined with their intellectual curiosity, enabled them to uncover the full length of the ship, and to identify it correctly. They also took the trouble to collect many rivets, which survive today in Aldeburgh Museum.

Septimus Davidson's account of the excavation is accompanied by a plan (also reproduced by Hele; here Fig. 4), the first of a boat grave to be published in European archaeology (Müller-Wille 1970, 9). The plan is an edited version of a watercolour drawing, now in the library of the Society of Antiquaries (MS *Primaevae Antiquities*, p. 115) (Pl. I). This drawing, which must have been done either during or very shortly after the excavation, gives far more

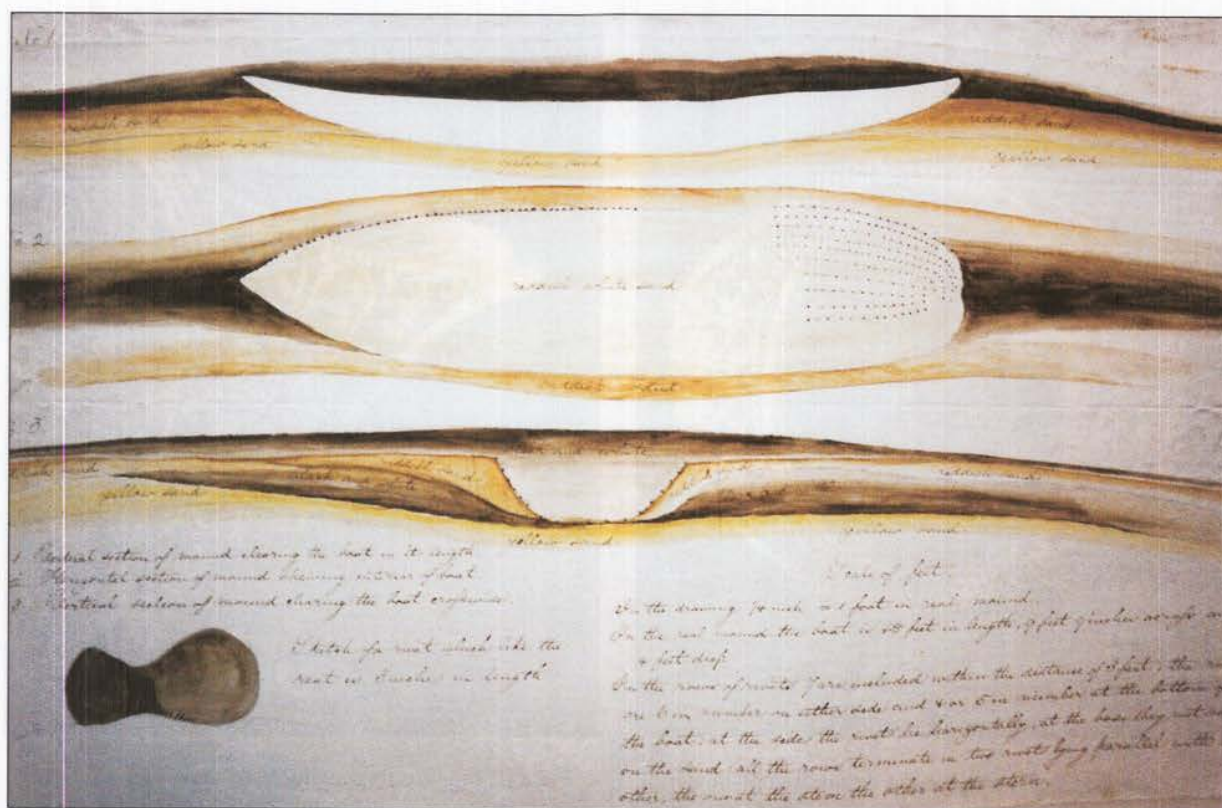


Plate I Watercolour plan of the ship burial. Copyright the Society of Antiquaries of London

detail and includes a complete section through the boat and tumulus and pencil annotations of the various soil layers. The watercolour also makes clear that the confusingly illogical pattern of rivets shown on the engraving was filled in by the engraver, and does not represent the original pattern as seen by the excavators. For details of this, we need to refer to the original accounts.

It was clear to the excavators that the boat grave had been plundered already. An element of luck, however, combined with their painstaking approach enabled them to recover some objects missed by earlier diggers.

In the first place, above the level of the ship, somewhere in the vicinity of the Bronze Age urn, two iron spearheads were found. Missing when Rupert Bruce-Mitford wrote his paper (Bruce-Mitford 1952), they have now been identified among the mass of rivets in Aldeburgh Museum. It is probable that they derive from the primary inhumation, but were disturbed by the previous digging.

The remaining finds were in a group from the very base of the ship, probably from amidships, though the accounts are not completely clear on this point. The first and finest is a gold ring, which 'slipped out of the sand' and was 'pounced upon' by Mr C (Pls II and III, Fig. 78). There were also the shattered remains of a glass claw beaker (Pl. IV and Fig. 78). Close by, the excavators were intrigued by 'a mass of human hair, about the covering for one head. It was dark dirty red. This hair, or the head upon which it formerly grew (but of which no trace was found), had been wrapped up in a cloth of some kind, for though the fabric had been entirely destroyed by decay, its texture and the warp and woof could be distinctly seen; about four feet

from it was found another, but smaller mass of hair' (Francis 1863a, 62). In the same general area were some fragments thought to be of jasper, and a single fragment of blue glass, which is mentioned only by Francis Francis (Francis 1863a, 63). The interpretation of this grave is considered in Chapter 5 section I, below.

The triumphant conclusion to the first season's excavation prompted Septimus Davidson to return in the following year, though with less spectacular results. The *Archaeological Journal* reported that 'Stimulated by the success of the explorations during the previous summer, Mr Davidson had directed the field in its whole length east and west, next the side of the road from Snape to Aldeburgh, by a breadth of more than twelve yards north and south, to be double trenched. By this arrangement the whole circumference of the base of the largest tumulus was included. [...] More than forty vases, mostly fragments, have been exhumed; but the most remarkable circumstance is the fact that by far the greater number have been found in the level between the two largest tumuli, and much outside the extreme base of either of them' (Proc. at Meetings 1863, 373-4). Finds were sparse: 'The only relics or ornaments found were two small pieces of ivory (as supposed), mounted with a serrated margin of metal, and showing the remains of a rivet in the centre [a bone comb?]; a portion of a convex plate of copper, having the appearance of part of a helmet [still in Aldeburgh Museum; a bowl?]; an oblong copper ring, evidently the remains of a buckle [from an inhumation?]; an iron spearhead 10 inches in length, joined in the centre by a rivet [also from an inhumation?]; and a human tooth'.



Plate II Intaglio finger ring; detail of gemstone



Plate III Intaglio finger ring; side view of granulated shoulders

Despite the lack of spectacular discoveries, the *Archaeological Journal* congratulated Septimus Davidson on 'having thrown fresh light on the obscure sepulchral vestiges in this district'.

Septimus Davidson's excavations caused huge interest. As already noted, accounts of the excavation were published within a year of the completion. Interpretation was hampered by the then infant state of Anglo-Saxon archaeology. Septimus Davidson realised that the ring, the claw beaker and most of the urns were Anglo-Saxon, but he was confused (not surprisingly) by the Bronze Age urn, which he labelled 'British'. His final conclusion was that 'the largest urn is British, the others Anglo-Saxon; that the interment in the boat was that of a Dane, or other Northern person' (Davidson 1863, 181–2). Francis Francis was less scholarly in his article in *The Field*, but after ranging widely through the Druids and the last battle between Boadicea and the Romans, he eventually reached much the same conclusion (Francis 1863a, 75).

The level of interest generated by the find is best seen in *The Field*, which received a large number of letters following the publication of Francis Francis' articles. Among them was the one quoted above, which gave information both on the Gentlemen from London, and on what appears to have been the plundering of another rich burial mound, 900m to the south, by one Nathan Licence, its rather shady early 19th-century owner (SMR No. SNP 020).

In the years following, however, interest in the site waned, and legends began to accumulate. In the 1920s, the owner of the adjacent house was telling visiting schoolgirls that the ship had contained a seven foot Viking in full armour, and a servant (Swinburne n.d., 239)! Also in the 1920s a house, St Margaret's, was built immediately

to the north of the three mounds excavated by Septimus Davidson (Fig. 5). Its garden, carved out of the common but never landscaped, included the mounds and was ringed with a line of pines. It is said that numerous urns were found when these were planted, though no record was made (Mary Harrison, pers. comm.).

Urn were also found during the construction of the house, but again no record was made. The source for our knowledge is the son of the house's builder, who recalled in his old age his father telling him of finding 'old wine jars', some of which 'still had wine in them'! (Mary Harrison, pers. comm.).

Despite the absence of interest in the finds of the 1920s, memory of the ship burial remained alive. In 1938, Mrs Pretty's chauffeur drove Basil Brown over to Aldeburgh Museum to view the rivets from the ship, and Bruce-Mitford has observed how he appears to have been influenced by the 'transom stern' of the Snape ship in his interpretation of the boat from mound 2 at Sutton Hoo (Bruce Mitford 1974, 141–69).

Ploughing up of the heathland began during the Second World War, when the field to the north of the road (then the village football pitch) was cultivated. It is curious that, despite the damage which must have been done by this first ploughing (comparable to that at the Lackford cemetery), no one appears to have noticed anything untoward. The field south of the road (containing the mounds not touched by Septimus Davidson) was first ploughed in 1951, again without record of any finds. On both sides of the road, a 'gyrotiller' was also used. This machine is said to have comprised two First World War submarine engines mounted vertically on a caterpillar tractor, to drive blades designed to stir up the soil, and

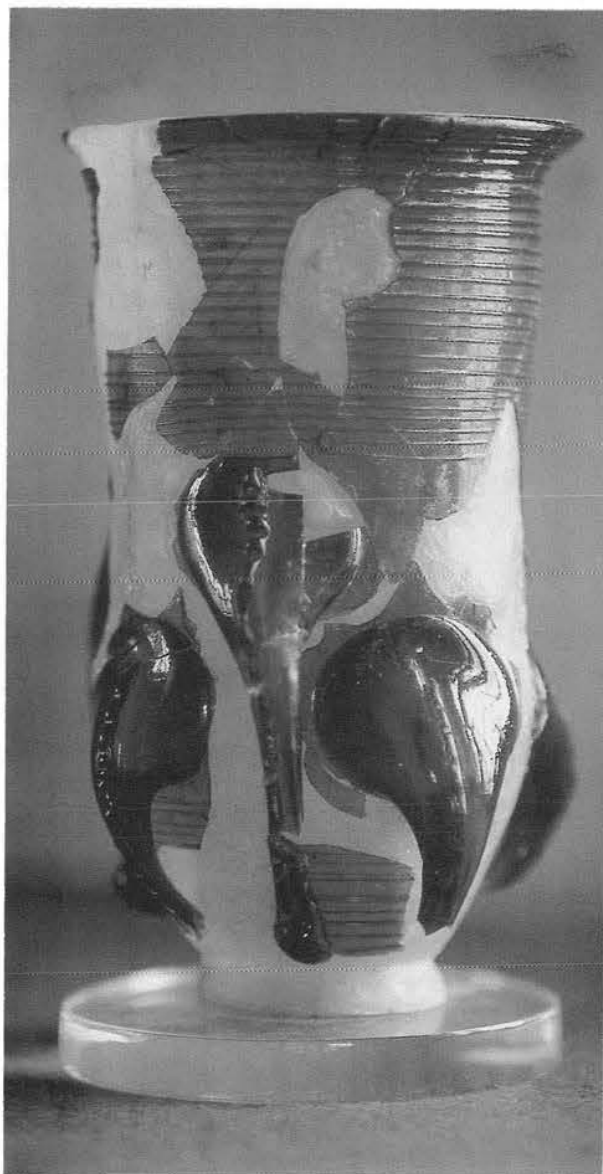


Plate IV Claw beaker from mound 1 ship

break up roots to a depth of c.1 yard. Its popularity was, fortunately for archaeology, brief! Nevertheless, erosion of the surviving mounds in the field south of the road was rapid. In 1862 the largest mound on the site was 25.5m in diameter and 2m tall. By c.1950 it had shrunk to 9.1m in diameter and 0.3m in height (report in SMR). In 1990 a detailed contour survey revealed it as an irregular circle, with a diameter of 10m and a height of 50mm (*sic*). It was fortunate that one mound, right in the north-east corner of the field, was excluded from the field and has thus survived intact. Another smaller mound immediately to the south was bisected by the field edge and was only identified as a mound in 1991, when excavations picked up the ditch surrounding it.

In 1970 a dowser called Major-General Scott-Elliott found a single urn, some 40m to the west of the garden (cremation grave 67). According to reports in the *Proceedings of the Suffolk Institute of Archaeology*, the Major-General also found and excavated a 'sterile pit' and a 'palisade trench' (Owles 1970, 103). In the light of experience from later excavations, it seems probable that the former is either natural or a tree pit, and that the latter is a plough furrow.

Two years later, a sewer trench was dug along the northern side of the road. Ipswich Museum was alerted by a local resident that urns were being found in the area of the cemetery. As a result, the digging of the remainder of the trench was archaeologically observed and a total of nine cremations was recovered. Of these, seven were urned and one was unurned. The ninth was in a thin-walled bronze bowl (West and Owles 1973). Also noted was a segment of a ring-ditch, close to the assumed site of the ship burial.

A year later a further trench was put along the road through the cemetery. Forewarned this time, archaeological supervision was at hand, but (remarkably) only one sherd of pottery was recovered.

Endnotes:

1. Dr Steven Plunkett has suggested two possible candidates for identification with 'Mr C'. The first, Edward Charlesworth, was active in the 1840s and 1850s, mainly as a geologist but with antiquarian leanings. The second and more likely is Edward Clod, an important and active citizen of Aldeburgh in the 1870s and 1880s. He wrote books and organised meetings on evolution and was a Rationalist. Since the Rationalists objected to inhumation burial, and had a strong interest in cremation, Septimus Davidson's excavation would have been of particular interest to him.

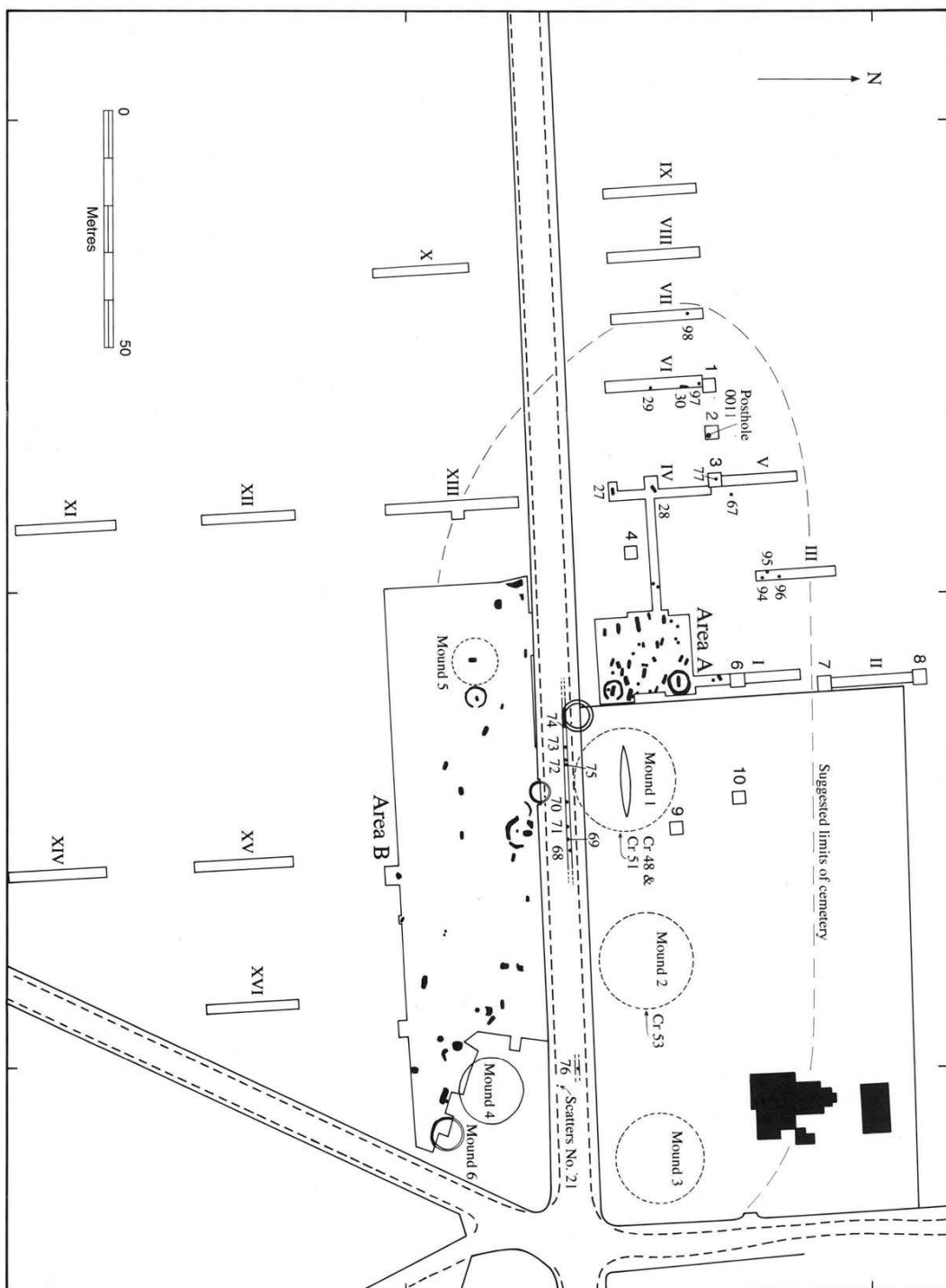


Figure 5 Overall plan of the site showing location of 1972 sewer trench, 1985 trial boxes, 1989-90 trial trenches and main excavation areas. Features and graves not in the main excavation areas are also located and numbered. Scale 1:1000

Chapter 3. Excavations and Surveys

1985–92

I. Excavations and Surveys 1985–92

by William Filmer-Sankey

During the 120 years from 1862 to 1985, when the present project began, the appearance of the Snape Anglo-Saxon cemetery altered beyond recognition. The heathland had been ploughed up; a house (St Margaret's) had been constructed; most fundamentally perhaps, all but one of the nine or ten mounds visible in 1862 had been ploughed flat or otherwise destroyed. Repeated fieldwalking by local residents and the author produced not a single find, even in areas where urns (like that discovered by Major-General Scott-Elliott) were known to exist. Only two parts of the site survived in anything like its former condition. The first was the mound in the north-east corner of the field south of the road. The second was the western part of the garden of St Margaret's, which was never seriously cultivated and thus retained its heathland vegetation of rough grass and gorse. Even here, however, the only evidence for the existence of large mounds were the possible spoil heaps from the ship burial excavation (below, p. 193).

Academically, too, the site had lost its importance, being eclipsed by the 1939 excavation of the great Sutton Hoo mound 1 ship. In 1948 the Swedish archaeologist Birger Nerman wrote of the 'rather uncertain boat grave' and doubted the association between it and the ring and claw beaker (Nerman 1949, 89, n.29).

In 1952 Rupert Bruce-Mitford began the site's rehabilitation with an important paper in the *Proceedings of the Suffolk Institute of Archaeology*, in which he firmly rebutted Nerman's scepticism, and gave a comprehensive summary of knowledge of the site, the 1862 excavation and the ship burial (Bruce-Mitford 1952). He was also able for the first time to publish a full description and photographs of the ring, which had miraculously reappeared in 1950. Although many aspects of Bruce-Mitford's paper, particularly on the provenance and dating of the ring, need revision with the benefit of hindsight (see below, pp. 195–6), his paper was a brilliant synthesis of what was then known.

If Rupert Bruce-Mitford's paper kept knowledge of the site alive, it did little to stimulate any desire for further work, except among a small group of local archaeologists. It was the commencement in 1983 of Martin Carver's work at Sutton Hoo, with its emphasis on the need to see that site in its wider, East Anglian, context, that once more focused attention on Snape as the best, indeed the only parallel to the mound 1 ship burial. This attention brought in its turn the realisation that really very little was known about the site. The location of all but one of the mounds had been lost, and although finds of urns indicated a number of places where the cemetery definitely was, there was no idea of its size or state of preservation.

Since fieldwalking produced no finds at all, an initial attempt to fix the size of the cemetery was made by geophysical survey. In 1982 two trial areas of magnetometry and resistivity were surveyed by Stephen Dockrill of the School of Archaeological Science at Bradford University. The former produced no results, but the latter appeared to show what might be the base and surrounding ring-ditch of a ploughed out tumulus. During the next three years, a total of some 13,000m² were covered by resistivity survey, initially by Bradford, but latterly by Dr Roger Walker of Geoscan Research (report in site archive). The initial promise was not fulfilled, however, and with the exception of a pair of parallel ditches (subsequently shown to be of relatively recent origin) no features could be detected against the strongly variable geological background.

Accordingly, it was decided that a more coherent approach was required. This took two forms. The first was the bringing together and analysis of all the existing information on the site. This exercise underlined the cemetery's crucial importance as a point of comparison for Sutton Hoo. It also indicated that the site was predominantly a cremation cemetery, with densely packed urns. All the evidence from the earlier excavations appeared to show that the use of inhumation in the ship burial was exceptional and a parallel with the Spong Hill cemetery seemed obvious (Filmer-Sankey 1984). This conclusion on the character of the cemetery was then used to plan the second stage, a sampling strategy, directed at finding its size and its state of preservation. Since neither fieldwalking nor geophysical survey had produced any results, it was clear that this sampling strategy would have to involve excavation.

The excavation began in 1985, and involved the hand excavation of fourteen 3 × 3 metre boxes. The size of the boxes was based on the assumption that the cemetery was like Spong Hill, with an equivalent density of urns. A statistician confirmed that an empty box would give a 99.7% chance that it was outside the limits of the cemetery.

In the event, only two of the fourteen boxes contained urns, both damaged by ploughing, and it was clear either that the cemetery had been largely destroyed by ploughing or that the theoretical basis of the sampling strategy was wrong. In the closing days of the excavation, the latter was shown to be the case when one box, close to the presumed site of the 1862 ship burial, was enlarged to 6 × 6 metres and produced not only two more urns, but an inhumation burial (grave 17).

The indication that the cemetery might contain a significant proportion of inhumations prompted a revision of the sampling strategy. Before any attempt could be made to work out the size of the cemetery, it was necessary to establish its character. Unless the proportion of inhumation to cremation burials was known, together with an indication of grave density, it would not be possible to



Plate V Cremation 95 smashed and smeared across the bottom of a plough furrow

produce a sampling strategy which would give reliable results.

Accordingly, it was decided to excavate a larger part of the cemetery, in order to define its character. An area of 17 × 20 metres was selected, centred on the known inhumation grave, and immediately to the west of the garden of St Margaret's and the supposed site of the 1862 ship. The excavation took 20 weeks, spread over three seasons (1986–8) (Area A; Fig. 6).

At the same time, the opportunity was taken to put a 2m wide trench across the possible ring-ditch and tumulus base located by the resistivity survey. Removal of the topsoil showed that the anomaly had in fact been caused by an area of natural sand rising particularly close to the surface.

The result of this excavation was for the first time an accurate idea of the character of the cemetery, which was shown to consist of inhumations and cremations in roughly equal numbers (24:15 in the 1986–8 excavation). The graves were reasonably scattered, with an average density of one cremation per 21.45m² and one inhumation per 16.3m².

The nature of archaeological survival was similar to that being encountered at the same time at Sutton Hoo. Most striking was the parallel occurrence of sand silhouettes, where the acidic soil conditions had all but totally destroyed skeletons but had replaced the bone with a curious greasy brown organic stain. This made it possible in many cases to reconstruct body positions, though sexing of bodies (other than by accompanying grave-goods) was of course impossible. For reasons still not wholly understood (see below, pp. 204–7) the soil conditions had also in some cases produced unusually good organic preservation of such objects as horn (grave 4) and actual textile (grave 37). Pottery by contrast survived poorly; fabrics were very friable when first exposed and were badly penetrated by roots. Iron survived in a very corroded, frequently totally mineralised, state, while objects of thin copper alloy were very fragile indeed.

Armed at last with accurate information on the cemetery's character and on the nature of archaeological survival, it was possible to produce a sampling strategy

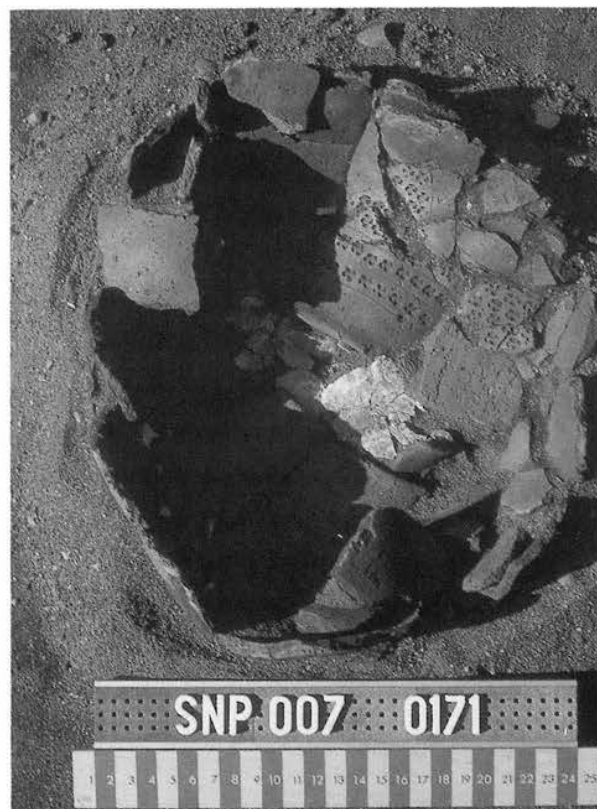


Plate VI Cremation 79, intact with rim collapsed in on itself

which would be able to define its limits. After extensive consultation it was decided that this would best be achieved by excavating a series of trenches 2m wide and at least 20m long, positioned north-south to be across the normal line of inhumation grave orientation. Two empty trenches in a row would mean that the edge of the site had been reached.

In 1989 and 1990 a total of eighteen of these trenches were excavated, and the limits of the site were fixed (Fig. 5). It is worth noting that although the suggested limits to the north of the road have not been tested by excavation, those to the south were, and were found to be accurate. No trenches were placed in the garden of St Margaret's, where hand excavation from the surface would have been necessary. Nor were any trenches excavated to the east of St Margaret's. The field here was ploughed to the depth of 36 inches as an experiment in the 1950s (information from John Stigwood, farmer) and it was thought very unlikely that any remains would survive. In any case, the pattern of finds in the 1972 sewer trench indicated that the cemetery did not extend any further to the east.

All seasons of excavation had provided information on the cemetery's state of preservation. In the first place, no finds at all were made in the ploughsoil, even in areas immediately on top of plough-damaged cremations. It would appear that the pottery is so fragile that it totally disintegrates when hit by the plough, a fact which may account for the apparent absence of finds when the fields were first ploughed (see above, p. 11). More generally, the state of preservation was found to vary widely.

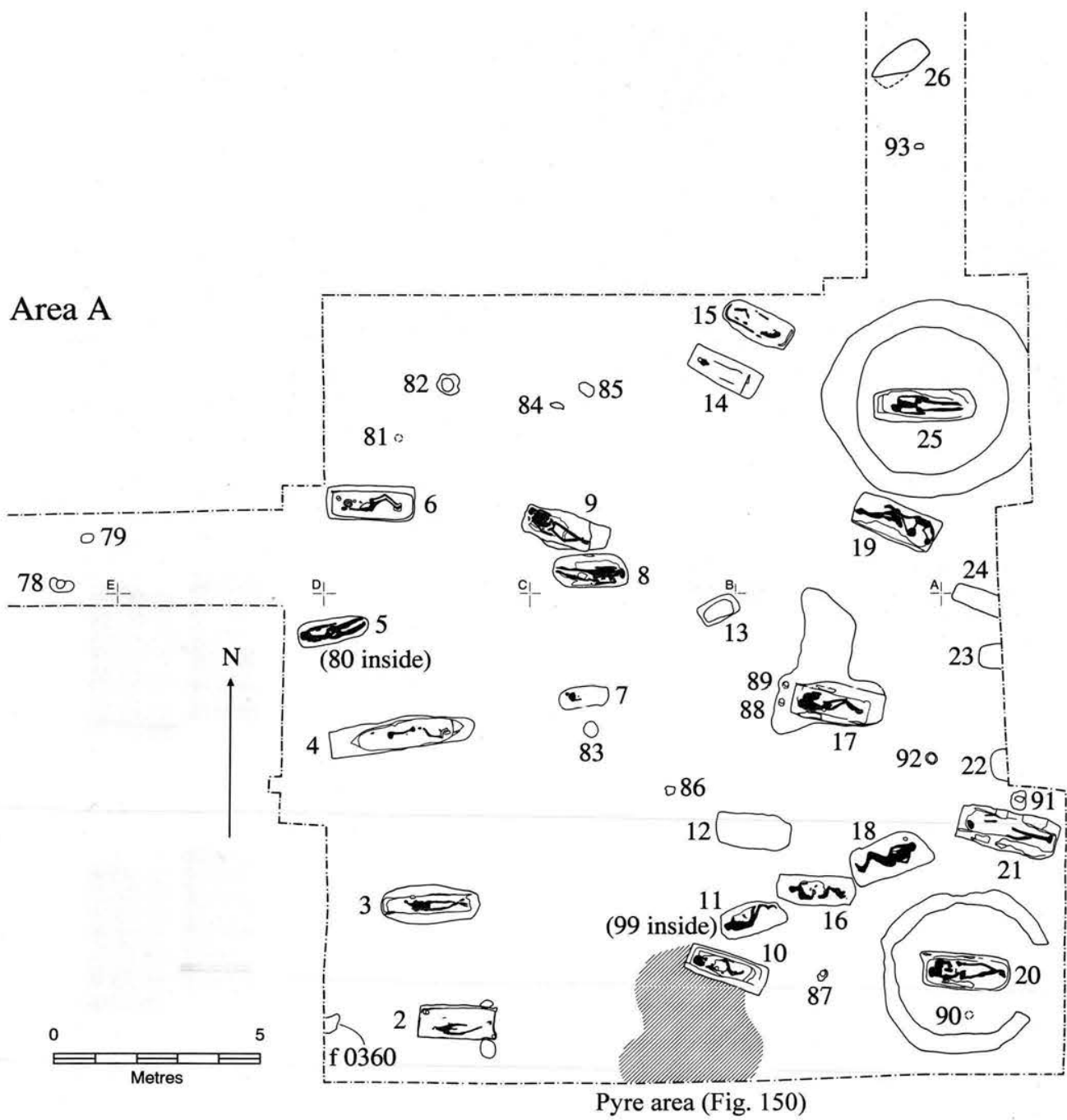


Figure 6 Plan of all graves and associated features, Area A. Scale 1:150

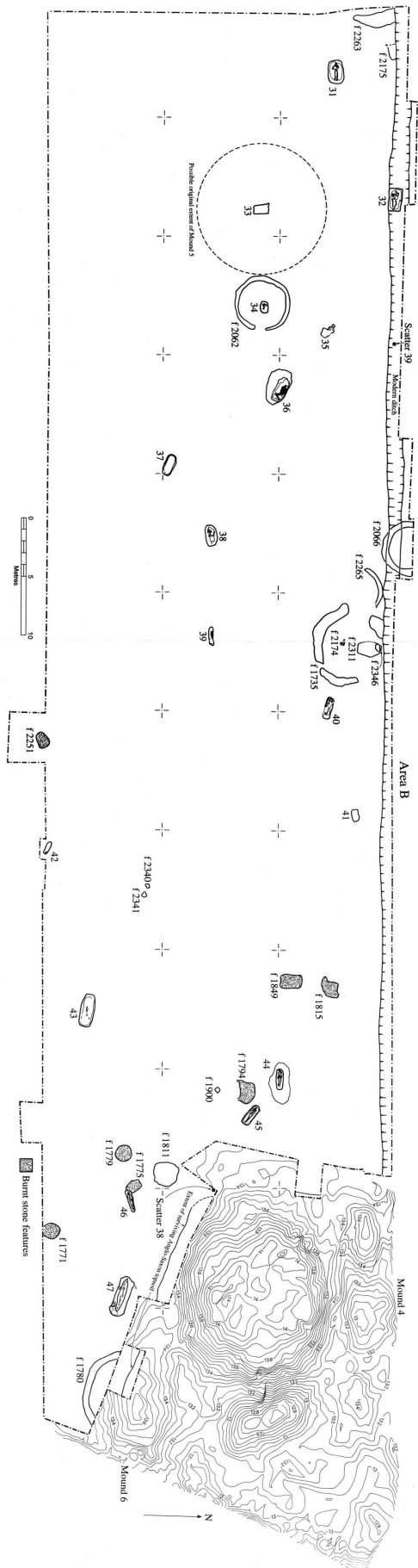


Figure 7 Plan of all graves and associated features, Area B, and contour plan of scheduled area enclosing mound 4. Scale 1:200

The cremation burials were the most vulnerable to plough damage, since they were less deeply buried than the inhumations. Their state of survival varied from the totally intact to the all but destroyed (Pls V and VI). The crucial factor was the variable existence of a layer of pale grey sand, sandwiched between the base of the 300mm thick ploughsoil and the top of the orange natural sand. The cremation burials (and other features such as the pyre) were all found within this layer, and the inhumation graves had been cut through it. It was therefore clearly the remains of the truncated Anglo-Saxon topsoil. Its thickness was greatest in Area A, where it was up to 300mm, but even in Area A there were significant parts where it had been totally destroyed. This variation could be accounted for by undulations in the underlying natural. Before ploughing, these undulations would have been reflected in the surface topography. Fifty years of constant cultivation had, however, completely flattened the surface and had thus destroyed the Anglo-Saxon topsoil layer in all but the deeper hollows.

Damage to the site had been compounded by soil erosion. The light land of the Sandlings is notorious for its 'sand blows', particularly in the autumn and spring before crops have taken hold. Soil erosion was at its worst away from the protection of hedge lines (where the blown sand tends to accumulate). It was particularly serious in the field south of the road, where no traces of the Anglo-Saxon topsoil layer were found. A few fragments of cremated bone from rabbit burrows and the fills of two inhumation graves indicate that cremation burials had formerly existed south of the road, but that they had been totally ploughed away.

The relatively gradual rate of this type of soil erosion (no more than a few millimetres each year) makes it even less likely that finds, whether of bone or pottery, will survive in the ploughsoil.

It was not only cremation burials that had suffered in the field south of the road. An inhumation grave (40) located in a 2 × 20m trench in 1990 had had the top of its head sliced off by ploughing, so that only 200mm of the grave remained (Fig. 66).

One important aim of the project (which never envisaged the total excavation of the site) was to define the differing states of preservation, so that decisions could be made about the need for future protection, whether by management agreements to restrict particularly damaging types of agricultural activity, or by extending the Scheduled Area.

By 1990 it was possible to map the differing 'zones' of preservation, following the technique which had been used at Sutton Hoo (Carver 1986, 33–9, fig. 25). Four such zones could be identified. The first was the garden of St Margaret's and the area of the surviving tumulus, which had been damaged by past excavation, but were otherwise intact. The second was the area of the present road, where preservation (as demonstrated by the intact urns found in the 1972 sewer trench) was excellent. The third was the field north of the road, where ploughing and subsoiling had caused considerable damage, but where cremations and inhumations nevertheless survived. The fourth was the field south of the road, where all cremation burials had

been destroyed and where the inhumation graves were also threatened by destruction within the next five or so years.

In consultation with English Heritage it was decided that the level of preservation in this fourth zone was too poor to merit scheduling or a management agreement to control ploughing. At the same time, the area undoubtedly contained important evidence which should be recorded before it was destroyed. Accordingly the decision was taken to excavate the entire area of the cemetery within the field, and English Heritage agreed to fund the work.

The excavation took place in two 10 week seasons in 1991 and 1992 and covered an area of 100 × 30m. Preservation was found to be if anything worse than expected, with some inhumation graves surviving to a depth of only 100mm. Most striking was the fate of the largest tumulus visible on the site in 1862, when it was 25.5m in diameter and stood up to 2m tall. Although a Scheduled Ancient Monument since the 1950s, its erosion had continued until it was invisible on the surface, but it was assumed that it would leave some subsurface traces. In the event, the only feature which could possibly be linked to it was a 420mm deep pit, containing a number of sherds of pottery, which lay in the approximate centre of the mound, as marked on the 1973 edition of the OS 25-inch map (grave 33). It is therefore interpreted as either the robbed remains of a central burial or a 19th-century excavation trench. Apart from this, however, the mound (which presumably had no ditch) had left no traces whatsoever.

II. Excavation Techniques

by Tim Pestell

The method of excavation remained substantially unchanged throughout the project. Whilst the 1985 3 × 3m trial boxes were all excavated by hand, the other areas examined were machine-stripped of ploughsoil using a JCB with a 2m wide toothless bucket. Fieldwalking and the first season's excavation had shown the ploughsoil to be devoid of finds and it was therefore removed with no further examination down to the top of the Anglo-Saxon topsoil layer, where it existed, or to the top of the natural sand.

The revealed surface was given a light shovel scrape before being trowelled over. All cremation burials and other spreads of material surviving in the topsoil layer were plotted mostly as detailed 1:10 or 1:20 plans with finds being individually numbered and levelled. Scatters consisted predominantly of pottery sherds or cremated bone, but also included a few metal objects, charcoal and burnt flint. Following the plotting and removal of all such material and the cremation burials (see below), the topsoil layer was removed by hand, to reveal the natural sand. It was at this stage that the inhumation grave cuts normally became visible. The whole excavation area was re-trowelled, often several times, to ensure that all inhumation grave cuts had been located. The need for this was demonstrated by the discovery of several graves rendered almost invisible by their fills of redeposited natural. As a final check, c.0.15m of natural sand was removed by shovel over the entire area.

Excavation of cremation graves and surface scatters

Cremation burials, except when contained within the fill of an inhumation grave (graves 88 and 89), were typically severely damaged and some survived as only a scatter of material, either wholly in the topsoil layer or cut slightly into the underlying natural sand.

In a very few cases cut marks for the burial pit were observed. Excavation was undertaken in quadrants, bone being hand recovered and sieved later for specialist examination. Hand collection, usually with a fine paintbrush, ensured that no bone or small-finds were missed, as sand could be brushed off the cremated material.

Surface spreads were excavated as part of the overall removal of the topsoil layer. Individual components were plotted in three dimensions on detailed plans.

Excavation of inhumation graves

Inhumation grave cuts generally appeared at the top of the natural sand level, although several from Area A were seen in the original topsoil layer. As soon as the outline of the grave was clear, gridpoints were established at each end of the grave and then tied into the overall site grid. These two points became the fixed reference points for all plans of the grave.

One of the most important factors governing the excavation of the graves was the lack of surviving skeletal material, bone having been destroyed by the high acidity of the natural heathland soil, producing a soil 'stain' of the body (Pls XI, XIV, XIV and XXII). Similarly, it rapidly became clear that many graves contained the remains of organics, also preserved as sand stains. To enable the recognition and recording of both these types in their entirety, excavation was undertaken 'in plan', with spits at 50mm intervals. Plans were drawn every 100mm in the upper levels and every 50mm lower down, or when container stains first appeared. All recording was at 1:10 scale with certain worthy features, typically grave-good groups, drawn in more detail, usually at 1:1 or 1:2. At the bottom of each grave the remaining fill was emptied to reveal the three-dimensional stain of the body and the base of any container or fitting for the final grave plan. Profiles and sections were made, often in a series of running quadrants. Sections were drawn at 1:10. As a result, plans could be 'stacked' and combined with sections to reconstruct the graves and their contents in the three-dimensional way shown in the catalogue (Chapter 4). This method often projects the location of objects onto the sections generated, rather than portraying the actual situation in the ground along every section line.

Initially, graves were excavated by removing only the fill. Experimentation showed that excavating the surrounding natural sand as part of the spit showed the grave edges better throughout. Excavating a 'box' around the cut also enabled planning frames to be placed immediately above the surface being recorded, thus improving the accuracy of the plans. This technique also ensured that grave edges could not be accidentally over- or under-cut.

Sampling

Body stains were extensively sampled in all inhumation graves excavated, originally to provide supporting material for the Sutton Hoo Research Project's study of 'sand burials' (Bethell and Carver 1987). Samples were taken from each component of the body and bagged individually. Any remaining stained soil was reburied in the grave following the completion of excavation. Samples of stains from containers or other objects were taken where they survived well and in all cases where there was any charcoal present. Burnt flint fragments were also present in many graves but they were only recorded systematically in the later years of the project. On the advice of Peter Murphy (pers. comm.), it was not considered worth taking samples for pollen analysis as this was unlikely to have survived in the prevailing soil conditions.

Extraction of finds

It rapidly became apparent that metal objects within graves were associated with the very good survival of organic remains such as textile. A technique was therefore evolved (in conjunction with Esther Cameron at the Institute of Archaeology, Oxford) which enabled the maximum amount of associated organic material to be raised with the object for laboratory examination, while still allowing the object to be accurately plotted onto the grave plans.

Following location, finds were only lightly cleaned for recording before being lifted. The aim, where possible, was to extract objects still in their surrounding matrix of earth. The area surrounding an object was left upstanding as a pedestal. Depending on the size of the block being extracted, a wooden frame and expanding two part polyurethane foam, plastic container or bandages were used to support the soil while a steel sheet was slid beneath. Pins in the soil block marked its orientation and were planned relative to the grave grid points. Soil blocks were then taken to the laboratory for X-radiography and excavation. As a result many tiny and fragile details were identified, the relationship between organic remains and the metal object could be explored, while the pins, showing up on the X-ray, could be used for accurate location of the object on the overall grave plan. The success of this method owed much to the absence of bone and to the pure, almost stone-free, sand of the site which made the creation and extraction of blocks relatively easy.

Other features

All other features encountered were planned at 1:10 or 1:20 at the surface level. Burnt stone features were excavated in spits of 100mm, with new plans at each spit level, in an effort to define them better due to their agricultural damage. The remaining features from the site were planned at surface level and sectioned. All features were fully excavated and in Area B, the fills were 100% sieved.

Chapter 4. Catalogue of Inhumations, Cremations and Other Features

I. Introduction

by Tim Pestell

Numbering

All contexts, samples and small-finds were numbered on site in a single numerical sequence according to the Suffolk Archaeological Unit's 'OP' context system. For publication, the inhumations and cremations have been re-numbered in a single continuous series, cremations beginning at grave 48. A few inhumation graves have more than one plan or section, and these are distinguished by upper case roman numerals. Grave-goods are distinguished by upper case letters whilst organic materials have, where necessary, been given lower case roman numerals. Different textile weaves are indicated by lower case letters in brackets. Other assorted objects or contexts have generally been left under their original site numbers, italicised within the text. For the ease of those wishing to use the site archive, all original OP numbers for finds are given in square brackets at the end of each catalogue entry.

Inhumations

Sex/age

In the absence of any skeletal material, graves have been sexed on the basis of grave-goods alone. This method has been questioned by some as it can lead to assumptions of gender (Henderson 1989) but work by Brush (1993) suggests that there are only a minority of probable exceptions to these traditional equations.

Assessment of age cannot be made with any accuracy for most burials due to the destruction of bone in the acid sand, although the size of cut provides a clue in some cases, for instance graves 7, 13 and 42. Because body stain is generally poor or non-existent for infants or children, whilst full-size graves usually have good stains, juvenile burials might arguably be present where only a poor or partial stain is observed. However, a large number of other organic stains in a grave also seems to lead to a poor or less distinct body stain, so that burials need not have contained juveniles even where they have been tentatively suggested (as for instance in grave 47). Similarly, the survival of bone in grave 12 suggests a middle-aged adult even though no body stain survived.

Grave containers

The containers and other organic inclusions in the inhumations are generally shown at their highest outline, although at times staining seen at different levels has been joined together in plan for clarity. Stains are shown in their entirety if they appeared as a layer at the bottom of a grave rather than with edges higher up (for instance Fig. 55). Wood stains are, where thick or large in number, shown in outline only. In a handful of cases pieces have been removed from some of the sections for clarity, but in all

such cases this is noted in the accompanying catalogue entry.

Ring-ditches

Three graves (20, 25 and 34) were surrounded by ring-ditches. They are described in the text of the relevant grave catalogue entries, but for ease of comparison, the ditches themselves are illustrated with the other ring-ditches (Chapter 4 section VI).

Grave-goods

For convenience, all objects of copper alloy are abbreviated as Ae. All drawings are ordered by grave and are published at the following scales: copper alloy, gold, silver and beads 1:1; iron objects and glass 1:2; pottery 1:3 with stamps at 1:1. Exceptions to this are iron objects such as buckles and dress pins which are at 1:1 for comparison with copper alloy counterparts; the sword and bucket from grave 47 at 1:4, and the copper alloy bowl from cremation 68 at 1:3. Scales of all illustrations are given in the captions. The poor condition of some objects due to decuprification (the leaching out of a metal's copper content in the acidic conditions) has meant that they could only be drawn from X-ray plates. A few others are too badly corroded for any illustration. Objects found within the fill of graves, but not obviously 'grave-goods', are illustrated with the other objects from the grave.

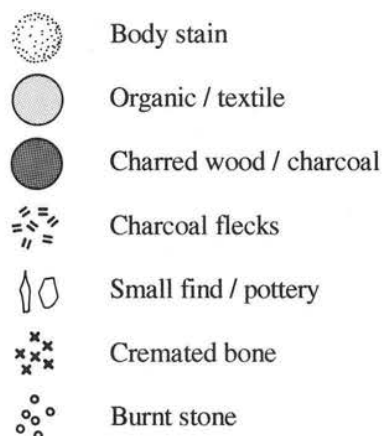
Artefact classification

Despite the problems with many classification systems, the following have been used: spearheads, Swanton (1973); shield bosses, Dickinson and Härke (1992); wrist clasps, Hines (1984); glass claw beakers, Evison (1982); florid cruciform brooches, Leeds and Pocock (1971) and Hines (1997).

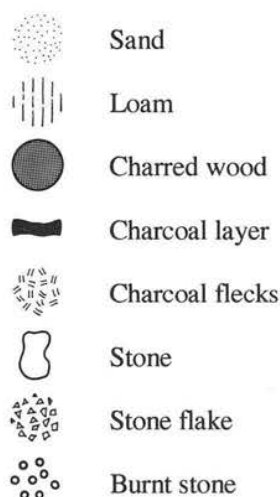
Cremations

The catalogue includes all those urns known to have been recovered from Snape. There are a number of problems associated with this, notably the very limited information available for most of those urns found in the 1862-3 excavations. Consistency of terms is at times difficult and a number of descriptions have been used to characterise the state of the cremations. In some cases, 1862-3 urns are noted as containing concreted cremated bone which was not examined. This is because the bone was truly solid and could not be removed without danger of breaking up either the urn or its contents. For present purposes, the 1862-3 urns are all presumed to have originally contained complete single cremations although most bone has been lost since their recovery. The mixing of what bone survives in all but a handful means that they are regarded as 'incomplete', since they were possibly intact in the ground. Otherwise, where possible, cremations are listed as intact or truncated. A distinction is made between 'no

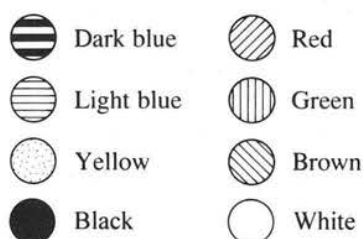
Grave Plans



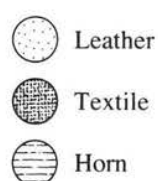
Burnt stone features



Bead colours



Knife diagrams



cut observed' (as there may have been one which was not seen) and 'unknown' where there are no records. That cuts may exist but not be observable is a result of the difficult soil conditions, especially in the 'buried topsoil' layer within which most cremations were interred.

The 1972 material has already been published (West and Owles 1973) and is incorporated here. However, direct comparisons are not always possible since bone weights, for instance, were not noted. Moreover, the 1972 material was collected more in a spirit of salvage than excavation, often from the spoil heap running parallel with the sewer trench, causing other difficulties. It is likely that much was missed and the bone samples are incomplete. In addition, a few bags of bone with uncertain locations and laconic identifications (for instance, 'bone' and 'manhole bone') exist in Ipswich Museum. There has been no incorporation of these contexts into the catalogue although a small iron rivet in a bag marked 'manhole bone' is listed as scatters No. 40 (section IV).

Decoration

Those urns decorated with stamps have been classified according to the system developed by Teresa Briscoe for the Archive of Anglo-Saxon Pottery Stamps. The implications of these stamp types are discussed by her in Chapter 5 section X.

Urn numbers

All urns have been included within the single sequence of context numbers used in the excavations at Snape. For publication, these contexts have been used within each catalogue entry. Those urns now in museum collections also have, at the end of each catalogue entry, their museum accession numbers given. The following abbreviations are used:

| | |
|-----|-------------------------------------|
| Ald | Aldeburgh Moot Hall Museum, Suffolk |
| Ash | Ashmolean Museum, Oxford |
| BM | British Museum |
| Ips | Ipswich Museum |
| Ver | Verulamium Museum |

Those urns contained in Myres' *Corpus of Anglo-Saxon Pottery of the Pagan Period* (1977) have been noted and his corpus number given. The urns have been redrawn in all cases, many having been inaccurately represented in previous illustrations, with one exception (cremation 50). This has had to be redrawn from the illustration in Myres (1977) because the urn is now missing.

Radiocarbon dates

Throughout this report, radiocarbon results have been calibrated using CALIB v.2.1 (Stuiver and Reimer 1986) and data from Stuiver and Pearson (1986). The ranges cited are those for 95% confidence (2σ) unless otherwise stated.

Figure 8 Conventions used in the inhumation grave plans and for grave-goods

II. Catalogue of Inhumations

By Tim Pestell, incorporating specialist contributions by Harry Appleyard (fibre analysis), Sue Anderson (human bone) Teresa Briscoe (pot stamps), Esther Cameron (knives, sword and conservation), Elisabeth Crowfoot (textiles), Shirley Carnegie (pottery), Simon Davis (horse head), Vanessa Fell (conservation), Rowena Gale (charcoal), Graeme Lawson (lyre), Simon Mays (cremated bone), Carol Neuman de Vegvar (rim binding), Mark Robinson (insect remains), Penelope Walton Rogers (textile dyes), James Steele (cremated bone), Jacqui Watson (wood) and Stanley West (beads and brooches).

Grave 1 (probable inhumation) (Pl. I, Figs 4 and 78)

Dimensions: Tumulus; diam. approx. 22m, height approx. 1.7m.

Orientation: Ship in trench beneath tumulus E-W.

Container for body: Clinker-built ship.

Sex/age: Male, unknown.

Body position: Unknown.

Description: A robbed tumulus presumed to have contained the inhumation burial of a male within a ship. The burial probably re-used a Bronze Age barrow, judging by the presence of the collared urn encountered in the 1862 excavation (grave 48). The mound also contained several Anglo-Saxon cremations, including grave 51, but their stratigraphic relationships with the ship burial deposit are unclear (Chapter 5 section I, pp.193–4).

There are several remains of metalwork from the ship itself, variously held by the Aldeburgh, Ipswich and National Maritime museums. Most appear to be of partial or complete rivets, although other fittings are present, notably Fe strip 1660, discussed further below (Chapter 5 section I, pp. 194–5). All pieces have been X-radiographed and allocated individual context numbers, records of which are held in the site archive. Examination of mineralised wood attached to some of the rivets in the Aldeburgh museum showed the boat's strakes to have been made of slow-grown oak heartwood (*Quercus* sp.). The burial and its contents are discussed in detail in Chapter 5 section I.

Grave-goods:

- A: Incomplete glass **claw beaker** (Evison 3c) (Pl. IV). Many fragments survive including seven claws and most of the rim; the foot is missing. The glass is a bubbly olive-green, with wisps of a rich brown in the claws. It originally consisted of eight broad-lobed claws arranged in two tiers. Each claw has a vertical overtrail covering the central hook-channel; six of the surviving claws have the trail notch-tooled, with the seventh plain. The horizontal trail at the rim is of 23 turns, that at the foot of 13 turns. Estimated original height was 175mm, the irregular oval mouth diameter approx. 100mm. [0557]
- B: Au **finger ring** with a Roman onyx intaglio depicting the standing figure of *Bonus Eventus* (Happy Outcome) (Pls II and III). This gemstone is set within a massive hoop whose wide shoulders are decorated with granules and beaded and twisted wire. Granules and hook-and-eye decoration on the shoulders has been combined to give a zoomorphic effect. See

Chapter 5 section I for a detailed consideration of the ring. Drawing by James Farrant. [0556]

- C: Unknown **object** described as being of a few pieces of jasper (a type of quartz). Now missing (*not illus.*). [0767]
- D: Small fragment of **opaque blue glass** considered by Francis Francis to have been from another vessel (Francis 1863a, 75), although it might also possibly have derived from a cremation burial. Now missing (*not illus.*). [0768]
- E: A mass of 'dark dirty red' hair with a smaller amount four feet away, wrapped in 'sailcloth'. Originally, they probably formed a shaggy **woollen cloak**. Now missing (*not illus.*). [0765, 0766]
- F: Two **spears**, the Fe heads of which were found apparently in the upper levels of the robber trench backfill, described by Francis Francis (1863a) thus: 'one or two spearheads were found, the only weapons that were discovered. They were of iron, but the metal was almost entirely oxidised... a portion of the wooden shaft of the spear still remained perfect in form and appearance, imbedded in the socket of the weapon'. (i) survives in two fragments which suggest Swanton H2 type. (ii) survives as only badly corroded fragments, the base of which can be recognised and illustrated from X-rays. Lengths: i. c.110mm, ii. c.135mm. [i: 1650 and 1670. ii: 1655 and 1669]

Grave 2 (inhumation) (Figs 9, 10, 11, 79 and 80)

Dimensions: 1.94 × 0.88m

Orientation: 269°

Container for body: Organic lined chamber with posts at each corner and a possible post-built structure above.

Sex/age: Female.

Body position: Supine extended, legs probably crossed. Head to west.

Description: A regular rectangular cut with uneven vertical sides, undercutting in places. It contained a fill of yellow-brown and grey sands. The fill was stony throughout, as the grave cut through a band of ironpanned gravel. The grey sand was delineated from the yellow-brown along an east-west line on the north side of the grave, probably reflecting the circumstances of the grave's backfilling (Pl. VII and p. 242). A small lump of charcoal, i. of oak stem (*Quercus* sp.) emerged at 14.16mOD.

The dark brown organic stain of a liner showed clearly throughout excavation. At 14.07mOD the east end began to hollow in, a process increasing in subsequent layers to show bulges at the corners. A similar process began at the west end from 13.98mOD. A quadrant was left upstanding in the south-west corner; a pot obscured any such possible bulging in the north-west corner. These bulges seem to represent stake or post-holes used to support the organic chamber within which the body was laid. These post-holes showed well in section but are difficult to reconstruct accurately from spit plans. They are superimposed on the eastern cross-section grave cut (Fig. 11, I–J); the post-holes shown on the long section are from the grave south side. Two lumps of clay, 0358 and 0359, encountered whilst shovelling off the bottom of the ploughsoil proved to lie almost directly over the two eastern corners of the grave. They possibly represent the clay packing or pads of post-holes for a structure above

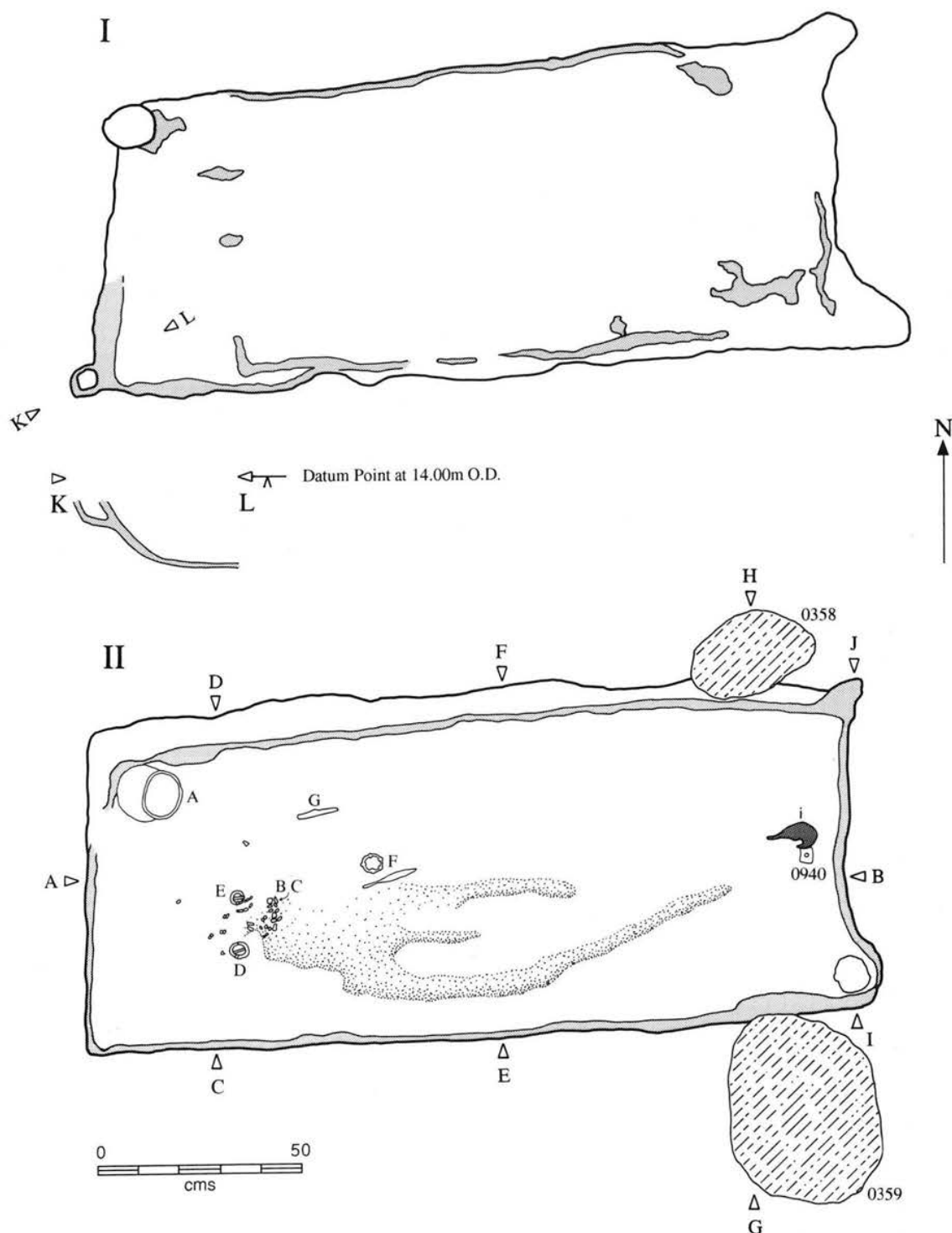


Figure 9 Grave 2, plan. (I) shows a composite plan of the organic liner at a lower level than in (II). Scale 1:15

the grave. They were only sectioned along a north-south axis so they are shown only on the long section.

The body stain was very poorly preserved and definition was made more difficult because the organic lining on which the body was laid was of a similar colour. The chest area was removed in a block for laboratory excavation. The areas defined suggest a body laid supine extended, slightly to the south of the chamber. A central line suggests the backbone whilst the lines continuing on

from the legs imply arms laid alongside the body. Metal salts from annular brooch *E* preserved a number of teeth and bone fragments by mineralisation, as well as fragments of fine thread (the best 10×8 mm, Z and S, but the weave was unclear and no dye was detected). A fragment of textile (a) was also recovered, 1261; 13×9 mm, wool, ?pigment, no dye detected, spin Z/S, loose, 2/2 twill, count 10/10.

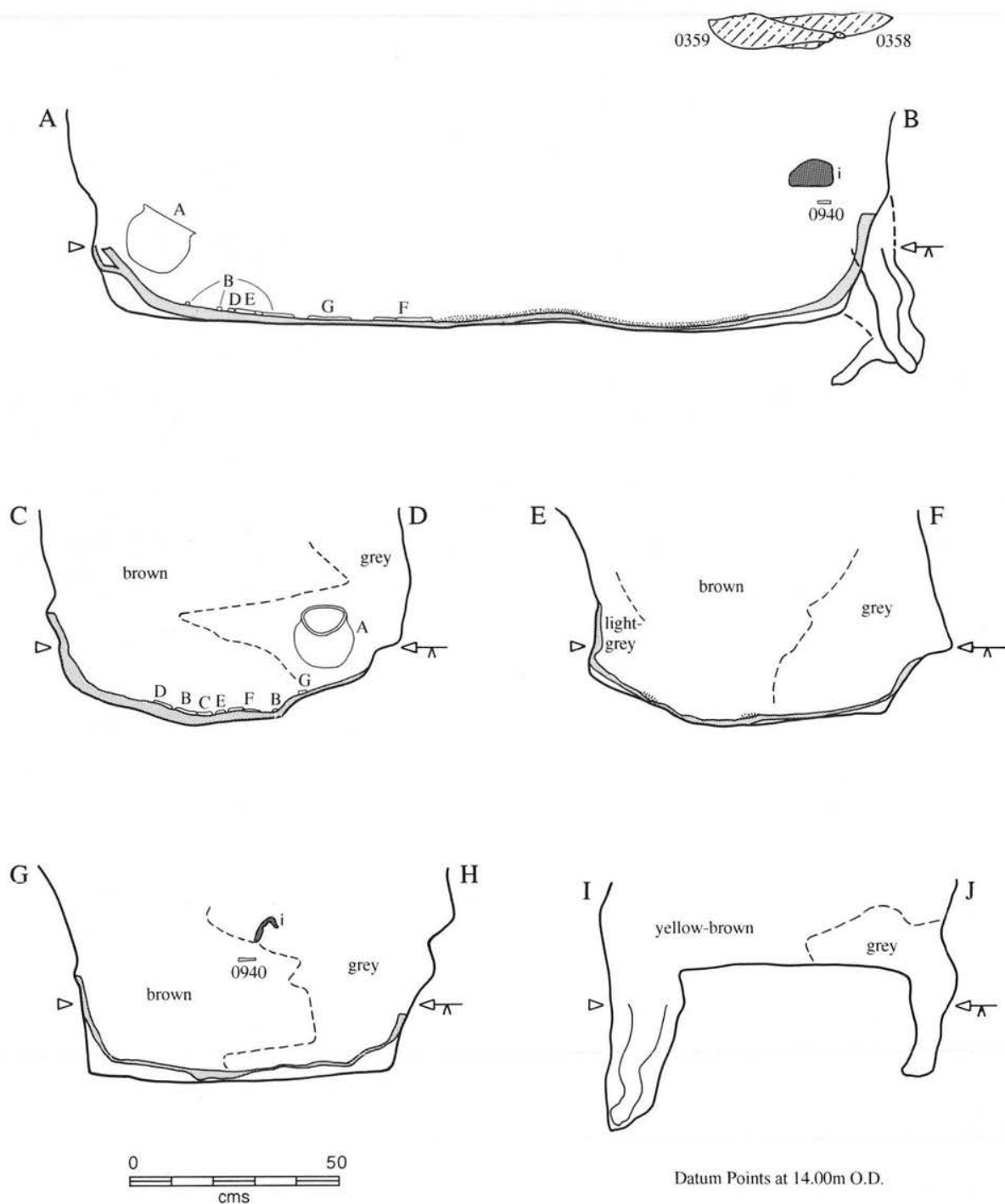


Figure 10 Grave 2, long and cross-sections. Scale 1:15

A sherd of pottery, 0275, found in the topsoil immediately above the grave before the cut was clear derives from pot 0930 from the 'cremation pyre' area (**scatters No. 12** and pp. 244–6). A fragment of Ae, 0940, possibly from a brooch and decorated with dots, was found within the upper grave fill at 14.10mOD. It has mineralised threads around it, Z-spun or fine Z-ply, but cannot be specifically linked with the pyre scatter.

