The Excavation of Two Barrows on Galley Hill, Streatley

JAMES DYER

SUMMARY

Barrow No 3.

Originally constructed to hold prehistoric burials of unestablished date, the barrow was enlarged to a kidney-shape, in the horns of which a young man and joints of oxen were buried. In the fourth century AD eighteen burials hastily placed in shallow graves may represent a massacre. In the middle ages a gallows was established on the barrow and the remains of six victims were uncovered. A pit of unknown function contained a horse skull and dice.

Barrow No 4.

This barrow was probably constructed in the mid-1st century BC, and consisted of a burial pit covered by a simple ditchless clay mound. It was badly damaged by military activity during the Second World War, which practically destroyed the burial.

GALLEY HILL, with Warden Hill to the south forms a promontory of the middle chalk, in Streatley parish, 6 km north of Luton Town Hall in Bedfordshire (TL:092269). At its foot runs the traditional route of the Icknield Way, which has probably always followed this course. The track, which today is unmetalled, runs from north-east to south-west. Also at the base of the hill ran the old Bedford Road (replaced by the A6 in 1832), which crossed the Icknield Way on the western side of the hill. A further road, the Salt Way, documented as Thiodweg in AD 926, runs west from the crossroads towards Oxford.[1] Consequently, during the Middle Ages, this area had become a route centre of minor local importance.

Galley Hill is a prominent feature, rising 45 m from the plain below, and affording wide views westwards to Dunstable and the Five Knolls barrow cemetery, and east to Lilley Hoo and south-east Bedfordshire. Although the hill is composed of chalk, it is capped in part with clay-with-flints, the division between the two passing beneath barrow No 3. Today the surface of the hill is covered with scrub, and it forms a popular public open space.

The Ordnance Survey 25 inch map records four barrows on the hill, two of which (Galley Hill 1 and 2) are situated on the north-western slope. Whilst I somewhat reluctantly accepted these in 1961 in my paper 'Barrows of the Chilterns'[2] I no longer seriously consider them to be of any great antiquity, and feel that they are probably products of lime working or military activity in the First World War.

Barrow No 3 is on the highest point of the hill at 614 ft O.D. (187.15m), whilst Barrow No 4 lies 45m to the south on the edge of the ploughed hilltop.

BARROW NO 3

Barrow No 3 first received the attention of the writer in July 1951 when, as a precocious and almost totally inexperienced schoolboy, he led the Luton Grammar School Archaeological Society to cut a trench 9m long, 1.2m wide and 0.6m deep in the western side of the barrow. The discovery of four burials and unexpected national press coverage brought the proceedings to an abrupt close, but not before the skulls of two of the skeletons were removed to Luton Museum for examination by the late Dr Osman Hill. The trench was carefully back-filled and left for re-excavation in 1961.[3]

In October 1960 a group of people were seen climbing Galley Hill with digging equipment. A few hours later the tenant farmer informed the police that someone had dug a hole at the centre of the barrow and that human remains were scattered over the surface (Burial No 7). Efforts to trace the diggers failed, but as a result a policeman was assigned to patrol the hill daily !

Because of this action it was decided to totally excavate Barrow No 3. At the suggestion of the late Charles E. Freeman, Curator of Luton Museum, and with the permission of the Crown Commissioners who owned the site, the late F.J. Manning Esq., the tenant farmer, and the then Ministry of Works; excavation of Barrow No 3 began on 21st July 1961 and continued for three weeks. The work

