

PROCEEDINGS
OF THE
CAMBRIDGE ANTIQUARIAN
SOCIETY

(INCORPORATING THE CAMBS & HUNTS
ARCHAEOLOGICAL SOCIETY)



VOLUME LXVI

JANUARY 1975 TO DECEMBER 1976

IMRAY LAURIE NORIE AND WILSON

1977

PROCEEDINGS OF THE
CAMBRIDGE ANTIQUARIAN SOCIETY
(INCORPORATING THE CAMBS & HUNTS ARCHAEOLOGICAL SOCIETY)

PROCEEDINGS
OF THE
CAMBRIDGE ANTIQUARIAN
SOCIETY

(INCORPORATING THE CAMBS & HUNTS
ARCHAEOLOGICAL SOCIETY)



VOLUME LXVI

JANUARY 1975 TO DECEMBER 1976

IMRAY LAURIE NORIE AND WILSON
1976

Published for the Cambridge Antiquarian Society (incorporating the Cambs and Hunts
Archaeological Society) by Imray Laurie Norie and Wilson Ltd,
Wych House, Saint Ives, Huntingdon

Printed in Great Britain at The Burlington Press, Foxton, Royston, Herts SG8 6SA

CONTENTS

	<i>page</i>
<i>Officers and Council of the Society, 1974–1975</i>	1
<i>Officers and Council of the Society, 1975–1976</i>	
The Excavation of Two Tumuli on Waterhall Farm, Chippenham, Cambridgeshire, 1973 <i>By</i> EDWARD A. MARTIN <i>and</i> C. B. DENSTON	1
Excavations at Stonea, Cambridgeshire: Sites of Neolithic Bronze Age and Roman Periods <i>By</i> T. W. J. POTTER	23
A Romano-Celtic Cult Symbol from Icklingham, Suffolk <i>By</i> MIRANDA J. GREEN	55
A Hoard of Roman Bronze Bowls from Burwell, Cambridgeshire <i>By</i> A. J. GREGORY	63
Excavations at Burwell, Cambridgeshire <i>By</i> DAVID M. BROWNE	81
Anglo-Saxon Finds from Brooke, Norfolk, 1867–1869 <i>By</i> DAVID H. KENNETT	93
Four Anglo-Saxon Pots from West Suffolk <i>By</i> DAVID H. KENNETT	119
The Cambridgeshire Dykes: I. The Devil's Dyke Investigations, 1973 <i>By</i> BRIAN HOPE-TAYLOR	123
II. Bran Ditch – The Burials Reconsidered <i>By</i> DAVID HILL	126
The Study of Anglo-Saxon Architecture since 1770: an Evaluation <i>By</i> M. C. W. HUNTER	129
The Parish Clergy and the Reformation in the Diocese of Ely <i>By</i> FELICITY HEAL	141
Meres and Mills in Willingham and Stretham <i>By</i> K. S. G. HINDE	165
Excavations in Cambridgeshire, 1975 <i>By</i> ALISON TAYLOR	175
Review – V.C.H. Cambridgeshire. Vol. V <i>By</i> DOROTHY M. OWEN	177
<i>Index</i>	181

THE EXCAVATION OF TWO TUMULI ON WATERHALL FARM, CHIPPENHAM, CAMBRIDGESHIRE, 1973

EDWARD A. MARTIN, B.A.

WITH A REPORT ON THE HUMAN BONES BY C. B. DENSTON

SUMMARY

THE two tumuli were investigated in April 1973. Both proved to be of natural origin. Barrow A, however, had five inhumation graves (one with a beaker), and a cremation cut into its summit. The minimum number of individuals interred in Barrow A was possibly five females, three males and three immature individuals.

INTRODUCTION

Two tumuli on Waterhall Farm, Chippenham, Cambs. were investigated in April 1973 by the writer, on behalf of the Department of the Environment, in advance of their destruction by road-works for the Newmarket Bypass. The tumuli lay in a flat ploughed field, between the 50 and 100ft contours, on a chalk sub-soil. Before excavation the tumuli were visible as slight humps in the field, and were the westernmost of a group of about ten similar humps that line the A11 Newmarket to Thetford road, and the Newmarket to Bury St Edmunds railway line. The easternmost mounds of this group were excavated by C. S. Leaf in the 1930s.¹

The two tumuli on Waterhall Farm were the sixth and seventh to be excavated in Chippenham parish, the other five having been excavated by C. S. Leaf in the 1930s.² Ten barrows in the neighbouring parish of Snailwell were excavated by T. C. Lethbridge in the 1940s.³ C. Fox and Earl Cawdor excavated a barrow at Beacon Hill, 4 miles to the north-east in 1923,⁴ G. Briscoe excavated another barrow, Swale's Tumulus, about 3½ miles to the north-east in 1954,⁵ and F. Petersen in 1969 excavated a barrow at Pin Farm, Gazeley, about ¾ miles to the east.⁶ Finally the present writer, in 1973, excavated two barrows at Meddler Stud, Kentford, 2¾ miles to the east.

The eastern of the two Waterhall tumuli, Barrow B (TL 67276676) partly underlay the fence of a water-pumping station, and therefore could not be completely investigated. Trenches across the accessible portions of this very much flattened mound failed, however, to reveal anything. The excavator is of

¹ Leaf, C. S., 'Further excavations in Bronze Age Barrows at Chippenham, Cambs.', *P.C.A.S.*, xxxix, (1939), 33-68.

² Leaf, C. S., 'Two Bronze Age Barrows at Chippenham, Cambs.', *P.C.A.S.*, xxxvi, (1934), 134-42.

³ Lethbridge, T. C., 'The excavation of the Snailwell group of Bronze Age Barrows' *P.C.A.S.*, xliii, (1949).

⁴ Cawdor, The Earl, and Fox, C., 'The Beacon Hill Barrow, Barton Mills, Suffolk', *P.C.A.S.*, xxvi, (1923).

⁵ Briscoe, G., 'Swale's Tumulus: A combined Neolithic A and Bronze Age Barrow at Worlington, Suffolk,' *P.C.A.S.*, 1, (1956), 101-113.

⁶ Petersen, F., in 'Archaeology in Suffolk, 1969', *Proc. Suffolk Inst. of Arch.*, xxxi, pt. 3, (1969).