Grave-goods:

A: Complete globular **pot** with short upright rim and slightly hollowed base. Decoration consists of three horizontal lines above a double incised chevron decoration at the shoulder showing an overlap where the pattern was started and finished. The fine sandy fabric has some grit, is grey internally and brown externally, with grey reduced areas. It has been smoothed inside and out. The pot was placed left of the head. Height 126mm. [0944]



Plate VII Grave 2, showing differential colouring of backfill

pigmentation. What scale structure there is indicates wool. No dye was detected. [1272, 1274]

- G: Fe **knife** with broken tip, length 106mm. There are traces of horn on the tang and a 1mm thick compact layer, probably from a leather sheath, curves over the blade back. It extends a little beyond the cutting edge and overlaps the handle junction by 11mm. The weave of the associated textile is unclear and partly infested with insect pupae which are too degraded for identification. A small textile patch appears to have coarse Z/S-spun threads. A 13 × 12mm patch on the sheath fragment is of (d). It has Z/Z spinning and a very even 2/2 twill weave, thread count c.15/13 on 10mm. Its coarse-fibred threads suggest flax. [1280]

Grave 3 (inhumation) (Figs 12, 13, 80 and 81)

Dimensions: 2.44 × 0.98m

Orientation: 270°

Container for body: Charred container — part of a boat?

Sex/age: Male.

Body position: Extended supine, right leg crossed over left.

Description: A large apsidal-ended cut with near vertical sides. The cut was very difficult to observe at the surface as it was set within a mottled area of grey sand and natural. The fill was a stone-free, heavily mottled, mix of orange-brown redeposited natural with some mid grey sand throughout. Within the uppermost levels the remains of wood lumps were observed and although samples were taken the remains were too poor to be identified.

The charred stain of a container appeared at 14.23mOD with a flat blunt end to the west. The stain was



Plate VIII Grave 3. Outline of the burial container with the shield boss leaning against the inside edge

always quite distinct due to being charred and in places was seen as two thin parallel lines, suggesting that it had been burnt on both surfaces of the wood. Samples show the wood to have been of oak heartwood (*Quercus* sp.).

The original form of the container is of interest since it was open on the eastern edge (the long section in Fig. 13 shows the extent of the stain on the north side), whilst the western end sloped down to a flat bottom where the body was actually laid. A possible interpretation is that the container was a part of a boat with the west end bow point and the eastern half or end third removed. This identification is tentative but would accord well with the slope shown on the long section, the rounded bottom seen in the cross-sections and the container being made of oak heartwood. The width of the container is also similar to that of the well-preserved boat stain in grave 47. Against this interpretation is the fact that there is no significant widening of the stain to the east and the lack of narrowing at the west. However, if the bow had been cut off at the west end (as a bow is argued to have been, for burial on its own in grave 10) the ensuing lack of rigidity in the boat sides may have caused a flattening, and therefore widening of the stain at this point. Parts of boats are known to have been used as burial containers at Slusegård (Crumlin-Pedersen 1991) and this may be a parallel to the practice employed there.

The body stain was very poorly preserved and was frequently only a smear on the bottom of the container, although the feet were reasonably well preserved.

Grave-goods:

- A: **Spear** with (i) Fe **head** (Swanton H2), length 292mm, lying with the blade flat, the base tipped with (ii) an Fe **ferrule**, length 90mm. Approximate length of spear from these (tip to tip) was 2.1m. Mineral preserved wood in the sockets of both head and ferrule is of ash (*Fraxinus* sp.), from mature timber. Patches of mineralised textile on the ferrule, the best 20x9mm, are Z/Z spin, 2/2 twill, count c.7/6–7, thread diameter c.1mm; damaged, threads missing. The spear appears to have been laid on the top of the container. [0668, 0777]
- B: Fe **knife** with horn handle fragmented by corrosion, length c.130mm. The blade is encased in a compact 1mm layer confirmed as leather by SEM with traces

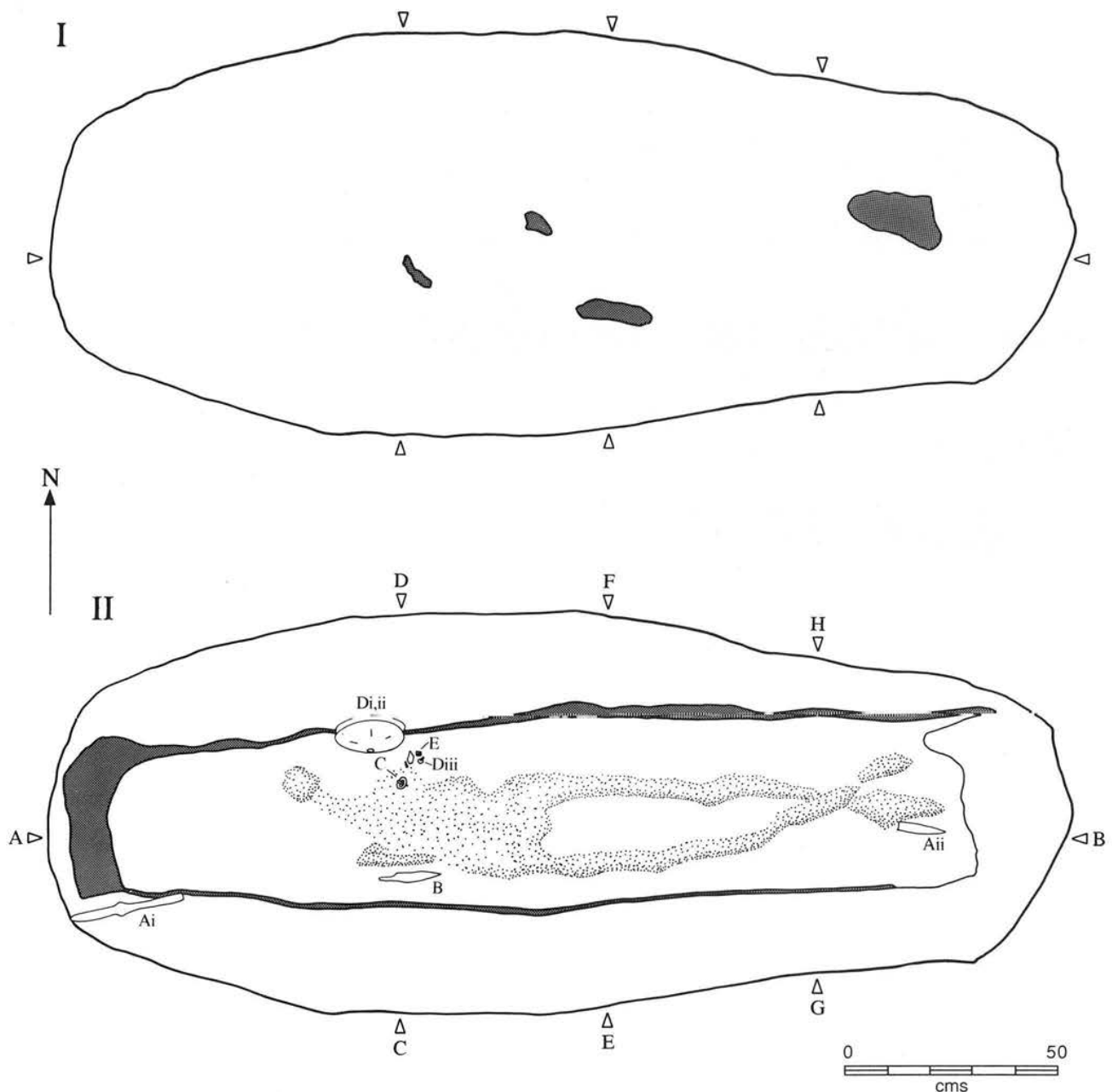


Figure 12 Grave 3, plan. (I) shows wood lumps in upper fill. Scale 1:15

of textile (unidentifiable) overlying it. Could only be drawn from X-ray. [0952]

- C: **Ae buckle.** Heavy loop with narrowed bar for strap. Stout Ae tongue curved to fit the loop, width 23mm. Found lying on carbonised wood of ash (*Fraxinus* sp.), with a tangential surface. Two textiles are preserved: (a) adhering under the buckle in a fold over an area 30 × 38mm, is dark brown, spin Z/Z, loose with fine threads; the twill weave has c.8 threads on 5mm in one system; the fibres are probably wool. (b), in a layer next to the buckle, 32 × 22mm, is very clear but deteriorated. Z/Z, very even 2/2 twill, no reverses, thread count 12–14/12–14 on 10mm. Lying across is a coarse Z-spun thread, similar to (a) and probably of wool. No dye was detected. [0954]

- D: **Shield** with (i) Fe boss (Dickinson and Härke Group 3) and (ii) grip, apparently placed leaning against the inside of the body container (Pl. VIII). Boss diameter c.180mm, height 72mm; grip length 144mm. The grip appears to have slipped out of place after burial and fragmented in the ground. Mineralisation preserves a thin layer of leather between the boss rim and shield board, but there is possibly no leather between the board and an Ae washer. The shield board, made of birch (*Betula* sp.) has a radial surface at the centre and a tangential one at the side (depth of wood at the rim is 4–5.6mm). On the grip there is a thin layer of leather between the iron and the wood. Only a sliver remains of the wood, whose grain lies along the length of the grip which may indicate that it was an inserted type.

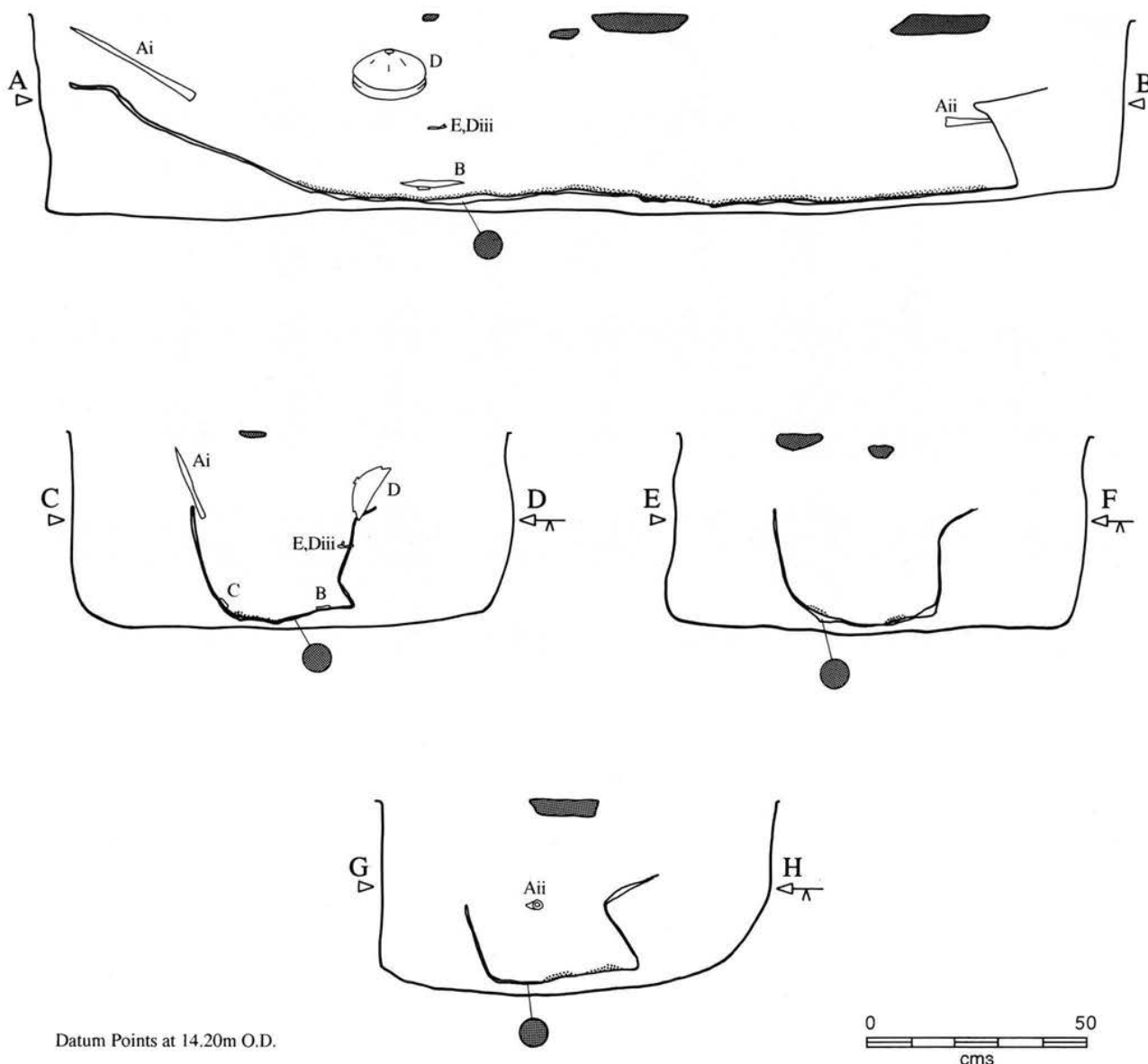


Figure 13 Grave 3, long and cross-sections. Scale 1:15

The outer part of the grip was bound with two strips of leather, approximately 2mm wide. A **shield stud** (iii) found with the grip and buckle *E* preserves traces of the shield board; at this point it is 6.6mm thick with an oblique transverse surface and covered with leather on both sides. Leather on the front of the shield board is a third of the thickness of the back and the complete shield thickness at this point is 13mm; it is possible that the edge of the board has been trimmed to a tapered shape. The boss front also preserves mineralised plant stems and other random organic material; ash wood (*Fraxinus* sp.) is preserved on the head of the stud. [0678, 0732]

- E: **Fe buckle** with wrap around Fe tongue; width of loop c.18mm. Found adjacent to the shield grip which preserves a fragment of ash (*Fraxinus* sp.) on the front, with a tangential surface possibly belonging to another artefact. There are traces of possible strap remains (not textile) on the pin loop. [0594]

Grave 4 (inhumation) (Figs 14, 15 and 82)

Dimensions: 3.68 × 0.82m

Orientation: 263°

Container for body: Small logboat.

Sex/age: Unknown, juvenile?

Body position: Flexed to right, head to west?

Description: A long rectangular grave cut with a rounded west end, containing a small logboat. The grave was first seen as an area of light grey sand between patches of mid brown sand at each end. Their positions were maintained throughout the fill. This seems to reflect the grey topsoil being backfilled into the centre of the grave whilst the orange lower fill was put in at the same time at each end. The fill had several small peagrit stones deriving from a band of ironpanned gravel sand through which the grave was cut.

The upper fill contained several small patches of charcoal, only some of which were planned, and a few sherds of pottery. Charcoal patches i (*not illus.*) and ii were

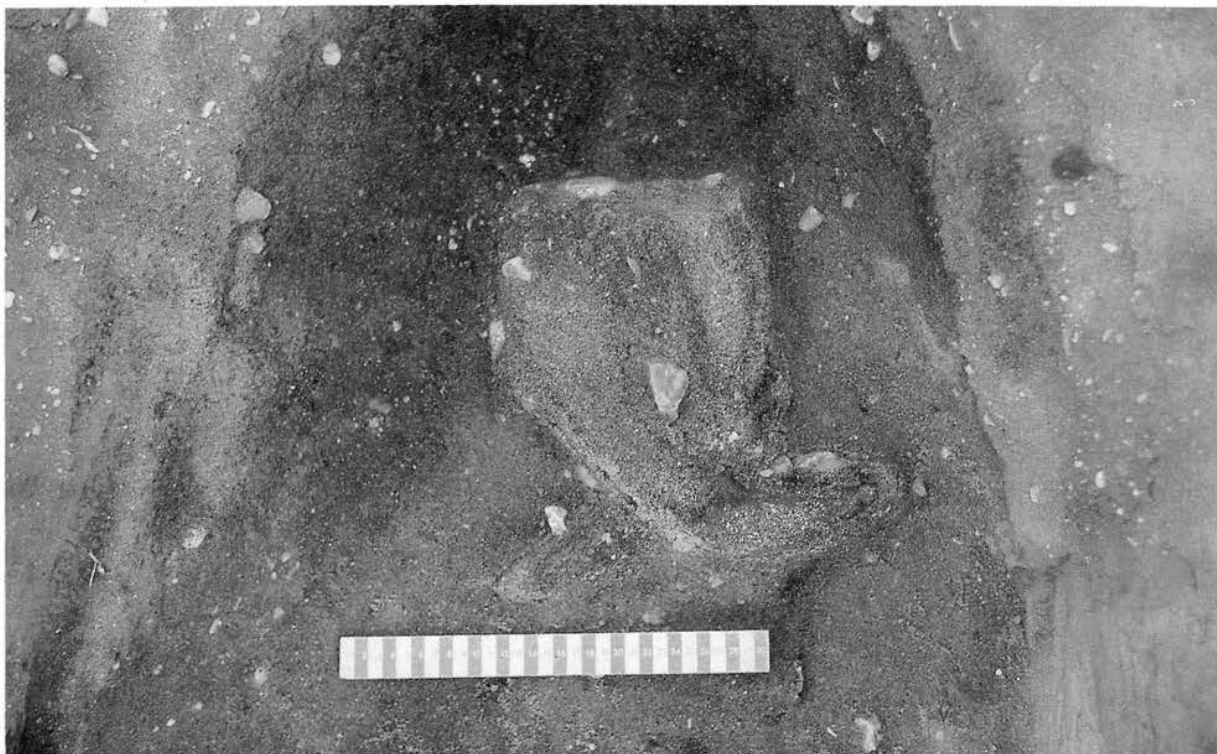


Plate IX Drinking horns arranged at the feet in the eastern bow of grave 4

seen after initial site clearance before the grave cut was properly defined. i was of oak stem (*Quercus* sp.) but ii could not be identified. Midway down the fill was iii, in three smaller patches (unidentified), and a burnt flint fragment, 0917. Tiny fragments of ?*Rosaceae*/*Ericaceae* ?root were also found at this level (0931). A mass of very small charcoal fragments (0945) found in the logboat's eastern bow stain at 14.05mOD were of oak (*Quercus* sp.), possibly softwood, but did not derive from the boat. Several small patches of charcoal appeared at the boat bottom close to the body stain: iv, v and vi. The latter two are of oak (*Quercus* sp.), v being softwood.

Three sherds of pottery were found in the fill. One, 0919, derives from vessel 0408, an open bowl with a dark grey sandy fabric (Fig. 82). Grey-brown on both surfaces, it had a smoothed outer surface and roughly scraped inner face. The other two sherds, 0918 and 0946, of a soft dark-brown fabric with angular grit and pitted surfaces derive from vessel 1152. Other sherds from this vessel were found within urn 0073 in grave 78 and loose in topsoil layer 0273, including a sherd directly above the inhumation before the cut was located (catalogued as scatters No. 20). They show the vessel to have originally been an open bowl (*illus.* under grave 78, Fig. 119). Finally, a small fragment of fused iron, 0915, was found midway down the grave fill (Fig. 82). It possibly derives from a cremation elsewhere on the site.

The logboat from this grave has already been published (Filmer-Sanke 1990a), but is discussed further with that from grave 47 in Chapter 5 section II. The distinctive V-shaped bow stain first appeared at the east end at 14.22mOD and the stain, always thin and patchy, gradually extended west. The plan shows the stain at its various highest surviving points throughout the grave. The

length of the boat as revealed was 2.96m although it was undoubtedly originally longer since the western bow only survived from 14.02mOD. The boat had a beam of approximately 0.70m, only slightly narrower than the grave cut, and a depth of about 0.4m. The force of the earth had distorted the stain and flattened the base, making it more difficult to reconstruct the boat's original shape compared to that in grave 47.

The bow changed from its V-shape to develop a pointed 'fin' at its lower levels (Pl. XXXIII). At 14.03mOD a curved stain appeared within both bow ends, but most clearly at the east end (Pl. XXXIV). These appear to represent solid blocks inserted into the bow spaces to act as thwarts or bulkheads, perhaps to help hold the sides of the boat apart if it had been expanded. Two samples of greasy organic material (1019 and 1135) were recovered from within the stain and possibly represent a caulking material, used to patch holes or cracks in the logboat.

The body stain barely survived and was located as only thin smears. These are best interpreted as representing a flexed burial, possibly of a juvenile, as the approximate body height is 1.40m.

Grave-goods:

- A: **Knife** with a short Fe blade and the remains of horn on the handle. It has no other organic remains. It comes from beyond the suggested head, at the west end of the boat. Length 104mm. [0959]
- B: 'D' shaped Fe **buckle** and tongue, width 20mm. Found lying tongue-side down, at the suggested waist of the body stain, covered in mineralised textile obscured by sand grains. Inside the ring is a damaged area c.9 × 9mm, with Z/S spinning, of very fine twill. [0960]

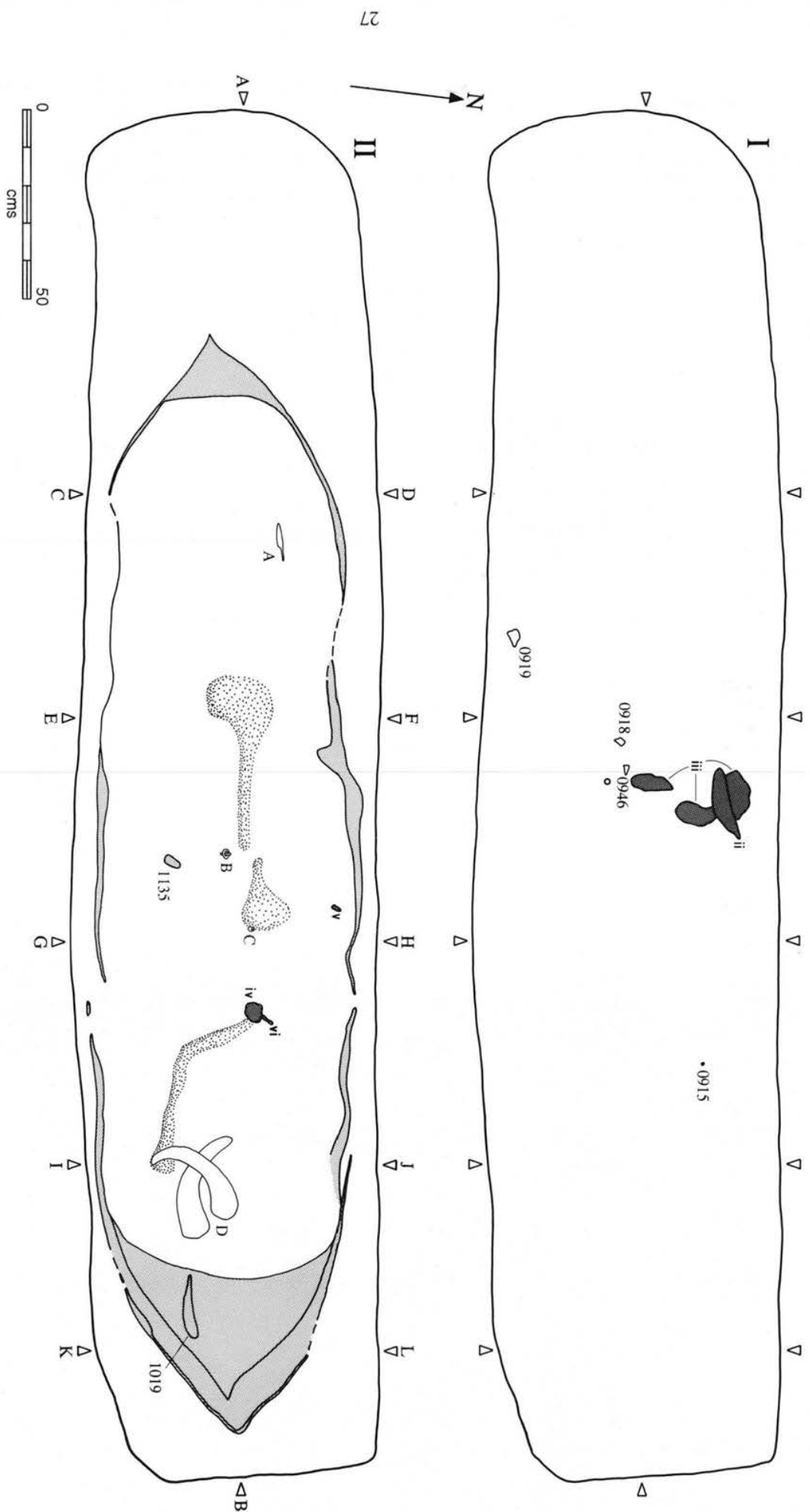


Figure 14 Grave 4, plan. (I) shows wood and pottery in upper fill. Scale 1:15

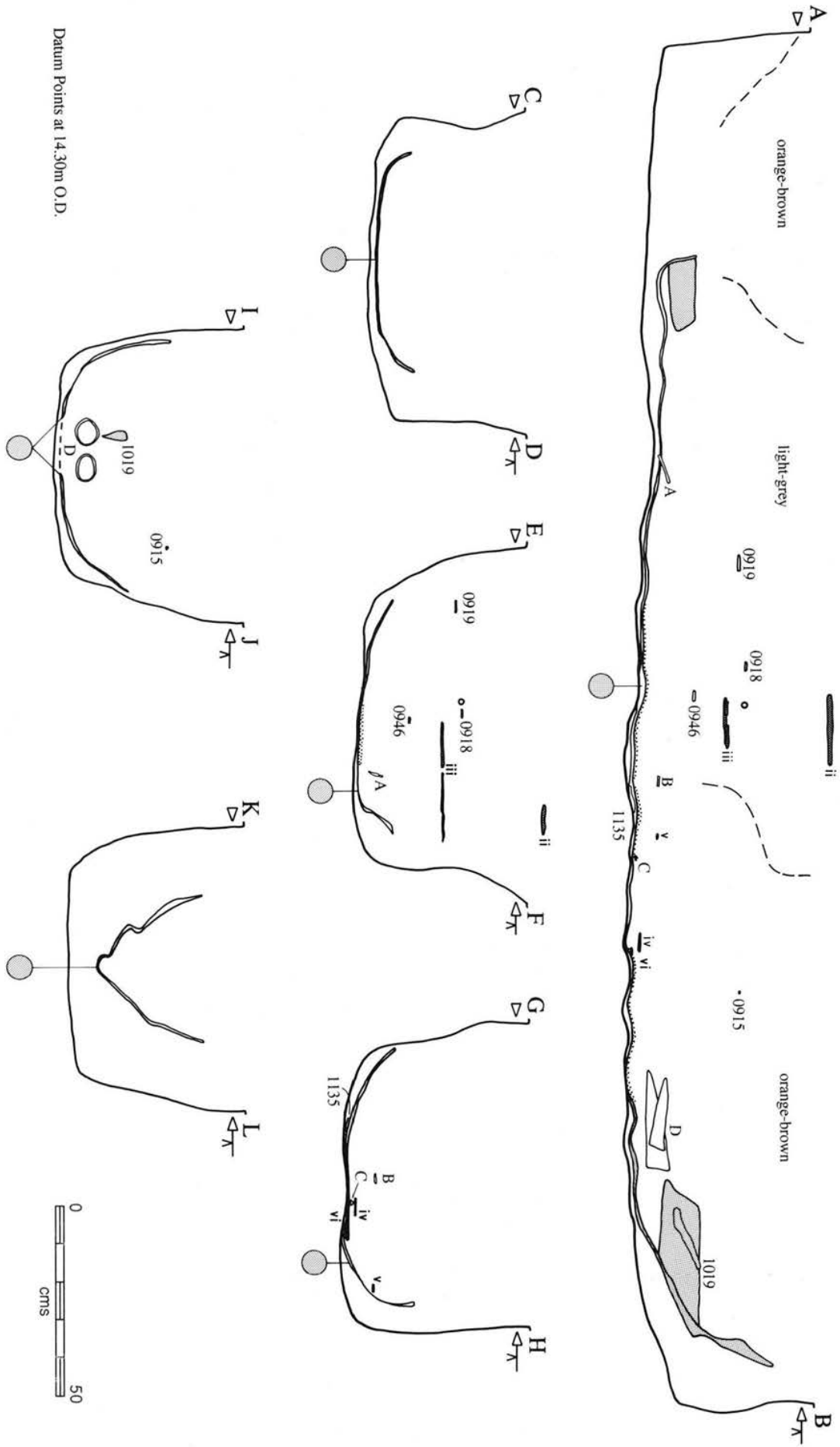


Figure 15 Grave 4, long and cross-sections. Scale 1:15

- C: Fe **stud or tack** at the grave base, possibly beneath the body stain. There are traces of leather on the head and mineralised textile beneath, perhaps from a belt; weave damaged, Z-spun. Diameter of head c.18mm. [1001]
- D: Pair of **drinking horns** arranged symmetrically by the body's feet at the east end of the grave. Both are apparently cattle horns. The shorter, (i), lays over the longer, (ii). The horns survived at their bases despite the absence of any metal fittings. The original extent of both could be discerned from dark stains of their upper parts (Pl. IX). See also Chapter 5 section III. [0963, 0987]

Grave 5 (inhumation) (Figs 16, 82 and 83)

Dimensions: 1.69 × 0.61m

Orientation: 259°

Container for body: None.

Sex/age: Female.

Body position: Extended, right arm laid over waist. Head to west.

Description: This grave was originally seen as a scatter of pottery fragments with some cremated bone and metalwork, thought to be a smashed cremation. Ploughmarks could be seen running through the scatter in its highest layer. The grave cut could be vaguely seen at this height but was only clearly defined at 14.41mOD.

The fill consisted of a stone-free greyish-brown sand, quite light grey in the upper fill becoming increasingly darker brown. Several lumps of ironpan mixed in with the fill halfway down. More fragments of pottery and cremated bone were found within the fill and three thin lengths of charcoal were seen at 14.20mOD. Smaller charcoal flecks and lumps were found scattered more widely in the fill. Those identified were all of oak (*Quercus* sp.) of heartwood and possibly stem.

The 118 pottery fragments from the surface scatter and throughout the fill derive from decorated pot 0318. They seem to be associated with scattered cremated bone and two metal finds, a burnt and twisted bronze buckle (0165) and an iron nailhead or tack (0185). This group is interpreted as a disturbed cremation and catalogued as grave 80. The plan and sections show only those fragments planned. No fragments of 0318 were found in the very bottom levels of the grave, although a few pieces of cremated bone were.

The body, showing as a very rounded, 'bloated' stain, was apparently laid directly in the grave. The remains of pot *H* were all found in the very bottom levels, concentrated in a dense cluster. They were placed immediately over the pelvic area of the body on the grave south side, apparently deliberately.

Grave-goods:

- A: Ae **annular brooch** with Fe pin lying near-vertically over left shoulder. Traces of three transverse bars. Oval shape, max. diameter c.46mm. Two textiles are preserved, semi-mineralised: (a), round to the top of the brooch in three folds has clear areas of 13 × 10 and 30 × 13mm. The spinning is Z in both systems with a medium twist even thread; weave 2/2 twill with variable thread counts 10/10, 10/8–9 on 10mm. The threads are wool with medium fibres, some pigmented, dyed blue with indigotin. (b), beneath (a),

has a clear area 27 × 12mm visible. The threads are dark brown with Z spinning in warp and weft; the weave is a 2/2 twill with variable thread counts, estimated 10/8 on 10mm. On this wool weave, the surface fibres are slightly matted, possibly raised. A fragment of tubular selvage is preserved for 27mm on one edge (Fig. 139.6). No dye was detected. Both brooch and pin are fragmented and are too fragile for a side view. [0696]

- B: Ae **annular brooch** with Fe pin, lying over right shoulder, pair to A. Oval shape, max. diameter c.5mm. The textile beneath is probably of (a). The area c.55 × 35mm, in folds over the pin, is stained with Fe. Its spin is again Z/Z, the weave a wool 2/2 twill with thread count 10/10 on 10mm. An area c.15 × 10mm of (b) was present in folds under the pin. Here, it seems to be looser than (a), with a thread count of c.12/6–8. Of wool, it was probably dyed brown, grey or black from oak galls. [0753]
- C: Fragmentary Ae **wrist clasp** (probably Hines B7). Elongated slit for fastening; decorated with single row of tiny annular stamps. Fragment length 23mm. The thin strip is fragmented within a wedge of mineralised textile. This shows two meeting edges from under the two pieces of the clasp with remains of the twill sleeve and the tablet-woven band (c) sewn to its edge: (i), 35 × 9mm, twill (a) or (b), c.30mm in length is turned under, with tablet warps protruding for 4mm, with no pattern wefts surviving. A damaged guilloche plait is sewn to the long edge. (ii), 13 × 30mm, a fragment from the other edge, with the guilloche plait of Z-spun thread (Fig. 139.4) sewn to it, is well-preserved for 22mm. This also has a 20mm wide fragment of the band (c), tablet-woven with warp threads Z-spun, showing part of the centre pattern area with stationary cords, 10–12 on 10mm. The wefts are also Z-spun, 12 on 10mm. The remains of a pattern, in fine horsehair, show two diagonal lines of wrapping ('soumak') surviving 6mm from the folded edge, and traces of other similar lines (Fig. 139.9, Pl. XLVI). The back of the braid is damaged and folded under, with untidy coarse S-ply threads that sewed it to the clasp, and a piece of the twill sleeve. The coarse fibres are very densely pigmented. No dye was detected. [0737]
- D: Ae **wrist clasp** (i and ii), (Hines B7) paired with C, found over the left wrist of the body, in two pieces. Catch-plate decorated with single row of tiny annular stamps. As on C, a fragment of braid (c) (14 × 45mm) is preserved, with the end turned under. Again it is Z-spun, the tablet-weave protected by the broken metal of the clasp; braid width 30mm, in the centre area stationary cords 6 on 5mm, and on one edge S,Z,S,Z,S. The pattern on this piece shows square tapestry patches, weft wrapping over threads from two tablets, alternately chestnut and black horsehair (Fig. 139.9, Pl. XLV). A guilloche plait similar to that on C is sewn to the edge, with a fragment hanging loose at the corner, probably originally sewn along the edge of the cuff opening. Remains of Z-spun twill adhere to the underside of the braid and protrude 15mm from the braid end. Coarse S-ply sewing thread hangs from a hole in the clasp. [0667 and 0699]
- E: Ae **belt buckle** with Fe tongue, drawn from X-ray. Obscured by traces of wool textile, (a) above; 38 ×

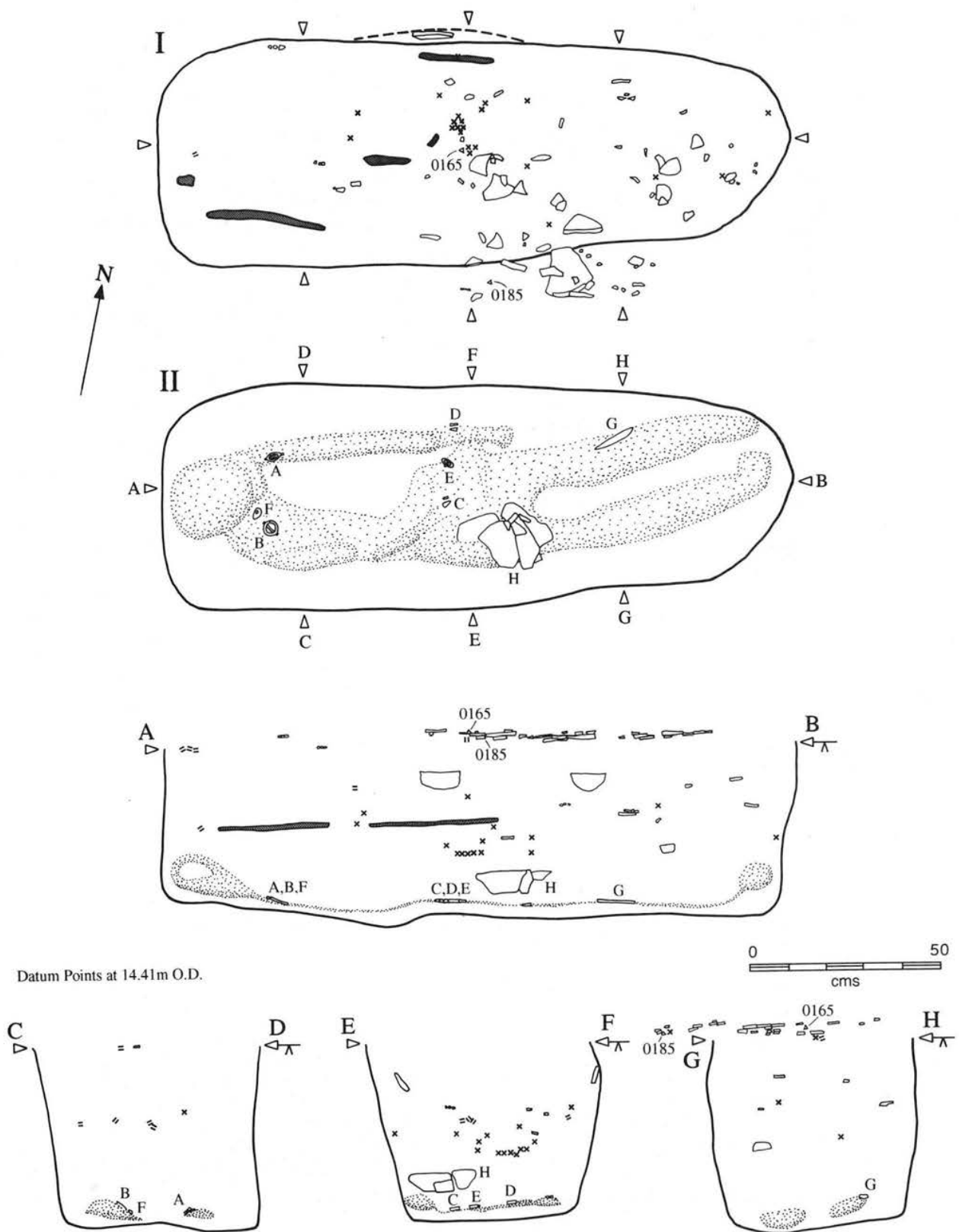


Figure 16 Grave 5 plan, long and cross-sections. (I) shows wood, pottery and cremated bone in the upper fill.
Scale 1:15

35mm, Z/Z spin, 2/2 twill, of very even spin and weave, count c.8–9/8 on 5mm. No dye was detected. Also (d) below, a tiny fragment, 3 × 3mm, ?hair or silk, 3 (?warp) bundles/c.24(?weft), possibly tabby, on leather. On one surface is a thin layer of oak (*Quercus* sp.). [0751]

- F: Large, flat amber **bead**, adjacent to annular brooch *B* at the throat. Length 29mm. [0754]
- G: Fe **knife**, length 110mm, preserving traces of horn on the tang. Fragments of the leather sheath are preserved on one side of the blade. The sheath is folded over the blade back but eroded along the blade edge. It overlaps the handle junction by at least 7mm. The leather, 1mm thick, has a grain pattern on one surface identified as calf. Associated textile is in detached fragments, the best 13 × 5mm, twill, Z/Z. There are only a few clear threads, which could be (a) or (b). [0845]
- H: Base and lower half of a **pot**, probably of a tall and open-mouthed shape. Of a dark brown sandy fabric with grey-brown vesiculated surfaces. None of the sherds have any decoration. The sherds were found crushed directly over the body stain. As reconstructed it has a hole in the base, but this may be due to a missing sherd rather than intention. Surviving height c.110mm. [0677]

Grave 6 (inhumation) (Figs 17, 83 and 84)

Dimensions: 2.1 × 0.86m

Orientation: 269°

Container for body: Coffin or ?organic lined grave

Sex/age: Male.

Body position: Flexed, knees to the body's left. Only fragmentary stains of backbone and skull. Head to west.

Description: The grave showed at top of natural as a regular rectangular cut with heavy black staining running along the grave north edge. The fill was primarily redeposited natural of mottled orange-brown sand, with light grey sand mixing in at the east end. The grave was excavated in very dry conditions which made locating the cut very difficult and it was seen best at the lower levels. The fill remained mottled orange-brown throughout, with patches of grey in the east end becoming more sparse deeper down. Within the fill were two fragments of cremated bone (0613) at the same level as the bottom lip of pot *A*. The large body sherd *E* lay at the grave bottom just east of the shield boss and seems to have been deliberately deposited. A few small flecks (0780) of oak (*Quercus* sp.) were found on the knees of the body stain.

The dense black humic stain of the body container retained moisture longer and was seen from the highest level of the grave. It began running along the grave north edge and lengthened from the west end until it showed as a complete rectangle at 14.07mOD. The western half of the stain was always the most dense. Its edges sloped inward and given the packing of the fill, this seems to accurately reflect the original container shape.

The bottom of the grave was a dense black semi-humic layer made up of a number of organic stains. The body stain was poor but showed the occupant to have been laid out supine with legs flexed.

Grave-goods:

- A: Nearly complete **pot** of high shouldered form with a damaged eversion for a thin flaring rim. The fine brown fabric with rounded grit has a grey inner surface with an outer surface of reddish-brown and grey areas. Both surfaces are vesiculated and carefully burnished. Decoration consists of three horizontal lines above a row of circular rosette stamps with a central boss. Beneath are another three horizontal lines above a row of rosette stamps on the shoulder (Briscoe types A5fii and A5ai respectively). The one surviving rim fragment was found elsewhere, associated with grave 90 in the south-east corner of Area A (Fig. 147). Pot placed within upper fill of grave inside container. Height surviving c.120mm. [0462, 0605, 0606, 0607, 0608, 0614, 0618]
- B: **Spear** with Fe head (Swanton H2), the blade laid vertically. The socket preserves mineralised wood of ash (*Fraxinus* sp.) from mature timber. Length 352mm. [0593].
- C: **Shield** with button-tipped Fe boss (Dickinson and Härke Group 3). It was laid flat over the head and shoulders of the body. The boss preserves traces of various organic materials including a patch of horn. The wooden shield board was made from willow (*Salix* sp.) or poplar (*Populus* sp.) and has an oblique tangential surface. There is a thin layer of leather between the wood and boss rim. More unidentifiable wood was squashed onto the front of the boss, but was too poorly preserved to identify. Staining in the area of the boss within the grave fill possibly represented the remains of the shield board. Diameter c.190mm, height 94mm. [0627, 0703].
- D: **Knife** with Fe blade and horn handle, length 102mm. Extensively mineralised covering leather is probably from a sheath and overlaps the handle by 40mm on the underside. It is folded over the blade back and joined along the blade edge where it forms a sinuous line but no stitching survives. Traces of mineralised textile adhere to the end of the blade (10 × 13mm) and near the handle (5 × 5mm); threads fine, spin not clear, twill weave. [0779].
- E: Single body **sherd** from a sub-globular pot of a dense grey sandy fabric. It has a grey inner surface and brown exterior surface. The inner surface is heavily scored with tooling and the outer surface is roughly burnished. [0700]

Grave 7 (inhumation) (Figs 18 and 84)

Dimensions: 1.36 × 0.62m

Orientation: 271°

Container for body: None.

Sex/age: Uncertain, juvenile.

Body position: Unclear as little body stain left. Probably supine. Head to west.

Description: A shallow grave with rounded ends, with a stone-free fill of mixed grey and brown sands. A rectilinear patch of dark grey sand and charcoal about 2cms thick, within the fill, possibly represents a cut turf. A raising of the grave bottom at the west end possibly represents a 'pillow' of natural sand on which the head rested.

Several sherds from urn 0635, of adjacent grave 83, were found directly above what was later seen as the grave

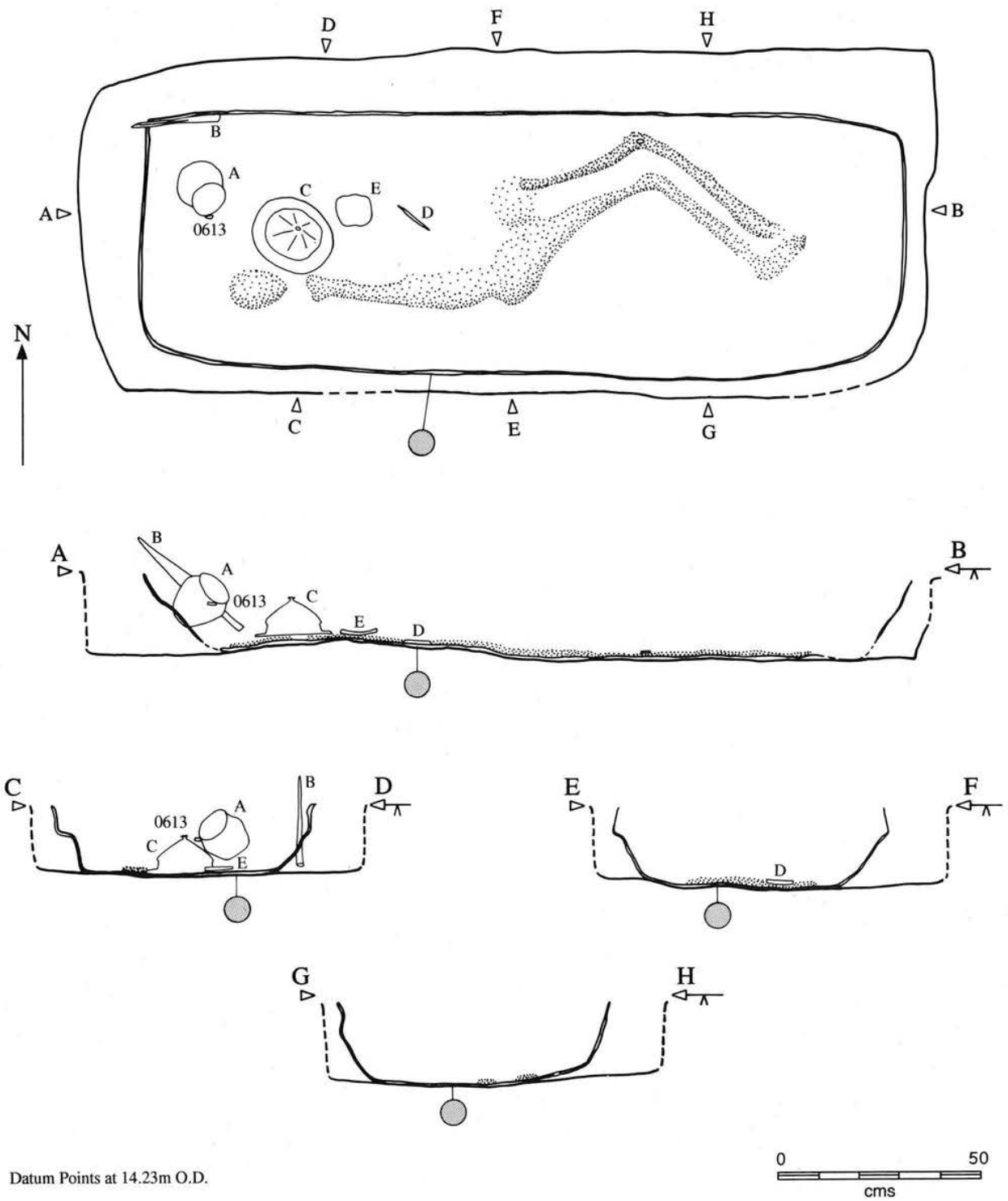


Figure 17 Grave 6, plan, long and cross-sections. Scale 1:15

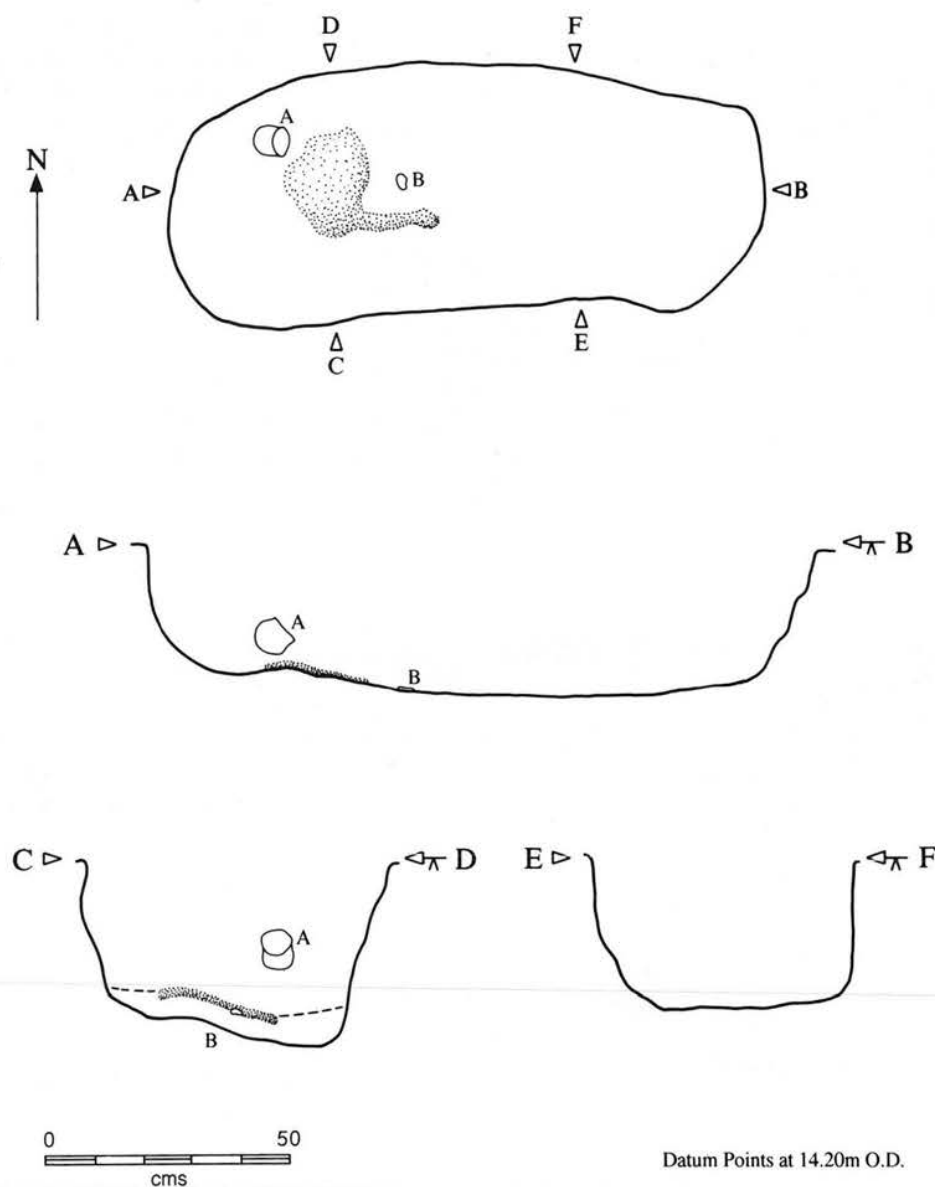


Figure 18 Grave 7, plan, long and cross-sections. Scale 1:15

fill but nowhere else outside the cremation's cut. This might represent their having been contained in the grave upper fill originally, but is probably by chance.

Grave-goods:

- A: A complete small round-bottomed **pot** with vesiculated inner and outer surfaces. The fabric is not visible but is grey-brown on the inside and red-brown on the outer with reduced areas. Undecorated, it was placed slightly above the body in the grave fill. Height 63mm. [0991]
- B: Ae **buckle** and tongue, width 13mm. A lump of mineralised textile 15 x 15mm adheres; spin Z/Z, even and rather loose. The weave is 2/2 twill, one clear patch 7 x 7mm giving a thread count of c.9/10. The same weave is present but damaged on the other side. The buckle could only be drawn from X-rays. [0990]

Grave 8 (inhumation) (Figs 19, 20 and 84)

Dimensions: (Top) 1.72 x 0.76m; (Base) 1.80 x 0.79m

Orientation: 269°

Container for body: Wood and organic base?

Sex/age: Female.

Body position: Supine extended, laid along south edge of grave, arms by the sides. Head to east.

Description: A sub-rectangular shape at the surface which undercut to produce a grave cut with neat rounded ends. The fill was a consistent stone-free dark reddish-brown with mottlings of light brown. Small lumps of ironpan were encountered halfway down the fill, as was coarser sand from 13.92mOD.

Three pieces of wood, (i)–(iii), were encountered in the eastern half of the grave mid-way down the fill; (i) was of oak stem (*Quercus* sp.). Another fragment, (iv), also of oak, probably sapwood but not from a narrow stem, appeared to overlie the face of the body. At the bottom of

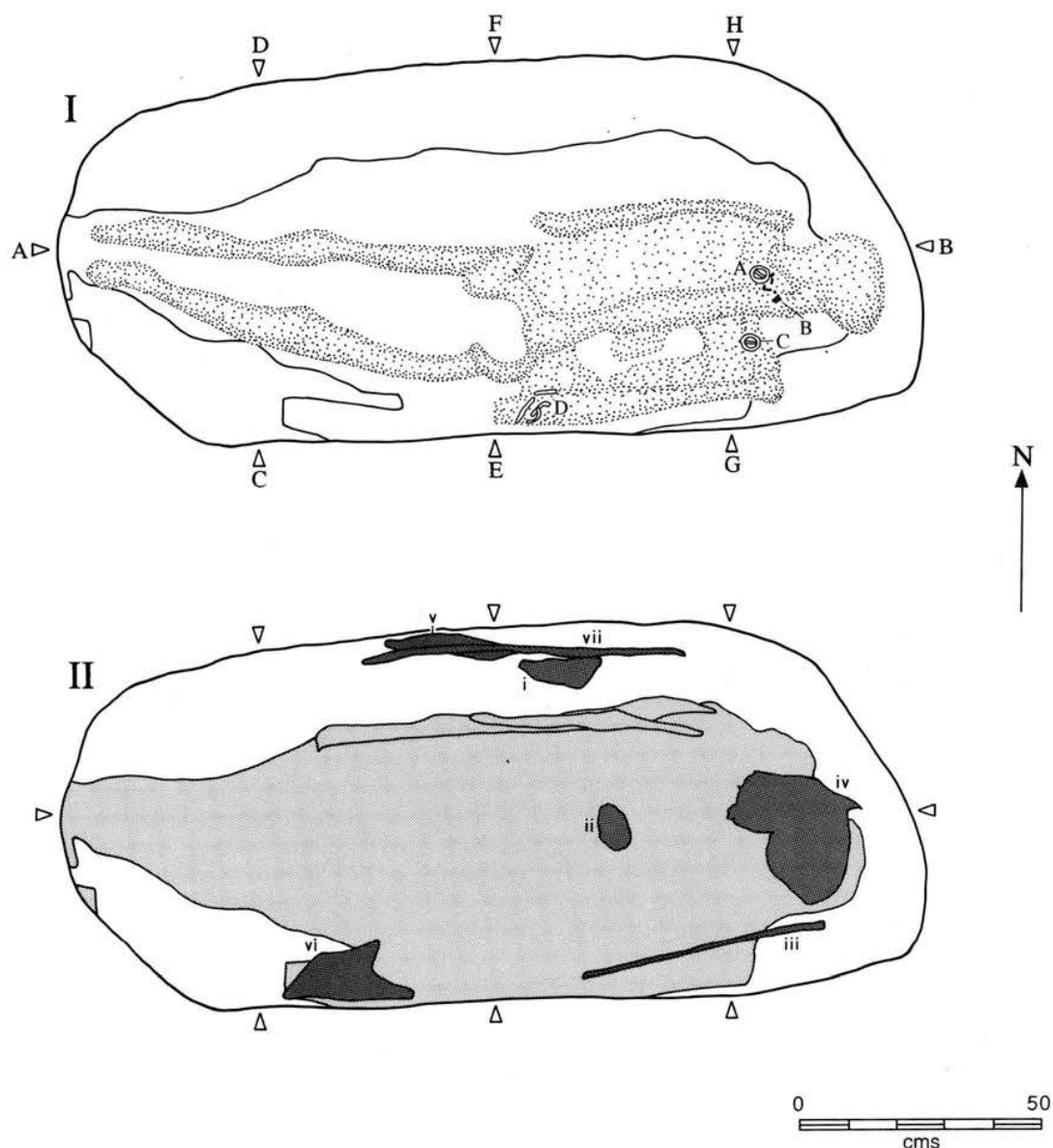


Figure 19 Grave 8, plan. (I) shows wood deposited in the upper fill. Scale 1:15

the grave there was a mixture of wood and staining. Three smaller pieces, (v, vi and viii) could be isolated; all were of oak (*Quercus* sp.). (vi) was of stem burnt at a high temperature and partially vitrified. Piece (vii) was seen as a very dark stain, elements of which were of oak (*Quercus* sp.) sapwood and heartwood. The piece is shown as an organic stain on plan as it could not be proved that the whole context was of wood although this is likely. (vii) was widest in the grave centre and tapered with the legs. In several areas the pieces retained traces of grain, all running E-W. The fragments were typically small and those on the floor of the grave possibly formed part of the same structure. Pieces v, vi and viii are omitted from the long section for clarity.

Sections across the body stain showed that it was laid on the organic base. The body was reasonably well defined and degraded fragments of bone survived at the left shoulder, perhaps under the influence of mineral salts deriving from brooch C.

Grave-goods:

- A: Ae **annular brooch** with fragmentary Fe pin and mineralised textile adhering. Three groups of four transverse lines can be seen through the corrosion products and others probably exist on the other half of the circumference. A narrowed neck represents the seating for the pin. Diameter 40mm. On the front of the ring, an area of textile (a) $18 \times 10\text{mm}$ was preserved, also mineralised for $10 \times 6\text{mm}$ under the pin, spinning Z/Z, loose twist; weave 2/2 twill, thread count c.10/8. A fragment (b) of semi-mineralised whip-cord (Fig. 139.5) protruding from under the brooch, is fastened to the weave with one Z-spun thread. A black degraded spongy material on the underside with no apparent weave may have been leather. [0848]
- B: String of 17 **beads**; 4 of amber, 13 of glass. Amber: small elongated (i, ii); roughly shaped (iii); globular (iv). Glass: drawn globular (v, vi); drawn double globular (vii-xi); drawn triple globular (xii-xvii). The glass beads are segmented and coloured either by

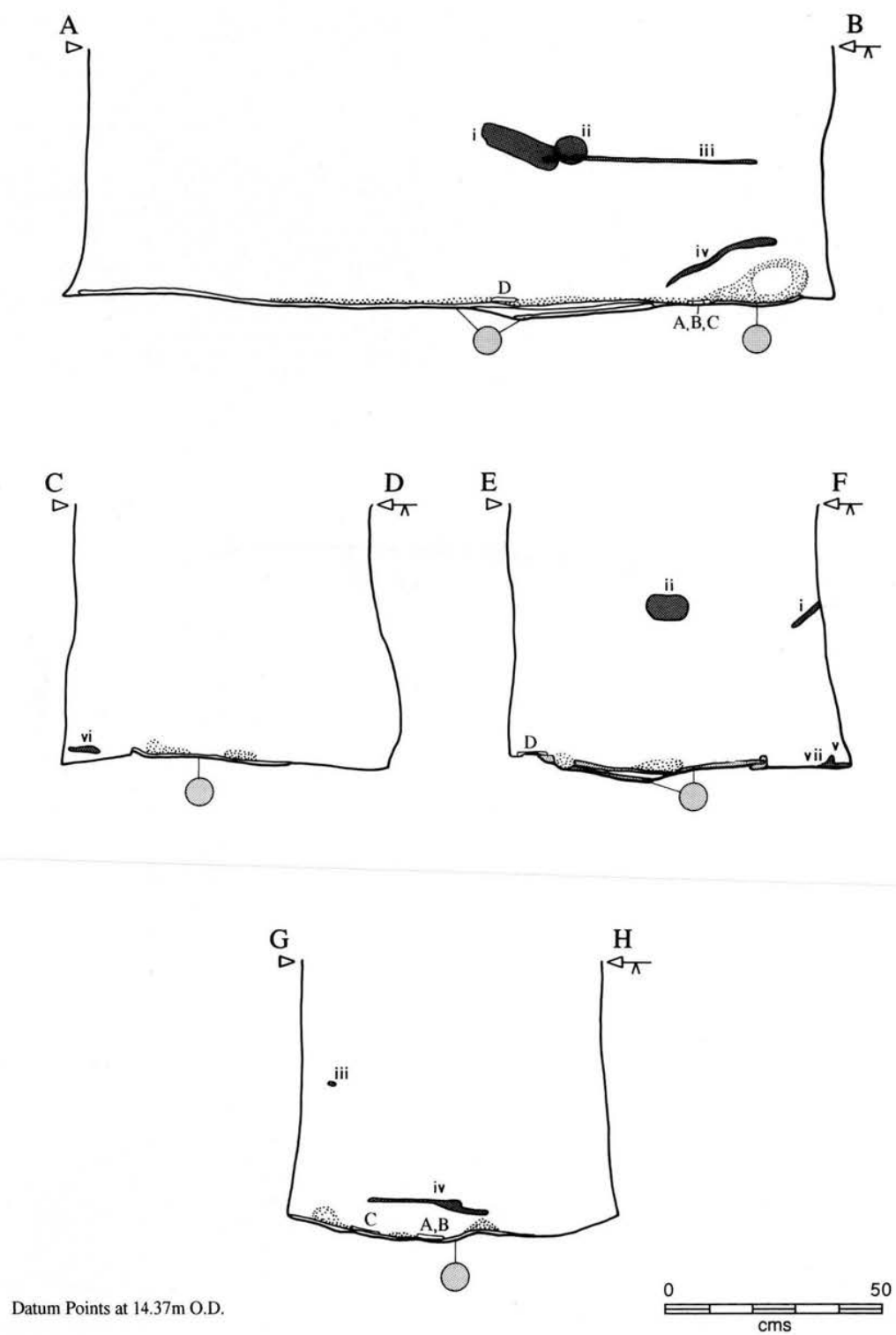


Figure 20 Grave 8, long and cross-sections. Scale 1:15

Au/gilding (v–xii) or with Ag foil sandwiched between the glass (xiii–xvii). Together they form a cluster in the throat area, body right hand side. Three fragments of Z-spun, S-ply thread, (c), are preserved in the beads, the best length 19mm. Unfortunately there is not enough information for a detailed reconstruction as some beads became detached and orientations were lost. [0848 and 1000]

- C: Ae **annular brooch**, flat flange with single rebate for seating the iron pin. Decorated with two rows of tiny annular stamps. Diameter 42mm. Partly mineralised wool textile of (a) above, with mineralised wood, over $26 \times 23\text{mm}$; twill, thread count 10/8, no dye detected. (a) is also partly mineralised on the pin for $c.45 \times 13\text{mm}$. A mineralised fragment (d) lies under (a) over $5 \times 6\text{mm}$; it is a Z-spun tabby weave, thread count 7/8–9 on 5mm. This shows paired threads (Fig. 139.1), possibly a stripe. Overlying the brooch was a twig impregnated with Cu corrosion products. Original orientation of brooch unknown. [0851]
- D: Fe **knife** (i) and **ring** (ii). The knife, length 112mm, has a horn handle but all other organic remains are of very degraded textile probably (a). This adheres along the ring visible for an area $30 \times 15\text{mm}$ with another detached fragment $12 \times 11\text{mm}$. The ring, diameter $c.50\text{mm}$, is broken. [0849]

Grave 9 (inhumation) (Figs 21, 22 and 85)

Dimensions: (Top) $2.09 \times 0.92\text{m}$; (Bottom) $1.66 \times 0.75\text{m}$
Orientation: 289°

Container for body: None but upper body rested on an organic layer.