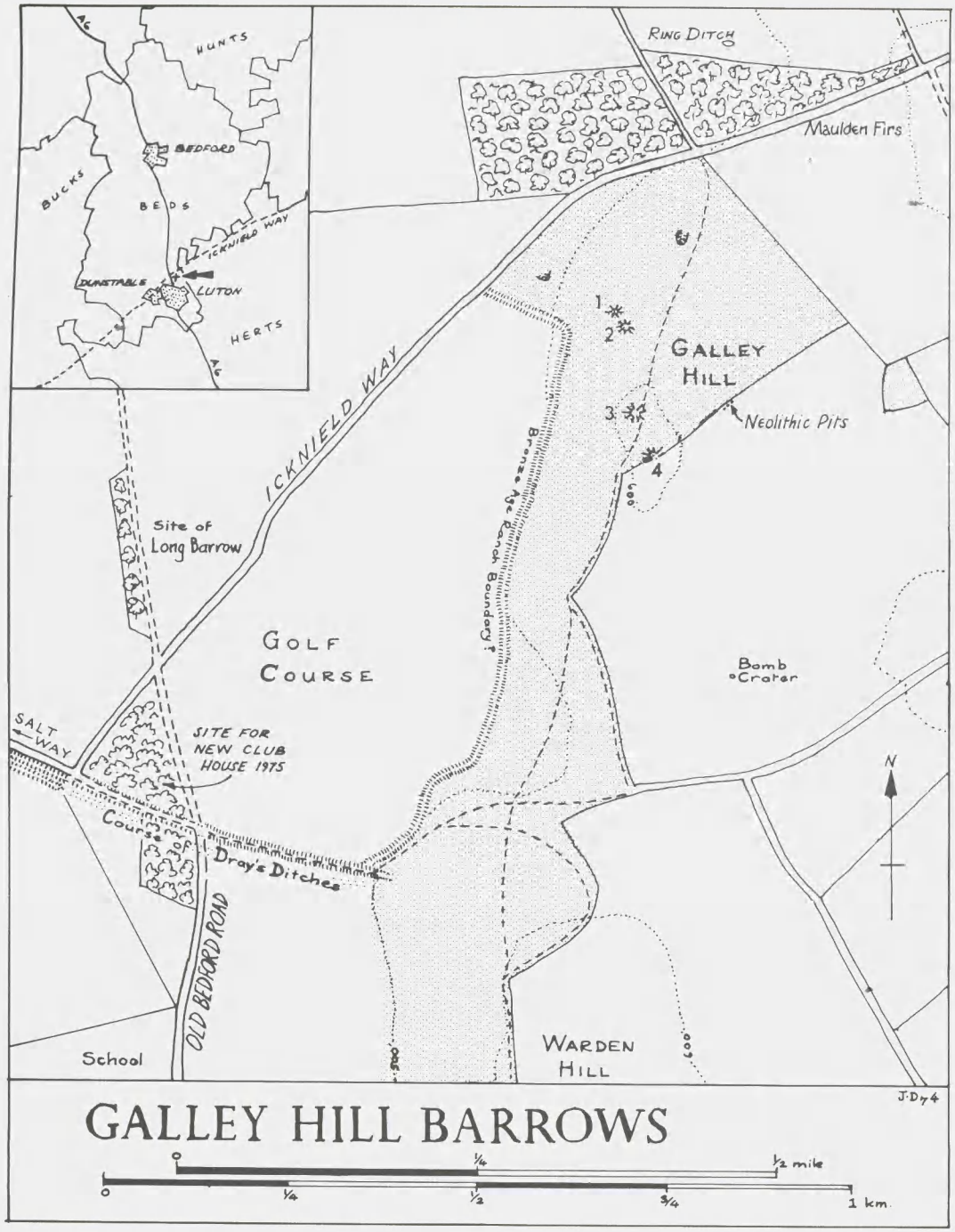


Fig 1 The location of the barrows at Galley Hill, Streatley, Bedfordshire.

was directed by the writer, ably assisted by Miss Christine Wilkins B.A., and with the help of some thirty volunteers.

The barrow, in 1961, presented a rather irregular appearance. Nowhere was it more than 1.2m high, and a contour survey by A.J. Hales Esq, ARIBA, showed that it was in fact kidney-shaped, with a distinct concavity on the northern side. Its greatest width from east to west was 19m and its average length from north to south some 17m. It did not have a surrounding ditch. Excavation was by an 'expanded quadrant' system, in which the barrow was cut into six approximately equal areas, and baulks were left across the greatest width and along the two 'horns' of the kidney plan.

Summary of the history of Barrow No 3.

Attempts to unravel the sequence of construction have been made difficult due to the situation of the barrow partly on clay and partly on chalk, and to the succession of burials added to its surface at different times. The probable sequence and subsequent history is as follows:

1 Large area of turf stripped off hilltop and stacked for subsequent re-use.
2 Primary grave dug into subsoil and burial presumably took place.
3 Main barrow mound constructed of turves and clay.
4 Mound extended to north-west and north-east to construct 'horns' using chalky material and giving mound its kidney-shaped plan.
5a Shallow pit dug at end of north-east horn and one (or possibly two) human burials placed in it.
5b Ritual involving burial of numerous pieces of young oxen in shallow pit at end of north-west horn.
6 Passage of time during which barrow turfs over.
7 Fourth century AD Roman burials.
8 Erection of gallows and accompanying burials.
9 Digging of 'horse pit'.
10 Robbing of primary grave?
11 Luton Grammar School 'dig' 1951.
12 Sunday morning 'dig' 1960.
13 Total excavation in 1961.

