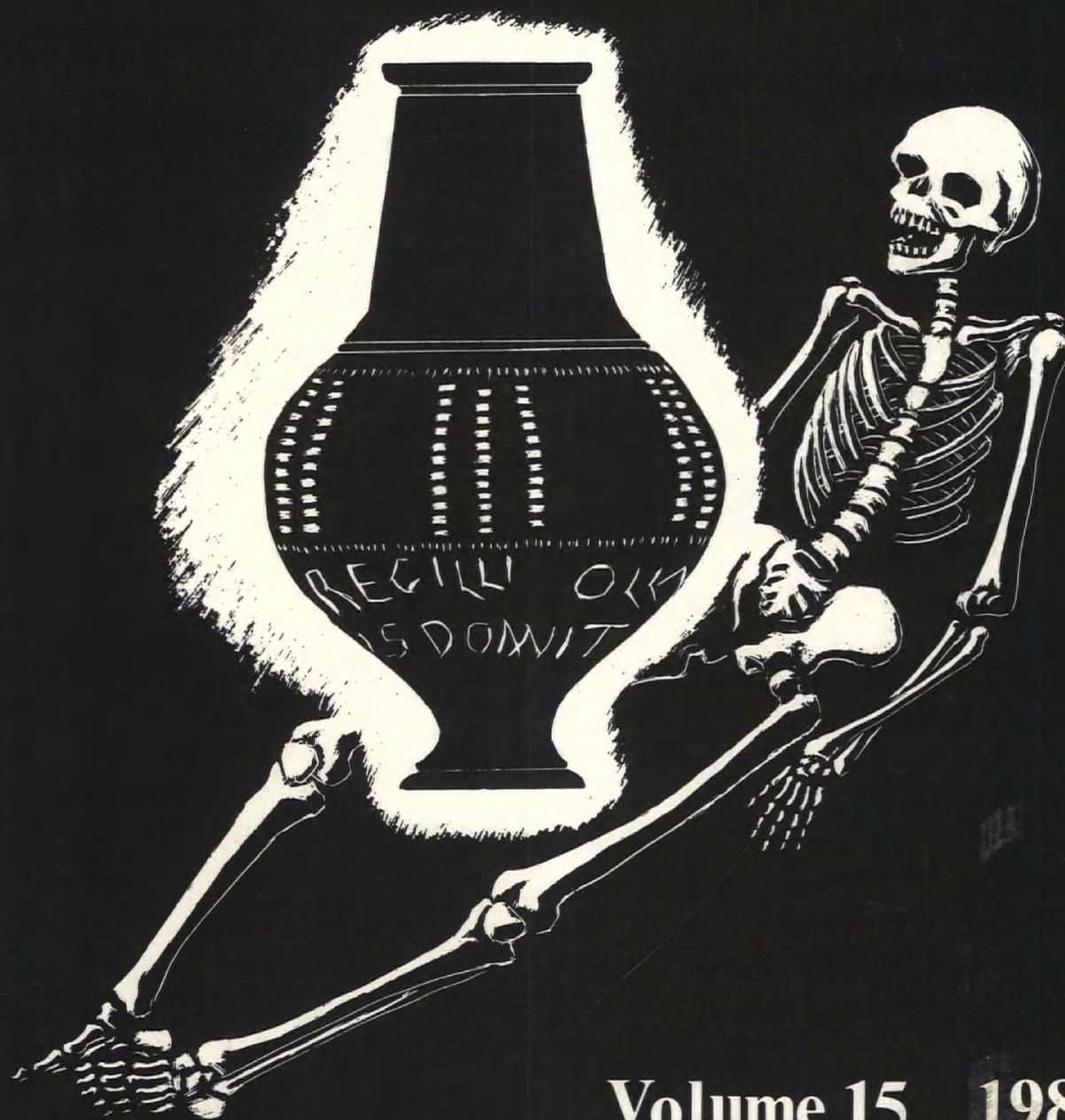


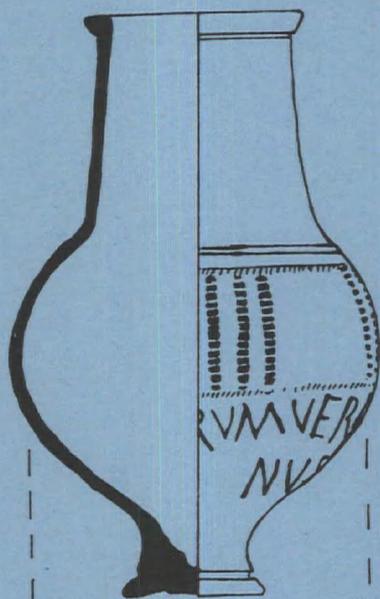
The Roman Cemetery at Dunstable, Durocobrivae



Volume 15 1981

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Volume 15 1981

A ROMANO-BRITISH INHUMATION CEMETERY AT DUNSTABLE

C.L. MATTHEWS

and

Members of the Manshead Archaeological Society of Dunstable

THE BEDFORDSHIRE ARCHAEOLOGICAL COUNCIL

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A ROMANO-BRITISH INHUMATION CEMETERY AT DUNSTABLE

C.L. MATTHEWS

and

Members of the Manshead Archaeological Society of Dunstable

with contributions from

G.S. Cowles, M.W.C. Hassall, B. Horne, E.V. Jones, C. King and J.P. Wild

Rescue excavations carried out between 1968 and 1980 to the south of Dunstable crossroads, in the vicinity of the Romano-British town of Durocibrivae, revealed a Romano-British inhumation cemetery, apparently of the third, fourth and possibly fifth centuries. The remains of over one hundred individuals were found buried, some in formal graves, some in the ditch surrounding the cemetery and some in the tops of adjacent abandoned wells or pits.

Twelve individuals, including a baby, had been decapitated and other bodies had also been mutilated before burial. In twelve skeletons there was localised bone decay, possibly caused by the application of quicklime at the time of burial. There was evidence in some graves of wooden coffins.

Grave goods included jewellery, a glass beaker and several pots, one of which bore an inscription which may link the burial with the sect of the "dendrophori".

There was evidence of iron and bronze working in the cemetery area.

*The report contains an analysis of the human skeletal material and of animal remains from a second-century pit which included a Sea Eagle (*Haliaeetus albicella*) a garden snail (*Helix aspersa*) and a possible mule.*

Ausgrabungen in Dunstable (in der Römerzeit "Durocibrivae") haben eine Begrabnisstätte der 3., 4., und möglicherweise auch der 5. Jahrhunderte entdeckt. Mehr als hundert Menschen wurden beigesetzt, manche in spezial angefertigte Gräber, manche in den Gräben, der die Begrabnisstätte umgab und manche in naheliegende Brunnenschächte.

Elf Erwachsene und ein Säugling waren enthauptet worden und andere waren auch verstümmelt worden.

Bei zwölf von den Skeletten waren die Knochen zum Teil zerstört, vielleicht durch die Wirkung von ungeloschtem Kalk. In einigen Gräbern waren Spuren von Holzsärgen.

Bei einigen Begrabnissen wurden Schmuckstücke, ein Glasbecher und auch Keramik beigelegt. Ein Topf trug eine Inschrift, die vielleicht auf eine Verbindung zwischen dem Begrabnis und der Sekte der "dendrophori" hindeutet.

Eisen und Bronze wurden in der Nähe der Begrabnisstätte bearbeitet.

*In diesem Bericht werden die Skelette gemessen und beschrieben. Auch beschrieben sind die Überreste von Tieren aus einer Grube des 2. Jahrhunderts, unter anderen ein Adler (*Haliaeetus albicilla*) eine Schnecke (*Helix aspersa*) und ein vermutetes Maultier.*

INTRODUCTION

The excavations described in this paper were conducted under the direction of the author with the assistance of many members of the Manshead Archaeological Society of Dunstable in the period 1967 – 1981 as part of an almost continuous and still continuing programme of excavations in the town centre of Dunstable on sites and areas made available by the random process of urban renewal and redevelopment. The particular area considered in this paper at the time of excavation was the property of two owners. North-west of a modern boundary fence the land was owned by a Mr Flory; south-east of this fence was a field owned by Mr J.B. Stevens. As the area excavated was large, an area national grid reference only can be given for this site to the south-west of the main cross-roads in the town centre of Dunstable. (Area TL/018215).

The work of the excavation was carried out entirely by volunteers. Much of the excavation was undertaken at weekends and in the evenings. This meant that on occasion it was necessary to record skeletons only by a photograph, but all figures of skeletons in this volume are produced from measured drawings made on site with the bones *in situ*.

Financial assistance for the work of the excavation was given by the South Bedfordshire District Council, as part of its continuing support of the work of the Manshead Archaeological Society of Dunstable in the town of Dunstable, so extending the support previously given to the society in the years before 1974 by the then local authority, the Borough of Dunstable. The South Bedfordshire District Council also supported the Manshead Archaeological Society of Dunstable during the period when post-excavation research was undertaken on the material from the Romano-British inhumation cemetery herein described.

The study of the material remains from the inhumation cemetery was undertaken by individual members of the Manshead Archaeological Society of Dunstable working as a corporate group, and this is acknowledged in the designation of the authorship of this report. In compiling the report, particularly on the finds, the members of the Manshead Archaeological Society of Dunstable have been concerned to present a brief outline of the grave goods and site finds and no attempt has been made to offer a critical analysis of either the pottery or the metalwork. With rare exceptions, the finds were not submitted to the scrutiny of persons outside of the membership of the Manshead Archaeological Society of Dunstable.

A major part of any report on an inhumation cemetery must be the investigation of the skeletal remains of the persons buried therein. Among the members of the Manshead Archaeological Society are two who have taken a special interest in the study of ancient bones. The skeletal remains from the cemetery have been studied by Dr E.V. Jones and by Mr Barry Horne. Their detailed report is to a large extent the core of this paper.

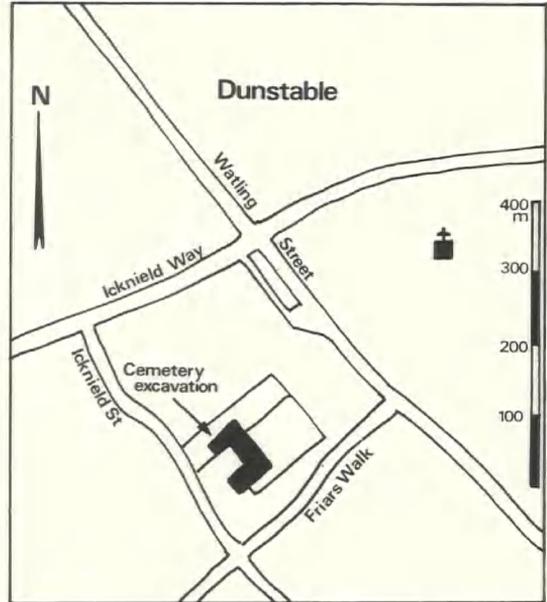


Fig 1 The crossing of the Icknield Way and the Watling Street at Dunstable with the location of the Roman cemetery.

The paper herein published is an extension and revision of an earlier publication by the author who contributed 'The excavation of a Roman inhumation cemetery at Dunstable, Bedfordshire' to *Manshead Magazine* 25, 1979.

The finds from the excavation of a Romano-British inhumation cemetery at Dunstable are currently held by the Manshead Archaeological Society of Dunstable at its headquarters in Dunstable. It is hoped that in due course both the skeletal remains and the other finds will be transferred to more suitable accommodation in storage areas of Luton Museum.

The records of the excavation, including original photographs (mainly slides), the original drawings (of which ready reduced copies were submitted to the editor of the *Bedfordshire Archaeological Journal*), and the site director's notebooks are retained by the Manshead Archaeological Society of Dunstable.

This paper was completed and submitted to the *Bedfordshire Archaeological Journal* in August 1980.

THE EXCAVATION

INTRODUCTION

The modern town of Dunstable was founded by King Henry I sometime early in the twelfth century A.D. on the crossing of the Watling Street and the Icknield Way. Apart from its site, it had no direct relationship with its Roman predecessor. This, the Antonine Itinerary lists as a station called *Durocobriuae*, XII Roman miles north of *Verulamium* and on the Watling Street. The exact site of this place was unknown until the 1960s and 1970s when the modern town of Dunstable was re-developed. The *Viatores* in their work on Roman roads in the region had suggested that the site of *Durocobriuae* was to the south of the town centre in the vicinity of Half Moon Lane.¹ However, the Manshead Archaeological Society of Dunstable, during their excavations over large areas of the town centre, have disclosed many Roman rubbish pits, nineteen Roman wells and a Roman cobbled road, perhaps the Romanised Icknield Way.²

The finds from these features include pottery and coins of the first to fourth centuries. They show that *Durocobriuae* developed into a prosperous small town with its main income probably deriving from travellers on the two major roads.

Situated in the south-west quadrant of modern Dunstable was a Romano-British inhumation cemetery bounded by a shallow ditch that enclosed an area of approximately 2750 square metres. It was sited 200m west of the Watling Street and 260m from the modern crossing of this road and the Icknield Way (Fig 1).

Adjacent to the cemetery the Manshead Archaeological Society excavated six Roman wells; five of these, only a few metres outside the cemetery boundary ditch, had been deliberately plugged during Roman times and the depressions that subsequently developed as the wells subsided had been used for the deposition of human bodies. The boundary ditch, when silted to the point where it showed as a shallow hollow, had also been used for the burial of fifty humans, four horses

and a dog, buried over a period of time. In the area surrounded by the ditch fifty-five burials were found.

Site drawings and significant sections are given in figures 2–14. For drawings of skeletons see figures 15–27. Letters indicate the order in which skeletons were excavated. For reasons such as vandalism on the site, it was impossible to draw some of the skeletons. Details of all skeletons will be found in table 2.

THE ENCLOSURE DITCH (Figs 2, 3 and 4)

The cemetery area was apparently surrounded by a ditch probably forming a quadrilateral, but only three sides of this enclosure were available for excavation. The ditch varied in width and depth but the average was 60cm deep in the natural chalk and approximately 1m wide with sloping sides and a flat bottom about 30cm wide. The infill was a loam consistent with a slow build-up of silt and in it was a scatter of Roman debris. The ditch on the northern side contained in the upper levels a coin of Valens (A.D. 364–378) and an Aucissa-type brooch of second-century date.

The ditch on the eastern side, parallel with Watling Street, was interrupted by a causeway off-centre to the enclosure, but its recommencement had unfortunately been destroyed by later activity. At the southern extremity the ditch curved to the east, becoming wider and deeper with a chalky fill and its junction with the south ditch being destroyed by a Romano-British kiln (K1, Fig 14).

Where the ditch should have turned to make the northern boundary it had been destroyed by a Roman pit (S1) but the ditch was found leaving S1 on the west side to make the north boundary (Fig 9). Here, for slightly more than 6m, the ditch with no alteration in depth, had been re-excavated to provide a flue to a bowl-shaped kiln (K2) excavated into the ditch. From this point the ditch extended westward for 50m where it was again destroyed by later kilns of Roman date (K3, K4,

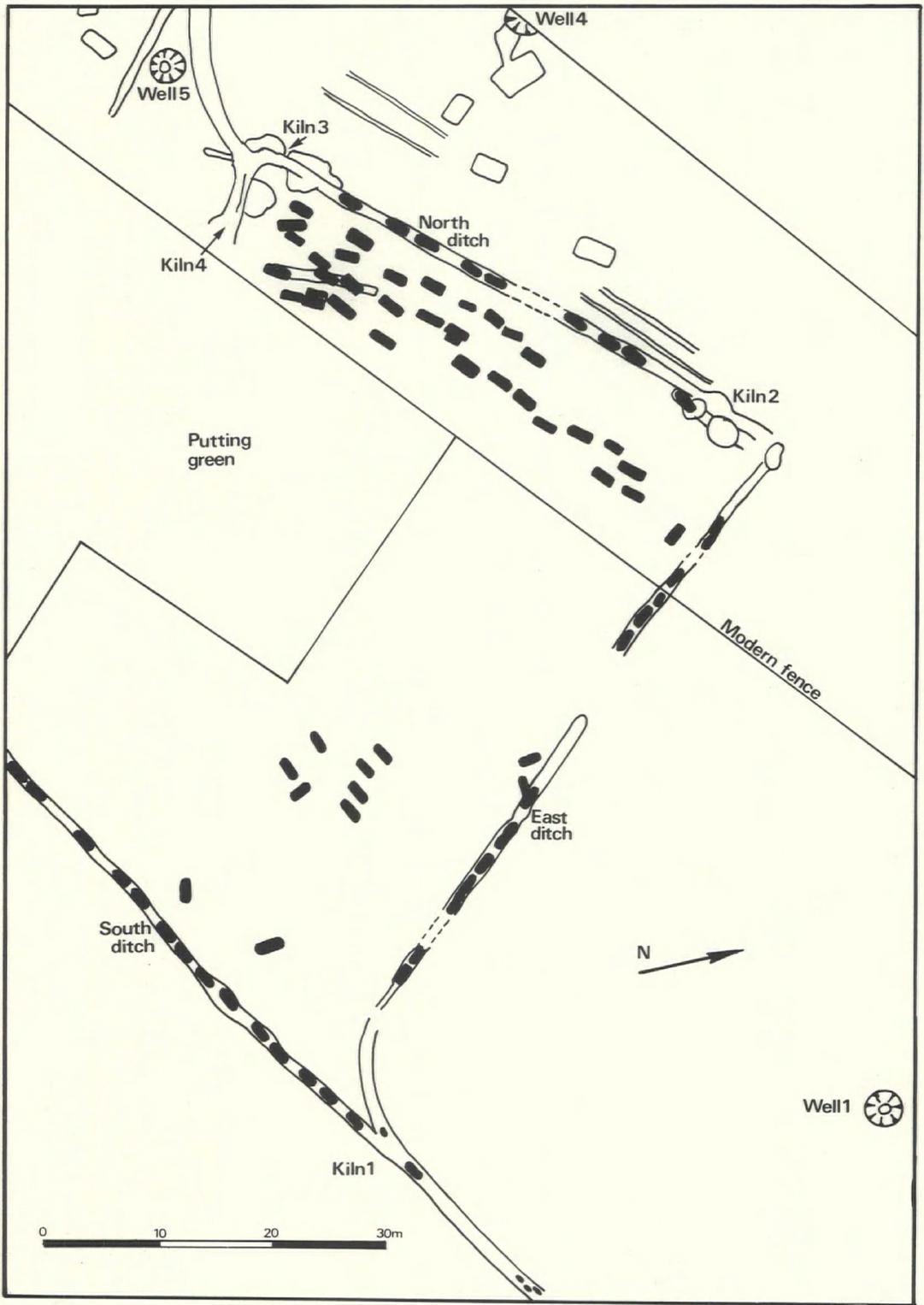


Fig 2 The Romano-British inhumation cemetery at Dunstable.

Fig 13). From kiln K3 a larger re-cut ditch shortly appears, making a sweeping curve to the north-west (Fig 3). Whether this is part of the complex we cannot tell but the character and fill of this ditch are entirely different from the other boundary ditches and it is a fair assumption that this is a different feature. The enclosure ditch probably turned to make the western boundary at kiln K3, but its continuation cannot be established as this lies outside the area available for excavation.

The south ditch continues to the west, disappearing beneath private property. No junction between the south and west ditches has been established. In all three excavated ditches human burials were found.

BURIALS WITHIN THE DITCHED ENCLOSURE

A total of fifty-five burials were excavated within the ditched enclosure. They were:

D, E, M, N, O, P, R, W, X, DD, EE, MM, QQ, RR, SS, TT, UU, VV, WW, XX, YY, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AP, AQ, AR, AS, AT, AU, AV, AW, AX, BC, BD, BE, BF, BH, BR, BS, BW, BX, BY, CF, CK.

Some areas of the site were not available for excavation, as indicated on the plans (Figs 3 and 4). Medieval pits may have destroyed other graves on the southern part of the cemetery. There were twenty-four males, twenty-one females, four adults of unknown sex, three children under 10 (two girls and one undetermined) and three new-born babies. Some burials had been disturbed by later activity, but where the graves survived they were dug into the natural chalk to an average depth of 1m with sheer sides and a flat floor.

Of these fifty-five burials, forty were crowded into a 12 metres wide strip of land bordering the north boundary ditch and with one exception (CK) the graves were dug roughly parallel with the north ditch, i.e. approximately east-west, and the majority of the burials had the head to the east, although seven had their heads to the west. The grave of CK was parallel with the east ditch, i.e. roughly north-south. Most of these burials had been carried out with care, some with grave offerings and many in coffins, but the remaining fifteen burials to the south were thinly scattered over the much wider area of the enclosure with no particular orientation and some of them buried in a haphazard manner. Skeleton DD was lying face down and EE had legs apart with knee joints lying on the sides

of the grave. Skeleton M had been buried wearing hob-nailed boots. No grave in this southern area contained offerings but a bronze finger ring was found in the fill of grave DD (Fig 31 no 33).

Coffin Burials

At least thirteen graves contained evidence for the use of coffins; in two graves fragments of wood fibres, preserved by a calcium deposit, were found alongside the skeletons. In others there were large iron nails, on several of which fragments of wood impregnated with iron oxide survived, showing that some of the coffins were made with timbers up to 4cm thick (Fig 32). In graves BX and BW, although no nails were found the position of the bones of the shoulder suggested that they had been constricted within the walls of a coffin and in each case the lower jaw had dropped away from the skull, as if into a hollow space. Grave N had a pair of slots on each side of the top of the grave (see drawing of skeleton N, Fig 16). The bones of this skeleton had spread outwards suggesting that the grave had been boarded over and left hollow above the body.

Grave Markers

Three graves produced evidence of marker posts. These showed as postholes within the grave fill, all in the west end of the graves (AF, AG, UU). Grave UU had an additional posthole that partially overlapped the grave, and opposite this was a square slot with sides of 20cm sunk 15cm deep into the natural chalk that may have had some connection with a grave marker (Fig 19).

Grave Goods

Seven graves contained 'offerings': AF, AH, AQ, BC, BG, PP, SS. Grave AF, a girl aged about eight to ten years, had a small compact heap of jewellery deposited opposite the waist area. This was probably contained in a box which survived as a brown stain (Fig 30). Grave AH was also a child's burial. A colour-coated pot with barbotine decoration was found above the skeleton in a position which suggests that it was placed upon the coffin, and a coffin nail was found under the pot (Fig 35). Grave AQ contained the skeleton of a young man and a pot bearing an inscription scratched around the base (Fig 33). This pot had been broken in the coffin. Fragments of the pot were found beneath the skull and other sherds were missing, removed when grave AS, which partly overlapped grave AQ, was dug. AQ was by this time a skeleton, for AS also removed the left humerus. A sherd of the pot

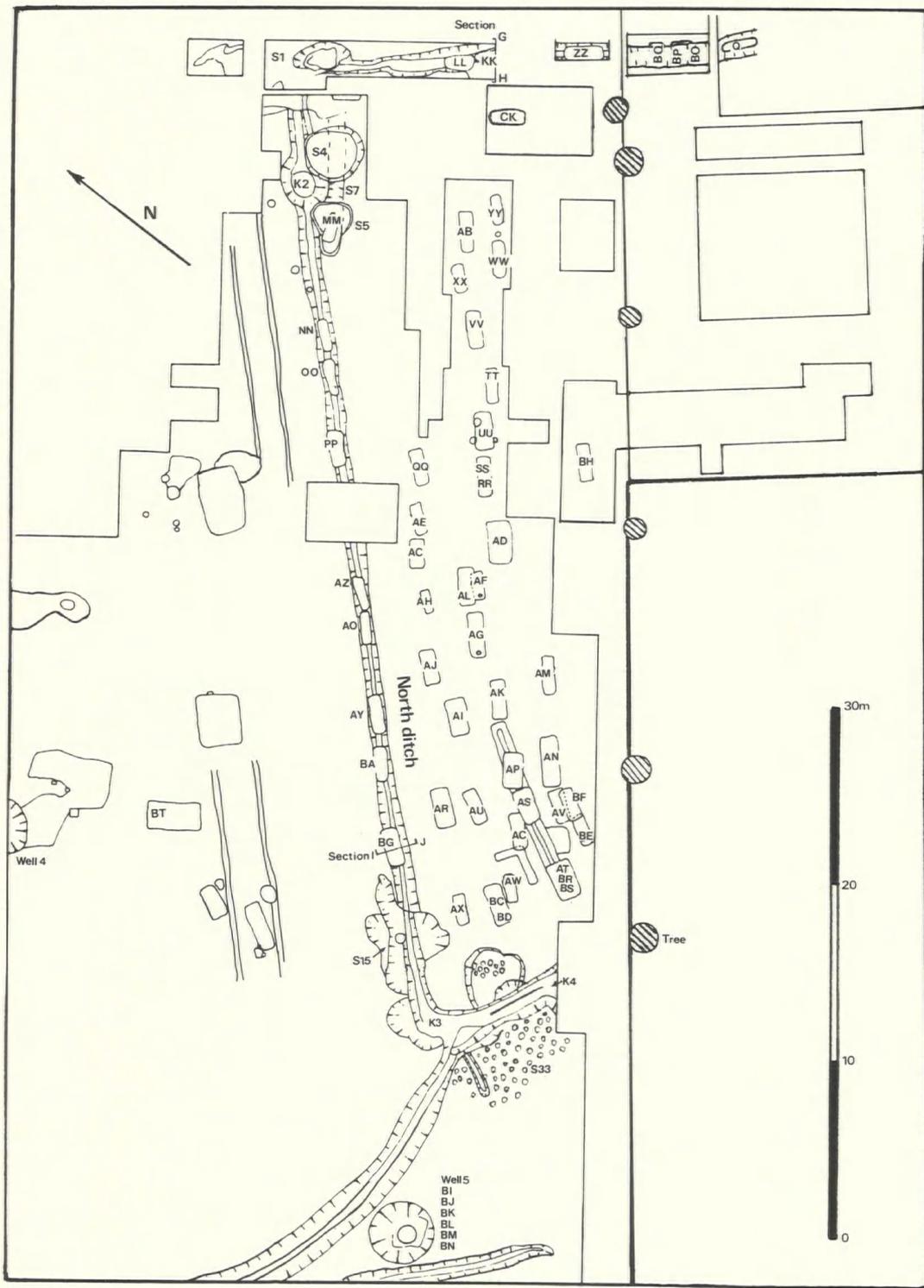


Fig 3 Northern part of cemetery.

TABLE 1
SOIL SAMPLES FROM GRAVE AP

Item	Units of quicklime	Colour Units comparison	Estimated concentration quicklime	Estimated colour ratio
A	71.8	150	1.00	1.00
B	180.9	375	2.52	2.50
C	135.2	275	1.88	1.83

was found in the fill of grave AS.

Localised decay, probably caused by the use of quicklime.

In twelve graves, parts of the skeletal remains had completely decayed. This may have been due to the use of quicklime on the bodies. If this is a correct supposition then it is fortunate that only nominal amounts were used, usually put on to the torso, and therefore the majority of the bones survived. The exception to this was the grave of a child (AF) where all but a small portion of the skull had been destroyed.

In an endeavour to ascertain whether quicklime had been present in the soil, Mr Norman Brookes carried out an analysis of soil samples from grave AP where the torso of the skeleton had completely decayed. Sample A was taken from the grave fill between the feet where all the lower bones were intact, sample B from the area of the rib-cage which had entirely disappeared, and sample C from the chalky fill at the grave side. The results based on the average of three separate tests, are given in table 1. Comparison of the table columns three and four seems to indicate a marked evidence of the use of quicklime. Mr Brookes also looked for any other evidence which might have caused the localised decay of the bones such as bracken put into the coffin, but none was found..

Decapitation

In six of the graves, three males (AN, AR, AW) and three females (AD, AJ, AX), the occupants had been beheaded and, with one exception, the skull placed either alongside or between the legs. In the exceptional case (AR) the body had been buried and the skull put on the top of the grave after it had been refilled with the excavated chalk.

Other mutilation

The only other mutilation found within the ditched enclosure was a male (skeleton RR). This man had his face cut off with a sharp weapon which had

struck him high on the bridge of his nose taking off the points of his cheekbones and part of his upper frontal jaw. This man had been buried by re-excavating the grave of a young woman (SS) and his body dumped in above her. This may have been the secreting of a man killed in a quarrel.

THE DITCH BURIALS

The ditches surrounding the cemetery contained fifty human burials, four horses and one dog and in some instances these overlapped each other, showing that the burials had taken place at different times (see for example Fig 7). At the time of some of the burials the ditches had become filled with silt and just showed as shallow depressions in the ground (Figs 5 and 6). A coin of Valens (A.D. 364-378) was found in the north silted ditch 5cm below the level of the tops of the graves. This means that at least some of the graves dug into this part of the enclosure must date after the third quarter of the fourth century. Most of the graves had been dug below the floor level of the ditch, others had been placed in the loam of the ditch fill.

North Ditch

This contained eight skeletons buried in graves cut through the ditch and one infant (BU) buried in the top of the ditch fill between skeleton AO and AY:

NN, OO, PP, AO, AY, AZ, BA, BG, BU.

All the adults (four men and four women) were in their late thirties and forties. The baby was found buried in a shallow depression 5cm below the natural chalk level, dug into the top of the silted ditch. Two of the women and one man had been beheaded. All had been buried with care in well-cut graves sunk below the level of the ditch bottom. Coffin nails were found with three of them. Skeleton BG, a beheaded woman, had been buried in a substantial coffin, shown by twelve large iron nails and two iron strips (Fig 32 nos 43, 44). With her

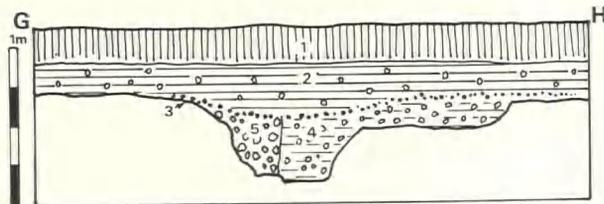


Fig 5 Section G—H through east ditch and grave KK.

- 1 Topsoil
- 2 Loam and small chalk
- 3 Line of 'dried peas'
- 4 Loam and a little small chalk. Fill of east ditch
- 5 Lump chalk, fill of grave KK

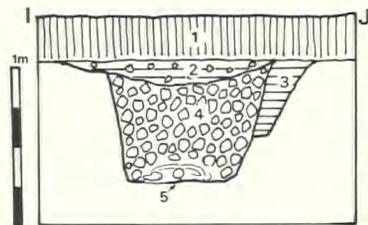


Fig 6 Section G—H through north ditch and grave BG.

- 1 Topsoil
- 2 Loam and chalk
- 3 Dark loam fill of ditch
- 4 Lump chalk, fill of grave BG
- 5 Skeleton BG

were two pottery vessels lying on the bones of the right elbow (Fig 34). When this grave had been dug the ditch in this area had been completely filled with silt and the grave diggers had partly missed the ditch, leaving the modern excavators a clear picture of the grave fill through the silt of the ditch (Fig 6). Similarly the grave of skeleton PP cut through the silted-up ditch, and also KK (Fig 15). A broken but complete Oxford ware pot was found with PP (Fig 35).

East Ditch

This contained twenty-two skeletons:

A, B, C, F, G, H, I, J, K, L, Q, KK, LL, ZZ, BO, BP, BQ, BZ, CB, CD, CE, CL.

More may lie in the ditch where it passes beneath a large tree. There were nine males, six females, three adults of unknown sex, one child about 5 years old, a baby of six months and two new-born babies. There was no evidence of coffins.