Sex/age: Unknown.

Body position: Supine extended, left arm crossed over chest, right arm next to body. Left leg crossed over the right at the ankles. Head to west, turned to face the north.

Description: A rectangular cut with a sharply defined west end at the surface with slight undercutting. The fill was a mix of fine and coarse sands with some small pebbles. The fill had two distinct colours of grey and brown sands at the surface which became increasingly mottled. At the bottom of the grave dirty orange natural probably represents trampled sand. A shelf in the east end of the cut reduced the bottom of the grave to a length corresponding to the body (Pl. XI).

The grave was notable for the large amount of charred wood contained within the fill, apparently from branches. The first pieces appeared near the top of the fill at 14.35mOD and in all eight pieces were located. All pieces except (iv) were identifiable, being of oak (*Quercus* sp.). (i) was of stem and sapwood; (ii; Pl. X) of sapwood and heartwood; (iii) of sapwood probably from a wide stem or narrow pole, fast grown; (v) of heartwood; (vi–viii) were all of stem, (viii) being almost vitrified. Pieces (i–iii) can be seen to have been arranged directly over the body and whilst not as clear, pieces (iv–viii) seem also to have been arranged with this aim in mind. The wood was exceptionally well preserved; the charring was typically 5–10mm thick and the grain and wood knots could be made out (Pl. LVII). The irregular shape of some pieces is best interpreted as a result of their having been crushed and flattened slightly as the unburnt interiors, characterised by light grey sand, rotted away.



Plate X Charred wood fragment ii from grave 9.
Scale rod 1m



Plate XI Grave 9 fully excavated with step in the grave cut east end

The body stain was very well preserved and its upper half lay on an organic substance, probably of textile judging by the remains on the underside of the knife. An organic soil, similar to body stain, lay next to the right upper arm. Traces of degraded bone remained within the stain of the skull, but were too fragmentary for identification.

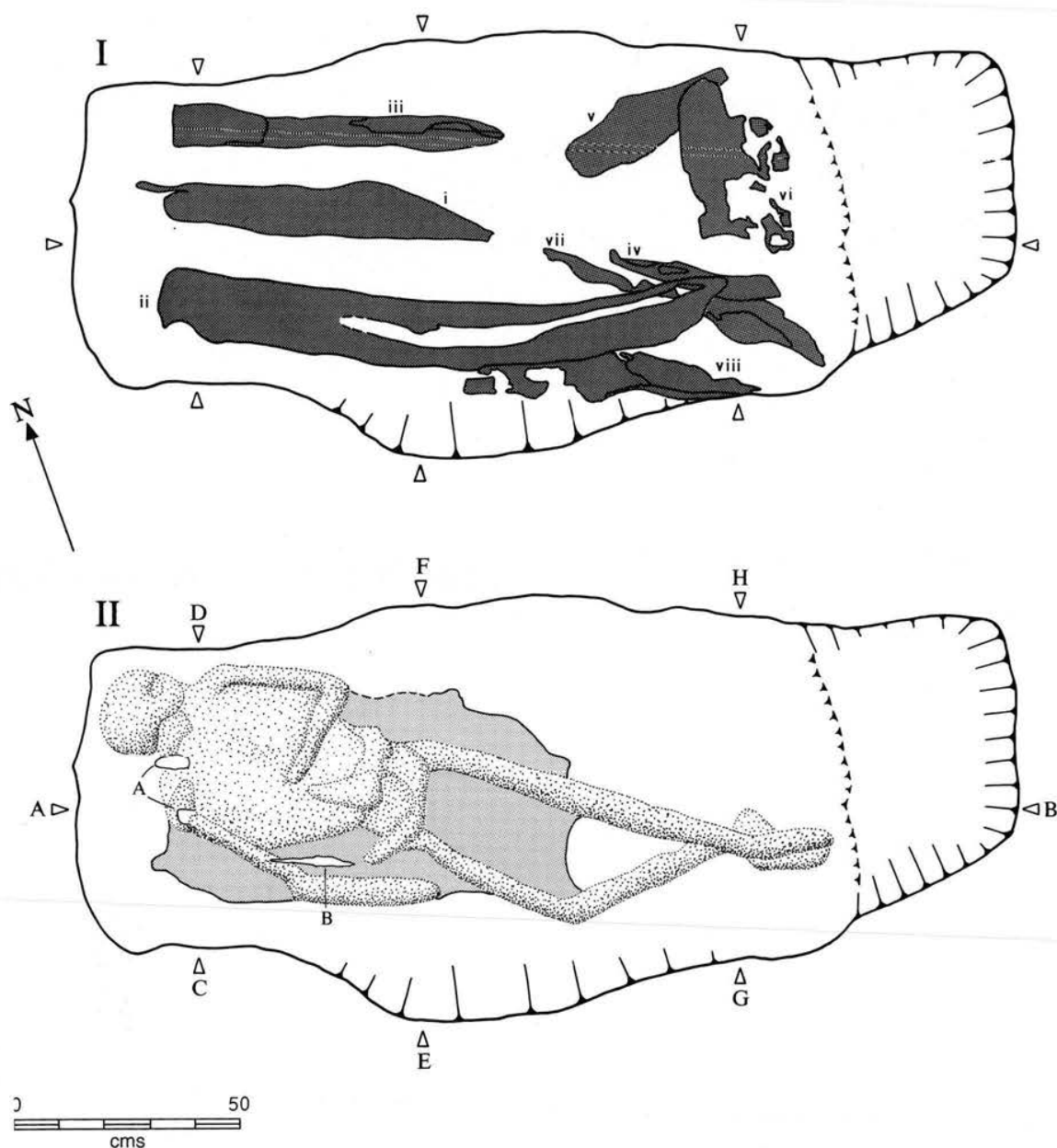


Figure 21 Grave 9, plan. (I) shows wood deposited in the upper fill. Scale 1:15

Grave-goods:

A: Wooden **vessel** with Ae sheet and rivets (i and ii), forming mounts or repairs. The wood fragments seem to belong to a lathe-turned vessel probably made from walnut (*Juglans* sp.). From the thickness of the wood and rivets, the vessel appears to have been consistently 5.5–7mm thick for the base and sides, sharply tapering to 3mm at the rim. The base appears to have had a flat bottom with a diameter of around 70–80mm. The grain orientation suggests near vertical sides rather than the slight incline of a shallow bowl. There is no indication of the height of the vessel but it was possibly quite small. Fig. 85 gives two possible reconstructions. On the rim was a mineralised ?string, Z-spun. Deteriorated scraps from textile, perhaps originally covering the bowl, are preserved over an area c.20 × 18mm, with loose

fragments on metal 23 × 20mm, and on wood 40 × 40mm. The Z/Z loose spun threads were (1) light, with fine to medium wool fibres, no pigmentation or medullation 1.5–2mm diameter and (2) dark threads of medium diameter wool fibres with dark pigmentation, 1mm diameter. They represent a 2/2 striped twill weave (Fig. 139.2); no dye was detected. [0661, 0840, 0847]

B: Fe **knife**, length 186mm, with traces of horn on the tang. Corrosion products lie on one side of the blade but do not extend over the handle junction and offer no features, apart from proximity to the blade, to suggest being from a sheath. Overlying it and on the other side of the blade are the remains of textile (unidentified). [0900]

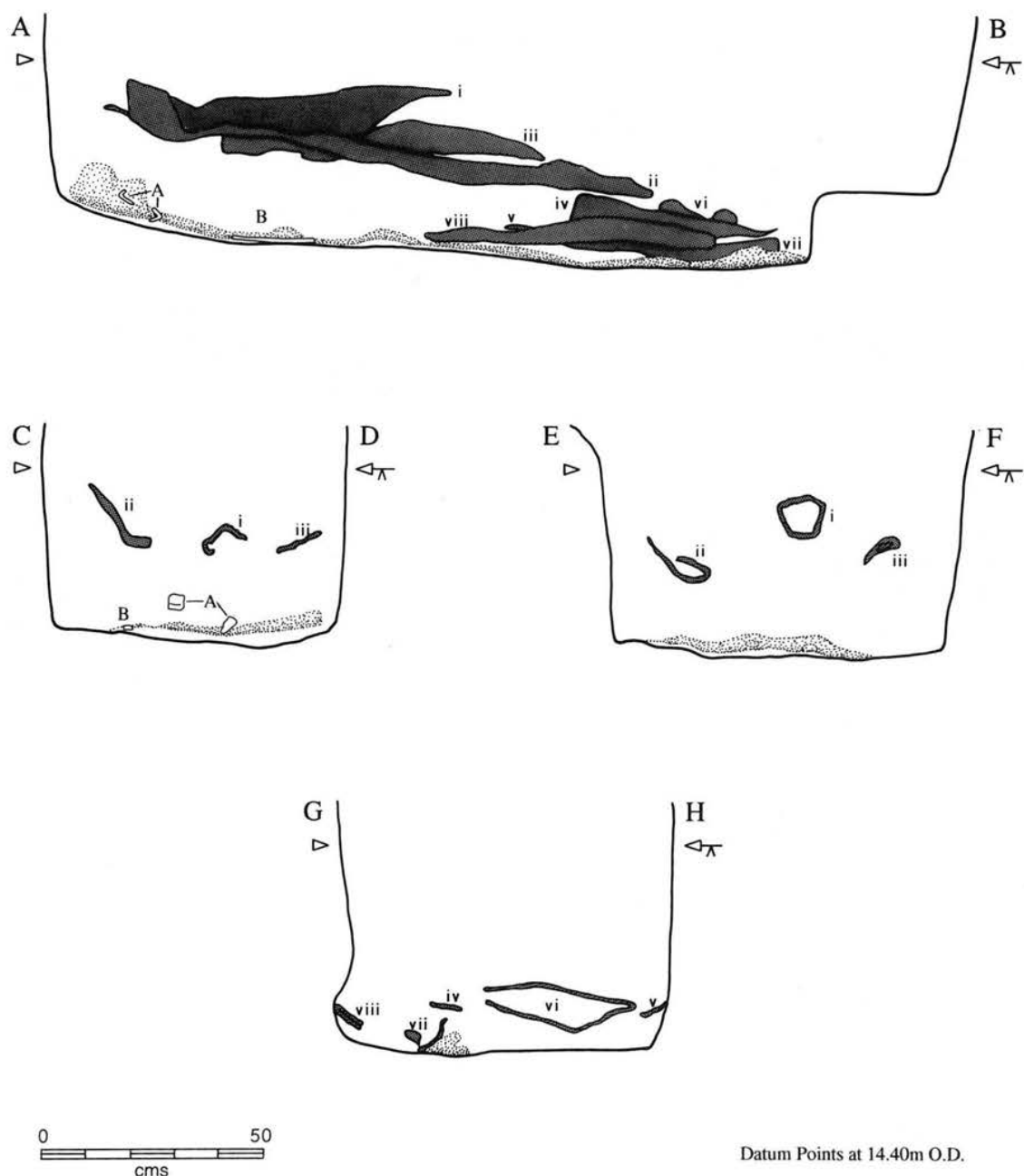


Figure 22 Grave 9, long and cross-sections. Scale 1:15

Grave 10 (inhumation) (Figs 23, 24, 25, 85, 86, 87 and 88)

Dimensions: (Top) 1.96 x 0.71m; (Base) 2.00 x 0.72m

Orientation: 290°

Container for body: Coffin or ?textile lining.

Sex/age: Female.

Body position: Flexed, lying on right hand side. Position of wrist clasps suggests that left arm bent so hand lay on right shoulder, right arm by side of body. Head to west.

Description: A regular rectangular cut maintaining its edges to the bottom of the grave, with a slight undercutting. The fill was a mix of fine mid and light brown sand with occasional grit and small stones up to

10mm diameter. There were small ironpan lumps and occasional patches of grey sand in the upper fill.

Contained in the fill of the grave were two scatters of pottery, sherds of which can be identified as deriving from vessels found in a surface spread around the grave. These are catalogued and illustrated elsewhere (Scatters, section IV, below pp. 175–9) and are suggested as having derived from a cremation pyre, discussed more fully in Chapter 6 (pp. 252–5). The first scatter was in the uppermost layers of the grave at about 14.35mOD, contained within a lens of pale grey sand; the second, at 14.15mOD, was a far more distinctive irregularly-shaped deposit of dark grey-brown earth, similar to one encountered in grave 12. This contained a small amount of cremated bone, charcoal and the Ae fragments of a strap end and a burnt buckle in

addition to the pottery. Another sherd also relating to the 'pyre' spreads was found in the fill at this level but outside the main concentration. Together, this material all seems likely to be redeposited from a topsoil scatter cut through during the digging of the inhumation grave. The uppermost scatter seems to represent pottery from the topsoil which was dug through first and would have been backfilled last; the dense scatter probably represents a spadeful of topsoil redeposited lower down in the grave fill. Its central position within the grave is suggestive of a deliberate redeposition but this can only be speculation. The sherds recovered derive from vessels 0406, 0616, 0617, 0930 and 1588 (catalogued as scatters Nos 7, 8, 9, 12 and 14, where they are described more fully). Since the metalwork is argued to derive from the 'cremation pyre' spread, it is listed as scatters Nos 22 and 24. One sherd of pottery, 0317 (*not illus.*), could not be identified with any of the other component vessels.

At 13.98mOD a curious dark greyish-brown stain was seen at the west end. The pronounced 'beak' shape resembles the bow of a boat (Pl. XII). At 13.92mOD the stain was V-shaped with a mix of dark grey-brown and light grey to its east narrowing to form an elegant 'tail' of dark grey-brown. The overall length of the stain conforms well to that of the body as laid out beneath it in the grave. In addition, the main 'beak' portion lay almost directly over the head of the body. A small area of wood stain was found within the mix of sand.

The body container was first seen at 13.83mOD, most pronounced in the south-west corner as a black line 10–15mm wide. The stain continued running in a westerly direction towards the grave edge beyond its south-west corner. This running line had disappeared by 13.76mOD, and the container assumed a regular rectangular shape. The bottom appeared at 13.70mOD, with the centre sagging slightly. The material of the container is unclear. Along its upper edges the dark dense stain has the appearance of degraded wood but was thinner at the base of the grave and similar to the general organic stains elsewhere on the site. The stain perhaps suggests a textile running around onto itself. The body stain traces were poor but enough survived to demonstrate the flexed body position.

Grave-goods:

- A: Ae **cruciform brooch**, length 94mm, forming a pair with C. Found beneath B, with face up and 'foot' towards the head of the grave. Narrow head-plate outlined with crescentic stamps, the narrow rectangular wings having a single row of crescent stamps. Integral top and side knobs slightly hollowed behind. Short plain bow and faceted catch-plate; animal-head terminal with protruding eyes within distinctive cross shape. Unusual squared muzzle bearing crescent stamps and broken loop for spangle. Remains of iron pin and spring, and large catch. Mineralised textile is preserved for 52 × 35mm on the front of the head and passing round behind, probably twill (b), thread count 12 × 12 on 10mm. [0817]
- B: Large Ae **cruciform brooch**, length 132mm, found face up between brooches A and C, under textile patch. Rectangular head-plate outlined with tiny annular stamps. Plain narrow side wings with notches above and below. The side knobs are moulded separately, with grooves to fit the wings, and are held in place by

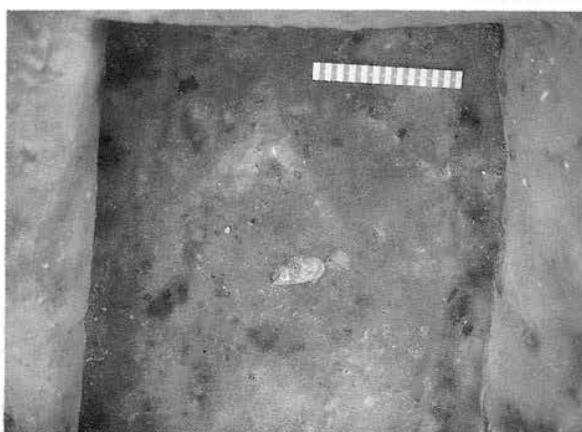


Plate XII Possible bow stain in mid fill of grave 10

an Fe pin for the spring. The top knob, with distinct finial, is deeply hollowed behind. Faceted bow with central groove worn smooth in the middle. Catch-plate has annular stamps and narrow lappets. Strong triple moulding above animal-head terminal which has protruding eyes within a distinctive cross shape similar to A and C. The same cross-shape defines the upstanding, rounded nostrils. The muzzle is flattened and expanded, the whole of the animal head being strongly hollowed behind. Remains of the Fe spring survive.

Tucked inside the brooch under the front is an area 25 × 23mm of mineralised textile (d) with tight Z spin; tabby weave, thread count 8/7–8 on 5mm, tightly pleated. A fragment 35 × 18mm of Z-spun twill is probably (b). On top of a detached knob is an area of mineralised weave (d), 20 × 18mm and a scrap of twill (b), 34 × 30mm. A detached fragment of mineralised textile seems to be (d). It is an even pleated tabby weave, with very even fine threads, diam. 0.3mm with a thread count of 17–18/16 on 10mm. The appearance suggests flax. [0816, 0820]

- C: Ae **cruciform brooch**, length 96mm, found face up beneath B and forming a matching pair with A. In this case, the loop at the end of the muzzle is complete. The two brooches A and C are unusual in having such distinctive squared nostrils. A close parallel is Morning Thorpe grave 131 with squared nostrils and protruding eyes and a similar overall squat appearance. On the front ?twill (b) is of animal fibre, over an area 40 × 40mm, thread count 12–14/12, and again partly mineralised on the back. No dye detected. [0818]
- D: String of 25 **beads**, 3 of crystal, 12 of glass and 10 of amber. All except xv, found beneath a brooch during conservation, were planned at 1:1 during excavation (see 1:2 detail plan, Fig. 25). Amber: large flat (xxiii–xxv); wedge (xxi); roughly shaped (xvi–xix); long cylinder (xx, xxii). Glass: globular (v, vii); opaque white with translucent brown crossing trails and dots. vi, xv; opaque white with irregular, scattered green dots and brown part-trails. viii, x; reticella, ropes of green and yellow with red blobs; barrel (xii); reticella, grey with ropes of red and yellow. xiv; reticella ropes of green and yellow; cylinder (xiii); reticella, ropes of

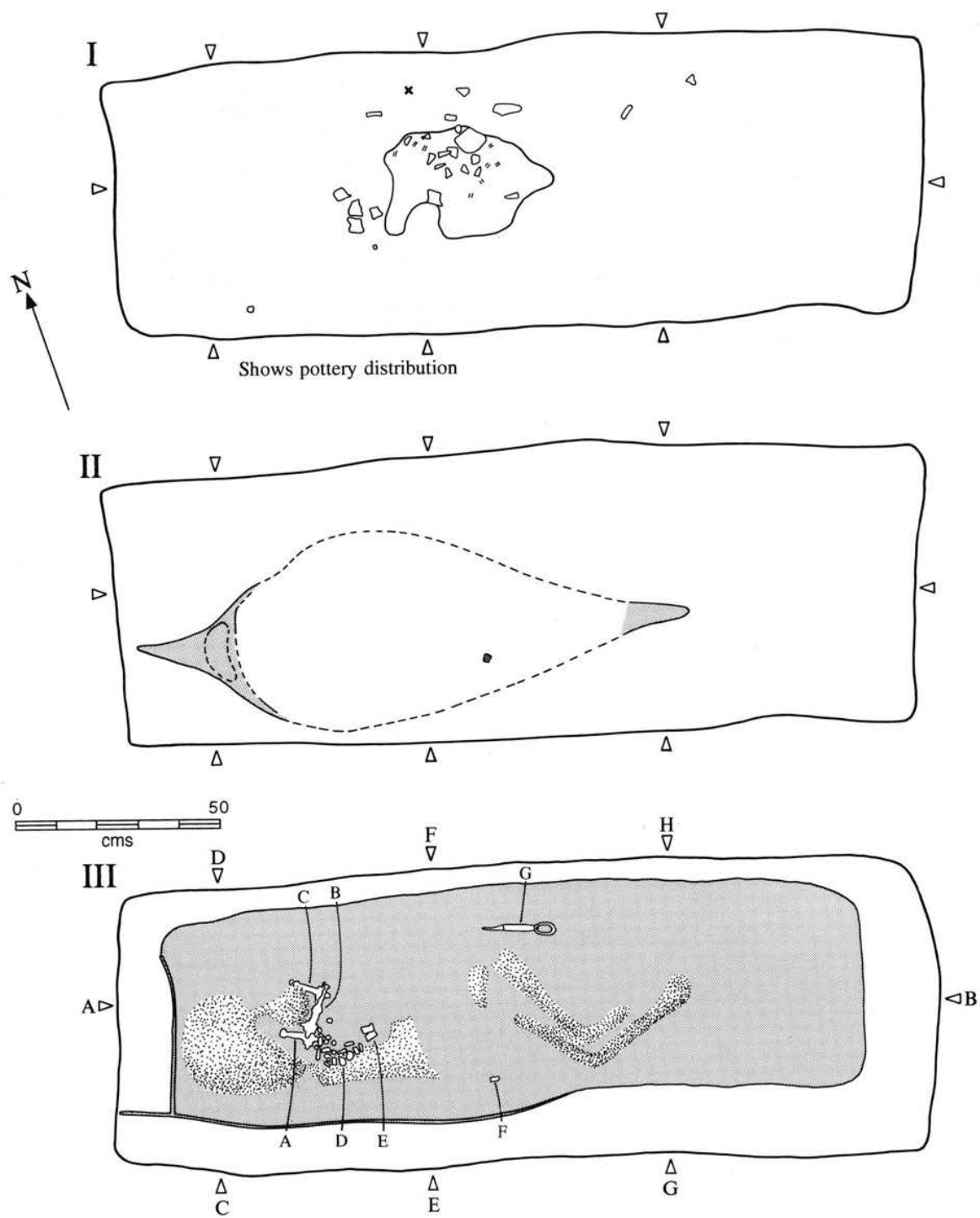


Figure 23 Grave 10, plan. (I) shows pottery and cremation material in the uppermost fill, (II) shows the boat-like stain midway down. Scale 1:15

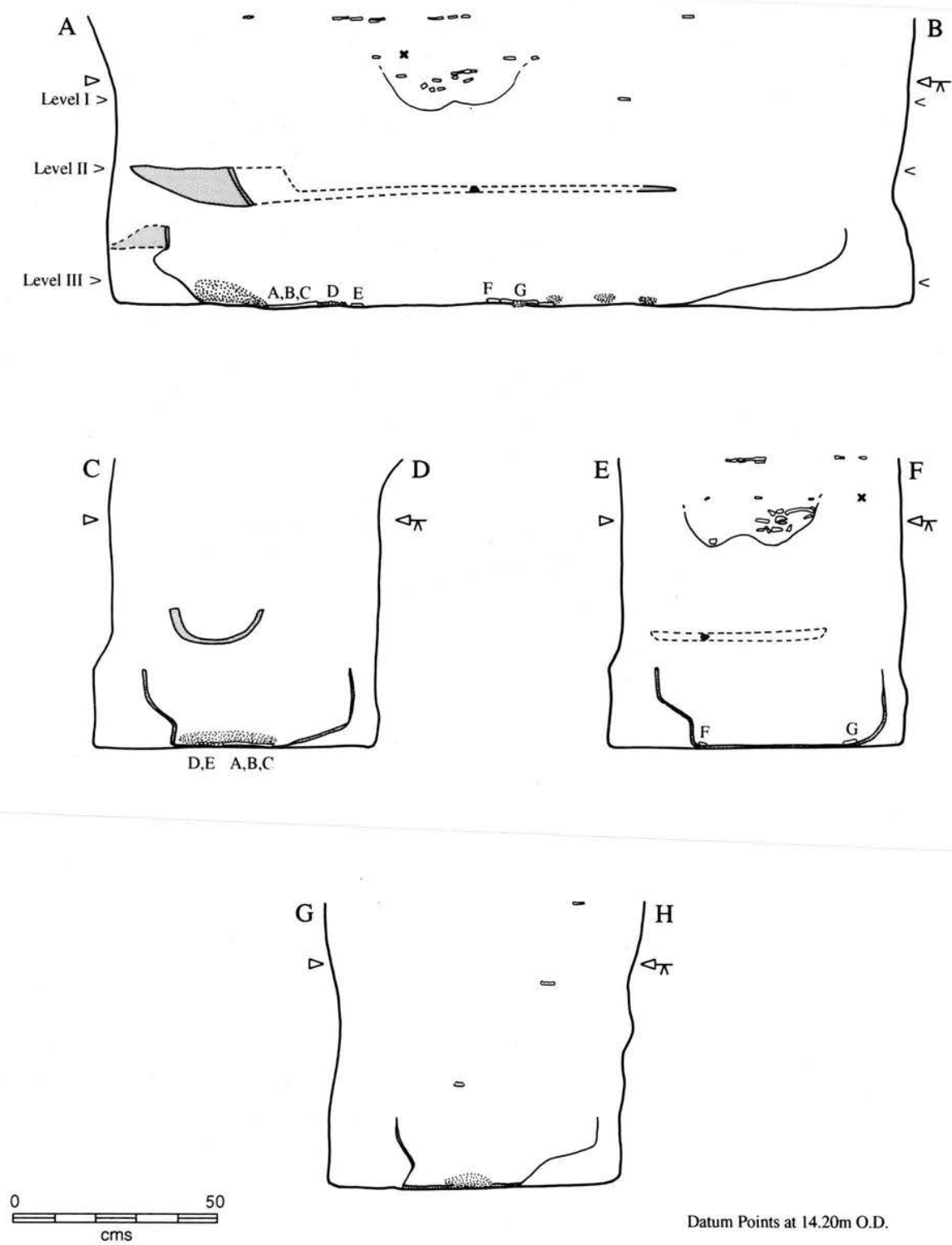


Figure 24 Grave 10, long and cross-sections. Scale 1:15

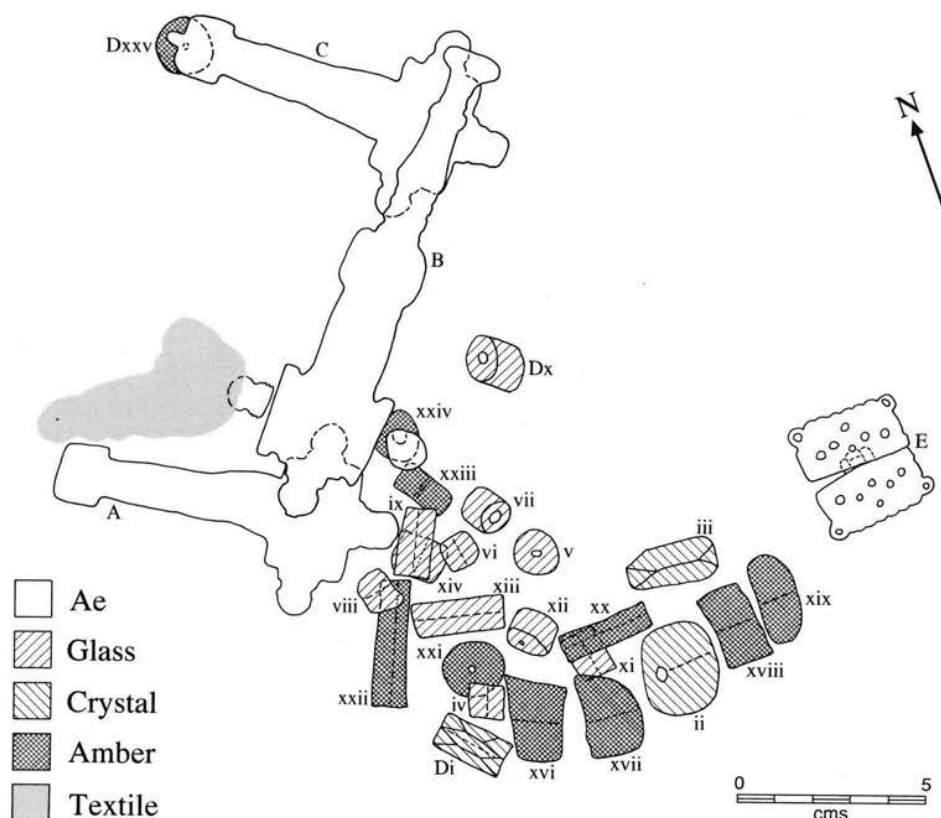


Figure 25 Grave 10, detail of grave-goods. Scale 1:2

green and yellow with red blobs); cylinder with square section (ix; reticella with crossing ropes of green and yellow); cube (iv, xi; red with panels of confused green and yellow swirls). Crystal: irregular disc (ii); biconical, faceted (i, iii). [0788–0808, 0813–0815, 0819]

- E: Decorated Ae **wrist clasp** suite, i and ii (Hines C5), with traces of a ?tin-lead solder on the three flattened areas of the inner bar, and paired, intumed beaked heads on the main panels. Length 30mm. Mineralisation has preserved bone and textile (c.f. F). Mineralised textile (c) is on the underside for 6 × 3.5mm. It shows Z, S-ply cords of decayed tablet-weave; coarse S-ply sewing threads survive in the holes. [0811]
- F: Looped half only of Ae **wrist clasp** (Hines C5), with decoration matching E. Traces of solder on decorated face on inside panel as with clasp E and slight evidence of gilding on face. Length 30mm. An area of tablet weave (c) was preserved on the front. It lies next to the metal for 12 × 25mm, cords from 4-hole weave 16 on 10mm, spin Z, wefts Z, S-ply. The cords

lie 12–13 S, then 1Z, 1S, 1Z, ?9S. The remains of the pattern (Fig. 139.10), probably horsehair, are as on wrist clasp D, grave 5. The weave is of fine to medium wool. A detached, confused, fragment of twill weave is probably from (b). Mineralisation also preserved a specimen of the beetle *Grammostethus marginatus* (Er.) and a larva of the fly *Fannia* sp. (see below, p. 226–7). [0812]

- G: Fe **knife** (i) and **ring** (ii). The knife, length 146mm, has a horn handle and traces of leather lying on both sides of the blade. It is wrapped over the back and extends down below the blade edge by 4mm and overlaps the handle junction by 3mm. The identification of a sheath is inconclusive but made by the manner of its arrangement. Two textiles are preserved in patches on both sides of the ring; (a) only 8 × 5mm, a mineralised coarse weave, Z-spun ?warp, S-spun ?weft; weave twill. (b) areas 31 × 13, 22 × 13mm, mineralised twill, both systems Z-spun. Thread count 10/11 on 10mm, no reverses visible. Ring diameter 62mm. [0810]

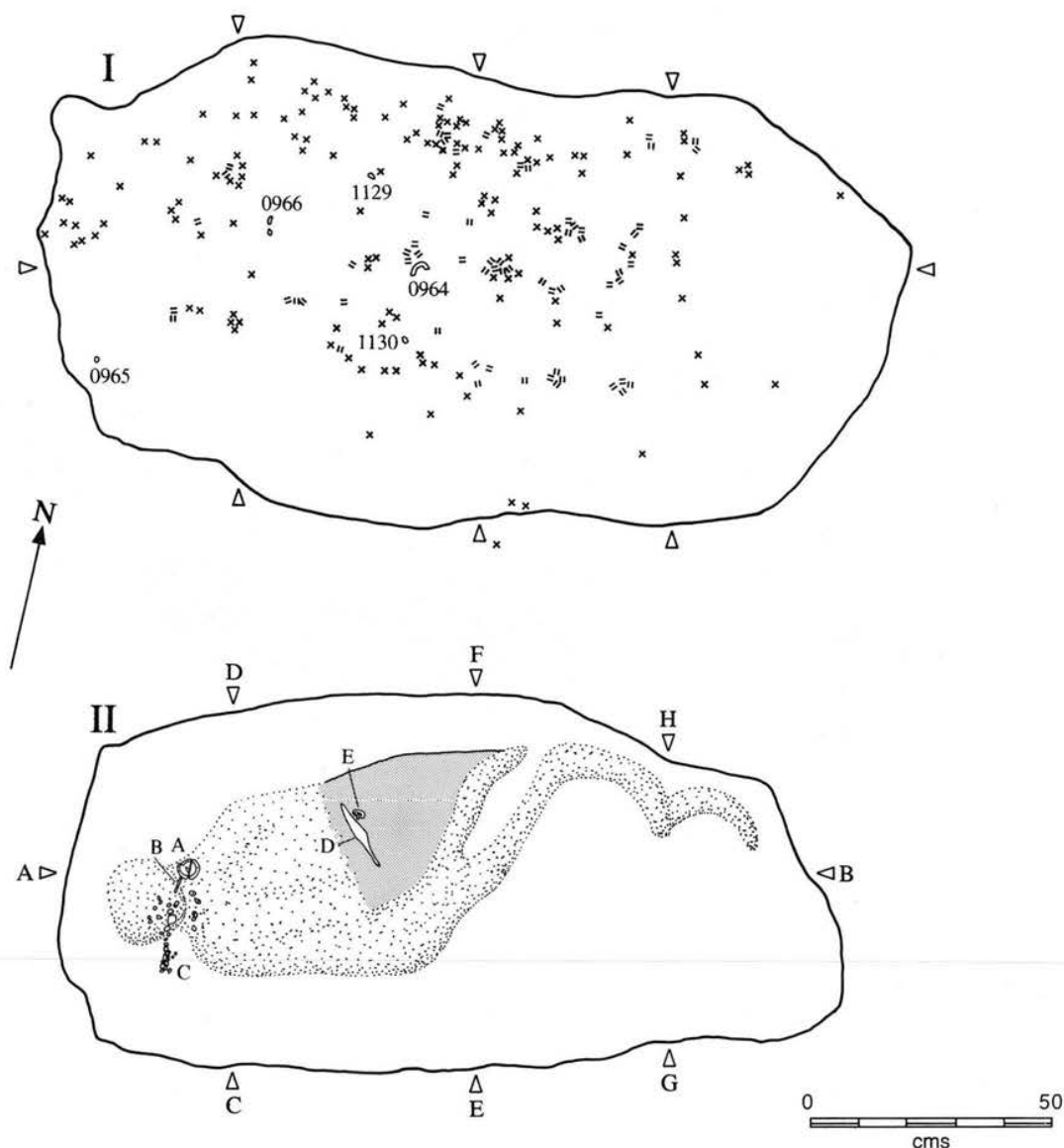


Figure 26 Grave 11, plan. (I) shows cremation material from grave 99 in upper fill. Scale 1:15

Grave 11 (inhumation) (Figs 26, 27, 28, 88 and 89)

Dimensions: 1.81 × 1.02m

Orientation: 258°

Container for body: None but body probably rested on an organic layer.

Sex/age: Female.

Body position: Supine flexed to left. Head to west, lying facing north.

Description: An irregular, sub-rectangular grave cut with edges undercutting on the south side. The grave was extremely difficult to identify at the surface level, which consisted of redeposited natural. The fill became an increasingly homogenous mid grey with some dark patches of black/grey sand in the upper levels and had several lumps of redeposited ironpan throughout.

The fill contained a dense layer of cremated bone at 14.28mOD, weighing 60.5g which included two pieces of burnt animal bone and a few burnt metal objects. These

are interpreted as a cremation burial and are catalogued as grave 99, although it is unlikely that they represent a disturbed cremation accidentally reincorporated, as suggested for the cremation (No. 80) in the fill of grave 5. Instead, the thick layer at a single level suggests a deliberate deposition, which is discussed further in Chapter 6 section II. Only a few cremated bone and metal objects were found lower down in the fill, stressing the concentration of material higher up. Several unidentifiable charcoal fragments were also found in the fill, which could relate to either the cremation or the inhumation.

The body stain was very poorly preserved but the corpse possibly rested on an organic layer, seen only as a smear, in which the upper legs could be distinguished. Several traces of bones survived, principally ribs, parts of the vertebrae and the clavicles, all in the area of the brooch and pins.

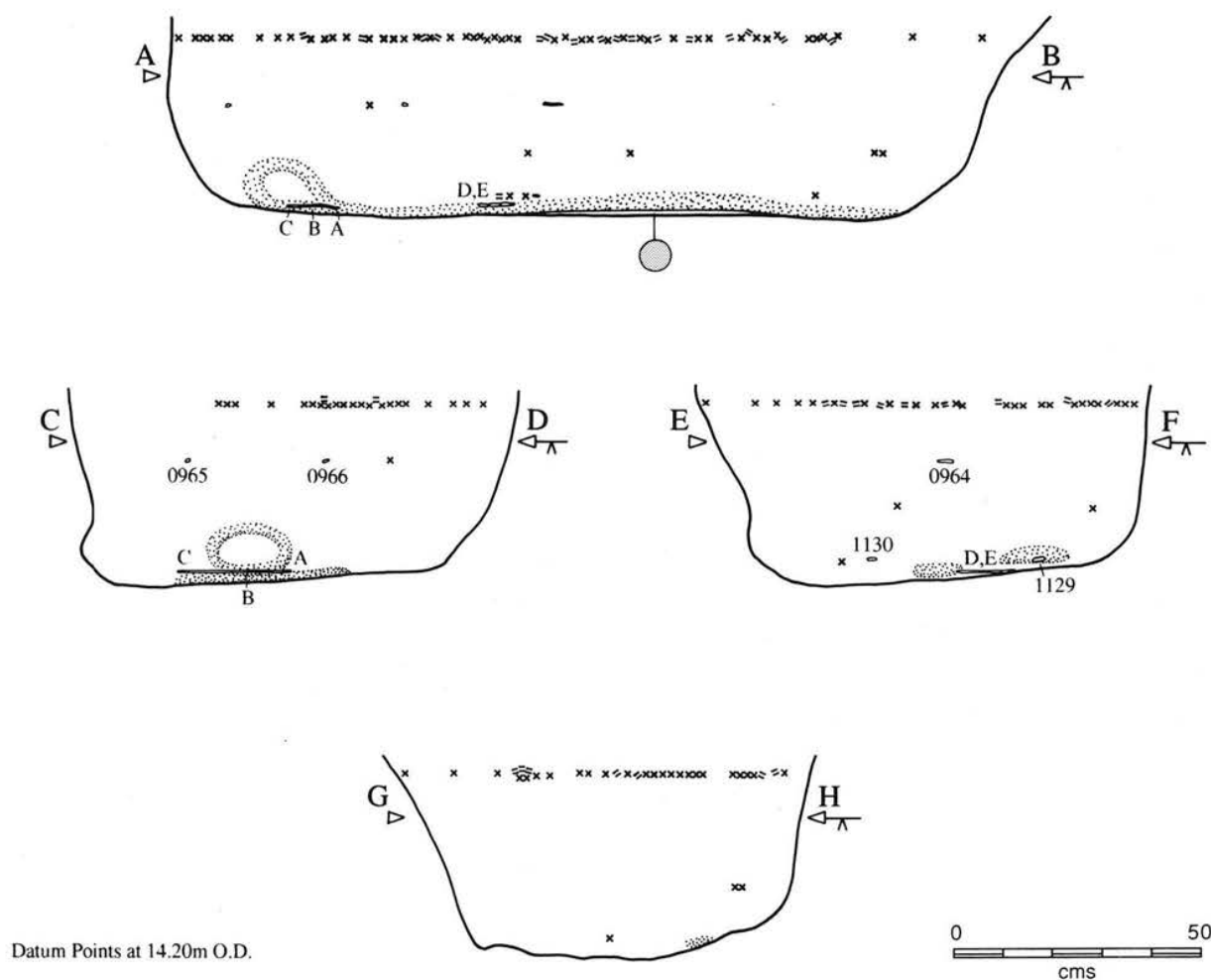


Figure 27 Grave 11, long and cross-sections. Scale 1:15

Grave-goods:

- A: Ae **annular brooch** (i), diameter 54mm, with Fe pin (ii). The brooch has a thin flange with a central line of ring-and-dot stamps. It was reconstructed in antiquity, in penannular form with ends overlapping by 14mm, held together by a simple Fe rivet. A second hole pierced both ends and was used to anchor the pin. Fe pin (ii), in a NW–SE orientation beneath the brooch, presumably represents its fixing pin. Mineralised textile adheres to both sides. (a), in several layers over 20×14 mm, is dark brown, of undyed wool. The spin is Z/Z, loosely twisted, a 2/2 twill; thread count 12/9 on 10mm. No dye was detected. (b), the best area 11×7 mm, has a Z/Z spin and hard threads with a tight twist. It is probably from a tabby weave, thread count c.8/6. There were a few fragments of animal fibre present. Coarse mineralised Z-spun threads wound round under the brooch may come from (b). No dye was detected. [1341, 2442]
- B: Fe **pin** lying in a N–S orientation just south of brooch A. Length 51mm. [2406]
- C: String of 38 **beads**, 20 of glass, 17 of amber and 1 of jet, together with an Ae **loop/collar** (xxxix) between beads (xvii) and (xxxix). There are degraded threads above and below the collar and the remains of cloth.

Glass: disc-shaped (iii, xxi; grey opaque. vi, rust red with yellow dots and line); globular (iv; rust red with yellow crossing trails and dots. vii, grey with thin red crossing trails. xi, blue translucent. xii, dark brown with white crossing trails and dots. xiv, grey, opaque. xv, rust red with white crossing trails. xvii, xx; large, rust red with white crossing trails); barrel (i, red with yellow crossing trail and dots); biconical (ii, xix; large, white with red dots. x, small, blue translucent); dome (viii, ix; small, blue translucent). Jet: barrel (xiii). Amber: globular (xxii, xxiv); wedge (xxvi, xxviii, xxix, xxxvii); roughly shaped (xxiii, xxv, xxvii, xxx–xxxvi, xxxviii). [1291–1300, 1302–1331, 1333–1339]

- D: Fe **knife**, length c.136mm, with horn on the tang. A thin and brittle layer of iron oxides curve over the blade back and extend a little below the cutting edge but could not be confirmed as leather. Sand particles separate it from the blade surface. Traces of textile (unidentifiable) overlie it. [1134]
- E: Fe **buckle** with tongue uppermost, lying on top of D. Possibly degraded leather associated. Length of tongue 30mm. [2408]

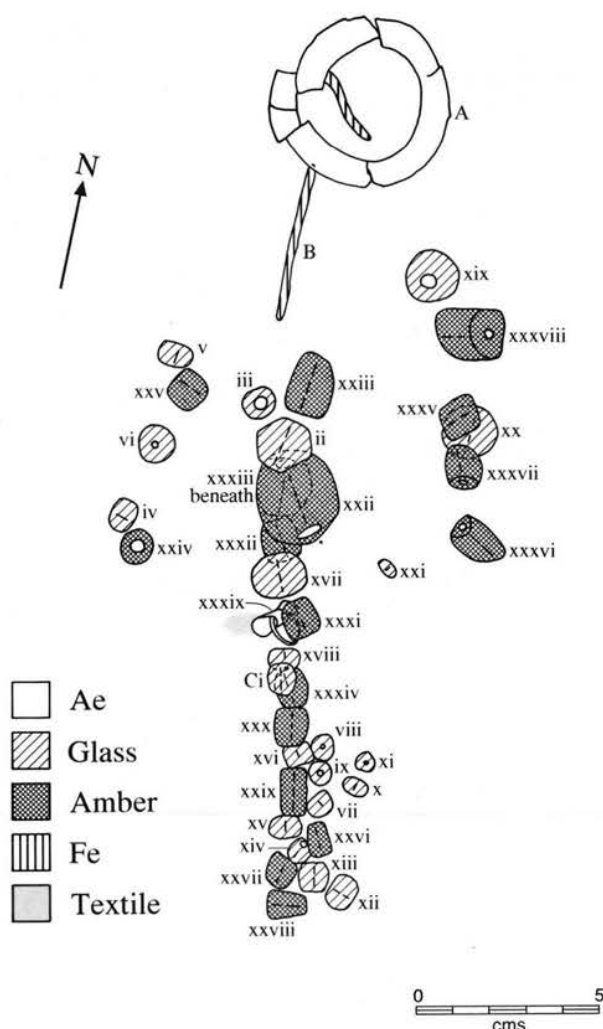


Figure 28 Grave 11, detail of grave-goods. Scale 1:2

Grave 12 (inhumation) (Figs 29 and 89)

Dimensions: 1.76 × 0.86m

Orientation: 276°

Container for body: None.

Sex/age: ?Male; middle-aged or old.

Body position: Unknown as no body stain survived. Preserved bone and teeth indicate head at west end.

Description: An irregular rectangular cut with a fill of reddish brown sand at the surface, changing to a mix of grey and mid brown sand throughout the rest of the fill. The north-west corner contained a patch of redeposited natural. Several amorphous patches of black stain throughout the fill seem to be the remains of degraded wood/charcoal running especially down the centre of the grave; only the most definite piece (2448) is marked on the grave plan.

The west end was filled with 22.8g of cremated bone, with a mean fragment size of 10mm. The bone was concentrated in a darker circular area of fill, probably redeposited topsoil. This suggests that there may have been more such bone scattered in the topsoil throughout the cemetery; this bone cannot be related to the spreads of bone associated with grave 10 which are interpreted as the remains of a cremation pyre. Also within this patch of

darker fill was an Fe **stud** or **rivet**, 0619, with a circular head and square distal end (Fig. 89).

Although no body stain survived, fragments of the skull and mandible (a) and proximal humerus (b) were preserved. The size of the mastoid process suggests that the individual was male although the (eroded) mandible is quite gracile. The few remaining tooth fragments show medium-heavy wear and suggest that the individual was middle-aged or old. Slight lipping around the tooth sockets on the mandible suggests a possible inflammation or infection of the gums.

Grave-goods:

A: Fe **object** of unknown type with mineralised bone attached. This piece is listed as a grave-good purely because it lies at the bottom of the grave (*not illus.*). [0921]

Grave 13 (inhumation) (Fig. 30)

Dimensions: 1.21 × 0.61m

Orientation: 238°

Container for body: Organic lining?

Sex/age: Unknown, infant.

Body position: No body stain survived.

Description: A squat rectangular grave cut with rounded ends, very shallow in depth, with a stone free fill of fine homogenous mid grey sand. An organic stain of dark grey rectangular shape appeared at 14.25mOD. A small fragment of charred wood (unidentified) was at the grave bottom (14.21mOD).

There was no trace of any body stain. The grave size suggests the occupant was a baby or infant.

Grave-goods: None.

Grave 14 (inhumation) (Figs 31, 32 and 90)

Dimensions: 1.78 × 0.71m

Orientation: 300°

Container for body: Coffin or ?textile lining.

Sex/age: Female, unknown.

Body position: Only skull survived. Head to west.

Description: A rectangular cut at the surface which became sub-rectangular in its lower levels. The fill was a pinkish-grey at the top, becoming a mix of mid brown and grey sand. The sand was fine but included several small stones redeposited from a band of ironpanning which the grave cut through. At 14.16mOD the fill became an homogenous dark grey, contrasting with the previous layers, with rectangular patches of pinkish-fawn sand possibly representing redeposited blocks of topsoil.

There was no clear evidence for a body container, although faint traces of an organic stain perhaps represented a textile lining. A length of charred wood of unidentified species, first seen at 14.16mOD at the grave east end, is probably analogous to the lengths seen in many other graves. The use of the brooches in this group is interesting, the annular and small-long brooches forming a pair with the more normally placed cruciform.

Only the skull survived as body stain. The lower jaw could be distinguished and there were remains of some teeth which were sampled. The head, and pot behind, appeared to rest on a slightly upstanding 'pillow' of ironpanned sand on the grave floor.

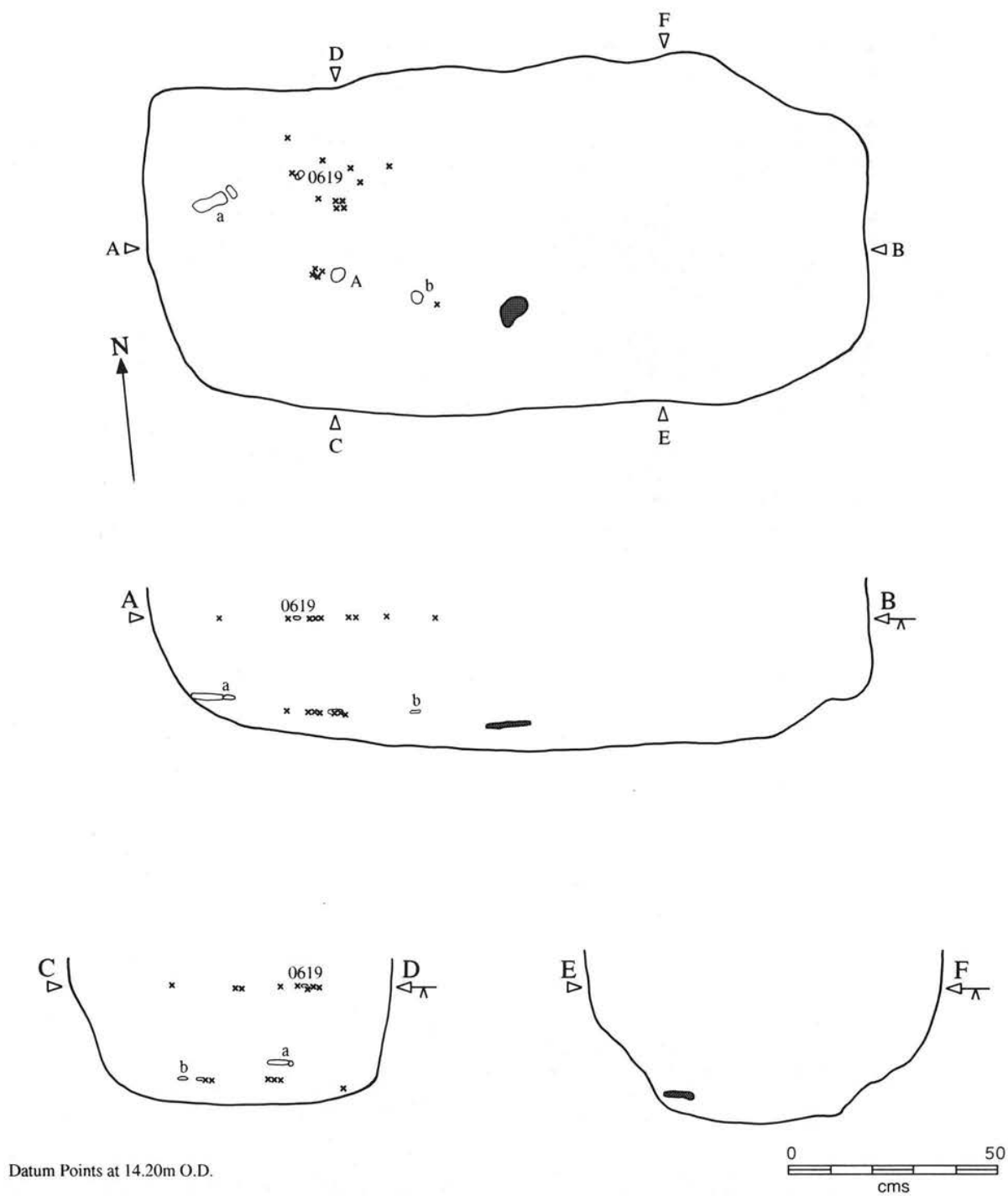


Figure 29 Grave 12, plan, long and cross-sections. Scale 1:15

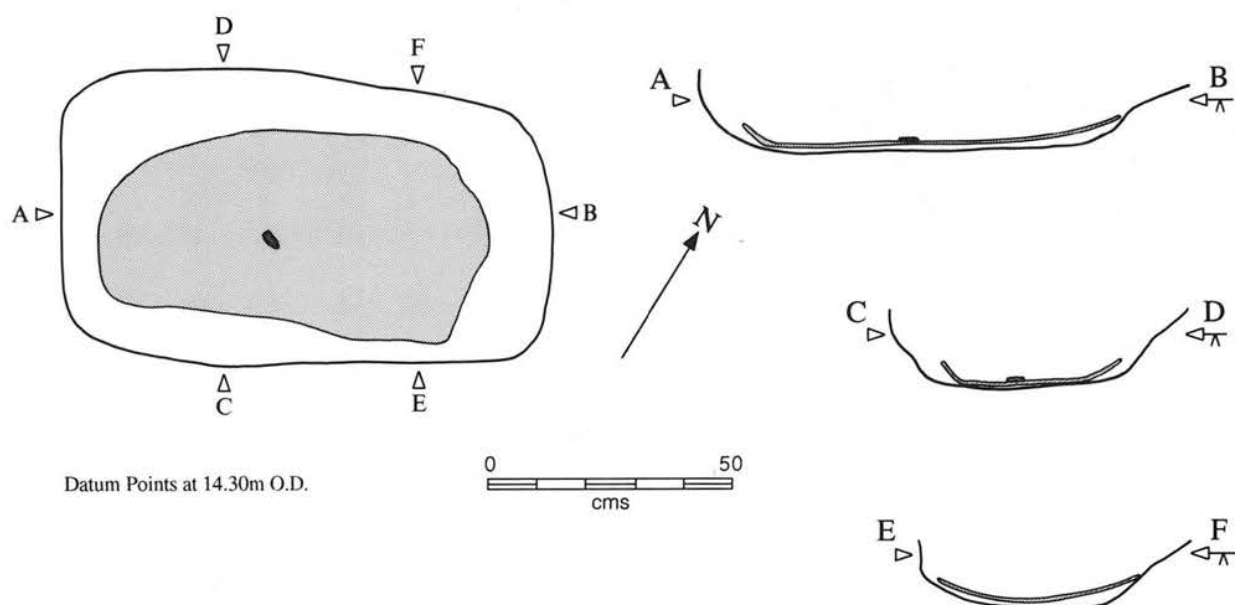


Figure 30 Grave 13, plan, long and cross-sections. Scale 1:15

Grave-goods:

A: Small rounded **pottery bowl**, undecorated, with upright rim flattened above, placed immediately to the west of the skull. Complete, it collapsed on excavation as the fabric was too brittle. It has a brown sandy fabric with rounded grit and dark grey surfaces. Height 840mm. [0786]

B: Ae **small-long brooch**, Leeds trefoil-headed class, found face up in throat area of body. Square-headed plate with traces of lunate stamps on one side; flat knobs. Plain bow above catch-plate which is obscured by textile. Wide transverse moulding above triangular foot with further traces of lunate stamps. Fe spring and pin. Length 62mm. Three areas of textile were identified: (a), partially mineralised on the front plate over an area c.9x12mm, is of undyed wool, spin Z/Z, weave a 2/2 twill, thread count c.8/8 on 10mm but pulled diagonally. (b), detached from ?above the bow and head-plate, is 25 x 23mm; spin Z/S with coarse dark threads, it is a twill, thread count 8-10/8 on 10mm. Its fibre is unidentified and no dye was detected. (c), from below the bow, has five threads bound round, S, Z-ply or very coarse loose twisted Z. A 13 x 7mm fragment adhering may be from (a) folded, with light coloured ?fibres; no spin clear. [0783]

C: Ae **annular brooch** with Fe pin, found next to the chin. The brooch lay between the two brooches B and D, and beneath a layer of textile. Thick, plain dished flange with bevelled edges, diameter 34mm. Textile is attached to the front and back. On the back there is a mineralised lump on the ring 13 x 16mm in area, with fragments coming round to the front. The best area, 9 x 8mm, spin Z/Z, of 2/2 twill, has a thread count c.14/12 (7/6 on 5mm), with fine even threads. A fragment of finer Z, S-ply thread protrudes from beneath. A fragment (d) is detached. Of fine to medium undyed wool, it comes from a weave-edge preserved 12mm long. There are only three tablet cords, Z, S-ply on 2-3mm width, with protruding Z,

S-ply weft loops, 8 per cm, too fine to belong to (a). [0735]

D: Ae **cruciform brooch**, length 90mm, found face up to the north of the skull and forming a dissimilar pair with brooch B. Small head-plate edged with lunate stamps, barely defined from the narrow side wings. Both side knobs are missing. The terminal knob is three-quarters round but flattened behind, attached by a half-lapped projection (soldered) to the front of the head-plate. Plain swollen bow with end facets. Catch-plate small, faceted above a strong, double moulding and animal-head terminal with rounded eyes and undeveloped muzzle. On the reverse, the bow and the whole of the terminal area is hollowed. Remains of an Fe spring and pin, attached to the brooch by a single lug, the catch for the pin small. The brooch is clearly early in the cruciform series, with a close parallel from Holywell Row, Mildenhall, grave 48. It belongs with Reichstein's *Späte* brooches, with suggested dating of 475-525 by Hines (1984, 244-253; 1997, 244). A scrap of mineralised textile lying on top is preserved, Z/Z-spun with loose twisted threads, possibly from a twill. A small area of finer medium threads protrudes, one possibly S, curling under possibly indicating a selvedge. No dye was detected. [0784]

E: String of 19 **beads**, 13 of glass and 6 of amber (see detailed plan, Fig. 32). Glass: annular (iv, pale yellow, translucent); globular (i, bright apple green. ii, white with pale blue crossing trails, iii, v; yellow with green crossing trails. x, dark green. xi, white with blue trail. xii, yellow with rust-red crossing trails); drawn globular (viii, colourless with gold internally); cylindrical (iii, yellow with green crossing trails. vi, white with blue crossing trails. vii, yellow with rust-red crossing trails. ix, white with green crossing trails); drawn hexagonal cylindrical (xiii, light blue). Amber: wedge (xvi, xvii); biconical, long (xv, xviii); roughly shaped (xiv, xix). [0740-0750, 0755-0760, 0764, 1159]

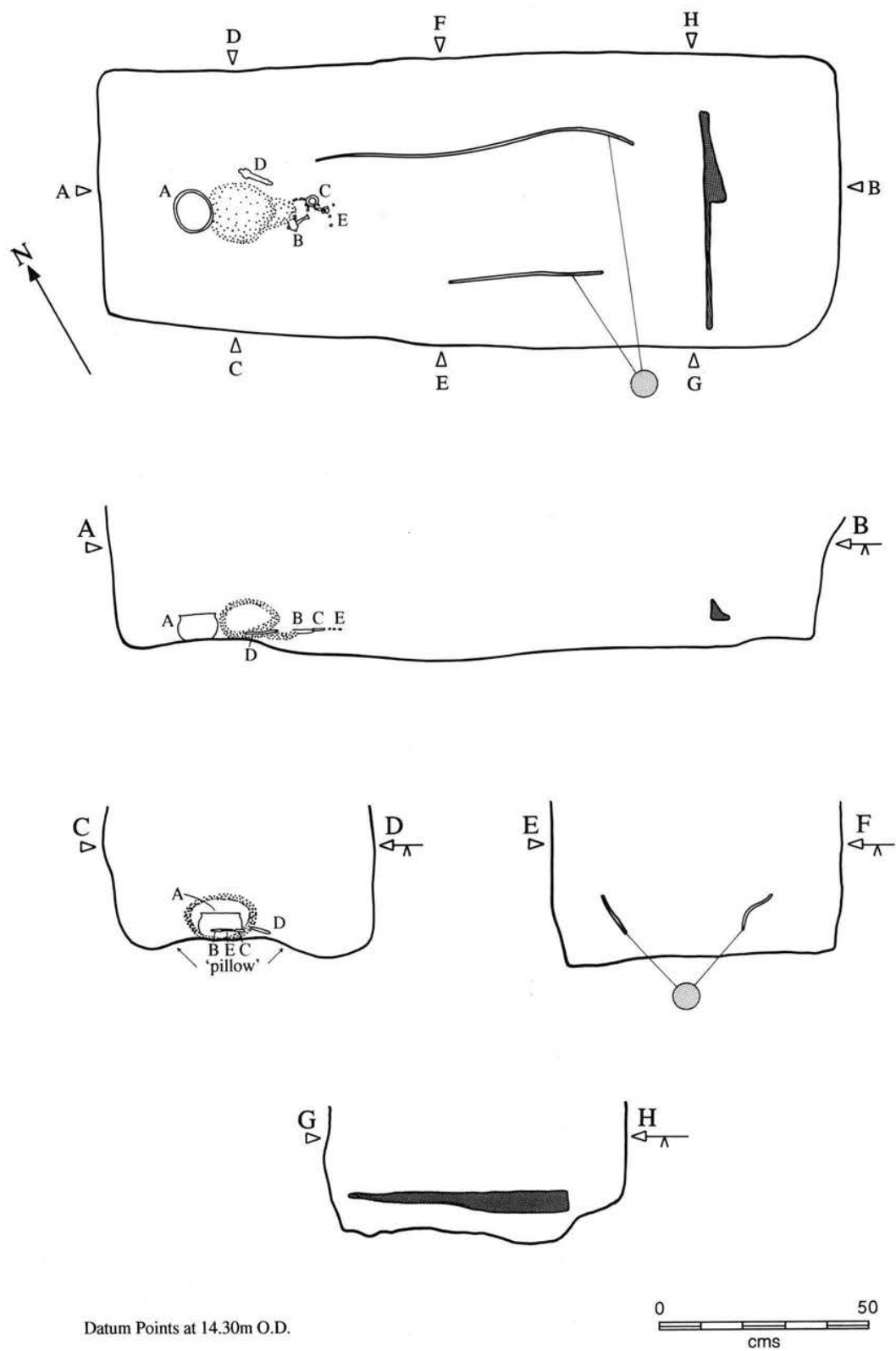


Figure 31 Grave 14, plan, long and cross-sections. Scale 1:15

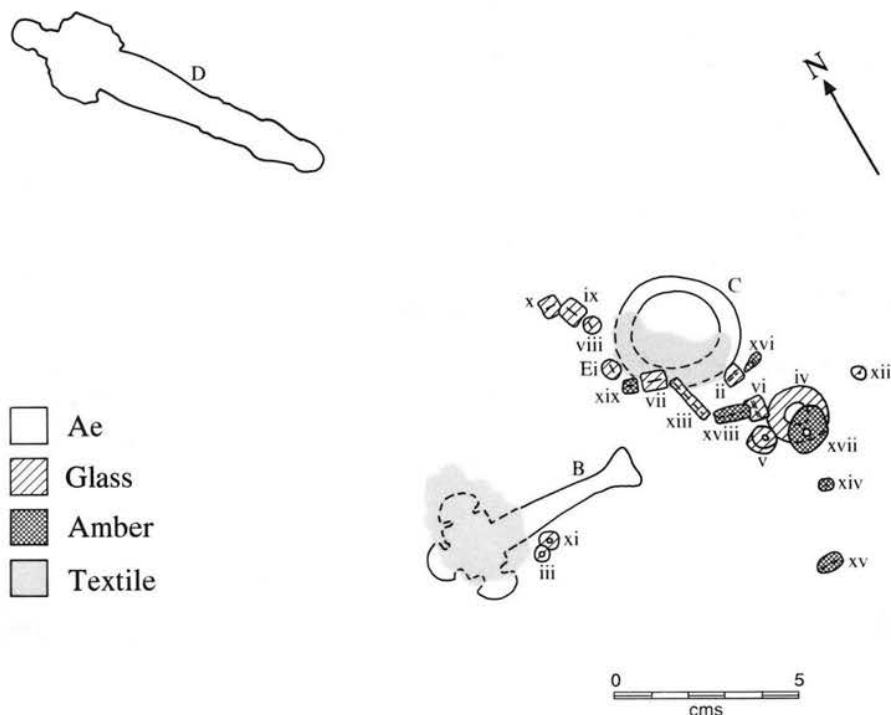


Figure 32 Grave 14, detail of grave-goods. Scale 1:2

Grave 15 (inhumation) (Fig. 33)

Dimensions: 1.77 × 0.73m

Orientation: 300°

Container for body: Coffin or organic lining.