Barrow Construction

Before the barrow was built a large area of turf was removed from the hilltop, thus exposing on the eastern side, the bare chalk beneath. This remained uncovered long enough for a distinct weathered 'step' to form along the south-eastern curve of the barrow (noticeable in Section A, fig 3). Beneath the turf on the west was a clay layer with a large number of flints which accumulated on it. It was through this that the primary grave was dug. As this was enlarged and robbed in recent times its original size is uncertain, but its restricted shape at the bottom suggests an oval pit measuring some 1.2m by 0.75m and 0.75m deep. A number of human bones had been backfilled into this pit by the robbers, but whether they represented the original burials, or a subsequent burial, cannot now be established. Parts of at least five individuals have been identified (see page 27).

After the completion of the burial a shallow hole was dug some 1.5m north of the grave in which twigs and small branches were burned. This, like the grave, was then covered with the initial barrow mound, which was composed of clay with turves. Individual turves could be clearly seen on the western side. Further turves were added to form the horn on the north-east derived from an area with chalk subsoil. The north-west horn was constructed from turf with a clay subsoil. The whole barrow was then covered with more clay and chalk marl presumably scraped from the surrounding hillside.

During this final enlargement the two horns took shape with a vestigial forecourt between them. In this area a large number of domestic ox bones were found scattered, with a concentration of them in a shallow pit measuring some 0.9m long by 0.6m wide and 15cm deep on the northern edge of the north-west horn. In a comparable position at the end of the north-eastern horn was a shallow grave 2.1m long, 0.75m wide and 15cm deep containing the scattered but semi-articulated remains of two men (burials 21 and 22). On the edge of the grave were two wall-sherds of prehistoric character and amongst the bones were four small Roman bronze coins and a small iron hinge. On anatomical grounds one of these burials (no 21) is of typical prehistoric stock and may well be as early as of neolithic date. The second burial might also be prehistoric, but due to the associated finds it is more reasonable to see it as an intrusive burial of Roman date which caused the disturbance of the first. The very shallow nature of the grave is not unusual for neolithic burial and a similar fea-

Fig 2 Galley Hill, barrow 3, site plan.

ture was observed in the last century by W.G. Smith on the Downs 10km away at Dunstable.[4] There, too, material for the barrow mound had been collected from a distance and not dug from a surrounding ditch.

The kidney shape of the barrow recalls the Whiteleaf barrow dug by Sir Lindsay Scott between 1934 and 1939. This produced neolithic material and seems to have contained a wooden burial chamber.[5]

The Roman Period

The barrow remained undisturbed for many centuries until sometime in the fourth century AD the surface was broken by a number of new

burials. Some twelve skeletons were found hastily buried in shallow graves often only a few inches below the present surface of the barrow, and others had been disturbed by the robbers' pit. On the evidence of coins, pottery and metalwork this seems likely to have taken place around AD 360, and might be connected with the destruction of a small Roman settlement at Runfold Avenue, Limbury, 2km south-west along the Icknield Way.[6]

The burials of this group were all lying approximately east to west (feet to west). No's 1 and 2 (two young men) had been buried one above the other in a grave 0.9m deep, on the north-east side of the barrow. This suggests a hasty burial. Burial No 3, a young man of some 20-25 years lay fully extended on the northern side of the barrow, again only a few centimetres below the surface. Similarly No 6, another young man, lay some 15cm below the present barrow surface, with No 4, a youth of about 18, partially over him. Burials 23 and 24 lay beside each other at a depth of 30cm. These were two of the burials discovered by the Luton Grammar School boys in 1951. The right leg of No 23, a young woman, was missing. Beneath her pelvis were five small bronze mounts suggesting that she had been wearing some kind of belt. A sixth mount lay beneath burial 24. At her side lay a slightly older man (No 24), his left arm passing beneath her waist. Burial No 7, a young woman, was also first uncovered and photographed in 1951 and was destroyed by the 'persons unknown' in 1960, who left only her feet and ankles. This skeleton was first found lying on its back with the legs extended, the right arm behind the back and the radius of the left arm lying quite separately between the legs. There was no skull present. (A visitor to the excavations recalled that his father had found a skull on the hill whilst digging a hole for a noticeboard: the signs of such a hole were quite clear in 1951). Close to the feet of No 7 were four small iron nails. These were examined by Mr J.W. Brailsford in 1951 who suggested that they might have been coffin nails, but no others were found in the subsequent excavation, nor were there any visible traces of coffins. A footpath over the barrow had destroyed most of the burial No 15, a young person of about 14 years. On the southern side of the barrow were a pile of three superimposed burials 12, 13 and 14. As described in the anatomical report (page 24) the lower body, No 14, an adult male, was bent double in jacknife fashion and appeared to be cut in two halves. However there was no anatomical evidence to suggest that the corpse had been cut, and it is possible that it was disturbed by the subsequent burials. Burial 13, a young man, had been thrown into a shallow grave, face downwards, with head to the west, above No 14, and a young woman, No 12, thrown face downwards and to the east across his body. A calcined deposit that lay under this group of bodies suggests that the hollow in which they lay remained open to the elements for some time before it silted up by natural means. Again the uppermost burial was only a few centimetres from the modern ground surface. Associated with all the burials described above were a few sherds of abraded pottery of mid-second century AD date, together with a Roman iron strap hinge, and the four coins of the mid-fourth century. (See Appendix, p.20). With the exception of the bronze belt mounts, none of the burials were accompanied by any personal possessions.