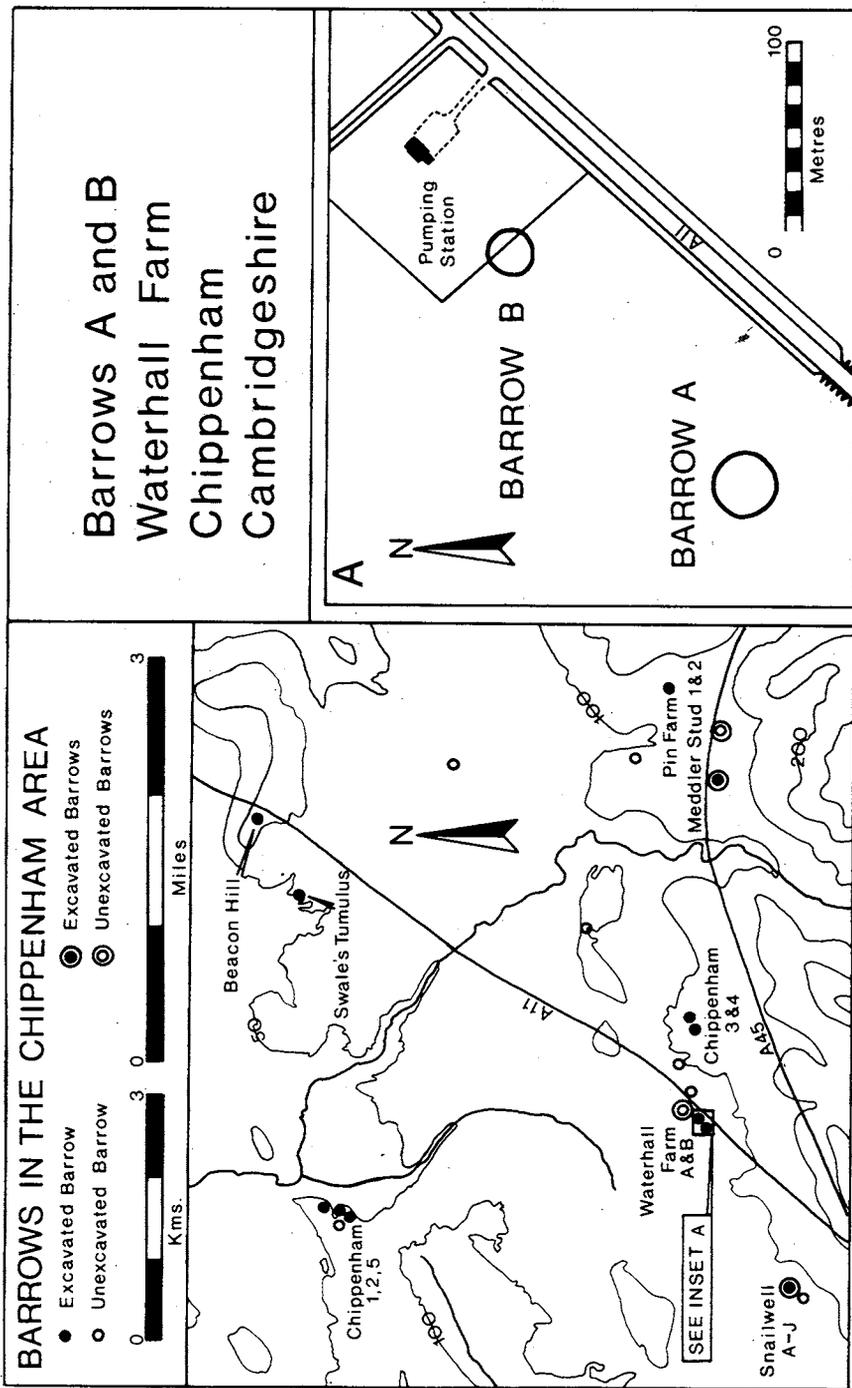


Fig. 1.

the opinion that this 'barrow' was of natural origin. The excavation of the western mound, Barrow A, was more successful and forms the body of this report.

Barrow A

The western tumulus (TL 67176665) lay about 60m from the main Newmarket

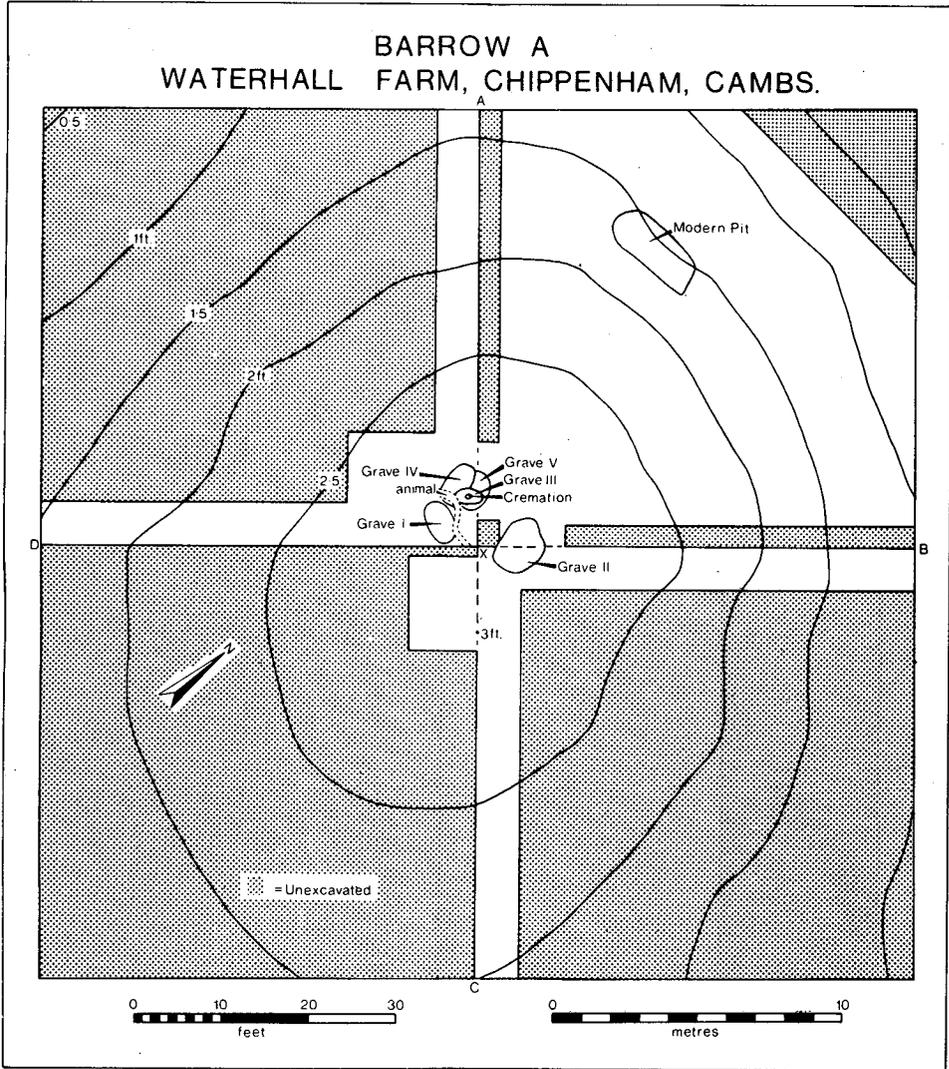


Fig. 2.

to Thetford road, the A11. It had a diameter of approximately 30m (100ft), and rose to a height of 0.9m (3ft) above the level of the surrounding field.