Sex/age: Unknown, probably juvenile.

Body position: Very fragmentary traces of body stain suggest that the body was either flexed or, probably, supine extended with right leg crossed over left, head at east end lying on its right side.

Description: An irregular sub-rectangular cut at the surface evolving into a smoother sub-rectangular shape. The fill of light grey sand in the upper levels changed to an orange brown and mid grey. Frequent small stones from ironpanned gravel were redeposited within the grave. The ironpan formed a slight shelf along the south edge of the grave cut.

The first suggestions of a stain appeared at 14.14mOD along the grave south edge as a black organic line. This line was never very strong although quite thick when seen, and continued especially in the south-west corner to 13.98mOD, at which level stains appeared at both east and west ends. A short length of organic stain also appeared along the grave north edge at 13.81mOD. Although never very extensive, these together suggest some form of container for the body, probably an organic lining, perhaps of textile.

The body stain was almost non-existent except for the head with lower jaw in which were preserved several teeth.

Grave-goods: None.

Grave 16 (inhumation) (Figs 34, 35, 90, 91 and 92)

Dimensions: 1.93 × 0.77m

Orientation: 276°

Container for body: None.

Sex/age: Female, young adult.

Body position: Supine flexed, right leg possibly crossed over the left. The position of the wrist clasps suggest that the right arm was bent over the chest so the hand rests on or near the left upper arm. Wrist clasps suggest the left arm lay by the side of the body. Head to west.

Description: A rectangular cut with edges showing some undercutting. At the surface the ends were slightly rounded and became more elliptical further down. The fill was of a very light grey sand mixing with orange-brown redeposited natural. The grey sand was extremely light, appearing almost white when dry.

The backfill had a clear division with very light grey sand on the south side of the grave right down to the bottom. This seems to represent two spoil heaps being redeposited as the same time (see Chapter 6 section II).

Two small patches of charcoal were noted in the upper levels of the fill at 14.19m and 14.15mOD. One, 0953, was of oak stem (*Quercus* sp.). A sherd of pottery, 0955, was found at the grave east end at 14.19mOD (*not illus.*).

The body stain was poorly preserved and was very similar to the darker brown of the natural. It seems that the body may have been resting on a small organic layer although this could not be distinguished from the body stain; this may be a similar arrangement to that seen in grave 9. Fragmentary mineralised remains of the spine show fusing of the bone not yet complete, suggesting the individual to have been aged 18–25 years.

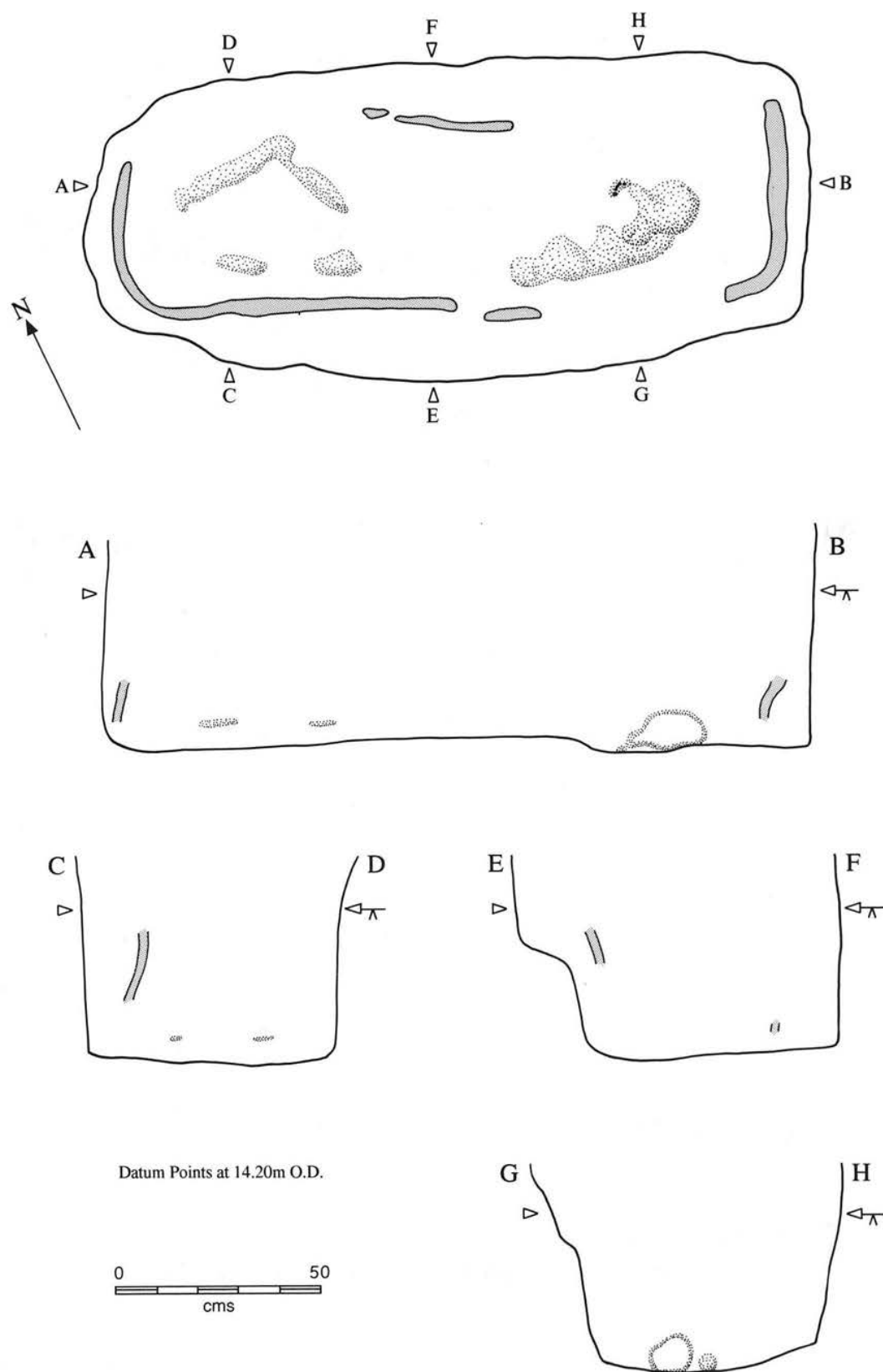


Figure 33 Grave 15, plan, long and cross-sections. Scale 1:15

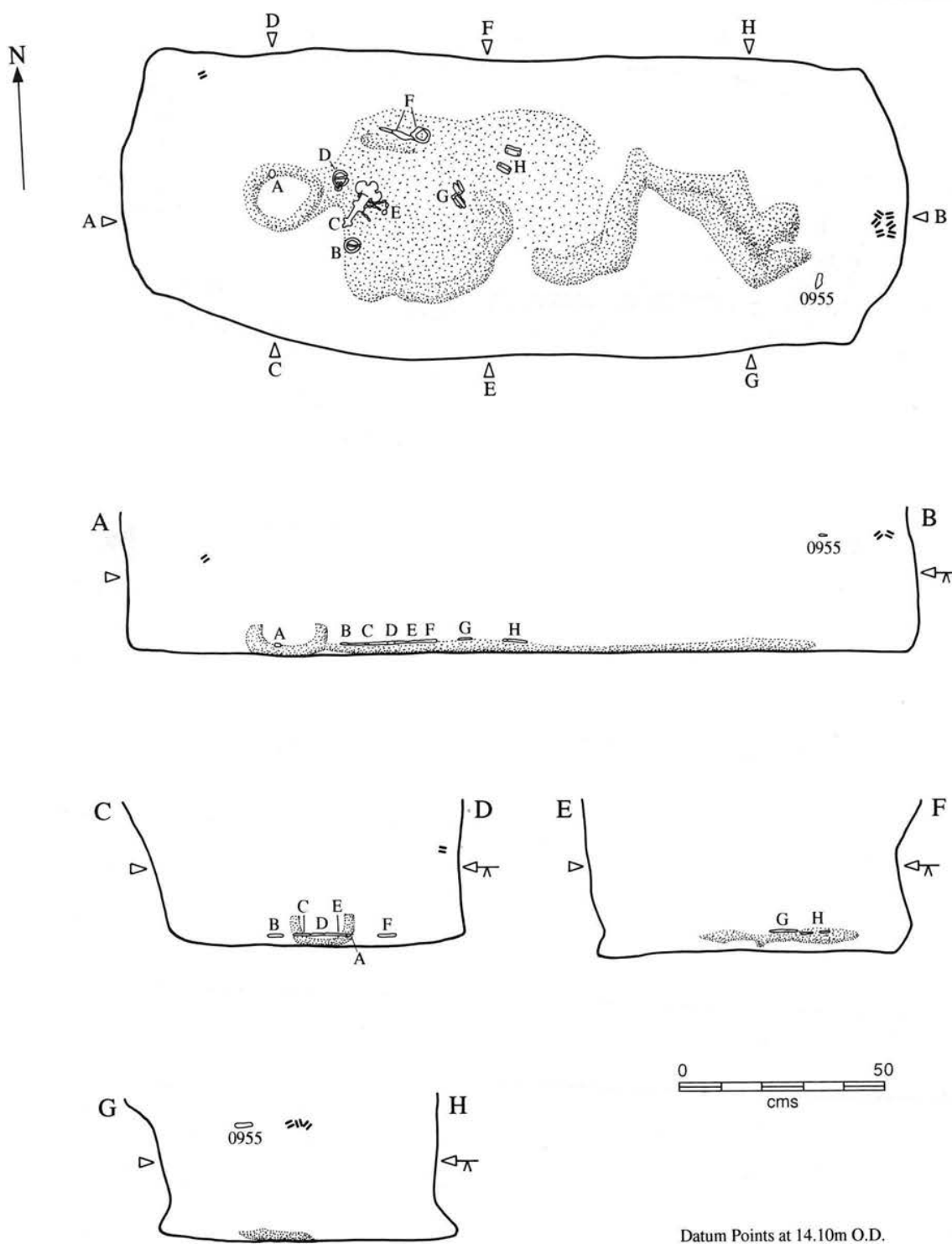


Figure 34 Grave 16, plan, long and cross-sections. Scale 1:15

Grave-goods:

- A: ?chain link of unknown material found isolated by the skull but at the same level as the other goods, not unlike grave 2, C and so perhaps a fastening for the bead string? Now missing (*not illus.*). [1286]
- B: Cast Ae **annular brooch** with four faceted divisions and a double rebated seating for the Fe pin. Slightly oval in shape, 41 × 43mm, forming a pair to D. Overlying textile (b) associated. [1284]

- C: Ae **florid cruciform brooch**, length 135mm. Plain rectangular head-plate, no demarcated side wings, side knobs detachable, held in place by a rectangular plate to the front of the head-plate and the Fe axial bar for the spring, which passes through two lugs on each side knob. The side knobs are exploded into full-face masks flanked by in-turned, beaked heads. The top knob is of the same design, but cast in one with the rest of the brooch. The bow is wide, with a flattened

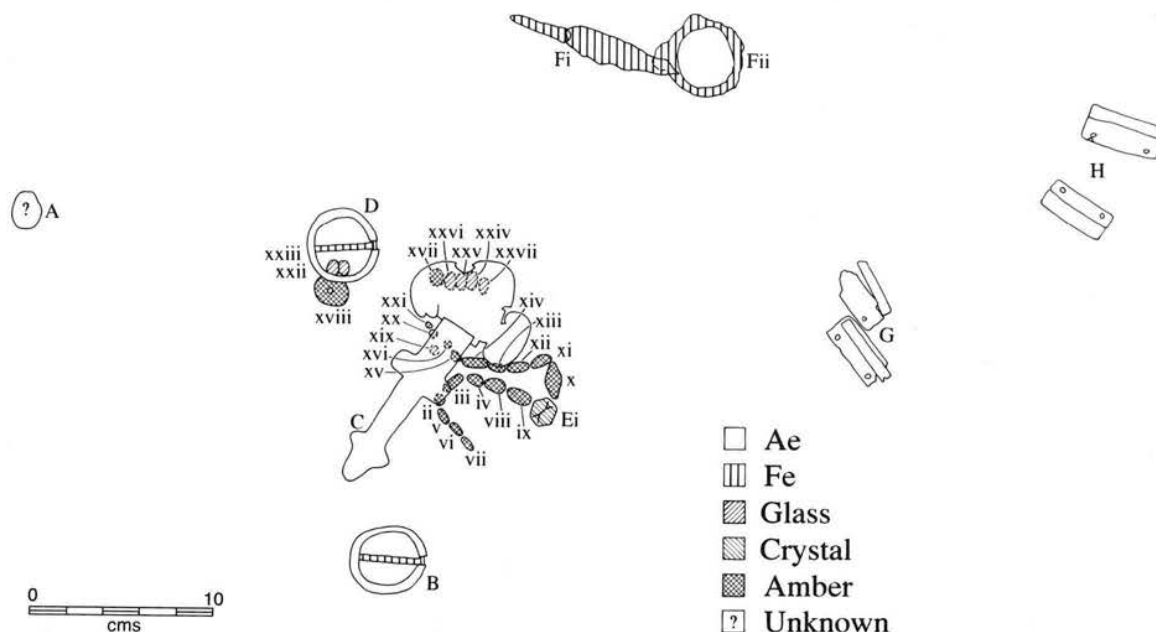


Figure 35 Grave 16, detail of grave-goods. Scale 1:4

profile, weak stops and a low central bar bearing a suggestion of a central, raised square. Plain catch-plate with up-turned beaked heads forming side lappets. Low double moulding above animal-head terminal. The head has round, protruding eyes and the muzzle expanded as a humanoid mask with heavy brows, protruding eyes and square nose above a horizontal 'S' scroll. On the reverse side there are traces of an Fe spring and a long but weak catch. The whole of the animal-head terminal is hollowed. The brooch belongs to the 'florid' class of cruciforms of Leeds and Pocock (1971), Class Vai, and very closely resembles the larger, damaged piece from Felixstowe (West 1998, fig. 45.2).

The decorative knobs on the east and west of the head had become detached; that to the west had traces of white solder on its surface. The brooch was extracted in a block for laboratory excavation, with brooches B and D, and in the mineralised textile associated, two weaves were distinguishable. Towards the head end of C over an area of $c.45 \times 30$ mm was (a), a fabric of animal fibre (?wool), with Z/Z spin, light twist, a twill weave, probably 2/2, with no reverses visible; thread count $c.9/9$ on 10mm. It appears to be a very open weave, but this is possibly due to deterioration. Under (a) lies (b), a slightly finer weave, best over an area $c.90 \times 90$ mm, in two clear layers at the foot of C and also present on B and D. It is of wool, the fibres finer than in (a); Z/Z spin, 2/2 twill, thread count 10–11/8–10 on 10mm, with fairly even spin and weave. The blue colorant indigotin was detected and almost certainly combined with a second brown or yellow mordant dye, indicating this weave to have been deep bluish black or possibly green. A tablet-woven weave border (c), 8mm wide, is preserved under the pin, six 4-hole cords lying in chevrons (Fig. 139.7); the warp and weft, Z-spun, must be a starting or closing border on weave (b).

- Weave (a) may have been attached to the other side of this border but probably simply underlies it. [1282]
- D: Ae **annular brooch** with four faceted divisions and a double rebated seating for the Fe pin. Of slightly oval shape, 41×43 mm, forming a pair to B. Overlying textile (b) adheres and over the textile was a much degraded organic layer, probably leather, with at least one definite hole going through it. [1283]
- E: String of 27 **beads**, 1 of crystal, 17 of amber and 9 of glass. Some beads preserve fragments of the stringing thread still *in situ*. Crystal: irregular four-sided cylinder. The central hole can be seen to have been drilled from both ends, with a smaller bore to join in the middle (i). Amber: roughly shaped long biconical (iii–vii, xi–xiii, xv, xvi); biconical (ix, x); biconical, square (viii); globular (xvii); disc (xviii). Glass: melon (xix, yellow); disc (xxii–xxiv; yellow); annular (xx, yellow); globular (xxi, xxv, xxvi, yellow). (*Beads xiv and xxvii not illus.*) [1295, 1360–82, 2446–7]
- F: Fe **knife** (i), length 98mm, and **ring** (ii), diameter $c.42$ mm. An amorphous deposit on one side of the knife blade could not be identified as a skin product. Fibrous organic remains overlying this and the other side of the knife blade derive from textile. [1291, 1292, 1294]
- G: Ae **wrist clasps** (i–v) (Hines B13b), length 38mm. The clasps have attached tubes (ii and iv) and a single row of ring-and-dot ornament on the 'eye' plate. There is mineralised bone under, and mineralised wood overlying the clasps. The corrosion of the metal caused fragmentation on conservation. [1127]
- H: Ae **wrist clasps** (i–iii) (Hines B13b), a matching pair to G. An organic material was attached but unidentifiable. Mineralised textile from (d) adheres; these detached tablet cords, loose and probably from the clasps, were polluted with an alkanet-like colorant. Probable wood traces overlie this, with grain running parallel to the length of the southern clasp. [1125]

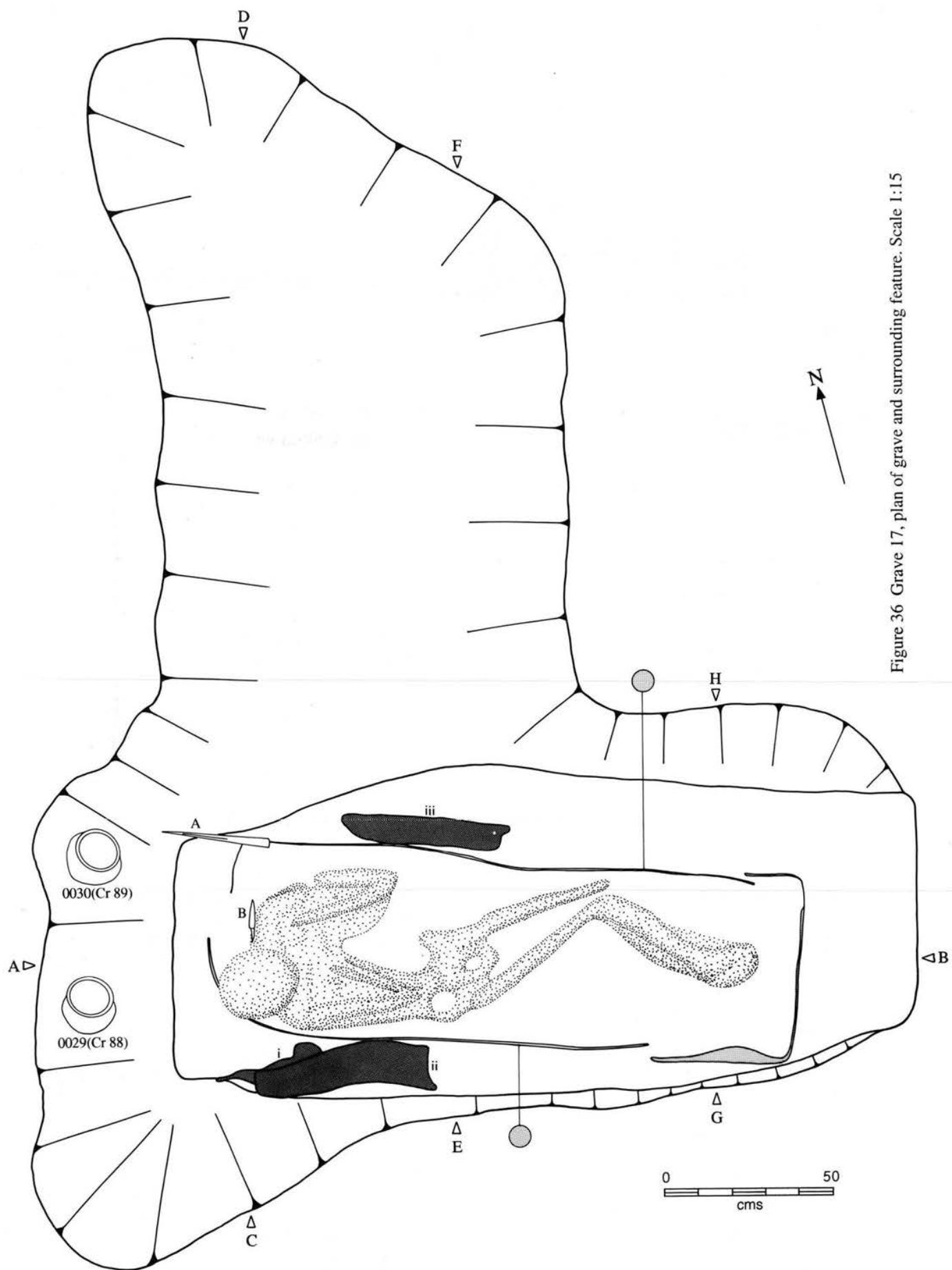


Figure 36 Grave 17, plan of grave and surrounding feature. Scale 1:15

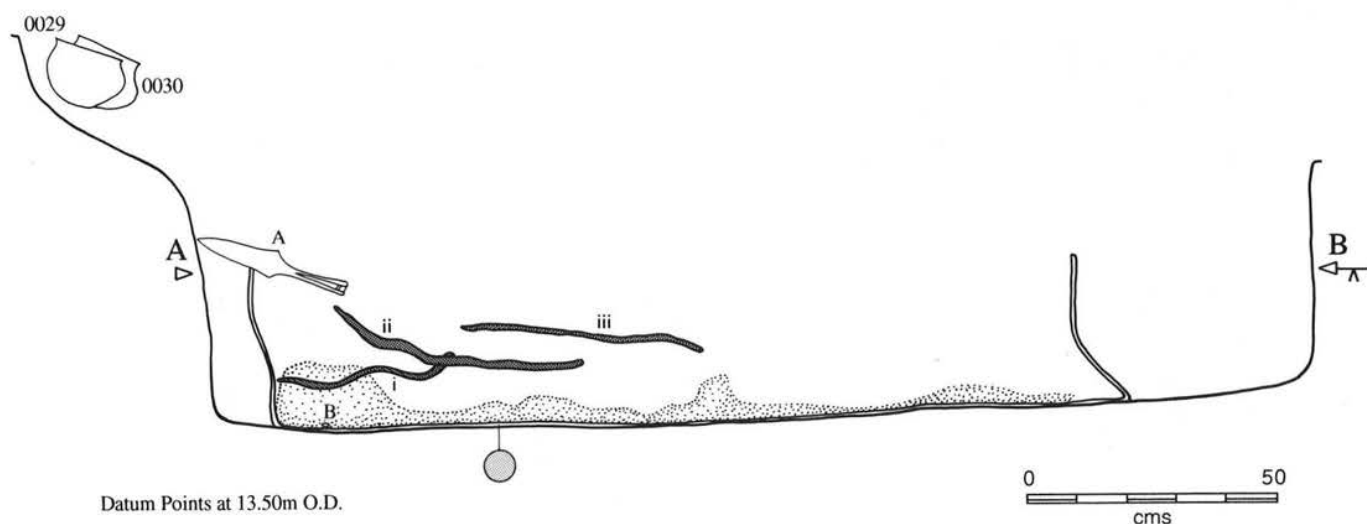


Figure 37 Grave 17, long section. Scale 1:15

Grave 17 (inhumation) (Figs 36, 37, 38 and 92)

Dimensions: (Feature) $2.63 \times 3.70\text{m}$; (Grave) $2.22 \times 0.99\text{m}$

Orientation: 284°

Container for body: coffin.

Sex/age: Male.

Body position: Flexed to left, arms folded so hands meet on left shoulder. Head to west.

Description: A large rounded rectangular grave, cut through a larger amorphous feature of light grey sand. The fill was composed of light grey sand mixing with redeposited orange-brown natural to produce an amorphous fill whose cut was difficult to distinguish. A neat rectangular black coffin stain could be seen from 13.53mOD, set at an angle to the grave cut. The edges of the larger feature were also difficult to determine as they mixed into the natural sand. This feature may therefore be the remains of a natural hollow within the original heathland.

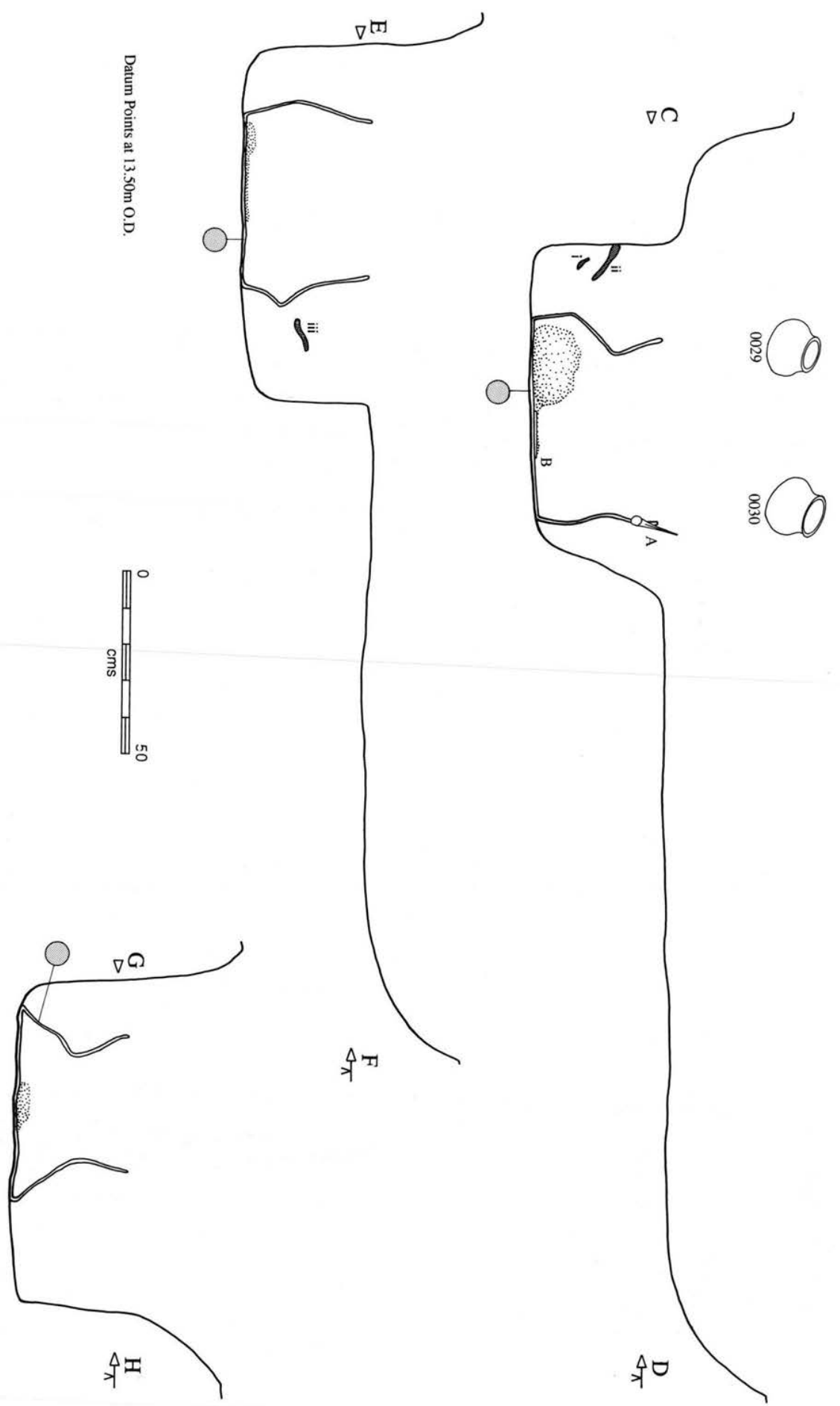
Two urns (0029 and 0030) were placed within the light grey sand at the west end of the grave on a 'shelf' in the natural. They contained the cremated remains of one or two juveniles (catalogued as graves 88 and 89 respectively) and are therefore treated as individual burials rather than grave-goods. However, the urns had no independent cut marks within the fill of the grave cut.

Although the amorphous nature of this type of sand makes the identification of such cuts difficult to recognise, it seems that the two cremations are contemporary with the inhumation.

The coffin stain was well-preserved and although sometimes fading completely away, was typically 10–15mm wide. The stain, approx. $1.76 \times 0.58\text{m}$ in size, shows clearly the distortion caused by the pressure of the earth which caused it to collapse inwards. The dimensions are therefore based on its size as seen at or near its base. Three charred pieces of oak (*Quercus* sp.), (i)–(iii), flanked the coffin on the north and south sides. (i) was of stem, (ii) of softwood from a wide stem or branch and (iii) was of hardwood. There were no other wood traces nor any sign of a coffin lid. The position of the spearhead suggests that the spear was originally laid on top of the container.

Grave-goods:

- A: **Spear**, with Fe head (Swanton H2), length 373mm. Mineralised wood in the socket is of mature ash (*Fraxinus* sp.). [0032]
- B: **Fe knife**, length 139mm, with traces of mineralised horn handle and heavily mineralised leather. Unidentifiable mineral-replaced textile overlies it. [0177]



Datum Points at 13.50m O.D.

Figure 38 Grave 17, cross-sections across grave and surrounding feature. Scale 1:15

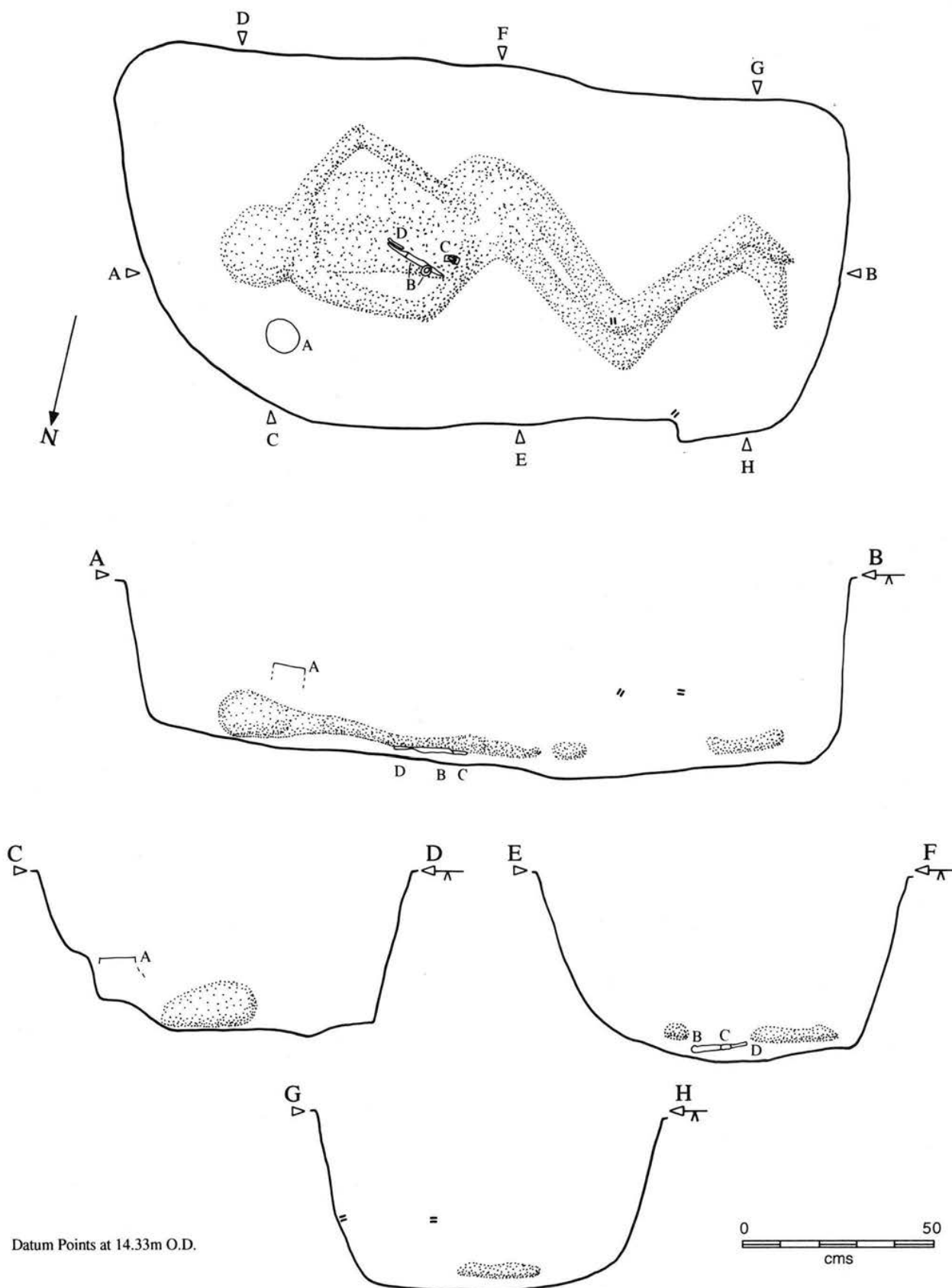


Figure 39 Grave 18, plan, long and cross-sections. Scale 1:15

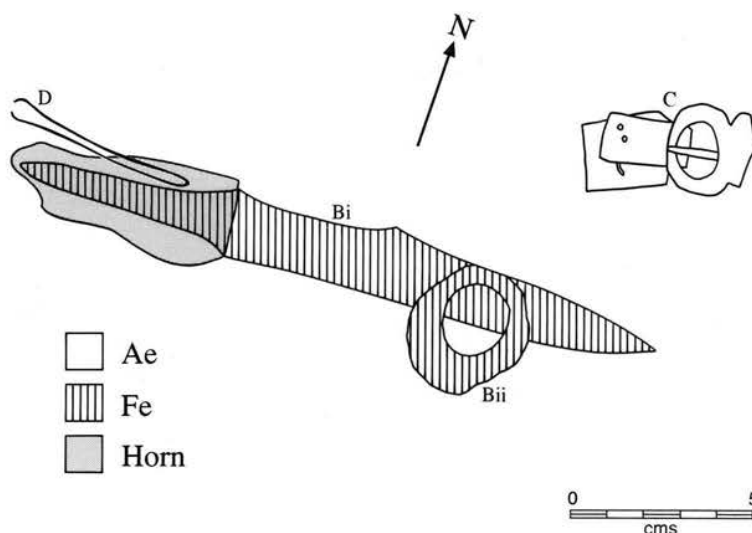


Figure 40 Grave 18, detail of grave-goods. Scale 1:2

Grave 18 (inhumation) (Figs 39, 40, 93 and 94)

Dimensions: 2.00 × 0.97m

Orientation: 251°

Container for body: None.

Sex/age: Possibly female.

Body position: Flexed, knees right, hands over pelvis. Head to east.

Description: An irregularly-shaped cut, initially rectangular with rounded corners, becoming increasingly apsidal-ended. At 14.01mOD the curious 'notch' shape appeared in the grave northern edge. The curved 'missing' north-eastern corner continued to the grave bottom. The fill was of a stone-free light grey and orange, and dark black sand, mottling together. The light grey sand was concentrated at the west end but mottled into the orange sand at the east end. These east/west concentrations continued down to the body stain. Several fragments of charcoal, 0615, found in the fill were of oak stem (*Quercus* sp.).

The body showed as a reasonably clear stain, slightly disturbed by roots. There was no apparent organic stain accompanying the body. The knife and tweezers were presumably contained within a bag, mineralised remains being noted on the knife, tweezers and buckle. This bag may have been fastened by the possible iron ring adhering to the knife. Both bag and buckle were found below the body stain. A fragment of comb was seen mineralised, attached to the knife. The body is possibly that of a female if the identification of an Fe ring with the knife seen on the X-ray is correct; this can only be a very tentative identification though, because the whole object is so poorly preserved.

Grave-goods:

A: Horn cup or drinking horn with Ae rim mount with an approximate original diameter of 88mm. Horn survived only where in contact with metal, and there was no metal terminal fitting, hence the uncertainty about the original form of the vessel. The object seems to have been placed on a small ledge at the side of the head. It consists of a U-section moulding fitted over

an exterior collar of Ae sheeting approximately 17.5mm in height. Six plain strap clips with rounded ends pass over the moulding and are riveted in place through the collar and horn. The collar strip is not continuous but patched together, possibly made up of available cut-and-pieced scrap.

Two overlapping pieces of Ae sheeting extend below the collar and are both overlapped and were probably originally held in place by the collar at their top edges. The original shape of these pieces of Ae sheeting is difficult to determine as they are broken at the bottom, but the outer lateral edges, although damaged, suggest a concave sub-rectangular shape for the upper section. It is difficult to determine if these two pieces of sheet metal were originally separate or if a single mount was broken and overlapped due to compression of the body of the vessel.

Similar configurations of undecorated moulding, collar and clips have been found in grave 42 at Little Wilbraham, Cambs. and grave 15, Holywell Row, Suffolk (Kennett 1971, 10, 15–17; Lethbridge 1931, 12). The rim mounts at Little Wilbraham and Holywell Row have considerably greater vertical dimensions (60.4 and 26.9mm respectively) than the Snape rim mount, and their collars are continuous rather than pieced. These two mounts also come from richer graves. Little Wilbraham grave 42 also contained a cauldron, a sword with a gilt bronze mount, a spear and a shield boss. The rim mount here had a suspension loop; another band with suspension loop, thought to have been placed about halfway down the length of the horn, was also preserved. Holywell Row grave 15 had a spear with iron head and ferrule, a knife and a piece of bronze plating of uncertain function. [0528, 0543, 0592, 0632, 0633]

B: Fe knife (i) with horn handle, length c. 176mm. X-rays show a possible Fe ring (ii) adhering. A dark brown layer less than 1mm thick on the blade surface appears to represent a leather sheath. The layer extends beyond the blade edge by 8mm where a wrinkled edge of double thickness and two or three possible stitch holes are visible. Both sheath and handle remains are

overlain on one side by an area of mineralised textile 20 × 20mm, Z/Z spin, even, of medium to light twist; a 2/2 twill, thread count 7–8/8, even thread, medium to light twist. Also clear on the hilt, over c.7 × 7mm, Z/? spin, count 8/8 on the area preserved, weave not clear. [0629, 0776]

- C: Fe **buckle** with double Fe plates, length c.42mm. Traces of mineralised textile adhere; Z/Z, twill scrap and all over the other side over 25 × 9mm, Z/Z, 2/2 twill, thread count 10–11/11, originally an even weave. All may be the same wrapping. [0776]
- D: Ae **tweezers** with incised design on upper portion of each blade. Each blade is pierced below the decorated zone; one hole is open and seems to show a lining which projects fractionally on the inside. Length 49mm. Traces of mineralised Z-spun threads. [0630, 0776]

Grave 19 (inhumation) (Figs 41, 42, 94, 95 and 96)

Dimensions: 2.10 × 0.94m

Orientation: 295°

Container for body: None for upper; ?organic lining for lower.

Sex/age: Top body – Unknown.

Bottom body – Female.

Body position: Top body – bent over, head to east, left arm folded into waist, right arm lies along the body. Body is bent at waist so it follows the east and north edges of the grave. Left leg bent, knee over head of body below.

Bottom body – extended, head to east. Body slightly bent at waist and legs slightly flexed. Very fragmentary remains of upper body but faint traces of left arm lying alongside waist area.

Description: A large rectangular grave, 0.7m deep, with regular straight sides. The stone-free fill was of mid brown sand in the upper layers which made initial recognition difficult. Further down, the fill contained a mix of golden brown and light/mid grey sands. Small dark grey stains appeared throughout the lower levels, possibly representing the remains of organics deposited within the fill. They have not been marked on the plan as they were very amorphous.

There was no clear evidence for a container. However, a long black line running along the entire length of the grave south edge was seen first at 13.95mOD and continued to the bottom of the grave where it flattened out. No matching line was found along the north edge although some very slight traces were seen at various points down the fill at the east and west ends and in the grave south-east corner. None was very extensive. They possibly represent an organic lining for the lower body which has only survived well on one side. The base of the grave was of dark brown sand, very similar in colour to the body but, by its texture, not apparently an organic layer.

The large size of the grave was unusual and although the upper body has the appearance of having been thrown in, the size of the cut seems to have anticipated the two individuals contained within it. The nature of this burial is discussed more fully in Chapter 6 section II (pp. 248–9). Parts of the lower body's jawbone and teeth were preserved by metal salts from the brooches but gave no information about the body.

Grave-goods:

- A: 'D' shaped Fe **buckle** with Fe tongue and mineralised remains of degraded textile, weave no longer discernible. It is perhaps associated with the upper body but this is unclear. Width 15mm. [0981]
- B: String of 81 **beads**, 80 of amber, 1 of meerscham. Meerscham: large disc (ii). Amber: long biconical (ii–lxxxii). The meerscham bead was apparently originally at the centre of the string. A ?mineralised thread protruding from some of the beads has the same structure as (e) on brooch D although there seem to be only three plyed ends. (*Bead lxxxii not illus.*) [1170–1204, 1224, 1225]
- C: Fe **knife** (i), length 108mm, and **ring** (ii), diameter 36mm. Both the knife and ring have been repaired. The knife has traces of horn on the hilt and traces of mineralised wood on the blade. Patches of fine mineralised textile going round the edge suggest a garment fold or a wrapping; the surface is badly deteriorated but the very fine threads, probably Z-spun, and the weave, suggest a twill. [1223]
- D: Ae **small-long brooch** (Leeds class D) with trefoil head and crescentic foot. The face is heavily obscured by textile but a band of transverse moulding is visible above the foot. The spring appears to be of Ae. Length 70mm. Mineralised textile adheres, curled round. These suggest a twill weave with a fine tablet-weave border. (a), a fragment along the top, has coarse white fibres of hemp, spinning Z/Z with a loose twist. The weave is tabby, very even, with a thread count 11–12/14 (7 on 5mm). Screwed-up textile (b), semi-mineralised with fine Z-spun threads tucked round underneath, may come from the twill and a tablet-weave. Other fragments, from (d) at this end of the brooch, are of fine wool, dyed red-purple, probably lichen purple ('orchil' or 'cork'), spinning Z/S. The weave suggests a warp-faced tabby, perhaps a tape, but no edges are visible. (e), a white protruding fragment probably of hemp as in (a), is a fragment of guilloche plait, of four S-ply threads, only 5mm long. [1224]
- E: Ae **small-long brooch** with trefoil head, Leeds class C, but with animal eyes on catch-plate close to the bow. On the reverse, a single lug for the attachment of the spring is visible through the textile and corrosion products. Heavy Fe staining suggests the spring and pin to be Fe. Length 62mm. An amber bead is embedded in this corrosion. Mineralised textile adheres underneath. On the brooch pin is a strip 25 × 14mm of weave (c), a tablet-weave border or braid; the warps are very fine, Z-spun with a loose twist, the 4-hole cords lying S,Z,S,Z,S on 5mm and the wefts Z,S-ply 6–7 on 5mm. Another fragment, c.25mm long, has Z,S,Z cords with an edge, and a scrap of twill (b), here as far as can be seen, Z/Z spun. On the front of the brooch over 35 × 15mm, there are deteriorated fragments of the tablet cords. Another loose sample 20mm long, has an edge preserved and cords S,S,Z,S,Z,S,?Z,Z,S; The badly degraded fibres are probably wool and were dyed red. [1225]

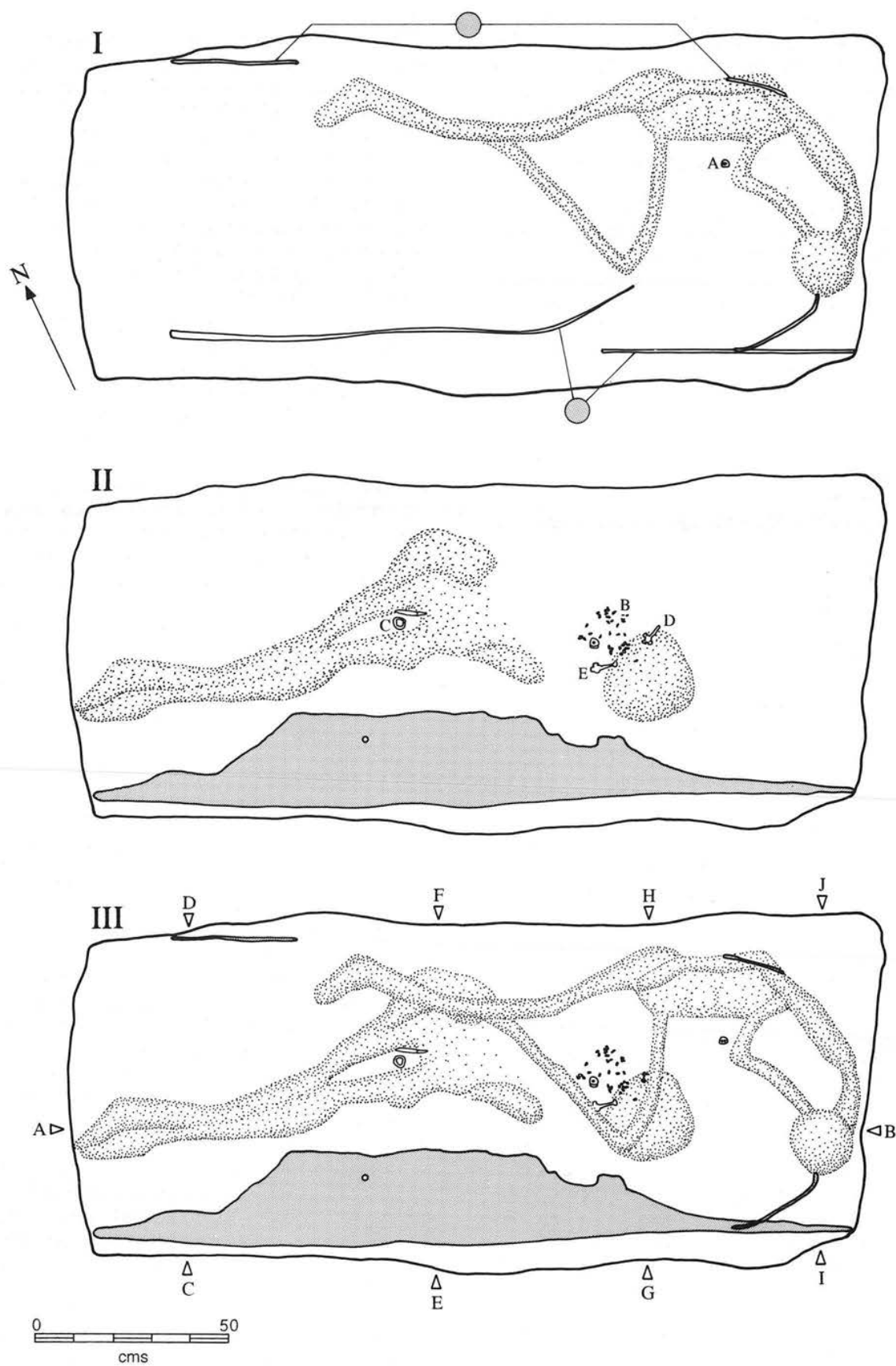


Figure 41 Grave 19, plan. Scale 1:15

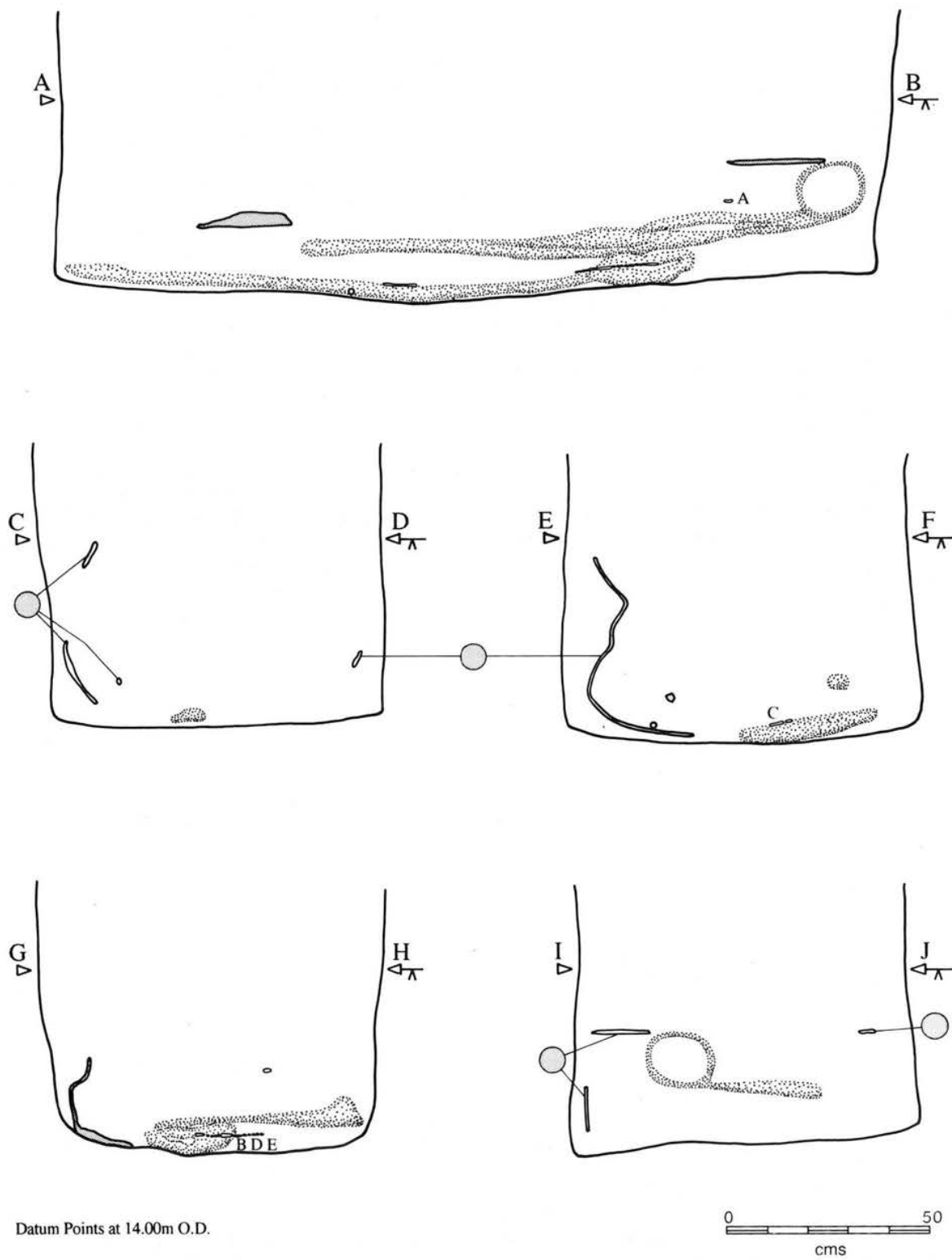


Figure 42 Grave 19, long and cross-sections. Scale 1:15

Grave 20 (inhumation) (Figs 43, 44, 96 and 97)

Dimensions: 2.13 x 0.88m

Orientation: 276°

Container for body: Organic lining?

Sex/age: Male.

Body position: Supine extended, head turned to south. Right leg crossed over left, arms folded over the chest. Head to west.

Description: A sub-rectangular grave cut with a stone-free mid-orange brown sand with light grey patches mixing in throughout the fill. Two small charcoal patches (i and ii) of willow (*Salix* sp.) or poplar (*Populus* sp.) were found at 14.15m at the grave west end. Some dark grey/black patches, probably of degraded wood, appeared at 14.04mOD. The fill was of a slightly darker brown sand at the base of the grave, with a few patches of mid grey sand outside the organic lining.

The organic stain appeared at 13.86mOD as a dark brown/black stain 10–20mm thick, with a 'double edge' on the north side which quickly disappeared to produce a single edge sloping down to the grave bottom. An undercutting bulge in the grave north-west corner accommodated the spearhead, the spear apparently being too long for the grave as initially dug. This suggests that the original length of the spear was in excess of 2m long.

The form of the container used to accommodate the body is uncertain and is perhaps best interpreted as an organic layer, lining the base of the grave. It was rounded off at the corners and was thin and similar in colour and texture to the body stain. Contained within the layer was charred wood iii, of oak heartwood (*Quercus* sp.), immediately south of the body. Another wood-like stain in the sand, 0772, was seen for a short stretch along the centre of the grave north edge and possibly represents remains of the spear shaft.

The body stain was poorly preserved, perhaps due to the strength of the organic stain. The head was reduced to a small lump and the chest area was especially thin. The legs, however, were reasonably easy to define.

The belt set was excavated *in situ* and contains a number of curious Ae objects presumably related to belt fittings/strap ends. Their fragile nature has meant that nearly all have disintegrated and they cannot be drawn except from X-rays.

In the grave upper fill, at 14.25mOD a fragment of a saddle quernstone, 0326, was recovered (Fig. 97). The fragment, weight 120g, maximum thickness 38mm, retains a flat grinding surface and deliberately rounded underside. Although too small to give its original dimensions, the stone was probably fairly small. Such fragments are difficult to date, since they are often residual in later features and were in use from the Neolithic period to the Iron Age, and even occur in Roman contexts. A date within the late Bronze Age or Iron Age is preferred for the Snape quern and is supported by the careful shaping of the stone to an oval bun form with rounded underside, typical of 1st millennium stones.

Thin-sectioning of the quern showed the rock to be a microgranite composed almost entirely of feldspar and quartz. Three possible outcrop areas for this type of rock are the Scottish Highlands, Norway or Greenland, and although the quern could have been traded into the Snape area, a glacial deposit seems a more likely source than a quarried or natural outcrop. This has been the explanation

for various other finds including those from Spong Hill, Norfolk (Buckley 1995), Goldington, Beds. (Williams 1992) and Spratton, Northants. (Ingle 1989). Full reports on the quernstone and its petrological identification are held in the site archive.

Ring-ditch 0302 (Fig. 128) which surrounded the grave had a fill of mid grey stone-free sand. It was 4.1–4.5m in external diameter, and looked as though straight stretches had been dug and joined to form the circle. Its width varied between 0.34–0.55m. It survived to only a shallow depth, being partly damaged by ploughmarks and for this reason it is unclear whether it was originally annular or penannular. The latter is a possibility, not least because the gap in the ditch east side is almost exactly on the axis of the grave cut.

No finds were made in the ditch fill although two scatters of pottery were located in the immediate area; within the ring-ditch area a scatter of 57 sherds, including 3 rim sherds was found in association with a few bone fragments and charcoal. The sherds all derive from vessel 1597, interpreted as a smashed cremation urn (grave 90). A fourth rim was found to join another sherd deriving from vessel 0462, found in the fill of grave 6 (Fig. 148). South-east of the ring-ditch, another scatter of sherds included 11 from vessel 1594 (scatters No. 18) which show it to have had incised lines and blurred stamps, although its original form is unknown.