Four bodies had suffered mutilation. A male (LL) had broken his left leg during his lifetime (tibia and fibula) and this had successfully healed, leaving him for fifteen to twenty years with a short leg. He was buried with his good leg chopped off just above the ankle, the foot buried with him. Two of the adults had been beheaded, a man (H)

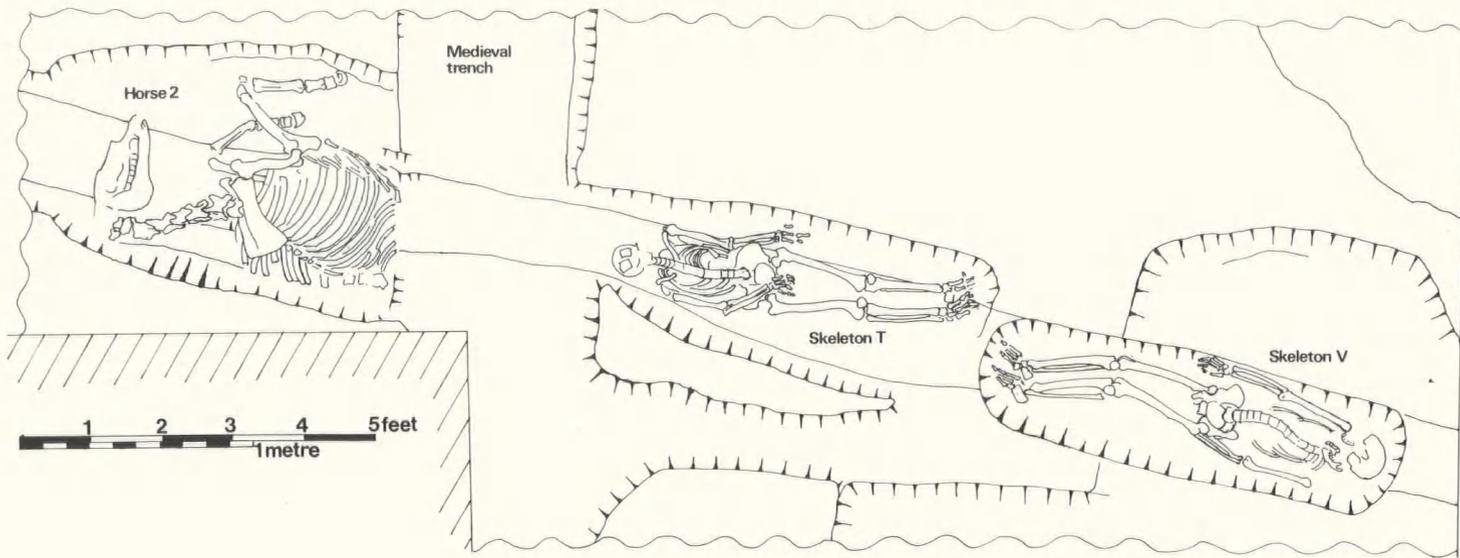
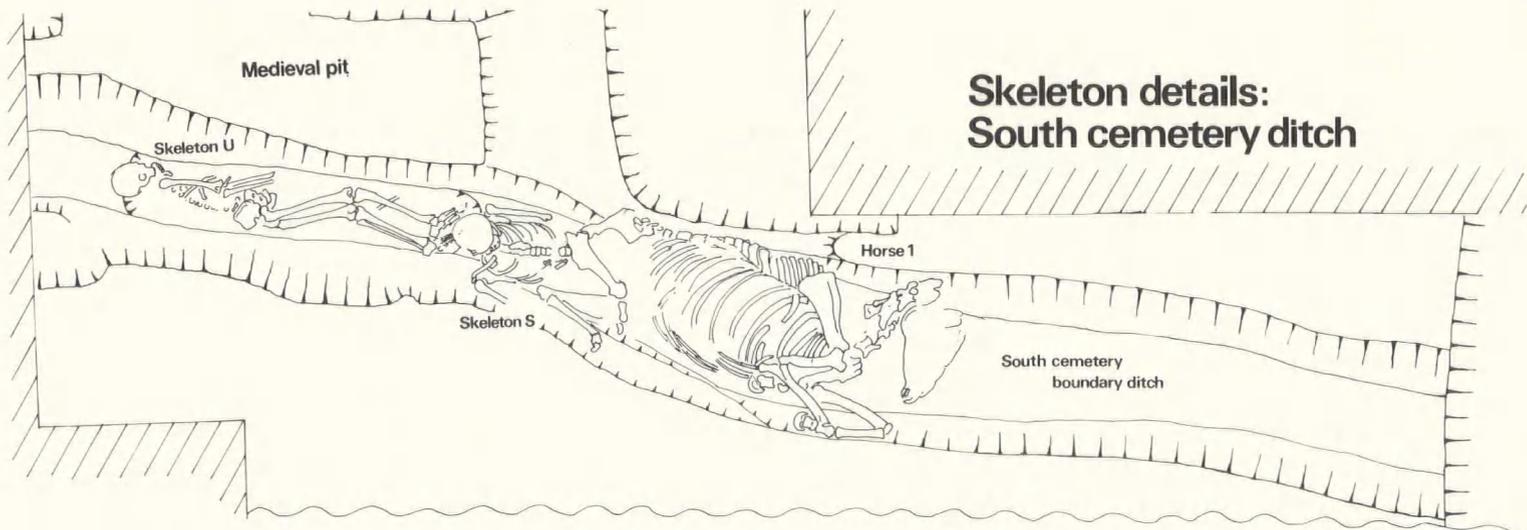
and a woman (L). The woman was not only decapitated but also had her legs chopped off just above the knees. She was lying along the bottom of the ditch with her skull between her femurs and her legs placed on each side of the body with the feet opposite her neck. Next to her in the ditch at a slightly higher level was another woman (K) lying on her left side with her right hand over her face and her left arm twisted behind her back. A baby of six months (BZ) had been beheaded, with the skull lying on the legs. The man H had also had his head chopped off and his skull was found beneath the pelvis of another man (I) who had been buried at a later time.

One man (Q) had been buried with a pair of hob-nailed boots. These were found lying beneath his knee joints as a mass of close-set clinched nails. Nearby, in a deepened section of the ditch was a woman (ZZ) buried with a new-born child. Her left hand was raised and lying on top of the baby's paper-thin skull (CL). The other new-born baby (CE) had a small enamelled bracelet on top of its skull (Fig 31 no 34).

One teenage girl (G) had been buried in the deepest section of the ditch with her knees up and lying against the side of the ditch. She had been buried wearing her jewellery, three bracelets on her left wrist and three finger rings on her left hand (Fig 28). Skeleton CD, a young woman, had a bone pin on the top of her skull (Fig 31 no 31).

An adult man (A) had been a lifelong cripple

Fig 4 Southern part of cemetery.



with paralysis of his legs. The bones of the lower limbs were very thin and weak but he had very strong arm bones and well-developed muscle attachments. He had probably progressed through his life pushing himself along on his backside.

The burials had been made at different times. The grave of B had been partly dug through and deeper than the grave that contained C, removing most of the skeleton and leaving only the feet and ankles in situ. At a still later time the grave of B was disturbed to bury A immediately above. This activity removed the cranium of B which was thrown back in the grave and was found to the left of the pelvis of B. This suggests that C was already a skeleton when B was buried and B in turn was a skeleton when A was put into the ditch. The time lapse between burials is also shown in graves BP and BO. The latter had been buried in the ditch and had become completely decomposed when the grave of BP had been dug through her and into the bottom of the ditch. The scattered and broken bones of BO were found in the grave fill of BP. The graves of BP and BQ had been dug partly into the ditch fill and partly into the natural chalk at the side of the ditch, perhaps indicating that at this time the ditch had almost disappeared from view.

South Ditch

(Detail shown on Fig 7)

Fifty metres of the south ditch were excavated and contained nineteen human burials:

S, T, U, V, Y, Z, AA, BB, CC, FF, GG, HH, II, JJ, BV, CG, CH, CI, CJ.

Eight were males, seven females, one an adult of unknown sex, and three were infants. There were also four horses and a dog. The west end of the ditch had been destroyed by a sixteenth century cess-pit. When this was originally dug, a part of skeleton Y had been removed and this caused the diggers to change the contour of their pit to avoid the skeleton, but further westward the cess-pit destroyed the ditch entirely and probably removed other skeletons. A human jaw bone was found in the cess-pit fill. At least seven of the bodies in this ditch (S, U, Y, Z, GG, II, JJ) had been buried in a haphazard manner, on their sides or face down, sometimes with the knees bent.

The burials, as in the east ditch, had been made

Fig 7 Detail showing human and horse burials in south cemetery ditch.

at different intervals of time. The skull of S was found lying above the feet of U and at a later date the lower limbs of S had been removed when the ditch was re-excavated and widened for the burial of a horse. This event occurred before S had completely decomposed: the articulated bones of his left lower leg were found in contact with and above the horse's neck (horse 1, Fig 7). For the burial of horse 3 the ditch had again to be widened. Subsequently the grave of CC had been dug, using the widened part of the ditch for ease of digging. The burials were therefore taking place not all at one time but probably over a comparatively short period and it was this disturbance of earlier graves containing putrifying bodies that led to some of the graves being marked with wooden posts. Both II and JJ had posts with stone packing placed over the centre of the graves. The dog had been buried over II without coming in contact with the body.

BURIALS IN THE TOPS OF DISUSED WELLS

Four wells adjacent to the cemetery had been used for the burial of bodies. When the wells were abandoned and left uncovered frost attacked the chalk at the top of the well and surrounding pit and this left a large funnel-shaped hole. Five wells in the vicinity of the cemetery have been exposed with these funnel-shaped apertures.

Well 1³

Situated 10m outside the east cemetery ditch, this well had been plugged and perhaps sunk a little to show as a large hollow nearly 2m deep. Into this hollow were thrown seven bodies, four adult females, two adult males and one teenage male. Before these bodies had decayed the centre of the hollow, over the well shaft, subsided. Parts of the bodies were left at the top of the well and parts still articulated were found at depths varying from 5m to 12.19m. The position of the skeletal remains at the top of the well suggests that the bodies had been lying in a heap within the hollow. The only associated find was a bone hair-band with one of the female skulls.

Well 2

This was sited 75m from the north-east corner of the cemetery and after it had been plugged and appeared as a hollow more than 3m across the top and just over 1m deep, three bodies had been buried in it. Parts of the skeletons adhered to the top of the well and parts of them were recovered

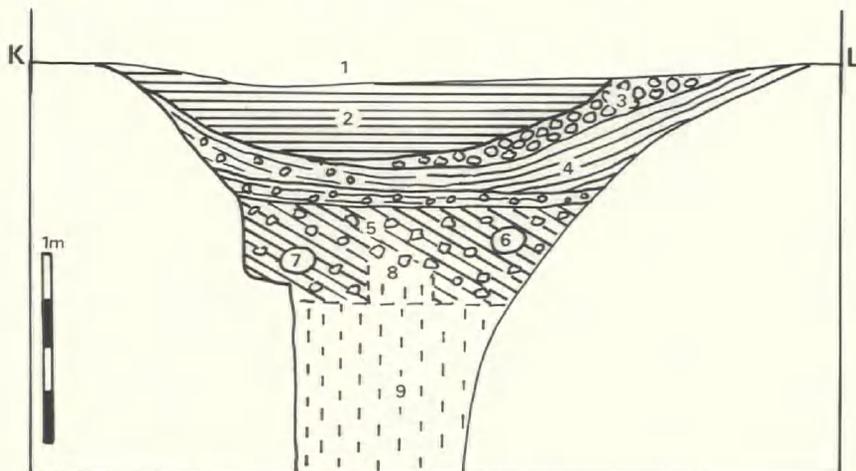


Fig 8 Section K—L through well 5 (see Fig 25 for plan).

- 1 Topsoil removed
- 2 Dark loam
- 3 Lump chalk
- 4 Silted loam and chalk
- 5 Loam and chalk, grave fill
- 6 Skull of skeleton BI projected on to section
- 7 Skull of skeleton BJ projected on to section
- 8 Well collapsed at this point
- 9 Cavity down to depth of 7m

between 6.5m and 8.5m deep. At 8.5m there was found, with human bones, a mass of boot studs and two bracelets. (Fig 31 nos 38, 39). These had probably been associated with the bodies buried in the top of the well.

Well 3

This was sited 55m north of the north-east corner of the cemetery and followed the pattern of wells 1 and 2. After it had appeared as a gaping hole some 3m across it had been plugged and into the hollow had been buried at least two bodies. This well had collapsed during Roman times, carrying parts of the skeletons to a depth of 12m.

Well 4

This lay 23m north of the northern cemetery ditch, beneath the modern property boundary wall. It has not been excavated but appears as a funnel shape and probably some subsidence took place during the nineteenth century when the wall was built. The wall base where it crosses the well is set on cemented rubble to a depth of 2m. Roman sherds were found around the periphery of the funnel.

Well 5 (Figs 8 and 25)

This lay 9m to the west of the cemetery ditch. The well shaft measured 77cm in diameter and had been plugged after the top had been eroded and had appeared as a gaping hole some 3.75m across the top. The cavity beneath this plug survived until the present excavation. Within the plug at the top of the well three bodies had been buried. In well 1 the seven bodies had been thrown into the hollow of the well, but in this well graves had been cut into the plugging debris and for two of the burials the graves had also removed some of the natural chalk on the side of the funnel. The three bodies were lying at different angles with the three pairs of feet above each other. The uppermost was BJ, the lowest BK with BI in between. BI had a coin of Constantius (A.D. 341–6) lying just below the right clavicle. Adhering to this coin on one side was a fragment of woven cloth and impressions of thread on the other side. The burials were all adults, two female and one male. During their excavation the well plug collapsed into a cavity 6.4m deep, carrying most of BJ and BK with it. During the further excavation of the well the remains of a child of about six years (BN) and two infants (BL,

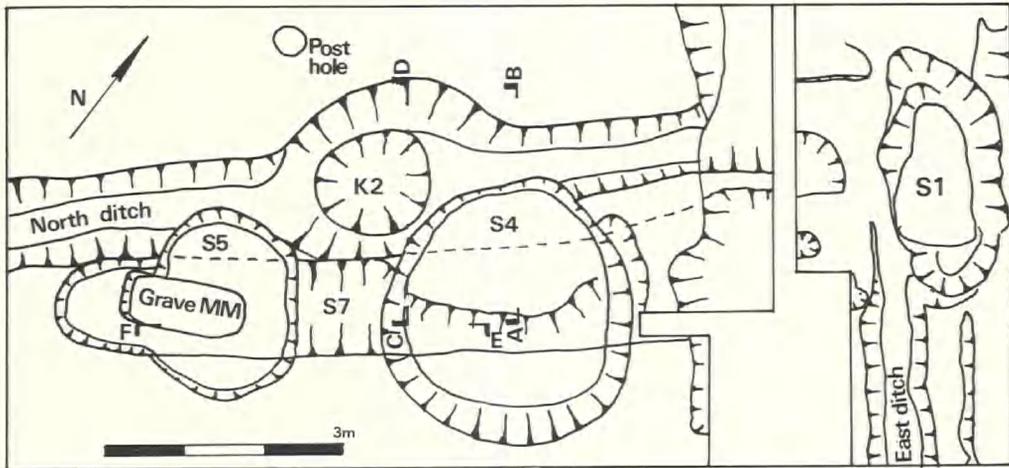


Fig 9 Plan showing features cut into north-east corner of cemetery enclosure.

BM) were also found. The bones of these were found scattered and may also have been buried in the plug at the top of the well.

FEATURES INTERRUPTING THE BOUNDARY DITCH (Figs 3 and 4)

The North-East Corner

The north-east corner of the boundary ditch had been destroyed by an irregular hollow nearly 3m long, 1.5m wide and 1.45m deep (S1, Fig 9). To the south of this was a shallow trench partly overlapping the cemetery ditch and both this and the hollow contained a 20cm thick band of ashy loam. Above this the fill was mainly chalk rubble containing Romano-British sherds, roof-tile fragments, small pieces of glass, a bone needle and a small cluster of boot-nails together with a scatter of animal bone fragments.

At the point where the cemetery boundary ditch was disturbed by the hollow, it appeared to turn a right-angle corner. There was no evidence of it continuing on its original line but a slight ridge in the chalk bordering the hollow seemed to indicate where the direction changed and the new line of the ditch was taken up again 1m further west.

From here, for slightly more than 6m, the ditch, with no alteration in depth, had been used as a flue for a bowl-shaped kiln excavated into the ditch (K2, Figs 10 and 11). This had a diameter of 2m with sloping sides to a flat floor sunk some 35cm below the ditch floor. The chalk floor of the kiln was discoloured and burnt and covered with

about 30cm of black ashy loam. This ash extended the whole 6 metre length of the flue and the ditch at the other side of the kiln also contained black ash for 1m of its length. This had probably been a vent for the kiln fired from the eastern side. Covering the kiln above the ashy loam was a layer of hard-packed chalk rubble with a band of 'dried peas'. Above this was dark loam and small chalk containing Romano-British debris. Following the abandonment of the kiln and when the flue had become almost re-filled with silt, a round pit (S4) had been dug into the chalk just encroaching into the ditch that had been used as a flue to the kiln (Fig 10).

The purpose of this pit and similar adjacent structures is unknown. It had a diameter of 3.5m and was sunk 1m below the natural chalk level. The floor was flat with a deeper hollow to one side. When this structure was abandoned, ash from the kiln flue had slumped into the in-fill.

One metre to the west a similar round pit had been dug into the natural chalk (S5). This also partly encroached into the cemetery boundary ditch. When these two structures had silted up a length of ditch, 7m long, 94cm deep and 1.5m wide was dug through them (S7). This ditch was filled with a dark loam containing Romano-British debris.

Dug through the ditch (S7) and into the underlying pit (S5) was the grave of a skeleton MM (Fig 12).

Six metres from the west end of the north cemetery boundary another irregular pit had been dug across the boundary ditch (S15). This was filled

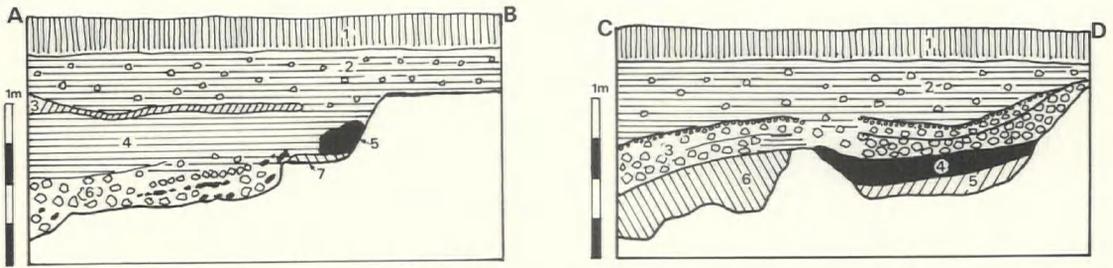


Fig 10 Section A–B taken through S4 and flue of kiln K2.

- 1 Topsoil
- 2 Loam and chalk
- 3 Clean chalk layer
- 4 Loam
- 5 Ash layer
- 6 Chalk rubble infill to S4 with ash spill from flue of kiln K2
- 7 Loose chalk layer

Fig 11 Section C–D taken through S4 and kiln K2.

- 1 Topsoil
- 2 Loam and chalk
- 3 Chalk lumps sealed by layer of 'dried peas'
- 4 Ashy loam
- 5 Burnt chalk
- 6 Hard-packed small chalk

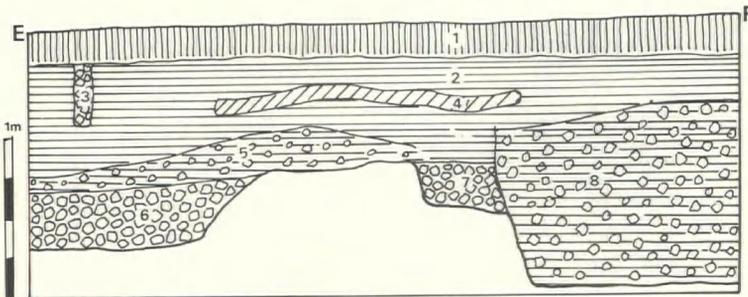


Fig 12 Section E–F through S4 and grave MM.

- 1 Topsoil
- 2 Loam
- 3 Chalk-filled posthole
- 4 Loam with flecks of chalk
- 5 Loam and chalk
- 6 Chalk rubble fill of S4
- 7 Chalk rubble fill of S5
- 8 Chalk and loam fill of grave MM

with a dark loam containing Romano-British debris. It was a shapeless structure with sloping sides and a central posthole. The bottom of the boundary ditch survived beneath the pit.

The North-West Corner (Fig 13)

The western end of the boundary ditch was completely destroyed by a complex of kilns but a turn in the ditch probably survives as a part of the flue to one of the kilns. The area had been used over a considerable period of time for purposes that required heat in kiln-like structures. Four separate flues were found. At least two had apparently served a kiln body built into the west boundary ditch; the other two had served kilns built into the corner where the north boundary ditch turned at right angles to form the west side of the cemetery enclosure.

Flue 1 had served a kiln that had destroyed the corner of the enclosure. It was 33cm deep and 2.5m of its length survived beneath a cobbled floor (S33). It approached the kiln body from the west. This kiln had then been abandoned and apparently completely filled and a new kiln (K3) had been constructed. The body of this later kiln was dug to a deeper level than the first, completely destroying it, and was served by a flue at the deeper level that approached from the south (flue 2). This kiln was also abandoned and probably completely filled before a new kiln (K4) to the south was constructed. This was served by flue 3, which was 4m long and filled with ashy loam and showed burning and wear on the natural chalk where it entered the kiln. This also had been abandoned and probably filled in when at a later date the final kiln was made. The body of the kiln had been re-excavated but a new flue (flue 4) had been dug. This flue was made between the previous flues and although it had been dug through the infill of the previous activity it was deep enough to leave a chalk ridge surviving along each side. Only a part of this kiln was available for excavation but it showed that the kiln had a burnt chalk floor and was more than 3m wide. Within the flue and kiln body were found fragments of calcined human bones, and a complete human tibia, and Romano-British debris which included potsherds and iron slag and large quantities of chopped animal long bones.

To the west of the kiln complex was a wide area of flint and stone cobbling (S33) that contained Romano-British material, chopped animal

long bones and a coin of Valens (Figs 13 and 43). This cobbling was compressed over and into flue 1 but had been destroyed on the east side by the later flues. Some of the cobbling was found deep in the in-fill of the complex.

To the east of the conjectured boundary ditch the kilns had cut through earlier shallow round pits. There were three of these, overlapping one another, and filled with chalk rubble. Across them, and compressed into the fill, was a wall base of flint and tile. The remainder of this structure had been completely destroyed by subsequent ploughing of the field.

The South-East Corner

On the opposite side of the enclosure, at the south-east corner, the southern boundary ditch continued beyond the point where the junction with the east ditch could be expected, but it was still being used for human burials (JJ and BV). Skeleton BV was lying in the bottom of the ditch but had been disturbed when an oval pit had been cut into the ditch. Beyond this pit the ditch had been completely destroyed by a wider deeper ditch which curved away from the east cemetery boundary ditch. This latter ditch, although containing burials, was entirely different in character to the cemetery ditches. It was 2.75m wide, 1.40m deep with sloping sides and flat floor. The fill was mainly clean chalk with very little loam or debris and in its upper fill was a part of a human ulna. The extent of this ditch is unknown as its continuation lies beneath adjacent property.

Within this ditch were the burials BZ and CG and three babies. Also within this ditch was what appeared to be an empty grave (CA). This was in the bottom of the ditch and the skeleton may have been removed when a medieval pit had been dug through the ditch. At one point the ditch had been widened for the burial of a horse but the bones of this animal were scattered by later activity.

A part of the ditch had been re-excavated to make a kiln (K1, Fig 14). The line of the ditch had been used as a flue and the ditch widened to make the body of the kiln which had a clay-lined floor. The clay was baked and covered with a thick layer of ashy loam which extended for approximately 3m along the bottom of the ditch. The flue and the body of the kiln had large flints packed along the sides. When this kiln had been abandoned and in-filled the grave of CG had been dug through the

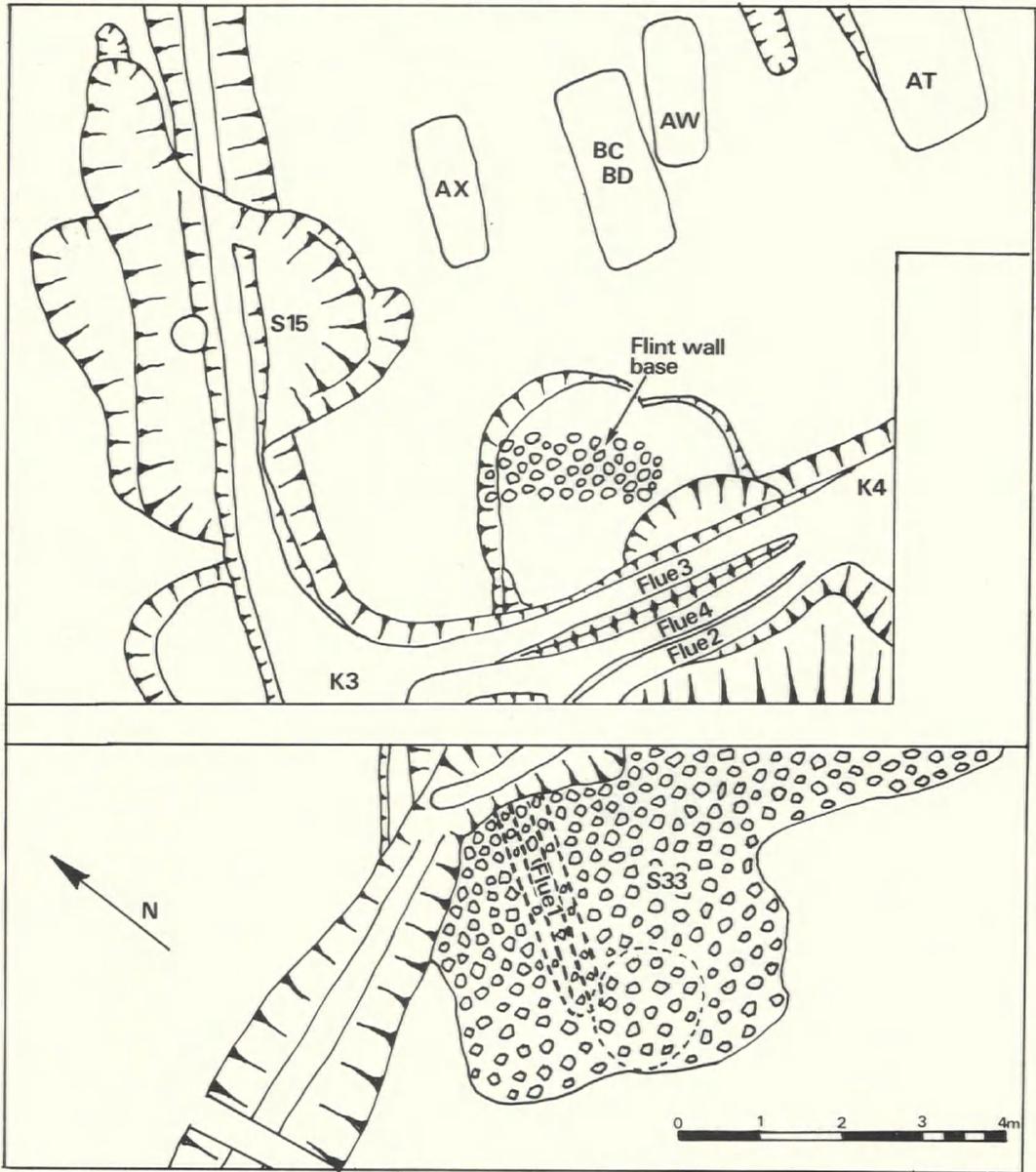


Fig 13 Plan of north western corner of cemetery enclosure.

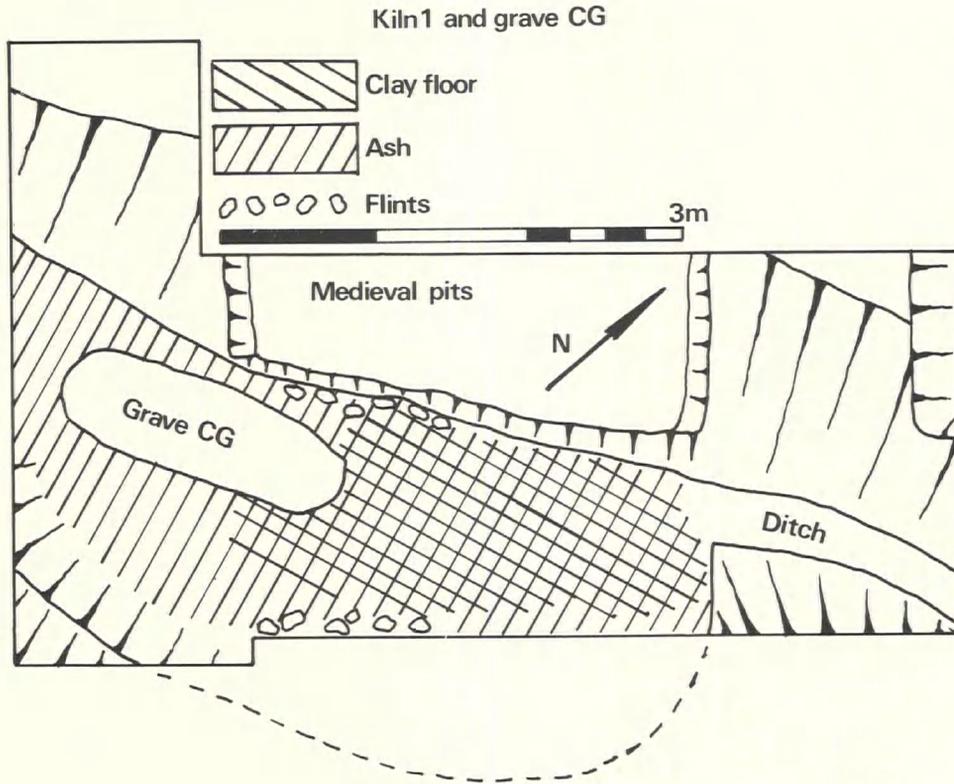


Fig 14 Plan of kiln K1 at south-eastern corner of cemetery enclosure.

kiln fill. Further disturbance of this area took place in medieval times when a pit was dug partly over ditch and kiln finally scattering the bones of the horse burial.

The sequence within this area is:

- 1 The south cemetery ditch.
- 2 The curving ditch which destroys the first ditch.
- 3 The widening of the curving ditch for the burial of the horse.
- 4 The kiln constructed.
- 5 Skeleton CG buried through the kiln fill.

- 6 A medieval pit dug partly over the site.

NOTES

- 1 The Viatores, *Roman Roads in the South-East Midlands*, (1964), 60.
- 2 Report forthcoming, to be submitted for consideration for inclusion in a future issue of the *Bedfordshire Archaeological Journal*.
- 3 C.L. Matthews and J.B. Hutchings, 'A Roman Well at Dunstable', *Beds. Arch. J.*, 7 (1972), 21-34.

TABLE 2
GRAVE CATALOGUE

* = Grave with 'offerings'. L = length; W = width; D = depth (measurements in cm).

Sk	Sex	Age	Ht	Orient	Description
A	M	30+	5ft 3in 160cm	N W	E. Ditch above B. Lower limb paralysis perhaps caused by polio.
B	M	30+	5ft 6in 168cm	N W	E. Ditch deepened by 30cm. Disturbed when A was buried. The cranium found beside the pelvis.
C		adult		N W	E. Ditch. Feet only found, remainder of skeleton probably removed when grave of B was dug.
D		adult			Found as scatter of bones within a medieval pit dug in the South Cemetery area.
E		teenage			Found as scatter of bones within a medieval pit dug in the South Cemetery area.
F	M	30+	5ft 7in 170cm	N W	E. Ditch in deepened grave.
G*	F	teenage		S E	E. Ditch in deepened grave. Three bronze bracelets on her left wrist, 2 rings on the third finger of her left hand, one bronze with a glass stone setting, the other iron. One bronze ring on little finger of left hand. 61 small blue glass beads around the neck. (Fig 28).
H	M	adult	5ft 6in 168cm	N W	E. Ditch. Beheaded. Lower limbs disturbed when I was buried.
I	M	adult	5ft 6in 168cm	S W	E. Ditch, partly over H. On right side, left arm across body, the elbow raised 7cm above the upper ribs and 5cm higher than the skull. Right hand at neck.
J		adult		N W	E. Ditch. Feet only. Remainder of skeleton beneath a large tree.
K	F	40+	5ft 1in	S E	E. Ditch. Lower legs missing due to later activity.
L	F	25+	5ft 1in 152cm	N W	E. Ditch deepened. Beheaded, skull placed between femurs. Legs cut off above knees and placed alongside body with feet opposite neck.
M	F	35+	5ft 4½in 164cm	W	S. Cemetery in grave cut into an earlier Roman pit.
N	M	adult	5ft 7in 170cm	W	S. Cemetery. Slots at top of grave, probably covered by boards as the bones had spread outwards. Skull displaced by later activity which destroyed head and foot of grave. D101 W61.
O		Infant			S. Cemetery. New-born baby buried in shallow hole.
P	M	25	5ft 10in 178cm	N W	S. Cemetery, in earlier Roman Pit. Mass of boot nails found at feet.
Q	M	40+	5ft 8½in 174cm	N W	E. Ditch, deepened a few inches to take body. Under the left leg, spread over an area of 30cm by 10cm were 72 small clenched iron nails, apparently boot nails and over them was a small area of puddled chalky soil dotted with nail holes. Probably mud from the soles of the boots.
R		adult		S	S. Cemetery in a grave sunk 46cm deep into the natural chalk. Only 12cm of the grave survived below the floor of a medieval pit. Only a part of the skeleton remained.
S	M	30+	5ft 8in 173cm	N E	S. Ditch. The skull above the feet of U which were covered with small chalk. The body had been disturbed to take the carcase of a horse. This activity had removed the skeleton from the pelvic bones to the feet at a time before the body had completely decomposed. The articulated bones of the lower left leg were found above the horse's neck with the remainder of the bones disarticulated in the chalk fill above the horse.
T	F	adult	5ft 2in 157cm	N E	S. Ditch.
U	M	30+	5ft 6in 168cm	N E	S. Ditch in deepened section.

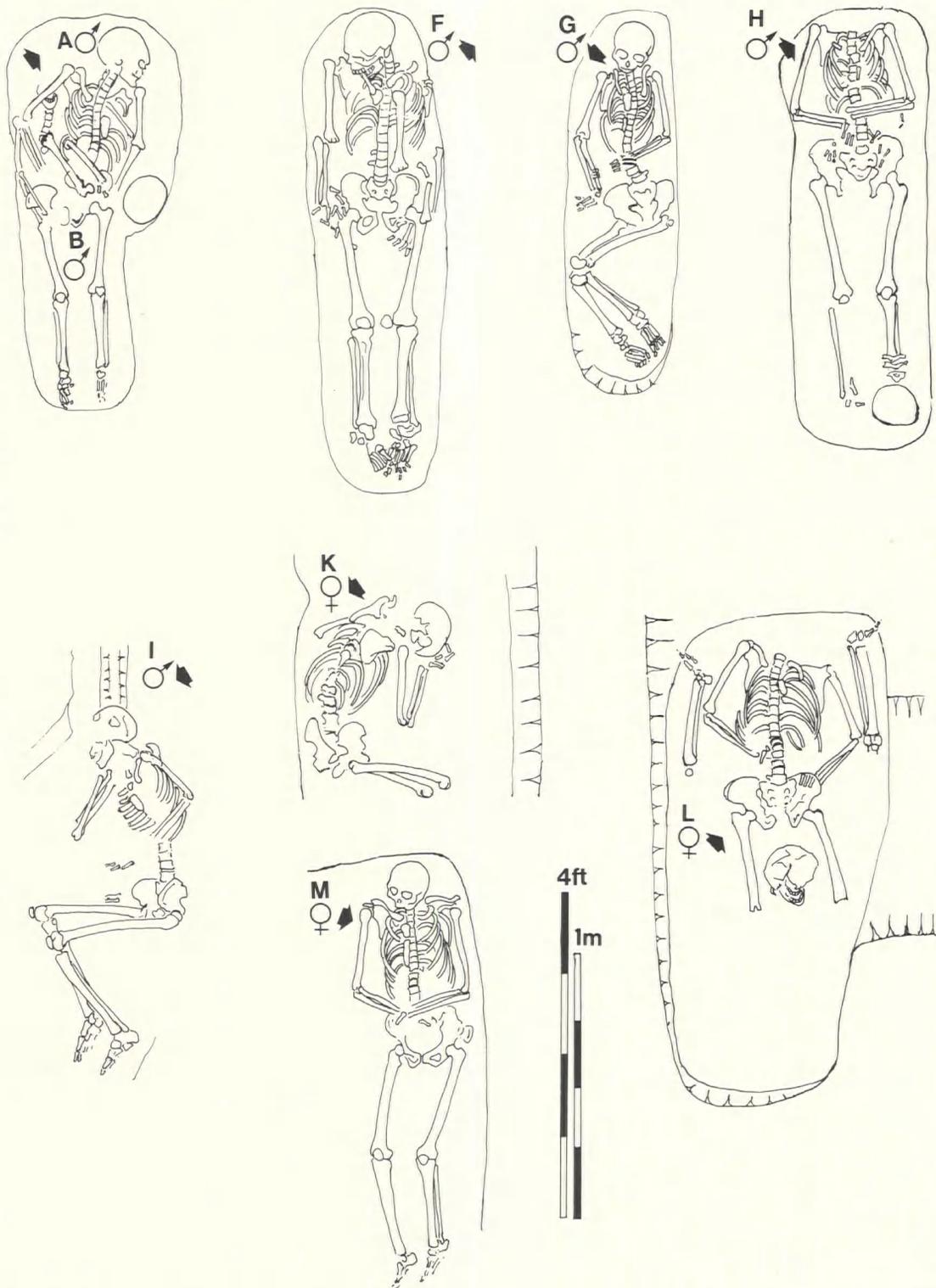


Fig 15 Skeletons A, B, F, G, H, I, K, L, M.