It had been intended to excavate the barrow completely in quadrants; however, after the first quadrant had been cleared it became apparent that the 'barrow' was a natural chalk mound, perhaps of glacial origin, surrounded by blown sand. No attempt appeared to have been made to heighten or shape the mound artificially, though it is just possible that ploughing may have destroyed all traces of artificial modelling. In view of the natural origin of the mound it was decided not to strip the mound completely, the time factor also being

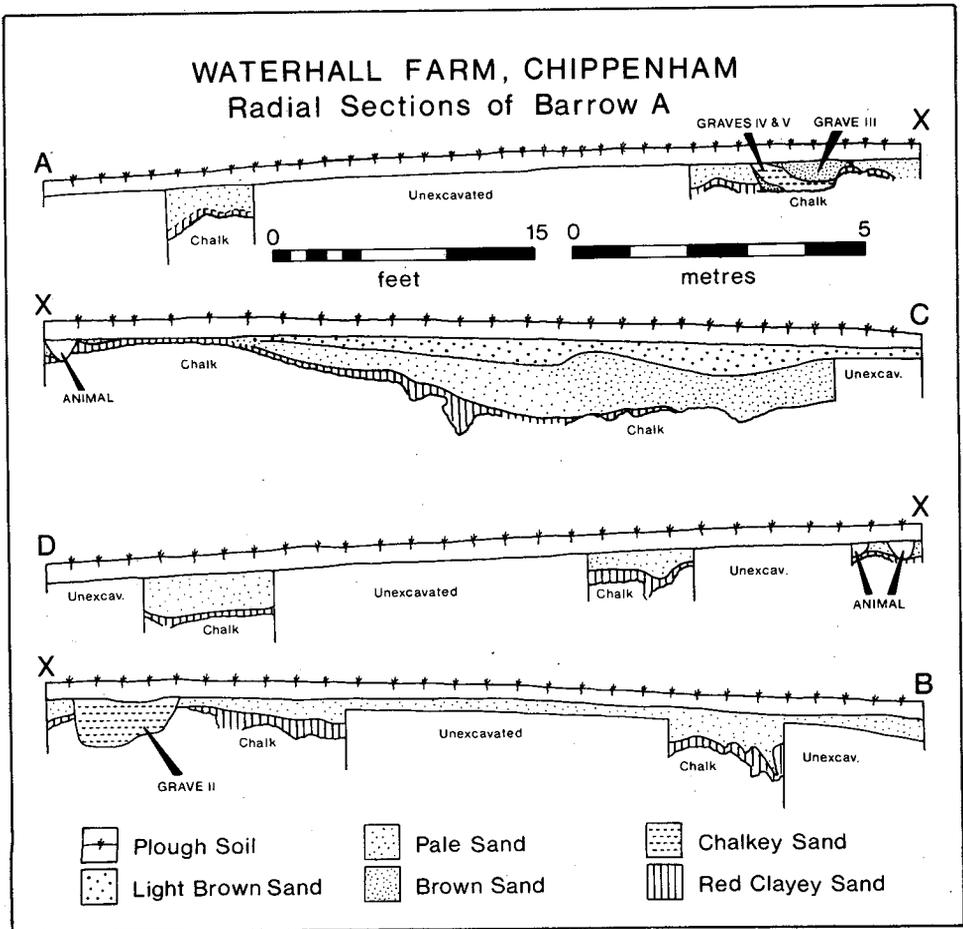


Fig. 3.

important; instead trenches were cut across the mound to confirm the findings of the first quadrant. Although no sign of a ditch or other structures was seen, a number of graves were found cut into the summit of the mound.

The graves are in the nature of a 'flat' cemetery, except that in this case the graves are cut into a rounded surface instead of a flat one. In view of this none of the graves can be regarded as the 'primary burial' of the barrow. The graves are therefore described in the order they were excavated, and not in any assumed chronological order.

Grave I

This grave was cut into the pale brownish sand that flanks the chalk mound. The fill of the grave consisted of reddish-brown sand which was relatively stone free. The grave lay immediately below the plough-soil, and had been disturbed on its north-west side by an animal burrow. The outline of the grave was only clear on the southern side.

The grave contained two inhumations, the one lying on the other, head to tail. The upper skeleton had been much damaged, probably due to ploughing and animal activity, and as a result only part of the pelvis and the legs survived. The skeleton, possibly of an adult female, had been crouched on its right side with its head to the east, and its legs quite tightly flexed. The lower skeleton, of a male aged 30-35 years, was more complete but was very much decayed, the spine, ribs and pelvis being almost completely destroyed; their line was, however, marked by black and greenish-brown stains. The skeleton was crouched on its left side, with its head to the west. Neither skeleton was accompanied by grave-goods.

Two interpretations of this grave are possible. The first is that both bodies were interred at the same time; however, although their hips were touching there was some earth between the thigh-bones of the two. It is therefore more likely that the lower skeleton was inhumed alone, and then at some later date the grave was re-excavated down to the bones of the first occupant and the second body interred on top.

Grave II

This was the largest and most impressive grave. It was cut partly through the sand cloaking the mound and partly through the chalk of the mound. The grave measured 2.1m long \times 1.50m wide and was 0.85m deep. The surface of the grave lay immediately below the plough-soil. The fill of the grave consisted of light-brown sand with chalk and much flint. Mixed with the fill from the highest level of the grave were human bones, sherds of a beaker and numerous flint-flakes, some of which had been knapped on the spot, as joining flakes were found. Also in the fill were the cannon-bone of an ox, a small circular coal bead and a small bronze or copper cylinder.

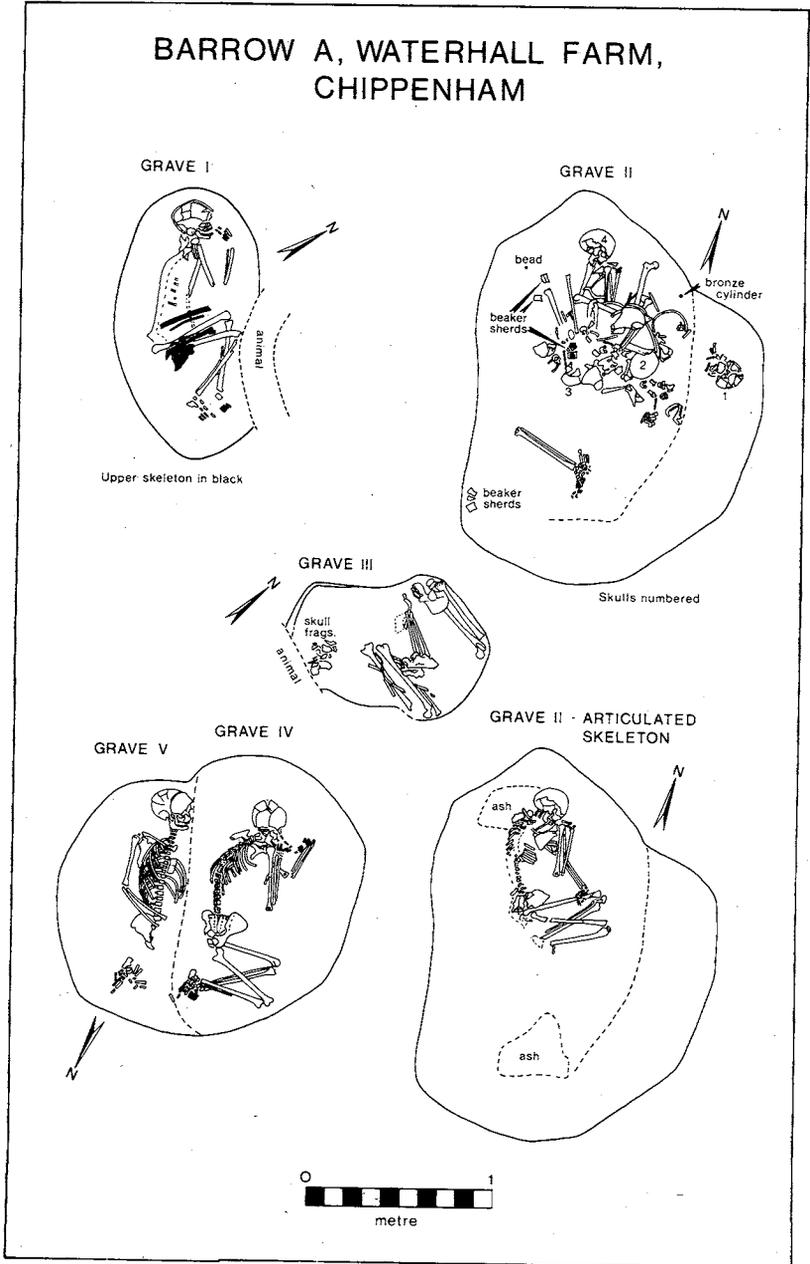


Fig. 4

of this burial, if not before, the beaker was broken and the sherds distributed over all parts of the grave. If this theory is correct, the beaker would then date the earliest burial in the grave.