Grave-goods:

- A: **Spear** with Fe blade (Swanton H2), length 202mm, placed flat. Mineralised wood in the socket is probably of ash (*Fraxinus* sp.). [0582]
- B: Fe **buckle** and Ae **belt plate** (i), length c.118mm, and matching **counterplate** (ii), length c. 101mm. Both are so heavily corroded they are illustrated from X-rays. Each appears to have an Fe body with Ae plates over the top at one end. Two textiles were preserved. On (i), textile (a) in a mineralised area 6 × 20mm is Z-spun in both systems with a thread diameter 0.5–0.6mm. It is a 2/2 twill, thread count 11/10 on 10mm. The diagonals appear to go different ways but this may be confused layers rather than reverses in the weave which is very friable. Weave (b) on top and beneath for 14 × 12mm, is a broken diamond twill with Z/S spinning and a thread count of c.20/18. Reverses are visible but no clear centre area is preserved. The textile on (ii) is in a detached fragment, 15 × 10mm, preserved against a solid mass of leather. (a) is of undyed wool, Z/Z, a 2/2 twill, with another probable area mineralised on the back-plate. [0692, 0695]
- C: Tiny Ae **strip** with line-and-dot decoration. Heavy corrosion in the ground meant that the original size and shape of the object cannot be determined even from X-rays taken of the soil block it was lifted in. (*not illus.*) [0695]
- D: A **patch of leather and textile**, destroyed in a latex mould when lifting on site was attempted. It lay directly above E and was possibly preserved by metal salts from this. Some mineralised textile of unpigmented coarse wool is preserved, over an area 50 × 13mm, on wood. It is a Z-spun twill, the threads 0.75mm in diameter. Thread count 8/8. [0675]

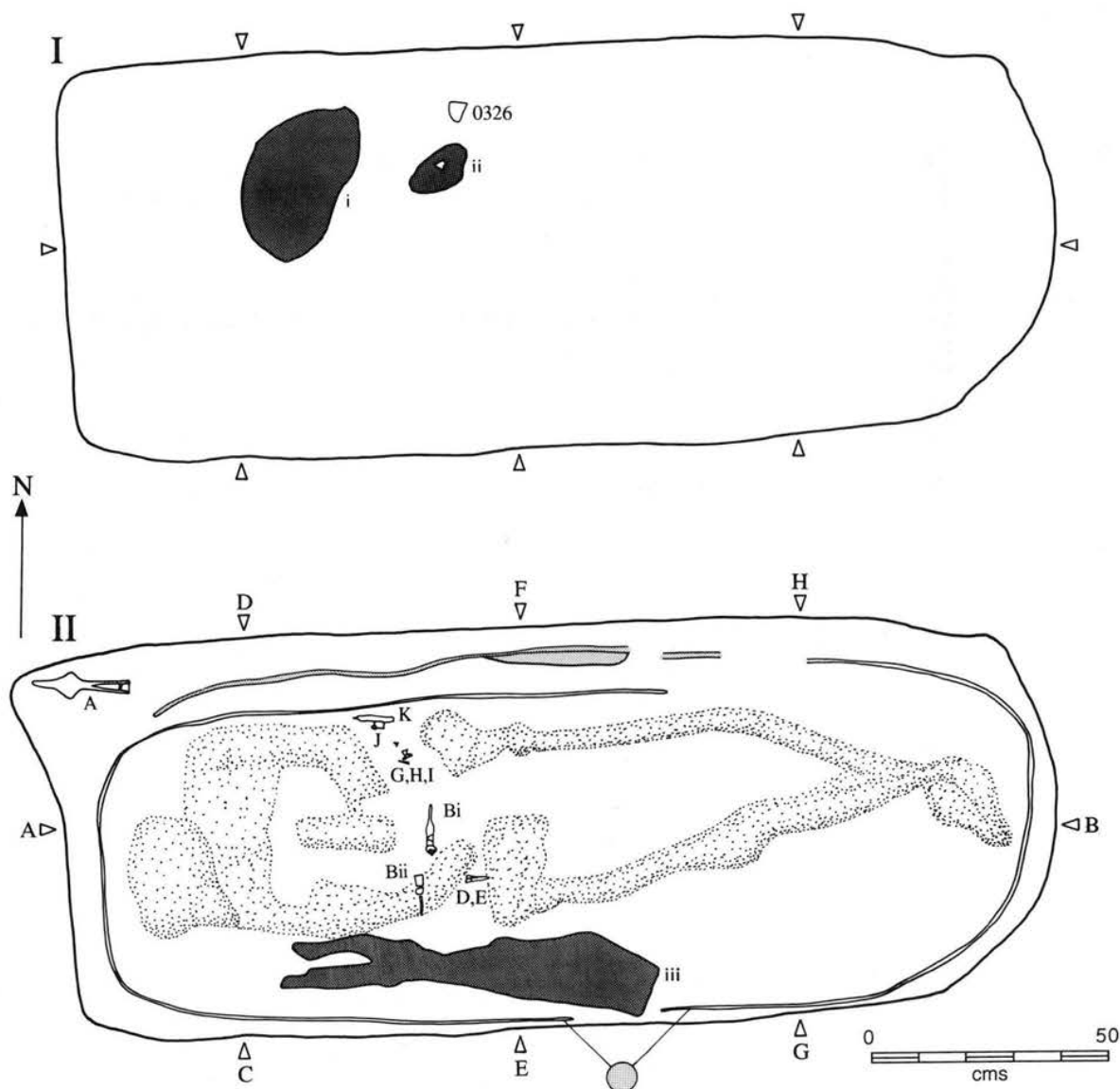


Figure 43 Grave 20, plan. (I) shows wood lumps in upper fill. Scale 1:15

- E: Tapering Ae **strap end** of two plates, length 48mm, preserving organic material, decorated with two pairs of lines at the top, above the rivet hole. X-rays show three dots in an inverted arc between these lines. Midway down is another series of punched dots in a U-shape. This is possibly a strap end or counterplate from a thick leather belt. The leather would then be about 4mm thick, possibly indicating cattle skin. Charcoal flecks associated with this object are of oak (*Quercus* sp.). A detached area of textile, 15 × 10mm, is associated. It is Z/Z spun, a twill, with a very even spin and weave, of fine to medium wool. Illustrated from X-rays. [0694]
- F: A layer or patch of **leather**, listed as a sample, also containing Ae object G (*not illus.*). [0676]
- G: A highly corroded Ae lozenge **?belt mount**, length 35mm, with two rivets on one side, associated with F and H. It preserves small areas of textile (c); 7 × 7 and 12 × 13mm of degraded animal fibre, Z/Z, twill, mixed with leather. No dye was detected. The mount was so badly corroded in the ground that it could only be drawn from X-rays. [0690]
- H: Ae **strip**, length 14mm, associated with F and G, possibly part of a belt mount. Highly corroded whilst in the ground, the strip could only be drawn from an X-ray taken whilst it was still in a soil block. One (broken) end, with three moulded ribs, is of D-section. The other end with an empty (?rivet) hole is flat. Small fragments of Ae seen scattered in the X-ray plate suggest the piece might originally have been symmetrical. [0691]
- I: Small pointed piece of **wood** adjacent to H. Unclear if this is only a fragment of the original object or complete. (*not illus.*) [0515]
- J: Ae **object** of unknown type or shape adjacent to knife K. This object is possibly a plate associated with the belt, and has tiny punched dot decoration forming a small circle. The severe corrosion meant that no shape can be determined even from X-rays of the soil block in which it was lifted. (*not illus.*) [0689]
- K: Fe **knife** with horn handle, length 40mm. A powdery orange deposit on both sides of the blade has been identified as leather. [0688]

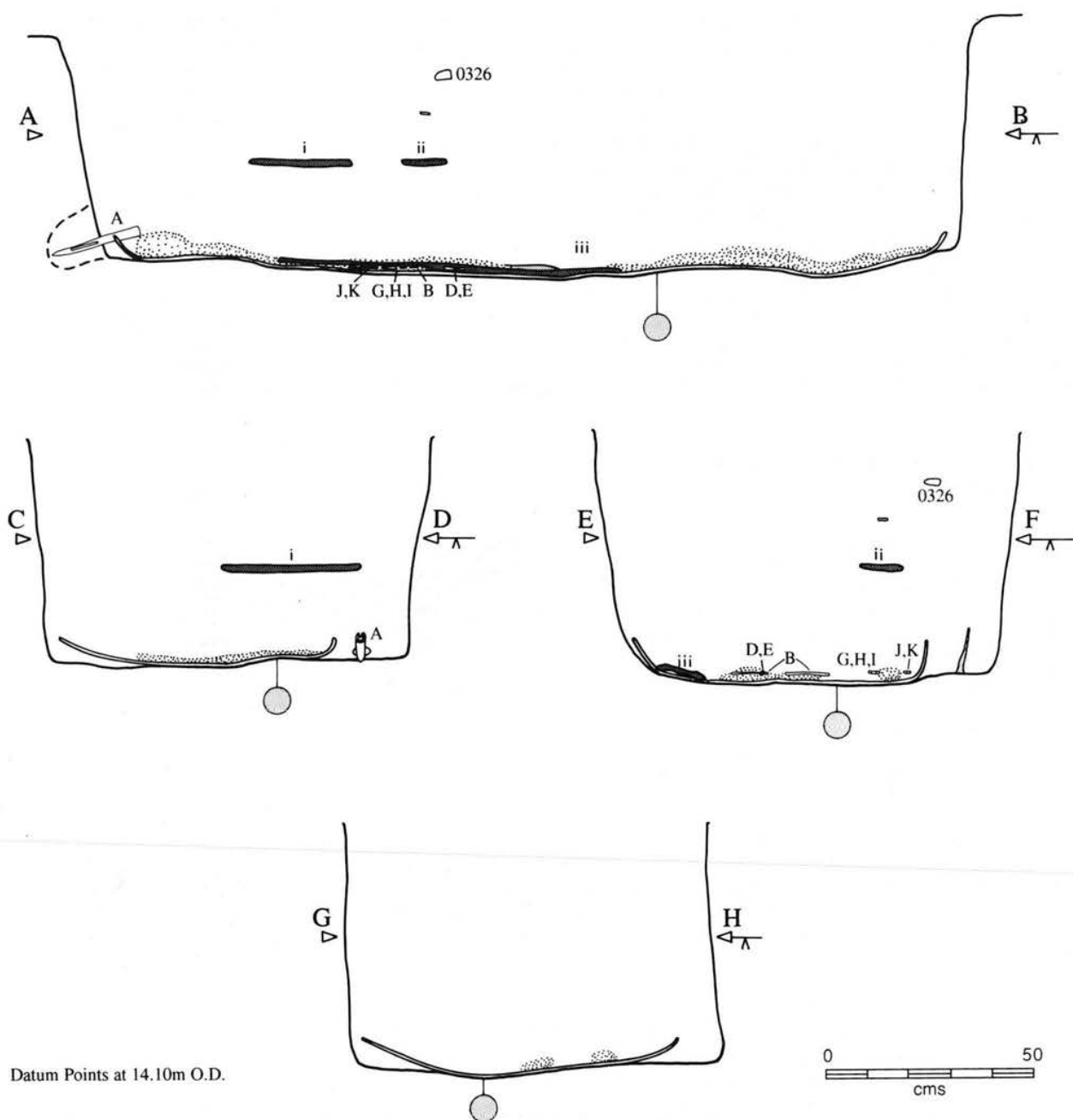


Figure 44 Grave 20, long and cross-sections. Scale 1:15

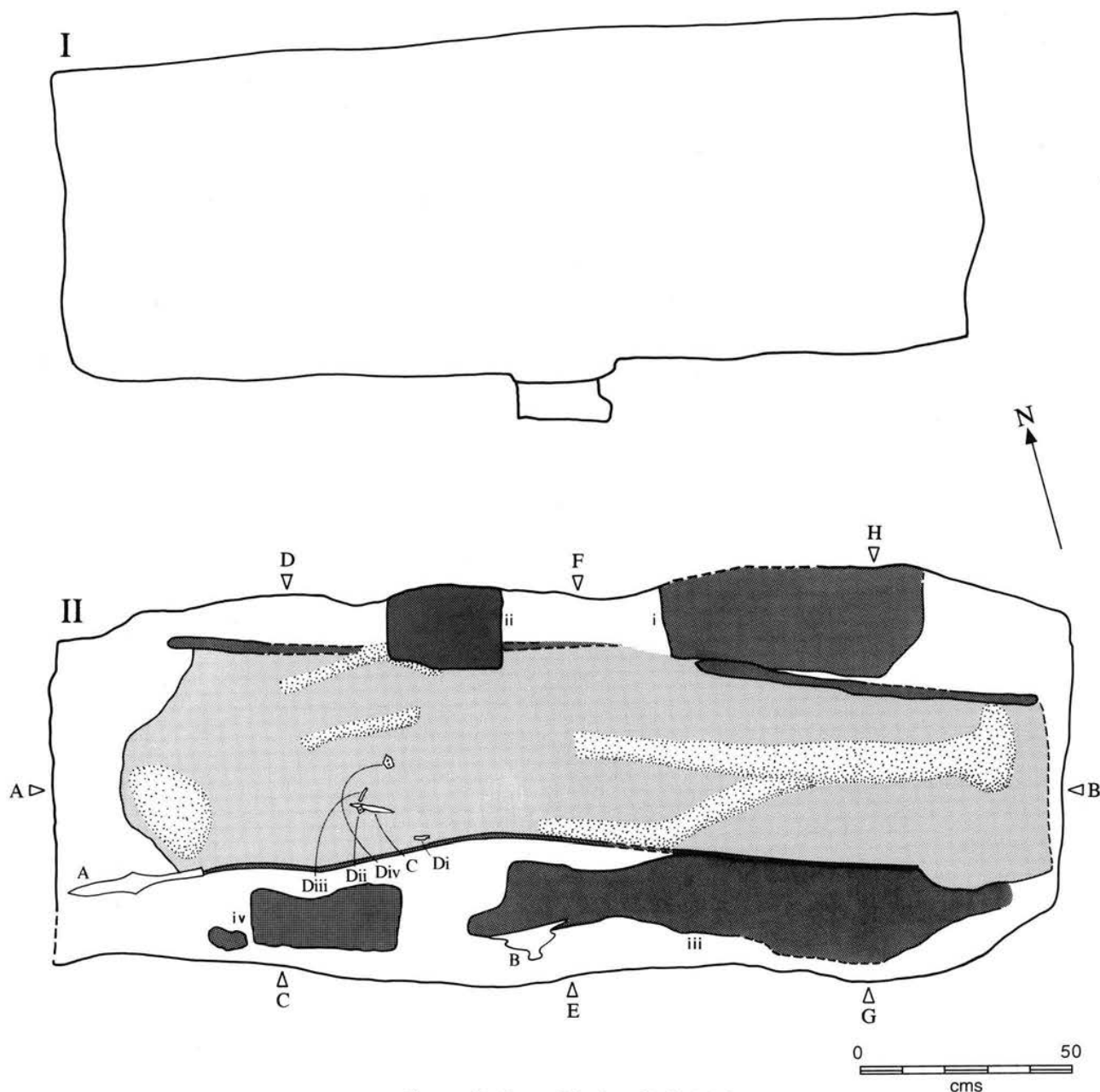


Figure 45 Grave 21, plan. Scale 1:15

Grave 21 (inhumation) (Figs 45, 46, 47, 97 and 98)

Dimensions: (Top) $2.18 \times 0.8\text{m}$; (Base) $2.4 \times 0.95\text{m}$

Orientation: 285°

Container for body: Shallow bier edged with plank or open-ended coffin.

Sex/age: Male.

Body position: Extended, legs crossed. Very fragmentary stains of upper body. Head to west.

Description: The grave was first seen as an extremely clear rectangular cut through the pinkish-brown relict Anglo-Saxon topsoil (Fig. 45 I and Pl. XIII). The grave undercut significantly, especially to the east, hence the surface and base grave plans. At surface level (14.37m OD), a rectangular feature was noticed slightly east of centre along the south edge. Measuring $220 \times 150\text{mm}$ it would seem to represent a socket or post-hole associated

with the grave. The grey-brown grave fill extended 50mm into this feature before being sharply delineated by another fill of an homogenous grey-black sand, probably a wood stain. There was a slight extension of the feature to the east. There was no sign of any other similar features around the grave, although had they existed and their bases been at a slightly higher level, they would have been removed by agricultural activity. Charcoal, 0534, found within the feature, was of oak (*Quercus* sp.) and hazel (*Corylus* sp.). Because the feature disappeared so quickly, no section was made and its profile was never seen.

The grave fill consisted of mottled grey-brown soil becoming increasingly brown in the lower levels. Throughout were patches of dark grey/black moisture-retaining sand, most probably the remains of wood contained within the fill. These patches first appeared at the east end and became pronounced at 14.04mOD with

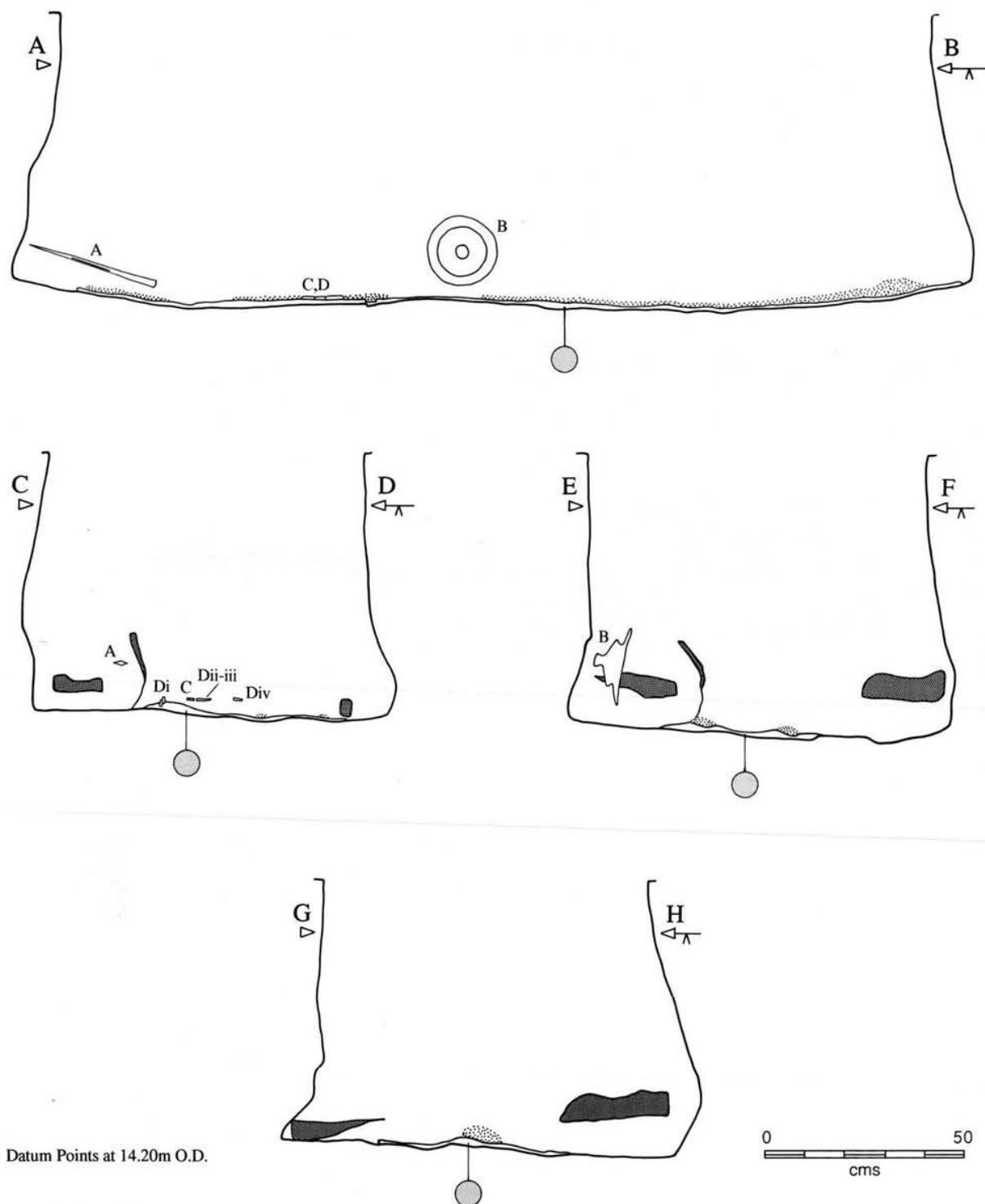


Figure 46 Grave 21, long and cross-sections. Scale 1:15

two spreads along the north side. More spreads, on the south side, appeared at 13.88mOD. These dark stains were all concentrated at the east end until the final levels of the grave were reached, when they became better defined and were seen to extend along the length of the cut. The wood illustrated represents only those most dense concentrations. Wood patches are omitted from the long section for clarity. Analysis of the charred remains gathered from these is of interest. Patch i, relatively homogenous in the ground includes oak stem (*Quercus*

sp.), willow (*Salix* sp.) or poplar (*Populus* sp.), and hazel (*Corylus* sp.). Patch ii contained charcoal of hazel and iii charcoal from hazel and willow/poplar. Neighbouring grave 20 also contained willow/poplar, distinguishing these graves from most others which had only oak.

The bottom layers of the grave were highly disturbed by roots from nearby trees which made distinguishing the body container difficult. The body appears to have lain on an organic layer whose form is unclear. The stain was very intense and might represent wood, in which case it might

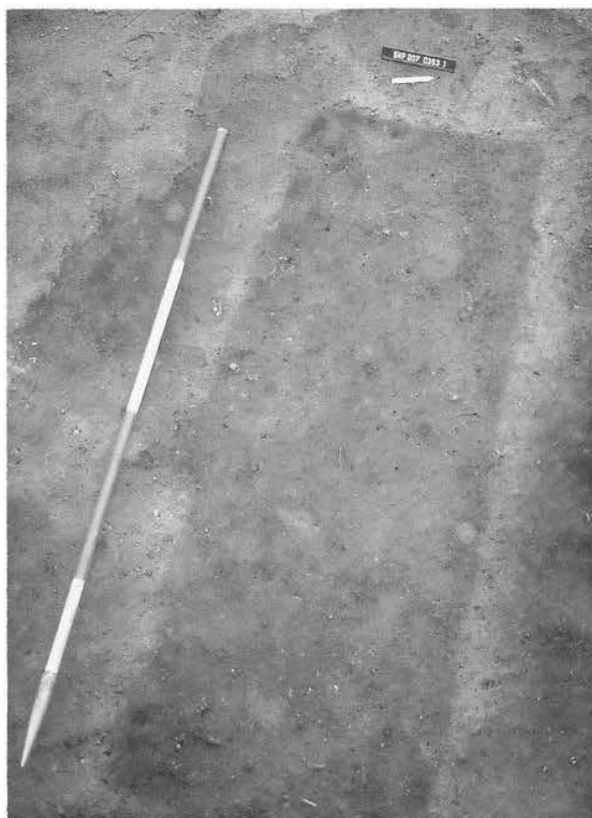


Plate XIII Grave 21 surface plan with ?socket on south (left) edge

have been a shallow coffin or bier of wood. If a coffin, it appears to have been one-sided and open-ended. No wood for a flanking side was noted until a low bulge was seen running along the bottom on the north side. An alternative interpretation is that the body rested on a stretcher-like bier, flanked on one side with a plank (set on edge?). The grave was flanked along both south and north edges by lumps presumed to have been of wood.

The body stain was very poorly preserved and only the legs could be seen clearly. The waist area was removed in a block for laboratory excavation of the belt set.

Grave-goods:

- A: **Spear** with Fe head (Swanton H2), length 336mm. Mineralised wood in the socket is of ash (*Fraxinus* sp.) from mature timber. [0914]
- B: **Shield** with buttoned Fe boss (i), diameter c.190mm, height 78mm, and Fe grip (ii), (Dickinson and Härke Group 3). The boss has a heavy button, low straight carinated dome and wide flange with five flat-headed rivets. The shield board is made of willow (*Salix* sp.) or poplar (*Populus* sp.) with an oblique tangential surface and was covered with leather at least at the rim of the boss. The five rivets securing the boss appear to be only folded over nails which give a shield board thickness of 8–10mm. The grip is a flat strip with one rivet, length c.120mm. A small fragment of wood on the central portion of the grip may lie on the grip's axis and perpendicular to the grain of the shield board, probably indicating the grip to have been of an inserted type. [0912, 0913]

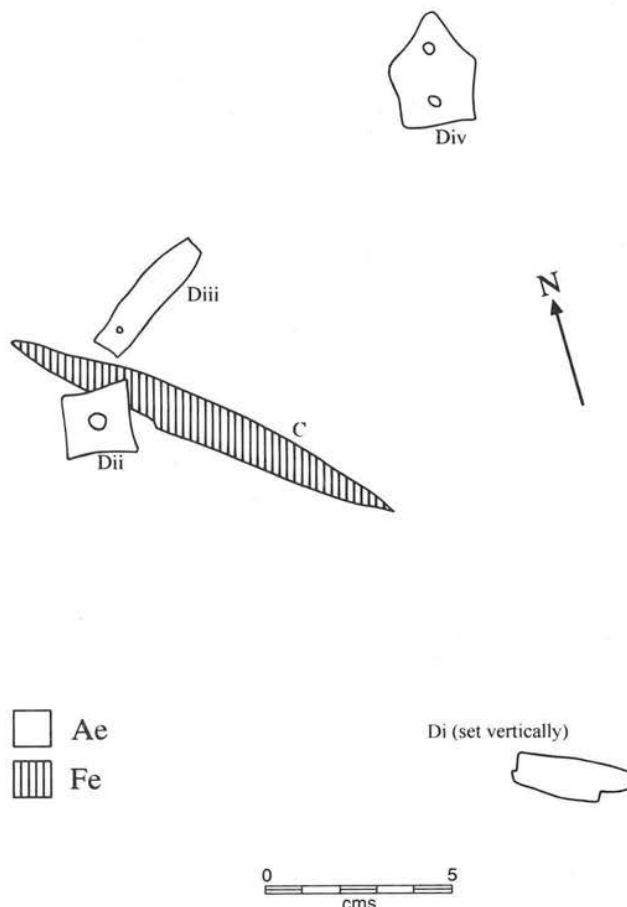


Figure 47 Grave 21, detail of grave-goods. Scale 1:2

- C: Small **knife** with Fe blade and horn handle. Unidentified wood fragments are also associated but being of mainly pith-like material are probably root. Textile survives on the knife blade and belt fitting *Dii*. Of medium to fine fibred wool, it is in folds with Z spinning in both systems, of medium twist; weave 2/2 twill, noticeably even, thread count 14/14. There are no reverses but there is a clear fault, either from a broken thread or incorrect weaving. A partially mineralised area over the stud, again Z/Z, a 2/2 twill but pulled (count estimated c.10/10) could still be the same weave. Another sample with a similar thread has a count of c.14/12. No dye was detected. [1386]
- D: Ae **belt suite** with traces of a silvered finish. (i), a shield-on-tongue 'D' shaped buckle. Cast bow, chamfered above with seating for pin, reducing to a bar for the attachment of the tongue and strap. Tongue with square shield. Width 27mm. Behind the bow the buckle plate is single-sided with the strap secured by one rivet. The plate is rebated to take the rear of the tongue and decorated with a roughly scored border line outlined with tri-lobed stamps and a row of double lunette stamps behind the tongue. The rivet projects 2mm, length 24mm. The buckle and plate are both heavy cast pieces.
- (ii). Square stud with concave sides. Cast, with square sunken area behind the central rivet. The silvered front has a single line border with an irregular row of stamps of two kinds; tri-lobed stamps matching those

on the buckle plate on three sides, with one side bearing what seems to be the centre and one lobe of imperfectly struck stamps of the same kind. 16×17mm.

(iii). Pointed strap end with single rivet and short backing plate. Two transverse lines, but much obscured by textile. Length 37mm.

(iv). Five-sided belt plate with thinner plate behind, secured by two rivets, sandwiching the remains of the leather strap between. Traces of a border-line and tri-lobed stamps can be seen beneath the corrosion products. Length 26mm.

Associated with this group were several traces of organic material, probably wood and leather, and some mineralised textile. The largest area, identified as of wool with medium to fine fibres, was 10×5mm, partly obscured but with Z/Z spinning, some threads dark brown, medium twist. The weave is a 2/2 twill, thread count estimated at c.8/8 on 5mm. No dye was detected. [1384, 1386]

Grave 22 (inhumation) (Fig. 6)

Dimensions: Unknown.

Orientation: Unclear.

Container: Unknown.

Sex/age: Unknown.

Body position: Unknown.

Description: A presumed inhumation grave, unexcavated, extending beneath the eastern baulk of Area A. No large-scale surface plan was drawn as too little was revealed for accurate measurement. The grave is possibly associated with a cremation (grave 91), which lay between this and grave 21.

Grave-goods: Unknown

Grave 23 (inhumation) (Fig. 6)

Dimensions: Unknown.

Orientation: Unclear (?276°).

Container: Unknown.

Sex/age: Unknown.

Body position: Unknown.

Description: A presumed inhumation grave, unexcavated, extending beneath the eastern baulk of Area A. Too little was revealed for accurate planning of the surface level or measurements.

Grave-goods: Unknown.

Grave 24 (inhumation) (Fig. 6)

Dimensions: 1.16+ × 0.47m

Orientation: 292°

Container for body: Unknown.

Sex/age: Unknown.

Body position: Unknown.

Description: An unexcavated inhumation grave extending beneath the eastern baulk of Area A. Only the surface was planned which showed a fill of dark grey sand with patches of black sand. The full length of the grave was not uncovered.

Grave-goods: Unknown



Plate XIV Grave 25 fully excavated within surrounding ring-ditch 0110, from east looking west

Grave 25 (inhumation) (Figs 48, 49 and 98)

Dimensions: 2.45 × 0.80m

Orientation: 270°

Container for body: Coffin or, probably, an organic lining.

Sex/age: Male?

Body position: Supine extended, arms alongside body, head turned to south.

Description: A long sub-rectangular grave cut within annular ring-ditch 0110 (Fig. 129). The grave fill consisted of mid brown sand throughout, with some light grey and dark grey/black patches mottling the upper levels.

The stain of the organic container appeared at 14.06mOD as a dark grey line along the grave south edge. It did not appear at the ends of the grave until 13.76mOD, shortly before the body stain appeared. It had a curious 'double end' at the west (head) end. The thinness of the stain and its appearance at the grave ends only near the grave bottom suggest that this was perhaps a textile or animal hide, as does the fold in the stain seen on the south side. How the double end related to the stain bottom is unclear as it was only seen at one spit level. The long section drawn suggests one possibility. The body stain was poorly preserved in the chest area although the legs were well defined. The body could also be clearly seen to lie on the organic layer.

Contained within the fill of the grave were twenty sherds deriving from two vessels, 0405 and 0634 (Fig. 98). Vessel 0405, represented by two sherds, has a soft sandy black fabric with light grey surfaces. It is of unknown form and shape, although one sherd displays an upright rim. Vessel 0634, of a crumbly soft dark brown vesiculated fabric, was also of unknown form and decoration although a base sherd survives.

Annular ring-ditch 0110 had a fill of dark grey-brown sand showing against the light grey sand of the Anglo-Saxon topsoil, scarred by ploughmarks and post-holes from a modern fenceline. Its external diameter was approximately 5–5.2m, the width of the ditch varying from 0.6m up to 0.95m at a bulge on the west and up to 0.41m deep. It contained 22 sherds deriving from vessel 0407 (Fig. 98), a dark brown sandy fabric, vesiculated, with a simple upright rim. There is no decoration on any of the sherds. Slightly away from the concentration of sherds, an Fe nail, 0062, was found at the top of the fill but is possibly modern (*not illus.*).

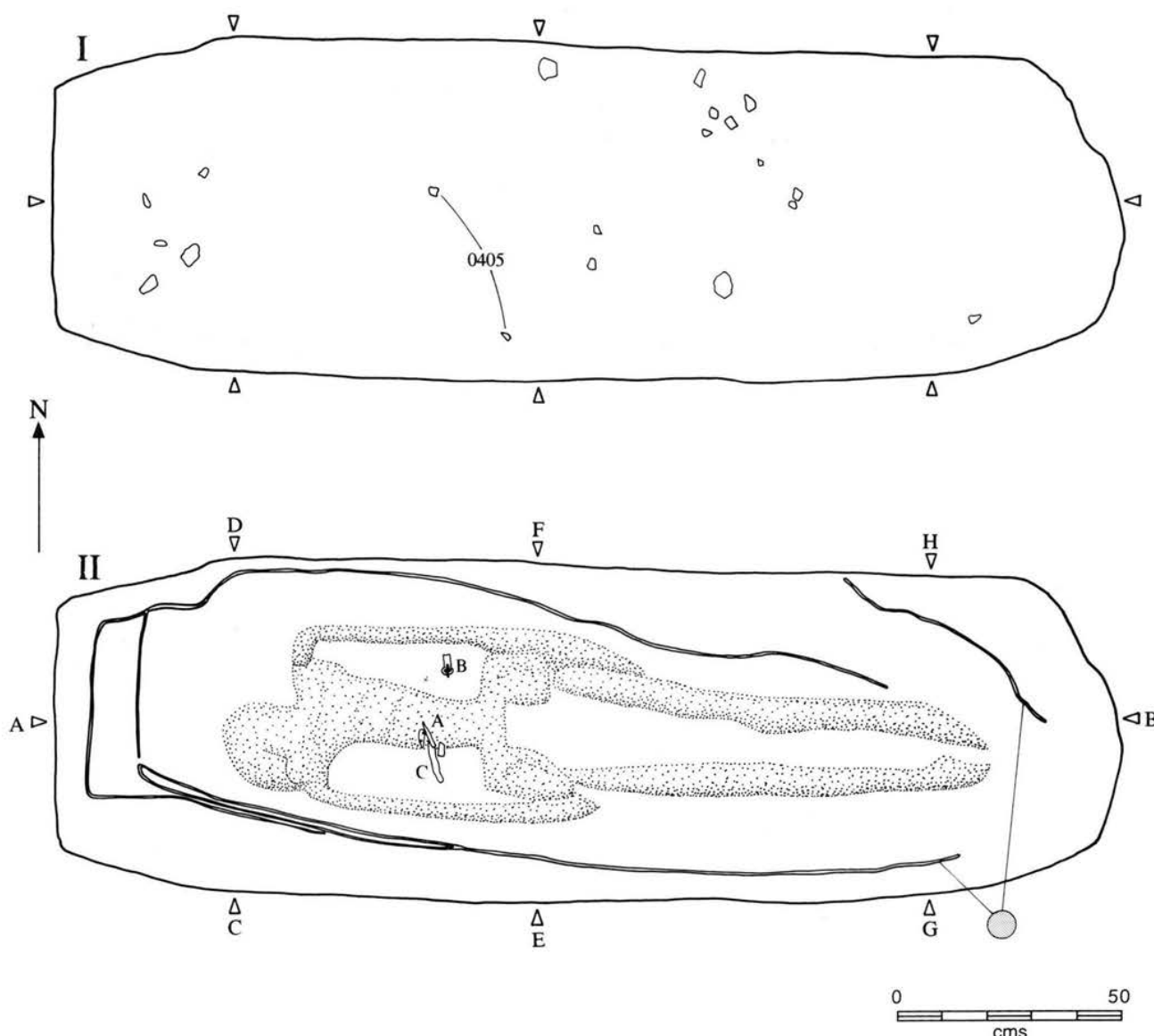


Figure 48 Grave 25, plan. (I) shows pottery in the upper fill. Scale 1:15

Grave-goods:

- A: Ae **belt plates** (i–iii), matching buckle and plate *B*. Lengths, (ii), c.42mm, (iii) 65mm. The rivets appear to have circular washers. Remains of two textiles survive: (a), beneath and through the rivet hole, over an area 50 × 27mm of light brown wool with even Z-spun warp and weft, had threads of medium twist, diameter c.0.8mm. It was an even 2/2 twill weave without reverses, thread count 14/14–16 on 10mm. No dye was detected. (b), lying below (a) in an area 85 × 35mm is another wool Z-spun twill with finer threads of 0.6mm diameter. The spin and weave are both looser, the thread count 8/6–7 on 10mm. The complex was too poor and corroded to illustrate other than from X-rays. [0250]
- B: Fe and Ae **belt buckle** with **plate**, length 50mm, matching A. Textile from either (a) or (b) is preserved lying in folds under ?leather on the buckle ring. Again it is a wool Z-spun twill; no thread count was possible and no dye was detected. The severe corrosion of the

buckle has destroyed the loop and tongue which are drawn from X-rays. [0251]

- C: Fe **knife**, length 126mm, broken into three fragments in the ground. It has a horn handle and leather sheath with textile on both sides. [0518]

Grave 26 (inhumation) (Fig. 6)

Dimensions: c.1.45 × 0.7m

Orientation: 228°

Container for body: Unknown.

Sex/age: Unknown.

Body position: Unknown.

Description: A presumed inhumation grave, unexcavated, located during evaluation work in trench I. The full extent of the upper fill could not be clearly seen and so the grave apparently has a missing south-west corner, although this is probably an illusion caused by redeposited natural. The upper fill was of a mid brown and orange-brown sand.

Grave-goods: Unknown

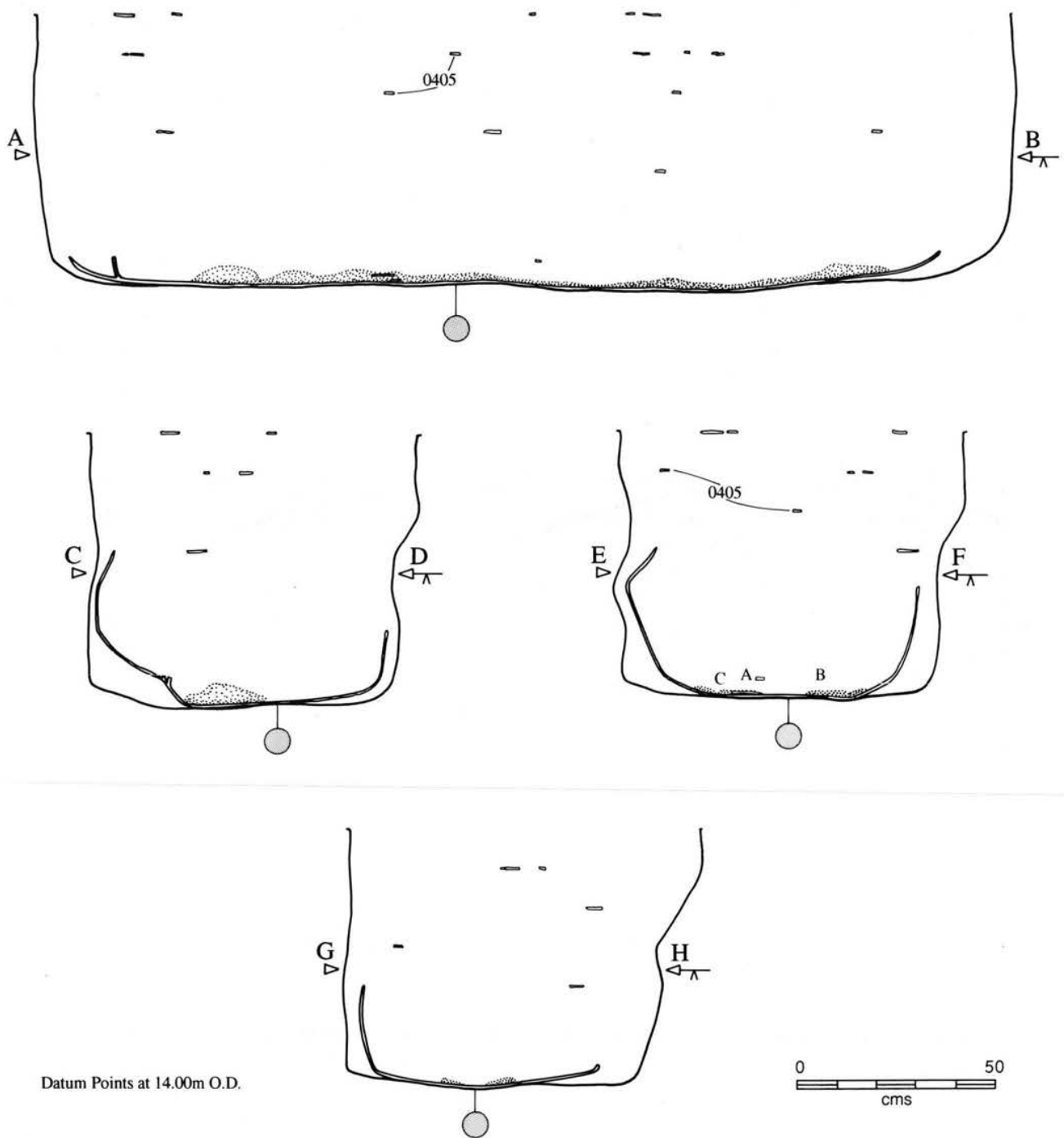


Figure 49 Grave 25, long and cross-sections. Scale 1:15

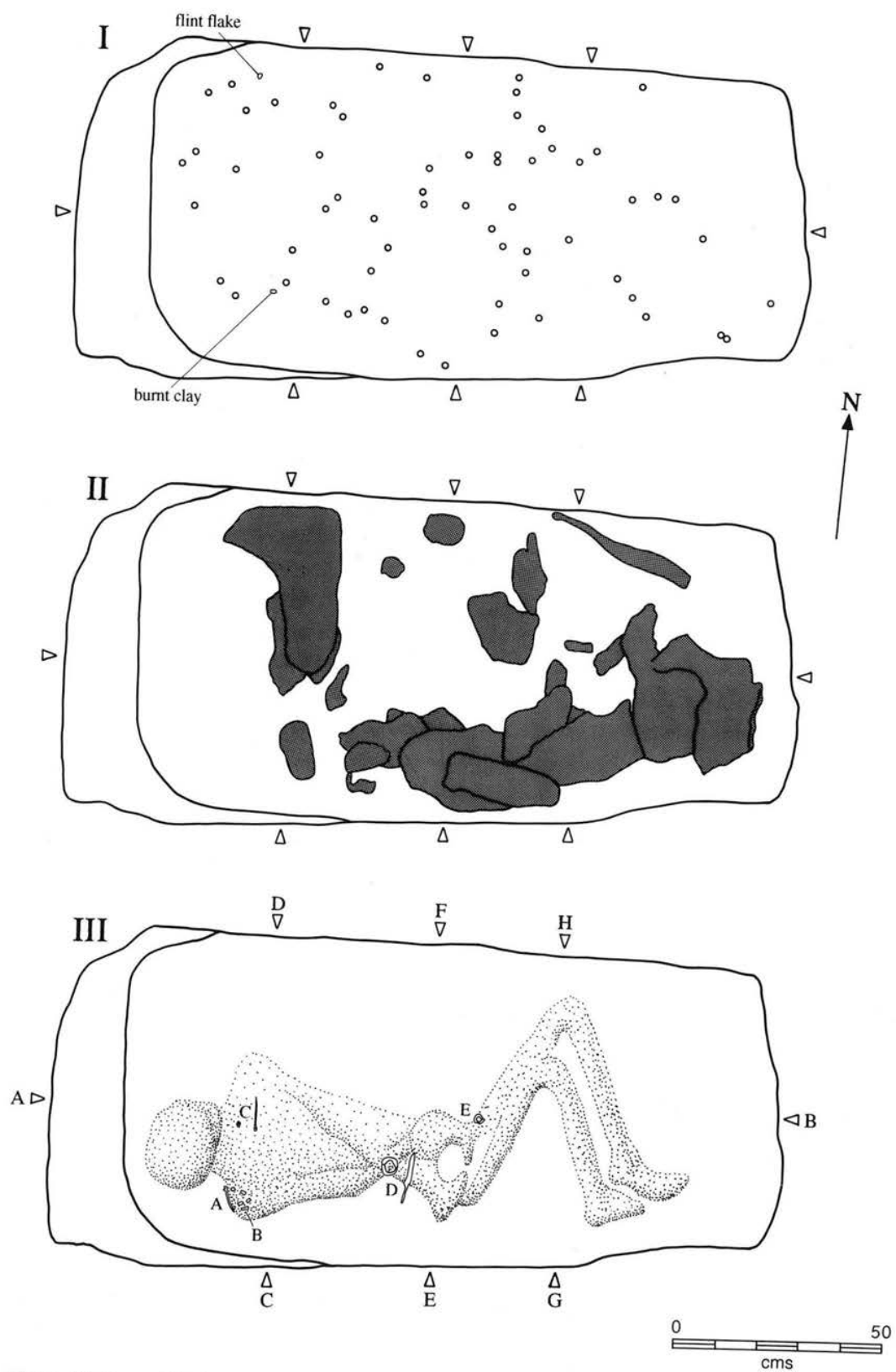


Figure 50 Grave 27, plan. (I) shows burnt flint and (II) the wood lumps in the fill. Scale 1:15

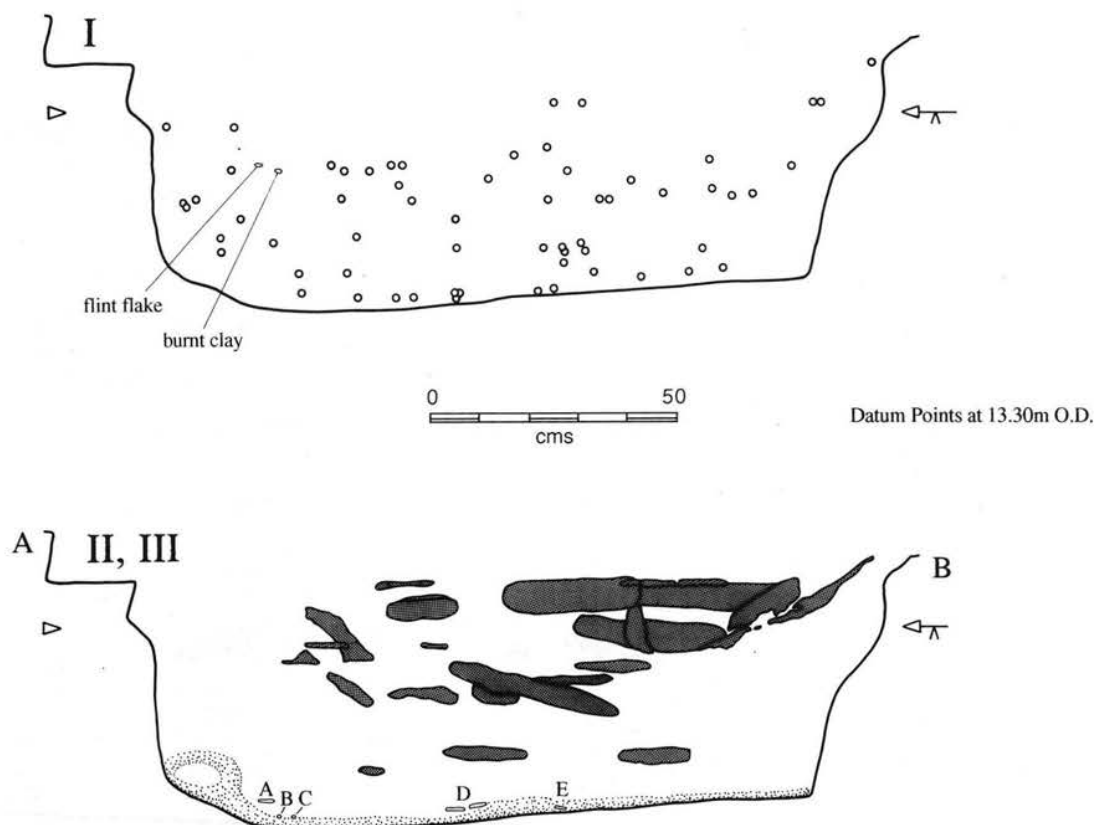


Figure 51 Grave 27, long section across the grave. (I) shows burnt flint in the fill

Grave 27 (inhumation) (Figs 50, 51, 52 and 99)

Dimensions: 1.79 × 0.83m

Orientation: 266°

Container for body: None.

Sex/age: Female.

Body position: Flexed supine with left arm possibly drawn across body so left hand meets right hand resting on pelvis. Right leg probably lies over left. Head to west.

Description: A squat rectangular grave cut with near vertical sides and some slight undercutting in places. The fill of a fine mid grey sand was cut through very mottled natural, with occasional small stones in the upper levels. The sand became more mottled with light yellow-brown redeposited natural at the lower levels, which made defining the grave cut difficult at times. The cut reduced in size at 14.40mOD to produce a shelf at the east end, as also seen in grave 9.

The fill of the grave was packed with twenty-four pieces of charred wood, nearly all badly degraded and which appeared as dense black stains rather than charcoal, so that no wood species could be identified. At times it was also difficult to distinguish between patches representing the same piece of wood and smaller independent lumps. The wood was distributed predominantly in the upper fill at the west end above the body's legs. The arrangement is very similar to that in grave 9 where eight pieces of charred wood were placed within the fill apparently arranged over the body.

Sixty-two burnt flint chippings with a total weight of 0.22kg were also recovered. The burnt flint was spread

evenly throughout the lower two thirds of the fill, mostly beneath the wood fragments. It forms the most dense concentration of burnt flint found in any of the graves excavated, with the exception of grave 46 which cut burnt stone feature 1775. A flint flake (1461) and small piece of burnt clay (1462) were also found in the fill.

The body stain was reasonably well preserved except in the chest area, making it difficult to define the position of the arms. However, the feet and legs were very well preserved. The body appears to have been laid directly onto the grave floor as no organic stains were seen.

Grave-goods:

- A: Fe **dress pin** at right shoulder, length 79mm. The pin is slightly curved with a crosier-shape terminal and forms a pair with pin C. Almost entirely covered with poor condition mineralised textile, c.5 × 3mm, very fine ?twill, with coarser traces underneath. A three-ply thread is mineralised close to the point. [1539]
- B: String of three amber **beads** with two Ae **pendant spacers** at the right shoulder, immediately adjacent to pin A. Beads: Amber; square cylinder (i, ii); globular (iii). Ae spacers: flat pierced tab, length 18mm (iv); flat with rolled-over loop, length 11mm (v). [1549–1553]
- C: Fe **dress pin** at centre of upper chest, length 83mm. It forms a pair with pin A having a crosier-shape terminal but is straight rather than curved, the pin head being slightly flattened at the sides. The outer corrosion layers preserve coarse mineralised threads, Z-spun, loose twist, ?wound round below the eye. [1554]

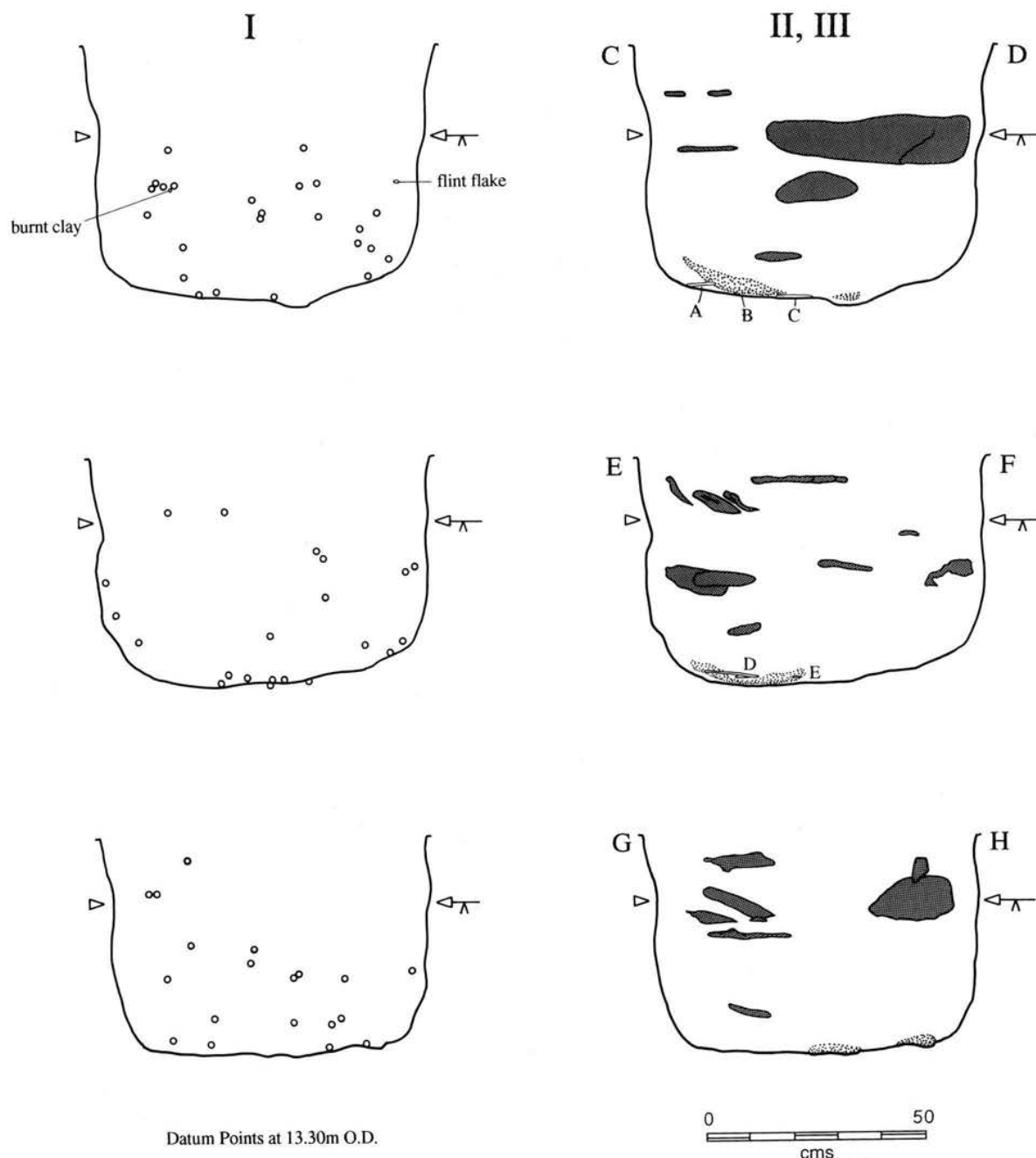


Figure 52 Grave 27, cross-sections. (I) shows burnt flint in the fill, (II and III) the wood lumps and body stain/ grave-goods. Scale 1:15

D: Fe **knife** (i), length 130mm, with Fe **ring** (ii), diameter c.40mm, from waist area just above the pelvis. The knife has traces of a horn handle. There are traces of mineralised textile along both faces of the blade and on part of the ring, over 12×10 mm; Z/Z, medium/loose twist, 2/2 twill, with a thread count 9–10/8 on 10mm. The thread diameter is approx. 0.5mm. [1536, 1538]

E: Fe **buckle** and tongue, width c.24mm, lying on the left leg immediately beneath the pelvis. Very deteriorated mineralised textile remains on the tongue and all loop surfaces except the base, but there are no leather traces. The textile is of two qualities, (a), coarse, ?Z and (b) fine, Z/S. An unidentified organic material, probably bone, is preserved on the loop base. The position of the buckle in the grave makes it unclear if it was actually being worn on the body at burial. [1533]

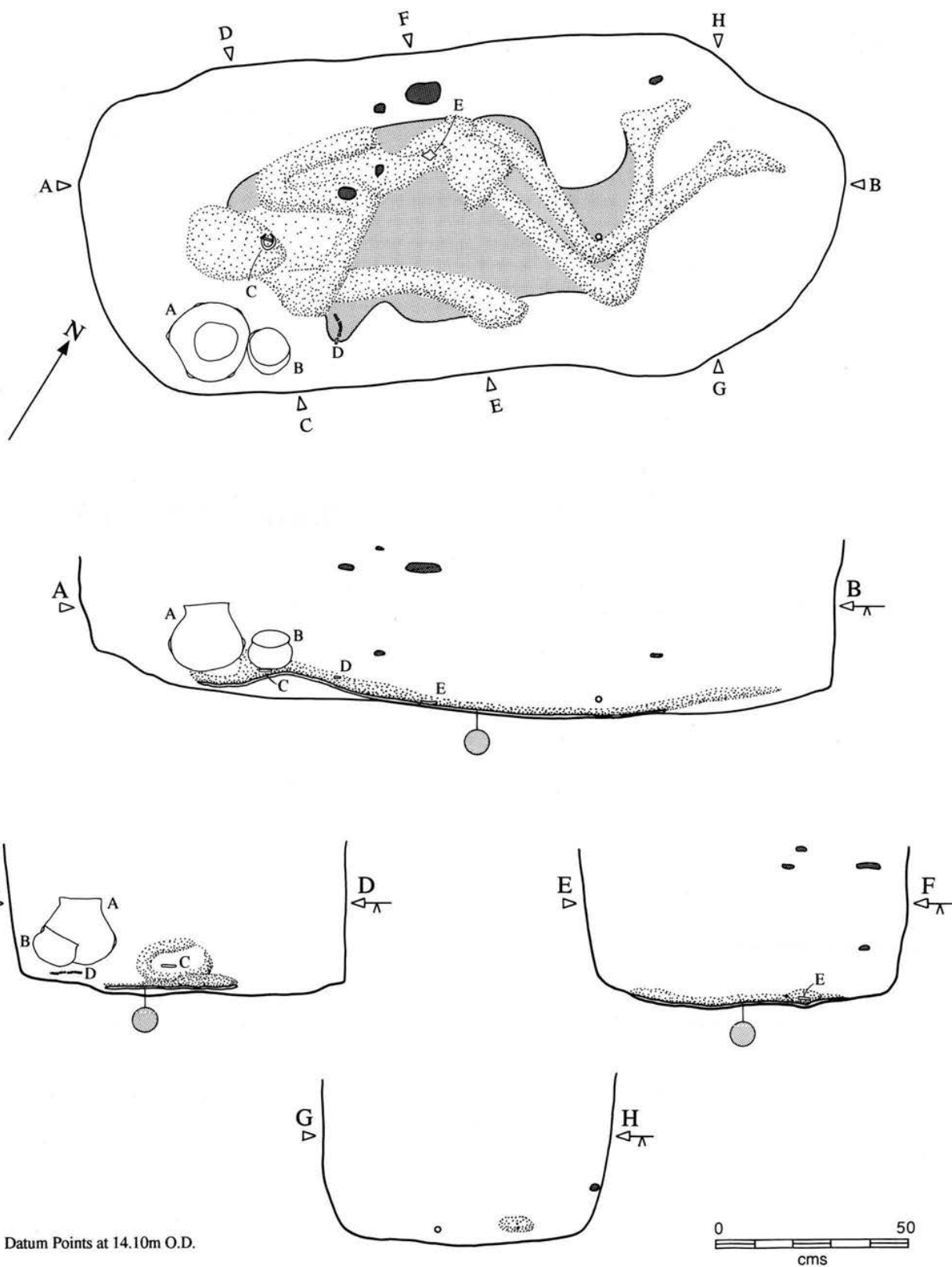


Figure 53 Grave 28, plan, long and cross-sections. Scale 1:15



Plate XV Grave 28, detail of legs and feet. Scale bar 25cm

Grave 28 (inhumation) (Figs 53, 54, 99 and 100)

Dimensions: 2.00 × 0.91m

Orientation: 239°

Container for body: None but body rested on an organic layer.

Sex/age: Female.

Body position: Flexed, left leg over right, left hand on right shoulder, right arm extended. Head to west.

Description: A sub-rectangular grave cut with a rounded east end. The fill was a mix of coarse greyish brown sand at the west end and mixed grey brown sand at the east, turning to a reddish brown in the lower layers. Small patches of black 'greasy' sand were seen throughout the fill, probably from degraded wood or charcoal. Towards the bottom, the centre of the grave was marked by occasional flecks of charcoal. Two plain pottery body sherds, 1440 and 1446 were found in excavation, location unknown, but high in the fill (*not illus.*). A burnt flint fragment was found at the bottom. The annular brooch was used as a main brooch.

The body was laid on a thin organic layer of unknown type, which blended into the upper body stain, but the legs were well preserved (Pl. XV).

Grave-goods:

A: Complete tall biconical **pot**, height 180mm, with five hollow bosses; tooling marks visible on the inner surface. Fine sandy fabric with orange grog, inner

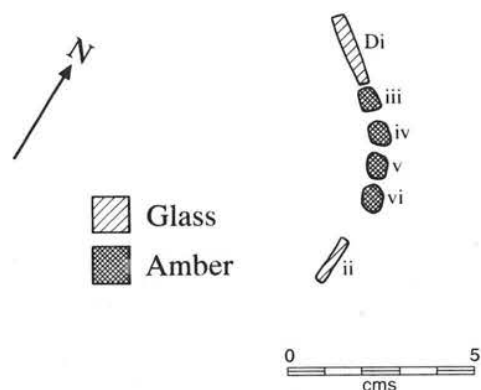


Figure 54 Grave 28, detail of beads. Scale 1:2

surface grey, outer surface brown grey, both surfaces burnished. Placed to the south-west of the body's head. [1477]

- B: Small undecorated globular **bowl**, height 90mm, with constricted neck and rounded rim. Fragments of the base and shoulder missing. Brown sandy fabric with red grog and grey burnished surfaces inside and out. Placed to the south of the body's head, east of pot A. [1490]
- C: Ae **penannular brooch** with waisted terminals and single row of three-part 'arrowhead' stamps. Fe pin wrapped round. Slightly oval, max. diameter 45mm. Mineralisation preserved parts of the teeth and jawbone, and a lump of textile (a), at the junction of the pin, c.24 × 25mm, of very dark brown pigmented animal fibre, probably wool; spinning Z/Z, coarse twist, weave 2/2 twill, thread count 6/5 on 5mm. A 5mm length of tablet-woven border was preserved on the twill, the back damaged but cords probably Z,S,Z,S,Z. No dye could be determined. A mineralised fragment of (a) on the pin, 10 × 7mm, was possibly of the same twill, thread count 10/9. [1537]
- D: String of 6 **beads**, 2 of glass and 4 of amber, from near to the left wrist, possibly originally a bracelet (see detail, Fig. 54). Glass: drawn cylinder (i, ii; dark blue, ii in fragments). Amber: biconical, four sided (iii); globular (iv); barrel (v); wedge (vi). [1542–1547]
- E: Fe **belt fitting** of lozenge shape, central length c.25mm. Mineralised textile (b) with a damaged surface was all over one side, spin Z/S. [1548]

Grave 29 (inhumation) (Fig. 5)

Dimensions: ? × 0.66m

Orientation: 260°

Container: Unknown.

Sex/age: Unknown.

Body position: Unknown.

Description: A presumed inhumation grave, unexcavated, extending from the east baulk of trial trench VI, found during evaluation work in 1989. The feature had a fill of grey sand with patches of brown mixing in.

Grave-goods: Unknown

Grave 30 (inhumation) (Fig. 5)

Dimensions: 1.64+ × 0.62m

Orientation: 203°

Container: Unknown.

Sex/age: Unknown.

Body position: Unknown.

Description: A possible inhumation grave, unexcavated, located during site evaluation, extending from the eastern baulk of trial trench VI. Although the feature was on an extreme orientation in comparison with the other graves from the site, it had a good rectangular shape, one edge extending 1.64m out of the baulk, and its fill was of the common pale grey sand with mid brown patches.

Grave goods: Unknown

Grave 31 (inhumation) (Figs 55, 100 and 101)

Dimensions: 2.06 × 1.39m

Orientation: 262°

Container for body: Body rested on an organic layer.

Sex/age: Male.

Body position: Supine extended, both arms apparently folded over the waist. Head to west, slightly turned to the south.

Description: An ovoid cut with a fill of mid grey and orange-brown sand, mixing together to the base of the grave to become more grey with silver-grey lenses. The fill consisted of a medium fine sand with occasional small stones (deriving from ironpanned sand) and, to the south of the skull, a few tiny pieces of macroflora, 2216, midway down.

Although various lenses of dark grey sand were seen near the edges of the fill, none appears to be identifiable with the organic layer visible at the bottom of the grave cut on which the body was laid. The excavator noted another possible organic stain at the shoulder area, of a more reddish colour, which perhaps suggests that the body was (at least partially) covered.

The body stain was reasonably well preserved, although quite thin in the chest area. The basic body position was extended supine. The position and orientation of the grave-goods suggests a belt set including buckle, knife and strike-a-light which was laid on top of, rather than worn by, the dead man.

Grave-goods:

- A: **Spear** with Fe head (Swanton D1), length 172mm, blade lying flat to north of the left shoulder. Mineralised wood within the socket is probably willow (*Salix* sp.) or poplar (*Populus* sp.). [2204]
- B: Tiny Ae **pin** or **tack**, length 6mm, with an oval cross-section tapering to a blunt point, found beneath the skull. [2365]
- C: Large Fe **buckle**, maximum length 102mm, lying over the upper chest. The X-ray shows a narrow oval loop with wrapped-around tongue. A separate Fe plate is slotted to take the tongue and wrapped round the buckle-loop to take the strap. A large triangular buckle plate has four rivets. It is not clear how the slotted plate was attached to the strap or the buckle plate. The whole appearance of the top surface suggests textile or leather fibres over an area c.60 × 90mm,

obscured by small stones. Three patches on the loop of the buckle, and fibrous traces, are probably leather. These have sharp cut edges with fine S and Z-spun threads showing beneath where broken, of ?twill. A patch on the loop, 15 × 15mm, with fine Z/Z spin may be (b). Z and S threads are mineralised on the pin tip. The buckle is so heavily corroded that the reverse side is illustrated, from X-rays. [2254, 2371]

- D: A large straight-backed Fe **knife**, length 246mm, positioned on the left-hand side of the body over the arm, beneath strike-a-light *E*. The cutting edge undulates, possibly from wear. The tang, broken whilst in the ground, preserves traces of a horn handle; there is also a compact corrosion layer 1mm thick covering the blade. It is wrapped over the knife back and overlaps the handle junction by 20mm. This layer could not be confirmed as leather.

The knife and the strike-a-light preserve two textiles: (a), an area on top of the blade and over *E*, c.40 × 30mm, is largely covered by small stones but is clearly continuous, the spin of one system Z (loose), the other S-spun. The threads have a variable medium twist, dark brown in colour; the weave is 2/2 twill, thread count 9/8 on 10mm. (b), under a patch of (a), curls down over *E* for c.45mm, width 20mm. It is a weave with Z/Z spinning and finer threads. A small patch near the point of the blade, again with Z/Z spin (thread count c.17/12 (6 on 5mm)), shows probable reverses; the quality suggests a good broken diamond twill. Both (a) and (b) have degraded fibre but suggest the scale structure and irregular diameter of wool. [2253]

- E: Fe **strike-a-light** with coiled terminals (i) and tapered rods (ii) and (iii), possibly **steels**, placed at the body left-hand side, overlying the knife *C*. Both rods have a round cross-section, tapering to a blunt point. (ii) has a loop head, (iii) has the 'head' turned over to form a thin end at right angles to the stem. Lengths; (i) 100mm; (ii) 90mm; (iii) c.86mm. [2373]
- F: Ae **pin**, minimum length 28mm. Incomplete, it has a flattened ring-head and decorated stem. It was found in the same area as objects *D* and *E* and was perhaps part of the belt set. [2097]

Grave 32 (inhumation) (Figs 56, 101, 102 and 103)

Dimensions: 1.93 × 1.12m

Orientation: 274°

Container for body: Organic lining to base and grave sides.

Sex/age: Male.

Body position: Supine extended, head to west. Legs slightly flexed. Position of the arms unclear although left arm appears to be bent out to cradle the lyre.