The Gallows

Galley Hill has always been the traditional site for a gallows, and its name has existed at least since 1504 (Galowehill). Being on the highest point, Barrow No 3 would seem the most likely spot. Whether this stood in the 'Robber Pit' or the 'Horse Pit' is not known, since no trace of a post survived in either, but this need only mean that the gallows post was removed when it was no longer required. Subsequent disturbance would have removed all further trace.

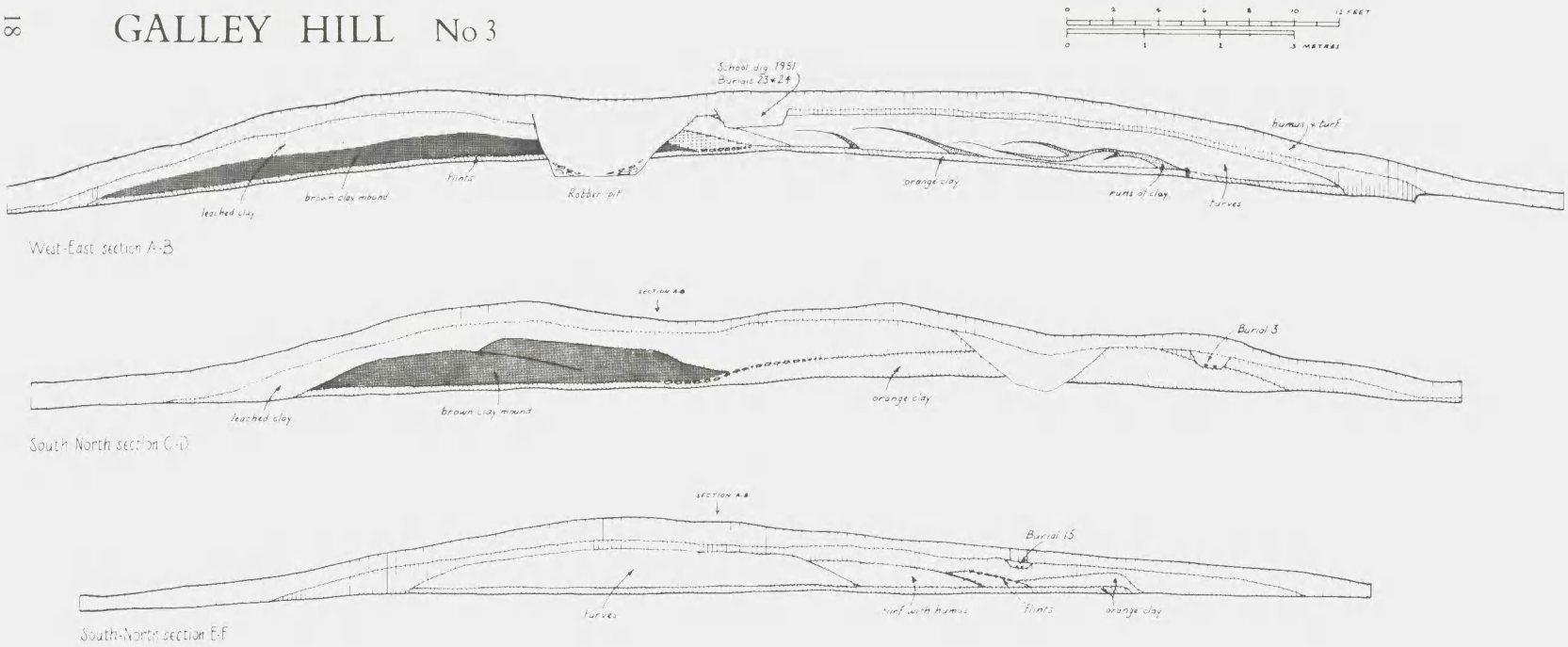
The Gallows Burials

On the west side of the barrow the decayed remains of six individuals who may have been gallows victims were exposed (No's 5, 8, 9, 10, 11, 25). They differed from the other burials in two particular ways. Firstly they were all in a very poor state of preservation, suggesting decay by exposure with the possible addition of some chemical agent such as quick-lime. Secondly they were buried at an angle of about 45 degrees on the steepest part of the barrow side, and all except No 11 had their heads at the foot of the slope, with their feet uphill. Anotomical examination showed that five of the burials were male and one female. No objects were found with them. Burial 25 was uncovered and photographed in 1951, but had disintegrated by 1961.