Cremation

This was merely a small patch of burnt bone and charcoal, not more than 0.30m (1ft) in diameter and a couple of inches thick. The cremation lay 0.48m (1ft 7in) below the present ground surface, in the centre of the fill of Grave III, but it was not in any obvious pit and it was unassociated. The cremation is possibly of a female or an immature individual.

Grave III

This grave, which lay just beneath the plough-soil, was cut into the fills of Graves IV and V. The fill of this shallow grave was brown sand with a faint reddish tinge. Most of the remains in the grave belonged to a male aged possibly between 18 and 20 years; however, the grave also contained skull fragments and teeth of a child aged between 6 and 7 years. The body of the male seems to have been buried tightly crouched on its haunches, with its chest over its thighs and its head to the west. Due to the closeness of this grave to the surface, or due to disturbance when the cremation was introduced, the upper part of the body was much damaged, the skull being very fragmentary. The body was unaccompanied by grave-goods.

The shape of the grave was not very clearly defined and had been damaged on its south-west edge by animal activity. On the west side of the grave there were faint traces of charcoal, perhaps indicating some sort of lining for the grave.

Grave IV

Grave IV was cut partly through the fill of Grave V and partly through the natural sand and chalk of the mound. The fill of the grave was mixed: overlying the skeleton was a layer of fine brown sand, 0.2m thick, overlying this was a mixture of chalk and sand, much of it derived from the fill of Grave V. Also mixed in the fill of the grave were human bones, possibly belonging to the skeleton in Grave V. The skeleton in Grave IV was of a woman, aged between 25 and 30 years, and was crouched on its left side with its head to the south. The bones of this skeleton were in reasonable condition, but were slightly soft. Once again the body was unaccompanied by grave-goods.

Grave V

This grave was cut into the natural sand and chalk of the mound. The fill of the grave consisted of sand with much chalk. The grave had been partly cut away by Grave IV, with the result that the left arm and the legs of the skeleton were missing. The skeleton, of a male aged possibly between 18 and 20 years, was in good condition, and lay on its back with its legs flexed to the left and its head to the south. Again the skeleton was unaccompanied by grave-goods.

Lying at the bottom of the grave was a pile of disarticulated human bones representing at least two females, one aged about 20–30 years, and the other aged possibly 50+, and two children, one aged between 9 months–1 year, and the other only a few weeks old. The skull and neck bones of the older child (skull 1 in Fig. 4) lay by themselves on a ledge to the east of the main pile of bones. All these bones were in quite good condition. Mixed with the pile of bones were the sherds of a beaker. To the south of the pile lay an articulated lower leg and two feet. These probably belonged to the woman aged 50+, whose skull (numbered 3 in Fig. 4) lay in the main pile of bones. Underneath the pile of bones was an articulated skeleton of a woman, aged between 40 and 50 years. She lay crouched on her left side with her head to the north (skull 4 in Fig. 4). The skull and arms of this skeleton were in reasonable condition; however, the rest of the skeleton, the parts covered by the mound of bones, was stained a reddish-brown colour, and was very soft and decayed. Underlying the head of the skeleton and at the foot of the grave, were patches of fine grey ash, which in the latter area was up to 0.15m (6in) thick.

The shape of the grave would seem to suggest that the grave had been re-dug at some time. Two alternative sequences of burial are possible. In the first the articulated skeleton was the first burial, following which the grave was filled in. Then at some later date, probably not too far removed from the date of the original burial, the grave was re-opened and enlarged at the same time. The pile of disarticulated bones and the articulated leg were now deposited and the grave finally sealed.

Alternatively, and more likely, the first burial in the grave was represented by the articulated leg and feet of the woman aged 50+, which present every appearance of having belonged to a crouched inhumation, the body lying on its right side with its head to the north. This inhumation was subsequently disturbed by the inhumation of the articulated skeleton, a woman aged between 40 and 50 years. It is likely that this second inhumation also disturbed the inhumation grave of the child aged between 9 months–1 year, whose skull and neck bones lay by themselves on the eastern edge of the grave. Over the body of the second inhumation were piled the disarticulated bones of the two disturbed inhumations, and also the disarticulated bones of a woman aged between 20 and 30 years, and the bones of a newly born infant. The grave was then finally sealed.

The position of the beaker sherds in this sequence is uncertain. All except one of the sherds came from the same vessel. Beaker sherds were found in all levels and in all parts of this grave. However, three sherds were found lying against the foot of the wall of the grave at the southern end, quite near the articulated leg and feet. It is possible that the beaker was originally interred with the inhumation of which the articulated leg and feet formed a part, and with the disturbance

FINDS

Pottery

The only pottery from the site came from Grave II and consisted, with one exception, of sherds of a beaker (Fig. 5), 18.5cm (7½in) high, with a rim diameter of 13cm, a belly diameter of 14cm and a base diameter of 8.5 cm. The fabric of the beaker is brownish-red with flint as a filler.

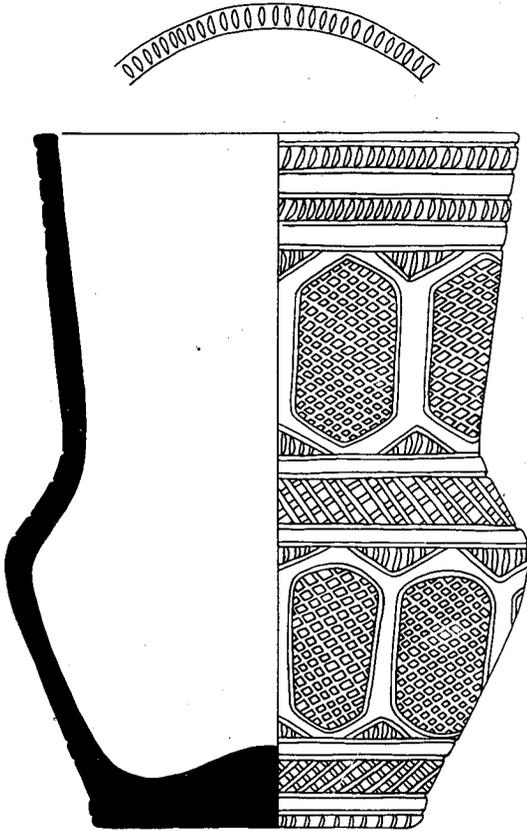


Fig. 5. Beaker from Grave II. (Scale ½)

In shape the beaker is of D. L. Clarke's⁷ Shape Group VII; the neck is almost cylindrical, being only slightly wider at the mouth end; the belly is quite sharply defined, almost carinated.