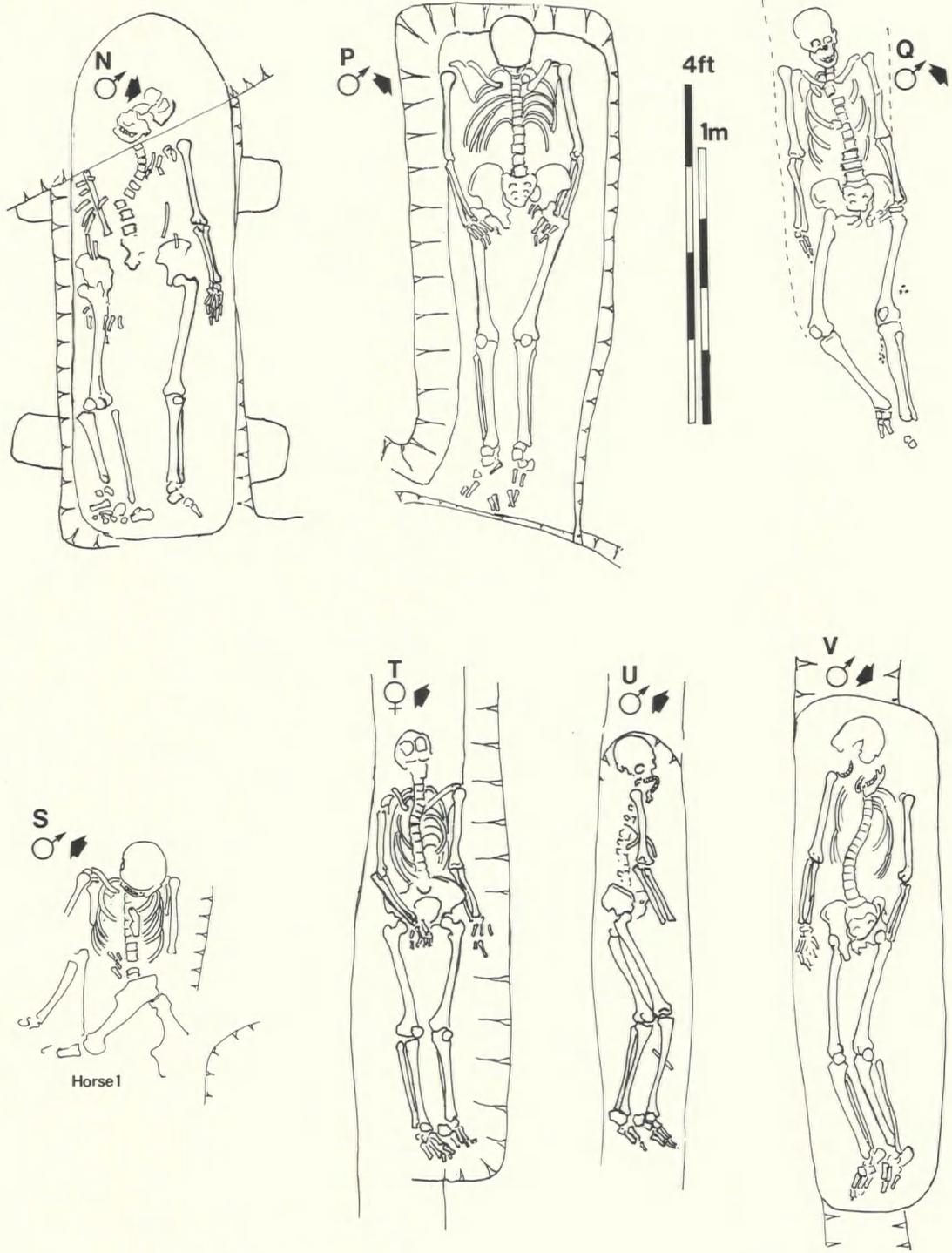


Fig 16 Skeletons N, P, Q, S, T, U, V.

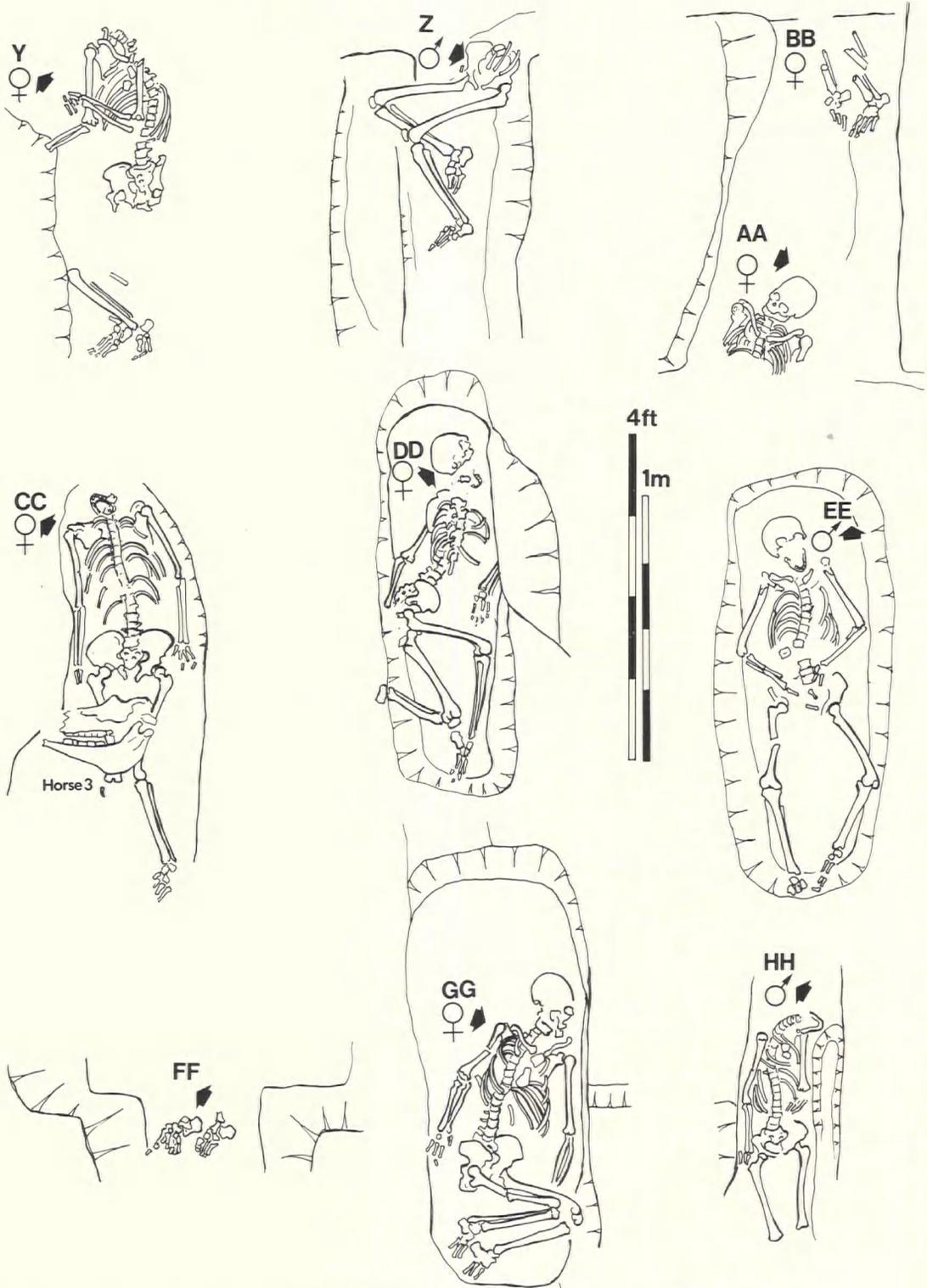


Fig 17 Skeletons Y, Z, AA, BB, CC, DD, EE, FF, GG, HH.

Sk	Sex	Age	Ht	Orient	Description
V	M	20+	5ft 9in 175cm	S W	S. Ditch.
W	F	adult			S. Cemetery. Found as scatter of bones disturbed by medieval pits.
X		adult			S. Cemetery. Found as scatter of bones disturbed by medieval pits.
Y	F	30+	5ft 2½in 159cm	N E	S. Ditch. Some bones removed by medieval pit.
Z	M	adult	5ft 4in 163cm	S W	S. Ditch. Upper body removed by later pit.
AA	F	40+		W	S. Ditch. Lower body removed by medieval pit.
BB	F?	30+		S W	S. Ditch. Feet and lower legs only. Remainder removed by medieval pit.
CC	F	20+	5ft 4in 163cm	N E	S. Ditch, deepened by a few cm. Partly disturbed by burial of horse 3.
DD*	F	30+	5ft 1in 155cm	N W	S. Cemetery, dug through an earlier feature. A later pit had removed part of the skeleton. Bronze finger ring found in grave fill. (Fig 31 no 33).
EE	M	25+	5ft 1½in 156cm	N	S. Cemetery, in shallow grave. L163 W66.
FF	M?	30+		N E	S. Ditch. Feet only, remainder of skeleton removed by medieval pit.
GG	F	30+	5ft 2in 157cm	W	S. Ditch in deepened section. Grave L163 W66. Body occupied only 117 of grave length.
HH	M	teenage		N E	S. Ditch. Upper part of skull and lower legs missing, disturbed by medieval pit.
II	F	20+	5ft 3in 160cm	S W	S. Ditch, deepened section. Posthole with stone packing in grave fill. The skeleton of a dog buried within the grave fill above the body.
JJ	M	30+	5ft 8in 173cm	N E	S. Ditch, deepened section. L198 W53 D30 below the ditch bottom.
KK		6-8		W	E. Ditch, grave cut into E. side of ditch.
LL	M	38+	5ft 6in 168cm	N W	E. Ditch. Healed fracture of the left tibia and fibula had given this man a short left leg. His right foot had been chopped off opposite the fracture and placed with him below his left leg.
MM	F	38+	5ft 1½in 156cm	W	N. Cemetery. Grave cut into earlier Roman ditch.
NN	M	38+	5ft 10in 178cm	N E	N. Ditch, deepened. L183 W56 D12 below bottom of ditch.
OO	F	adult	5ft 6½in 169cm	N E	N. Ditch, deepened. L163 W56 D15 below bottom of ditch.
PP*	F	adult	5ft 6½in 169cm	N E	N. Ditch. Beheaded and skull face down between tibiae. Broken pot in grave (Fig 35 no 52).
QQ	M	38+	5ft 6in 168cm	E	N. Cemetery. Extended, left hand on pelvis, right hand by side. Right leg flexed.
RR	M	38+	5ft 5in 165cm	N E	N. Cemetery. Buried in the re-excavated grave of SS. This man had been hit with a sharp instrument on the bridge of his nose, taking off his nose, the points of his cheek bones and his upper lip with part of the bone.
SS*	F	18	5ft 5in 165cm	N E	N. Cemetery. The dorsal vertebrae and the right ulna had been disturbed by the burial of RR. On the left of the skull was a pile of jewellery in an area of 9cm diameter. On top of the jewellery was a small fragment of iron with traces of wood fibres adhering to it, probably part of a box that contained the grave goods. There were 5 bronze bangles, 2 finger rings and a bronze object, probably an ear ring (Fig 29). L178 W66 D102.
TT	F	23	5ft 1½in 156cm	N E	N. Cemetery. Single iron nail at the feet. L183 W66 D112.
UU*	F	adult	5ft 2in 157cm	N E	N. Cemetery. Bronze ring on third finger of left hand (Fig 31 no 32). L165 W64 D51.

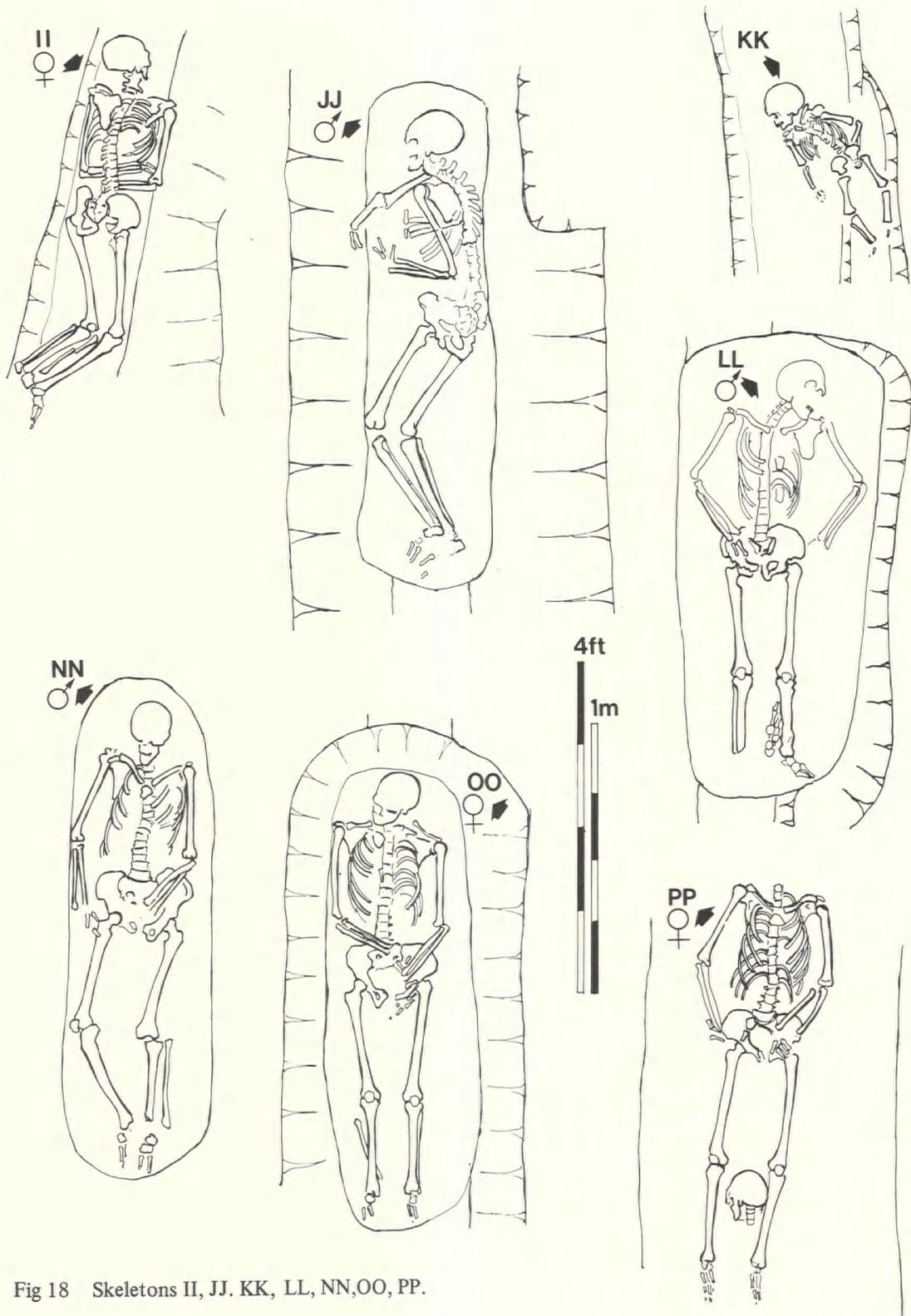


Fig 18 Skeletons II, JJ, KK, LL, NN, OO, PP.

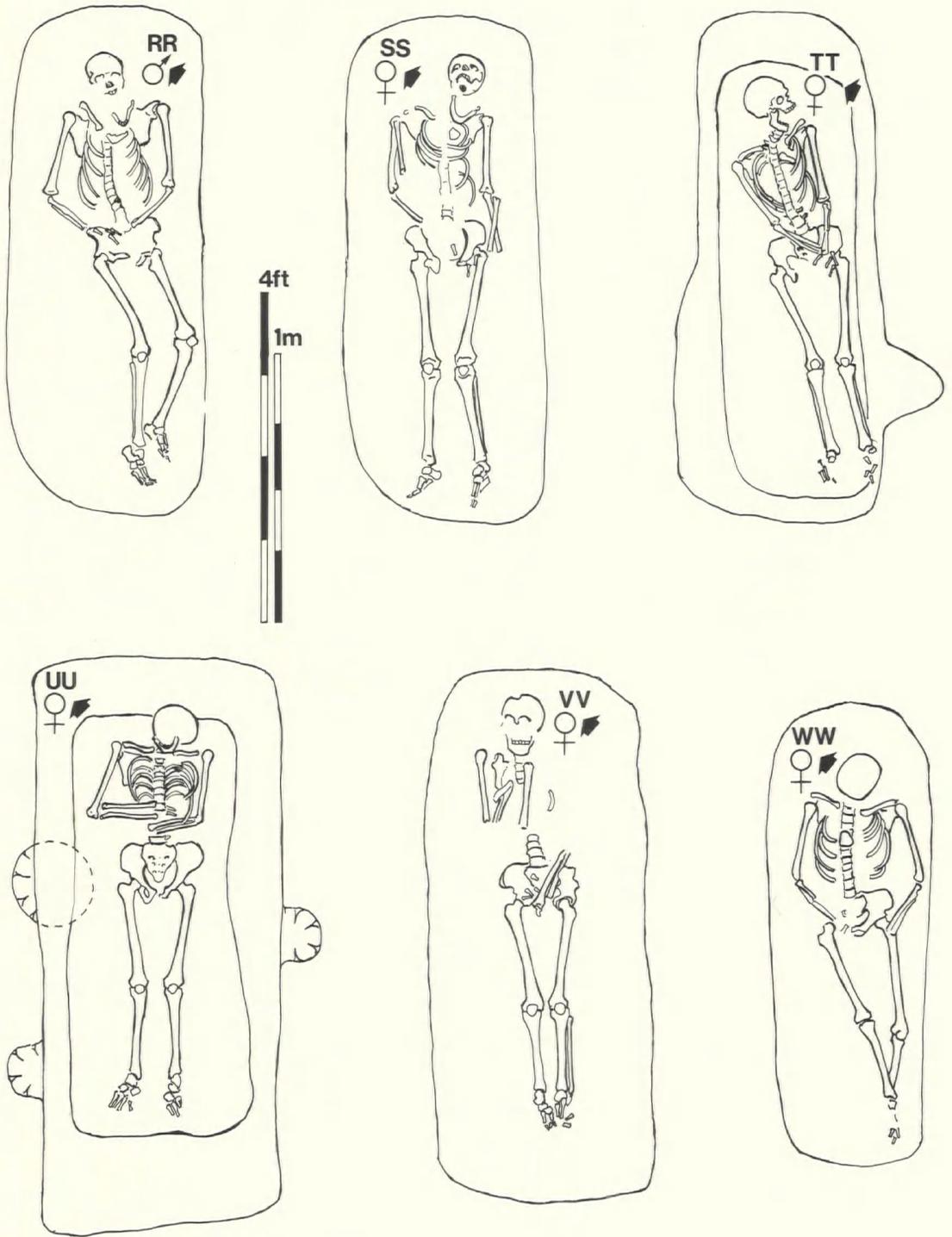


Fig 19 Skeletons RR, SS, TT, UU, VV, WW.

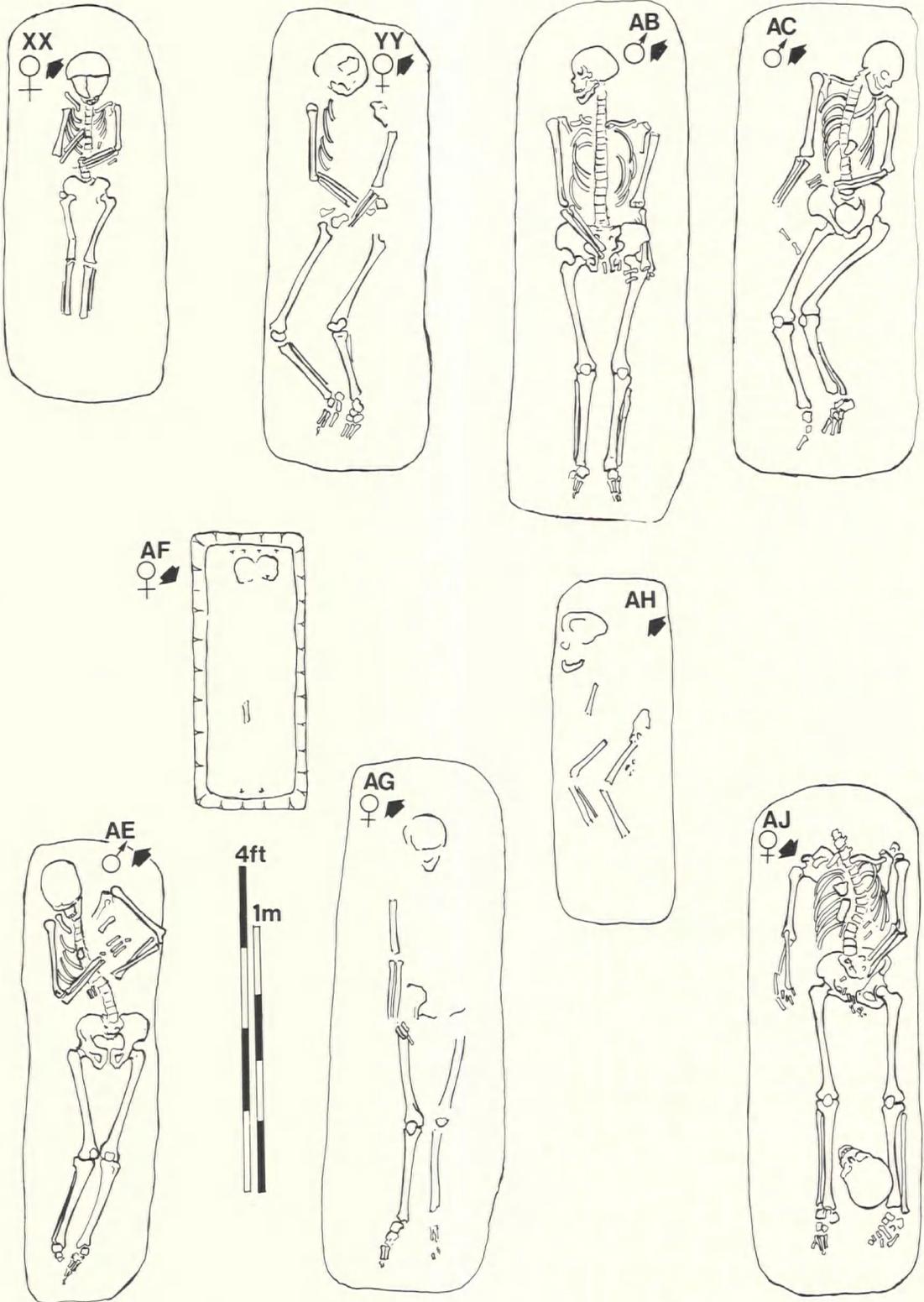


Fig 20 Skeletons XX, YY, AB, AC, AF, AH, AE, AG, AJ.

Sk	Sex	Age	Ht	Orient	Description
VV	F	20	5ft 2in 157cm	N E	N. Cemetery. The rib cage and left humerus decayed, probably lime on body. L186 W76 D86.
WW	F	20+	5ft 0in 152cm	N E	N. Cemetery. L165 W97 D86.
XX	F	8-10		N E	N. Cemetery. L145 W64 D89.
YY	F	teenage		N E	N. Cemetery. Part of torso decayed, probably lime on body.
ZZ	F	40+	5ft 1½in 156cm	S	E. Ditch. Extended position, right forearm raised with hand on top of the skull of a new-born infant (CL). Skeleton vandalised before completion of excavation. L198 W86 D20 below the bottom of the ditch.
AB	M	20+	5ft 7½in 171cm	N E	N. Cemetery. L183 W66 D76.
AC	M	adult	5ft 5in 165cm	N E	N. Cemetery. L155 W76 D48.
AD	F	20-25	5ft 4in 163cm	E	N. Cemetery. Beheaded with skull placed between knees. L234 W137 D91.
AE	M	20-25	5ft 6in 168cm	N E	N. Cemetery. Grave was too short and he had been squeezed into it. L152 W48. D38.
AF*	F	8-10		S W	N. Cemetery. The body had almost completely decayed, probably the result of quicklime. The skull was intact but very thin and this had collapsed in two halves. Above the skull were 5 iron nails point upwards and two others at the feet (coffin burial; see Fig 32 nos 41, 42). On the right of the waist area was a heap of jewellery that had been contained in a box or bag which survived as a brown stain. The jewellery consists of: 208 small glass beads, 2 necklaces of glass beads strung on bronze wire, one small gilded bronze ring (a finger or ear ring), 2 shale bracelets, 5 gilded bronze bracelets, 4 jet beads (probably part of a bracelet) a round jet bead, a jet faceted pin and 1 bronze pin (Fig 30). L160 W43 D74. This grave had been partly cut through by grave AL.
AG	F	20+	5ft 6in 168cm	N E	N. Cemetery. Torso and left arm completely decayed. Probably lime on body. A posthole was found in the grave fill at the west end. L234 W76 D61.
AH*		7		N E	N. Cemetery. Skull and a few long bones only survived, probably lime on body. Coffin nails were found at the head and feet (Fig 32 nos 46-48). Just above the skeletal remains was a small Castor pot, probably placed on the coffin rather than within it at the time of burial (Fig 35 no 53). L130 W46 D20.
AI	F	12	5ft 0in 152cm	E	N. Cemetery. Extended position. L201 W122 D84.
AJ	F	25	5ft 3in 160cm	S W	N. Cemetery. Beheaded with skull placed between lower legs. L191 W74 D56.
AK	M	30+	5ft 4in 163cm	S W	N. Cemetery. Rib cage decayed, probably lime on body. L229 W91 D61.
AL	M	30+	5ft 7in 170cm	N E	N. Cemetery. This grave partly cut through AF. L211 W91 D74.
AM	M	40+	5ft 8in 173cm	N E	N. Cemetery. Rib cage and spine completely decayed, probably lime on body. L224 W81 D81.
AN	M	30+	5ft 9in 175cm	N E	N. Cemetery. Beheaded and skull placed on right side of feet. Torso missing probably due to lime. Part of wooden coffin survived in this grave on the north side of the skeleton. No coffin nails were found. L246 W109 D99.
AO	M	40+	5ft 6in 168cm	N E	N. Ditch. Small iron strip and boot stud beneath feet. L203 W64 D84. This was deeper than the ditch bottom and the grave fill of clean chalk extended to the top of the ditch.
AP	M	17		N E	N. Cemetery. The grave cut through an earlier ditch. Torso decayed, probably lime on body. L203 W107 D61.

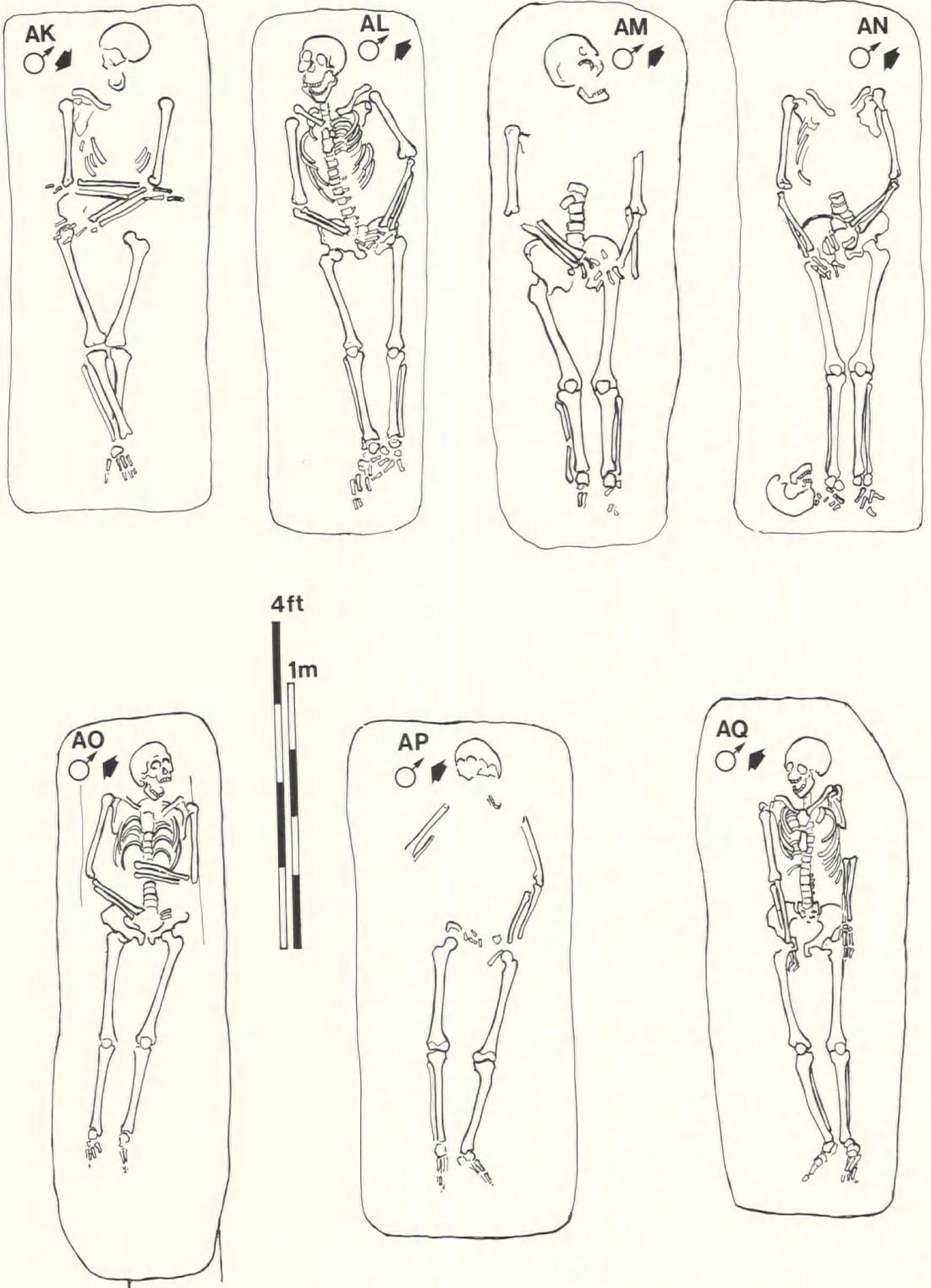


Fig 21 Skeletons AK, AL, AM, AN, AO, AP, AQ.

Sk	Sex	Age	Ht	Orient	Description
AQ*	M	16-20	5ft 6in 168cm	N E	N. Cemetery. Broken inscribed pot beneath and around skull. Two coffin nails found in the grave, one at the skull, one at the waist. Part of the left upper arm missing, disturbed by the burial of AS whose grave partly overlapped this one. Two sherds of the inscribed pot were found in the grave of AS (Fig 33). L191 W76 D61.
AR	M	40+	5ft 8in 173cm	N E	N. Cemetery. Beheaded and skull buried in top of grave after it had been filled in. L231 W114 D71.
AS	M	30+		N E	N. Cemetery. All the torso decayed, probably lime on body. The grave was cut through an earlier ditch and partly overlapped grave AQ. L213 W119 D71.
AT	F	20+	5ft 4in 163cm	N E	N. Cemetery, in a grave cut through an earlier ditch. Two newborn infants buried in top of filled-in grave. L218 W117 D46.
AU	M	24	5ft 8in 173cm	N E	N. Cemetery. L191 W66 D53.
AV	F	12		N E	N. Cemetery. Coffin nails at head, feet and alongside skeleton. (Fig 32 no 45). Part of the grave had been cut through by grave BF. L198 W66 D61.
AW	M	20+	5ft 7in 170cm	N E	N. Cemetery. Beheaded, skull alongside left upper tibia. L193 W76 D51.
AX	F	adult		N E	N. Cemetery. Beheaded skull alongside right foot. Axe passed through the back of the skull and through the mouth. The lower jaw was still attached to the body. L188 W66 D38.
AY	M	38+	5ft 3in 160cm	N E	N. Ditch. Beheaded, skull at side of but slightly above right foot, face down. Iron nail at side of left hand. Grave sunk below bottom of ditch. L203 W66 D76.
AZ	M	40	5ft 7in 170cm	N E	N. Ditch. Grave sunk 48cm below ditch bottom. L163 W51 D76.
BA	F	38+	5ft 4in 163cm	N E	N. Ditch. L112 W43 D74.
BC*	F	25+		S	N. Cemetery. Torso and lower legs decayed, probably lime on body. Broken glass beaker between femurs and beside right leg (Fig 35 no 54). The grave had been re-excavated to take the burial of BD. This activity had removed the skull of BC which was thrown back into the grave fill, showing that BC was a skeleton when BD was buried. Coffin nails were found around BC. L244 W91 D59.
BD	M	30+	5ft 6in 168cm	N	N. Cemetery. Buried in re-excavated grave of BC.
BE	M	30+	5ft 7½in 171cm	N E	N. Cemetery. Later grave (BF) partly overlapped BE and this activity removed the skull, which was found in 2 parts in the later grave fill. L150 W64 D61.
BF	F	20+	5ft 3in 160cm	N E	N. Cemetery. Grave overlapped AV and BF. L201 W64 D51.
BG*	F	adult	5ft 3in 160cm	N E	N. Ditch. The grave only partly cut through the ditch, showing that this was completely filled at the time of burial. Beheaded, skull between knees. Coffin nails, point downwards at waist, above neck and between feet (Fig 32 nos 43,44). Black ceramic bottle and broken colour-coated vessel at right elbow (Fig 34). L170 W79 D74.
BH	M	30	5ft 7½in 171cm	N E	N. Cemetery. 8 coffin nails alongside skeleton. Shoulders pulled over rib-cage as though body had been wrapped tightly in a shroud. L193 W76.
BI*	F	38+	5ft 4in 163cm	N E	Top of well 5, the grave cut into the natural chalk on the south side of the well. A coin was found just below the right clavicle with a fragment of linen attached to it. L173 D102.
BJ	F	35+		N W	Top of well 5, feet above the feet of BI. Coffin nails found alongside skeleton. Lying extended on back.
BK	M	40+	5ft 11in 180cm	N	Top of well 5. Lying extended on back with feet below BJ. Coffin nails alongside skeleton.