The Robber Pit

At some date, perhaps as late as the 18th century, a pit measuring 2.7 by 1.8m and 0.9m deep was dug into the highest point of the barrow, des-

GALLEY HILL No 3



GALLEY HILL No 4

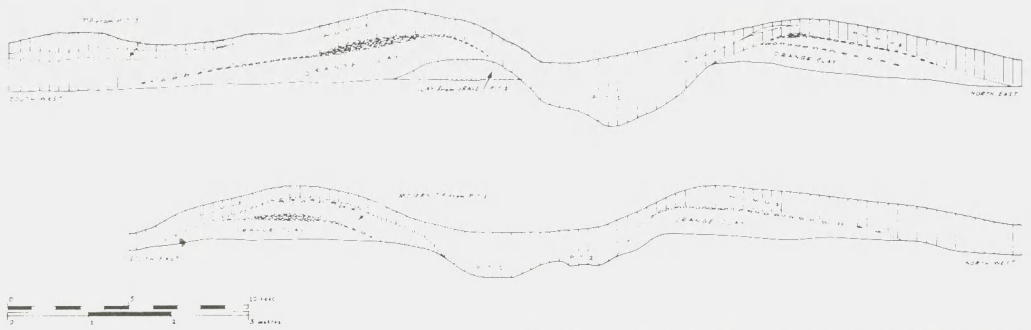


Fig 3 Galley Hill, barrows 3 and 4, sections.

troying some secondary burials and the primary burial pit. It has been possible to identify the scattered remains of five individuals dumped into it; these represent three men, a woman and child. All the human bones had been thrown back into the hole by the diggers. It is worth noting that the *Victoria County History of Hertfordshire* records that 'Gold and silver coins were found in the 18th century in barrows between Hexton and Leagrave'.[7] The Galley Hill barrows are the only known examples to fit this description.

The Horse Pit

The north-western horn of the barrow had been cut by a large oval pit 2.1m by 1.8m across and 1.2m deep. This was filled with a friable orange-brown clay. At a depth of 0.9m on a ledge at the south side of the pit was the skull of a horse 45.7cm long. There were no other bones in the pit. Touching the horse's right nostril was a small chalk-cut dice, six upwards! Also in the pit were the base fragments of a black-glazed vase and a small bronze tag at the end of a leather lace. The pottery, of Cistercian ware, suggests a sixteenth century date for the deposit and it will be discussed again later.

Discussion of the Roman Burials

Although the skeletal report suggests that all these burials might be as late as post-Norman, the associated finds of abraded Roman pottery and coins seems to indicate that they belong to the Roman era, and there are hints that they may represent at least two separate groups of burials. It is clear that No 14 was disturbed when it had partially decayed, by No 13, and that No 6 was disturbed by No 4. Only No 2 is in a fairly deep grave, and that is shared with No 1. Under burials 4, 5, 12 and 13 was the hard calciferous deposit representing sediment on the bottom of a long-open grave.

There is no clue as to the cause of death, although burial on a prominent hilltop might suggest some form of execution. Parallels might be drawn with Barrow No 5 in the Five Knolls group at Dunstable. The composition of the burial group, twelve men, four women and two children is perhaps indicative of some local massacre, and the coins offer a *terminus post quem* of AD 341. Whether this event might be linked with the end of the small Roman settlement at Runfold Avenue, Limbury, early in the 4th century AD is open to speculation. The latest coin found on that site is dated AD 348. The casual way in which most of the corpses were buried, only a few centimetres below the surface, is consistent with a theory of hurried internment.