The beaker is ornamented in Clarke's Style e, 'two approximately equal

⁷ Clarke, D. L., *Beaker Pottery of Great Britain and Ireland*, (1970).

decorative masses, . . . an upper and lower area divided at the beaker waist by an undecorated zone or simply filled zone'. The decoration consists of nail-print ornamentation on the rim; below the rim are two bands of vertical nail impressions bordered by horizontal lines (Clarke's Motif Group 1, No. 5), the horizontal lines being produced by contiguous impressions made by a flat and round ended implement 3.5mm long \times 1.5mm wide. Below these, in an area bounded by horizontal lines with pendant triangles, are lozenges infilled with cross-hatching (Clarke's Southern British Motif Group 4, No. 34). The horizontal lines were produced with the same implement used to make the borders of the vertical nail impressions. The surrounds of the lozenges and the cross-hatching were also probably incised with the same tool. Below the lozenge ornamented area is an area of simple cross-hatching bordered by horizontal lines (Clarke's Motif Group 1, No. 4). Then from below the belly of the pot is another panel of cross-hatched infilled lozenges; below them is another area of cross-hatching; and finally below this is an area of vertical nail impressions.

The Waterhall beaker is very similar in shape to the beaker found by C. S. Leaf in Chippenham Barrow 5 (Clarke, Fig. 901), classified by Clarke as belonging to his Developed Southern (British) beaker group (S2), however, the decoration of the two beakers is different. A radio-carbon date of 1850 ± 150 b.c. (BM-152) was obtained from charcoal from Hearth VIII under Chippenham Barrow 5.

In shape the Waterhall beaker appears to belong to Clarke's Developed Southern (British) beaker group (S2). Clarke mentions the fact that the carinated profiles are exceptional, peculiar to the eastern counties. Similarly the cylinder neck is mainly an eastern variant, giving rise to Clarke's sub-group S2(E). In ornamentation the Waterhall beaker has more affinities with Clarke's Late Southern (British) beaker group (S3), in particular the use of 'style e'.

In addition to the beaker discussed above, Grave II also contained one sherd from a different pot, (see Fig. 6). The fabric of the sherd is similar to that of the beaker; however, it appears to have more flint grits, most of which are at least 1-2mm in size. The sherd has a reddish-brown exterior and a grey interior. The sherd is ornamented by finger-nail rustication bounded by an incised line.

Beads

Grave II also contained a low-grade coal bead⁸ and a small bronze or copper cylinder which is also probably a bead. The coal bead is circular with flat faces. It is 5mm in diameter and 2mm wide. The perforation is circular, about 1.5mm

⁸ Identification by A. C. Bishop of the Dept. of Mineralogy, British Museum (Natural History), (letter to Miss M. Cra'ster of the University Museum of Archaeology and Ethnology, Cambridge, dated 20th March, 1974).

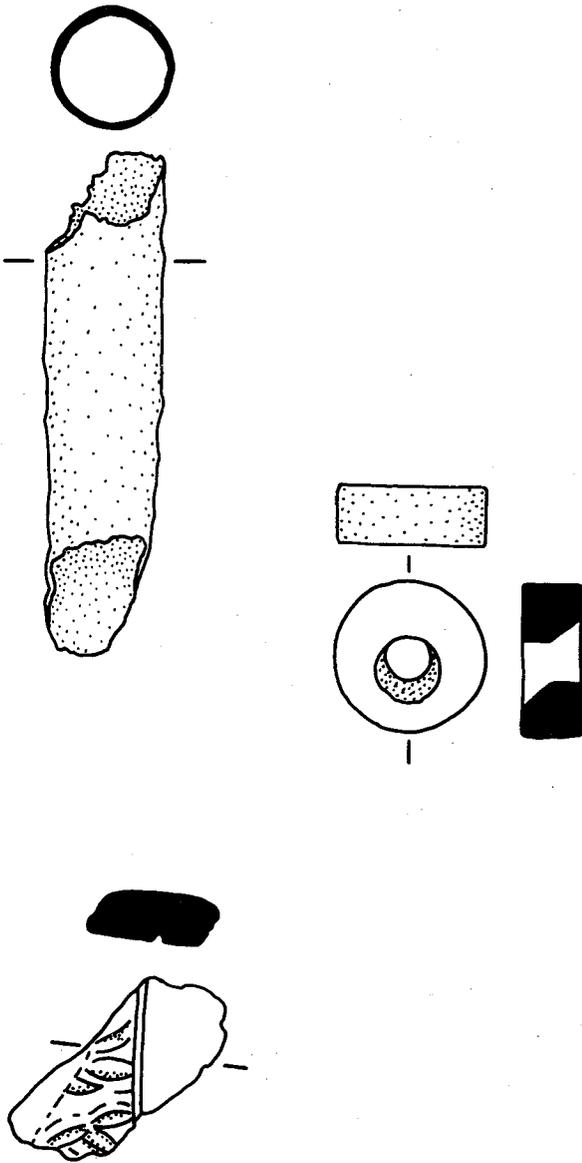


Fig. 6. Grave II: copper cylinder and coal bead (scale 4/1);
Beaker sherd (scale 1/1).

in diameter and in section the hole is hour-glass shaped (Fig. 6).

The bronze or copper cylinder is 17mm long and 4mm in diameter, and extremely thin. There is no obvious join, but the cylinder is corroded (Fig. 6).

The beads resemble the three sheet copper tubular beads and the fourteen small lignite disc beads found with a W/MR beaker at Beggar's Haven, Devil's Dyke, Sussex (*Sussex Archaeological Collections*, LXXII, 39, illustrated in Clarke, Fig. 167). However, one cannot be sure that the Waterhall beads are from the same necklace, or were even deposited at the same time.

Discussion

The only dating evidence for the burials comes from Grave II which contained sherds of a S2 or S3 beaker. However it is uncertain whether the beaker was associated with the first inhumation in the grave or a later disturbance. It is also impossible to say whether Grave II was earlier or later than Graves I and V. Grave V was earlier than Grave IV, which in turn preceded Grave III, which was overlain by the cremation.

In the accepted terminology Barrow A would seem to exhibit a mixture of Beaker flat cemetery traditions with barrow using traits, together with more than a little Neolithic multiple inhumation influence. However, a recent article by F. Petersen⁹ has demonstrated the widespread occurrence of multiple inhumation graves in Bronze Age round barrows, in many cases with beaker or food-vessel associations, and has suggested that barrows should be regarded as cemeteries, and not solely as 'primary' single burials with later and 'secondary' burials as inconsequential afterthoughts. In Petersen's view 'Bronze Age burial usage . . . in its most general form can be described as a "cemetery" tradition with the completion of stages in the construction of the barrow constituting events that mark the end of one series of burials and the beginning of others within a more or less continuous sequence.'

Barrow A must be regarded as a cemetery; the fact that all the graves were cut from the surface with no obvious central grave makes nonsense of any attempt to isolate a 'primary' grave. However, within this cemetery three smaller 'cemeteries' or 'vaults' can be distinguished. The two inhumations in Grave I form one group; the various inhumations in Grave II (perhaps totalling five individuals) form a second group; and finally Graves III, IV, V and the cremation form a third group, (totalling five individuals). The grouping together of individuals in the same grave must express a relationship which differed from that which existed between the individuals as occupants of the same barrow. The fact that these graves were re-opened from time to time would seem to suggest that the graves were marked on the surface in some way, especially as the buriers seem to have been so accurate in re-locating the graves.