Description: A large rectangular grave cut with sharp corners at the surface. The upper levels of the grave had been severely damaged by ploughing and a post-medieval road-side ditch which had passed directly overhead on the grave's east-west axis. The fill consisted of a stone-free fine silver-grey sand mixing with mid brown sand. At the lower levels, this silver-grey sand continued around the grave edges surrounding a large oval filling of mid brown sand, directly above an organic layer and the body. This probably represents a filling of topsoil sand which packed

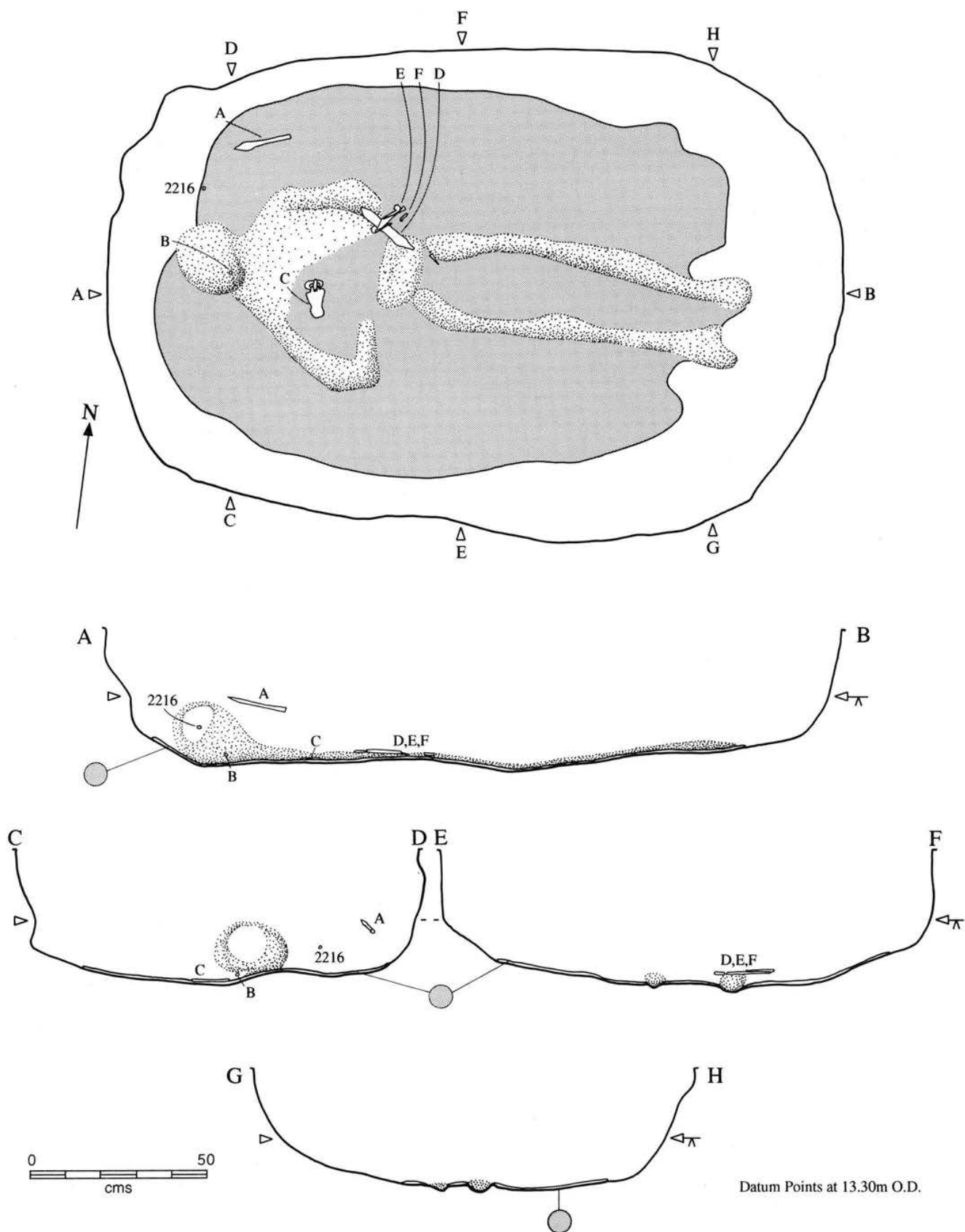


Figure 55 Grave 31, plan, long and cross-sections. Scale 1:15

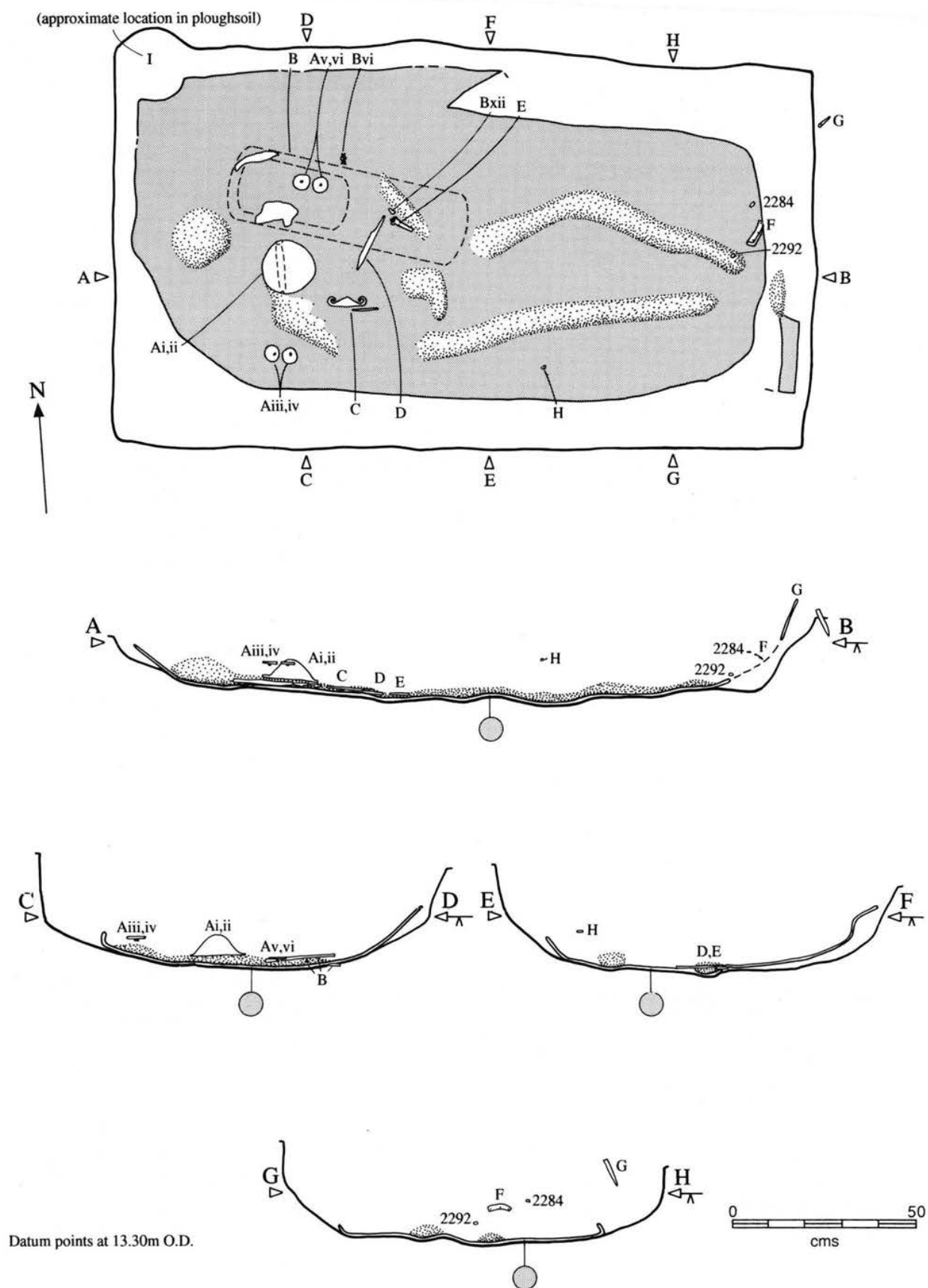


Figure 56 Grave 32, plan, long and cross-sections. Scale 1:15

the edges of the grave when the organic lining was inserted. The subsequent backfill in the remaining central oval cavity was of mixed brown soil.

The organic layer on which the body stain rested was thin (about 5mm thick) and traces of it could be seen in the upper layers, as high as 13.42mOD and at one point there were two distinct lines running parallel. Although this edge was extremely fragmentary it would seem that the organic lining once enclosed the whole grave, quite probably to a level higher than the top of the grave as exposed. The edges of the cut as found were very straight; indeed the cut was one of the most regular seen on the site, but its corners quickly rounded off at the grave base.

The upper fill had numerous very small charcoal flecks (up to 5mm long). One fragment, 2284, was possibly of gorse (*Ulex* sp.). In addition, the excavator noted that the organic stain line (2274) when it first appeared was 'flecked with charcoal'. A small fleck of cremated bone, 2292, was found in the fill immediately above the left shin.

The damage caused to the grave by agricultural activity is demonstrated by the two spear fragments apparently from the grave but found *ex situ*. Also at a higher level, some 11m to the east, part of an Fe socket (scatters No. 39) was found. Whilst it has no obvious associations, it is possibly a spear ferrule and could conceivably represent a part of a second spear originally contained within this grave.

The excavator noted that the area of wood from the lyre was overlain by a much blacker wood. As this was the shield, it might be that the reason for this extra, darker, stain was an organic covering to the shield boards, for instance of leather.

Grave-goods:

A: **Shield** with Fe **boss** (i), diameter c.150mm, height c.84mm (Dickinson and Härke Group 6); **grip** (ii), length 110mm, and two pairs of decorative Fe **studs** (iii–vi) at the top and bottom edges, best preserved diameter 45mm. The shield had been laid over the body's upper chest. The boss has a tiny, pointed apex, narrow flange and low wall. The number of rivets is not clear. The cone can clearly be seen to have been made separately from the wall and flange.

The shield board appears to have been of slow-grown ash (*Fraxinus* sp.), c. 8 rings per 10mm, orientated with the grain running east-west in the grave. It appears to have been covered on the reverse with a thick layer of leather with possibly a thinner piece being used on the front or at least over part of the circumference; there is no obvious sign of leather between the wood and boss rim but it is present on the decorative studs. The flat Fe grip was offset from, and bent into, the centre of the boss. It had traces of its wooden handle on the inside, perpendicular to the grip axis with organic material, probably leather, on the other side, presumably from a binding. Rivets associated with the boss show the board and leather covering to have been 10mm thick and from decorative stud (vi), boards 9mm thick with a layer of leather approx. 4.5mm thick on the back. Most of the studs have fragments of random vegetation on the front. [2307, 2308, 2322, 2323]

B: Remains of a stringed musical instrument of **lyre** type, of multi-timber construction, with Ae and Fe fixtures and fittings (i–xvi: the lumps shown in Fig. 56

represent the blocks in Fig. 140). The surviving portions are of wood and metal, with textile, leather and other organic deposits adhering. Beneath these adhesions, timber surfaces survive in good condition, visible areas being smoothly finished. Timbers used include oak (*Quercus* sp.) and maple (*Acer* sp.). The joinery is of a well-developed form and particularly fine craftsmanship. Fe fittings include remains of two small looped strap-attachment terminals with studs, associated with a pair of Ae figure-of-eight hooks, probably from a wrist-strap (vi–vii). Structural pins were preserved *in situ* embedded in the timbers. Ae components include jointing pins also *in situ*, one of a pair of binding-strips with attachment pins (viii–xi) and two disc-headed studs (i, v); their original surfaces retain fine detail, but no visible decoration. Little or no actual metal remains beneath: the tin-richness of the residue may be due to selective leaching of the original copper content. The lyre is described and discussed in detail in Chapter 5 section V.

Textile (a) was associated with piece (v) at the edge of the wood in an area c.20 × 15mm, lying across from the underneath, perhaps from a garment, but the threads are very broken up, dark brown with red-brown patches (spinning Z/Z, threads with medium twist and an open weave; thread count estimated at c.8/8–10). Another fragment with a pin lies 30mm from the stud, probably an edge, with mixed dark and rusted threads. A broken-off fragment of leather, 16 × 12mm again has a pin or stud. The textile threads were of animal fibre and pigmented. Textile (b), a mineralised area 35 × 20mm associated with S-hook (vi), has a Z-spin medium thread twist coarse tabby weave. It is very open, with a thread count 11–12/7–8 on 10mm, but its openness may be due to deterioration. The textile was of wool with fine to medium fibres. Textile (c) was preserved on top of the stud in fragment (i), on the side of the wood and leather, over an area 25 × 15mm. It is very coarse and deteriorated, with Z/Z spin, probably a wool twill, with a knot at one edge. Parts adhering to the stud suggest a weave edge with loops on one side and broken ends the other, perhaps a starting-border, or braid edge curling for c.15mm. Other fragments show similar coarse Z threads, pushed aside by the studs. There is a scrap of twill on the edge of the pin. The textile is wool of fine to medium fibres; no dye was detected on any fibres. These textiles may represent, in part, a bag used to contain the lyre. (*fragments xii–xvi not illus.*) [2325–2328, 2370]

C: Fe **strike-a-light** (i), length 108mm, and **steel** (ii) with a wooden handle (species unidentifiable), length 80mm. The strike-a-light was contained within a pouch whose grain pattern suggests deer leather (Pl. XXXVII). The steel was probably in the same pouch or at least in a leather wrapping of some kind. [2321]

D: Long Fe **knife**, length 170mm, with horn hafting extending onto the blade. An orange-brown layer 3mm thick with a rough granular surface encloses the blade. It is rounded over the blade back, tapers towards the blade edge and overlaps the handle junction by 20mm. Its arrangement suggests a leather sheath but this could not be confirmed. The blade had been covered or enclosed in textile 2–3mm thick,

attacked in antiquity by insects. A mass of insect pupae and cuticles survive amongst a mass of chewed fibres (see *E* below). [2324]

- E: Ae shield-on-tongue **buckle** with long, narrow triangular buckle plate, total length 73mm. The loop is a narrow oval; the shield on the tongue is broken at the rear. The buckle is attached to a leather strap by an Ae plate with two elongated strips which pass through the buckle loop. The triangular buckle plate is deeply recessed behind by 3mm; the recess filled by an unidentified material, possibly a metallic filler, making the surface flush. This has three longitudinal grooves on the surface which faced the leather strap. Leather is preserved beneath the Ae strips and around the rear rivet. The buckle plate bears three rivets which pass through domed heads mounted on circular Ae plates. Beaded collars of silver alloy survive on the two lateral rivets. The surface of the plate is without ornament, but there are slight traces of silvering. There are two slots in one edge of the buckle plate.

Mineralised textile (d) was preserved on this and knife *D* in a strip $c.35 \times 13\text{mm}$, of light red-brown wool, Z/S spin, both thread systems variable, with a medium to loose twist. The Z thread is noticeably finer, the weave probably a regular 2/2 twill, thread count $c.14$ (Z)/9–10 (S), fragile with insect damage. A deteriorated lump of the same weave, $c.25 \times 25\text{mm}$, preserved on wood or leather, has dark curling Z-spun threads curling loose on the surface, possibly from sewing. The textile is wool of fine to medium fibres with no dye detected.

About 250 **puparia** of the flies *Ophyra capensis* (Wied.) or *leucostoma* (Wied.) were preserved by mineralisation on the buckle and also on knife *D*. The posterior spiracles and respiratory horn show a close similarity to those of *O. capensis*, although it was not possible to compare the specimens with puparia of *O. leucostoma*. Also preserved were a pair of elytra and a pronotum of beetle *Trox scaber* (L.), four pinnae (leaflets) of *Pteridium aquilinum* (bracken) and a rodent-nibbled **plum stone** (*Prunus domestica* (L.)). The insect remains are discussed further in Chapter 5 section VI. [2328]

- F: Ae mount, length 64mm, for a lathe-turned **wooden bowl**, probably of walnut (*Juglans* sp.), attached with three rivets and crimped decoration along one edge. There is no sign of breakage in the mineral preserved wood and the strip is mounted just off the transverse section making it unlikely to be a repair. Where seen, the wood was 4mm thick. Tiny patches of charcoal flecking were noticed on its north side. Mineralisation had also preserved a weevil *Otiorhynchus ovatus* (L.), almost certainly an ancient specimen. [2280]
- G: Fe **ferrule**, length 90mm, found point down, embedded in natural immediately outside the east end of the grave cut. It probably derives from a spear originally contained in the grave. Mineralised wood in the socket is from ash (*Fraxinus* sp.). [2273]
- H: Two Fe **clamps**, one broken (ii). They originally lay with the plate side down, rivets sticking up, and were possibly used to join two flat pieces of wood although there is no sign of this in the wood grain. Mineralisation has preserved traces of wood, possibly maple or birch wood (*Acer* sp. or *Betula* sp.). The



Plate XVI ?Robber pit to grave 33, mound 6 during excavation, looking south. Scale rod 2m

board had a tangential longitudinal section and was only 3.5mm thick. The two clamps are of different widths, one 16.5mm the other over 19.5mm. [2309]

- I: Fe **socket**, length 84mm, containing traces of a wood hafting of ash (*Fraxinus* sp.), found in initial cleaning above the north-west corner of the grave before the grave was identified. The socket is probably the lower part of a spearhead removed by agricultural activity from the upper fill of the grave, perhaps associated with ferrule *G*. [2179]

Grave 33 (robber or excavation trench; original burial method unknown) (Figs 57 and 104)

Dimensions: $1.33 \times 0.80\text{m}$

Orientation: 0° (due north)

Container for body: None.

Sex/age: Unknown.

Body position: Unknown.

Description: A regular rectangular cut filled with a mid grey sand. The cleanness of the cut and the uniform fill (Pl. XVI) make it likely that the feature is 'modern', and certainly post-medieval. The location of the feature, at the centre of where ploughed-out mound 5 is known to have stood, suggests that it is the bottom of a robber or excavation trench cut into the mound. This is perhaps complemented by the cut being oriented due north-south. The size of the original mound is unclear since no trace of it was found in excavation, but it was recorded in 1862 as being 25.5m in diameter and 2m high. These measurements probably represent a mound that had

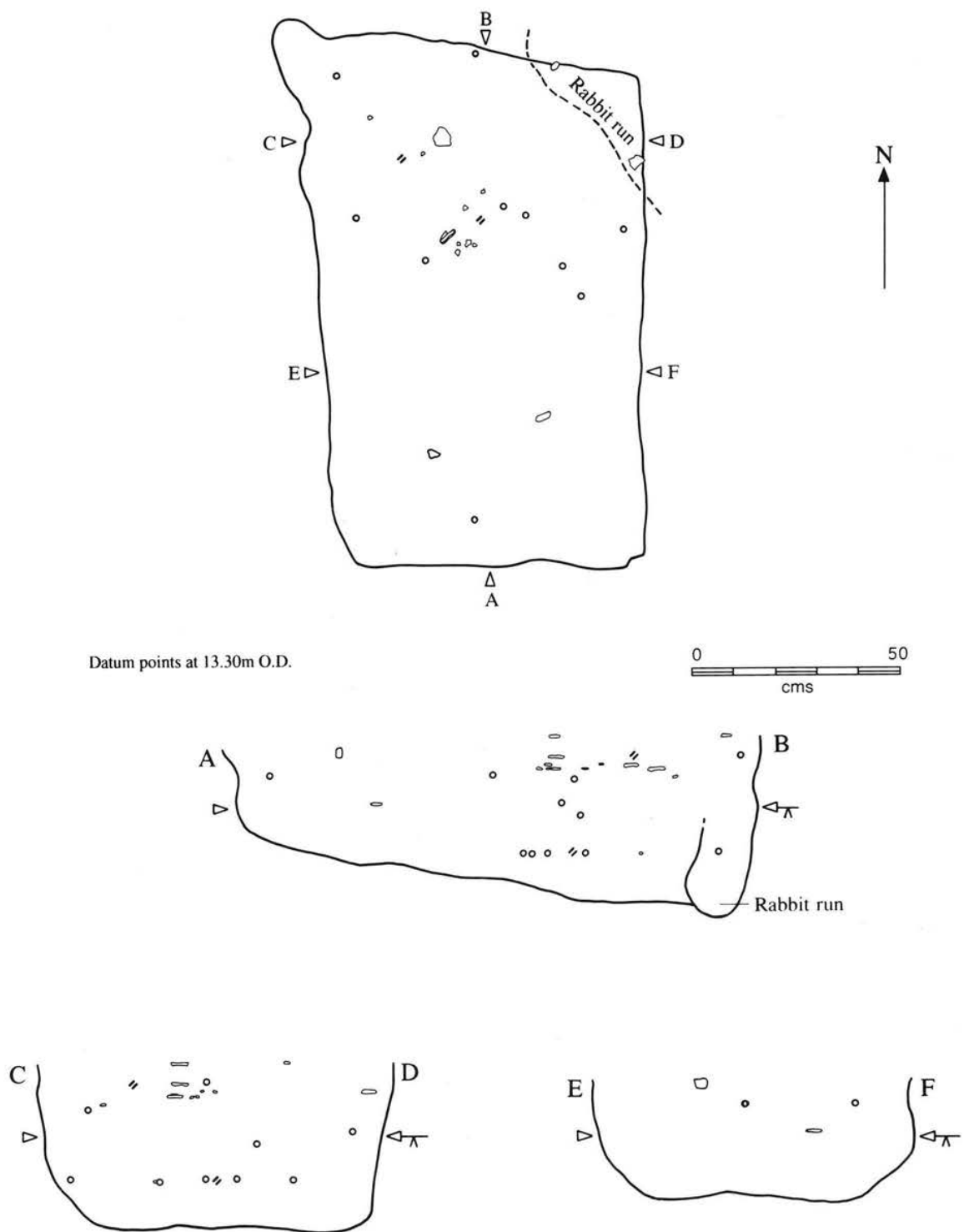
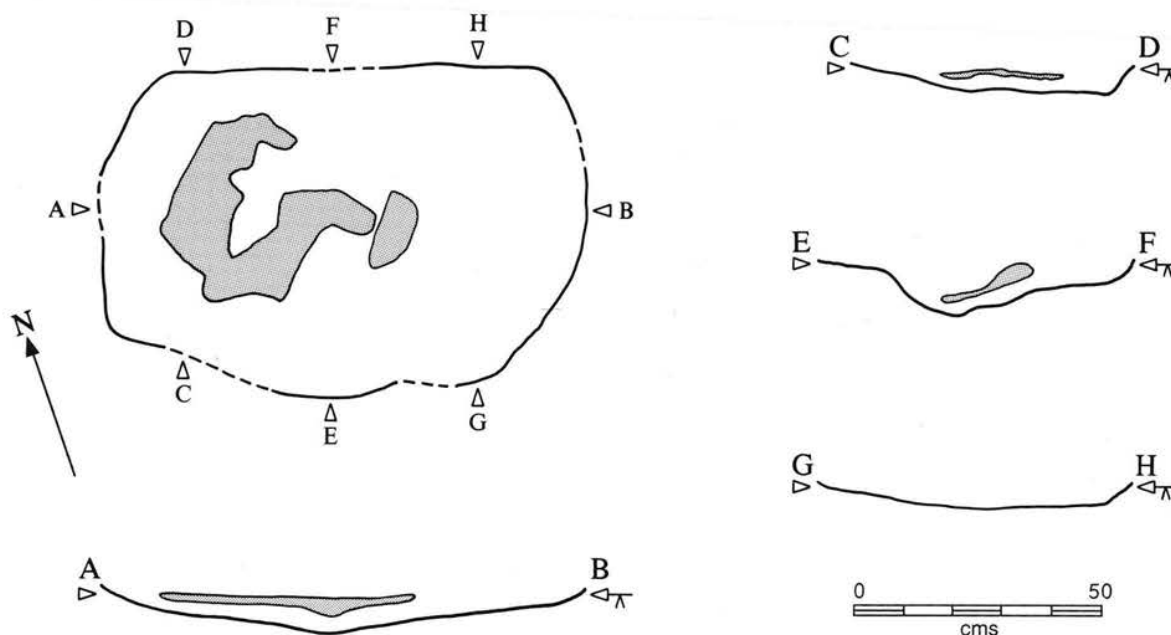


Figure 57 Grave 33, plan, long and cross-sections. Scale 1:15



Datum Points at 13.50m O.D.

Figure 58 Grave 34, plan, long and cross-sections. Scale 1:15

slumped considerably from one originally more steeply banked, since at this size it would have swamped inhumations 31, 32 and 34, including ring-ditch 2062 (Fig. 5). Regardless, such a mound might naturally have attracted the attention of robbers or antiquarians, resulting in the proposed robber pit that was excavated. It could also explain the lack of any objects other than small sherds.

The fill of the feature contained fourteen sherds of Anglo-Saxon pottery, deriving from one vessel, 2177. It has a soft dark grey-brown fabric internally, with slight burnishing. The exterior has a light orange-brown surface. Its core is coarse with frequent grass and vegetation inclusions. Three rim sherds show it to have been a straight-sided vessel.

Two charcoal fragments of gorse stem (*Ulex* sp.) and twelve small burnt flints (weighing 60g in total) were found in the upper levels of the fill. A tiny piece of orange fired clay of a sandy fabric was also recovered. This has the appearance of 18th or 19th-century brick, but the amount preserved is too small for a positive identification.

If the feature is the bottom of a robber trench it is impossible to gain any idea of the former contents of the mound from the fragments redeposited. The pottery could represent a container for offerings or be from primary or secondary cremations, although the total absence of any cremated bone makes this less likely.

Grave-goods: None

Grave 34 (inhumation) (Fig. 58)

Dimensions: 1.00 × 0.68m

Orientation: 284°

Container for body: ?Organic wrapping?

Sex/age: Infant.

Body position: Unknown.

Description: A short squat rectangular grave slightly off-centre within ring-ditch 2062 (Fig. 130). The grave was heavily truncated and disturbed by agricultural activity, and survived to a depth of 0.1m at best, and most typically 40–50mm. Remaining fill was of a light grey sand, homogenous throughout its depth. Showing at the surface on cleaning was a dark grey-black stain in a vaguely rectangular shape. This was also badly damaged but would appear to be the remains of an organic wrapping. There was no body stain discernible but the size of the grave suggests an infant burial in which a body stain would not be expected to survive well.

The ring-ditch was also severely damaged (Pl. XXXI). It had a maximum external diameter of 4.6–4.8m and was narrow with a width of between 0.15–0.42m. This is possibly a result of its upper levels having been truncated, since the U-profile ditch was only between 0.04 and 0.15m deep. It is possible that the ditch was originally penannular; the two ends were reasonably clear of plough activity and occurred at the east end, almost in line with, and on the same orientation as, the grave. Against this, the ditch was shallowest at this point, with no certain evidence of predetermined terminals.

A small piece of burnt flint, 2191, was found to the north-west of the grave cut within the area of the ring-ditch. Two burnt flint fragments, 2239, were found within the ditch fill as was a small fragment of charcoal, 2240, of *Prunus* spp. (which includes wild cherry, blackthorn and bird cherry).

Grave-goods: None

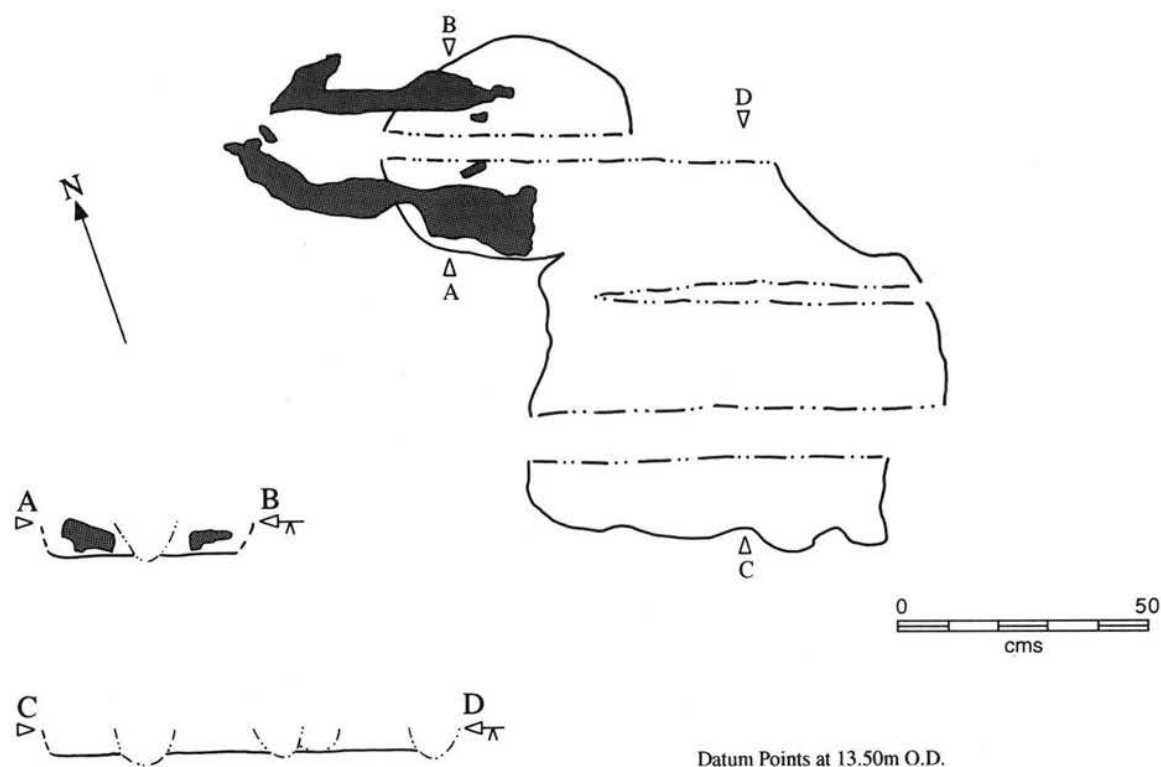


Figure 59 Grave 35, plan, long and cross-sections. Scale 1:15

Grave 35 (inhumation) (Fig. 59)

Dimensions: 1.14 × 1.03m

Orientation: ?290°

Container for body: None.

Sex/age: Unknown.

Body position: Unknown.

Description: An extremely heavily plough-scarred area in which traces of charred wood, possibly retaining its original structure, were seen. The area was planned and lowered in the usual way to reveal a very shallow layer of mid grey sand. The area is tentatively identified as the ploughed-out base of a grave containing charred wood planks or branches similar to those seen elsewhere on the site. There were no other features nearby from which this charred wood could have been dragged by the plough. The charcoal (2181) was all of oak (*Quercus* sp.), including stem (some fast grown) and heartwood (some slow grown).

It is interesting to note that the remains are on a similar orientation to the two nearby graves, 34 and 36, perhaps adding weight to the interpretation of this being a severely truncated inhumation. The shallow nature of the feature and lack of a body stain suggest that if this is indeed a grave, it is that of an infant or young child.

Grave-goods: None

Grave 36 (inhumation) (Figs 60, 61 and 104)

Dimensions: (Feature) 3.22 × 2.01m; (Grave) 2.22 × 1.19m.

Orientation: 299°

Container for body: Body rested on an organic layer, probably of textile.

Sex/age: Male.

Body position: Supine flexed, arms alongside or folded over the body. Head to west.

Description: A large ovoid feature with a fill of fine light grey sand mixing into coarse dark brown natural, containing an irregular sub-rectangular grave cut. The grave appears to have been deliberately cut into a feature best interpreted as an existing hollow within the heathland, since its fill mottles almost imperceptibly into the surrounding natural. The edges of the grave cut were extremely difficult to identify since the fill of light grey sand and light brown sand mixed into that of the feature. The secondary cut of the grave was first seen clearly at 13.22mOD to the east, as a rounded end and showed best when the sand had completely dried out. The cut edge was never visible at the very west end where its presence could only be determined by a more homogenous light grey sand fill, hence the somewhat irregular west end shown on plan. In the upper levels of the fill at the west end and along the northern edge many small flint pebbles were removed. These continued further down, albeit slightly fewer in number, and seem to derive from a band of coarse ironpanned gravel in the surrounding natural.

The body lay on an organic layer which rested on the grave bottom of ironpanned gravel natural. The identification of this organic layer is uncertain. An isolated patch, 2288, c. 70 × 70mm, with a solid thickness c. 2–3mm deep was possibly of leather and was stained with an alkanet-like colorant (no dye was detected). No threads were distinguished and it is unclear whether the patch was originally of textile or leather, or perhaps both. A larger area, 180 × 23mm, was examined on site, preserved best in the area of B and D. The textile (a), a rather open 2/2 twill, spinning Z/S with a very loose thread twist, had an even

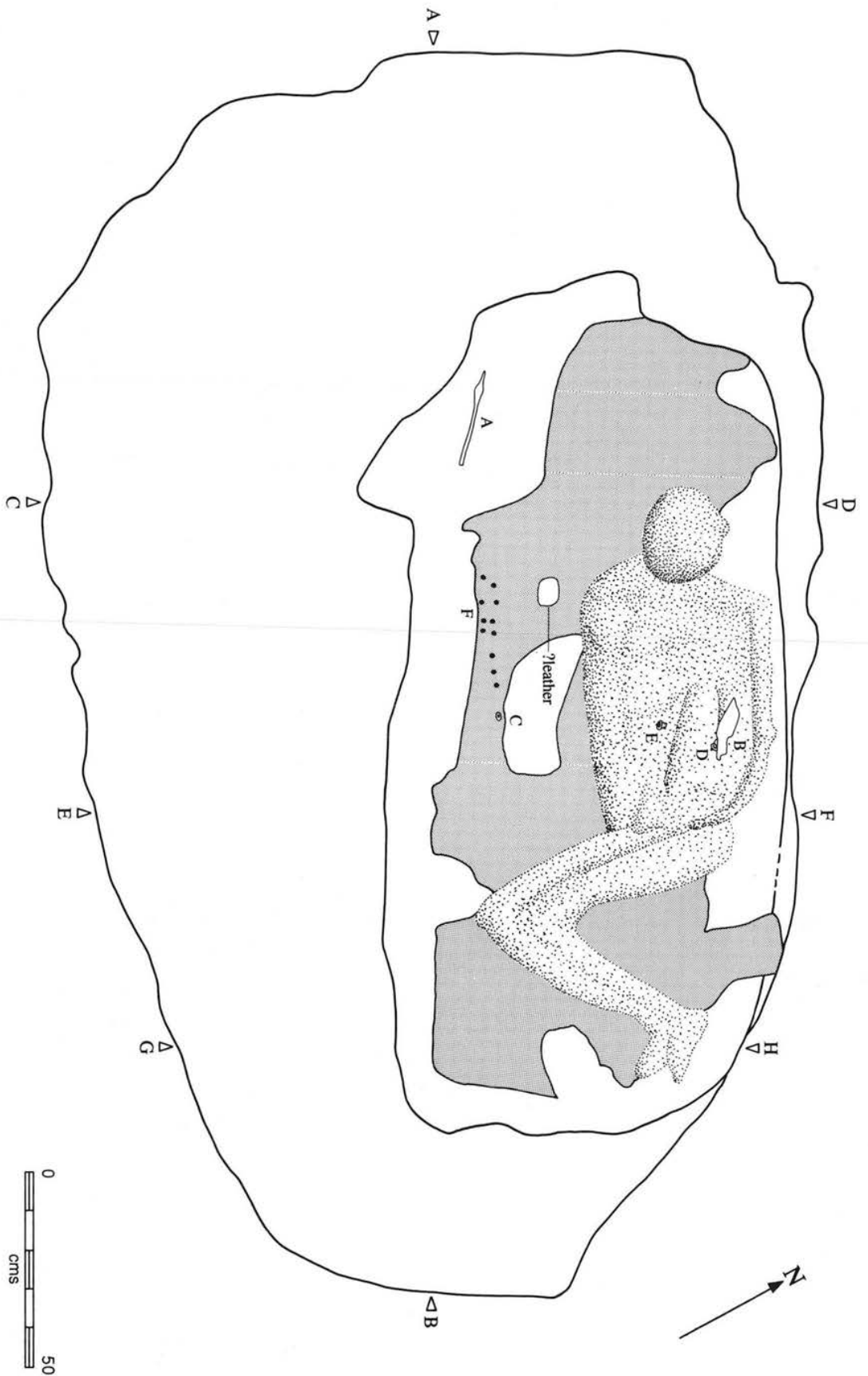


Figure 60 Grave 36, plan of grave and surrounding feature. Scale 1:15

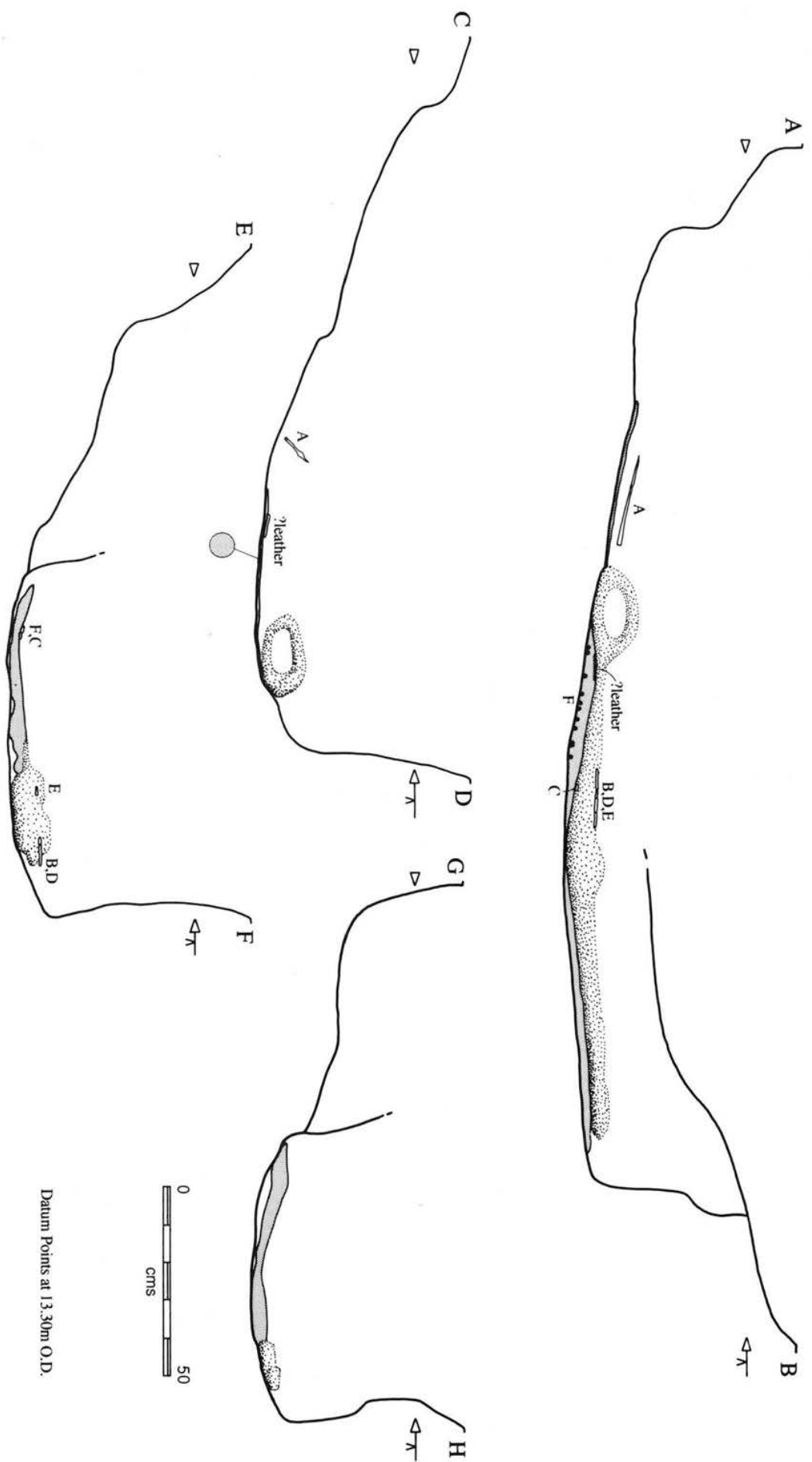


Figure 61 Grave 36, long and cross-sections of grave and surrounding feature. Scale 1:15

weave and thread count 6–9/8 on 10mm. The piece showed one clear reverse of the twill diagonals in the middle, that is, the weave had either a herringbone pattern or a very widely spaced broken diamond. The fibre was of wool; no dye was detected. One other small fragment (b) with light-coloured threads, the spin and weave unclear, was probably a tabby weave.

With the exception of the skull, the body stain was very poorly preserved above the waist. It seems to have been laid supine flexed with the arms by the sides of the body, the right arm possibly folded back up over the chest.

Grave-goods:

- A: **Spear** with Fe blade (Swanton D2), length 496mm, lying flat to right of body. Mineralised wood in the socket was of beech (*Fagus* sp.). [2279]
- B: Fe **knife**, length 168mm, with traces of the horn handle, which extended beyond the tang. The leather sheath survives as a compact layer patchily surviving over the blade surface and folded over the blade back. It has impressed decoration on one side in the form of four parallel ridge lines spaced 2mm apart running lengthways. Textile remains enveloped the sheath and knife handle but were too intermittent for identification. [2286]
- C: 'D' shaped Fe **buckle** loop, width c. 15mm, in leather binding immediately east of the line of wood *F*, on grave south side. Textile (c) of Z-ply threads were wound round the buckle loop. [2291]
- D: **Buckle** with silver-alloy loop and tongue, width 10mm, Ae plate and three dome-headed rivets (no longer *in situ*), placed next to knife *B*, lying upside down on lower chest left side. Textile associated: (a), preserved underneath the buckle in an area c. 15 × 15mm, spin Z/S, of coarse threads with a loose twist. The weave was 2/2 twill, thread count 7–8/8 on 5mm. Coarse 20mm threads (d) lying across (a) were possibly roots. (e), fragments of fine textile of ?wool, Z-spun, were from a 4-hole tablet-weave with cords lying alternately Z and S (estimate c. 12 on 5mm, wefts c. 5 on 3–4mm), probably from a fine belt or strap. One separated scrap shows a cut end with the threads curled over, *i.e.* where turned under and sewn to the buckle. No dye was detected. [2343]
- E: Ae **buckle** and **plate**, length 21mm. The riveted plate was already broken in the ground and the buckle had become decuprified and disintegrated; it is drawn from an X-ray taken while the buckle was still in a soil block. A 20 × 15mm textile patch associated had dark brown fibres; spin Z/S, weave 2/2 twill, thread count 10/12 on 10mm. The textile was possibly (a), as a reverse in the weave suggests that it was a herringbone or broken diamond weave. The threads were probably animal, but were too degraded for identification. An alkanet-like colorant was detected. Mineralised traces of (e) ?tablet cords also found. [2287, 2344]
- F: **Wooden object** along grave south edge to east of spearhead. Traces of wood with the grain running east-west were seen in several patches. The wood identification of one patch of oak (*Quercus* sp.) or beech (*Fagus* sp.), mineralised by association with an Fe corrosion bubble means the object could possibly be part of the spear. (*not illus.*). [2350, 2352, 2353, 2355, 2357–2363]

Grave 37 (inhumation) (Figs 62, 63, 104 and 105)

Dimensions: 1.86 × 0.91m

Orientation: 296°

Container for body: Textile lining to grave.

Sex/age: Male, juvenile?

Body position: Unknown as no body stain survived.

Description: A sub-rectangular grave, cut into ironpanned sand becoming neat and elliptically ended at its lower levels. The fill was predominantly of a mid grey sand with occasional small stones and, in the upper levels, amorphous patches of black humic sand probably representing degraded wood. Two of the more clearly defined patches of unidentified wood are shown on the plan. A tiny piece of iron, 2210, about 5mm in diameter was recovered at 13.26mOD but fell apart on excavation and could not be identified. In the upper fill a difference was distinguishable between an outer and inner fill, also of elliptical shape, which seemed to reflect the presence of the subsequent textile lining; it disappeared at 13.27mOD when the lining appeared (Pl. LVI).

This grave's excellent surviving textile lining was the best encountered in the excavations, and was examined *in situ* by Elisabeth Crowfoot and extensively photographed. The view of three of these photographs (Pls XVII–XIX) is marked on Fig. 62 I. The textile first appeared as a thin dark brown organic line. The fragmentary nature of the stain means that its top level is incomplete on plan. Lower levels are not included except at the south-east corner. The stain sloped inwards and formed a curious pointed crescent at 13.24mOD at the east end. This shape soon disappeared and perhaps reflects a fold in the textile to bring it around the grave edge. The grave quickly bottomed out and in places the excavator noted that the stain seemed to be in a double layer. It was also noted as being difficult to distinguish between body stain and textile stain. A loose fragment of charcoal from the textile layer was of hazel stem (*Corylus* sp.).

Three weaves were distinguished lining the grave. (a), nearest the probable body position, was of fine blackish wool threads. The largest clear area was exposed to the left of the ?head in an area 380 × c. 240mm. The spinning was Z/S with one system noticeably finer, the weave a damaged 2/2 twill. (b), in two areas, one 300 × 180mm to the right of the ?head position, and another c. 110 × 100 lying over the ?head, were from another textile of wool. The spin was Z/Z, both coarse threads very loosely twisted, from a striped weave based on a 3/1 twill with reversing ribs (*Rippenköper*; Fig. 139.3). Over another area, for c. 200mm length, S-spun threads could be seen; floats, 10mm long, possibly an added stripe to (b), or remains from another weave were followed by a damaged area for c. 450mm, with another clear area of weave (b) for 65mm. Another fragment of this, c. 100 × 20mm near a broken edge, could be seen lying over (a). Small preserved samples may indicate other textiles present, possibly of garment remains. The best piece encountered, 5 × 3.5mm, from (b) has all threads Z/Z, loosely twisted. The ?warp is dark brown-black, the weft reddish. Both yarns are of the same quality, of wool, with a thread count 7/7 on 10mm. A few other samples were taken of small scraps, details of which are held in the site archive. No dye was detected, but all the weaves had an alkanet-like colorant. A third possible textile (c) on the back of (b) occurs as 3 × 2mm scraps of Z/Z twill, black, with thread count c. 9 × 9 on 10mm.

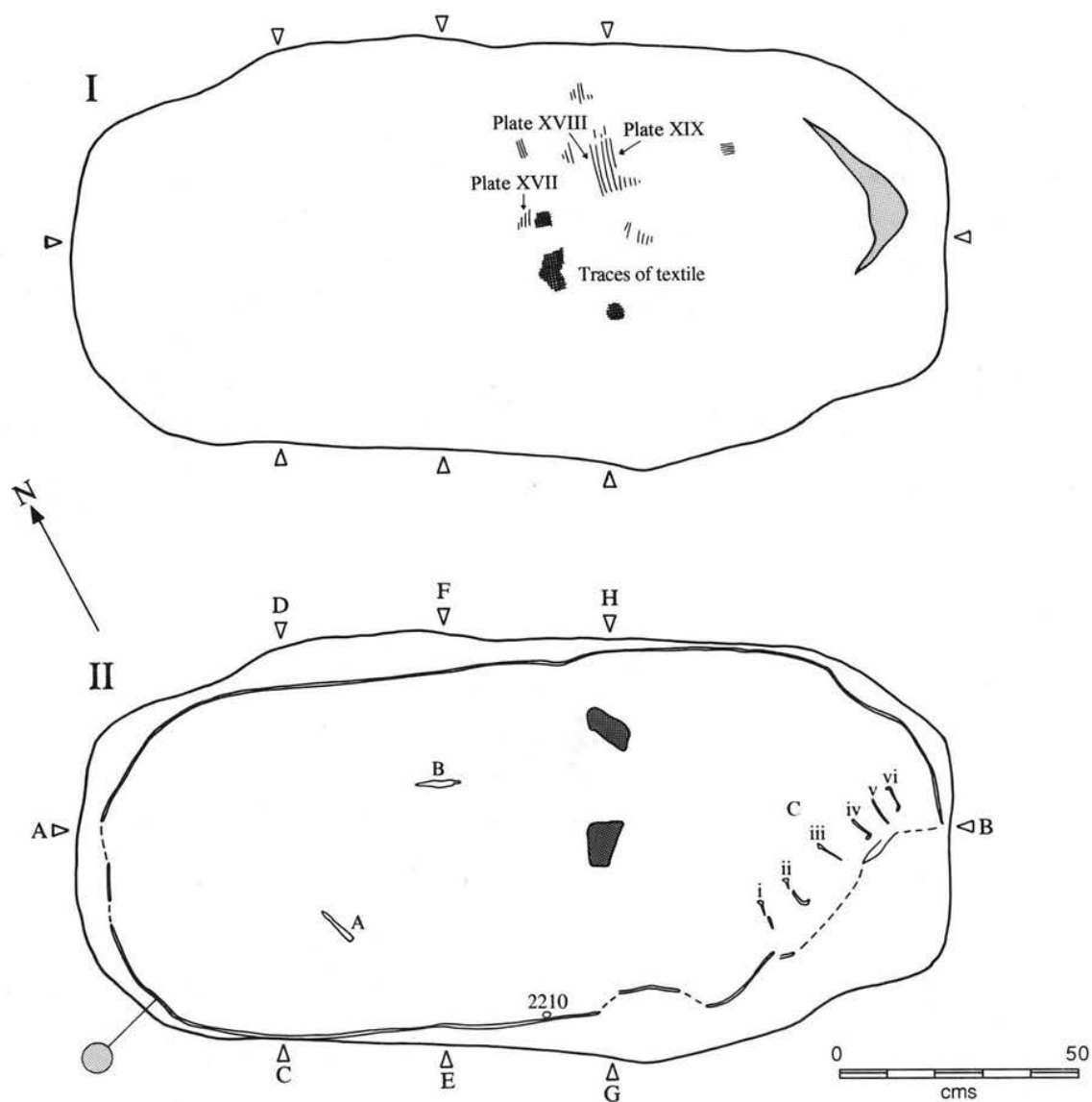


Plate XVII *Rippenköper* twill weave *in situ*, grave 37 lining (shot located in Fig. 62)

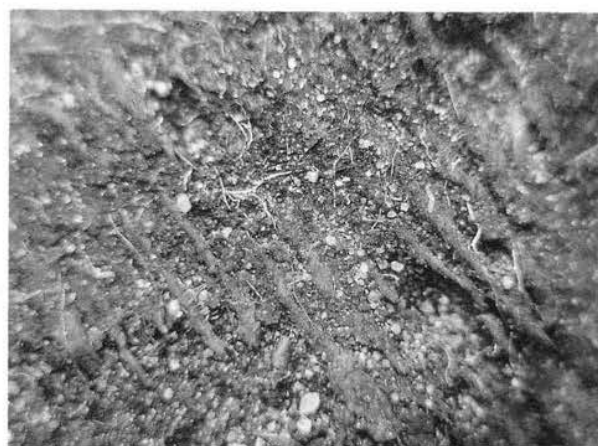


Plate XVIII *Rippenköper* twill weave *in situ*, grave 37 lining (shot located in Fig. 62)

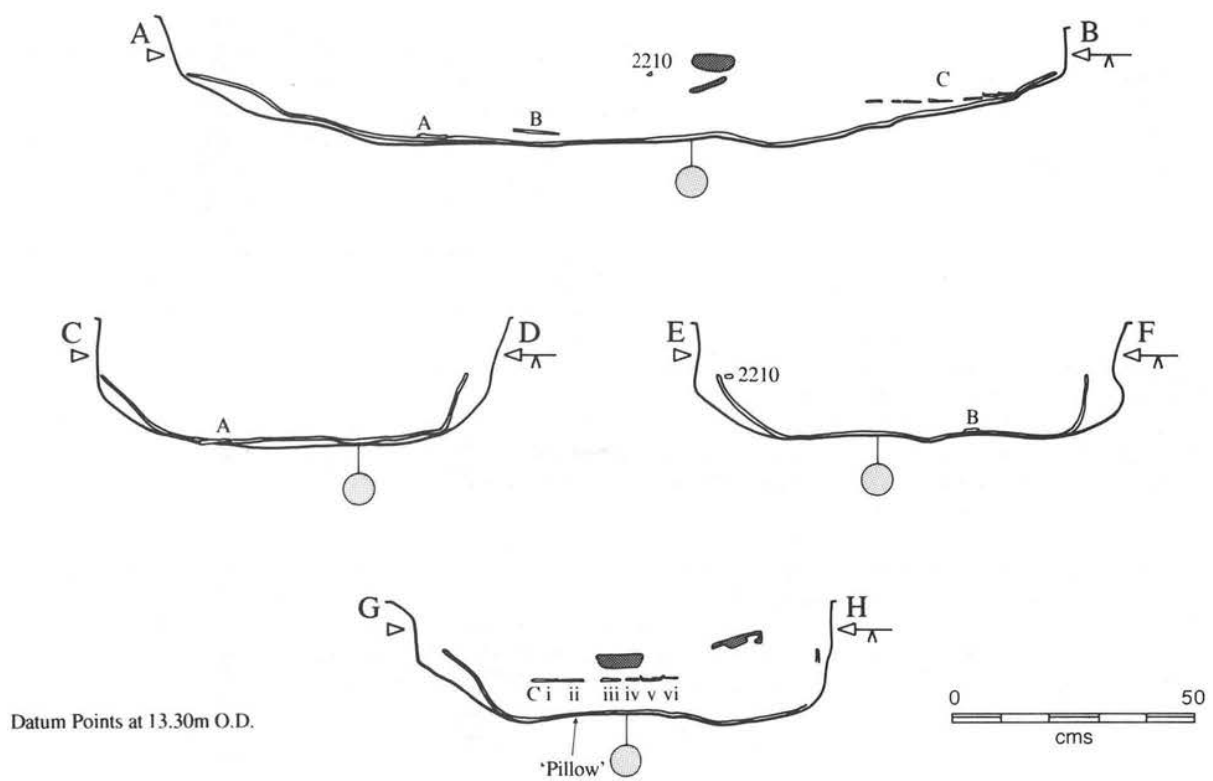


Figure 63 Grave 37, long and cross-sections. Scale 1:15



Plate XIX *Rippenköper* twill weave *in situ*, grave 37 lining (shot located in Fig. 62)

The plan shows no body stain as the difficulty in isolating it also meant that no parts could be certainly identified. This and the small spear tends to suggest that the body was of a juvenile or child. The position of knife *B* suggests that the head was at the west end, although the uneven grave bottom formed a possible 'pillow' at the east end like those in graves 7 and 14.

Grave-goods:

- A: Small **spear** with Fe head (Swanton ?F1), length 90mm, lying at an angle to the grave south side at the grave base. Mineral-preserved wood in the socket (which was probably butt-joined) was of beech (*Fagus* sp.) or holly (*Ilex* sp.). It had pith present so it is likely to have come from a branch or very young stem. Unidentified degraded textile remains are preserved on the exterior surface. [2277]
- B: **Knife** with horn handle, length 92mm. The mineralised leather sheath had hairs protruding from the outer surface (Pls XXXVIII and XXXIX), possibly of calf. Part of a seam survives along the blade edge where a thong fragment is still attached. Two weaves of textile were found beneath the knife. (d) was of S-spun threads c.20mm long, Z loose open ply, with traces of Z threads passing through, *i.e.* probably tablet cords from a braid or border; weft count 5–6 on 10mm. Analysis by S. Hardman suggests the fibres are wool. (e), of very deteriorated scraps with medium coarse threads, Z-spun in both systems, is probably the remains of a medium coarse twill, with a thread count of 5–6/6–7 on 10mm. No dye was detected in either but there was pollution from an alkanet-like colorant. [2278]
- C: Row of six Fe **staples** (i–vi), some broken, of squared C-shape lying in an east-west orientation at the grave east end. The staples appear to derive from a single object of unknown type and an organic stain line could be seen associated with them in the ground. The object must have been at least 0.4m long but could have been up to 0.6m. Mineralised wood survives with the grain following the line of the clamps. It cannot be identified further but has predominantly uniseriate rays. The thickness of the object as reflected in the clamps varies from 12–23mm and is thicker in the centre. As the wood cross-section becomes oblique towards both ends this suggests the tapering was done by trimming the outer edge after putting the object together but before the addition of the clamps. The clamps were presumably used to join together two boards but there is no obvious sign of this. Lengths: i, 78mm; ii, 70mm; iii, 64mm; iv, 32mm; v, 78mm; vi, 56mm. [2232, 2242–2247]

Grave 38 (inhumation) (Figs 64 and 105)

Dimensions: 1.87 × 1.08m

Orientation: 267°

Container for body: Organic layer at base of grave.

Sex/age: Uncertain.

Body position: Unclear but probably flexed. Head to west.

Description: A shallow sub-rectangular grave cut with a stone-free fill of fine silver-grey sand and some pale brown-grey patches. The uppermost fill also produced several smears of unidentifiable soft charcoal.

Several patches of dark grey staining were seen in the upper levels of the fill and these seem to represent parts of the organic stain seen most clearly at the base of the grave. Whether this organic stain formed a lining to the grave or just a layer beneath the body is unclear; only a few stains, including one reasonably-sized length along the north edge, east end, were seen higher up in the grave fill.

The body stain was difficult to distinguish as it was poorly preserved with the exception of the skull and two longbone lengths, probably representing the thighs. The most likely body position is therefore flexed, facing south, the body possibly lying prone.

Grave-goods:

- A: Fe strip, length 70mm, possibly the tip of a **knife blade**. Mineralised macroflora adhere. [2211]
- B: Fe **knife**, length 127mm, with traces of the horn handle. The blade is enclosed in a compact layer 1mm thick, which is wrapped over the back and extends over the handle junction by 3mm, but its identification as a sheath is inconclusive. The handle extends just beyond the blade/tang junction. Three areas of a textile nature were associated: (a), an area rusted and deteriorated but with fibres preserved in an area 25 × 30mm, of dark brown threads, ?wool; spin Z/Z, weave twill, probably 2/2, but one system is damaged. The thread count is estimated at c.8/9 on 10mm. The weave is loose and in one dark area some of the threads appear to be finer. (b), a very coarse-fibred wool fragment is preserved lying in a curved fold. The threads are spun, some S, some Z, but not regularly in the different systems. Occasional threads suggest this is a twill weave, possibly with stripes or checks, indicated by the change of spin direction. (c), in an area c.10 × 15mm, of S-spun threads again lies in a curve, side by side, c.7 on 5mm; these were possibly tied round the top of the knife sheath. No dye was detected, but an alkanet-like colorant was. [2212]
- C: Fe **nail**, length c.20mm, the head bent over at 90°, close to chest area of body. [2213]
- D: Fe **strip**, length 48mm, overlying the suggested pelvic area of the body. Mineralised macroflora adhere. [2214]

Grave 39 (inhumation) (Fig. 65)

Dimensions: 1.6 × 0.4m

Orientation: 262°

Container for body: None.

Sex/age: Uncertain.

Body position: Very unclear but possibly tightly flexed in a 'foetal' position. Head to west.

Description: A very fragmentary and badly damaged grave. The northern side was accidentally truncated when seen on the very edge of trial box 11 during trenching in 1985. The grave was only positively identified during further evaluation work in 1990. The upper levels were destroyed by plough damage and the skull of the body had been burrowed through by an animal.