The Gallows burials and the Horse Pit

Galley Hill was a traditional gallows site, as its name reveals. In spite of this no documentary record survives of hangings on the hill, nor who administered this particular gibbet. It is possible that a gallows was set up from time to time as required. This would be consistent with the disturbed filling of the Robber Pit, or perhaps for the first digging of the Horse Pit as well. If a gallows stood in the latter, then the Cistercian ware would offer a useful clue to its date. It might also link the horse skull to the gallows. The skull, together with its dice, seem to represent some forgotten local folklore. One may suggest that the horse might once have belonged to an owner of Galley Hill; perhaps it raced on the nearby Lilley Hoo race course; but it is odd that only the skull should have been placed in so large a pit. The late Dr Margaret Murray suggested in 1961 that it might have been a sacrifice, made before the Church began its successful campaign against the Witch religion, the horse being one of the disguises of the incarnate God. The late Mr T.C. Lethbridge also considered that the skull represented some lost folk memory. He drew attention to the pony's skull found by himself in a barrow at Snailwell, Cambridgeshire.[8] In a letter to Dr Murray he wrote that it was not possible to say whether the Snailwell skull was Bronze Age or intrusive with any conviction. More recently Mrs E.H. Rudkin has considered Dr Murray's suggestions but has come to the conclusion that they are coincidence and dismisses a hint that it might be connected with witchcraft since it is impossible to see what it was for, or against.[9]

It is interesting to note that an animal was slaughtered on top of a round barrow at Raundale in Norway whenever anyone died on a neighbouring farm. This was considered necessary to placate the Tanner who lived in the barrow. A heifer had been the last animal slaughtered before the barrow was excavated in 1909.

There are few excavated gallows sites in Britain, but much folklore is attached to the magnificent Danish Galgebakke (gallows hill) at Slots Bjergby in Zealand.[10] This was an early bronze age barrow, enlarged in the iron age and again in the early middle ages. Some forty skeletons of men and women who had been hanged or beheaded were found in the barrow when it was excavated in

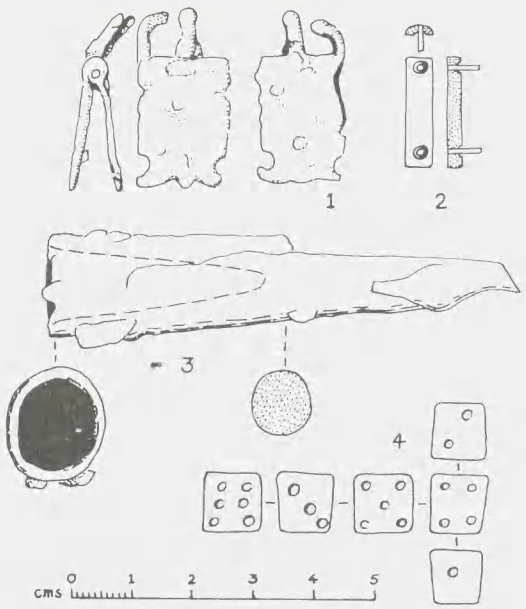


Fig 4 Galley Hill, barrow 3, small finds.

1946-7. It had last been used for an execution in 1847. The hanged burials lay flat on their backs; those beheaded lay on their sides, with their heads between their legs. At Galley Hill the gallows burials were too fragmentary to indicate the definite method of execution, but no heads lay apart from the bodies.

All the human remains from Barrow No 3, except for the skulls of burials 23 and 24, have been deposited in the British Museum (Natural History), South Kensington. Skulls 23 and 24 are in Luton Museum.

THE SMALL FINDS

Pottery

Most of the pottery was very abraded. Two sherds from burials No's 21 and 22 might be of Windmill Hill ware, but this is far from certain. The weathered nature of the sherds suggests that they may be derived and cannot be used to safely date the burials.

A number of wall sherds from beneath the barrow are of iron age character, including a rim sherd of sandy orange-brown fabric (Fig , No 1). It is similar to material from Barrow No 4.

Roman pottery included a fragment from the rim of a samian vessel probably of Curle type 11. The flange has been broken away at the junction with the wall. A.D. 75-100.

Coarse Romano-British material consisted of a number of wall sherds including (1) a moulded rim bowl sherd, with slightly undercut rim and girth groove (above carination) in soft, dense grey ware, with particles of black grit. It is a local copy of commercial types. Antonine c.150 AD.

(2) A sherd of a jar with moulded rim and outturned neck in soft light grey ware with small particles of black grit. Local ware: 2nd half of 2nd century AD.

(3) Parts of the body of a flagon (?) deep orange, sand gritted ware. Probably 3rd or 4th century AD.

(4) Moulded rim on slightly flaring neck in dense, rather soft and slightly micaceous light grey ware. ? c.125-50 AD.

The base of a black glazed Cistercian ware vessel, c.16th century accompanied the horse's skull.

Flint

The ground surface beneath the barrow was littered with natural flints, amongst which a number of humanly fashioned blades were identified. This probably represents a pre-barrow occupation of the hilltop.

Clay Pipes

A number of pieces of clay pipe were found, one with a mulberry tree decoration on the base. They all belonged to Oswald's type 5, c.1670-1700.