⁹ Petersen, F., 'Traditions of multiple burial in Later Neolithic and Early Bronze Age England', *Arch. J.*, cxxxix, (1972).

The use of a natural mound for a 'barrow' can be paralleled in Chippenham Barrow 3¹⁰, which likewise consisted of an unditched natural mound, (which in this case contained a cremation). Chippenham Barrow 4¹⁰ was also a natural mound, but it had been ditched and artificially enlarged. Petersen has also re-interpreted the Beacon Hill barrow, which the excavators considered to be a cenotaph¹¹; Petersen argues that the construction of the barrow preceded the deposition of any of the burials, all of which had been inserted secondarily to form a mixed inhumation/cremation cemetery. All of this would seem to suggest that the barrow possessed a significance apart from its function as a covering for the graves it contained, which led the people of that period either to 'utilise natural mounds or to erect their own 'natural' mounds. This would seem to suggest a fusion between a flat cemetery tradition, where multiple inhumations in the same grave were common, and a tradition where the existence of a barrow was important. In the Waterhall barrow and possibly also at the Beacon Hill barrow the actual barrow has no function except as the site of a 'flat' cemetery.

Acknowledgements

I would like to thank Mrs Bacon of Chippenham Park and Mr H. Tilbrook, the owner and tenant, respectively, of Waterhall Farm, for allowing the excavation to take place. I would also like to thank Mr S. E. West for his help before, during and after the excavation; and Mr C. B. Denston for his report on the human bones from the site.

NOTE

Flint Axe from Waterhall Farm, Chippenham, Cambs.

The illustrated flint axe, which is 19.9cm long \times 7.9cm wide \times 5.3cm thick, was found in the same field as Barrows A and B, Waterhall Farm, (approximately TL670668), a few years ago during ploughing. The sides are very pocked, presumably as part of the shaping process and the rest of the surface has only been partially polished, the flake scars still being visible (Fig. 7).

The axe is (1973) in the possession of Mr John Parsons of Grange Lane, Barton Mills, Suffolk.

¹⁰ Leaf, C. S., 'Further excavations in Bronze Age Barrows at Chippenham, Cambs', *P.C.A.S.*, xxxix, (1939), 33-68.

¹¹ Cawdor, The Earl, and Fox, C., 'The Beacon Hill Barrow, Barton Mills, Suffolk', *P.C.A.S.*, xxvi, (1923).

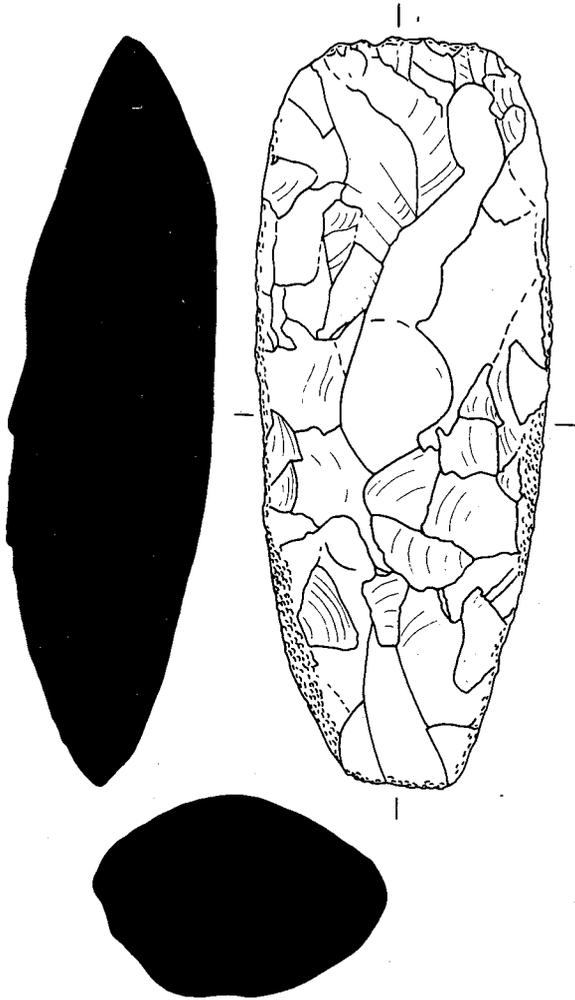


Fig. 7. Flint axe from Waterhall Farm (scale 1/2).

HUMAN BRONZE AGE SKELETAL REMAINS FROM CHIPPENHAM, CAMBRIDGESHIRE

C. B. DENSTON

*Department of Physical Anthropology,
University of Cambridge*

INTRODUCTION

WHAT is not generally realized when a report on skeletal remains is produced, is the amount of preparatory work involved and the consuming time this takes before the actual examination of the bones can begin. Where the writer's reports are concerned, all the reconstruction of the bones is done personally and a single skeleton can take up a number of hours, especially if the skull is in many fragments.

In the case of the remains from Chippenham, six of the skeletons involved the reconstruction of skulls. This preparatory work is essential, not only for the proper recording of metrical data, non-metrical characteristics, oral health and the like, but also because it enables most of the fragments to be handled as they are sorted into various groups, thus affording the opportunity to scrutinize each fragment for evidence of pathological change in the bone structure, injury, anomalies etc. Complete bones also afford more help to the person examining excavated skeletons: fragments of bone can be deceiving, and where at least two of these skeletons were concerned, if it had not been for the near-complete reconstructed innominate bones and the definite sexual features they displayed, the remains could have been sexed differently by features of the skull.

The conclusion reached was that the probable minimum number of individuals interred in Barrow A at Waterhall Farm, Chippenham, was five females, three males and three immature individuals. Most of the skulls were of a fragmentary nature and repair work could not restore them to completeness, which precluded the taking of most metrical data. Two of the crania displayed slight distortion and two others considerable distortion, the distortion being caused by post-mortem pressure of the earth after burial. The 'trained eye' could distinguish that the two non-distorted crania were of the typical brachycephalic Bronze Age type and this also held for two of the distorted crania. An opinion of brachycephaly could not be given for one of the crania with considerable distortion, but a further cranium with less distortion appeared to be less brachycephalic and possibly came in the mesocephalic category.

Two male skeletons had long bones sufficiently preserved to enable the maximum length measurements to be recorded. Using the Trotter-Gleser formulae the estimated reconstructed statures of these individuals came to 5ft 8¼in and 5ft 9¼in, though the latter figure must be regarded as a very tentative estimate as it was computed from a single humerus. These estimates are a quarter of an inch and an inch and a quarter above the male mean of 5ft 8in,

computed from a sample of eighty male femora by Brothwell,¹ of the Bronze Age people of Yorkshire. Trevor² estimated a mean stature of 5ft 9in for British Bronze Age males. At present it seems that no mean estimated stature for Bronze Age females in England exists, but Denston³ did reconstruct the statures of four Bronze Age females from Snailwell, which is separated from Chippenham by just a few miles, the figures for the two groups of females being very similar:

Chippenham

Females: 5ft 3in, 5ft 4½in, 5ft 5in, 5ft 5½in

Males: 5ft 8¼in, 5ft 9¼in

Snailwell

Females: 5ft 3½in, 5ft 4½in, 5ft 4½in, 5ft 6in

Males: 5ft 7in, 5ft 8in, 5ft 8in, 5ft 8¾in

The figure of 5ft 9¼in for a male from Chippenham and 5ft 7in for a male from Snailwell are very tentative estimates of stature as they were computed from single bones of the arm.