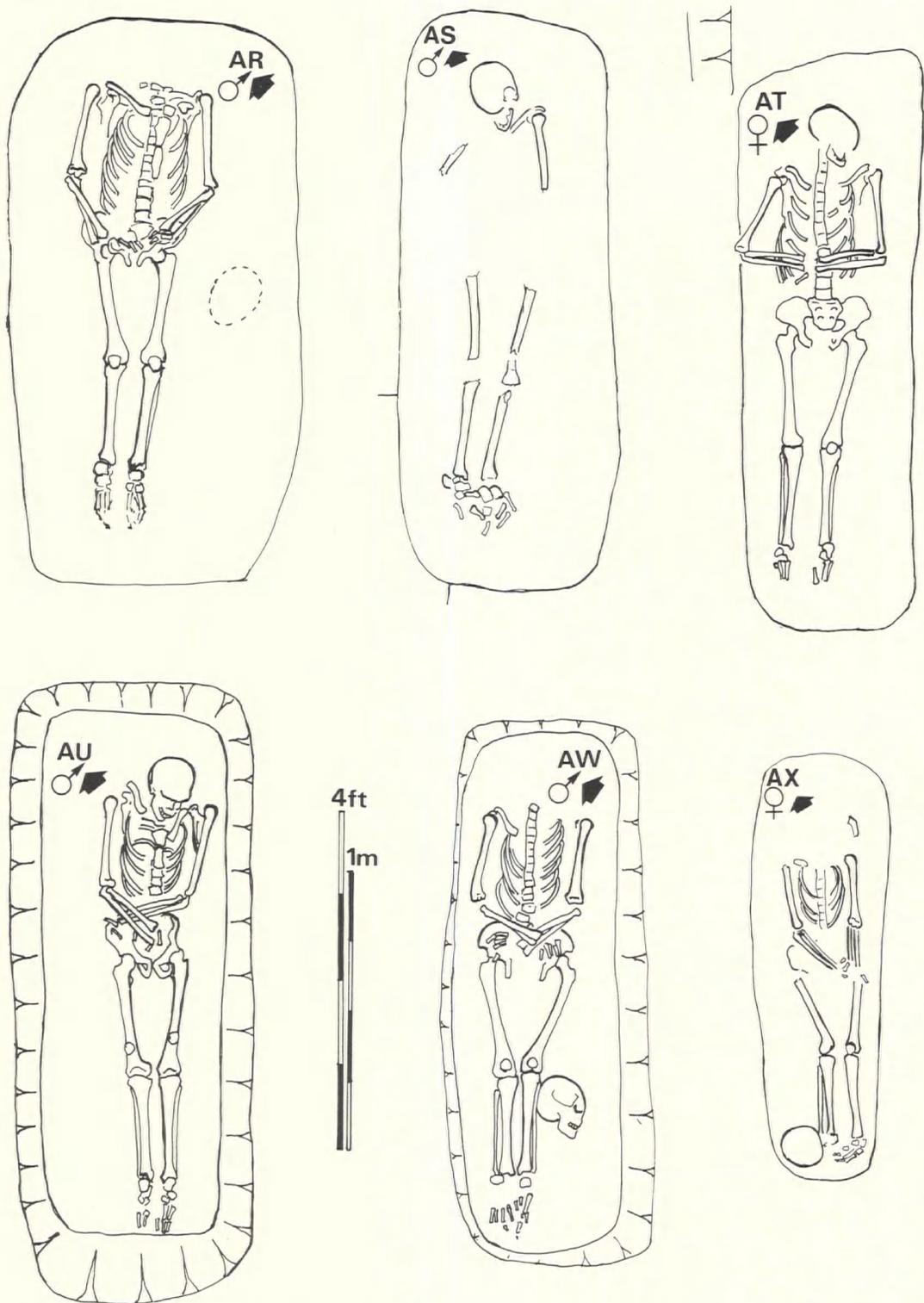


Fig 22 Skeletons AR, AS, AT, AU, AW, AX.

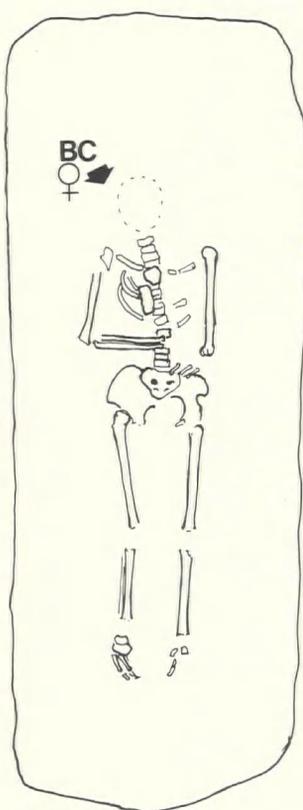
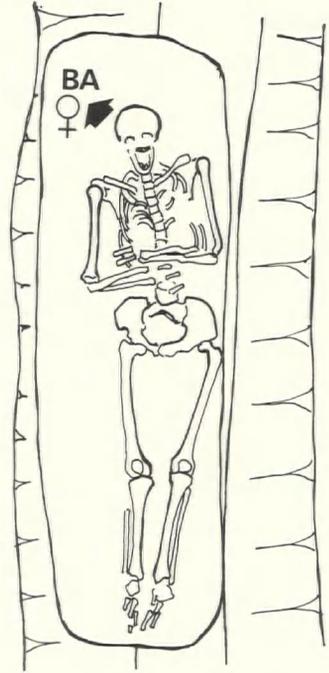
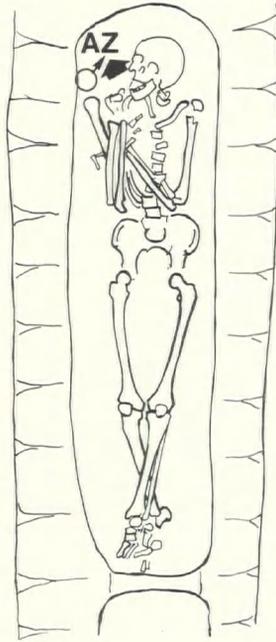
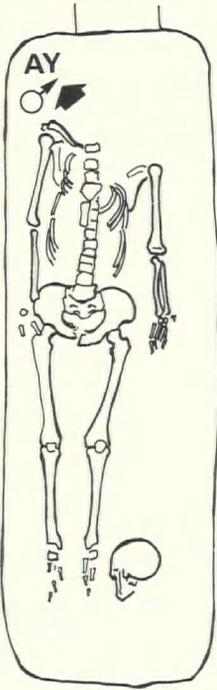


Fig 23 Skeletons AY, AZ, BA, BC, BD.

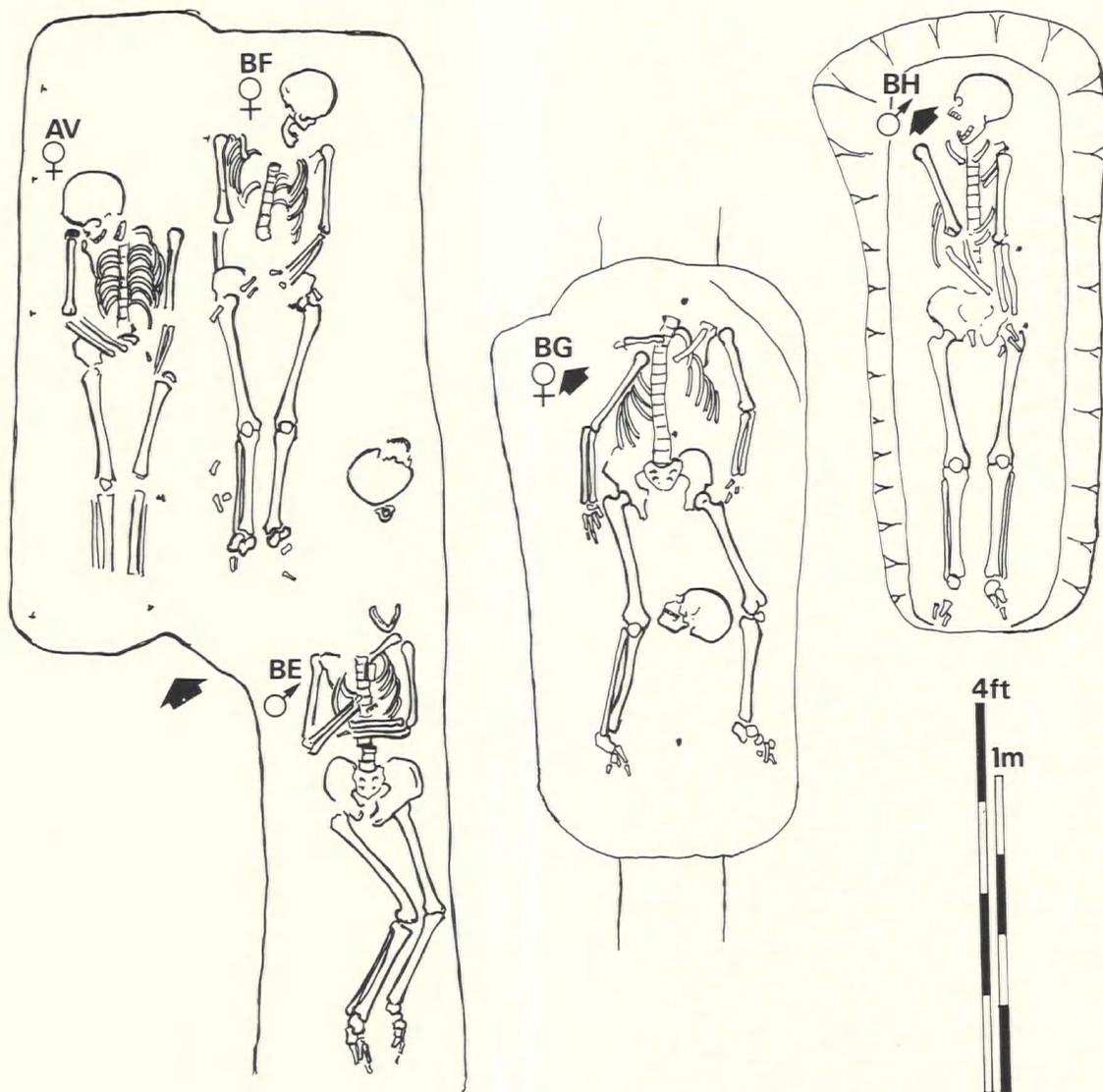


Fig 24 Skeletons BG, BH, AV, BF, BE.

Sk	Sex	Age	Ht	Orient	Description
BL & BM		infants			Top of well 5.
BN		infant			Top of well 5.
BO	F	40+			E.Ditch. Completely scattered when BP was buried. Dis-articulated bones thrown back into grave fill.
BP	M	38+	5ft 7in 170cm	N	E. Ditch. Grave partly cut into ditch side. L170 W76.
BQ		infant		N	E. Ditch. Grave partly cut into natural chalk of ditch side.
BR & BS		infants			N. Cemetery. Top of grave AT.
BT		infant			Top of an adjacent Roman cess-pit.
BU		infant			Top of silted N. Ditch.
BV		adult		S W	S. Ditch. Disturbed by later feature.
BW	M	17-25		W	S. Cemetery. Part of torso missing, probably due to lime. Coffin. L221 W66 D56.
BX	M	30		W	S. Cemetery. Coffin.
BY	F	adult		S W	S. Cemetery. Grave destroyed by medieval pit. Lower legs only.
BZ		infant		N E	Beheaded. Skull on legs.
CB	M	40+	6ft 1in 185cm	S	E. Ditch. Disturbed by burial of CD.
CD*	F	24+	5ft 3in 160cm	N W	Obliquely across E. Ditch, disturbing CB. Bone pin at back of skull (Fig 31 no 31).
CE*		infant			E. Ditch. Grave dug partially into chalk side of ditch. Bracelet on top of skull (Fig 31 no 34).
CF	M	20-24	5ft 6in 168cm	N E	S. Cemetery. Skull and shoulders only. Skeleton destroyed by medieval pit.
CG	M	35-40		N E	S. Ditch. Buried through kiln K1.
CH		infant			S. Ditch. Infant buried in ditch fill.
CI		infant			S. Ditch.
CJ		infant			S. Ditch.
CK	F	19	5ft 4in 163cm	N W	N. Cemetery. Skull disturbed by later feature. L142 W61 D43
CL		infant			E. Ditch. With skeleton ZZ.

NOTES

- 1 An asterisk after the skeleton code letter indicates that grave goods were found with the burial.
- 2 The sex (shown M or F), age, height and notes of skeletal material are each taken from the analysis by E.V. Jones and B. Horne.
- 3 The cardinal point means the direction of the skeleton from feet to head.
- 4 Grave measurements are taken from the natural chalk level, which is here overlaid by about 300 mm of topsoil. L equals length, W width, D depth and each is given in centimetres.
- 5 The burials are catalogued as North Ditch, East Ditch and South Ditch and as North Cemetery and South Cemetery.
- 6 The North Cemetery consists of burials located in the property of Mr Flory, north-west of the modern fence.
- 7 The South Cemetery indicates those burials in the property of Mr J.B. Stevens, to the south-east of the modern fence.
- 8 The position of a skeleton is described only when it has not been drawn.

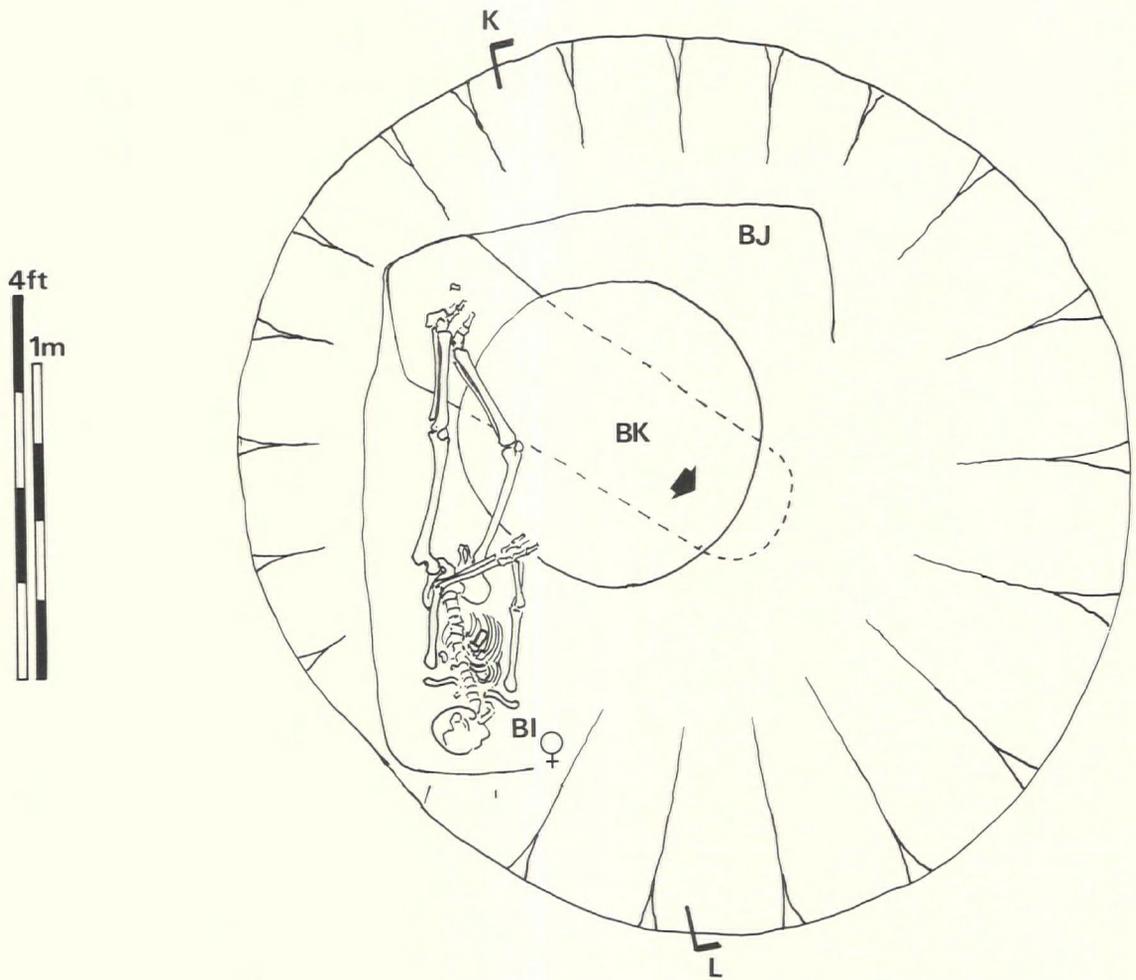


Fig 25 Plan of well 5 with skeleton BI (for section see Fig 8).

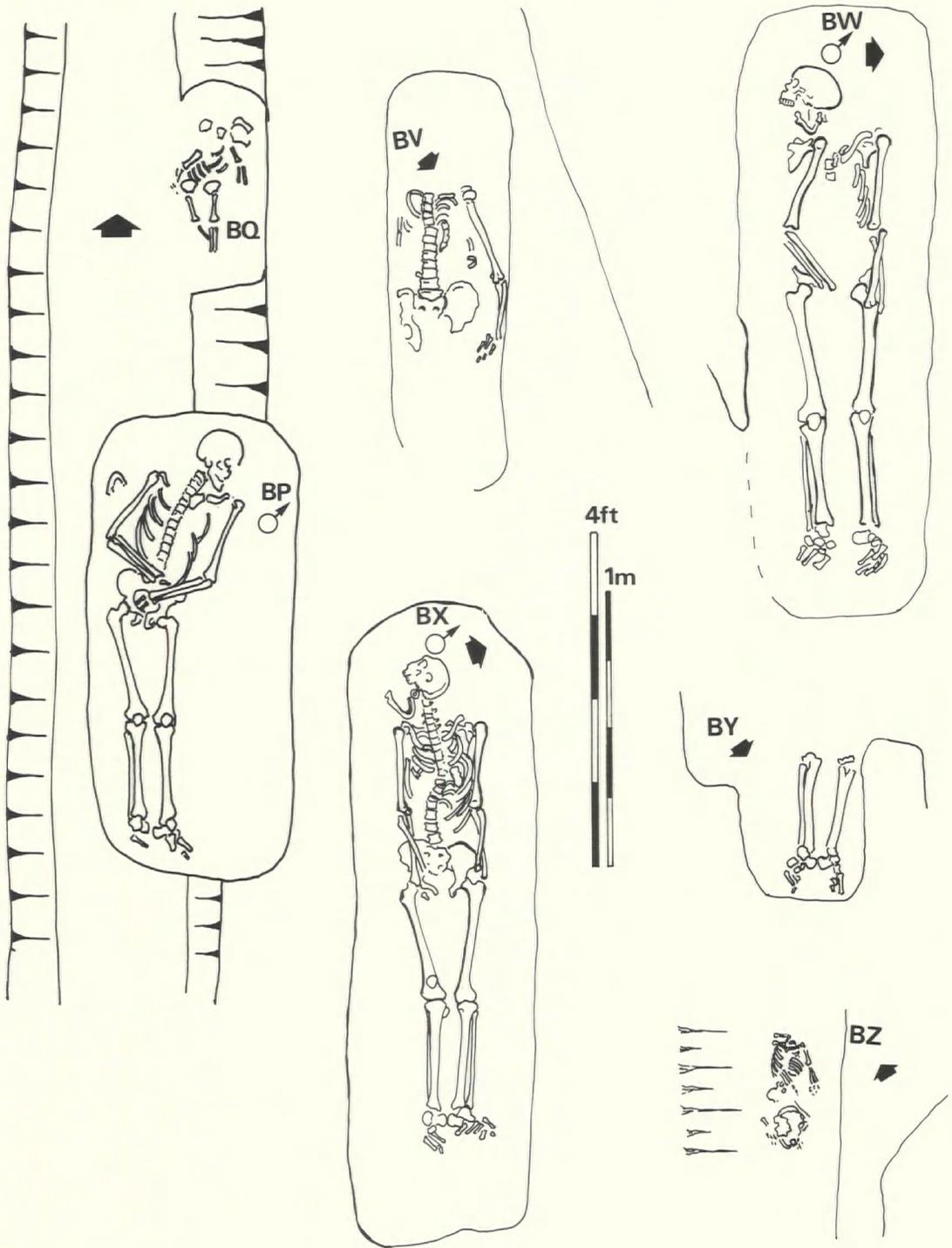


Fig 26 Skeletons BP, BQ, BV, BW, BX, BY, BZ.

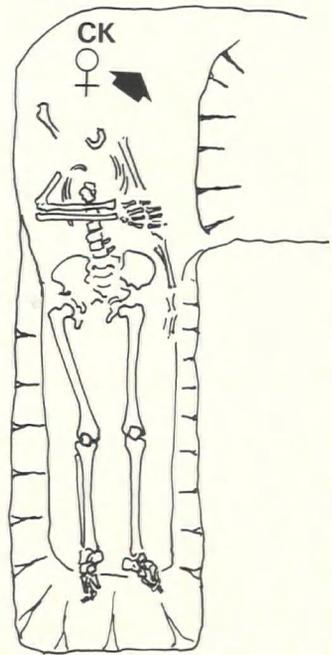
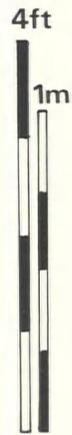
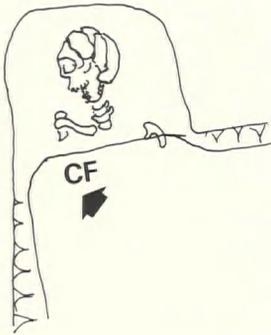
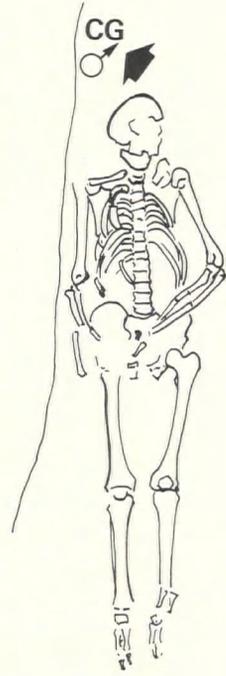
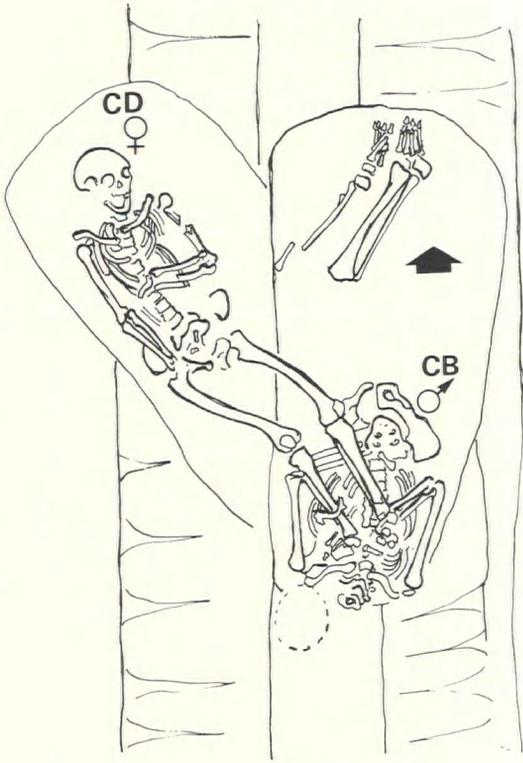


Fig 27 Skeletons CB, CD, CF, CG, CK.



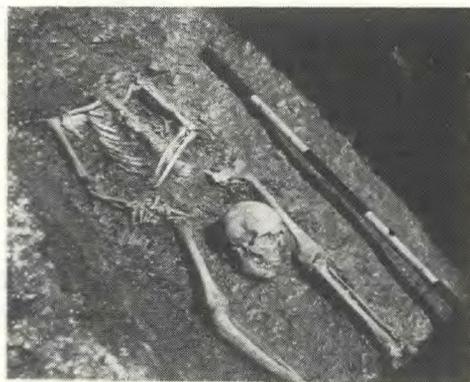
a



b



c



d

Plate 1 Selected skeletons

- a Skeleton II buried face down in the south cemetery ditch.
- b Grave BX, a coffin burial.
- c The male RR buried above the female SS.
- d Skeleton AD, a beheaded female.

THE FINDS

THE SKELETONS

By E.V. Jones MB, BCh and B. Horne BSc

A total of 112 skeletons or parts of skeletons which were found in graves or ditches in Flory's and Friary Fields, Dunstable, were examined. Also included were six skeletons or parts of skeletons found in the uppermost fill of the contemporary adjacent Well 5. The skeletal remains from another nearby well have been reported in a previous issue of the *Bedfordshire Archaeological Journal*.

Some of the skeletons were only partially represented as they had been disturbed by later features such as medieval pits or later burials of humans or horses. Others were fragmentary due to decay or liming of the bones. Unfortunately the site suffered from vandalism and a number of skulls were broken after discovery.

Where the state of preservation permitted, the criteria used for age determination were those suggested by Dr D. Brothwell in *Digging up Bones* and the heights were calculated on the basis of the work done by Trotter and Gleser for adult white males and females.²

Table 3 shows figures that may be expected from a small community using this as their cemetery. There is a high first year mortality comprising 13.4% of the total burials. One of these infants (BZ) was beheaded and death may therefore not have been due to natural causes as it cannot be shown whether the beheading took place ante or post mortem.

As may be expected the number of children is small but teenagers make 9.8% of total burials. This is high by modern standards but is comparable with the figures from Trentholme Drive, Yorks,³ where 11.7% were aged between ten and twenty. In Trentholme Drive there was a predominance of females (80%) but in this excavation the incidence of males and females between ten and twenty is

almost identical, so early pregnancy is unlikely to be an important factor.

In the age group 20–29 years there is a predominance of women. Six of these, however, had been beheaded, while only two males had been so treated. Thus fifteen females and eleven males appear to have died of natural causes.

INJURIES

These, for convenience, can be classified as mutilations, ante mortem injuries and beheadings.

Mutilations

Two were definitely noted. Skeleton L had both femurs chopped just above the condyles and the lower limbs had been reversed and placed alongside the trunk. This skeleton had also been beheaded and the skull placed between the legs (Fig 15).

The second was skeleton LL who already had a well-healed fracture of the left tibia and fibula. He had the right tibia and fibula chopped through and placed behind the left leg. As the foot was reversed and a fair distance away from the right leg (*cf* skeleton drawing Fig 18) it is thought that complete severance had been deliberately undertaken rather than that an accidental fracture had occurred which, if it had broken the skin, as it probably would have, might have been the source of severe infection and rapid death.

Ante-mortem injuries

These were of two kinds, wounds and healed fractures. Skeleton RR was the only skeleton to show sword-slash injury, apart from beheadings. On excavation the slash was plainly visible across the face. Chop marks on zygoma

TABLE 3
AGE AND SEX IN THE DUNSTABLE BURIALS

Age	M	F	M/F	Total	% of Total		% of Burials
					M	F	
0–1	—	—	15	15	—	—	13.4
1–9	—	—	4	4	—	—	3.6
10–19	4	6	1	11	36.4	54.5	9.8
20–29	13	21	6	40	32.5	52.5	35.7
30–40	23	9	0	32	71.9	28.1	28.6
40+	6	4	0	10	60.0	40.0	8.9
	46	40	26	112			
% of Burials	41.1	35.7	23.2				

and maxilla were plainly visible. Certainly this was the cause of death.

Fractures of humerus, radius, ulna, ribs, tibia, fibula and metacarpals were all noted. All were well healed without sepsis, providing serviceable limbs with minor deformities. In view of the good healing they must have occurred a long time before the death of the person, perhaps even in their youth.

Humerus

One fracture, skeleton BH. Spiral fracture in lower third starting 10cm from the distal end on the medial side to 6cm on the lateral side from the distal end. Well healed with five degrees of medial rotation.

Radius and Ulna

One fracture, skeleton BA. Mid-shaft fracture of both bones with good healing and anterior angulation of fragments.

Tibia and Fibula shaft

Two fractures, skeletons LL and AB. In LL there was a lower third fracture that had repairs with 3.5cm overlap and slight lateral rotation. The fibula had a mid-shaft fracture with considerable osteophyte formation at the tibio-fibular joint. In AB, a lower third fracture well healed with slight overriding. The fibula appeared to be intact but thickening in mid-shaft was probably the site of an old fracture.

Fibula

Skeleton R. Possible lower third fracture in poorly-preserved skeleton.

Tibia and Fibula — ankle (Potts)

Two fractures, skeletons BK and CB. Skeleton CB had repaired medial malleolus; the fibula was not available. Skeleton BK had a left Potts fracture with secondary arthrodosis of the tibio-fibular joint.

Hand

Fracture of first metacarpo-carpal joint (Bennet's) was seen in skeleton BK. This fracture as it entered the joint space could have given limited function of the thumb.

Rib

Fracture seen in skeleton BK.

The treatment of these fractures could have been simple. The humeral fracture, if it occurred in childhood could have been adequately treated with a sling. The radio-ulnar could again have been treated with a sling but splinting was probably used to obtain alignment. The tibio-fibular fractures must have been aligned by a bone setter with splinting.

BEHEADINGS

Twelve skeletons were found beheaded. Of these the cervicals of skeletons L, PP, AN, AY and BZ were not available for examination.

Skeleton H

Superior facets of cervicals 5 and 6 cleanly cut. Cervical 7 missing.

Skeleton AD

Cervicals were as follows: C₃ Left lateral mass chopped. C₄ Body chopped; a thin cut on posterior process; inferior dorsal process shaved. Spine of C₆ partly removed together with most of dorsal arch of C₅. This damage suggests two separate cuts; both from the right. The first cutting C₃, cleaving C₄ and leaving the cut on the posterior process. The second probably completing the beheading by cutting C₅ and C₆ and shaving the inferior dorsal process of C₄.

Skeleton AJ

Cervicals 4–6 showed chop marks with a downward cut on the left at 45 degrees to the horizontal. This would appear to indicate that the victim was kneeling with a right-handed executioner behind her.

Skeleton AR

Cut passed through the dorsal process of C₁ on the right side and through the dorsal arch of C₃. The bodies of C₃ and C₆ had missing inferior halves, leaving a smooth surface at 45 degrees to the anterior surface of the vertebral body. These surfaces could be due to decay but equally they could be due to attempts at beheading from the front.

Skeleton AW

C₄ and C₅ showed chop marks. There was a chop mark on the right mastoid where a sliver of bone had been removed.

Skeleton AX

Right mastoid chopped through cleanly at 45 degrees to the horizontal. The slash had carried on to sever the right dorsal arch and lateral mass of C₂. The preserved fragment of mandible showed a slash through the lingual surface of the left mandible. The whole sequence is most consistent with a beheading in a kneeling position by a right-handed person from the rear.

Skeleton BG

Dorsal spine of C₆ had been chopped through and the two halves could be fitted together. It was noted that part of the body of the vertebra had been snapped off in such a way that the blow must have been from the back of the neck as would be expected from an execution.

The beheaded skeletons have been described in detail and an attempt has been made to position the executioner in relation to the executed. Most appear to have been executed with one or more blows with the executioner standing to the rear of his kneeling victim. Skeleton BG, however, is different in that the blow seems to have come from directly behind. The smooth areas on the cervicals of skeleton AR could well be from slashes which were from the front. There appears to be no standard ritualistic technique which would suggest that beheading was a post mortem practice.

METRIC ANALYSIS

The small number of skeletons in the cemetery make comparisons difficult, but from the results obtained the skull proportions appear to follow the main trend of Romano-British (south). Here the cranial index found in this cemetery of 75.6 for males and 77.6 for females compares closely with the collected Romano-British of 75.4 for males and 77.2 for females. Again these results could be compared with two northerly placed cemeteries both found in York. The Railway Station Cemetery had cranial

indices of 74.6 for males and 76.9 for females, and the Trentholme Drive Cemetery 76.5 and 75.8.⁴ Thus no significant difference can be seen in the figures obtained in Dunstable and those from the north.

In the limb ratios the comparison with the collected Anglo-Saxons (Munter⁵), Trentholme Drive and Dunstable shows a tendency for the Dunstable skeletons to be more like the Anglo-Saxons. However a small sixth-century Anglo-Saxon Cemetery excavated by C.L. Matthews at Marina Drive⁶ which is half a mile from the Friary Field produced folk with longer limbs, which supports the archaeology which suggests they were an intrusive group.⁷

Again the significance has to be modified because of the relatively small numbers.