Dice (Fig 4, No 4)

The dice, approximately 1 cm cubed, is hand made from a piece of chalk or limestone. It is assymetrical, and some of the dots forming the numbers are very shallow. It has not been weighted in any way.

THE METAL WORK
by Dr W.H. Manning (1963)

Bronze (Fig 4, No 2)

Six small bronze mounts from Burial 23. They are made with great delicacy from bars of semi-circular section with two rivets inserted into drilled and countersunk holes near the ends. Their function was shown by the circumstances of the discovery around the waist of one of the burials. Such ornaments are known in the Roman period though they are not common, and are rarely as delicate and small as in the present examples, each of which averages 17mm in length, and 4.5mm wide.

Iron (Fig 4, No's 1 and 3)

No 1. Small iron strap hinge; one strap being formed of two ornamental plates with the remains of a rivet or nail still in one, and the other of two (originally three) prongs. The details are unusual but hinges of this type are not uncommon in the Roman period and were used on small caskets. In this case the lid would have fitted between the plates and the prongs would have been driven into the walls of the casket. Found beneath burial 21.
No. 3. Two hollow iron ferrules. These specimens are well made. They are usually said to be the sheaths of spear butts or for staffs. It is, however, possible that some of them may have bound the tips of wooden pitchforks to give them greater protection from wear: similar ferrules were used for this in the last century. In view of the size of the specimens and the care with which they have been made they were most likely intended to sheath the points of staffs. The ferrules were found at depths of 90cm from the surface in the north and south-west quadrants, unassociated with any burials.

Coins (Beside Burials 21 and 22)
Two copies of Urbs Roma type: AD 330-337.
One coin of Constantius II Aug. Gloria Exercitus (one standard type) $\frac{1}{////}$ AD 337-41

One coin of House of Constantine. Gloria Exercitus (one standard type) $\frac{1}{PLG}$ (mint of Lugudunum:Lyons) Constantius II (?) Aug.

All the small finds have been deposited in Luton Museum.

BARROW NO 4

Excavation of this barrow took place from 24th July 1962 for eight days. It was directed by the writer with the assistance of some twenty-four volunteers, largelly drawn from local schools. Prior to the excavation the barrow presented a very untidy appearance. Approximately 9m in diameter, it was nowhere more than 1m high. Its centre was scarred by a pit 5m in diameter and 0.6m deep. In addition to this the southern side was being eroded by ploughing. The barrow was dug using the quadrant method.

Summary of the history of Barrow No 4

1 Turf removed from area to be covered by barrow.
2 Ritual involving breaking of iron age pottery.
3 Burial pit dug. Material from pit covers some of pottery from 2.
4 Burial, followed by filling of pit.
5 Construction of barrow mound.
6 Central pit dug in modern times, c.1940. Burial found and 'stored'.
7 Central pit refilled and burial reinterned.
8 Excavation in 1962.

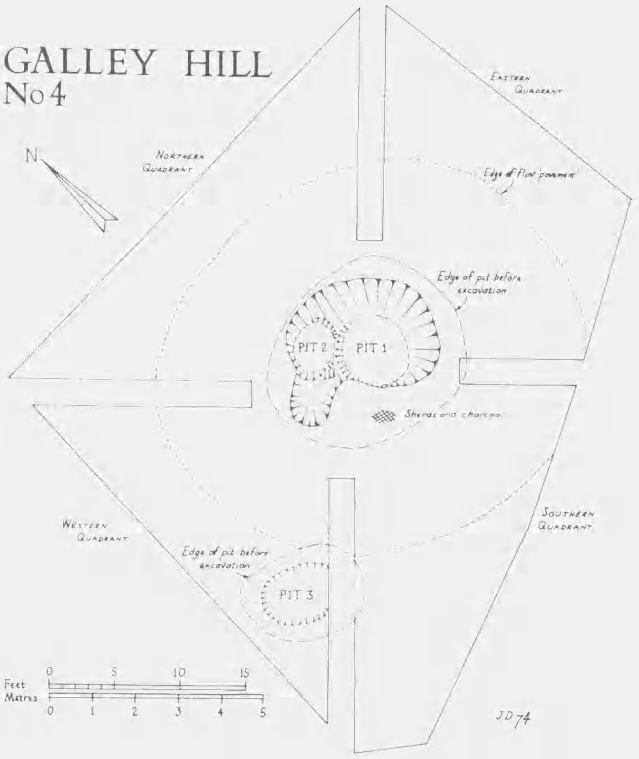


Fig 5 Galley Hill, barrow 4, site plan.