That fill remaining was of light grey sand with darker brown patches mixing in, especially to the east. Soil disturbance made identification of the grave edge very unclear even at the bottom levels. Directly above the head was charcoal smear (i) containing twelve fragments of oak (*Quercus* sp.) stem and heartwood, and nine fragments of

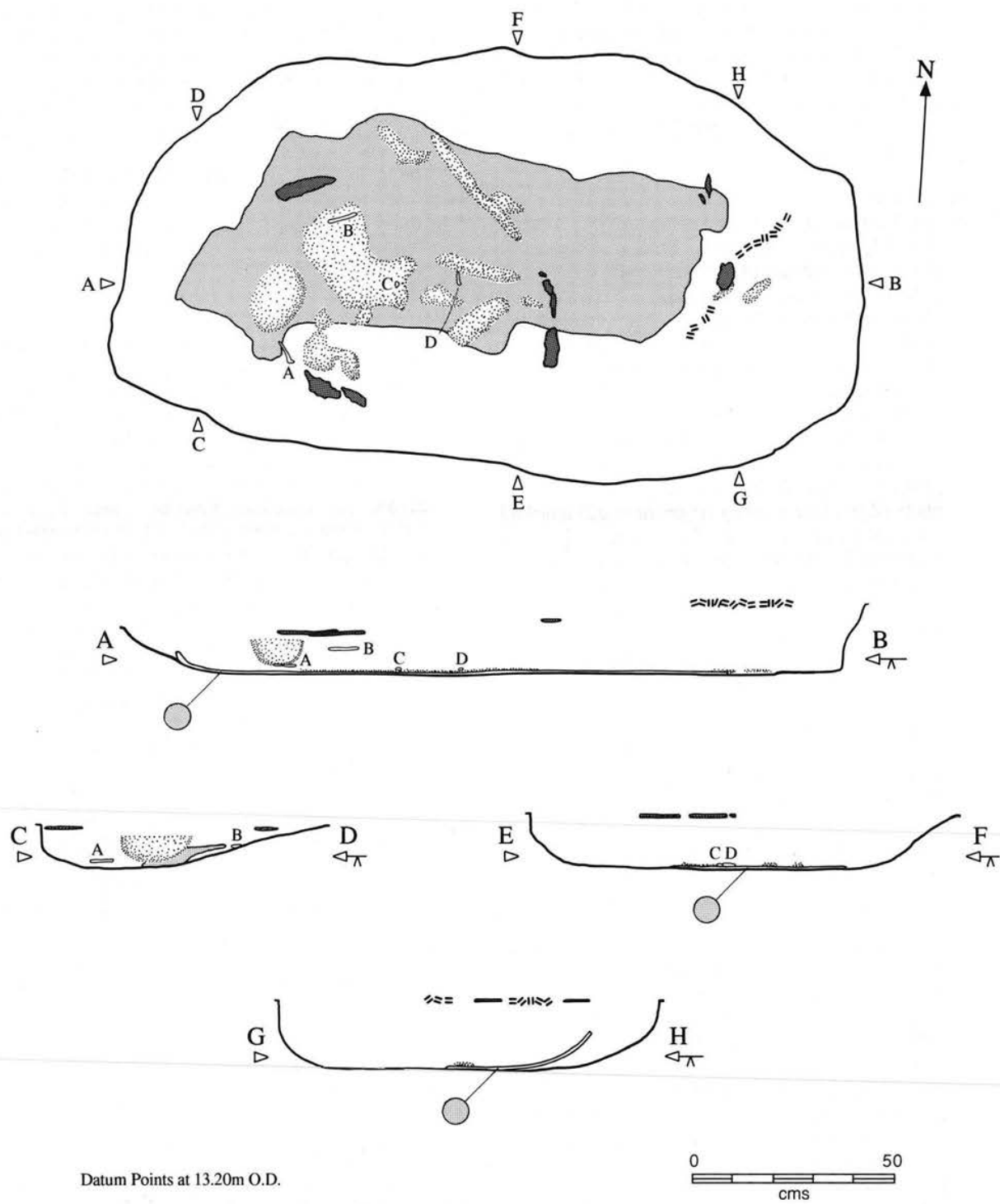


Figure 64 Grave 38, plan, long and cross-sections. Scale 1:15

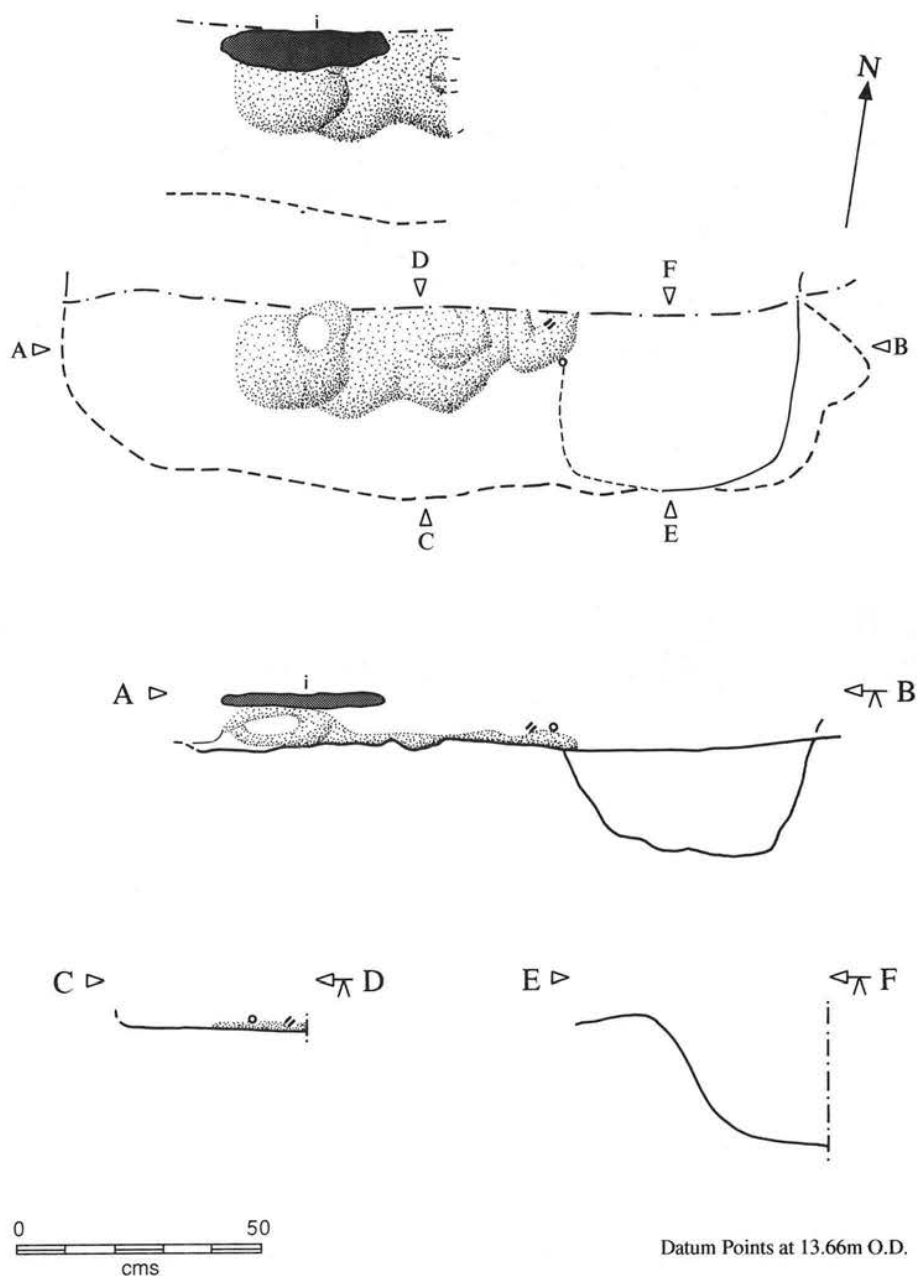


Figure 65 Grave 39, plan, long and cross-sections. Scale 1:15

gorse (*Ulex* sp.). The fill yielded a small fragment of burnt flint, 1733, and a small fragment of charcoal, 1734. Burnt flint collected from the feature when first excavated weighed 10g. The one piece from the re-excavation was under 5g.

Although very unclear, the body was possibly resting on organic material. The east end of the grave had a curious small pit with a very fine white, almost ash-like sand fill; the body appears to have been laid over this pit.

Grave-goods: None

Grave 40 (inhumation) (Figs 66 and 105)

Dimensions: 1.87 x 0.65m

Orientation: 284°

Container for body: None but rested on an organic layer.

Sex/age: Female?

Body position: Supine extended, right arm crossed over chest, the left crossed so that the hand was by the throat. Head to west.

Description: A highly damaged inhumation. The sub-rectangular cut was difficult to distinguish clearly as ploughing had affected its definition in the upper levels. In addition, ploughing had sheared off the top of the body stain head. A rabbit run swept through the middle of the grave and a probable ferreter's hole had destroyed most of

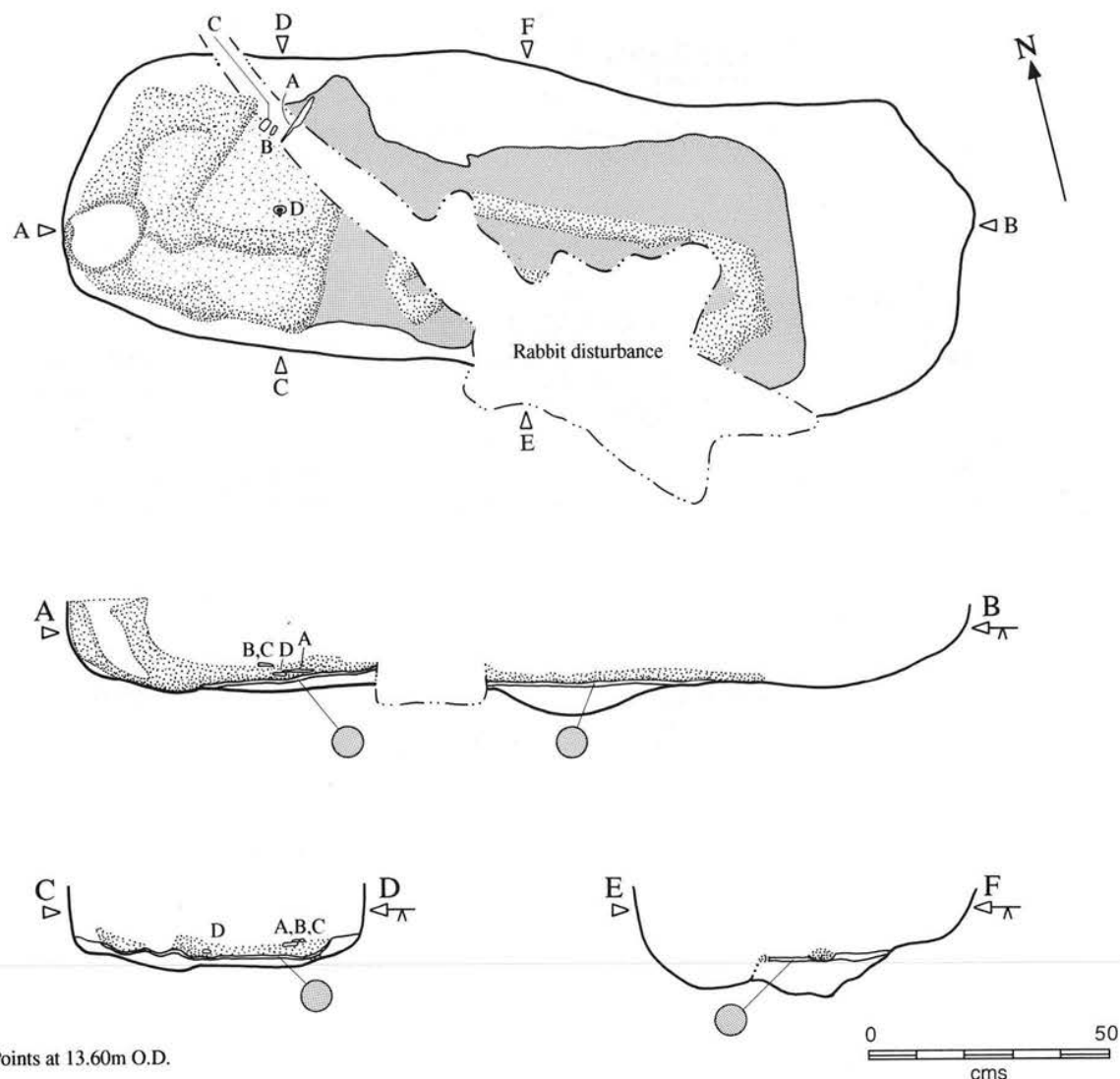


Figure 66 Grave 40, plan, long and cross-sections. Scale 1:15

the legs. That fill which survived was light grey and pinkish grey at the surface, and a mix of light and mid brown sand, with some grey mixing lower down. The soil was relatively stone-free except fairly high up at the west end.

The body stain was reasonably well preserved and rested on an organic layer of unknown type which, in the chest area, mixed into the body stain. Although shown as in the rabbit run on plan, the grave-goods were in fact just beneath its bottom and apparently undisturbed by this activity. Elsewhere around the edge of the grave was light yellow sand, possibly trample.

Grave-goods:

A: Fe **knife**, length 126mm, badly corroded with traces of a horn handle. Only textile survives on the blade, probably from two weaves; (a) near the handle, a clear patch 9 × 11mm, spin Z/Z, threads medium twist, hard fibres with worsted appearance. It is an even tabby

weave, thread count 9/13. A deteriorated area lies across the blade and round the side, suggesting a tape or wrapping, but no edges are preserved. (b), a fragment 13 × 7mm on the point of the handle, shows a thread count of 9/9 on another scrap, probably tabby, spin not clear, with a very smoothed surface. A small area beneath is more like (a). [1747]

B: Fired clay **bead** with large hole, incomplete, found next to knife A. The orange colour may derive from its proximity to Fe knife A. An associated mineralised fine **textile**, spin ?Z, is possibly a tabby weave but is too deteriorated for identification. [1748]

C: Small **sherd** of pottery found near A and B (*not illus.*). [1749]

D: Fe **buckle** of small size, width 25mm, completely covered in badly degraded mineralised textile (c), spin Z/S, apparently fine twill. (d), above the tongue, was seen in a small area, 4 × 7mm. It was coarser and again probably a twill. [1761]

Grave 41 (inhumation) (Figs 67 and 106)

Dimensions: 1.10 × 0.67m

Orientation: 270°

Container for body: None.

Sex/age: Unknown, probably juvenile.

Body position: Unknown as no body stain survived.

Description: A shallow irregular rectangular grave cut. The fill was an amorphous mix of coarse silver-grey and pale brown sand throughout, with frequent root disturbance. The fill had several inclusions of peagrit gravel. The upper fill contained several small unidentified charcoal patches; no other stains were noted. Some burnt flint was collected in the uppermost levels but was not otherwise recorded. The size of the grave cut and the complete absence of any body stain suggests that the grave was that of a child.

Grave-goods:

- A: Mineralised **textile lump** preserved in an area c.30 × 17mm. Z/S spin, thread twist medium to loose. The weave is a slightly open 2/2 twill with thread count c.11/12–13, and no reverses. It was originally an even weave but the surface is poorly preserved (*not illus.*). [1921]
- B: Fe **knife**, length 116mm, with horn handle and traces of a leather sheath. No grain pattern survives but fine hairs protruding from the outer surface layer of corrosion products were identified as calf. Bulky deposits of mineralised textile on both sides could not be identified. [1922]

Grave 42 (inhumation) (Fig. 68)

Dimensions: 1.10 × 0.34m

Orientation: 294°

Container for body: None.

Sex/Age: Infant/child.

Body Position: ?Extended. Head to east.

Description: A rounded rectangular cut filled throughout with an homogenous coarse-grained dark grey sand. Within the upper levels were two black organic stains, possibly of degraded wood. A ring of dark brown/black body stain with coarse fawn sand inside, probably representing the skull remains, was seen at 12.98mOD and an organic stain was noted following the cut line down at the grave east end. No other traces of body stain were noted.

Grave-goods: None

Grave 43 (inhumation) (Figs 69, 70 and 106)

Dimensions: 2.87 × 1.18m

Orientation: 280°

Container for body: Coffin or ?textile lining.

Sex/age: Uncertain, juvenile?

Body position: Unclear but probably extended supine with head to west.

Description: A long sub-rectangular grave cut with a fill of mid grey and grey-brown sand with occasional small stones. These probably derive from a band of ironpanned gravelly sand through which the grave cuts. The fill had lenses of a darker brown sand in parts which highlighted a long central oval shape of a light grey stone-free sand.

This oval lens faded out midway down the fill but does not seem to represent a later cut into the grave. The extent of this oval is shown on the sections but not on the grave plan.

Within the oval lens, a series of charcoal and black degraded wood stains were found. They lay in the upper levels at the west end above where the body's head is suggested to have been. This apparent placing of material over the head seems to be paralleled in other graves (see Chapter 6 section II, pp. 243–4). The charcoal was of oak (*Quercus* sp.), mostly stem although some was sapwood (not from a narrow stem) and heartwood.

The organic lining in the grave was first noticed at 13.28mOD, patchily at first but eventually extending to an oval shape at the grave base (Pl. XX), about 10mm thick at most. A number of patches of textile were seen within this organic stain at the grave base and they suggest that the whole stain represents a single textile lining to the grave, as is suggested in several other graves. The layer was seen higher up within the fill along the north and south edges but only appeared at the east and west ends very low down, suggesting that it was principally lining the long sides of the grave cut. Two samples were examined. 2002 included Z and S threads some very coarse and lightly spun, probably from a twill weave. The deteriorated fibres were of fine to medium wool with an alkanet-like colorant present. 2003 had similar threads, some finer and redder, again of wool with an alkanet-like colorant.

The body stain was very poorly preserved, typically a smear within the bottom organic stain, of slightly different colour and texture. The body seems to have been laid supine extended, with the head at the west end. If this interpretation is correct then the knife may not have been worn but laid on or by the side of the body as it was upside down relative to the head.

Grave-goods:

- A: Wooden **box** or **casket** represented by a small group of fittings including the drop handle (i), length 60mm, a fragment of the split-spike loop (ii) and possible corner brackets (iii and iv). The drop handle has only the remains of textile and roots but the loop that attached it to the box pierces a cross-section which means that it was probably mounted on the edge of one of the sides. Textile is also preserved in a position which suggests that it was possibly present between the handle and the box. The possible corner brackets, with rectangular section pins, appear to be mounted on the cross-section. Their length may indicate the board thickness as being a minimum of 15mm. The box appears to have been made from maple (*Acer* sp.), but could be lime (*Tilia* sp.) or cherry (*Prunus* sp.). Corrosion has meant that the objects are drawn from X-rays taken whilst in a block of sand, with details of sections added. [1942]
- B: Fe **knife** with horn handle, total length 180mm. A layer of corrosion product encrusts part of the knife block and overlaps the handle by 7mm; it may be the remains of a sheath but the identification is inconclusive. The blade is covered on both sides by extensive textile remains of five weaves, also extending onto buckle C. (a), over the upper knife blade, an area c.30 × 30mm showed decayed textile with Z/Z spin and loosely twisted threads in a very loose weave, probably twill but distorted; count originally c.8–10 range in both systems. The wool fibres are now very

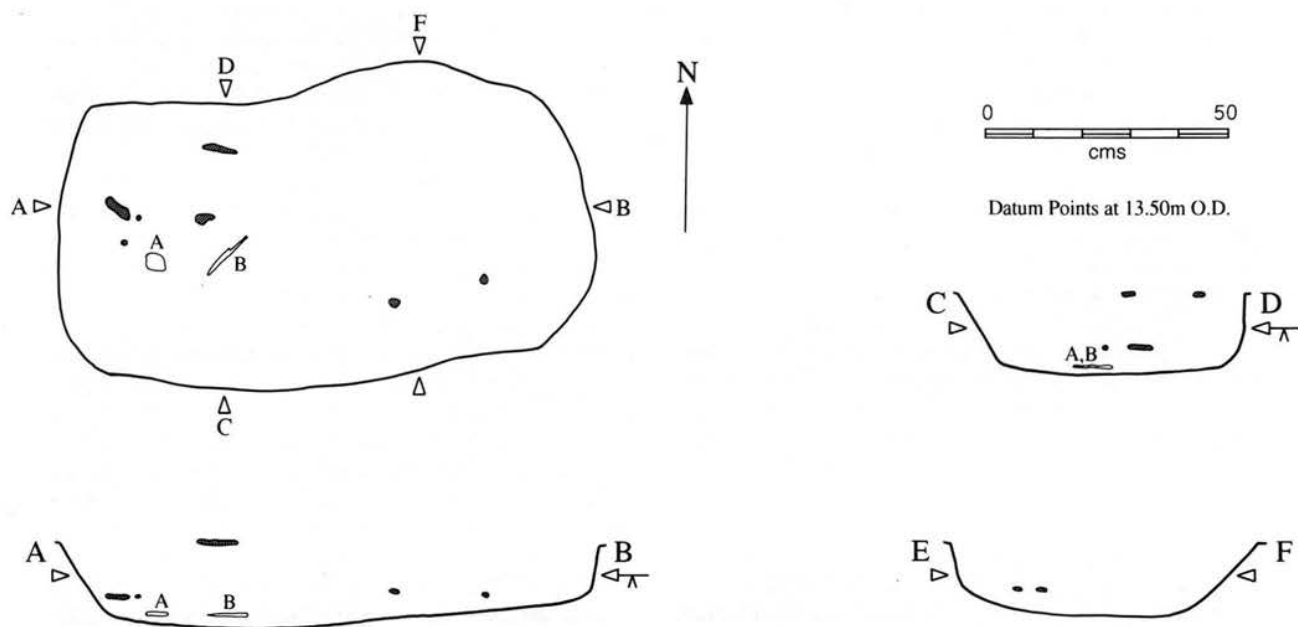


Figure 67 Grave 4, plan, long and cross-sections. Scale 1:15

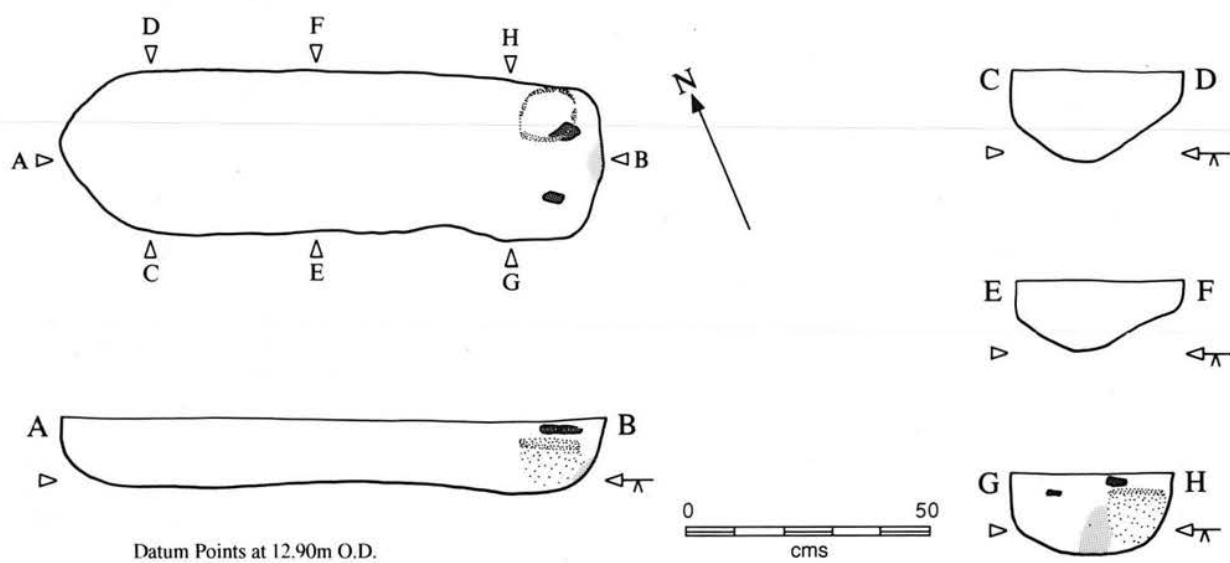


Figure 68 Grave 42, plan, long and cross-sections. Scale 1:15



Plate XX Organic lining in grave 43, during excavation

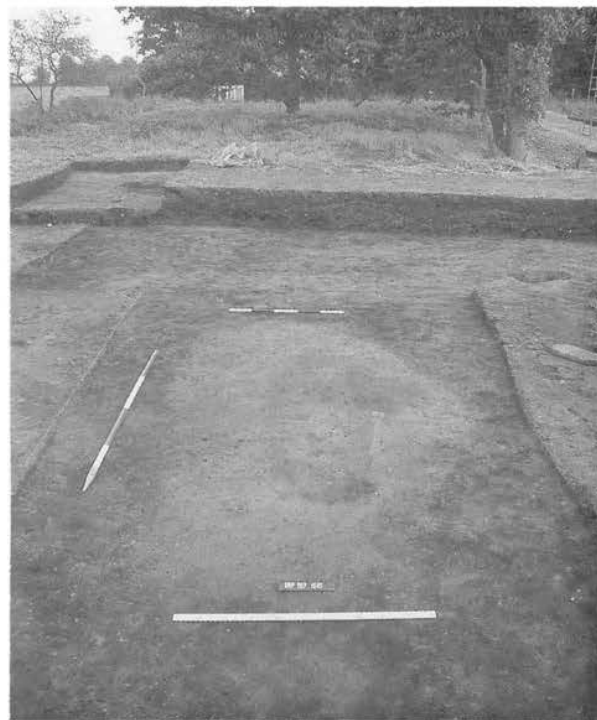


Plate XXI Grave 44 within larger oval feature 0738.
Mound 4 in background

black and friable with some scale pattern. (b), lying along the blade edge for $c.70 \times 15\text{mm}$ are the remains of a fine textile, again very black, spinning Z/S; here it is certainly a 2/2 twill with thread count $c.16-18/c.20$ on 10mm. Over an area $30 \times 25\text{mm}$ lies one clear patch of textile, (c), spin Z/S, both threads medium to loose twist. The Z?warp is much broken, the S?weft very coarse. This must also have been a twill with a thread count $c.5/3-4$ on 10mm. This fabric may be responsible for coarse overlying threads on other pieces. Present on all pieces of (c) with some clear patches (the best $15 \times 20\text{mm}$) lies (d), a fine Z/S-spun 2/2 twill; thread count at least 16–18/14, the colour here is slightly reddish. The fabric is very like (b). (e), in large areas, the best $40 \times 40\text{mm}$; at least two layers of a very dark brown wool survive with spinning Z/S. The threads are pulled and deteriorated, the weave twill but not clear; thread count $c.8-9/8$ on 10mm. (All the wool samples were similar, with the addition of an occasional coarser fibre with a medulla.). There is a slightly clearer scale structure on some fibres; all are of wool and all are stained with an alkanet-like colorant. During conservation it was noted that the textiles had a rough inner surface caused by the weave and a smooth outer surface. [1943]

- C: Ae buckle with rectangular plate, length 17mm. The plate is broken at the end and the tongue and half of the loop were already broken in the ground. Detached from the buckle was an area $c.45 \times 35\text{mm}$ of crushed layers of two weaves similar to those on B, one resembling weave (e), but at one end a clear patch $15 \times 15\text{mm}$ of (d), reddish, with a count $c.20/18$ (9 on 5mm). The quality of both is that of good broken diamond twills, but there are no signs of clear reverses. [2087]

Grave 44 (inhumation) (Figs 71 and 72)

Dimensions: (Feature) $3.51 \times 1.88\text{m}$; (Grave) $1.74 \times 0.58\text{m}$

Orientation: 270°

Container for body: None.

Sex/age: Unknown, adult.

Body position: Prone, head resting against grave west end. Right arm resting alongside body beneath pelvis, left arm folded across the waist beneath the body.

Description: A neat rectangular grave, cut through a large oval area (0738) of fine light grey/white stone-free sand (Pl. XXI). It is unclear how this feature was formed. Although its proximity to mound 4 raises the possibility of it being a quarry pit, the fill suggests that it could be a natural hollow in the heathland. The fill of the grave cut showed from the top of this area and was a slightly darker mid grey colour. Some small pieces of ironpan were found in the upper layers of excavation as was a small quantity of burnt flint but it is unrecorded whether this came from the grave cut or from the wider feature.

The body was buried without any grave-goods (at least any that survived). It was a well-preserved stain showing the body to have been pushed up against the grave west end as though thrown in from the east. Although the fill was stone-free, a large flint was found immediately east of the head overlying the shoulders. This apparently deliberate inclusion, and its implications for the body buried, are discussed more fully in Chapter 6 section II, pp. 249.

Grave-Goods: None

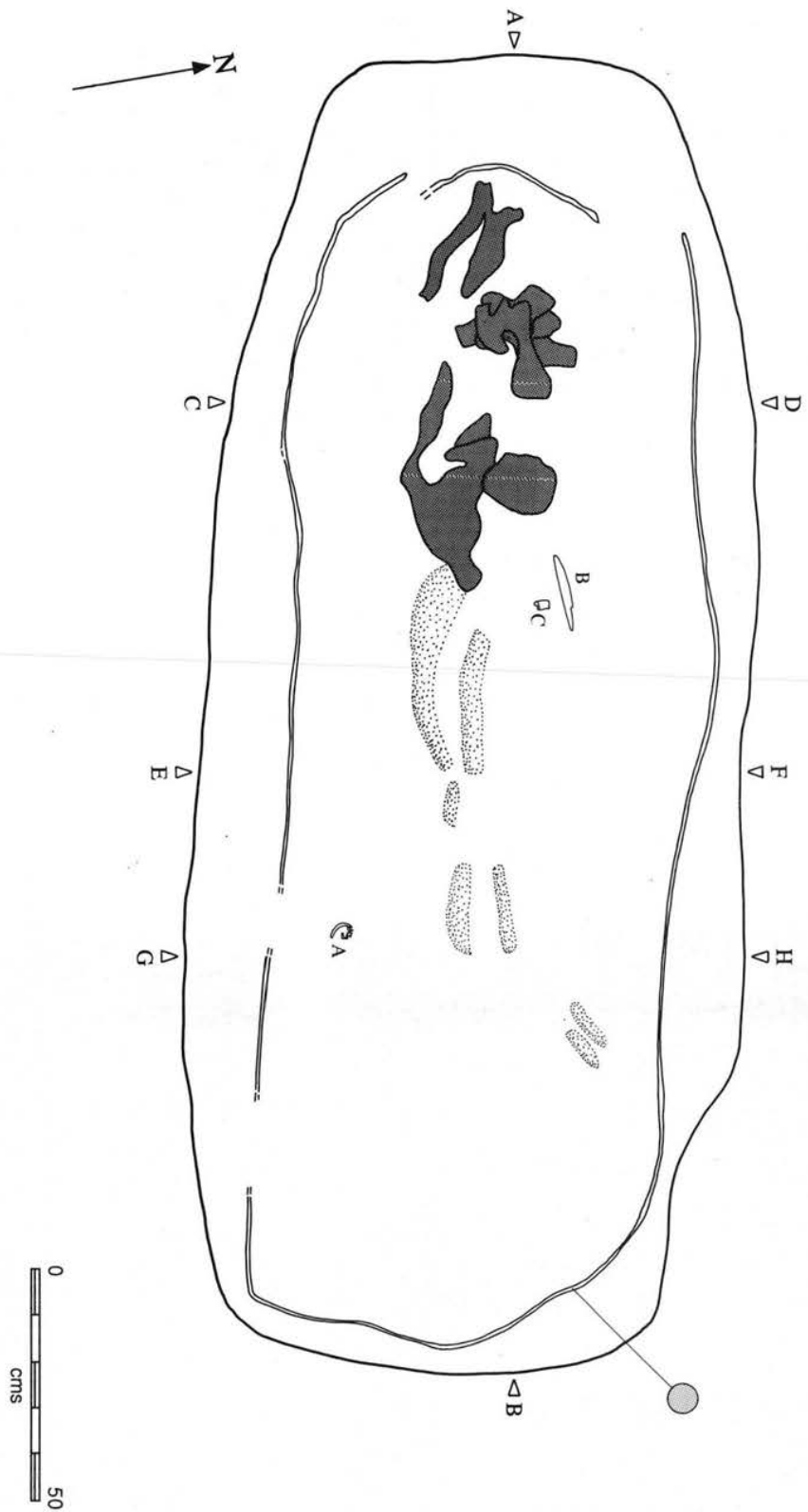


Figure 69 Grave 43, plan. Scale 1:15

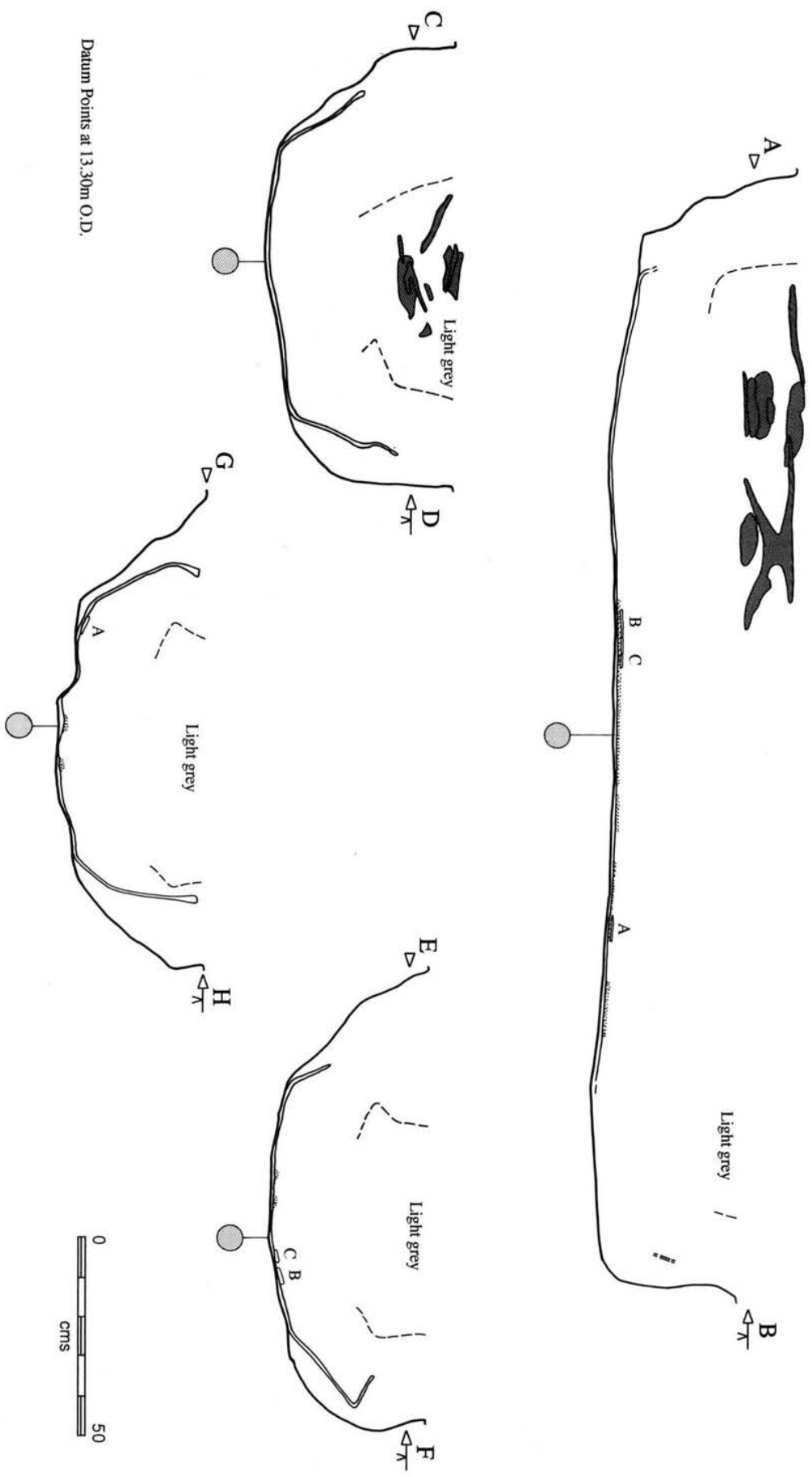


Figure 70 Grave 43, long and cross-sections. Scale 1:15

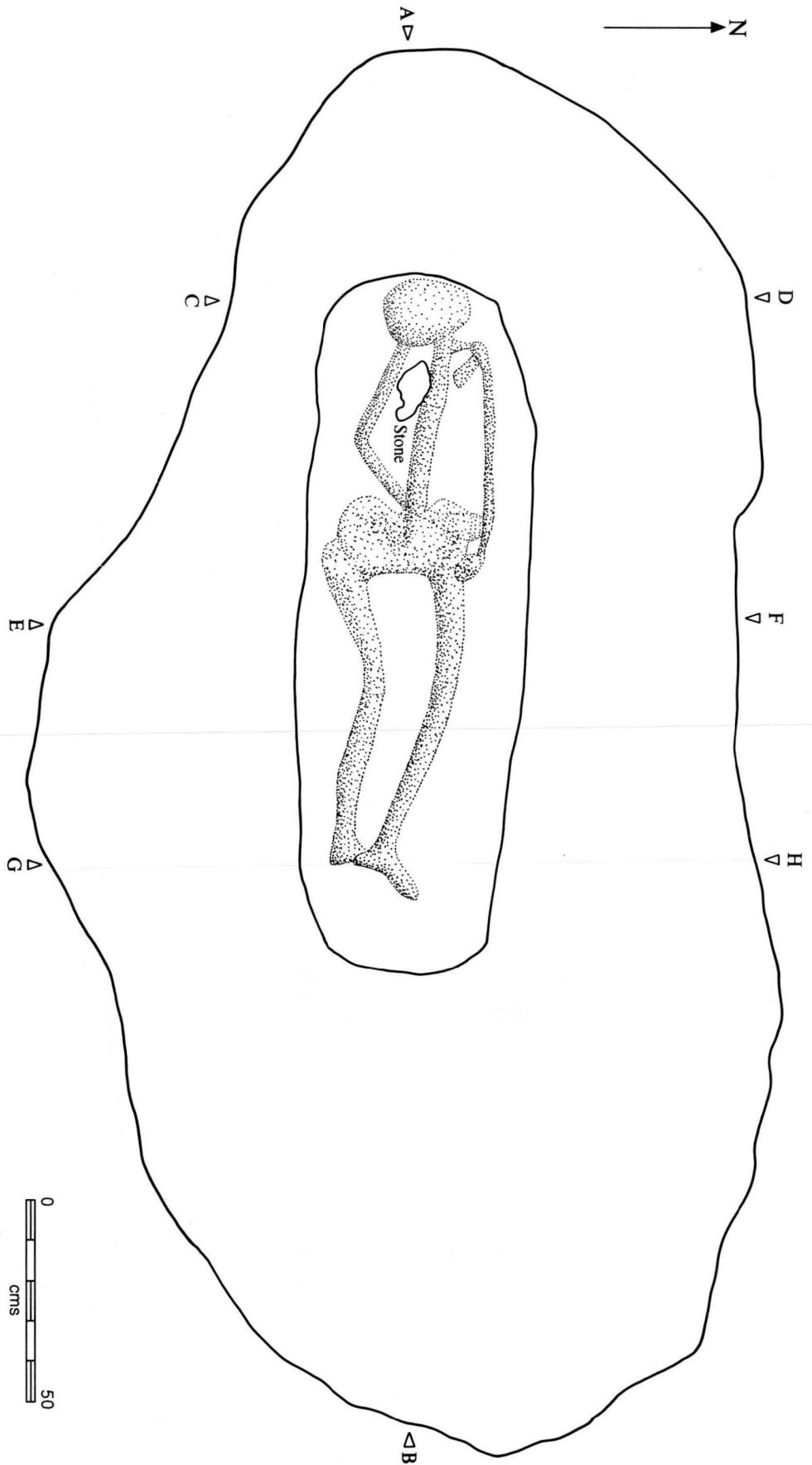


Figure 71 Grave 44, plan of grave and surrounding feature. Scale 1:15

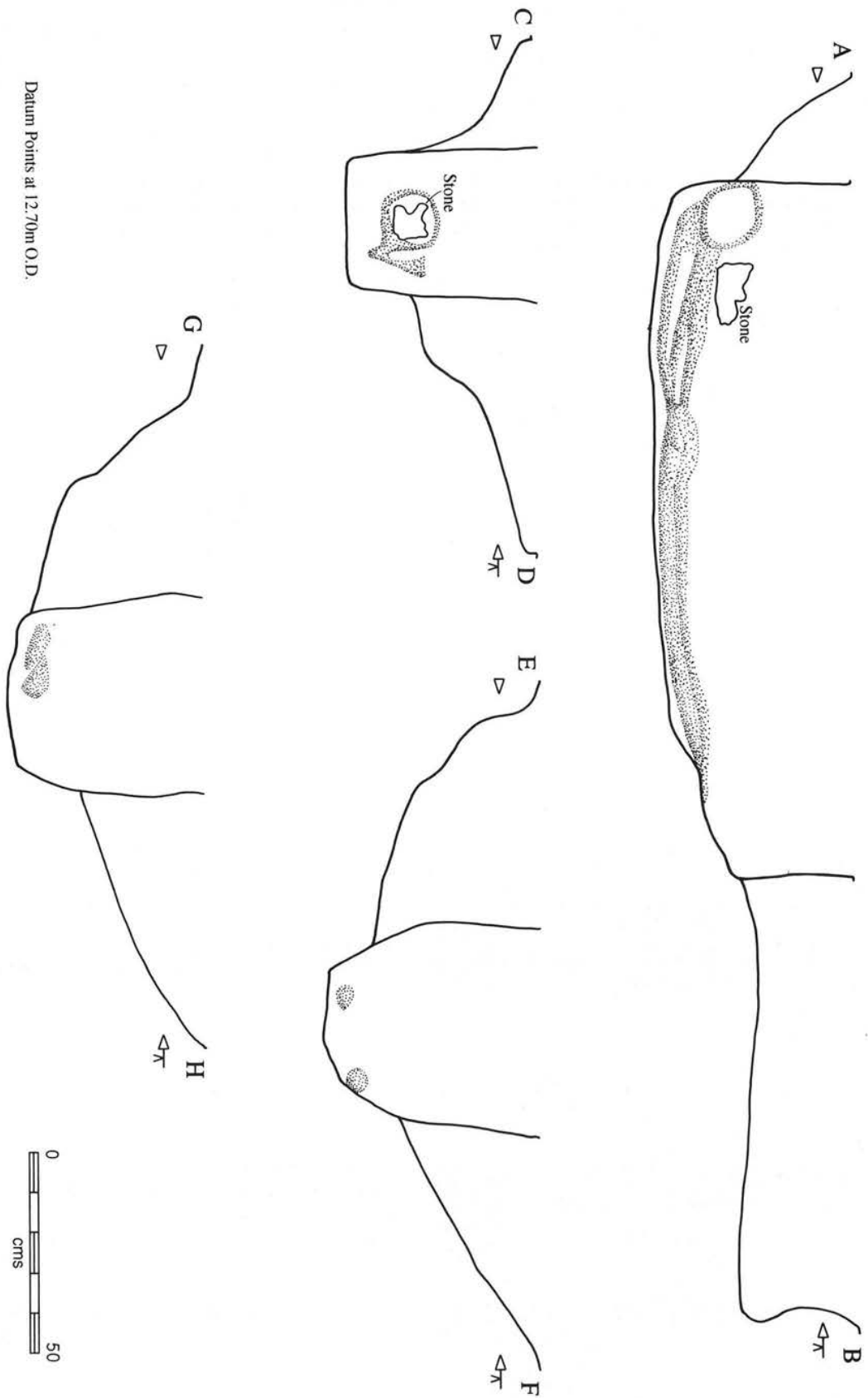


Figure 72 Grave 44, long and cross-sections across grave and surrounding feature. Scale 1:15

Grave 45 (inhumation) (Figs 73 and 106)

Dimensions: 1.95 × 0.65m

Orientation: 309°

Container for body: Coffin or organic lining, probably of textile.

Sex/age: Male.

Body position: Supine extended, legs straight and arms laid alongside body. Head to west.

Description: A regular sub-rectangular cut with steeply sloping sides, severely damaged in its upper levels by the plough. The cut contained a mixed fill of stone-free coarse brown and fine grey sand with some ironpan inclusions, mixing in as amorphous patches. Tip lines could be seen in places throughout the fill, the inner lenses of dark brown gravelly soil resting on orange-brown sand. A few patches of soil containing burnt flint were noted at the very top and bottom of the fill but are not marked on the plans.

The organic lining was first seen running along the grave south edge at 13.13mOD, soon extending all around the grave although always very fragmentary at the east end. The stain divided into a double line at the upper levels of the west end. This was originally thought to represent the dipping away of a bowed container lid and the top edge of the container wall. Subsequently the lines rejoined making this unlikely. The effect might have been created by a flexible organic that had been folded — the top edge could then divide into two lines which subsequently rejoined.

The organic material was probably textile, as three samples of the stain, taken when it first appeared along the south edge all proved to contain threads. Unfortunately, these did not survive in a weave. An organic stain obscuring, and apparently over, the body stain perhaps represents a covering of textile. Three fragments of charcoal from this organic stain were of *Prunus* sp., probably blackthorn (*P. spinosa*).

The body stain was generally poorly preserved, especially in the area of the chest and skull, merging into the associated organic stains. Although thin, enough survived to demonstrate the extended supine position with arms lying at a slightly higher level to the rest of the body. The legs were well preserved with a central core of very dense body stain.

Grave-goods:

- A: **Spear** with Fe head (Swanton C2), length 275mm, blade lying (edge vertical) along southern side of grave, west end. Mineralised wood in the socket is of hazel (*Corylus* sp.). [1856]
- B: Fe **knife** with a horn handle, length 148mm, leather sheath and unidentifiable mineralised textile remains. The sheath, 1.5mm thick, is folded over the blade back and overlaps the handle junction by 2mm. Fine hairs protrude from the outer surface of the layer, confirming the identification of leather. [1923]
- C: A patch of very deteriorated **textile** initially thought by the staining to represent a belt buckle. The textile fragments survive over an area 11 × 8mm, spin Z/Z of loose to medium twist with occasional finer threads in one system; ?2/2 twill, thread count c.10/8 (4 on 5mm). Some coarser loose-spun Z threads are stained by Fe. No dye detected (*not illus.*). [1917]

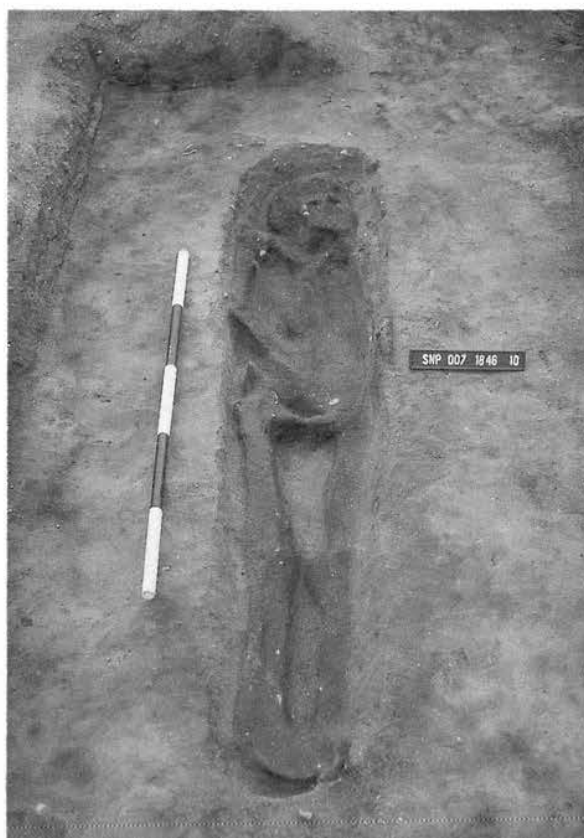


Plate XXII Grave 46 fully excavated, showing body stain.
Scale rod 1m

Grave 46 (inhumation) (Fig. 74)

Dimensions: 1.94 × 0.52m

Orientation: 248°

Container for body: None.

Sex/age: Unknown, adult.

Body position: Supine extended, right arm bent over waist. Body squeezed into the grave.

Description: The grave cut burnt stone feature 1775. It was first excavated as a quadrant in the south-west corner until recognised as a grave and was then lowered in spits in the normal way. The fill consisted of an homogenous light grey-brown sand with numerous inclusions of charcoal (0.71kg) and burnt flint (4.18kg) redeposited from the burnt stone feature. The concentration of these thinned out to the east. The abundant charcoal and burnt flint in the quadrant first excavated was unrecorded. The charcoal derives from a large mass of gorse (*Ulex* sp.) roundwood/stems but also includes three fragments of *Prunus* spp. which includes wild cherry (*P. Avium*), bird cherry (*P. padus*) and blackthorn (*P. spinosa*).

The body stain was perfect and the best preserved on the site (Pl. XXII). Some bone was preserved within the core of parts of the body stain, notably the skull, but all were too badly degraded to say anything other than the body was that of an adult. The grave cut was barely large enough to take the body which had been squeezed in, the bottom of the cut being slightly sloped down to the north.

Grave-goods: None

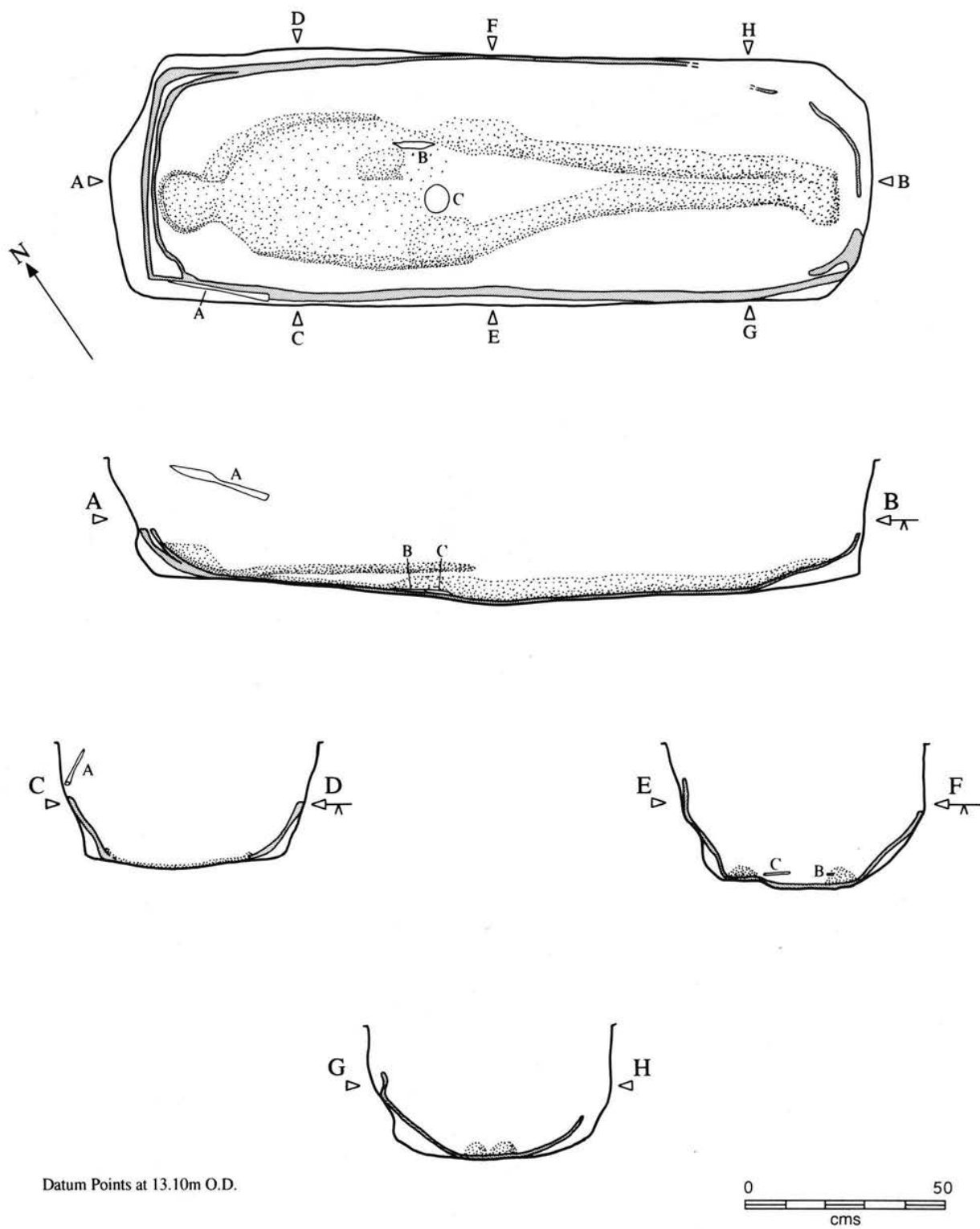
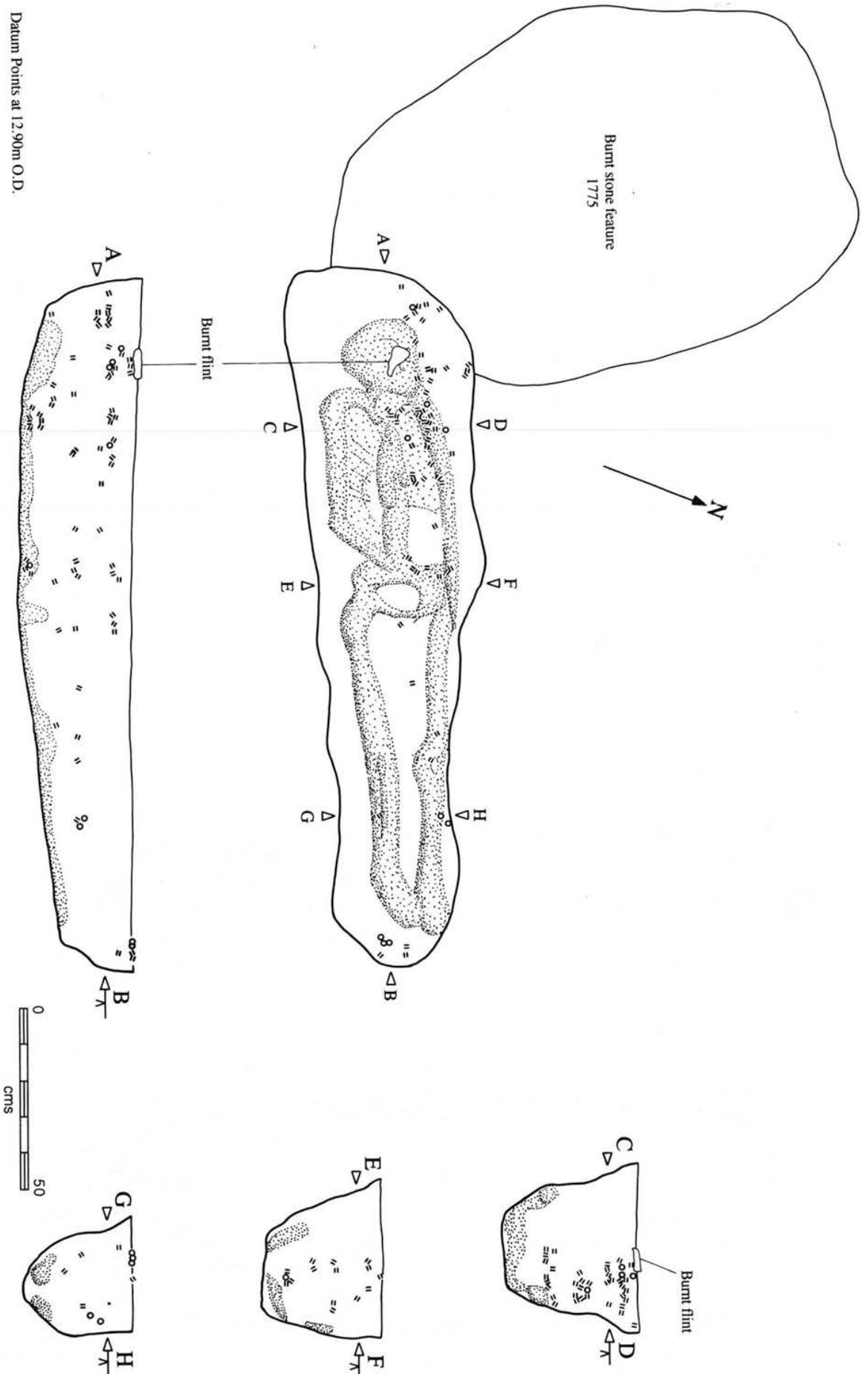


Figure 73 Grave 45, plan, long and cross-sections. Scale 1:15

Datum Points at 12.90m O.D.

Figure 74 Grave 46, plan, long and cross-sections. Scale 1:15



Grave 47 (inhumation) (Figs 75, 76, 77, 107, 108, 109 and 110)
Dimensions: 3.53 × 1.37m
Orientation: 289°
Container for body: Small dugout logboat.
Sex/age: Male, possibly adolescent.
Body position: Unknown, possibly supine extended. Head to west.

Description: A large sub-rectangular grave cut filled with a mix of mid grey and yellow sand. The upper levels were of a dark/mid grey sand which soon developed into a tripartite division running the length of the grave, with a southern band of yellow sand, northern band of yellowish grey and central band of mid grey sand (Pl. XXVI). These bands subsequently developed into the approximate edges of the logboat contained within the grave. The north edge of the grave at the lower levels had a fill of redeposited yellow natural which made locating the cut line very difficult. The upper levels of the grave had been very severely damaged by ploughing and animal activity, narrowly missing bucket *F*, damaging horse head *S* and destroying pot 2026. This vessel is represented by six sherds found at the surface level of the grave and in a rabbit run descending from the area of the scatter. It was possibly once a cremation urn judging by the three small cremated bone fragments recovered from the scatter. It is of a mid brown fabric with small sandy inclusions and is decorated with an applied linear boss. The fabric is of a uniform colour throughout, except the boss, which has a lighter brown core and is orange-brown immediately beneath the surface. The exterior has burnishing, the interior has wipe marks. Because of the fragmentary remains it cannot be said whether this was an urn buried in the upper fill of grave 47 or immediately adjacent to it.

The grave cut maintained a regular shape throughout, gradually narrowing to form more of a trench in which the boat was deposited (Pls XXVII and XXVIII). The edges sloped steeply in and formed a step along the north edge of the cut at about 12.70mOD, especially at the centre, evening out to the west end. The fill was relatively stone-free, including only very small stones (up to 10mm in diameter) and the grave was cut into almost pure yellow sand ironpanned in parts.

At its upper levels the cut had an almost oval outline with two bulges at the west end, on the north and south sides. Two more clearly defined D-shaped bulges were seen at the very uppermost levels at the east end, north and south sides. Together they form a regular arrangement, almost certainly representing four post-holes of a structure originally above the grave cut. The features all disappeared quickly, suggesting that only their very bases were seen, the upper levels having been destroyed in the ploughsoil. These features are omitted from the long section for clarity. Three pieces of burnt flint with a weight of over 10g and two flint flakes, 1829 and 1909 (*not illus.*) were found in the grave fill.

The grave had several traces of organic materials, the most significant being patches 1826 and 1827 which first emerged at 13.09mOD. It is not certain whether the two joined, although this is likely. 1826 was of textile, the best area 13 × 7mm in two layers of reddish staining. It was of Z/Z spinning with loose thread twists, very variable with some threads very coarse. The weave is uncertain with an estimated count of c.6 on 5mm in one system. No dye was detected but like all textiles from the grave tested for dye,

it had an alkanet-like colorant (see pp. 214). Both patches seem to have been laid over the eastern bow and into the boat, lapping over the gunwale although they were not seen immediately adjacent to the boat stain. The arrangement suggests that the boat was interred and slightly backfilled before being covered or lined in textile and having grave-goods placed within and upon it. The stain was very thin (1–2mm thick) but quite distinct. In addition to the textile, a pillow seems to have been deposited, judging by the mineralised feathers associated with the spearhead bundle *D*. Esther Cameron comments that they parallel those thought to be goosedown found in the mound one ship burial at Sutton Hoo, that had filled a woven linen pillow-case (Bruce-Mitford 1983, 889). Other discoveries of feather pillows in Merovingian graves are cited by Bruce-Mitford.

Other small and amorphous organic patches were seen, which possibly represent patches of turf incorporated into the backfill. Organic stain 1881 included charcoal of *Prunus* spp. which includes wild cherry (*P. avium*), bird cherry (*P. padus*) and blackthorn (*P. spinosa*) perhaps suggesting that it was a piece of wood. A small fragment of charred roundwood, 1938, from alder (*Alnus* sp.), hazel (*Corylus* sp.) or dogwood (*Cornus* sp.) lay at the bottom of the boat. A concentration of thin spreads along the line of the cut at the west end, characterised by retaining moisture, may possibly represent some form of organic lining or revetment to the grave. However, they may also be associated with the animal activity following the edge of the cut in this area.

The horse head could be directly linked to the grave through the identical form of its tack *U* with fragments *B* and *R* found within the boat. These show that the head was buried resting on its chin, wearing its harness, which was perhaps draped down into the main burial deposit. The difficulty with this interpretation is the lack of clear stratigraphic evidence to link the head with the upper edge of the boat grave. The head had been buried at a shallow depth and the cranium heavily plough-damaged, leaving only the lower part of the skull and jawbone undamaged. Although looked for, no cut for the head was recognised, perhaps as a result of the plough damage but also possibly because of its presence in the upper 'intermediate' soil layer in which cuts were often not visible (as noted with cremations elsewhere on the site). To the north of the boat grave, the line of another feature was seen extending a few centimetres out from the baulk but this disappeared before it could be planned accurately. It is unknown whether this represents another inhumation or another type of feature. The possibility that it was a cut containing the rest of the horse must be stated, but given the position of the head (on its chin, not its side), its location (to the north-west of the grave cut) and the lack of other bone elements in the surrounding topsoil, notably vertebrae, this seems unlikely. The head should therefore be considered a single deposit.

The boat left one of the best stains recovered in any of the graves at Snape, and its clarity enabled planning accurate enough for a computer-reconstruction and hydrostatic assessment to be made. This and further aspects of the boat's design and construction are discussed elsewhere (Chapter 5 section II). The stain was first seen at 12.93mOD at the west end bow, which rapidly assumed a regular pointed shape. Both bows showed before the rest of the stain gradually emerged, linking the two ends. They

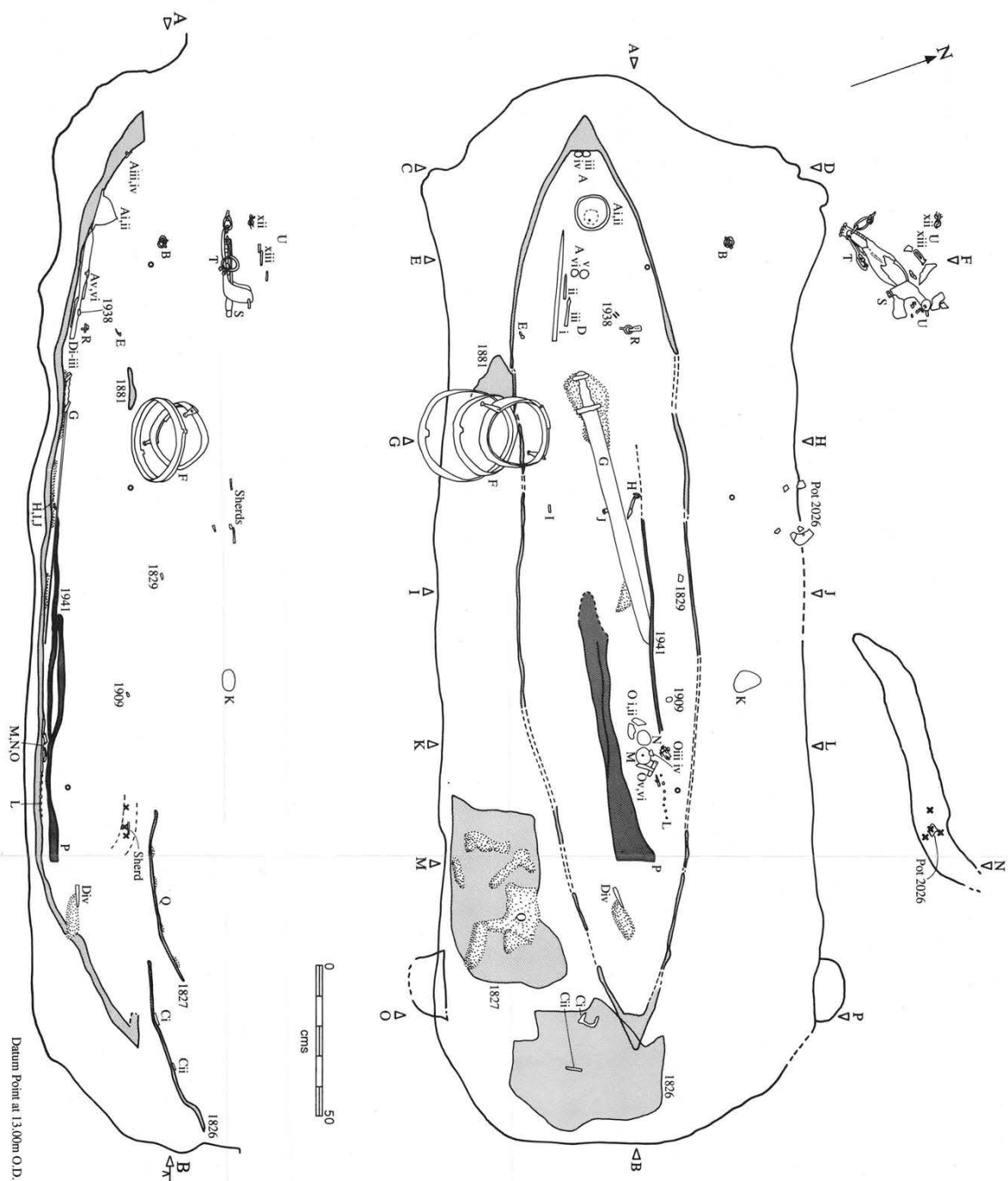


Figure 75 Grave 47, plan and long section. Scale 1:15

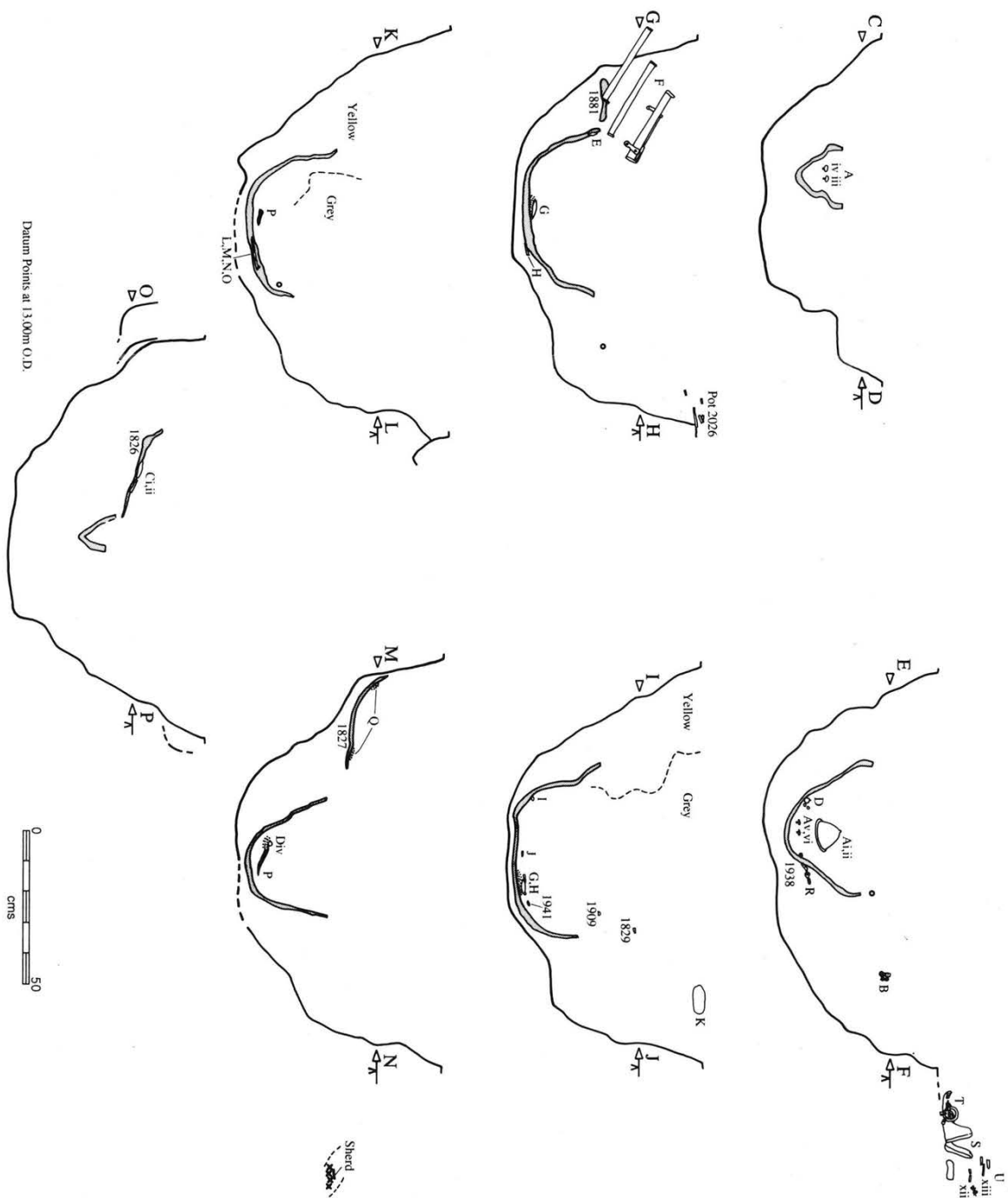


Figure 76 Grave 47, cross-sections. Scale 1:15

show the boat to have been approximately 3.09m from bow tip to bow tip, with a beam of about 0.62m. The grave plan uses dotted lines to show the highest original extent of the stain.