Heights

The average heights calculated from the formulae suggested by Trotter and Gleser and quoted by Brothwell⁸ for males were 167.8cm or 5ft 7in (n = 33, S.D. 5.3) and for females 159.6cm or 5ft 3in (n = 24, S.D. 4.6). If modern

heights are taken as 167.6cm or 5ft 7in for men and 157.8cm or 5ft 2in for females then there is little difference. In the Trentholme Drive Cemetery⁹ the heights were calculated by the same method and the male heights, 170.2cm, were almost identical to the Dunstable Cemetery but the females had an average height of 154.9cm giving a difference of almost 5cm (2in) in comparison with their southern counterparts. The mode for Dunstable, however, appears to be about 154cm.

NOTES ON SOME OF THE OTHER SKELETONS

1 Skeleton A

Male aged 30 years. Skull destroyed. There was gross underdevelopment of the lower limbs and pelvis with thickening of the upper limbs.

The femurs were short (FeL₁ 328mm as compared to the average for this group of 448mm for males), thin (FeD₁ 19mm) and curved with small femoral heads. The pelvis was small and had disintegrated so that it was difficult to sex. From other features on the skeleton it is

TABLE 4
LIMB RATIOS

	Ra/Hu	Ti/Fe	Hu/Fe	Arm/Leg
Marina Drive	78.7	82.7	73.4	71.8
Anglo-Saxons	75.5	81.0	72.9	70.3
Dunstable	74.8	80.3	73.4	71.6
Trentholme	72.8	80.2	70.9	71.3

TABLE 5
METRIC ANALYSIS

Subject		Male			Female		
		Mean	S.D.	n	Mean	S.D.	n
Skull	L	188.4	10.2	25	178.7	7.1	18
	B	141.9	6.3	25	138.2	6.3	17
	H	133.0	5.4	14	127.8	4.8	7
	C.I.	75.6	4.2	24	77.6	4.8	17
Limbs	FeL	447.8	24.9	64	427.0	15.7	42
	TiL	361.5	21.0	54	326.6	16.7	22
	HuL	328.4	17.7	55	309.1	12.9	34
	RaL	247.6	17.1	45	225.0	11.5	32
	UIL	266.6	15.6	45	243.0	11.9	34
Ratios	Ti/Fe	80.3	1.67	30	80.2	2.8	29
	Hu/Fe	73.4	2.2	29	72.3	2.0	20
	Ra/Hu	74.8	2.8	29	72.7	3.4	19
	Arm/Leg	71.6	2.1	24	69.3	1.8	18

n indicates number of bones measured in the limbs or number of individuals where ratios could be obtained.

S.D. standard deviation.

thought to be male. Humeri were of average length (HuL₁ 330mm, average 328mm) but were distinctly thicker with well-marked muscle attachments. It was noted that the left was thickened more than the right (Left HuD₁ 26.5 mm and HuD₂ 29.0mm as compared to the right of HuD₁ 23.5mm and HuD₂ 26.5mm). There was considerable spinal arthritis and considerable calculus on heavily worn teeth.

The pathology causing this underdevelopment permitted the person to live well into adulthood and in such a case poliomyelitis in early childhood could be the cause. Unfortunately the sacrum had disintegrated. The differences in the thicknesses of the humeri could well have been due to continual use of the left arm as a prop to push his body along and as a support while sitting up. The right arm would have only occasionally been used for this.

2 Skeleton B

Small frontal ivory osteoma. Similar ivory osteomata were found in skeletons LL and AO.

3 Skeleton K

Tibiae, fibulae and feet had been removed after decay of skeleton.

4 Skeleton N

On excavation considerable anterior angulation in mid-thoracic region, possible from wedging or collapse of vertebra. Disintegrated on excavation.

5 Skeleton Q

Male aged 40. Gross osteophyte formation on vertebral bodies. Evidence of lipping or osteophyte formation generally throughout the skeleton with marked arthritis of 1st metacarpo-carpal joint.

6 Skeleton DD

Six wormian bones in lambda suture. These small abnormal bones are frequently found in the skull and may run in families in association with metopism.

7 Skeleton RR

Gross arthritis on spine but little on limbs. Metopism with wormian bone in lambda suture. 1st and 2nd dorsal arches of sacrum unfused giving spina bifida occulta which was asymptomatic in life.

8 Skeleton SS

Occipital condylar facet double; absent 1st sacral dorsal arch.

9 Skeleton WW

Sacralisation of 5th lumbar.

10 Skeleton XX

Child with metopism and seven wormian bones in lambda suture.

11 Skeleton BA

Metopism and humeral foramen in left humerus. Left radius and ulna midshaft fracture with healing slightly out of alignment.

12 Skeleton BH

Well healed spiral fracture of left humerus with 5 degrees of rotation. 1st part of coccyx was fused to sacrum.

13 Skeleton BK

Considerable arthritis of spine with fusion of cervicals 5 and 6.

14 Skeleton BW

Wormian bones at lambda and asterion. Absent dorsal arch of axis and open foramen transversum.

15 Skeleton BX

Extensive loss of bone where the skeleton had touched the coffin. This left smooth areas of exposed spongy bone

identical to the effect of a sword slash. Thus there were two areas at right angles to each other of bone loss on the skull where it had touched the coffin corner. Other areas of loss were: dorsal spines of vertebrae, posterior condyles of femurs, calcanei, and lateral surfaces of the humeri, radii and metacarpals.

16 Skeleton CK

Skeleton of young girl with open foramen transversum in cervical 4. Two distal-phalangeal joints were fused in the foot.

Congenital Abnormalities

A Gross abnormalities

Unless the underdevelopment of the lower limbs of skeleton A are considered as congenital, none was found.

B Minor Abnormalities

Some were noted which in life would not have been significant (although backache may have resulted from sacralisation of the fifth lumbar). In two instances where graves cut into one another similar abnormalities were noted. One set of skeletons (AF, AL) had metopism and the other (RR, SS) had missing dorsal sacral arches. In both these cases it is tempting to suggest first degree relationship.

1 Metopism

Seven examples - RR, XX, AB, AF, AL, BA and BE. Skeletons XX and AL also had multiple wormian bones. The skeleton AF had her grave cut into by the parallel grave of the 30 year old male AL.

2 Wormian Bones

Thirteen examples - U, DD, LL, PP, RR, VV, XX, AB, AL, AV, BK, BO and BW. Skeletons XX and AL had metopism and multiple bones. RR had a single bone but was metopic. PP had a single coronal bone; AV and BO had sagittal and lambda bones. AB, U and BK had solitary bones while DD had six bones in lambda suture. Solitary bones were seen in BW and LL at asterion and in VV at bregma.

3 Supraorbital Osteoporosis

Six examples - II, TT, AB, AG, AP and AZ. These were distributed throughout the cemetery.

4 Occipital Facet Double

Five examples - SS, AI, AL, AX and BA.

5 Olecranon Fossa Foramen

Five examples - Y, NN, AT, BA and BF. No grouping was noted but four of the examples were female.

6 Atlas - Absent dorsal arch

Skeleton BW.

7 Atlas - Open foramen transversum

Skeletons AJ, AY and BW. In AJ there was a small bony arch from the lateral mass to the dorsal arch.

8 Axis - Foramen transversum open

Skeleton AY.

9 Cervical Rib

Skeleton BW - cervical 7.

10 Sacralisation of 5th lumbar

Skeletons WW and AN.

11 Sacrum

Loss of dorsal arch in 1st and 2nd sacral segments in RR and 1st in skeleton SS. The grave of SS was re-excavated to take the elderly murdered (?) male RR.

12 Sternum

Central foramen in AJ.

In the previous reported excavation of a nearby Roman well¹⁰ out of the six skeletons present two were metopic. This brings the local incidence to about 10%.

TOOTH LOSS AND DECAY

Fifty-seven skeletons above the age of twenty were analysed where there were available jaws. Eight skeletons below the age of twenty were children or teenagers with healthy teeth except for a cavity and abscess in lower left 1st molar of skeleton SS and a large cavity in the upper left 1st molar of skeleton CK.

Age Group 20-29

The sixty-six teeth lost ante mortem were unevenly distributed throughout the group. Fourteen of the skeletons had lost no teeth ante mortem, six had lost three teeth or less (thirteen teeth altogether) and the remaining fifty-three were distributed among seven skeletons. The greatest loss was in skeleton CD which had lost sixteen teeth. Skeleton U had lost six upper molars while the lower molars were carious. It was noticed that invariably it was the upper molars that were lost first and that the lower molars, as exemplified by skeleton U, were next. Caries were also unevenly distributed; skeleton AJ accounting for seven of the twenty-five carious teeth and skeleton U for a further six. Thus half the carious teeth were from two skeletons. Only two abscesses were noted in this group. Ten skeletons could be said to be free of disease.

Age Group 30-40

This decade shows increased tooth loss, both ante and post mortem, with a decreased incidence of caries but an increased incidence of abscesses, when compared with the 20-29 group. This would go with increased alveolar and periodontal disease, the teeth being less firmly fixed tended to be lost post mortem and the steady action of the caries reduced their number. Only two skeletons, AL and F had complete sets without loss. Again the loss was molar, usually upper, but now more of the lower were lost. Skeleton A had lost 8 teeth post mortem and had gross calculus and food debris in his mouth but had no caries or ante mortem tooth loss.

Age Group 40+

Here in this group there is steady loss of teeth, increased periodontal disease with reabsorption of gums and resulting

loss of teeth ante and post mortem. Again the loss of the molar teeth is seen and when one is preserved this is usually the first molar. The incidence of caries is seen to be less in this group and this can be explained by the loss of the molars which had a high incidence of caries in the earlier groups, thus lower crowding of the teeth and hence less food stasis.

SUMMARY

A total of 112 individuals are described with 41.1% males and 35.7% females. Descriptions of mutilations, fractures, beheadings, congenital abnormalities with associations, metric analyses and comparisons with Trentholme Drive, York are given. The cemetery could represent a small continuing community of twenty to thirty people using the cemetery for a hundred or so years. Some of the burials may have been intrusive from the passage of travellers on the Watling Street. The size of the community must have been kept small by twenty-five percent dying before the age of twenty years and fifty percent of the women dying between twenty and thirty years. Six of these women appear to have been executed, thus the population could not have been over-concerned as to the continuance of the group. The heights calculated approximate to the average modern figure though the women may have been slightly taller. The limb proportions tend towards the Anglo-Saxons, which raises many interesting questions about the settlement of Anglo-Saxons in the area. The length/breadth measurements of the skull fit in well with Romano-British figures. On the whole the group would fit in well with the modern population of England. The congenital abnormalities are those

TABLE 6
TOOTH LOSS AND DECAY

1187 teeth remained in their sockets
317 teeth had been lost before death
327 teeth had been lost after death leaving only the sockets

Age	No.	am loss		pm loss		Remaining		Caries		Abscesses	
		no.	ave.	no.	ave.	no.	ave.	no.	%	no.	%
20-29	27	66	2.4	114	4.2	637	23.6	25	3.9	20	0.31
30-40	17	110	6.5	118	6.9	384	22.6	14	3.6	6	1.56
40+	13	141	10.8	95	7.3	166	12.7	6	3.6	6	3.61

% of caries and abscesses as a percentage of remaining teeth.

TABLE 7
SUMMARY OF SKELETAL REMAINS

Symbols and Abbreviations used in the Table

Long bone measurements are given for the left side above the right side.

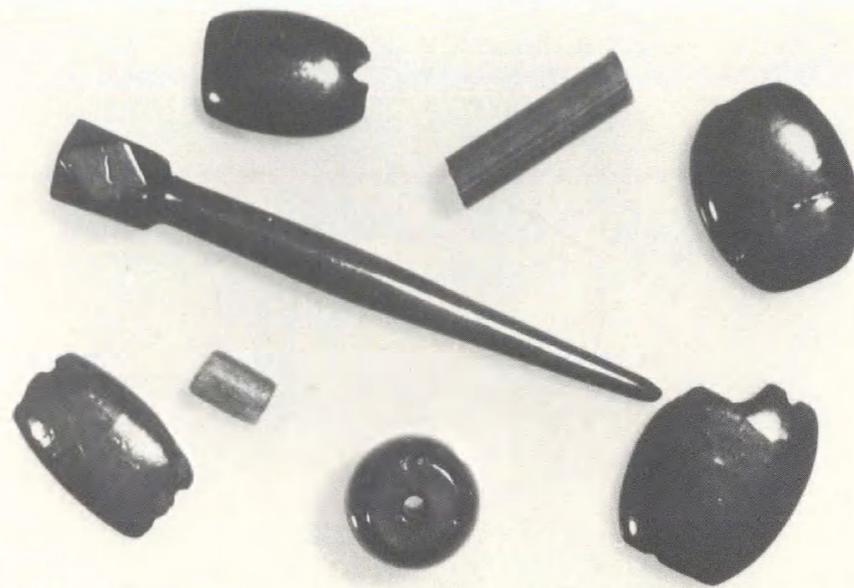
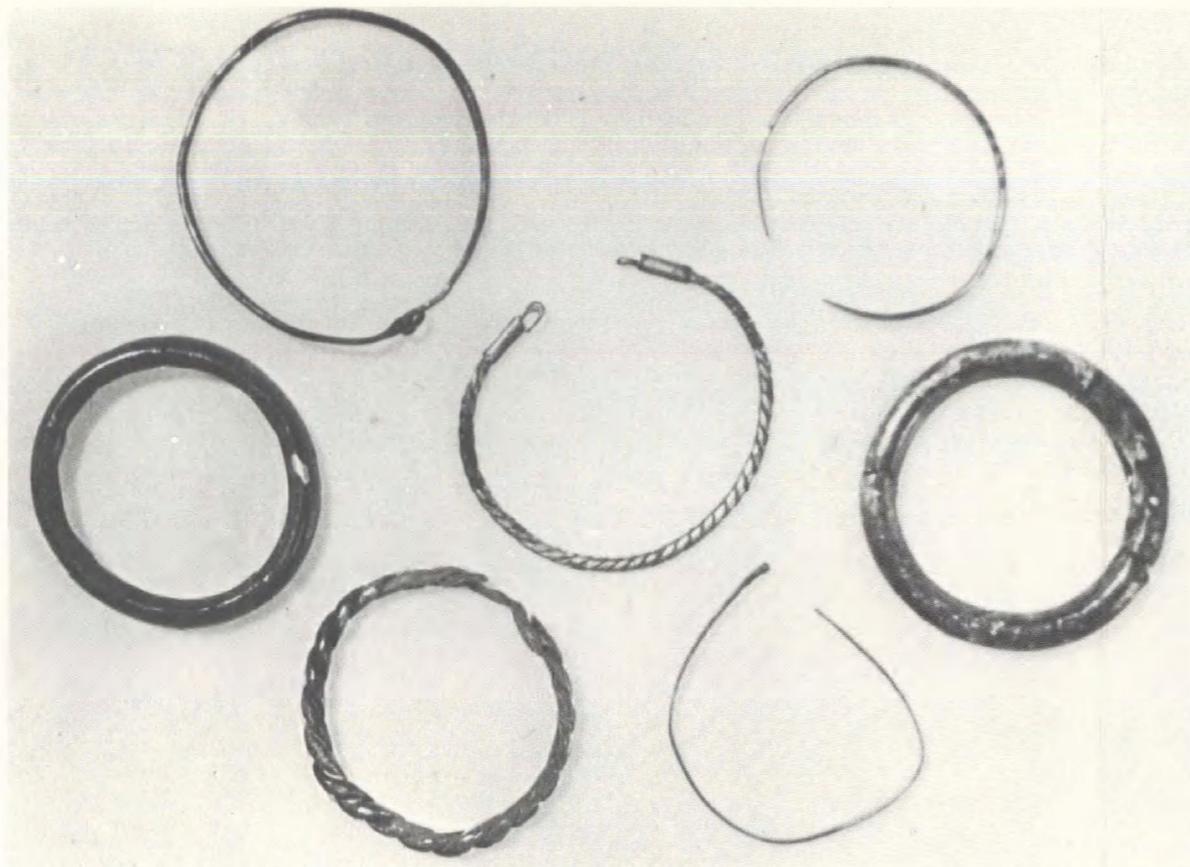
Sk	Skeleton code letter
Age (bone)	Estimate of age at death from evidence other than teeth
Age (teeth)	Estimate of age at death from teeth alone
<	Less than
Ht	Height in cm
Fe	Femur, length in mm
Ti	Tibia, length in mm
Fi	Fibula, length in mm
Hu	Humerus, length in mm
Ra	Radius, length in mm
Ul	Ulna, length in mm
C	Cervical vertebrae
D	Dorsal vertebrae
L	Lumbar vertebrae
Li	Limbs
+	arthritis (+ = slight, ++ = medium, +++ = severe)
A	Bone absent
-	Bone present but not measurable
Fr	Fractured during life
L	Maximum cranial length
H	Basi-bregmatic height
B	Maximum breadth
S ₁	Frontal arc
S ₂	Parietal arc
S ₃	Occipital arc
S' ₁	Frontal chord
S' ₂	Parietal chord
S' ₃	Occipital chord
C.I.	Cephalic index
/	Tooth lost post mortem
5	Numbers indicate that teeth are present and healthy
X	Tooth lost ante mortem
R	Root
U	Unerupted
E	Erupting
e	Lower case letters indicate milk teeth
C	Caries
M	Congenitally absent
A	abscess (teeth)
---	Part of jaw missing
(3)	Indicates that a note is present in the text

Sk	AGE		Sex	Ht	AXIAL SKELETON										SKULL										Teeth	Comment
	Bone	Teeth			Fe	Ti	Fi	Hu	Ra	Ul	C	D	L	L ₁	L	H	B	S ₁	S ₂	S ₃	S' ₁	S' ₂	S' ₃	C.I.		
UU	Ad	-	F	157	422 426	351 353	235 -	290 304	220 226	248 252	-	++	+	+	Destroyed post mortem										- - - - - X X X X X / / / R 3 X R X X X	Fragmentary
VV	Ad	30-35	F	157	426 423	328 328	321 323	- -	- -	- -	-	-	-	-	181	-	145	120	135	-	101	121	-	80.1	E 7 6 5 4 3 / / / / / 5 6 7 8 C 7 6 5 4 3 2 1 1 / 3 4 5 6 7 8	Bregmatic bone
WW	20+	25	F	152	403 396	305 305	305 -	282 292	209 213	229 -	-	+	+	-	170	126	139	117	117	113	110	100	84	81.8	X X X 5 4 3 2 1 1 2 3 4 C A X X 8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8	Sacralisation of L5 (9)
XX	8-10	-	?F	-	E(239 (239)	189 188	182 185	168) 169)	-	-	-	-	-	Destroyed post mortem										U 6 e d / / a / / / d e 6 U U E e d c b a E b c d e E U	Shaft only measured. Metopism. Multiple wormian bones (10)	
YY	Teen	-	F	-	-	-	-	-	-	-	-	-	-	Destroyed post mortem										U 7 6 5 4 3 2 1 1 2 3 4 5 6 7 U U 7 6 5 4 3 2 1 1 2 3 4 5 6 7 U	Poor preservation	
ZZ	40+	35-45	F	156	423 -	- -	320 321	- -	- -	- -	A	A	A	A	172	-	138	122	138	-	103	122	-	80.2	- - - - - X X X 5 4 3 X X X X 4 5 X X X	Poor preservation
AB	20+	20-25	M	171	449 450	- -	- -	- 327	238 -	256 263	-	-	-	-	Destroyed post mortem										8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 / / 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8	L. tib and fib. fractured am. 1 wormian bone
AC	Ad	-	M	165	415 -	337 -	331 -	300 310	220 -	- -	+	++	++	+	184	129	136	120	120	120	106	107	99	73.9	X X X 5 X X 2 X / X 3 X R X X X X 7 X X 4 3 2 / / X 3 / 5 X X R	
AD	20-25	20-25	F	162	- 426	- -	- -	- 315	- -	244 254	-	-	-	-	164	130	147	125	135	128	120	118	102	89.6	8 7 C 5 4 / / 1 1 2 3 4 5 6 7 8 8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8	Decapitated
AE	20-25	-	M	167	437 438	342 346	- 342	307 312	238 240	260 264	-	-	-	-	Destroyed post mortem										8 7 6 5 4 3 2 1 1 2 3 4 5 6 X X U 7 6 5 4 3 2 1 1 2 3 4 5 6 7 U	
AF	8-10	-	?F	-	A	A	A	A	A	A	A	A	A	Destroyed post mortem										U U / 5 4 / / / / / / 4 5 / U U	Skull only. Metopism	
AG	20+	30	F	167	- -	- 369	- -	- -	- -	- -	-	-	-	-	Destroyed post mortem										/ 7 6 5 4 3 / / / / 3 4 5 6 7 / 8 C 6 5 4 3 / / / / 2 3 4 5 6 7 8	
AH	7	-	?	-	E(200 (A	A A	A A	A A	A A	A A	-	-	-	-	Destroyed post mortem										U U E e d / / U U / / 4 5 E U U U U E 5 4 3 / / / / 4 5 E - - -	Fragmentary
AI	12	Teen	F	152	- 400	- 317	- -	- -	- -	- -	-	-	-	-	Destroyed post mortem										U 7 6 5 4 3 2 1 1 2 3 4 5 6 7 U U 7 6 5 4 3 2 1 1 2 3 4 5 6 7 U	Fragmentary. Unfused epiphyses
AJ	25	25	F	161	432 438	345 345	346 346	301 315	- 226	240 -	-	-	-	-	180	-	140	122	135	-	105	121	-	77.8	/ 7 6 5 4 3 2 1 1 2 3 4 5 6 7 C C C C 5 4 3 2 1 1 2 C 4 5 C C C	Decapitated
AK	30+	45	M	162	433 430	329 332	329 -	- -	- -	- -	A	A	A	+	194	144	142	135	140	130	118	128	104	73.2	8 X X 5 4 3 2 / / / 3 4 5 X X 8 8 C 6 5 4 3 2 1 1 2 3 4 5 C C C	Spine absent
AL	30+	25-35	M	170	451 445	345 346	351 -	319 325	251 254	278 280	-	+	-	-	198	134	148	135	140	116	114	119	90	74.7	8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8 8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8	Marked muscle attachments. Metopism. 4 wormian bones
AM	40+	-	M	172	464 460	370 -	- -	- 256	- -	- -	A	A	+	++	185	145	-	145	130	-	121	110	-	-	X X 6 / / 3 2 1 1 2 3 4 5 6 - - - X C 6 / 4 3 2 / A / / 4 5 / 7 X	Decayed spine
AN	30+	40-45	M	175	480 475	382 381	374 372	349 356	260 267	280 284	++	-	+	+	192	-	138	135	145	-	122	122	-	71.9	8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8 X 7 6 5 4 3 2 / / 2 3 4 5 6 7 8	Decapitated
AO	40+	45	M	167	442 441	348 350	- 340	316 330	230 233	251 250	+	++	++	+	171	130	138	122	128	110	103	113	98	80.7	X X 6 X / 3 2 1 1 2 3 4 5 C X X 8 X 6 5 4 3 2 1 1 2 3 4 5 6 7 X	Ivory osteoma on frontal bone
AP	17	25	M	-	-	-	-	-	-	-	-	-	-	187	-	147	118	113	-	140	132	-	78.6	U 7 6 5 4 3 M 1 1 M 3 4 5 6 7 U - - - - - 4 3 - - - - -	Very poor preservation	
AQ	16-20	17-25	M	167	443 447	350 357	- -	- -	- -	- -	-	-	-	-	Destroyed post mortem										E 7 6 5 4 3 2 1 1 2 3 4 5 6 7 E E 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8	Poor preservation

TABLE 9
SKELETONS CL AND CM

Sk	AGE		Sex	Ht.	AXIAL SKELETON										Teeth													Comment															
	Bone	Teeth			Fe	Ti	Fi	Hu	Ra	Ul	C	D	L	L ₁	L	H	B	S ₁	S ₂	S ₃	S' ₁	S' ₂	S' ₃	C.I.																			
CN	40+		F	158	-	325	-	-	-	240	+	+	+++	++	191		160	139	150	122	117	126	95	83.8	X	X	X	C	R	R	R	X	R	R	R	X	^A 6	/	-	-	-		
					-	-	-	-	290	-	-	-	-	-											/	/	6	/	/	/	/	/	/	/	-	-	-	-	-	-	-		
CM	30+		M	160	410	-	-	-	208	227	-	-	+	-	180		150	130	130	-	110	110	-	83.3	-	7	X	5	/	3	/	1	1	2	3	4	5	X	X	X			
					409	-	-	-	-	226	-	-	-	-											8	7	/	5	4	3	2	1	1	/	3	4	5	6	7	/			

Abbreviations are as in the main report



c



a

Plate 2 The jewellery found in grave AF

a The jewellery as found.

b Jet pin, five jet beads and two green glass tubular beads.

c Two shale bracelets and five bronze bracelets.

found in most cemeteries. None was in such numbers to suggest a dominant trait in a breeding isolate. The association of two known hereditary conditions (loss of sacral arch and metopism) in two sets of graves where the intrusive burial had the same abnormalities as the primary suggests a blood relationship. Fractures were all well healed without sepsis and the resultant limb was entirely serviceable. Splinting must have been used for lower limbs but slinging or light splints for upper would have sufficed. The beheadings were apparently done from behind with victim in kneeling position. Only one skeleton had chops on anterior of body to suggest anterior approach. One had a lateral swipe with head vertical. Only one skeleton (RR) had a facial slash suggesting a 'war' wound.

GRAVE GOODS

JEWELLERY

Jewellery was found extensively with three skeletons and in isolated instances with a number of others.

SKELETON G (Fig 28)

Three bracelets (1-3) were found on the left wrist; rings (4 and 5) on the third finger of the left hand; ring (6) on

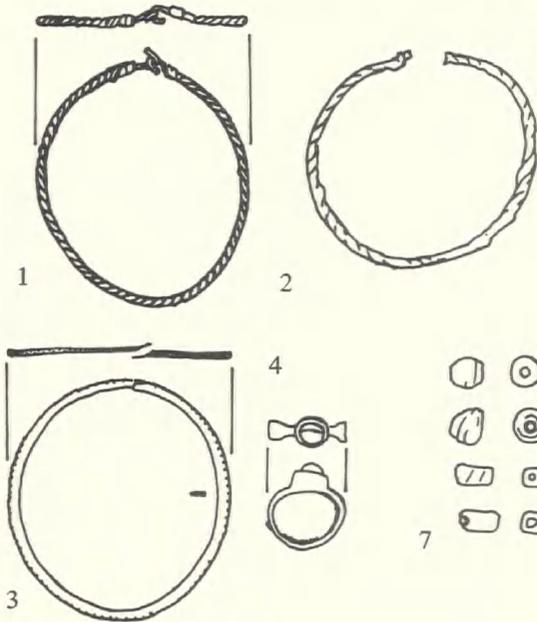


Fig 28 Jewellery found with skeleton G. (scale $\frac{1}{2}$; except 7 - full size)

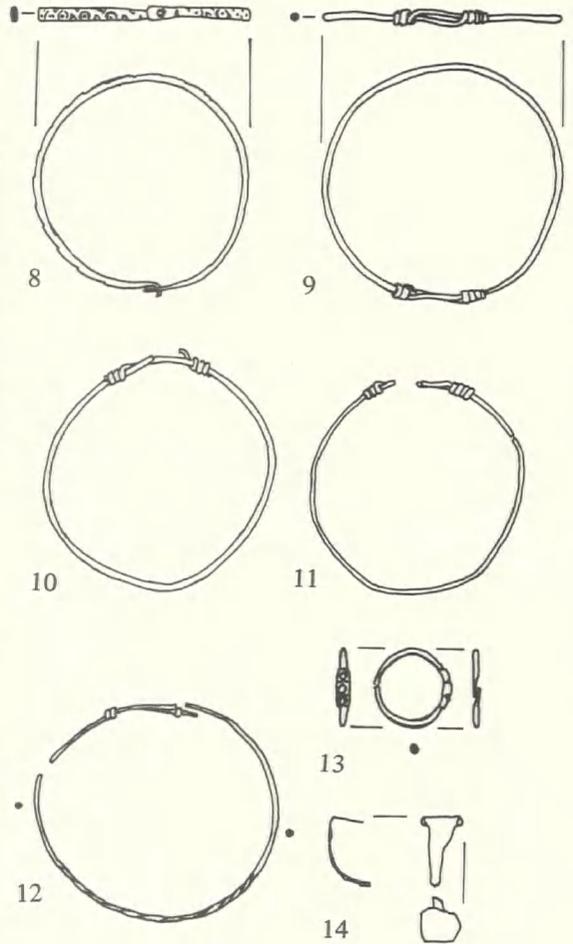


Fig 29 Jewellery found with skeleton SS. (scale $\frac{1}{2}$)

the fourth finger of the same hand. The beads (7) were found round the neck of the skeleton.

- 1 Bracelet of twisted bronze, single strands to make a clasp.
- 2 Bracelet of bronze and iron studs.
- 3 Open-ended bracelet of flattened bronze. Decorated with notches around the edges.
- 4 Bronze ring with white glass stone setting.
- 5 (not ill.) Plain iron ring.
- 6 (not ill.) Plain bronze ring.
- 7 61 small blue glass beads; examples shown full size.

SKELETON SS (Fig 29)

Group of five bracelets, two bronze rings and a bronze object found in a heap to the left of the skull.

- 8 Bronze bracelet with hook and eye terminals, decorated with circle and dot pattern.

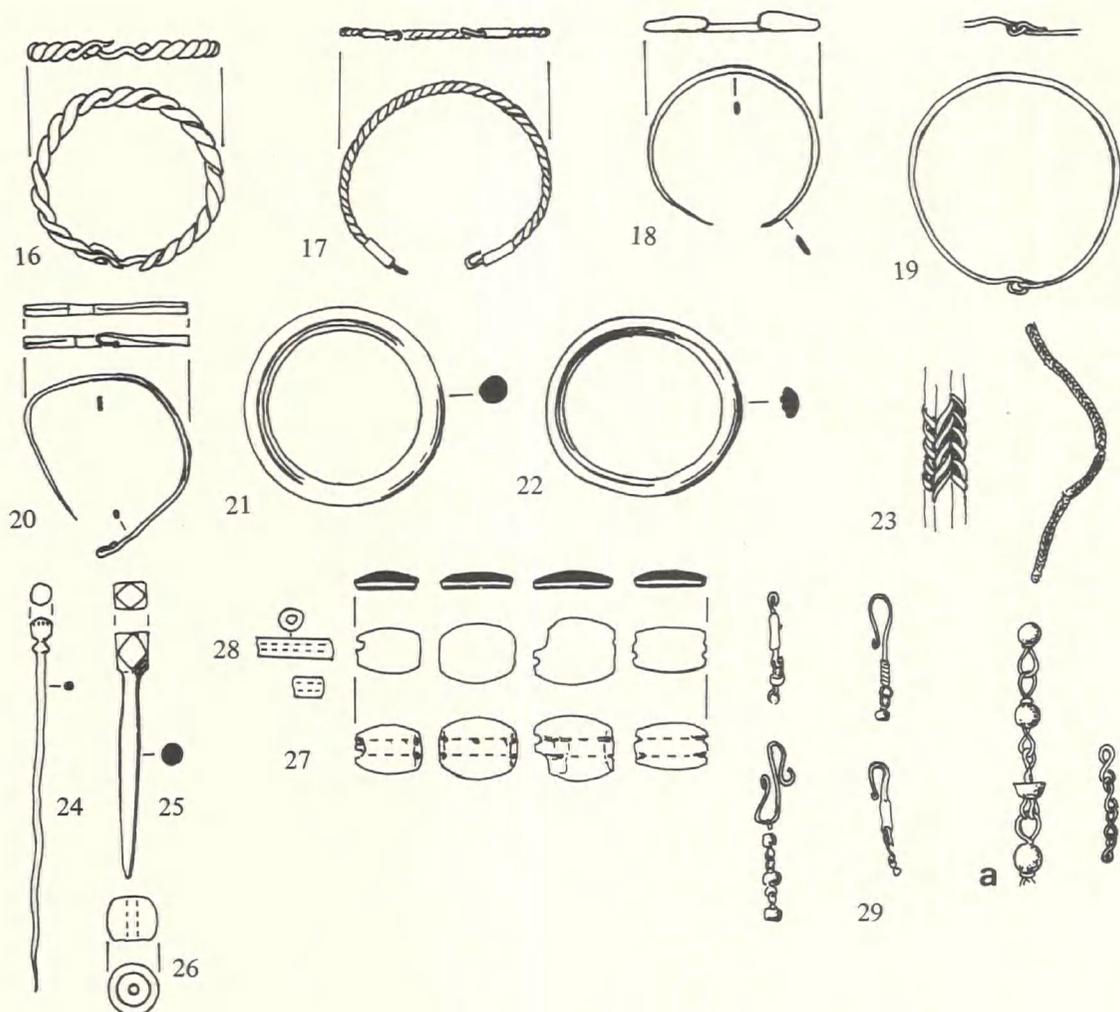


Fig 30 Jewellery found with skeleton AF.
(scale ½; except 29a - full size)

- 9-12 Four bronze wire bracelets with knot terminals. Similar bracelets have been found at Verulamium, dated 370-410+.⁴⁴
- 13 Bronze finger ring with three insets of red glass.
- 14 Bronze object with one flattened terminal, probably an ear ring.
- 15 (not ill.) Bronze ring of fine wire, probably also used as an ear ring.

SKELETON AF (Fig 30)

- Jewellery found on the right of the waist area, probably buried in a bag.
- 16 Bracelet of twisted bronze with terminals broken in antiquity.
- 17 Bracelet of twisted bronze, gilded. Single strands hooked to make a clasp.
- 18 Bracelet, open-ended with flattened terminals, of

- bronze gilded.
- 19 Bracelet of round bronze wire.
- 20 Bracelet of flat bronze, gilded, with hooked terminals.
- 21 Shale bracelet.
- 22 Shale bracelet.
- 23 Woven bronze chain with pinholes in ends. Enlarged detail to show plait.
- 24 Bronze pin with poppy-seed head.
- 25 Faceted jet pin.
- 26 Jet bead.
- 27 Four jet beads, each with two perforations.
- 28 Two elongated green glass beads.
- 29 Detail of two necklaces - showing clasps and arrangement of multi-coloured beads on fine bronze wire chain.
- 30 (not ill.) Remainder of necklaces, being 208 loose beads of glass, stone, paste and amber.