Measurements which it was possible to record of the skull and long bones were taken according to the techniques of Buxton and Morant,⁴ Morant,⁵ and Mukherjee Rao and Trevor.⁶ The statures were estimated from the formula for whites given by Trotter and Gleser.⁷

Grave I

Grave I contained remains of two skeletons.

Upper skeleton Sex: ? female

Age at death: adult

This material consisted of post-cranial remains only, very few in quantity and very fragmentary.

Lower skeleton Sex: male

Age at death: 30–35 years

¹ Brothwell, D. R. (1960), 'The Bronze Age people of Yorkshire.' *The Advancement of Science* XVI, pp. 311–22.

² Trevor, J. C. (1956), 'The racial history of Britain. The Bronze Age.' Munro Lectures, University of Edinburgh, February 1956 (unpublished).

³ Denston, C. B. (1968), 'Inhumations and Cremations from the Snailwell group of Bronze Age Barrows.' Unpublished MSS Report in the Archives of the Physical Anthropology Department, Cambridge.

⁴ Buxton, L. H., Dudley & Morant, G. M. (1933), 'The essential Craniological techniques Part I. Definitions of points and planes' *J.R. Anthropol. Inst.* 63, pp. 19–47.

⁵ Morant, G. M. (1936), 'A Biometric study of the Human Mandible.' *Biometrika*, 28 pp. 84–122.

⁶ Mukherjee, R., Rao, C. R., and Trevor, J. C. (1955), 'The ancient inhabitants of Jebel Moya.' *Occasional publications, Cambridge University Museum of Archaeology and Ethnology*, no. 3. Cambridge University Press.

⁷ Trotter, Mildred and Gleser, Goldine, C. (1952), 'Estimation of Stature from long bones of American Whites and Negroes.' *Amer. J. Phys. Anthropol. N.S.*, 10 pp. 463–514.

Skull and postcranial remains very fragmentary, the postcranial material consisting mainly of fragmentary femora, tibiae and humeri. The cranium has been restored to a calotte – cranium minus facial and basal portions. Slight post-mortem distortion.

Pathology (a) Dental (b) General

(a) Most of the maxilla and mandible were not preserved, but all the teeth were present except the left canine and first right molar of the mandible and the third right molar of the maxilla, these teeth possibly being lost post-mortem. The first left maxillary molar displayed the lingual half of the crown worn away down to the roots, this possibly due to the destructive action of caries. A slight occurrence of hypoplasia was noted. Hypoplasia: teeth may often be seen with lines or ridges running horizontally across the enamel of the crowns, a condition due to some short term disease, or a dietary deficiency. The growth of teeth is, however, influenced by a great number of hormonal and dietary factors, disturbances in any of which will produce hypoplasia; moreover, the degree of hypoplasia and the number of teeth involved vary considerably, depending on such factors as the number of teeth fully formed at the time when the hypoplasia-inducing factor is at work (these will not, of course, be affected) and how the causative factor is at work. This is the stage of hypoplasia visible to the eye.

Cremation

The size of the bone fragments ranged from a few millimetres to 51mm, the total weight being 68gm. The colour of the fragments varied from light-brown-whitish, dark brown, grey-white. The distinctive colours of the fragments suggested that they had been subjected to varying degrees of combustion, the light-brown-whitish fragments being subjected to the more intense heat. From so few fragments the sex and age at death of the individual they represented could not be ascertained with any degree of certainty. The fragments were not of robust proportions, which suggested they were more likely to have been associated with a female or immature individual, than a male. The fragments represented the cranial and post-cranial areas of the skeleton, though three fragments were recognized as belonging to the cranium. The remainder of the fragments were mainly small portions of the shaft of long bones with another fragment possibly from the great tuberosity area of the head of humerus.

Grave II

Grave II consisted of a minimum of five individuals, these being three females, and two children. A further mid-portion of a shaft of a femur was among the remains, and possibly came from a child of about six years of age at time of death.

The bones from Grave II were in the first instance a mixture, though the

femora, tibia, humeri, radii, ulnae and skull fragments had been put into separate bags by the excavator. This necessitated 'pairing' of the bones and eventually they were assigned to two skeletons. In one bag there was a tibia and a fibula, and bones of two feet which were able to be assigned to one of the skeletons. The sorting of the immature remains revealed they represented two children.

Grave II (a) Skull and post-cranial remains

Age at death: 9 months-1 year

Grave II (b) Mostly post-cranial but a few fragments of a skull

Age at death: possibly birth-to a few weeks

Grave II (c) Sex: female

Age at death: 20-30 years

Stature: approximately 5ft 5½in

These remains consisted of a skull, long bones, pelvis and some vertebrae. The cranium has been restored though a few fragments are missing, the mandible is completely restored and the skull is the best preserved of the series. Very slight post-mortem distortion.

Pathology (a) *Dental* (b) *General*

(a) Twenty-seven teeth were present, with the two central incisors and the third right molar having been lost from the maxilla post-mortem. Post-mortem loss from the mandible were the left lateral incisor and first left premolar. No caries or abscesses were obvious, but some resorption of the alveolar bone around the tooth sockets possibly suggested a slight degree of periodontal disease.

(b) Very slight lipping at the borders of the body portion of some thoracic vertebrae was possibly indicative of the beginnings of osteo-arthritis.

Non-metrical features

A routine examination of the skull revealed two of these discontinuous morphological traits.

(1) Slight mandibular tori

(2) A slight palatal torus.

Grave II (d) Sex: female

Age at death: possibly 50+

Stature: approximately 5ft 5in

Skull, long bones, pelvis, vertebrae and bones of the feet. The cranium has been restored except for the base, right half of the face and nasion area of the frontal bone.

Pathology (a) *Dental* (b) *General*

(a) The three molars and first premolar had been lost from the left half of the maxilla ante-mortem, with the central incisor and canine lost post-mortem, leaving *in situ* the lateral incisor and second premolar. Teeth lost from the mandible ante-mortem, were from the left side the first and second molars, the

second premolar and the incisors and from the right side all three molars and both incisors. Post-mortem loss had accounted for the third left molar and from the right side the canine and the two premolars, leaving *in situ* just the left canine and first premolar. Though the four teeth left *in situ* displayed considerable attrition, no caries had formed, and resorption of the alveolar bone around the tooth sockets could equally have been the result of the ante-mortem loss of teeth, or from periodontal disease. It may have been a combination of both.

(b) Slight degrees of osteo-arthritis had affected the joints of most of the long bones including also the patella and possibly the talae and calcanea of the foot. The left tibia at the proximal extremity and including the articular facet for the fibula, and the proximal extremity of the fibula all displayed a greater degree of osteo-arthritis than the rest of the long bones. From the cervical down to the sacrum, the vertebral column had been affected with a medium degree of osteo-arthritis, not only the body portions but also the posterior articular processes.

Grave II *Articulated skeleton at bottom*

Sex: female

Age at death: 40-50 years

Stature: 5ft 3in

These remains were mainly fragmentary, though a humerus and an ulna were sufficiently complete to enable a tentative stature to be assessed. Most bones of the skeleton were represented, the mandible and facial portion of the cranium being intact but the rest of the cranium grossly distorted.