Both bows remained as regular V-shapes, forming a solid triangular stain. There was no evidence for the type of thick internal thwart or bulkhead fitting seen in the boat from grave 4. There was also no evidence for any patching, although Fe nail *E* was recovered from the centre of the stain. Sections showed a well-rounded base to the boat (Pl. XXIX). A small area of the boat's north side had been charred at the west end. The thinness of this charring (about 5mm) makes it likely to have been only on one surface of the boat, probably the interior. This charring and other small fragments mineralised by association with various metal objects show the boat to have been made of oak (*Quercus* sp.).

The base of the boat proved to be a complex of stains, mixing with many grave-goods, notably the complex *L-O*. Those areas identified as body stain were very small and it was impossible to use them to suggest the body position. However, the suggested pillow implies that the head was at the west end. In addition, the space restrictions at the bottom of the boat, not least because of the many grave-goods, make it most likely that the body was laid supine extended, with the sword placed on the chest.

Grave-goods:

- A: **Shield** with Fe **boss** (i) (Dickinson and Härke Group 6), diameter 130mm, height 80mm; straight Fe **grip** (ii), length 132mm; and two pairs of decorative Fe **studs** (iii–vi), diameter c.32mm set some 0.15m from the shield boss along top and bottom edges. The shield had apparently been laid over the gunwale of the boat's western bow (Pl. XXIII) and subsequently slumped in. The boss is a low curved cone with rod apex and five rivets, one of which has an internal Ae washer. The board studs have slightly domed heads; two of the rivets have washers visible, marking the inside of the board. The rivets are the same length as those on the boss, of c.9mm. The boss preserved mineralised traces of two *pinnae* (leaflets) of bracken (*Pteridium aquilinum* (L.) Kuhn) on the surface. The shield board was of willow (*Salix* sp.) or poplar (*Populus* sp.), the grain running vertically to the axis of the grip, with a radial surface. The same orientation on the grip probably indicates a cut-out type. Leather is present between the wood and iron on both the boss rim and grip suggesting that the shield board was covered on both sides by this material. The eastern pair of studs (v) and (vi) preserve mineralised shield board with an oblique surface and leather between the shield board and head of the stud. The thickness of the shield board at this point, 9.4–11.8mm, suggests that it tapered towards the edge. [1908, 1886, 1890, 1916]
- B: Fragment of **tack** associated with horse tack fragments *T*, *U* and horse head *S*, consisting of an Fe ring with two Fe distribution loops each terminating in a pair of flat plates with three Ae rivets for securing the straps. [1831]
- C: Pair of Fe **clamps** resting on textile layer 1826, immediately south-east of the boat east end. On (i), width 44mm, mineralisation has preserved on the outer side, layers of coarse textile overlain with random organic material including stems and leaves.

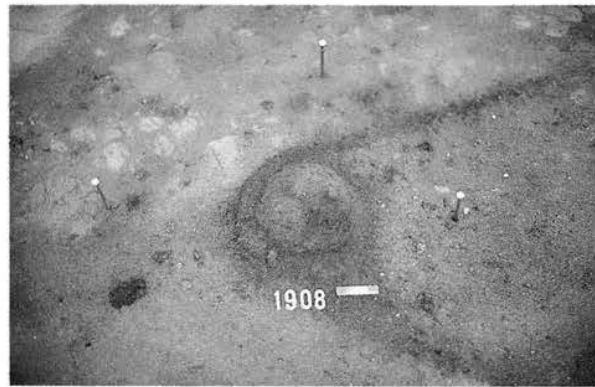


Plate XXIII Grave 47, shield boss *Ai* laid over boat west bow

The clamp was attached to wood of alder (*Alnus* sp.) or hazel (*Corylus* sp.) with the grain at an oblique angle on both points. Associated with the clamp is a nail (*not illus.*) with mineral-preserved alder wood (*Alnus* sp.). The nail pierces a cross section of the timber and the grain is diagonal on the shank which may mean that the nail was used to secure the wood, or as a repair (in a mitre joint?). Coarse textile is also preserved on the nail head. Clamp (ii), width 62mm, is slightly larger, with alder (*Alnus* sp.) all over the inside and over the points but with no indication of a joint. The points pierce a tangential surface board, with grain perpendicular to the length of the clamp. Coarse textile is preserved on both sides of the clamp. The evidence therefore suggests that both (i) and (ii) clamped the same object, that was of alder. [1830, 1876]

- D: Bundle of three **spears** with Fe heads. Spear (i), length 384mm (Swanton C3), has an Fe **ferrule** (iv), length 78mm, giving an approximate spear length (tip-to-tip) of 2.3m. Mineralised wood in the socket of the head is of ash (*Fraxinus* sp.) from mature timber, and mineralised traces in the ferrule socket suggest a possible surface coating on the wood, perhaps of paint or a varnish.

Mineralisation has preserved the remains of feathers (Pl. XXIV) on the underside of the head, suggesting the former existence of a **pillow**. The feather shafts, 15–25mm long, are slightly curved but are too poorly preserved to enable the genus to be identified. Prof. C Perrins (Dept. Zoology, University of Oxford) considered them to be consistent in size and shape with those from the body parts of birds comparable in size to a chicken or duck.

Some fine mineralised threads lie across the spear shaft end. On the upper side, for 90mm along the metal, mineralised textile (d) is preserved, the widest patch 20mm with spin Z/Z, thread twist medium to loose, weave probably twill; thread count in one system ?10, the other deteriorated, ?7–8. Its general appearance suggests (a) on sword *G*, but it is probably another finer twill wrapping the spears.

Spear (ii), length 90mm (Swanton F1), preserves mineralised wood, possibly hazel (*Corylus* sp.) in the socket and the remains of an adjacent spear shaft on the outside of the head. Textile survives in a mineralised area 60 × 15mm, spin Z/Z, threads

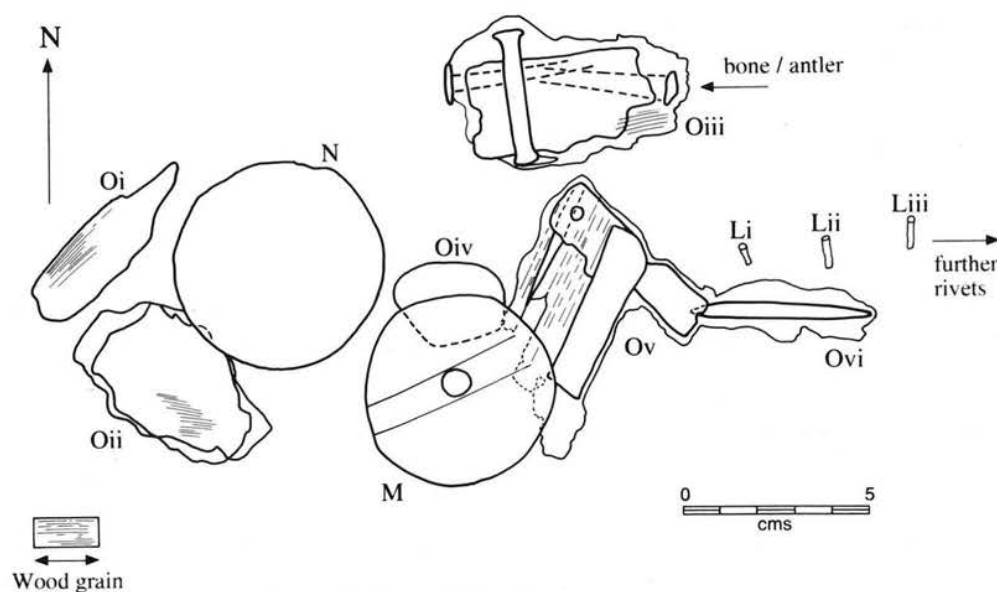


Figure 77 Grave 47, detail of grave-goods. Scale 1:2

medium to loose twist, ?(d) twill very similar to that on spear (i) but one thread system badly decayed; a small fine fragment is possibly only the fibre side of leather.

Spear (iii), length c.107mm, a pair with (ii) (Swanton F1), preserves mineralised hazel wood (*Corylus* sp.) in the socket and areas of possible textile. Textile remains in the soil from round the spearheads and shafts. Twisted threads from a damaged weave, ?(d), are scattered over an area c.20 × 30mm; coarse threads, medium twist, occasionally lying in pairs suggesting a twill weave. No count is possible. (e), a small area, 9 × 17mm, is clear among scattered scraps on wood from the shafts, showing ten threads, S-spun, medium twist, lying closely side by side. There are possible traces of a cross-system, also S-spun, spaced c.5mm apart, in one place passing over two of the ?warps, suggesting that this may be the remains of a tape or braid going round the shaft. Another scrap, detached, is shaped as if to curl round an edge. A loose sample from the grave, c.15 × 13mm, again shows seven S-spun threads. [1914]

- E: Fe **nail**, head diameter 16mm, found within the boat stain preserving mineralised traces of oak (*Quercus* sp.). The nail pierces a tangential surface and seems to have been positioned in the side of the boat. The nail head preserves mineralised stems or roots. [1907]
- F: Wooden **stave bucket** of flat sawn yew planks (*Taxus* sp.) bound by three Fe hoops with a twisted Fe handle. Mineralisation had preserved *pinnae* of bracken (*P. aquilinum*) on all three hoops, especially on the upper two. The bucket appeared to have been forced into the natural, most probably at burial, because the bottom hoop straddled the edge of the grave cut. Post-depositional forces are unlikely to have pushed the bucket so far laterally into natural so the bucket was probably rammed snugly into the grave edge, which might also account for the bucket hoops later slumping into the grave cut. Original height c.0.46m, diameter 0.53m. [1822–1824]

- G: Fe **sword** with two-edged pattern-welded blade and horn grip, within a mineral-preserved scabbard, total length c.0.924m. The scabbard had a leather covering, over willow (*Salix* sp.) or poplar (*Populus* sp.) stiffening sheets with a longitudinal radial surface orientation. Its length is unknown as it is incomplete; width 62mm, total thickness of extant remains 17mm. Two wooden plates, hollowed to a thickness of 2.5mm at the central axis, 1.5mm at the edges, enclose the blade. They are lenticulate in cross-section. The wooden scabbard edges survive in two lengths, 60mm on one, 27mm on the other, marked 1.5mm in from one edge with a scribe or similar tool. The consistent thinness of the wood and the neatness of its edges attest a level of precision in Anglo-Saxon scabbard manufacture which has only recently been recognised (c.f. Schiek 1992, tafel 35). Similar signs of carpentry practice are a feature of wooden debris from the scabbard of an unpublished 6th/7th-century sword from grave 91, Mill Hill, Deal, Kent. A hairy animal skin, cut to the dimensions of the sword blade, lined each scabbard side, hair innermost against the sword blade. This technique was designed to accommodate the pelt in a confined space and was a common practice in scabbard construction of the Early Medieval period. The hair fibres, short and densely grown, were too encrusted for identification. The scabbard was originally covered with leather but only a few small fragments survive, insufficiently preserved to identify the genus. A 10 square mm area shows a wrinkled effect, the cause of which is not at present understood. Unusually, the scabbard mouth is reinforced with an incomplete wooden binding, the grain direction transverse; metal fittings, binding tapes or cords occur more frequently. Another wooden example, in Maidstone Museum (cat. KAS 827), belongs to a scabbard known to come from the cemeteries of Sarre or Bifrons in Kent. A thin willow wood belt from Buckland, Dover (grave 20) provides further evidence for the use of flexible wooden strips in the 6th and 7th centuries AD. The sword had broken

into three pieces by corrosion whilst still in the ground. The uniquely well-preserved sword grip is presumed to be of cattle horn and was moulded with individual finger recesses (Cameron and Filmer-Sankey 1993).

Along the blade for 210mm, an area shows patches of two mineralised textiles: (a) in crumpled folds, the widest area c.45mm, of a very coarse weave, spin probably all Z/Z with thread twist loose to medium; weave 2/2 twill, variable, thread count 7/6 on 10mm. (b) is in patches further up the blade, the best c.18 × 22mm. This may be more of (a) but seems noticeably coarser. It is again Z/Z spin, weave 2/2 twill, with thread count 5/5 on 10mm. One lump has a visible coarse knot which includes one S-spun thread. (c); other fragments mineralised round the tip of the blade, and in a double layer or fold may include part of the scabbard; these show finer layers underneath, coming up round the sword hilt. Other mineralised areas again suggest fine scraps, the best lengths c.80 and 50mm, lying in folds, apparently a fine tabby weave but not clear under microscope examination. The textile is not related to the scabbard's construction but may have been burial wrappings for the weapon. There is no indication of the means by which the scabbard was suspended although buckle *J* was found midway along the blade's length. [1939]

- H: Fe **knife** with horn handle, length 102mm, tucked into or attached to belt *J*. The blade is enclosed in a leather sheath 1.5mm thick, folded over the blade back. It is joined along the cutting edge and overlaps the handle junction by 8mm. Part of the seamed edge survives as a 13mm sinuous line running from the blade tip; further along the blade edge, a 5mm thick length of thong is embedded in the seam. A mineralised lump of **textile** (g) was preserved immediately adjacent along one side; above, an edge curls up from a woven ?tape, width 8mm, simple selvages, spinning Z/Z, very even. Thread twist medium to loose, a fine tabby weave, thread count c.32/22–24 on 10mm. Underneath this is another tabby fragment, possibly the same but it looks coarser. The appearance of both suggests flax. Underneath both are traces of a coarser weave, Z/Z-spun threads with loose twist, probably 2/2 twill, ?(d). [1954, 1955/2076]
- I: Fragment of loop-headed Fe **pin**, length 20mm, probably of round cross-section, possibly a buckle tongue. Attached is mineralised macroflora mostly of feathers (strays from the pillow associated with *Bi*?). [1956]
- J: Ae **buckle loop** and **plate** shattered by decuprification whilst in the ground. No pin survives and the fragility of the piece has meant that only the loop, width 10mm, could be illustrated. [2078]
- K: A large stone of quartzite with slight bruising on the edges, possibly representing a **maul**. This identification is perhaps strengthened by the general lack of large stones occurring naturally on the site (*not illus.*). [1819]
- L: Large **comb** associated with object complex *M, N, O*, represented by seven surviving Fe rivets, each 6 to 8mm long, which preserve three sections (c.3mm thick) of mineralised antler, presumably the comb's component plates. A radiograph of the block from which the rivets were extracted seems to show a

curved back suggesting that the comb was single-sided and approximately 130mm long. Rivet (ii) has a piece of mineral-preserved horn from an adjacent object on the head; (iii) has a thin platelet of a tabby weave across its base. Rivets (vi) and (vii) have fibres lying across their tops, not twisted into a yarn. They were identified by Anna Cselik as of sheep/goat or horse body hair, and may belong to an object that the comb was lying on, or under. Rivet (vii) also has a sliver of wood associated, possibly ash (*Fraxinus* sp.) that could have been from a possible **container** for the comb and objects *M, N* and *O*. Poorly-preserved oak wood (*Quercus* sp.) with a tangential surface associated with the line of rivets probably represents the floor of the boat although there might also have been a box in the area. [1950]

- M: Pottery **spindle-whorl**, diameter 51mm, made from the wall of a pot, of an even, well fired grey-brown fabric with a few sand grains. The interior and exterior surfaces are a dark grey-brown, with crazed surfaces. There is no sign of burnishing. The edges are uneven and irregular but well smoothed. The fabric appears to be Anglo-Saxon. Associated with *L, N, O*. [1952]
- N: The footring and very base of a **Roman greyware pot**, diameter 57mm, of a well fired even light grey sandy fabric, wheel-thrown with smoothed under-surface to the footring. The upper edges that form the base of the bowl are well clipped down to form a rough circular shape. It was found footring down. Associated with objects *L, M, O*. [1953]
- O: A **complex** of objects (i–vi) (see 1: 2 detail, Fig. 77) contained within several layers of dark organic staining. Many pieces are mineralised but are difficult to differentiate by material even after conservation. (i) and (ii) are confirmed by SEM as of leather, consisting possibly of three layers. (i) contains an iron fragment, (i) and (ii) wood and possibly textile. (iii) is also an agglomeration of iron and organic material, mainly wood, including beech (*Fagus* sp.) and fleece. A patch of mineralised textile (f) is associated, c.25 × 30mm, with fine threads, Z/Z-spun, loose twist, even tabby weave, thread count 15/16 threads on 10mm. A radiograph shows three iron components. First is a fragment of a plate or band, width 22mm, embedded in wood. A rivet, 35mm long and 5mm wide with two flattened terminals passes through the complex N–S and finally an iron nail, barely traceable, extends E–W. A small peg, possibly of bone/antler, 9mm in diameter at the head and 38mm long, was also revealed. (iv) is a sliver of horn preserved as a black substance, beneath spindle whorl *M*, in a layer 1–2mm thick. Piece (v) is another agglomeration that contains wood and iron fittings. The longer of two iron strips lay beneath the spindle whorl *M* at one end. There were possible textile fibres at one end of the wood nearest the iron, and animal fibres lay on a small platelet of iron corrosion (perhaps similar to those seen on one of the rivets to comb *L*?). The block included two iron tools, an awl with a hazel (*Corylus* sp.) handle and a tool with a handle probably of beech (*Fagus* sp.). (vi), length 50mm, is a small iron awl with a mineral-preserved handle, probably of willow (*Salix* sp.) or poplar (*Populus* sp.), made from a branch (as the pith is present), mounted centrally on the tang. The

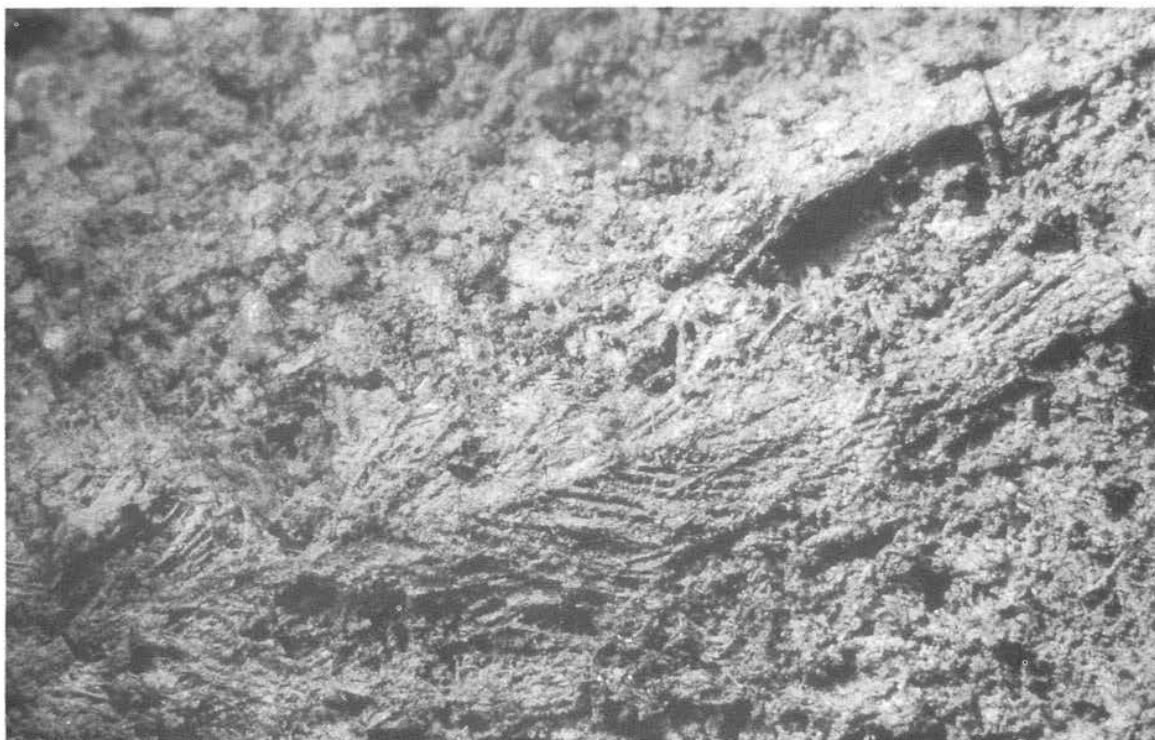


Plate XXIV Grave 47, mineralised feather on spearhead *Di*



Plate XXV Grave 47, possible animal offering *Q* on organic layer 1827



Plate XXVI Grave 47 upper grave fill with logboat bow stain emerging to west (right) with organic layers 1826 and 1827 to east (left). Note division of the soil fill colours



Plate XXVII Grave 47 at excavation level 14. The spear bundle is emerging to the west (right) as is horse tack fragment *R* to its north (below)

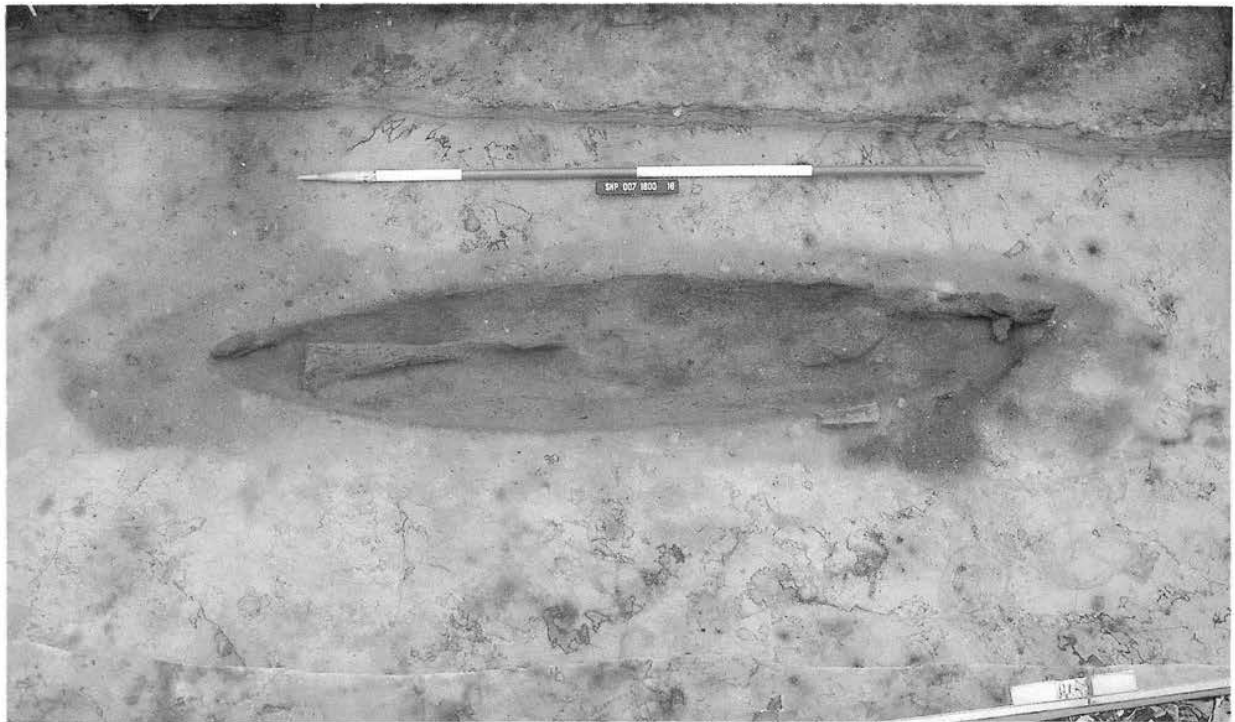


Plate XXVIII Grave 47 fully excavated. Sword *G* at centre, spear bundle *D* to west (right) and object *P* to the east (left)



Plate XXIX Section through Grave 47, looking west, midway between section K and M shown in Figure 76. In centre of boat is ?wood object *P*, to the right comb *L* rivets are being isolated for extraction as a block

outer surface is flattened and has traces of spun yarn, mineralised antler (from the comb) and horn.

The group is most curious and difficult to make much sense of as a whole. Some pieces are possibly fittings to some form of a container, perhaps a rectangular wooden box that also contained items *L*, *M* and *N*. (*i and iv not illus.*) [1951]

- P: Wooden **object** at grave base, with some charred wood, one deriving from ash (*Fraxinus* sp.) and two of maple (*Acer* sp.). This was initially interpreted as a paddle but the charcoal could make it another example of an inclusion of charred wood. (*not illus.*) [1936]

- Q: Body stain interpreted as an **animal offering**, resting on organic layer 1827 (Pl. XXV). It is likely that the organic layer was of textile like the other spread, 1826, immediately to the east. The body stain was seen in two spits, best at the second level. The overall plan suggests a complete animal rather than a joint of meat. (*not illus.*) [1825]

- R: **Strap connector**, length c.60mm, forming part of the horse tack *T* and *U* associated with the horse skull. The piece consists of two interconnected Fe rings, the ends beaten into flattened plates, each pair clasping mineralised leather from straps, secured by three Ae rivets. [1915]

- S: **Horse's head** (*Equus caballus*) recovered at the surface level of the grave north-west corner. The bone had been damaged by ploughing and parts had begun to form a body stain. Ploughing had scattered bone and the tack *U* around the immediate area. The head is associated with the boat grave through the tack fragments *U* found at the surface and *B* and *R* found within the grave fill. The upper skull had been mostly destroyed, leaving only the roof of the mouth, maxillary teeth and mandible, still clenched around bit *T*. From the cheek teeth, the horse was probably an old individual at death, at some 20–30 years and was rather small in stature, probably a pony; its canine teeth show it to have been a stallion. A full discussion is contained in Chapter 5 section IX. Bone from the

skull was radiocarbon dated to cal AD 430–670 at 2 σ (GU-5233; 1460 \pm 70BP). [1773, 1774, 1778, 1787, 1789]

- T: Fe two-link **snaffle bit** found *in situ* between the jaws of horse head *S*. It is now broken in two (i and ii). Fragment (ii) has a second ring corroded together with the cheek ring, not apparently fixed by any metal hook or riveted plate. This may possibly have been attached originally by means of only organic loops to the cheek ring. Diameter of cheek rings c.62mm. [1783, 1784]

- U: Scattered Ae and Fe fragments of **horse harness tack** (i–xiii). The fragments are all small, typically broken, and apparently removed from their original position by ploughing. The fragments are characterised by being parts of thin Fe strips or plates, sandwiching leather strap elements, secured by two or three simple Ae rivets (i–x). One fragment (xi) has a 10mm diameter circular mark, apparently the void of a larger-sized rivet head with a 3.5mm diameter shaft, which might have acted as an anchor for additional support or was perhaps a repair.

Two other fitting types, again found scattered loose around the horse skull, were (xii), an Fe figure-of-eight hook with two Fe D-loops for fixing straps, and (xiii), an Ae plate, broken so that just over half survives of what was apparently a symmetrically arranged piece (surviving length 40mm). As it remains, the plate has a rounded end, and an end that steps in, then out, ending with two prongs. This may originally have been the edge of rectangular slot, mirroring that which survives. A rivet at each end of the piece suggests that it was probably originally placed or used lengthways. XRF shows it to be copper alloy with tin and lead, the latter two enhanced on the coated surface at the front. The reverse is clearly scoured by file marks. Other fragments of the harness, *B* and *R*, were found within the boat itself, to the south. All fragments except (xiii) are drawn from X-rays. [1773, 1776, 1778, 1786, 1788, 1790]

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|----------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Annular brooch | | × | | | × | | | × | | | × | | | × | | × | | | | | | | | |
| Penannular brooch | | | | | | | | | | | | | | | | | | | | | | | | |
| Small-long brooch | | | | | | | | | | | | | | × | | | | | × | | | | | |
| Cruciform brooch | | | | | | | | | | × | | | | × | | × | | | | | | | | |
| Pins | | | | | | | | | | | × | | | | | | | | | | | | | |
| Beads: glass | | × | | | | | | × | | × | × | | | × | | × | | | | | | | | |
| amber | | × | | | × | | | × | | × | × | | | × | | × | | | × | | | | | |
| crystal | | | | | | | | | | × | | | | | | × | | | | | | | | |
| other | | | | | | | | | | | × | | | | | | | | × | | | | | |
| Pendant spacer | | | | | | | | | | | | | | | | | | | | | | | | |
| Loop/collar/bead fastening | | × | | | | | | | | | × | | | | | × | | | | | | | | |
| Wrist clasps | | | | | × | | | | | × | | | | | | × | | | | | | | | |
| Spindle whorl | | | | | | | | | | | | | | | | | | | | | | | | |
| Tweezers | | | | | | | | | | | | | | | | | | × | | | | | | |
| Knife | | × | × | × | × | × | | × | × | × | × | | | | | × | × | × | × | × | × | × | | |
| Knife ring | | × | | | | | | × | | × | | | | | | × | | × | × | | | | | |
| Buckle | | | × | × | × | | × | | | | × | | | | | | | × | × | | | × | | |
| Belt-plate/belt fittings | | | | × | | | | | | | | | | | | | | | | × | × | | | |
| Strap-end | | | | | | | | | | | | | | | | | | | | × | | | | |
| Drinking vessel | | | | × | | | | | | | | | | | | | | × | | | | | | |
| Ae bound vessel | | | | | | | | | × | | | | | | | | | | | | | | | |
| Fe bound bucket | | | | | | | | | | | | | | | | | | | | | | | | |
| Pottery vessel | | × | | | × | × | × | | | | | | | × | | | | | | | | | | |
| Sword | | | | | | | | | | | | | | | | | | | | | | | | |
| Shield boss | | | × | | | × | | | | | | | | | | | | | | | | × | | |
| Shield studs | | | × | | | | | | | | | | | | | | | | | | | | | |
| Shield grip | | | × | | | | | | | | | | | | | | | | | | | × | | |
| Spearhead | × | | × | | | × | | | | | | | | | | | | × | | × | × | | | |
| Spear ferrule | | | × | | | | | | | | | | | | | | | | | | | | | |
| Lyre | | | | | | | | | | | | | | | | | | | | | | | | |
| Awl | | | | | | | | | | | | | | | | | | | | | | | | |
| Animal offering | | | | | | | | | | | | | | | | | | | | | | | | |
| Staples/nails | | | | | | | | | | | | | | | | | | | | | | | | |
| Glass claw beaker | × | | | | | | | | | | | | | | | | | | | | | | | |
| Finger ring | × | | | | | | | | | | | | | | | | | | | | | | | |
| Strike-a-light and steels | | | | | | | | | | | | | | | | | | | | | | | | |
| Box/casket | | | | | | | | | | | | | | | | | | | | | | | | |
| Miscellaneous metal | | | | | | | | | | | | | | | | | | | | | | × | | |
| Comb | | | | | | | | | | | | | | | | | | | | | | | | |
| Sherds | | | | × | × | × | | | | | | | | | | × | | | | × | | | | |
| Textile/leather | × | | | | | | | | | | | | | | | | | | | × | | | | |
| Miscellaneous glass | × | | | | | | | | | | | | | | | | | | | | | | | |
| Unidentified object | × | × | | | | | | | | | | × | | | | | | | | × | | | | |
| Horse tack | | | | | | | | | | | | | | | | | | | | | | | | |

Table 1 Grave-goods from inhumations

| 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------------------------|
| | | | × | | | | | | | | | | | | | | | | | | | | Annular brooch |
| | | | | | | | | | | | | | | | | | | | | | | | Penannular brooch |
| | | | | | | | | | | | | | | | | | | | | | | | Small-long brooch |
| | | | | | | | | | | | | | | | | | | | | | | | Cruciform brooch |
| | | × | | | | × | | | | | | | | | | | | | | | × | | Pins |
| | | | × | | | | | | | | | | | | | | | | | | | | Beads: glass |
| | | × | × | | | | | | | | | | | | | | | | | | | | amber |
| | | | | | | | | | | | | | | | | | | | | | | | crystal |
| | | | | | | | | | | | | | | | × | | | | | | | | other |
| | | × | | | | | | | | | | | | | | | | | | | | | Pendant spacer |
| | | | | | | | | | | | | | | | | | | | | | | | Loop/collar/bead fastening |
| | | | | | | | | | | | | | | | | | | | | | | | Wrist clasps |
| | | | | | | | | | | | | | | | | | | | | | | × | Spindle whorl |
| | | | | | | | | | | | | | | | | | | | | | | | Tweezers |
| × | | × | | | | × | × | | | | × | × | × | | × | × | | × | | × | | × | Knife |
| | | | | | | | | | | | | | | | | | | | | | | | Knife ring |
| × | | × | | | | × | × | | | | × | | | | × | | | × | | | | × | Buckle |
| × | | | × | | | | | | | | × | | | | | | | | | | | | Belt-plate/belt fittings |
| | | | | | | | | | | | | | | | | | | | | | | | Strap-end |
| | | | | | | | | | | | | | | | | | | | | | | | Drinking vessel |
| | | | | | | | × | | | | | | | | | | | | | | | | Ae bound vessel |
| | | | × | | | | | | | | | | | | | | | | | | | × | Fe bound bucket |
| | | | | | | | | | | | | | | | | | | | | | | | Pottery vessel |
| | | | | | | | | | | | | | | | | | | | | | | × | Sword |
| | | | | | | | × | | | | | | | | | | | | | | | × | Shield boss |
| | | | | | | | × | | | | | | | | | | | | | | | × | Shield studs |
| | | | | | | | × | | | | | | | | | | | | | | | × | Shield grip |
| | | | | | | × | × | | | | × | × | | | | | | | | | × | | Spearhead |
| | | | | | | | × | | | | | | | | | | | | | | | × | Spear ferrule |
| | | | | | | | × | | | | | | | | | | | | | | | | Lyre |
| | | | | | | | | | | | | | | | | | | | | | | × | Awl |
| | | | | | | | | | | | | | | | | | | | | | | × | Animal offering |
| | | | | | | | | | | | | × | × | | | | | | | | | × | Staples/nails |
| | | | | | | | | | | | | | | | | | | | | | | | Glass claw beaker |
| | | | | | | | | | | | | | | | | | | | | | | | Finger ring |
| | | | | | | × | × | | | | | | | | | | | | | | | | Strike-a-light and steels |
| | | | | | | | | | | | | | | | | | | × | | | | × | Box/casket |
| | | | | | | | × | | | | | | × | | | | | | | | | × | Miscellaneous metal |
| | | | | | | | | | | | | | | | | | | | | | | × | Comb |
| × | | | × | | | | | × | | | | | | | × | | | | | | | × | Sherds |
| | | | | | | | | | | | | × | | | | × | | | | | × | | Textile/leather |
| | | | | | | | | | | | | | | | | | | | | | | | Miscellaneous glass |
| | | | | | | | | | | | × | | | | | | | | | | | × | Unidentified object |
| | | | | | | | | | | | | | | | | | | | | | | × | Horse tack |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | |

| Grave | Sex | OP | Object | Position on object | Measurement | Fibre | Dye | Spin | Weave | Thread Count | Comments |
|-------|-----|----------------|---|--|----------------------------------|------------------------|------------------------|-------------------|-------------------------------------|--------------------------------------|--|
| 2 | F | 0940 1254-9 | Ae link? Teeth | round metal traces and fragments jammed round | - 10x8 | min. unident. | - n.d.d. | Z or Z-ply Z/S | threads not clear | fine - | - |
| | | 1261 | B, detached | loose (a) | 13x9 | wool | ?pigment n.d.d. | Z/S | 2/2 twill | 10/10 | loose spin |
| | | 1262 | C, chain, ?beads | patches | - | min. | - | Z | not clear | - | fine |
| | | 1267 | D, annular brooch | underneath (b) | 10x10 | det. | n.d.d. | Z/Z | 2/2 twill | est. 13/10 | with skin (?) |
| | | 1268 | E, annular brooch | above (a) | traces | - | - | Z/S | 2/2 twill | est. 6/5 5mm | dark brown loose twist |
| | | | other side (b) | 18x10 | det. | n.d.d. | - | Z/Z | 2/2 twill | c.10/12 and 6/7 on 5mm | even spin, fine thread and strip 14x 9 |
| | | 1272, 1274 | F, knife and Cu alloy ring | under half, area (a) nearer ring (b) | width 25mm c.15x10 exposed | ?wool ?wool | n.d.d. n.d.d. | Z/S Z/Z | 2/2 twill 2/2 twill | 15/12 7/9 on 5mm | 2 layers, reddish and dark brown loose spin, finer |
| | | | under ring (c) | - | - | ?wool | n.d.d. no pigment | - | - | - | fine fibres, not hair |
| | | | from (a) over ring other side of ring patches | width 5.5 L.20mm | leather min. | - | - | - | - | - | ?strap of bag loose |
| | | 1280 | F, knife | sheath fragment (d) | 13x12 | min. | - | one Z/S | - | c.15/13 | traces wood, leather, threads appearance flax |
| 3 | M | 0777 0954 | A, spearhead C, Cu alloy buckle | patch, ferrule underneath (a) pin, next to metal (b) | 20x9 30x38 32x22 | min. ?wool ?wool | - n.d.d. n.d.d. | Z/Z Z/Z Z/Z | 2/2 twill 2/2 twill 2/2 twill | c.7/6-7 c.8 on 5mm 12-14/12-14 | damaged, thread missing; thread diam c.1mm fine, loose spin even spin, weave |
| 4 | J | 0960 1001 | B, Fe buckle C, Fe stud, wood ?box | all over inside ring top and edge | 9x9 - | min. min. | - - | Z/S Z/- | 2/2 twill - | - - | very fine, damaged damaged textile underneath, leather |
| 5 | F | 0696 | A, annular brooch L, shoulder | top of brooch (a) under (a), ?(b) | 13x10, 30x13 27x12 | wool wool | indigotin n.d.d. | Z/Z Z/Z | 2/2 twill 2/2 twill | 10/10, 10/8-9 10/8 | 3 folds round ?surface raised |
| | | 0753 | B, annular brooch R, shoulder | under (a) under (b) | 55x35 15x10 | wool wool | n.d.d. ?tannins | Z/Z Z/Z | tubular selvedge 2/2 twill | 11-12 warps 10/10 | damaged folds over pin |
| | | 0737 | C, wrist clasp | detached (c) | 35x8 | wool | n.d.d. | Z/Z-ply | 2/2 twill | 12/6-8 | folds under pin |
| | | 0699 | D, wrist clasp | fragments edge sewn, S-ply (c) | 13x30 14x45 | hair wool | pigmented pigmented | - Z/Z-ply | pattern, wrapped tablet braid | 10-12/12 cords 6 5mm | cords S; edge guilloche plat sewn, underside to sleeve |
| | | 0751 | E, buckle: waist | (a) or (b) area above ?(a) adhering (d) | - 38x35 3x3 | wool wool | - n.d.d. | Z/Z Z/Z | 2/2 twill 2/2 twill | - 8-9/8 | fragmentary with ?leather |
| | | 0845 | G, knife | detached (a) or (b) | 13x5 | hair or silk min. | - | unspun Z/Z | ?tabby twill | 3/c.24 in 3mm | ?warp bundles threads |

| Grave | Sex | OP | Object | Position on object | Measurement | Fibre | Dye | Spin | Weave | Thread Count | Comments |
|-------|-----|------|-----------------------------|---|-----------------------------|---------------------------|----------------------------|-----------------------------------|---|---|---|
| 6 | M | 0779 | D, knife | end blade, near hilt | 10x13, 5x5 | min. | - | - | ?twill | fine | underside, leather |
| 7 | ? | 0990 | B, textile | lump | 16x15 | min. | - | Z/Z | 2/2 twill | 9/10 on 7mm | loose spine, even weave |
| 8 | F | 0848 | A, annular brooch | front, over bone (a) and under pin | 18x10 10x6 | wool | - | Z/Z | 2/2 twill | 10/8 | loose weave |
| | | | | under, protruding (b) through beads (c) | L. 9mm L. 19mm | semi-min. | - | Z, S-ply | 4-whip cord threads | - | fastened to (a) by thread |
| | | 0849 | D, knife | along ring; detached (a) | 30x15, 12x11 | - | - | Z, S-ply | ?twill | (3) | - |
| | | 0851 | C, annular brooch | above, and under pin (a) under (a), (d) | 26x24, 45x13 5x6 | wool min. | n.d.d. | Z/Z | 2/2 twill | 10/8 | loose twist; ?all same weave |
| 9 | ? | 0661 | A, wood bowl | on Cu rim | - | min. | - | Z | ?string | - | traces |
| | | 0847 | scraps from 0661 | loose on metal and wood | 20x18 c.23x20 | wool | n.d.d. | Z/Z | 2/2 twill | c.6/6 | loose twist, striped light and dark threads |
| 10 | F | 0810 | G, knife and ring | on both sides (a) (b) | 8x5 31x13, 22x10 | min. | - | Z/S | 2/2 twill | 10/11 | loose spin and weave |
| | | 0811 | E, wrist clasp | underside (c) | 6x3.5 | min. | - | Z/Z, S-ply | 2/2 twill | c.10/11 | no reverses |
| | | 0812 | F, wrist clasp | front (c) | 12x25 | wool | n.d.d. | Z/Z, S-ply | tablet weave | 16/16 | decayed. Sewing, hole, S-ply thread |
| | | | | | | | | | 4-hole | | Cords, 12-13S, 1Z, 1S, pattern as on 0699, grave 5 |
| | | | | | | hair | | | wrapped pattern | (8 on 5mm) | |
| | | 0816 | B, cruciform brooch (large) | detached (b) under front (d) | - 25x23 | ?wool min. | - | Z/Z | twill | - | medium, confused |
| | | | | | | | | | tabby | 16/14-16 (8/7-8 5mm) | tight folds, tucked under catch |
| | | | | under (d) (b) | 35x18 | min. | - | Z/Z | 2/2 twill | - | fine |
| | | | | on detached knob (d) | 20x18 | min. | - | Z/Z | tabby | 16/17 | even |
| | | 0817 | A, cruciform brooch (small) | on bone, back of head (b) | 34x30 | wool | - | Z/Z | 2/2 twill | 9-10/12 | very even spin, weave, no reverses |
| | | 0818 | C, cruciform brooch (small) | front, head and behind (b) front (b) area against cross | 52x35 40x40 | min. animal | - | Z/Z | 2/2 twill | 12/12 | layers, deteriorated, no reverses |
| | | | | | | | | | ?border | 12-14/12 | all down back patches |
| 11 | F | 0820 | B, detached | ?from brooches (d) | - | min. ?flax | - | Z/Z | tabby | 17-18/16 | folded; even spin, weave; thread diam 0.3mm |
| | | 1341 | A, annular brooch (frags) | under ring, pin (a) D (with bones) | 20x14 | und. | n.d.d. | Z/Z | 2/2 twill | 12/9 | coarse fibres, loose spin |
| | | | | G detached (b) ?wrapped around | 11x7 | animal ?wool | n.d.d. | Z/Z | ?tabby | c.8/6 | hard thread, tight twist |
| 14 | F | 0735 | C, annular brooch (small) | on back (a) and to front (a) protruding (c) detached (d) | 13x16 9x8 - 25x2-3 | min. wool - wool | - n.d.d. - n.d.d. | Z/Z Z/Z Z, S-ply Z/S-ply | - 2/2 twill thread tablet 4-hole | - c.14/12 - est. 10 cords/ 16 wefts | - fine, even spin ?from beads 8 weft loops visible |

| <i>Grave</i> | <i>Sex</i> | <i>OP</i> | <i>Object</i> | <i>Position on object</i> | <i>Measurement</i> | <i>Fibre</i> | <i>Dye</i> | <i>Spin</i> | <i>Weave</i> | <i>Thread Count</i> | <i>Comments</i> |
|----------------|------------|-----------|----------------------------------|--|--|-------------------------------------|--|--|--|---|---|
| 14 (cont'd) | F | 0783 | B, small-long brooch | front plate (a) below bridge (c) detached (b) ?from above ?(a) | 9x12 - 25x23 13x7 | semi-min. semi-min. det. - | - - n.d.d. light brown | Z/Z Z or S, Z-ply Z/S no spin Z,S ply | 2/2 twill threads 2/2 twill - | c.8/8 - 8-10/8 - | loose, pulled diagonally coarse, bound round - folded fibres |
| 16 | F | 1282 | C, cruciform brooch | head end (a) under (a) 2 layers (b) border (b) (c) | 45x30 90x90 width 8mm | wool wool wool | n.d.d. indigotin & yellow (alkanet) as above | Z/Z Z/Z Z/Z | ?2/2 twill 2/2 twill tablet, 4-hole | c.9/9 c.10-11/8-10 6 cords/8-9 | open weave, distorted finer threads S,Z,S,Z,S,Z |
| 1283 | | | D, I pair annular | layers on top and pins (b) | 35x13 | wool | as above | Z/Z | 2/2 twill | 10/10 | thread medium twist; layers |
| 1284 | | | B, I brooches | detached (c) | - | wool | as above | Z/S-ply | tablet cords, 4-hole | - | loose in block |
| 1125 | | | H, I pair wrist | area under plate (b) | 40x22 | wool | n.d.d. | Z/Z | 2/2 twill | 12/11 | medium spin, folded double |
| 1127 | | | G, I clasps | behind broken clasp (d) | 13x14 | wool | n.d.d. | Z, S-ply/Z | tablet braid 4-hole | 10 cords on 9mm | fine reddish (sewing threads seen by KW) |
| 18 | M | 0776 | B, knife | on blade other side, hilt | 20x20 7x7 | min. min. | - - | Z/Z Z/? | 2/2 twill - | 7-8/8 8/8 on 7mm | even, tight spin weave not clear |
| 19 | F | 1223 | C, knife, ring | both sides blade | - | det. | - | ?Z | ?will | - | with wood, badly damaged |
| 1224 | | | D, small-long brooch | top of brooch (a) and sample E | L.40mm 10x6 | hemp | undyed | Z/Z | tabby | 11-12/14 | loose twist even spin and weave |
| 1225 | | | E, small-long brooch and bead | protruding (e) underneath (c) adhering to (c) (b) detached ?(c) detached (c) | L.5mm 25x14 - L. c.25mm L.20mm | ?hemp min. - - wool | undyed see A below - red/purple ?orchil | Z, S-ply Z/Z, S-ply Z/S, Z/Z Z/Z, S-ply Z/Z, S-ply | guilloche plait tablet weave 4-hole twill tablet weave tablet weave | 4 threads 5 cords/6-7 welts on 5mm - - - - 4 hole, 7 cords | as on grave 5 wrist clasp 0737 loose twist, cords S,Z,S,Z,S underneath edge, cords Z,S on twill Z/Z edge, S,S,Z,S,Z,Z |
| 20 | ?M | 0692 | B, buckle | protruding (e) top, strap end (a) on loop (b) detached (b) ?under (a) | - 60x20 14x12 9x8 | - min. min. min. | - - - - | ?Z, S-ply Z/Z Z/S Z/S | guilloche plait 2/2 twill 2/2 twill 2/2 broken diamond twill | 4 ends 11/10 - c.20/18 | folded; thread diam 0.5-0.6mm reverses clear; even spin |

| Grave | Sex | OP | Object | Position on object | Measurement | Fibre | Dye | Spin | Weave | Thread Count | Comments |
|----------------|-----|------|---|--|-------------------|----------|---------------|-------|------------------|---------------------------|---|
| 20 (cont'd) | ?M | 0694 | E, strap end | detached on ?(a) ?leather | 15x10 | wool | - | Z/Z | 2/2 twill | - | even spin, weave |
| | | 0695 | B, ?buckle plate | on pieces ?(a) | 17x15 | det. | - | Z/Z | 2/2 twill | c.12/10 | damaged |
| | | 0675 | D, on wood | detached (c) | 30x13 | wool | unpigmented | Z/Z | 2/2 twill | c.8/8 | thread c.0.75 diam |
| | | 0690 | G, with rivets | small areas ?(a) | 7x7, 12x13 | wool | pigmented | Z/Z | 2/2 twill | - | with leather |
| 21 | M | 1384 | D, buckle (frags) | plate and loop | 10x5 | wool | n.d.d. | Z/Z | 2/2 twill | c.9/8 on 5mm | medium twist, reddish staining |
| | | 1386 | C, knife and stud | under stud, folds | - | wool | n.d.d. | Z/Z | 2/2 twill | c.10/10, 14/14 | medium, pulled blackish stain ?all same weave |
| 25 | M | 0250 | A, belt plate | through rivet hole (a) | 50x27 | wool | n.d.d. | Z/Z | 2/2 twill | 14/14-16 | thread diam 0.8 medium twist |
| | | 0518 | C, knife | below (a) and blade (b) | 85x35 | wool | - | Z/Z | 2/2 twill | 8/6-7 | thread diam 0.6 |
| | | 0251 | B, buckle, plate | on loop, leather; under (a) or (b) | 15x15 | wool | n.d.d. | Z/Z | 2/2 twill | - | folds on loop |
| 27 | F | 1533 | E, Fe buckle | with bone, adhering | - | min. | - | - | - | - | damaged |
| | | 1536 | D, knife | both sides blade, and end | 12x10 | min. | - | Z/Z | 2/2 twill | 9-10/8 | one clear patch; yarn medium-loose |
| | | 1539 | A, Fe pin | along | 5x3 | min. | - | ?Z | ?twill | - | layer, very fine under coarser threads |
| | | 1554 | C, Fe pin | wound round below eye | - | min. | - | Z | threads | - | coarse, loose twist |
| 28 | F | 1537 | C, penannular brooch | junction of pin on back (a) | 24x25 | ?wool | pigment | Z/Z | 2/2 twill | 6/5 on 5mm | dark brown lump |
| | | | | | L. 5mm | wool | n.d.d. | Z/Z | tablet border | 5 cords, 5mm | ?Z,S,Z,S,Z |
| | | | | loose (a) | 10x7 | - | - | Z/Z | 2/2 twill | 10/9 (on 7mm) | - |
| 31 | M | 1548 | E, Fe plate | over one side (b) | - | min. | - | Z/S | ?twill | - | damaged |
| | | 2253 | D, knife | top of blade of 2253 and top of 2273 (a) | c.40x30 | ?wool | - | Z/S | 2/2 twill | 9/8 | dark brown, Z |
| 2254 | | | | patches under (a) lying along 2273 | L.45/26 | ?wool | - | Z/Z | 2/2 twill | 17/12 | yarn loose, S |
| | | | | near point blade 2253 small patch (b) | - | ?wool | - | Z/Z | 2/2 twill | c.17/12, | hard thread, good quality |
| | | | | top surface and patches loop (2a) | c.60x90, 1x20 | ?leather | - | - | - | broken diamond (6 on 5mm) | and threads |
| | | | | under loop (b) | 10x10 | min. | - | Z/S | twill | - | - |
| 32 | M | 2325 | B, fragments of lyre: wood, studs, nail | edge of wood (a) | c.20x15 | animal | n.d.d. | Z/Z | 2/2 twill | est. 8/8-10 | dark brown, Fe patches, open weave |
| | | | nail and pin | broken off | 16x12 | leather | - | - | - | - | - |
| | | 2326 | Ae links | against (b) | c.38x20 | min. | - | Z/Z | tabby | 11-12/7-8 | very open, damaged |
| | | 2327 | wood and studs | top of stud (c) or (a) | 25x15 | wool | n.d.d. | Z/Z | 2/2 twill | - | knot edge; loose coarse loops, curling |
| 2328 | | | | | L. c.15mm | | | Z | ?starting border | - | along edge |
| | | | | | c.35x13 | wool | n.d.d. | Z/S | 2/2 twill | c.14/9-10 | Z finer, no reverse |
| | | | | | c.25x25 | wool | n.d.d. | Z/S | 2/2 twill | - | loose dark thread, ?sewing, insect pupae |
| | | | | | | | | | | | black, decayed leather and/or textile |
| 36 | M | | (on site) over burial | centre area | c.70x70, 2-3 deep | ?leather | - | - | 2/2 twill | 6-8/9 | remains, even weave |
| | | | | overall area (a) above Ae plates | 180x23 | wool | n.d.d. | Z/S | ?broken diamond | - | - |
| 2291 | | | B, Fe knife | under knife (b) | - | - | light, undyed | Z/Z | tabby | - | tiny scraps, traces |
| | | | C, Fe buckle loop | on ring (c) | 20x15 | min. | - | Z-ply | threads | - | wound round |

| Grave | Sex | OP | Object | Position on object | Measurement | Fibre | Dye | Spin | Weave | Thread Count | Comments |
|----------------|----------|-------------------------------|---|---|---|--------------------------------------|--|---|--|--|---|
| 36 (cont'd) | M | 2343 | D, Ae buckle and ring | under buckle (a) across (a) (d) fragments (e) | 15x15 L.20 best 5x3-4 | wool - wool | n.d.d. - n.d.d. | Z/S - Z/Z | 2/2 twill threads tablet, 4-hole | 7-8/8 on 5mm - 12 cords 5mm | variable, loose twist coarse, roots cords Z, S, belt or edge; cut end curled under |
| 2344 2287 | | E, buckle textile | traces (e) detached ?(a) | - 20x15 | min. animal | - (alkane) | - Z/S | - Z/S | tablet cords 2/2 twill, broken diamond | - 10/12 | - diamonds widely spaced |
| 37 | M | - | on site, all over burial | area nearest body (a) L. of head | 380x240 | wool | n.d.d. (alkane) | Z/S, Z | 2/2 twill | 78-9/- | damaged; Z fine |
| | | | samples 7, 8 R. of head (b) | | 4x3, 3x2 300x180 | wool | n.d.d. (alkane) | Z/S, Z Z/Z, S | 2/2 twill 3/1 striped twill, reversing (trippenköper) | 6-9/10 c.7/7 | loose twist, S coarse, ?wp dark ?wft reddish |
| | | | samples 6, 9-10 ?(a) or (c) samples 4, 13 (c) below knife (d) | | 3.5x2, 2.5x3.5 3x2, 3x2 L. c.20mm | - - wool | - - n.d.d. (alkane) | Z/Z Z/Z S, Z-ply/?Z | ?wll ?wll tablet braid or border on (c) | c.9/9 c.9/9 -/-5-6 | blackened scraps, ?cords |
| | | 2278 | B, knife | scraps, ?(c) or (e) | - | - | - | Z/Z | ?wll | 5-6/6-7 | coarse |
| 38 | U | 2212 | B, Fe knife | area blade (a) curved fold (b) ?top of sheath (c) | 25x30 - 10x15 | ?wool - - | (alkane) - - | Z/Z S, Z S | ?2/2 twill ?wll threads | est. 8/9 - 7 on 5mm | dark brown; fine threads, loose weave S and Z irregular coarse fibres, tied round |
| 40 | ?, adult | 1747 | A, Fe knife | near handle round one side (lying across blade) (a) point, other side pommel handle (b) lying against | 9x11 - 13x7 - | min. min. min. replaced | - - - - | Z/Z - - Z/? | tabby - tabby ?tabby | 9/13 - ?9/9 - | ?worsted thread, even wear, ?tape (no edges preserved patches ?leather ?tape, possibly (a) but coarser deteriorated |
| | | 1748, 1762 1761 | B, clay beads D, Fe buckle | covered both sides (c) above pin (d) | - 4x7 | min. min. | - - | Z/? - | ?wll ?wll | - - | fine, surface damaged coarser |
| 41 | U | 1921 | A, textile | fragment, damaged | 30x17 | min. | - | Z/S | 2/2 twill | c.11/12-13 | slightly open weave, yarn medium twist, no reverses |
| 43 | U | 2002 2003 2087, 2088 | sample H ?lining sample I B, knife and buckle | edge of grave (a) ?higher in grave overlying (a) blade edge (b) (c) | - c.30x30 70x15 30x25 15x20 40x40, 40x40 | wool wool wool wool wool | (alkane) (alkane) (alkane) (alkane) (alkane) | Z, S similar Z/Z Z/S Z/S Z/S | ?wll - ?wll 2/2 twill twill 2/2 twill | - - c.8-10/8-10 c.16-18/20 c.5/3-4 16-18/14 | very coarse, loose spin; mixed roots - black, distorted very black ?wft very coarse red-brown |
| | | | detached (e) detached (d) ?(b) detached (e) | | | wool wool wool | (alkane) (alkane) (alkane) | Z/S Z/S Z/S | 2/2 twill 2/2 twill 2/2 twill | c.8-9/8 20/18 | very dark brown crushed layer reddish |
| 45 | M | 1917 | C, Fe traces, textile | detached (layer) ?(d) and (e) (best scrap) | 45x35 11x8 | wool unid. | - n.d.d. | Z/S Z/Z | 2/2 twill | c.10/8 | loose spin, Fe stain |

| Grave | Sex | OP | Object | Position on object | Measurement | Fibre | Dye | Spin | Weave | Thread Count | Comments |
|-------|-----|------|--------------------------------|--|---|--------------------------|----------|------|------------------|--------------|--|
| 47 | M | 1826 | patches, textile | in two layers | best 13x7 | - | (alkane) | Z/Z | ? | c.6 on 5mm? | loose threads, some coarse, variable |
| | | 1939 | G, sword | patches along blade, crumpled folds (a) further up blade (b) top of blade (c) fold on scabbard and hilt under socket and upper blade (d) | area 210mm L. c.45mm wide c.18x22 c.L. 80mm c.L. 50mm c.90mm L. 20mm widest | min. min. min. min. min. | - | Z/Z | 2/2 twill | c.7/6 | threads coarse, loose |
| | | 1914 | D [spearhead i /shaft | | | | - | Z/Z | 2/2 twill | c.5/5 | ?(a) but coarser, knot of S thread fine; in folds feathers and fine like (a) on 1939 but ?wrapping |
| | | | D [spearhead ii | as above (d) | area 60x15 | min. | - | Z/Z | 2/2 twill | decayed | ?with fragment leather sand grains |
| | | | D [spearhead iii | area textile, none clear | - | min. | - | - | - | - | coarse threads |
| | | | D [soil lump from spearheads | damaged ?(d) clear areas, wood from shafts (e) | area 20x30 9x17, 15x13 | min. min. | - | Z/Z | ?will threads, 7 | - | possible tape or braid round shaft |
| | | 1951 | O, unidentified complex, Fe | patch ?(f) | 25x30 | min. | - | Z/Z | tabby | 15/16 | fine threads, loose twist |
| | | 1954 | H, Fe knife, min. lump textile | one side (g) under (g) (f) under (f), (g) ?(d) | width 8mm | min. min. | - | Z/Z | tabby | c.32/22-4 | tape, full width, simple selvedge protruding, coarse, prob. (f) appearance flax |
| | | | | | traces | min. | - | Z/Z | 2/2 twill | - | loose spin ?(d) |

- Notes:
- 1) Measurements in millimetres, thread counts per 10mm unless otherwise stated
 - 2) (a), (b), etc indicate different fabrics present in a grave
 - 3) min. or semi-min. indicates fibres mineralised ('replaced') by metal oxides from grave goods
 - 4) Dye identification by Penelope Walton Rogers (n.d.d. = no dye detected)
 - 5) Fibre identification by Harry Appleyard

Table 2 Catalogue of textiles