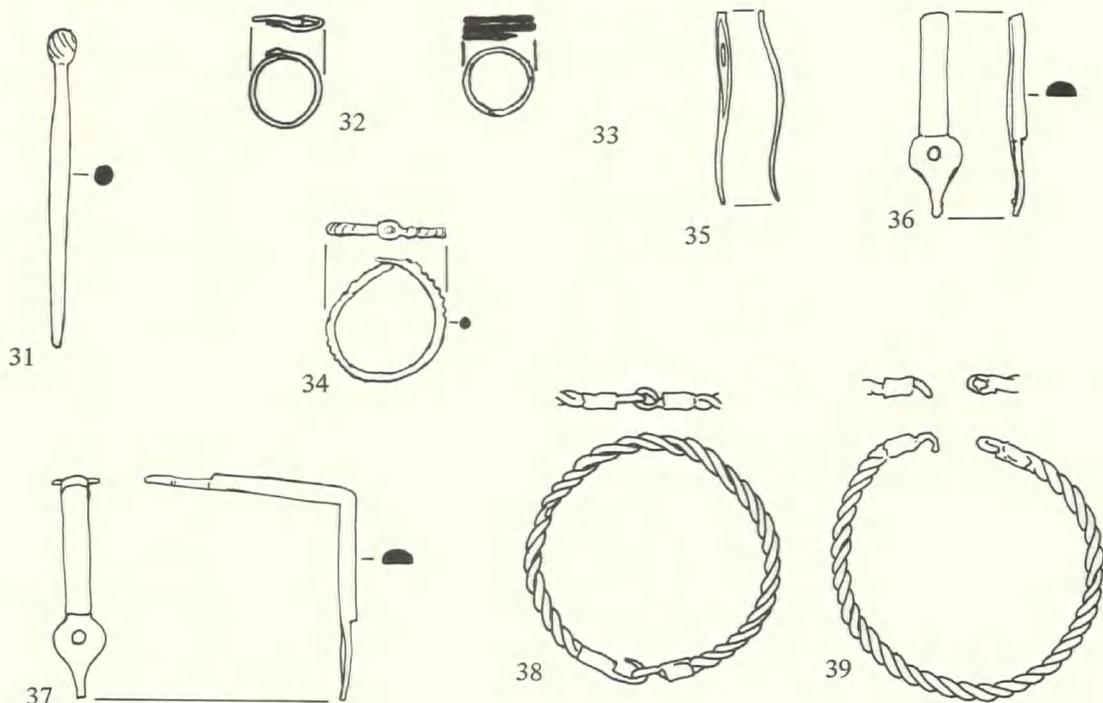


Fig 31 Jewellery associated with graves.
(scale 1/2)

OTHER JEWELLERY (Fig 31)

Various skeletons had jewellery found with or near them. Each piece is described, with a note of its find spot.

- 31 Bone pin with oblique incisions on round top. Found on top of the skull of skeleton CD.
- 32 Bronze ring found on the third finger of the left hand of skeleton UU.
- 33 Bronze three-coil ring found in grave of skeleton DD. One terminal is flattened, and the other rounded, probably to represent a snake. Glossy green-blue patination.
- 34 Bronze bracelet enamelled in blue. Found on top of the skull of skeleton CE.
- 35 Bronze needle grooved to take thread. Found on side of east cemetery ditch above skeleton F.
- 36 Broken bronze box corner. Found 8cm above left hip of skeleton BA.
- 37 Complete bronze box corner found 10cm above bottom of curving ditch at western end of the cemetery. Probably from the same maker as piece 36.
- 38, 39 Two bracelets found with human bones in Well 2. Twisted bronze tubes with hook and eye terminals.

COFFIN FURNITURE (Fig 32)

A selection only has been illustrated. The rods indicate the direction and extent of wood fibres.

- 40 Iron wood clamp for coffin of skeleton BH.

- 41, 42 Iron coffin nails from grave AF.
- 43, 44 Iron coffin nails from grave BG.
- 45 Iron coffin nail from grave AV.
- 46-48 Iron coffin nails from grave AH.

THE INSCRIBED POT

By M.W.C. Hassall

SKELETON AQ (Fig 33)

Vessel found broken with sherds beneath and around the skull. It may have been ritually broken in the coffin.

49 Beaker of brown colour-coated ware on orange/red paste. Inscription scratched into fabric of pot after firing. A graffito cut before the girth reads:

OLLA DINDROEORORVMVEREGILLI
NVSDONAVIT

(NAV ligatured)

for *ollam dendrofororum Ve(r)(ulamiensium) Regillinus donavit*.¹² 'Regillinus presented the pot of the *dendrophori* of Verulamium.' *Dendrophori*, literally 'branch bearers', were attached to various eastern cults, but in the west are found exclusively with one only, that of Cybele¹³. Their name is explained by their function which was to carry a pine tree representing the corpse of Cybele's consort Attis in procession to the temple of the goddess during a festival held on the 22 March.¹⁴ The *dendrophori*

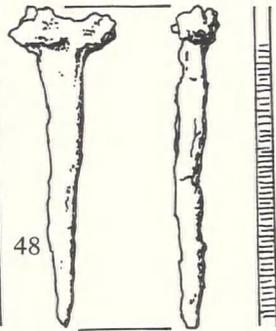
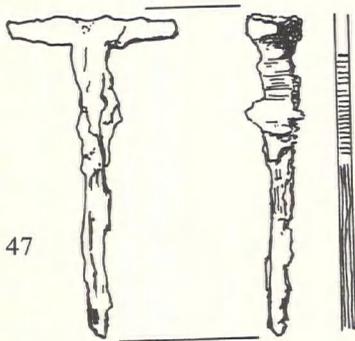
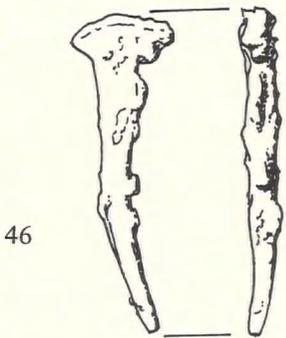
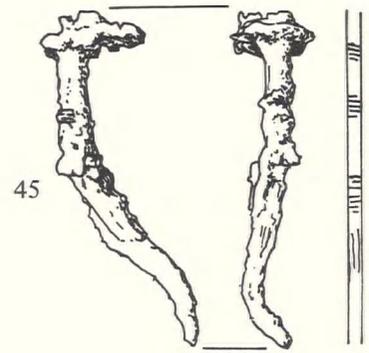
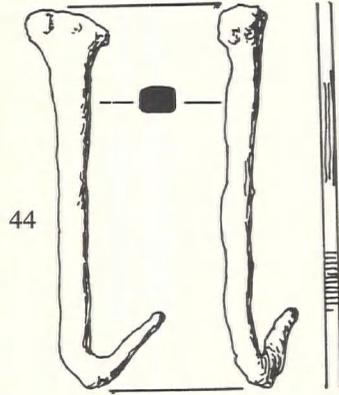
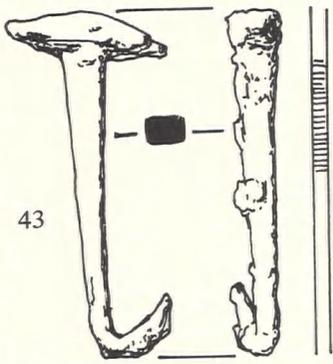
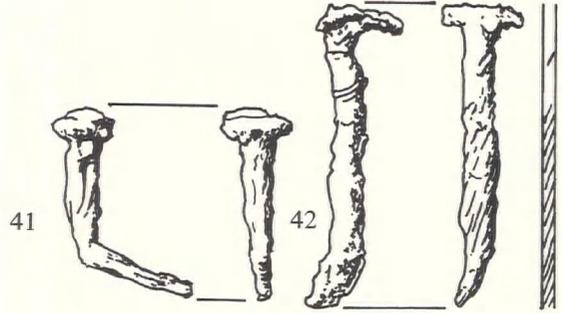
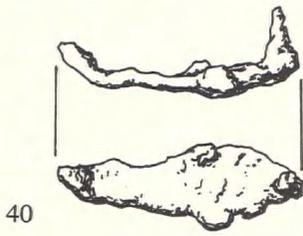


Fig 32 Coffin Furniture.
(scale 1/2)

were organized in guilds whose membership was drawn from carpenters and woodworkers. Such guilds are rarely attested in the north-west provinces but are known from two sites in Germania Superior, Amsoldingen near Aventicum and Hedderheim¹⁵ and *hastiferi*, an analogous group who served the cult of Bellona but were also associated with Cybele, are known from Kastel across the Rhine from Mainz and Cologne.¹⁶ The cult of Magna Mater (Cybele) herself is attested in Britain at Carrawburgh (RIB 1539), while the so-called Triangular Temple at Vefulamium has actually been attributed to the goddess.¹⁷ Vefulamium is 12 miles south of Dunstable on Watling Street. The guilds of *dendrophori* sometimes functioned as burial clubs¹⁸ and in the present case Regillinus would appear to be presenting a funeral gift on behalf of the guild to a deceased member.¹⁹

OTHER POTTERY

SKELETON BG (Fig 34)

Two vessels found at the right elbow.

- 50 Ceramic bottle in coarse grey ware, burnished and fired black. Tooling marks on body of vessel.
51 Beaker in orange paste with light grey metallic slip. A groove round the body of the pot and rouletted decoration on both sides of the groove.

SKELETON PP (Fig 35)

One pot found broken in grave.

- 52 Parchment ware vessel with red-painted bands. Area of sooting on upper part of the pot. (*cf* Oxford type P9.2).²⁰

SKELETON AH (Fig 35)

Pot found above skeletal remains.

- 53 Beaker. Black slip on reddish paste, decorated with band of white barbotine scrolls.

GLASS

SKELETON BC (Fig 35)

Found scattered around the legs.

- 54 Glass beaker of very thin glass with glass trail spiralling up and round the body.

COIN

By C. King

One coin was submitted for examination

OBV: DN CONSTANTIUS PF AUG
REV: VICTORIAE DD AVGG Q NN
Mint: TRIER Date A.D. 341-6

LRBC 139

Found with skeleton BI²¹

TEXTILE

By J.P. Wild

The textile fragment submitted for examination adhered to a fourth-century coin from a late Roman burial. It was in plain weave, but only 5mm by 5mm of the original was preserved through the corrosion products from the bronze. The fibre, now pale greeny-grey, was probably linen.

System (1), weak z-spun, only 2 yarns surviving, count perhaps once c. 10 threads per cm.

System (2), weak z-spun, c. 7 yarns surviving, 15-20 threads per cm.

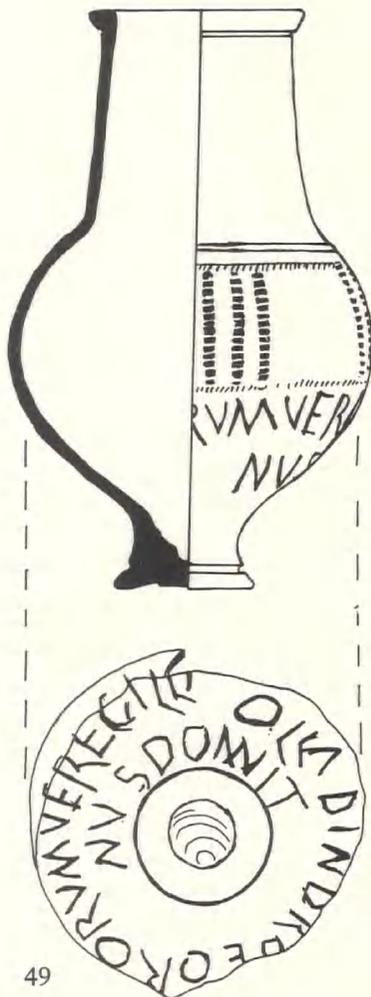


Fig 33 Incribed Pot found with skeleton AQ.
(scale 1/2)

The fabric probably represents the remains of a linen purse or linen purse lining, of which fragments often survive in association with coin hoards. A good parallel can be cited from the Oldcroft Hoard from Gloucestershire.²¹ Found with skeleton BI.

SITE FINDS

The site finds herein included are pottery from the cemetery boundary ditch (Fig 36), kiln 1 (Fig 37) and a number of other features (Figs 38-42); some metalwork is also included (Figs 43 and 44).

POTTERY

Pottery from cemetery boundary ditch (Fig 36)

- 1- 3 Vessels heavily shell-gritted. Dark grey paste.
- 4- 6 Vessels with grey sandy paste fired buff.
- 7- 9 Mortaria with brown grits. Pot 8 very poorly potted. Pot 9 marked with a cypher stamp.
- 10 Bowl with reed rim. Smooth red paste and fired brick red.
- 11 Folded beaker. Orange paste, fired red.
- 12 Rouletted beaker with orange paste. Dark brown slip on outside, red inside.
- 13 Fragment of a folded beaker. Fired grey from grey paste. Wavy line barbotine decoration between folds.
- 14-17 Platters, all burnished grey paste. Pot 16 is black on outside and biscuit inside.

Pottery from Kiln K1 (Fig 37)

- 1 Vessel with faint combing on body. Fired biscuit. Sparse shell grits.
- 2 Hard grey sandy paste. Buff slip inside and outside.
- 3 Coarse ware pot fired biscuit inside, grey outside.
- 4- 6 Shell-gritted pot with soapy fabric. Fired buff with black interior. Fire blackened on rim.
- 7 Sandy biscuit ware.
- 8 Sandy dark grey paste fired biscuit with cream slip.
- 9 Sandy biscuit ware.
- 10 Sandy ware fired orange on grey core with brown colour coat. Very eroded surface.
- 11 Dark grey paste fired black. Zone of lightly burnished vertical lines. Crudely potted with deep score marks inside.
- 12 Shell-gritted pot fired orange. Soapy fabric.
- 13 Shell-gritted pot. Grey paste fired buff. Diameter 30cm.
- 14 Brick red dish with grey core. Tooling marks inside and outside. Vessel probably burnt in kiln.
- 15 Hard silver grey ware. Tooling marks inside and outside. Faint lattice pattern on body.
- 16 Hard silver grey ware.
- 17 Mortarium in buff ware with brown grits.
- 18 Sherd from carinated bowl in parchment ware.

Pottery from S7 (Fig 38)

- 1- 6 Stippling in the drawings indicates red surface to which white or cream paint is applied. The pots are all of red ware with painted decorations. Pot 1 is Oxford type C48 and pot 2 Oxford type C50.²³
- 7 Brown sandwich ware with grey core. Rouletted and stamped pattern.
- 8 Red-coated ware with cross scratched under base after firing.
- 9 Orange/red fabric, brown surface with barbotine decoration in the same colour. Oxford type C27.²⁴
- 10 Decorated Samian: the god Vulcan. Very worn and eroded. Dr.37.
- 11 Burnt decorated Samian (Antonine; Cinnamus). Dr.37.
- 12 Buff fabric with brown coating.
- 13 Orange fabric with streaky brown slip.

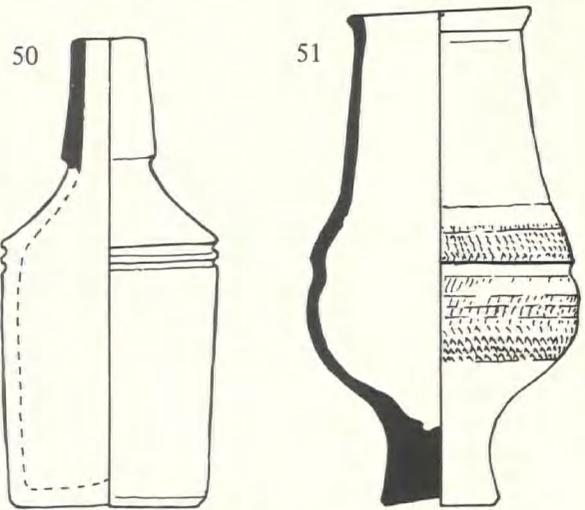


Fig 34 Pots found with skeleton BG.
(scale 1/2)

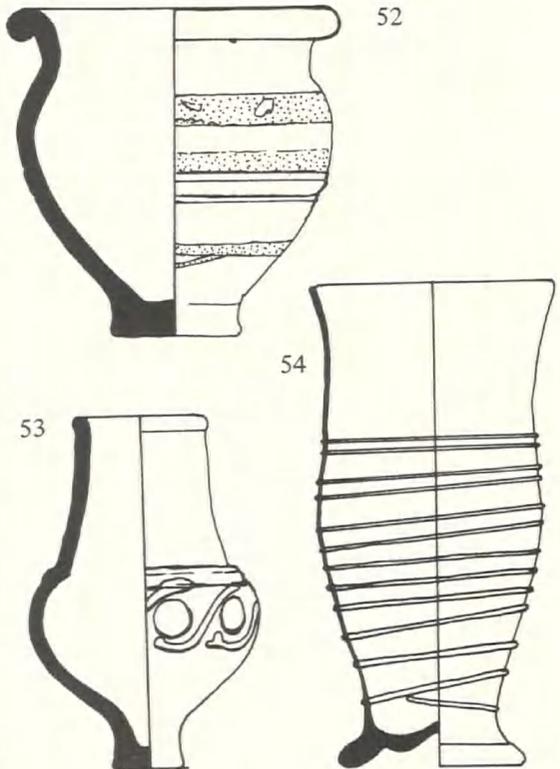


Fig 35 Pottery and Glass found with skeletons.

- 52 Skeleton PP
 - 53 Skeleton AH
 - 54 Skeleton BC
- (scale 1/2)

- 14 Grey ware with sandy fabric.
- 15 Dark grey ware with burnishing on the inside.
- 16 Brown/reddish ware with grey core.
- 17 Grey/brown ware with shell grit.
- 18 Shell-gritted, fired brown. Pitted surface inside and out.
- 19 Shell-gritted grey/buff ware.
- 20 Orange/red ware with red colour coat, eroded.
- 21 Fired orange/brown with grey core.

Pottery from S15 (Fig 39)

- 1 Grey smooth paste. Burnished lines on body of pot. Very rough finish on inside of vessel.
- 2 Coarse grey ware. Burnished bands round body of pot.
- 3-5 Heavily shell-gritted pots. Fired orange, dark grey paste.
- 6 Silver-grey burnished ware with double groove.
- 7 Bowl with reeded rim. Sandy paste fired buff. Large flint grit inclusions.
- 8 Coarse grey vessel.
- 9 Reed rim. Sandy paste fired pink. Soot-stained on outside.
- 10 Vessel in white paste. Brown colour coating.
- 11 Burnished vessel fired dark grey with mica inclusions.
- 12 Hard light grey ware. Burnished surface.
- 13, 14 Vessel with calcite grits. Grey paste, fired orange. Inside surface flaked.
- 15, 16 Smooth paste, fired orange. Band of rouletting around body.
- 17 Lion's head from colour-coated vessel. Very eroded. Dr. 45.
- 18 Samian dish. Dr. 33
- 19 Samian dish. Dr. 37. Potter's mark in decoration: CINNAMUS (A.D. 150-195).
- 20 Samian dish. Dr. 37. Potter's mark in decoration: CINNAMUS (A.D. 150-195). Same dish?
- 21 Samian dish. Externally Dr. 79 (Ludowici TL) but internal rim groove missing. Potter's stamp OVNEDIC (AVNEDOS), AV ligatured. Owner's mark on base, four cuts crossed by a long cut.

Pottery from S16 (Fig 40)

- 1-8 Shell-gritted wares, fired buff/biscuit, but all fire-blackened on outside. Faint combing on body of pot 4.
- 9 Bowl fired brick red.
- 10 Rim of crude vessel with soapy texture.
- 11 Heavily shell-gritted pot. Fired red inside, brown outside from grey paste. Rim thinned with groove.
- 12-14 Bowls in burnished black ware. Pot 13 has surplus clay left on the exterior.
- 15 Vessel in hard biscuit, probably re-fired in the kiln.
- 16-24 Cordoned vessels in grey paste. All probably re-fired in the kiln to a hard texture.
- 25 Flagon in coarse grey ware. Very poorly potted.
- 26 Beaker fired orange. Grey paste.
- 27 Bowl or lid, fired buff with eroded yellow slip.

Pottery from S33, cobble floor to the west of the cemetery ditch (Fig 41).

- 1-6 Shell-gritted wares. Fired grey to biscuit. Pots 1, 3 and 5 recessed for lids.
- 7 Mortarium in white ware with brown grits.
- 8 Flagon with wide disc rim and brown slip (Oxford ware, Type C4).²⁵
- 9 Flagon rim. Grey paste, fired orange with yellow slip.
- 10 Sandy grey ware, fired black.
- 11, 12 Platters in sandy grey paste.
- 13 Grey bowl in sandy paste.
- 14 Jar in coarse sandy grey ware.
- 15 Colour-coated bowl, probably Oxford ware.
- 16-21 Vessels in sandy grey wares. Crudely manufactured wares.
- 22-24 Storage jars with calcite grit tempering.
- 25-29 Cooking pots fired grey from sandy paste.

Pottery from Top of Well 5, associated with skeletons BI, BJ, BK (Fig 42)

- 1 Heavily shell-gritted vessel. Fired brown/black.
- 2 Shell-gritted, dark grey paste. Fired biscuit. Sooted on outside.
- 3 Dark grey paste, fired biscuit.
- 4 Grey vessel, grey paste. Horizontal grooves around body with a band of vertical burnished stripes.
- 5 Hard sandy pink ware.
- 6 Flagon neck sherd with handle perforated to allow air to enter body of vessel.
- 7 Sandy pink/red ware.
- 8 Coarse grey ware of sandy paste.

All the above vessels were found in the upper levels of the well within the stratum of the burials.

METALWORK

Small finds from Cobble Floor (S33) and elsewhere (Fig 43)

- 1 Bronze bracelet decorated with band of nicks. From cobble floor (S33).
- 2 Bronze tweezers from cobble floor (S33).
- 3 Bronze brooch from cobble floor (S33).
- 4 Bone peg, perhaps from a stringed instrument. From cobble floor (S33).
- 5 Worked deer antler. From cobble floor (S33).
- 6 Bronze tweezers from upper fill of south cemetery ditch.
- 7 Iron plough share. From north cemetery ditch.
- 8 Iron knife blade. From north cemetery ditch.

Small finds from S15 and K3, K4 (Fig 44)

- 1-11 Finds from S15.
- 1 Part of iron sickle.
- 2 Iron wedge, battered head tapering to a flattened blade.
- 3-10 Miscellaneous iron objects.
- 11 Top of a small green glass bottle.
- 12-14 Finds from K3 and K4.
- 12 Sawn and cut antler.
- 13 Bronze sheet.
- 14 Bronze object, probably part of steelyard.
- 15 Examples of iron nails.

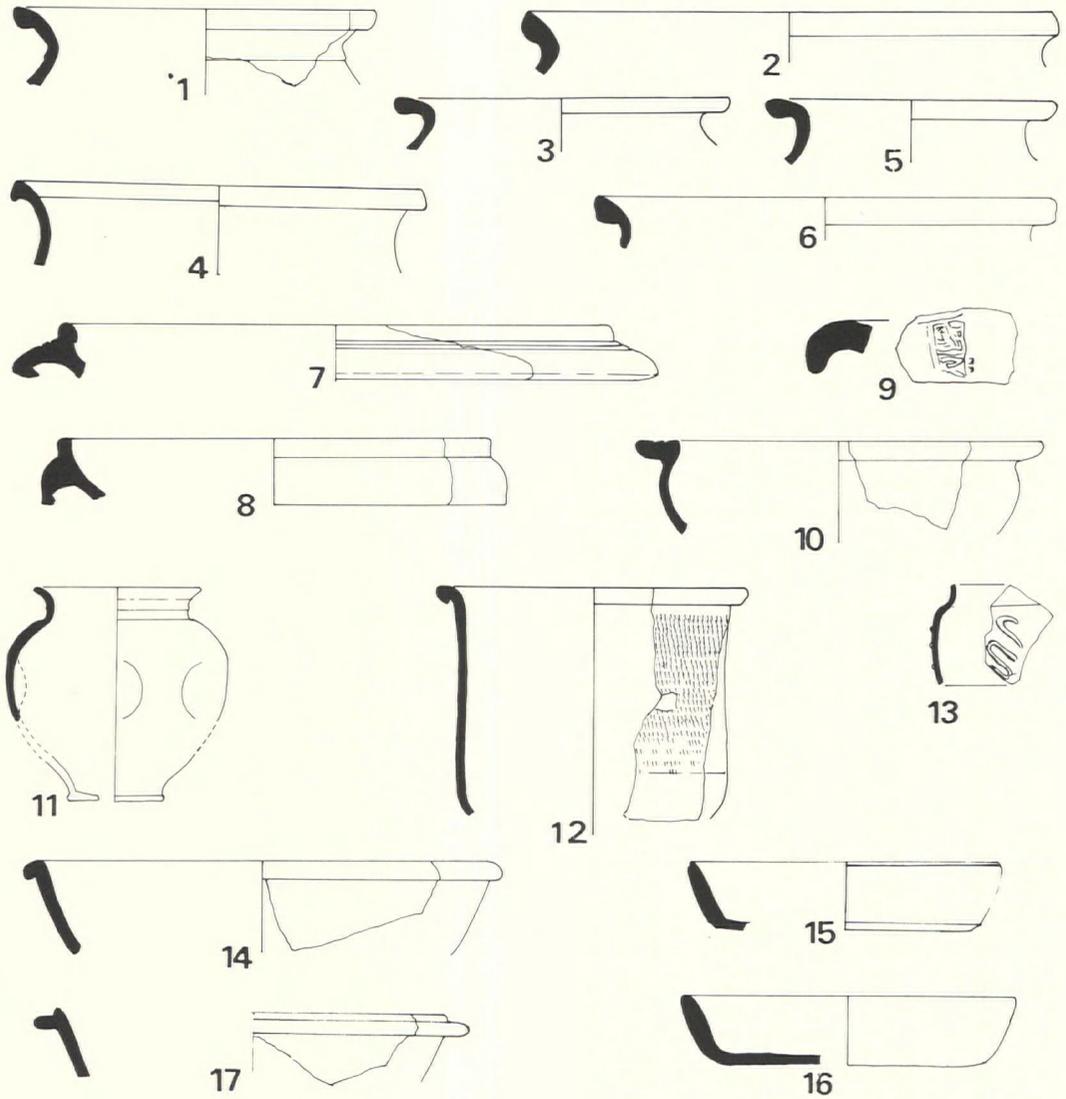


Fig 36 Pottery from the cemetery boundary ditches.
(scale ¼)

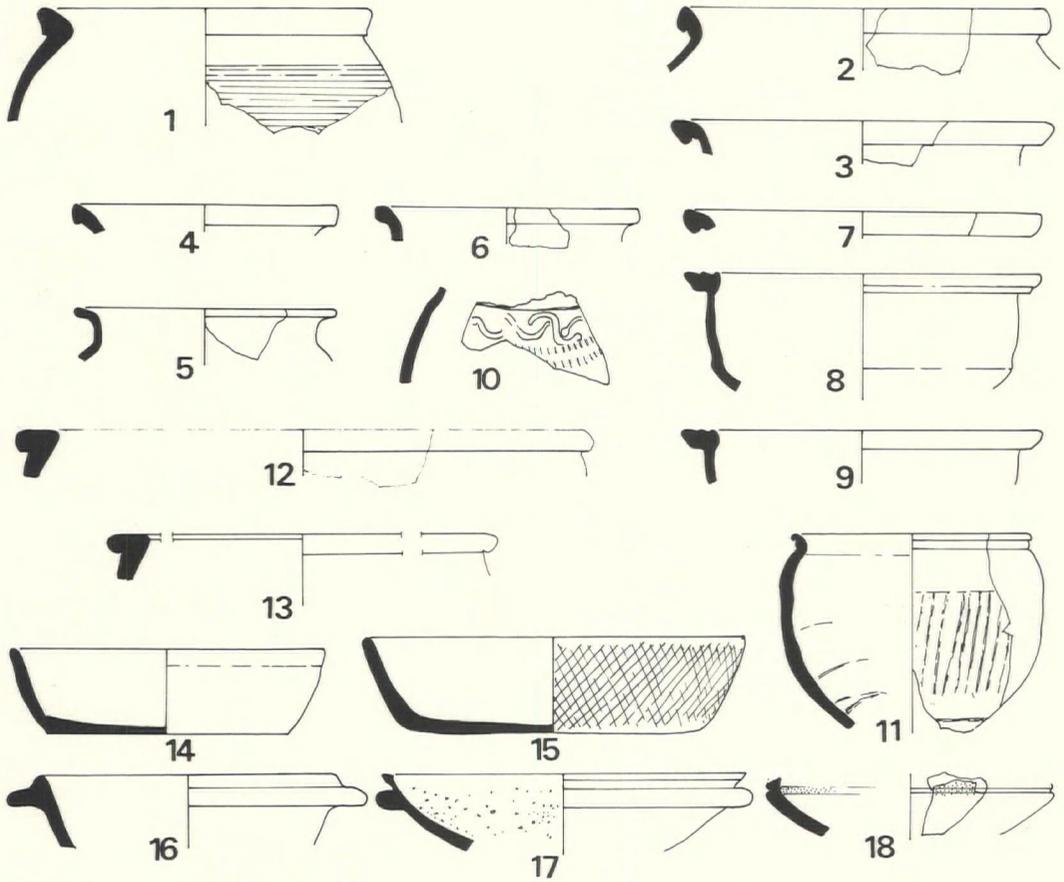


Fig 37 Pottery from kiln K1.
(scale ¼)

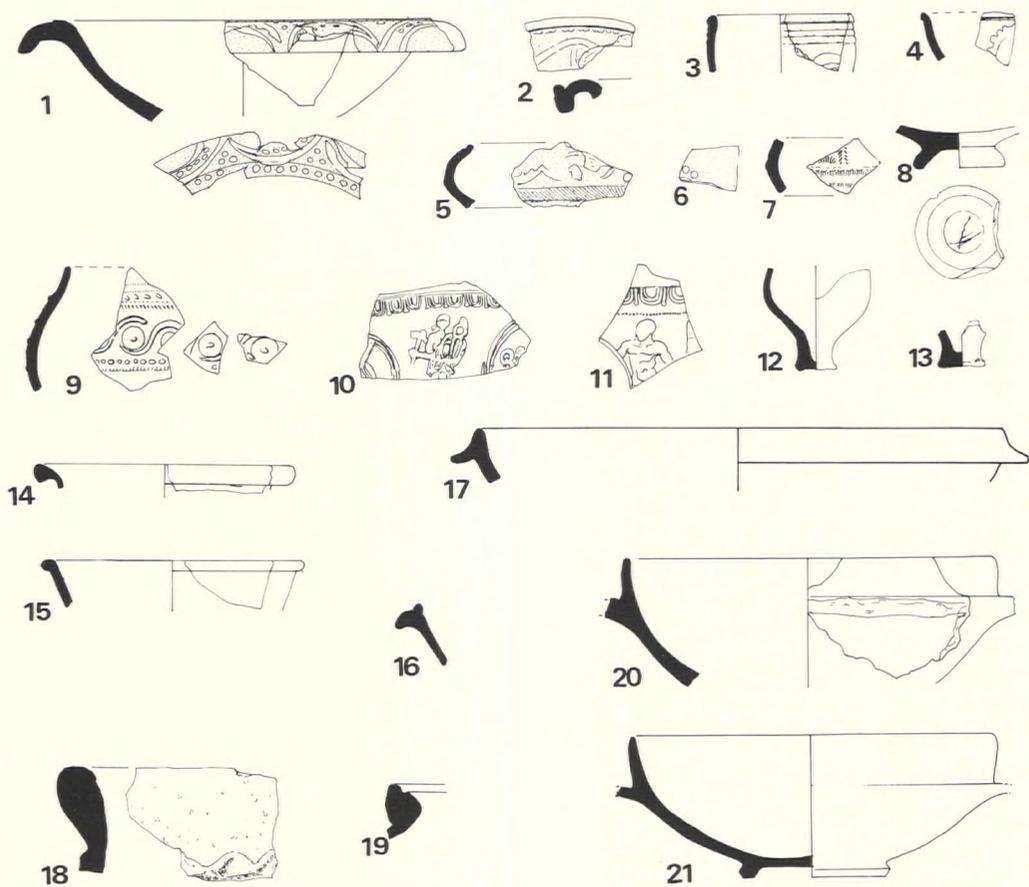


Fig 38 Pottery from S7.
(scale ¼)