Pathology (a) *Dental* (b) *General*

(a) All the teeth of the maxilla were present and all displaying calculus (tarta) adhered to the crowns, in particular the right molars which displayed considerable deposits. Of the maxillary teeth, the second and third molars of the left side displayed the involvement of caries and resorption of the alveolar bone suggested a medium degree of periodontal disease. Of the mandible, the three left molars were lost ante-mortem and the destructive action of caries combined with the pus of the abscess in the root sockets had reduced the first right molar to two roots only. The rest of the teeth, with the exception of one, these teeth being the incisors, canines, premolars and the third right molar were *in situ* in the tooth sockets. The exception was the second right molar which must have been held in place by the soft tissue of the gum at death, as an abscess had obliterated the tooth sockets and left a large cavity in their place. This molar also had a large carie cavity in the neck of the crown facing towards the decayed roots of the first molar. All of the mandibular teeth had vestiges of calculus but most had become detached post-mortem.

(b) Some involvement with osteo-arthritis was evident throughout the skeleton of this individual, even to the mandibular condyles and the contiguous surfaces of the glenoid fossae of the cranium. Though fragmentary, osteo-arthritis

showed up on many of the fragments representing various bones. Fragments of cervical and thoracic vertebrae displayed medium degrees of this affliction, both the body and posterior articular processes. The arthritis had affected at least one metacarpal bone of the hand, the glenoid fossa of the right scapula a medium degree, and a small area of 'eburnation' on the articular surface of a fragment from the proximal extremity of a tibia.

Non-metrical features

A slight palatine torus

Grave III

These remains consisted mainly of long bones, an innominate bone, a clavicle, a fragmentary scapula and a few small fragments of a skull plus a few teeth. Possibly half of the skull fragments were associated with the post-cranial bones, but the other half of the skull fragments came from a young immature individual and associated with these fragments were five teeth. The teeth were a deciduous molar and a deciduous canine, two permanent molars and a permanent incisor. It seemed highly probable that all the teeth were from the same skull and information observed from the amount of formation and general appearance of the teeth suggested the individual they represented was possibly 6-7 years of age at the time of death.

The second individual, represented by the long bones, etc., was a young male approaching adulthood, this fact being evident by the fusion or non-fusion of the symphyses of the long bones.

Grave III (a) Sex: indeterminable

Age at death: 6-7 years

Grave III (b) Sex: male

Age at death: possibly 18-20 years

Stature: approximately 5ft 8 $\frac{1}{4}$ in

Grave IV

Sex: female

Age at death: 25-30 years

Stature: approximately 5ft 4 $\frac{1}{2}$ in

These remains consisted of most parts of the skeleton. The better preserved of the remains were the bones of the legs, pelvis, vertebrae and the skull. The right half of the cranium and of the mandible were fairly well preserved, but the bone of the left half was rather of an eroded nature and very fragmentary.

Pathology (a) Dental (b) General

(a) Twenty-nine teeth were found among the remains, fourteen from the maxilla and fifteen from the mandible. Three molars remained *in situ* in the right half of the mandible, but the rest of the dentition was loose, the appropriate parts of the jaws which held these teeth either in fragments or missing. No caries had formed in any of the teeth, but hypoplasia of a slight degree was noted on the crowns of some of them (see Grave I for hypoplasia).

(b) Most of the lumbar and lower vertebrae displayed post-mortem erosion, but a preserved portion of the body of one of the lumbar vertebrae did have a spur of bone spreading outwards from the superior rim, very suspicious of osteo-arthritis. The fully preserved vertebrae though displayed no involvement with osteo-arthritis. The above evidence has been stated because the 1st and 2nd thoracic vertebrae were completely fused together at the body portions and the articular processes. It is thought that the ankylosis could not have been brought about by osteo-arthritis because if so, there would have been some new bone formation joining the vertebrae together. The suggestion is that the fusion of the two vertebrae could have been the result of some mild infection. The fusion of the two vertebrae would have left a lateral 'kink' in the vertebral column, the 'kink' possibly being compensated – counterbalanced further up the vertebral column at the cervical vertebrae. It could not be established if this was so as these vertebrae were fragmentary.

Grave V

Sex: male

Age at death: possibly 18–20

Stature: approximately 5ft 9 $\frac{1}{4}$ in

These remains consisted of a skull, the cranium of which was considerably distorted and could not be fully restored, bones of one arm, some vertebrae, an innominate bone, a clavicle and a few bones of the feet.

Pathology (a) Dental (b) General

With the exception of the left lateral incisor and left canine which were lost post-mortem, all the rest of the teeth were *in situ* in the maxilla. The front teeth from one canine round to its opposite number displayed overcrowding, both of the canines having been forced to erupt anteriorly from the natural alignment, and the lateral incisors erupting lingually through the pre-maxilla. The left lateral incisor was lost post-mortem from the mandible, the rest of the teeth remaining *in situ*. No signs of caries, abscesses or periodontal disease were evident, but slight deposits of calculus were adhered to some of the crowns of the teeth. Hypoplasia of slight degree was noted on some crowns of teeth also.

Grave IV fill – parts of skeleton in Grave V

These remains consisted of an ulna, four phalanges of the hand, six fragments of ribs, two tarsal bones of the foot, a patella, two fragments of innominate bones, and a fragment of a scapula. The only fragment which definitely was associated with any of the skeletons, was a fragment of the shaft of a fibula which joined at a broken end to a similar portion of fibula from Grave IV. None of the other remains could be matched.

PROCEEDINGS OF THE CAMBRIDGE ANTIQUARIAN SOCIETY

VOLUME LXVI

JANUARY 1975 TO DECEMBER 1976

Price £2 net for members, £3 for non-members

CONTENTS

	<i>page</i>
<i>Officers and Council of the Society, 1974–1975</i>	
<i>Officers and Council of the Society, 1975–1976</i>	
The Excavation of Two Tumuli on Waterhall Farm, Chippenham, Cambridgeshire, 1973 <i>By EDWARD A. MARTIN and C. B. DENSTON</i>	1
Excavations at Stonea, Cambridgeshire: Sites of Neolithic Bronze Age and Roman Periods <i>By T. W. J. POTTER</i>	23
A Romano-Celtic Cult Symbol from Icklingham, Suffolk <i>By MIRANDA J. GREEN</i>	55
A Hoard of Roman Bronze Bowls from Burwell, Cambridgeshire <i>By A. J. GREGORY</i>	63
Excavations at Burwell, Cambridgeshire <i>By DAVID M. BROWNE</i>	81
Anglo-Saxon Finds from Brooke, Norfolk, 1867–1869 <i>By DAVID H. KENNETT</i>	93
Four Anglo-Saxon Pots from West Suffolk <i>By DAVID H. KENNETT</i>	119
The Cambridgeshire Dykes: I. The Devil's Dyke Investigations, 1973 <i>By BRIAN HOPE-TAYLOR</i>	123
II. Bran Ditch – The Burials Reconsidered <i>By DAVID HILL</i>	126
The Study of Anglo-Saxon Architecture since 1770: an Evaluation <i>By M. C. W. HUNTER</i>	129
The Parish Clergy and the Reformation in the Diocese of Ely <i>By FELICITY HEAL</i>	141
Meres and Mills in Willingham and Stretham <i>By K. S. G. HINDE</i>	165
Excavations in Cambridgeshire, 1975 <i>By ALISON TAYLOR</i>	175
Review – V.C.H. Cambridgeshire. Vol. V <i>By DOROTHY M. OWEN</i>	177
<i>Index</i>	181