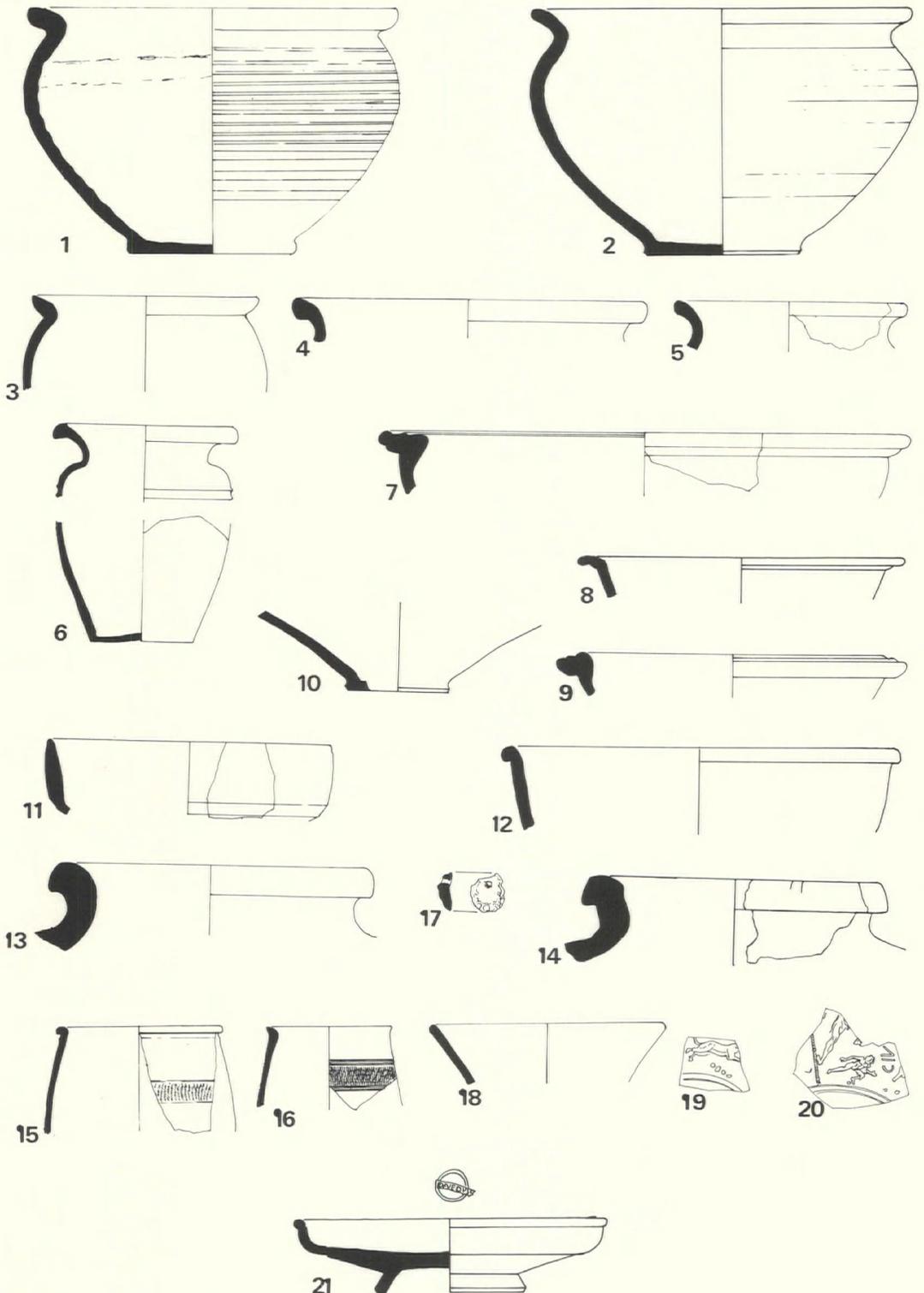


Fig 39 Pottery from S15.
(scale 1/4)

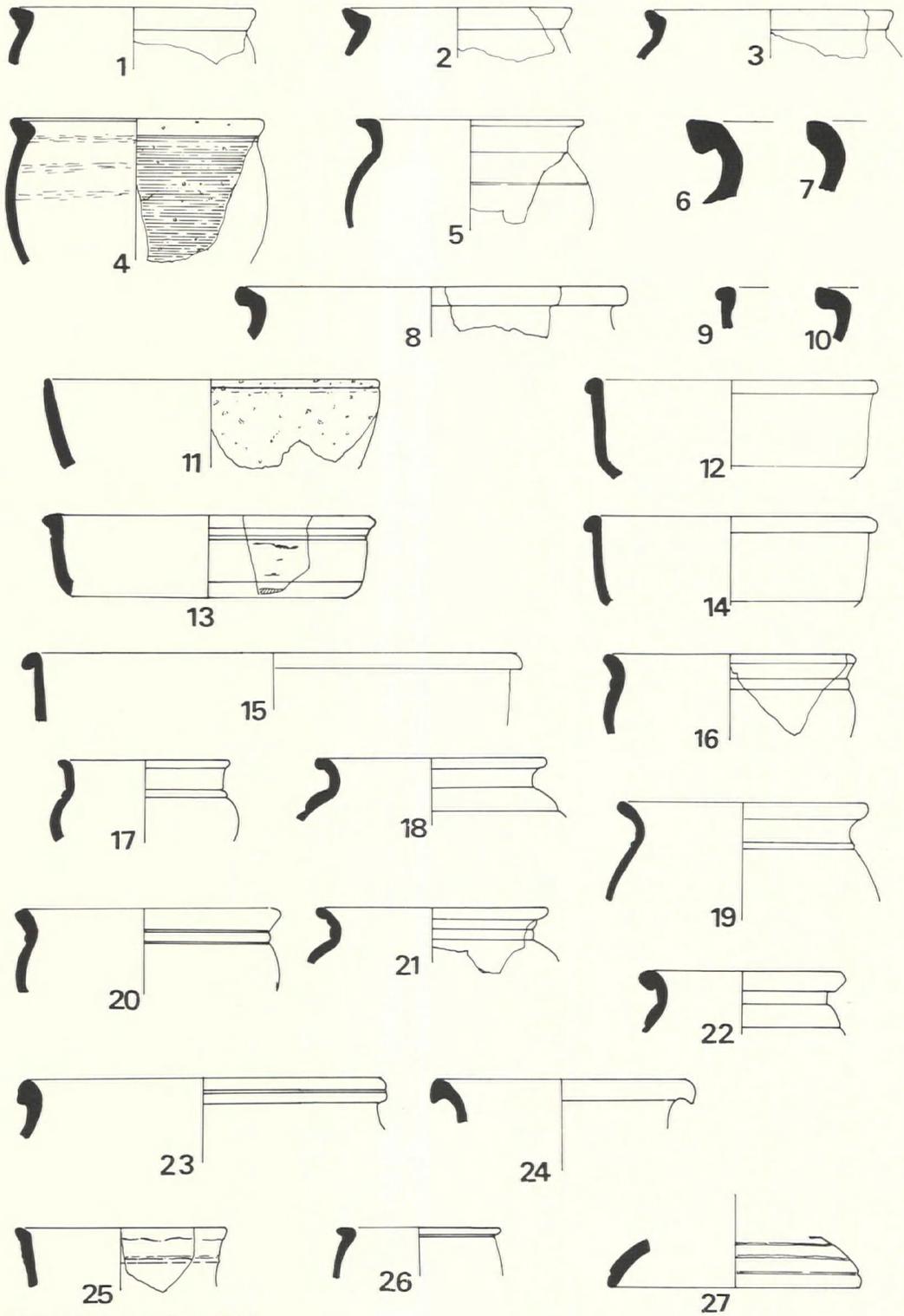


Fig 40 Pottery from S16.
(scale 1/4)

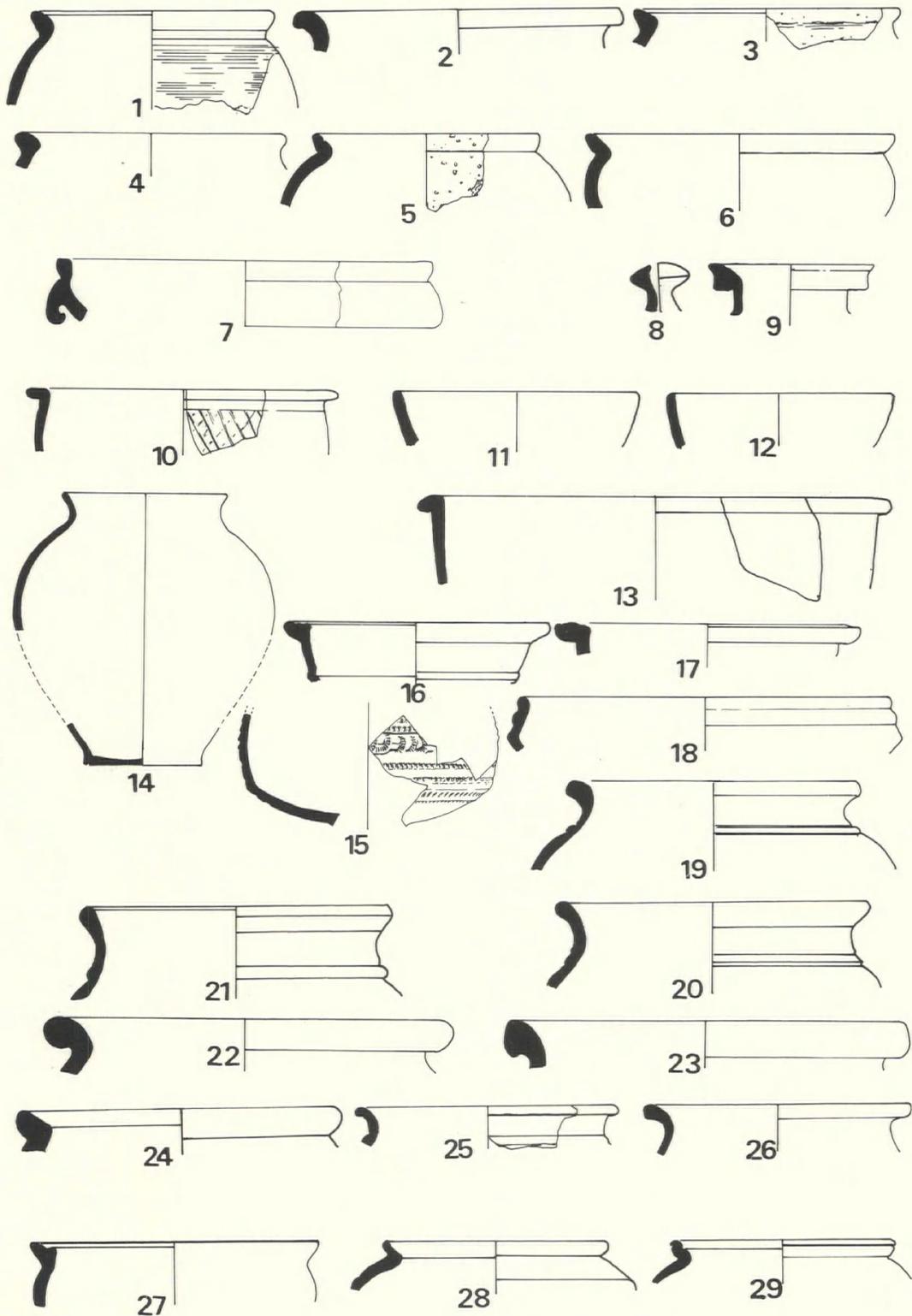


Fig 41 Pottery from S33, cobble floor to the west of the cemetery ditch.
 (scale ¼)

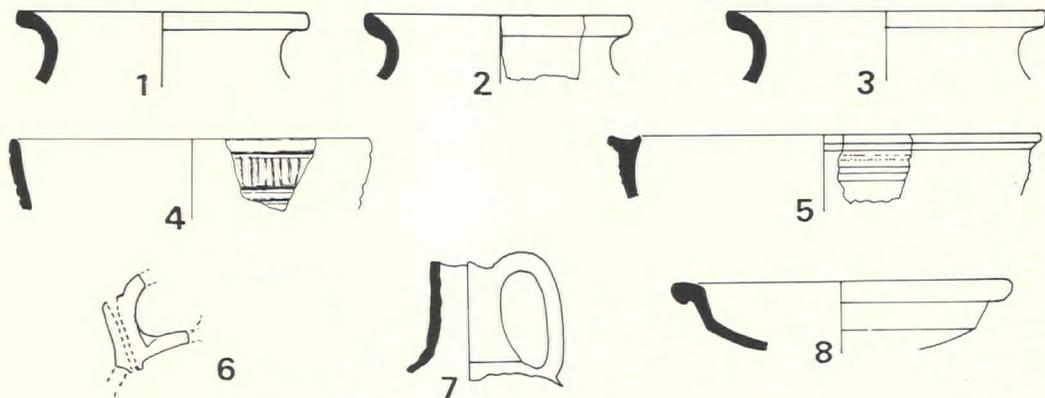


Fig 42 Pottery from the top of Well 5, associated with skeletons BI, BJ and BK.
(scale 1/4)

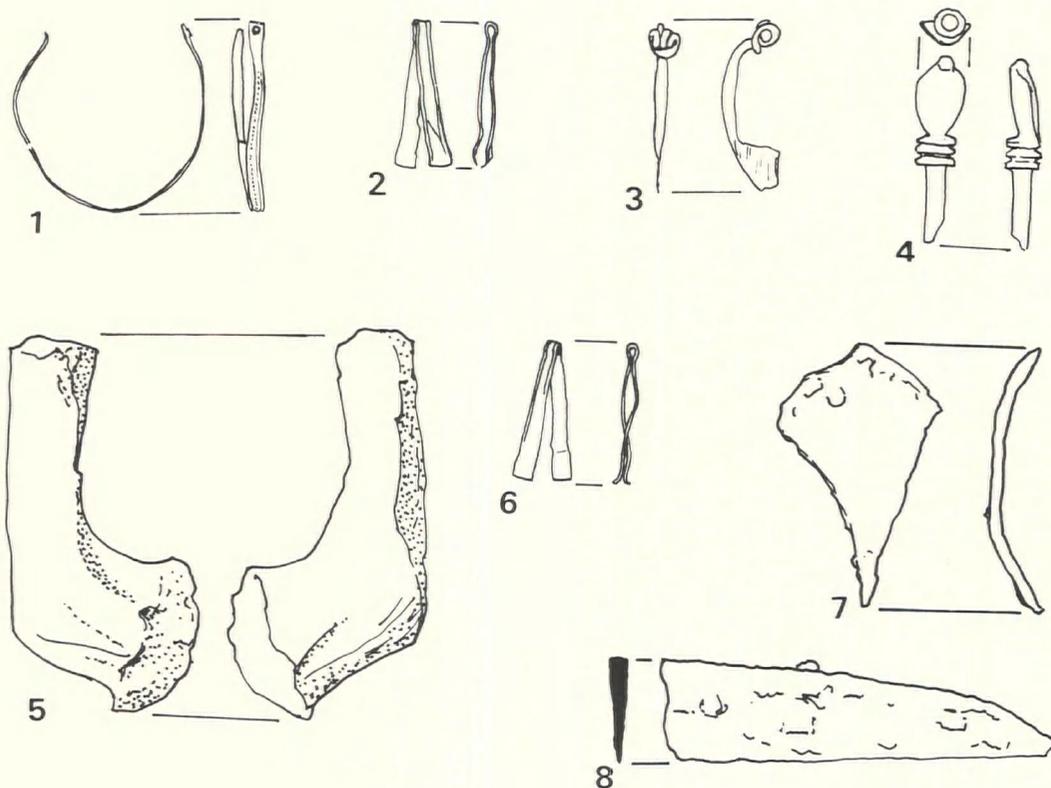


Fig 43 Small finds from S33 and the cemetery ditches.
(scale 1/2)

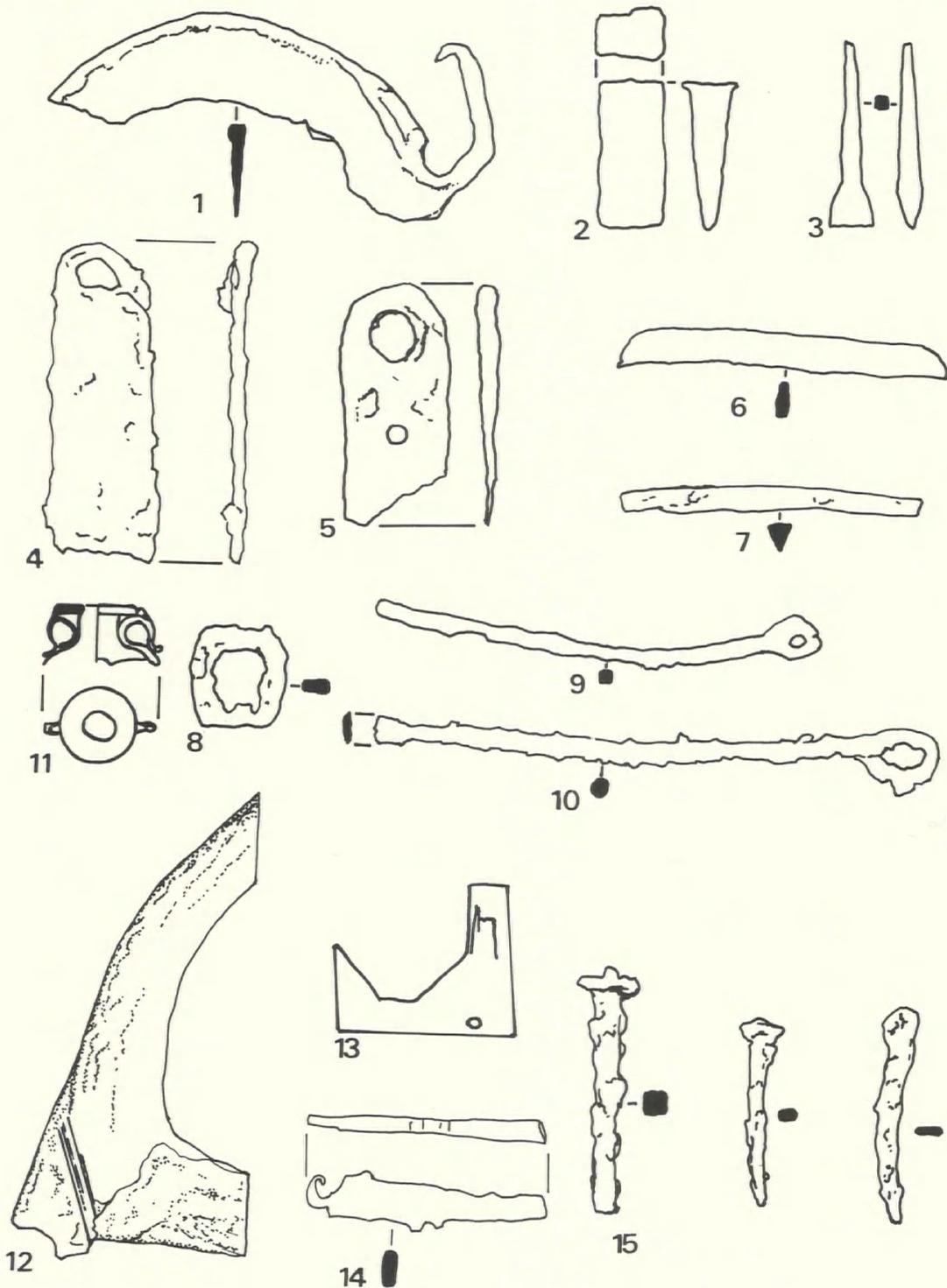


Fig 44 Small finds from S15, K3 and K4.
(scale 1/2)

NOTES

- 1 E.V. Jones in C.L. Matthews and J.B. Hutchings, 'A Roman Well at Dunstable', *Beds. Arch. J.*, 7 (1972), 29–31.
- 2 Documentation to this reference was not given by the author; the editor of the *Bedfordshire Archaeological Journal* was unable to verify the source being utilised.
- 3 L. Wenham, *A Romano-British Cemetery at Trentholme Drive, York*, (1968), *passim*.
- 4 Wenham, 1968.
- 5 Wenham, 1968, 157.
- 6 C.L. Matthews, 'The Anglo-Saxon Cemetery at Marina Drive, Dunstable'. *Beds. Arch. J.*, 1 (1962), 25–47, esp. 45–47.
- 7 J.B. Morris, 'The Marina Drive Settlement', in Matthews, 1962, 43–44.
- 8 D.R. Brothwell, *Digging Up Bones*, (1962); see also note 2.
- 9 Wenham, 1968.
- 10 Jones in Matthews and Hutchings, 1972.
- 11 S.S. Frere, *Verulamium Excavations Volume I*, (1971), 110, fig. 32.
- 12 Reading *VE(R) REGILLINVS* the suggestion of Prof. J.J. Wiles, rather than *VEREGILLINVS*, neither Veregillinus or Regillinus are attested as personal names but the latter is a possible formation from the cognomen Regillus.
- 13 For a general account of *dendrophori* see the article in *PW* and for a more recent account D. Ladage, *Städtische Priester und Kultämter im Lateinischen Westen des Imperium Romanum zur Kaiserzeit* (Köln, 1971), 126–131, Die Dendrophoren im Kult der Magna Mater; G. Laguerre, *Inscriptiones Antiquae de Nice-Cimiez* (Paris, 1975), No. 71 with discussion pp. 115–8, see also D. Fishwick, 'The Cannophori and the March Festival of Magna Mater', *TAPA* 97 (1966), 193–202.
- 14 The procession may be represented on a relief from Bordeaux, see E. Esperandieu, *Recueil général des bas-reliefs, statues et bustes de la Gaule romaine* (Paris, 1908), No. 1096, also illustrated in O. Brogan, *Roman Gaul* (London 1953), Fig. 42a.
- 15 Amsoldingen: *CIL* xiii 5153, Heddernheim: *Germania* xl (1962) 73ff. = *AE* 1962 No. 232 + *Germania* li (1973), 173 ff.
- 16 Kastel: *CIL* xiii 7317 = *ILS* 7095 and *CIL* xiii 7281 = *ILS* 3805 add.; Cologne: *CIL* xiii 8184. See D. Fishwick, 'Hastiferi', *JRS* lvii (1967), 142–60.
- 17 R.E.M. Wheeler, *Verulamium: A Belgic and Two Roman Cities* (Oxford, 1936), 113–20, *PL* xxxiv. E. and J.R. Harris, *The Oriental Cults in Roman Britain* (Leiden, 1965), 97, express doubts on the identification of the temple.
- 18 Cf. especially *CIL* v 81, 5296, ix 939, 1463, x 445, 8100, 8107 f.
- 19 M.W. C. Hassall wishes to thank a number of scholars including Dr Jaczynowska, Professor J.J. Wilkes and Dennis Saddington for discussing the text.
- 20 C.J. Young, *The Roman Pottery Industry of the Oxford Region*, (being *B.A.R.* 43, 1977).
- 21 *Numismatic Chronicle*, 14 (1974), 73–74.
- 22 Young, 1977, fig. 27.
- 23 Young, 1977.
- 24 Young, 1977.
- 25 Young, 1977.

DISCUSSION

The Roman town of Durocbrivae probably commenced life as a posting station during the building of the military road, the Watling Street. The location was XII Roman miles north of Verulamium at the crossing of Watling Street, and the Icknield Way just clear of the wooded clay country to the south and on open downland, a situation fully exploited by the Belgic farmers and stock raisers whose farmsteads were densely scattered around the area.

First-century native pottery indicates an early establishment of the posting station which grew into a small but prosperous township, the natives probably attracted by the profits that could be made from travellers along the new road.

Extensive excavations carried out during the redevelopment of the modern town all seem to indicate an economy based on this service to travellers. The nineteen known Roman wells, sunk more than 90 feet (over 27 metres) deep into the natural chalk and producing crystal clear water were all probably used to please the itinerant visitor.

The south-west quadrant of the town, the site of the inhumation cemetery, was also used for metal working. A bronze-smith's hearth has been found and nearly all of the features excavated have produced iron slag. The blacksmiths worked here, a trade that would prosper on traffic passing along the roads. Horses also are a feature of the town.

Nearly all the Roman pits produced horse bones. In 15 metres of the fill of well 5 the bones of no fewer than twenty-eight horses were found.

The south-west quadrant of the town also shows an activity calling for the use of so-called corn-drying kilns. Six of these made use of the cemetery boundary ditch. Three others were found in the immediate vicinity. These may have been used for the drying of grain but could also have been used for the production of malt for a type of beer. It is of interest to note that this part of the medieval town was used for the production of malt. Four medieval malting kilns have been excavated in the immediate vicinity and beer has been brewed in the town until the last brewery closed its doors in 1938. Other features of the town produced many fragments of roof and building tile and a few fragments of hypocaust tile, but not a single tessera

nor any foundations to indicate substantial buildings with flint walls or footings. If these existed they must have been sited along the sides of the main roads and have been totally destroyed by chalk-cut cellars of the medieval houses which were similarly sited alongside the roads.

Although the archaeological evidence suggests a first century date for the founding of Durocbrivae and shows its growth during the succeeding centuries, the cremation cemetery that must have existed during the first and second centuries has not yet been discovered. Only one cremation, contained in a shell-gritted jar, has been found. This was buried in a small pit in the north-east quadrant of the town some fifty metres to the east of the Watling Street.

The archaeological evidence of Roman Dunstable presented by excavation is supported by the known history of Roman Britain up to the fifth century and thus is comparatively clear, but our knowledge of the end of the Roman town and the end of Roman Britain is less supported by historical documentation and is less clear. It depends almost entirely on the archaeology. The end of Roman Durocbrivae is probably shown in the material in this late inhumation cemetery but its interpretation must rest on the use of 'perhaps', 'probably' and theory.

Although two early-Saxon cemeteries have been excavated by the Society, one two kilometres to the north and the other two kilometres to the west of the cross-roads, no Saxon material has been found in the town and on present evidence Durocbrivae ceased to exist when Roman Britain became Saxon England.

When Cutha fought his battle in A.D. 571 at Bedcanford and captured Limbury and Aylesbury on the line of the Icknield Way no mention is made of Durocbrivae lying only 3 miles west of Limbury and on the route to Aylesbury. The town is not mentioned in the Domesday Book. By the year 571 the Roman town had probably long disappeared.

During periods of civil unrest, Durocbrivae would be a very dangerous place to live. Two major roads cross at this small undefended town. Displaced people, mutinous troops, the hungry

travelling the roads would find their way through the town. During serious civil disturbance the wealthy would seek sanctuary in the walled town of Verulamium, the servant, slave or cripple left behind to look after the property.

If we are to believe the Gildas story, Germanic troops settled in the eastern parts of Britain, mutinied (probably c. A.D. 440) and thereafter a large part of eastern Britain was denied to the Romano-British. Verulamium survived the onslaught; excavation there has shown building taking place well into the fifth century.

It was probably a different story in Durocivriae. The town appears to have been abandoned some time in the late Roman period. The evidence suggesting this is the abandoned wells, the tops of which were allowed to lose their superstructure and become weathered.

These would have been very dangerous and their neglect, to leave great funnel-shaped holes, suggests a considerable period of time when no children or animals were present in the area, but at a later date the town was re-occupied and an attempt was made to plug these very dangerous holes.

The wells would have made excellent rubbish pits and one well some 200 metres away had been used for this purpose and filled to the top with refuse before any erosion of the top had taken place. It contained fourth century coins, the latest 16 feet down the shaft has been dated A.D. 388–400. There is some evidence that this well had been filled to the top and then subsided to be filled again some time after the loss of the latest coin. Whether this had taken place before the adjacent wells had been abandoned and left to erode we cannot tell. When people again occupied the town their numbers were probably so few that insufficient rubbish could be generated to fill so many wells. As a result they were plugged, probably by pushing hawthorn bushes into the tops and then a few cart-loads of rubble. (A method used to plug wells in Dunstable at the beginning of this century). The tops of these wells had then sunk over a period of time and when they showed as hollows in the ground they had been used for the burial of bodies. In well 1, seven bodies had been thrown into the hollow and covered with rubble.

Against the historical background, what could be expected to be found in a late inhumation cemetery of a small urban settlement located in the eastern part of Britain on one of the main Roman highways? At first people would be buried by their relatives in well-cut graves, in substantial

coffins and occasionally with personal jewellery or pot. Later, if new ruthless masters had taken over control of the district following a national disaster, people would continue to bury their relatives in the usual manner but now the bodies would probably show signs of their tyrannical masters, in mutilations, heads and limbs chopped off. Still later, as morale declined because times were not going to return to the 'good old days', bodies would be dumped in the same area but for a quick disposal of the dead in shallow graves and in places selected for easy digging.

This imaginative exercise near enough describes the finds in the Dunstable cemetery. The woman K lying in the ditch with her hand over her face presented a very pathetic picture to the excavators. She was lying as though still alive when buried and the young woman L lying next to her had her legs chopped off above her knees and her head cut off. These may have conformed to Roman burial customs but are strangely at variance with the formal burials of the cemetery. Beheading appears to have been widespread in late Roman times in lowland Britain and perhaps future research will throw more light on this practice.

There is a striking difference between burials in different areas of the cemetery. On the north side the graves were packed closely and regularly aligned. Several of them contained grave offerings and there was a widespread use of nailed coffins. In this area the burials, including those in the ditch, were made with reasonable care, but there were more beheaded skeletons. There was frequent use of lime on the bodies. In the southern part of the cemetery the graves were more widely spaced, but in the south end of the east ditch and in the south ditch itself there were so many burials that they often overlapped, later interments disturbing earlier ones. Many of them were buried in the ditch fill rather than in graves cut through the ditch bottom, and, in contrast to the northern area burials, a number, both in the ditches and nearby, were buried with little respect; face down or otherwise without much care. The south ditch also contained four horses and a dog.

These variations in burial practice may indicate different periods of use or perhaps use by different groups of people simultaneously. Some of the graves in the formal cemetery contained grave goods of a type which suggest that the fourth century was well advanced when the burials took place. Some of these graves had been completely lost to view when later graves cut through them.

The grave of AF with the small box of jewellery had been cut out by AL, and the grave of the young man AQ buried with the inscribed pot had been cut out by AS. In two other cases a later interment had been made in a grave already containing a body with grave goods: BD above BC and her glass beaker, almost certainly a fourth-century product, and RR over SS and her jewellery, which includes bracelets exactly paralleled at Verulamium by bracelets dated 370–410 or later (see above).

The cemetery was probably initiated in the fourth century and may have utilised an existing ditched paddock; the ditch being nearly filled with silt before some of the burials were made. Many features on the site cut through the ditch, which must therefore be earlier.

Some burials (CG, MM) cut through these latter features, but on the other hand calcined human bones were found in the flues of K3 and K4, suggesting that industrial activities were being carried on after some of the burials had taken place. Iron slag similar to that present in kilns 3 and 4 was found in a number of the graves at the north-west end of the cemetery.

Rubbish pits, areas of industrial activity and wells occurred outside the boundary ditches, particularly to the north and west, but not inside, suggesting a respect for the cemetery area.

The majority of pottery from the boundary ditch was found in its northern section, near to these areas of activity.

A representative sample of the pottery from the features cutting into the boundary ditch is illustrated in figures 36–42. These represent typical Roman shapes but some of them are very poorly thrown. For example figure 40 no 13 has daubs of clay on the exterior of the pot and the flagon (fig 40 no 25) is very crude work. Some of the pottery from kiln 1 (Fig 37) also shows this bad workmanship. Figure 37 no 11, for example, is a very badly made pot. This latter kiln also contained a fragment of parchment ware from the Oxford kilns which can probably be dated to the late fourth century.

Pottery from the Oxford kilns was best repre-

sented in the fill of the short length of ditch S7. This ditch cut through the round pits S4 and S5 which were in turn later than kiln 2 in the cemetery boundary ditch. More of this late fourth century Oxford pottery has been found in this ditch than in any other in Roman Dunstable. Can this imply a decline in the pottery factories in the east and more reliance on pottery from kilns to the west?

The pottery from S7 shows the features to be a late structure but it was almost filled with silt when the grave of MM was cut through it. The graves in the north boundary ditch must also be very late as they were dug through the ditch long after the coin of Valens had been deposited in the fill.

The location of the cemetery perhaps also provides a clue as to date. It is near the cross-roads and the centre of the town and is surrounded by the features of earlier and more prosperous times, such as wells and pits. The town had probably shrunk to a fraction of its size when this area, which would have been outside of the town, was put to use as a cemetery. This may have followed the political unrest and disorders in Britain that occurred at the end of the fourth and beginning of the fifth centuries and which would have had its most severe effects on people living on the Watling Street who had depended for their livelihood on the free and safe movement of traffic along the main roads.

Dr Jones and B. Horne suggest in their conclusion that the graves could probably represent a community of twenty to thirty people using the cemetery for a hundred years or so. The numbers of people could be raised if the use of the cemetery is reduced to half this time but the numbers are too low for a prosperous town of the early fourth century.

They become acceptable if they represent a community re-occupying an abandoned town at the end of that century, a community that probably survived for another fifty or sixty years with a reducing population.

APPENDIX

A Roman Cess-pit with Skeletons

INTRODUCTION

Following the writing of the above report a further two skeletons were found buried in the top of a Roman cess-pit sited 33m from the east cemetery ditch and 11m to the south of Roman well 1 (Figs 2 and 45).

The cess-pit had been filled and abandoned during the first half of the second century A.D. with a female buried in the top (skeleton CN). After the pit had settled and subsided to show as a shallow depression in the ground, a grave for a male (skeleton CM) had been dug across the top of the hollow, partly cutting into the natural chalk on the east and west sides of the pit shaft. The grave digger had apparently selected the site knowing that beneath the hollow would be easy digging. The later grave had disturbed the earlier burial, which was found as a completely disjointed assemblage of bones thrown back into the later grave fill.

Following the burial of the later body, the pit

had subsided a further 30cm causing the skull of CM, with the lower jaw now separated, to sink into the pit shaft. At the western end of the grave, the feet bones and the lower parts of the leg bones remained in the grave but the upper parts of the broken tibia and fibula were lying at an angle in the pit. Just below skeleton CM was a mass of boot nails. These may or may not have been the remains of CM's boots.

THE CESS-PIT

This was a round pit with a diameter of one metre, sunk 9.15m deep into the natural chalk. Hand and foot-holds were found at approximately 16cm intervals dug into opposite sides of the shaft and were used by the modern excavators to climb in and out of the pit. The sides of the shaft were well cut and even, but no pick marks were observed.

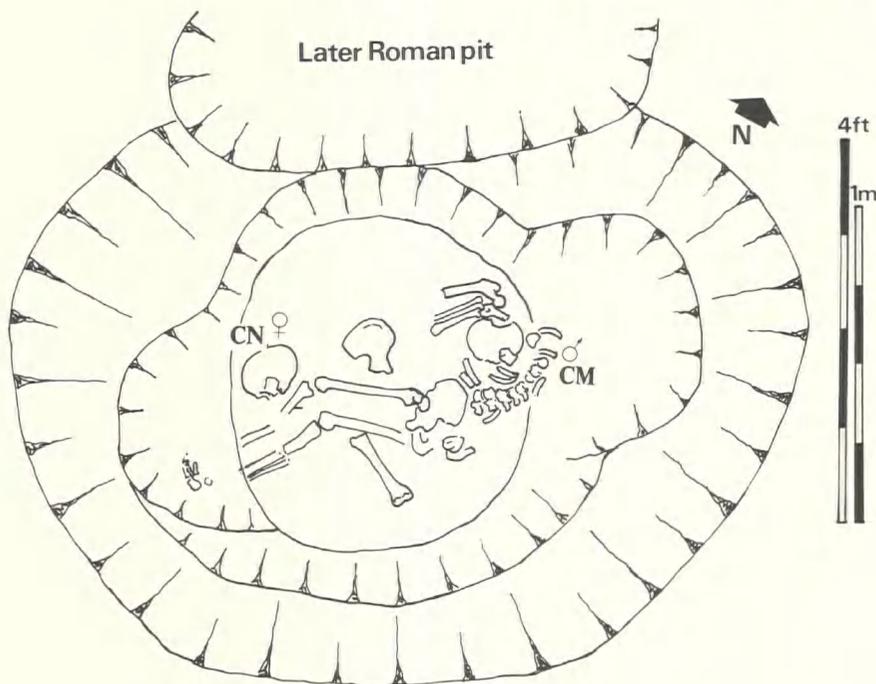


Fig 45 Skeletons CN and CM in top of cess-pit M18.

TABLE 8
THE PIT CONTENTS

The following table lists pottery types with a count of the sherds found at different levels within the pit. With the exception of the few pots illustrated (Figs 47 and 48), the bulk of the sherds were very small fragments.

- Col A. Found with the skeletons to a depth of 1.5 metres.
 Col B. Depth 1.5 metres to 3.6 metres.
 Col C. Depth 3.6 metres to 7.0 metres.
 Col D. Depth 7.0 metres to 9.45 metres.

Type	A	B	C	D
Parchment ware	1	—	—	—
Mica-dusted	—	—	1	—
Samian	6	25	5	15
Amphora	2	5	2	2
Mortaria	2	—	—	—
Flagons	1	31	3	17
Folded beaker	1	—	—	—
Poppy beaker	—	—	5	3
Reeded rims	—	34	1	1
Castor ware	8	—	—	—
Platters	5	1	—	1
Shell-gritted pots	20	17	2	4
Coarse grey ware	64	122	44	58
Burnished grey ware	7	—	—	1 pot
Biscuit ware	12	6	—	17
Sand cast beakers	—	—	3	—
White wares	—	2	—	1
Storage jars	—	2	4	23

Other finds

Depth A. Two fragments of building tile. Three iron nails. Three fragments of lava quern. Mass of boot studs and a harrow tine.

Depth B. One fragment of building tile. Fifteen pieces of iron slag. Three iron nails and a glass bowl fragment.

Depth C. Eight pieces of iron slag and three iron nails.

Depth D. One piece of iron slag. One fragment of Conglomerate (Puddingstone) and a snail shell of *Helix aspersa*.

The top of the pit was weathered to a funnel shape, probably due to frost action. The bottom was uneven and slightly higher on one side showing that it had been excavated in a spiral working around the circumference. This suggests that a hoop had been used as a template (Fig 46).

The fill was a brown friable loam interspersed with bands of chalk. A more chalky fill occurred between 1.5 and 2.5 metres deep. This may have come from a frosting action eroding the top of the pit and above this depth the pit had been used for the deposit of occupation debris. Prior to this upper fill, although Roman debris was found, the main use of the pit had apparently been for the

emptying of the soil bucket or perhaps privy facilities had been built over the top of the shaft. Two postholes with stone packing were found on the south side of the pit but medieval and later Roman activity in the immediate area had destroyed all evidence of any superstructure.

The depth of this pit. (3m deeper than any Roman rubbish pit previously found in Dunstable) suggests that the original intention had been to dig a well but for some reason this was abandoned and the pit used as a cess-pit.

The pit and the nearby well 1 suggest a Roman building in the immediate vicinity but no structural evidence for such a building has been found.

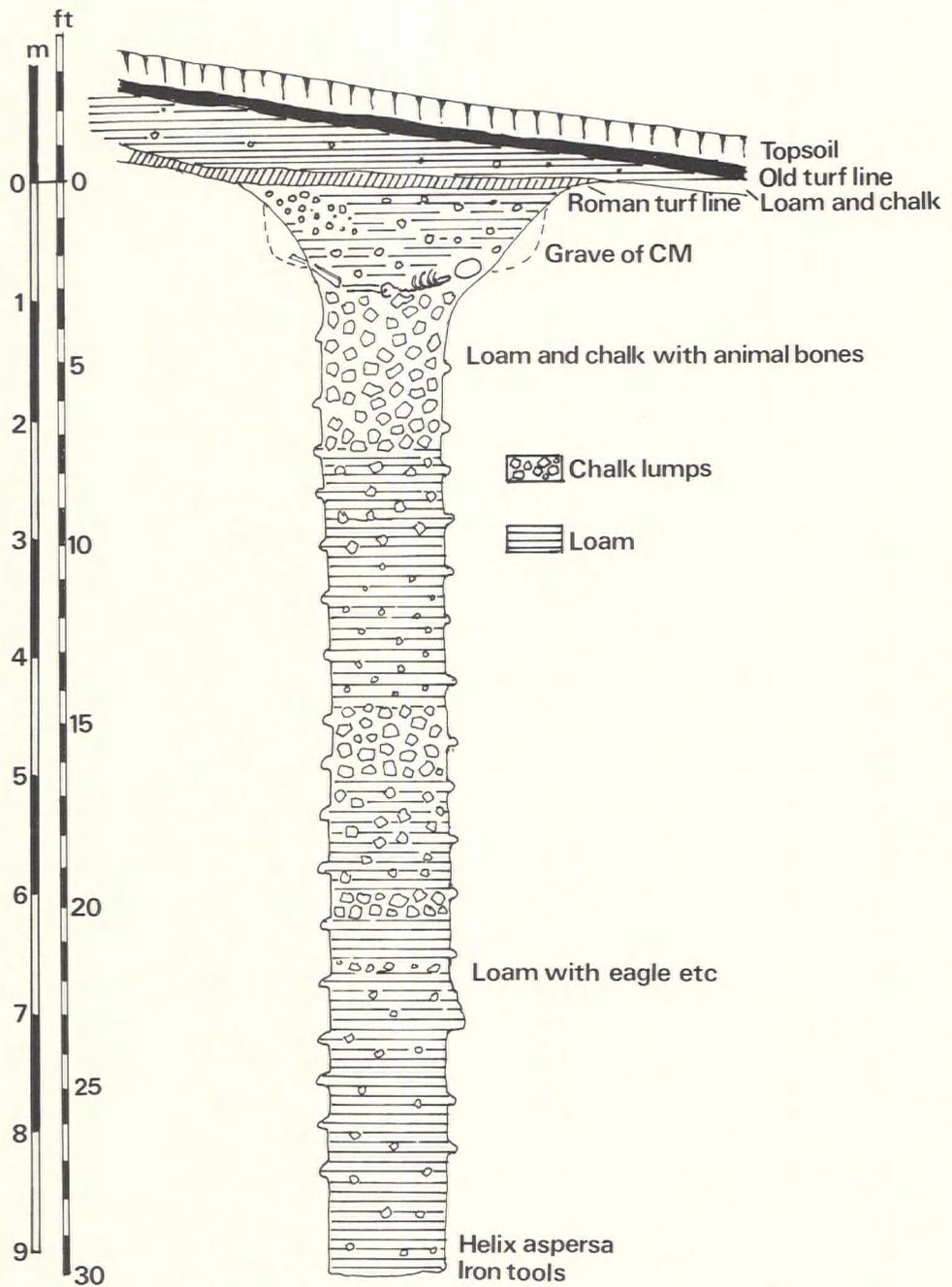


Fig 46 Section through cess-pit M18.

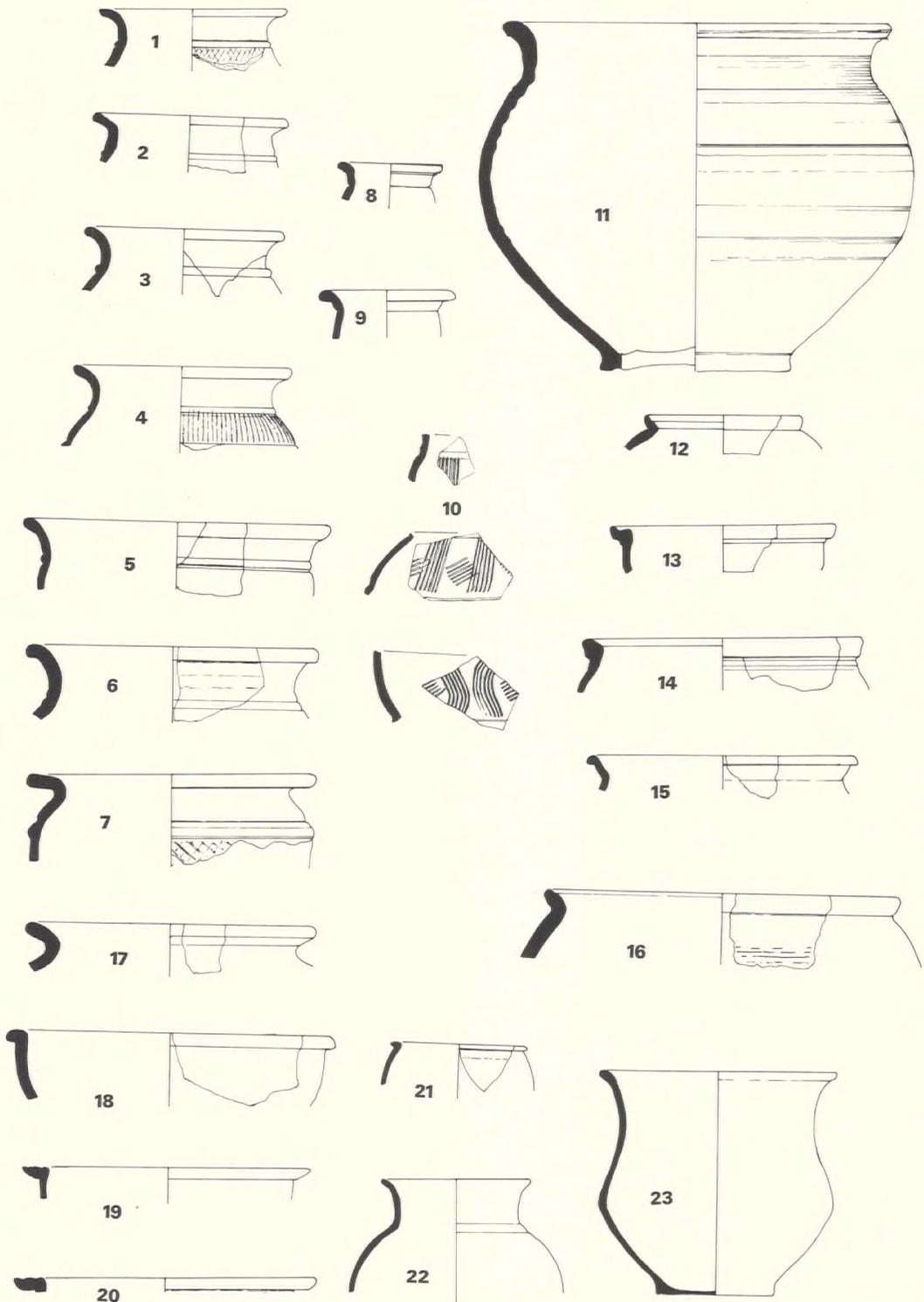


Fig 47 Pottery from cess-pit M18.
(scale 1/4)

THE FINDS

POTTERY

The pottery is the only material we have to date the use of this pit. None of it need be later than A.D. 150 and it is probably some fifty years earlier than this judging from the pot 23 (Fig 47) which is a vessel made in the native ware and tradition. The absence of folded beakers, colour-coated Castor wares and mortaria in the lower levels also suggests this earlier date. The pottery listed under depth A contains some later wares but this stratum of the pit had been disturbed by the burials which had probably taken place in the fourth century A.D. The single sherd of so-called parchment ware, probably from the Oxford kilns, suggests a date contemporary with the main cemetery.

Although the total number of sherds seems high, the majority were very small fragments. The exceptions were pots 11, 23 and 24 which were some 90% complete vessels.

OTHER FINDS

In the bottom of the pit, close together, were the file, rasp and lynch pin (Fig 48 nos 33–35). When first excavated the rasp showed the ghost of a woven material. This suggests that the tools were together in a woven bag when thrown into the pit; perhaps the tools of a wheel-wright. Also near the bottom of the pit was a snail shell of the common garden snail *Helix aspersa*. This snail is reputed to have been introduced into Britain by the Romans in the first century A.D.¹

At 6.6m, preceded and followed by sterile layers in the pit, was a stratum of small animal and bird bones that included the skeleton of a Sea Eagle (*Haliaeetus albicilla*). It was submitted to Mr G.D. Cowles of the British Museum (Natural History) who writes:

This is one of the larger species of eagles, with a wing span of 7 to 8 feet, and larger than our Golden Eagle. It is not suitable for falconry as it feeds mainly on fish, water birds, coots, ducks, mammals and carrion. The distribution of the bird today is Greenland and locally in Europe and Asia. It became extinct in the British Isles during the last century due, no doubt, to persecution by landowners, as it was suspected of killing young lambs. In habitat it prefers the coastal areas and large inland waters and rivers.

All the bones in this stratum had been thrown into the pit together and were lying in a band of brown loam. Analysis of the layer of bones shows that it contained parts of a raven (*Corvus corax*), several small rodents, a frog and a water vole (*Arvicola*

amphibius). The nearest habitat for this latter animal would be the brooks rising from the foot of the hills now about two miles to the north of the site. It is tempting to see this assemblage of bones as the remains of food given to a captured eagle, or they may have been in the bird's stomach.

The fragment of the pillar-moulded glass bowl at 3.6m is perhaps also an indication of the early date for this pit. At Verulamium the type is dated to the late first, or early second century A.D.²

Throughout the pit fill were fragments of iron slag showing that early in the second century blacksmiths were at work probably earning their living from the traffic passing along the Watling Street. The other find of note is the harrow tine. Numbers of these objects have been found in the near vicinity and two were found on a Romano-British farmstead on Puddlehill a mile to the north of the town. (See Fig 43 no 7 for similar tine from the north cemetery boundary ditch and Fig 48, objects 30, 31 and 32 for tines found in the immediate area). Parallels for these objects are unknown to the author and the identification as tines for a harrow or similar farming instrument is open to amendment.

The upper fill of the pit contained a mass of animal bones including horse bones which showed butchering cuts. Horse meat was obviously part of the Roman diet. It is interesting to note that amongst these bones, a mandible of a mule has probably been identified (Fig 49).

DESCRIPTION OF FINDS

(Figs 47 and 48)

- D Depth below natural chalk.
V S.S. Frere, *Verulamium Excavations Volume I*, (1971).

Pottery drawing number followed by a Verulamium dating.

Unless otherwise stated, the pottery is made using a sand-filled paste.

- 1 Coarse grey ware with burnished lattice pattern beneath narrow cordon. D 6.7m.
- 2 Fired black. D 7.3m.
- 3 Burnished pot, fired black. D 7.6m.
- 4 Grey pot fired red inside. Zone of burnished vertical lines on shoulder. D 8m. V436. (A.D. 105–115).
- 5 Grey ware, sooted on outside. D 8m.
- 6 Coarse grey ware. D 7.3m.
- 7 Jar in soft grey ware with out-turned rim. Burnished lattice pattern below shoulder cordon. D 3.65m. A sherd of the same vessel was found just below the turf level adjacent to the top of the pit. Similar to V 62 (A.D. 49–60).

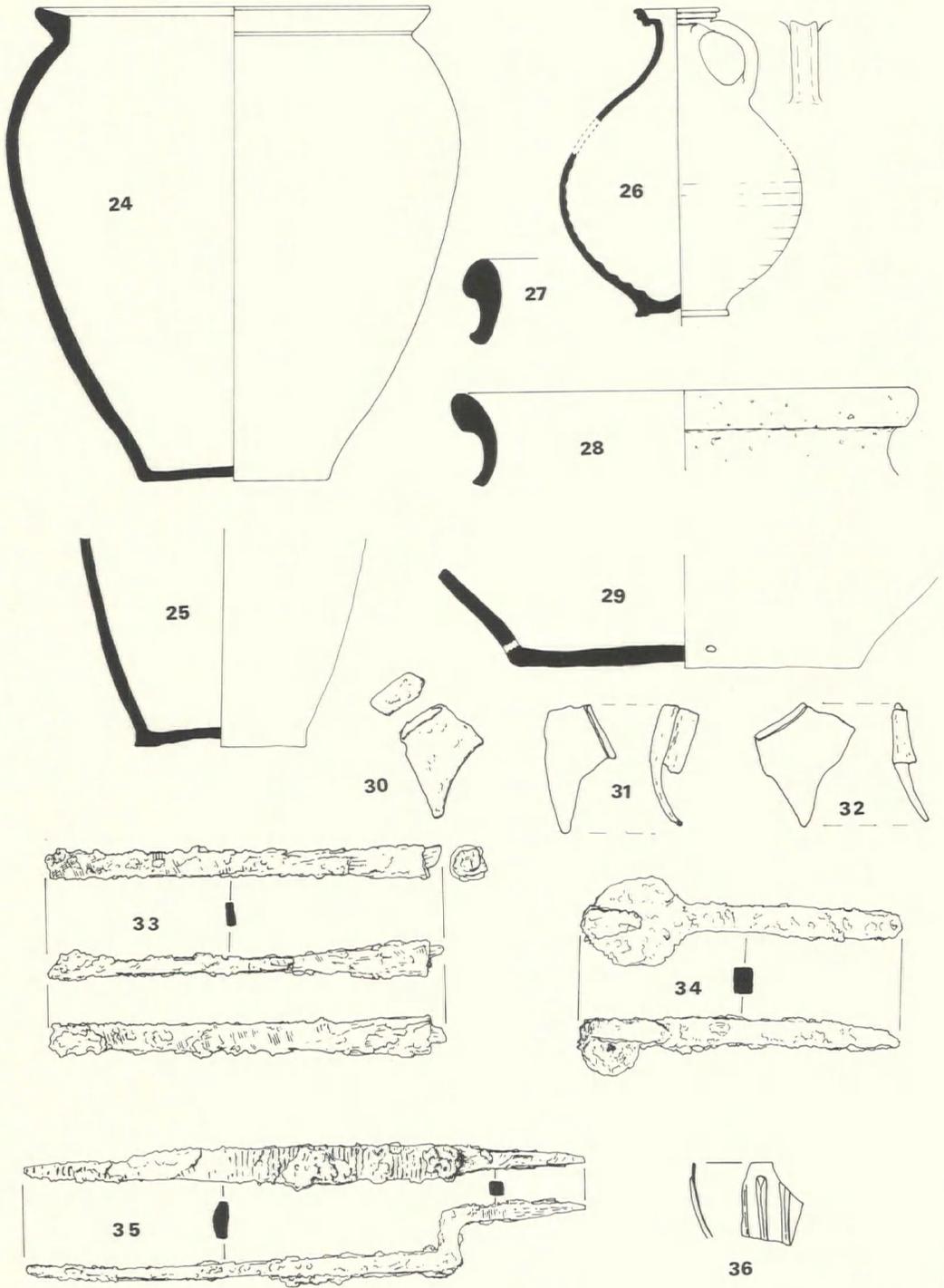


Fig 48 Pottery and small finds from cess-pit M18.
(scale $\frac{1}{4}$)

- 8 Beaker in smooth ware, fired black and burnished outside and inside rim. D 4.6m.
- 9 Beaker fired black with red brown core. D 8m.
- 10 Sherds from a hard grey vessel with deeply impressed decoration made with a six-toothed comb.
- 11 Hard grey vessel with burnishing on shoulder and below waist, leaving a light grey band around girth. D 1.5m. Similar shape to V 161 (A.D. 60-75). (Almost a complete pot).
- 12 Fine orange ware with grey core. Rim recessed, probably for a lid. D 8m.
- 13 Vessel in white ware. D 8m.
- 14 Shell-gritted vessel, fired biscuit. Smoke-blackened on outside. Sealing the top of the pit.
- 15 Hard grey ware, fired black. Burnished outside with burnish carried over rim. D 6.7m.
- 16 Coarse vessel with rough combing on shoulder. Rim recessed for a lid. D 2.1m.
- 17 Coarse grey ware with out-turned rim. D 8m.
- 18 Black burnished platter, grey paste. D 50cm. Found with skeleton.
- 19 Reeded rim vessel with cream slip. D 4.6m. V 669 (A.D. 130-140).
- 20 Reeded rim vessel with cream slip. D 6.7m. V 669 (A.D. 130-140).
- 21 Beaker in grey paste with brown slip. D 8.2m.
- 22 Light grey burnished ware. D 7.6m. V 600 (A.D. 140-150).
- 23 Jar with burnished dark brown surface flaking off in patches to show red brown fabric beneath.
- 24 Coarse shell-gritted ware, fired biscuit. Smoke-blackened on outside. D 6.1m.
- 25 Base of shell-gritted pot, coarsely made and fired biscuit. D 6.7m.
- 26 Flagon in white clay with cream slip. D 6.7m.
- 27 Profile of storage jar, fired red from dark grey paste. Tempered with crushed pottery. D 5.5m.
- 28 Storage jar with large shell grits. Corky surface inside pot. D 5.2m.
- 29 Base of shell-gritted storage jar. Holes pierced after firing just above base. Probably a total of four holes. D 5.2m.
- 30 Iron harrow tine. D 3.0m.
- 31 Iron harrow tine found in well 5.
- 32 Iron harrow tine from adjacent pit.
- 33 Iron file. Part of wooden handle still survives in the socket.
- 34 Iron lynch pin.
- 35 Iron rasp. The oblique cutting grooves wider and deeper than those on the file (object 33).
- 36 Rim fragment of a pillar-moulded bowl in greenish glass. D 3.6m.

SKELETONS CM AND CN

By E.V. Jones and B. Horne

Skeleton CM was found in the grave at the top of the cess-pit and had disturbed skeleton CN which had been scattered in the upper fill of the pit.

Details of these skeletons have not been included in the report calculations.

For measurements see table 9.

ANALYSIS OF SKELETAL MATERIAL

By E.V. Jones and B. Horne

A total of 356 animal and human bones (excluding rodents) were identified. Only a few of the bones were intact but the condition was good. The bones were distributed in four depths of the pit:

- 1 Depth A, with the human skeletons.
- 2 Depth B, 1.5 to 3.6 metres.
- 3 Depth C, 3.6 to 7.0 metres.
- 4 Depth D, 7.0 to 9.45 metres.

These divisions produced a considerable variation in finds.

1 Depth A.

With the human skeletons, to a depth of 1.5m. Ten fragments of bone and teeth from horse, ox, pig and domestic fowl. All of these were small and could have been casual inclusions in the top-soil.

2 Depth B. 1.5 to 3.6m.

In this short length 117 mature and 149 immature bones were found. As can be seen from table 9 the pelvises, humeri and femurs of horse, ox and sheep were well represented and this could mean that there was intensive use of the pit as a waste-pit from a nearby kitchen. The large number of horses is in keeping with well 5. The dog skeleton was accompanied by 11 neonate skeletons and this could have been a bitch with her puppies. Numerous examples of *Cepaea hortensis* were also found throughout the fill.

3 Depth C. 3.6 to 7.0m.

This contained 66 mature and 66 immature bones together with neonatal bones from sheep, ox and twelve puppies. The ox and horse were represented by the lower limbs while the sheep were more fully represented in the bones found. The dog skeletons were accompanied by 12 neonate skeletons which were probably unborn. The bird bones from this level were identified by Mr G.S. Cowles of the British Museum as the now rare White-tailed Sea-eagle *Haliaeetus albicilla* and a Raven, *Corvus corax*. Intrusive bones from Watervole (*Arvicola amphibius*) and six skeletons of field vole (*Microtus agrestis*) were also found. The human skeleton was a less than six months old infant that had been buried intact. Also found were amphibian bones probably from frogs and toads.

4 Depth D 7.0 to 9.45m

This contained few bones and they were probably of a casual or intrusive nature. Fragments of ox only were found with carrion crow *Corvus corone corone* and the juvenile domestic fowl. The finding of *Helix aspersa* at the bottom of the pit is interesting as it is thought to be a first century introduction.³

Butchering

The ox, sheep and horse bones were found to have been butchered. In the horse in Depth B level, two cannon bones had been split open, two humeri and two fragments of mandible had been butchered. One mandible showed a vertical and horizontal chop which separated the ascending ramus from the rest of the jaw, with a small chop at the top of the ramus which entered the temporo-mandibular joint. A small sliver of bone had also been removed from the angle of the jaw. A juvenile mandible shewed seven

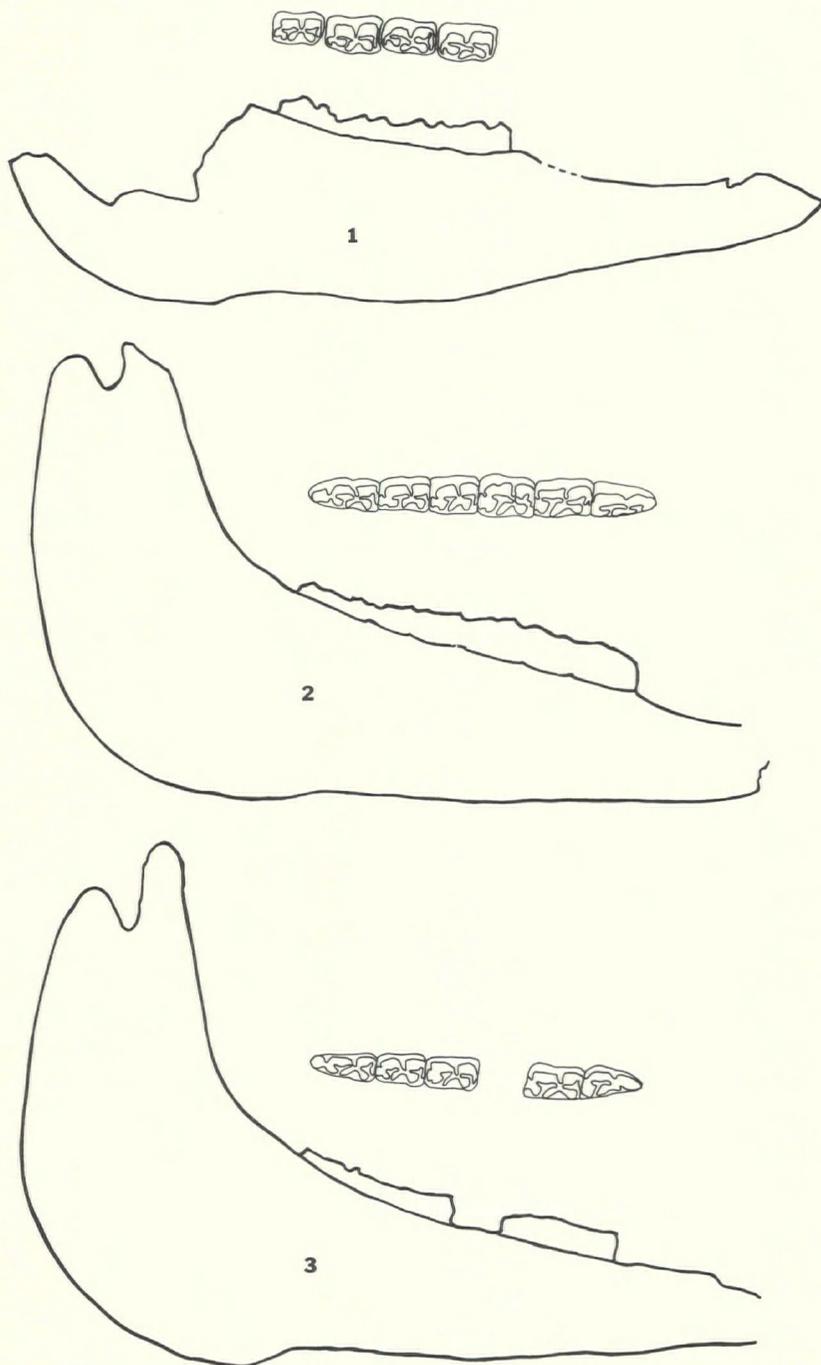


Fig 49 Equine Mandibles.

- 1 Mandible of possible mule from cess-pit M18 with details of cheek teeth
- 2 Mandible of horse from Roman Dunstable
- 3 Mandible of horse from Roman Dunstable

knife slashes radiating around the angle of the jaw. These findings would suggest extensive use of horse as meat.

Ox bones showed extensive butchering with slivers of bone chopped from the mandibles in similar positions to those of the horses.

Boney Abnormalities.

Only two were noted. An osteophyte was noted on the medial side of the second phalange of horse and there was a spongy bone out-growth on the fragment of occiput.

Horse or Mule?

When the bones were examined they were identified as horse because of their similarity with known examples. Only one mandible was complete enough to allow com-

parison with the example of a mule cited by Philip L. Armitage.⁴ Our example compares favourably as far as the first and second molars are concerned, as does the overall shape of the jaw. Figure 49 shows the jaw compared with two other Roman horse jaws from other Dunstable sites. It is therefore possible that one of the equines from this pit is a mule.

NOTES

- 1 J.G. Evans, *Land Snails in Archaeology*, (1970), 175.
- 2 S.S. Frere, *Verulamium Excavations Volume I*, (1971)
- 3 Evans, 1980, 175.
- 4 P. Armitage, in *The London Archaeologist*, 3 (1979), 340.

TABLE 10
ANIMAL BONE ANALYSIS

M Mature
I Immature

1 Bones found in Depth B, between 1.5 metres and 3.6 metres

Bones	Horse		Ox		Sheep		Dog		Chicken	
	M	I	M	I	M	I	M	I	M	I
Skull fragments	3						1			
Mandible	2		5		2	2	2	2		
Scapula	3		1			4	1	7		
Humerus	3		4	1	3	5	2	22	3	
Radius	6			3	1	3	2	11	3	
Ulna	1			2		2	2	8	3	
Sternum							1			
Pelvis	8						1	1		
Femur	2	1	7	8		4	2	19	3	
Tibia	4	1	2	4		6	2	11	3	
Astragalus	2		2	4	1		1			
Calcaneum	1			4			2			
Metacarpal	2		2	3	1	2				
Metatarsal	4		2		2					
1st Phalange	2		13							1
2nd Phalange	1			8						
3rd Phalange	3									
Horn cores			1							
Carpo-metacarpus										2
Tarso-metatarsus										2
Coracoid										2
Total number of bones	47	2	39	37	10	28	19	81	22	
Minimum number of individuals	6	1	5	5	2	3	1	13	2	

2 Bones found in Depth C, between 3.6 metres and 7.0 metres

Bones	Horse		Ox		Sheep		Dog	
	M	I	M	I	M	I	M	I
Skull fragments	1						1	
Maxilla					3		5	1
Mandible		1			3	1	4	2
Scapula						8	4	
Humerus				1	2	5	4	
Radius	1			1		1	4	
Ulna	1		1			5	3	
Pelvis				2		2	4	3
Femur						10	4	
Tibia	1	1			1	5	4	
Astragalus					1	3	4	
Calcaneum					2		4	
Metacarpal	1		1	2		10		
1st Phalange	2			2				
2nd Phalange	1							
3rd Phalange	2				1	1		
Total number of bones	10	2	2	8	13	51	45	6
Minimum number of individuals	1	1	1	2	2	6	3	2 + 12 neonates
Other animals present:								
Human baby	6 months		1					
Birds								
Raven			1					
Sea Eagle			1					
Rodents								
Water vole			1					
Field vole			6					
Pig	Humerus		1					
Deer	Radius		1					
Amphibians			4					

TABLE 11
MEASUREMENT OF BONES

Maximum length in millimetres

	Horse	Sheep	Dog	Fowl	Crow	Sea Eagle
Humerus	—	—	155	154	149	63
Radius	349	—	156	146	147	63
Femur	—	—	172	166	160	47
Tibia	322	—	170	166	—	—
Metacarpal	224	—	—	—	—	—
Metatarsal	278	227	150	—	—	—
1st Phal.	88	82	—	—	—	—
Tarso-metatarsus	—	—	—	—	—	—
Tibio Tarsus	—	—	—	—	100	52
Coracoid	—	—	—	—	—	—
Ulna	—	—	—	—	—	78

ACKNOWLEDGEMENTS

Many members of the Manshead Society have spent many hours excavating the material within this report. Many members have spent many arduous hours removing and replacing the top-soil to enable this report to be written. I trust that it will be reward enough to see it in print. It is a pity that we cannot mention all those by name whose sole contribution must have seemed to be the removal of turf from yet another cut whilst more fortunate members always seemed to get the interesting trowel work.

Some people must be mentioned by name: Joan Schneider who drew all the skeletons, checked and drew the pencilled drawings of the finds; Dr E.V. Jones and Barry Horne for their detailed work on the bones; Susan Plumb for checking the report and her helpful suggestions not all of which were taken. I would like to mention by name those who, when they read the discussion, told me "You can't publish that nonsense". I have sympathy with the latter but firmly believe that we have not only been

excavating dry bones but people and that it is fair to try to put flesh on the bones, to try to understand the times in which the people lived.

This report is the collective work of the members of the Manshead Archaeological Society of Dunstable. We are grateful to the people outside the society who have given us specialist help: to Dr J.P. Wild for his identification of the fabric sample; to Dr C. King for her identification of the coin; to Mr R.H. Ansell for arranging X-rays of skeleton LL; to Mr M.W.C. Hassall for his work on the inscribed pot; to Mr G.S. Cowles for his identification of the bird bones.

We are indebted to South Bedfordshire District Council for financial help with the excavations. Finally we must record our most sincere thanks to Mr Flory for allowing us to dig on his land and to Mr J.B. Stevens who allowed us to take possession of his field for many years.

The Bedfordshire Archaeological Council have available copies of most back issues of the *Bedfordshire Archaeological Journal*.

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