Barrow construction

The turf had been stripped from the hill top prior to the burial ceremony, revealing the natural orange clay beneath. A quantity of iron age pottery mixed with wood ashes were deposited near the centre of the barrow. The sherds had not been burnt. Most of them belonged to either a handmade cordonned vase or vessels with either bead rim or finger-nail impressed shoulder decoration. All were very weathered, and this suggested a ritual deposit perhaps brought from the home of the deceased rather than pots smashed on the spot. When the burial pit (Pit 2?) was dug, the clay removed covered this ritual deposit. A middle aged man was buried in the pit, but later disturbance made it impossible to say in what position. The grave was filled and the barrow mound con-

structed of local orange clay from an unknown source. No ditch was dug round the barrow. The turves originally removed from the site may have been piled over the top of the mound.

In 1940 troops on manoeuvres on the hill top created a small look-out post in the centre of the barrow. Their trench (pit 1) 1.5m deep removed the primary burial although the base of the grave pit (pit 2) was preserved. Most of the human remains were apparently destroyed, although the upper part of the cranium, the mandible and two pieces of femur were reburied by the military when the site was vacated. The skull was found buried with the leg bones crossed above it in pirate fashion! A milkbottle and fragment of the *Daily Mirror* for 1940 dated the trench satisfactorily. A second military pit (No 3) had been dug outside the barrow to the south-west.

THE SMALL FINDS

The Pottery (Fig 6, 2 to 6)

A large number of sherds were found, mixed with wood ash, south of the burial pit. Neither the wood nor the pottery had been burnt on the spot. At least three vessels were represented:

No 2. This was the upper part of a hand-made cordonned urn of weathered dark grey fabric, coated with orange slip, and similar in appearance to Burchell's Type 1A. There was no indication of the shape of its base.

No 5. One very weathered sherd, possibly from the above pot, may have a chevron decoration upon it. The fabric is identical, but its surface is very worn.

No 3. This vessel had a sharply out-turned bead rim. Made of an orange, biscuity fabric, it is of similar material to:

No 4. A shoulder sherd with finger nail decoration.

No 6. This rim sherd has a flat, slightly out-turned surface with lightly incised horizontal grooves on the neck. Brown in colour, it has a darker grey-brown slip on the surface and is finely shell-gritted.

All the sherds are probably early Belgic and can be dated to the middle of the 1st century BC. There are no obvious local parallels, although there are some similarities with the material from Cholesbury Camp in Buckinghamshire. All the pottery has been deposited in Luton Museum.

Clay Pipe

Numerous lengths of clay pipe stem were found and the bowl of one pipe inscribed G. Kiff-St. Albans.

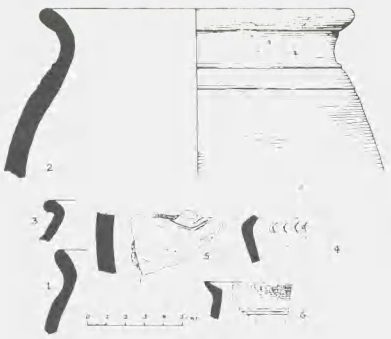


Fig 6 Galley Hill, barrow 4, pottery.(Scale ¼).

The Human Remains

These consisted of the top of the cranium of a well-built middle-aged man, the mandible with six teeth present (the rest were probably lost when it was moved in 1940) and two pieces of a femur. The bones appeared to be those of a middle aged man.

APPENDIX

REPORT ON THE GALLEY HILL BARROW 3 INHUMATION BURIALS

by R. POWERS and D.R. BROTHWELL

Burial 1. Young adult, aged 20 to 24 years probably male.

Skull and skeleton, practically complete. The epiphyses are united but the pubic symphysis is deeply rippled as in youth. The sex is probably male, though the pelvis shows a pre-auricular sulcus on one side, and the atlas and foot bones look small and feminine. However, the mandible and the bone prominences for muscle-attachments look male. The first lower left incisor is duplicated, the teeth being placed one behind the other, though normal in size and shape. They have not caused much malposition of the other teeth. The other peculiarities are five small wormian bones in the lambda region, and a slight cleft of the first sacral arch. The lumbar vertebrae show pitting of the bodies but no lipping.

This skeleton was buried above, and probably onto, the next, disturbing and damaging the bones of the trunk.

Burial 2. Male? aged 28 – 34 years.

Skull and skeleton, complete except for some damage to the pelvis and rib cage. Like the previous individual, it is not strongly masculine. The thoracic vertebrae show slight pitting but the lumbars do not. The right side of the occipital shows a horizontal suture which is obliterated on

the left. No wormian bones are present.

Burial 3. Male, aged 20 – 25 years.

Skeleton, lacking only a few foot bones. Skull with right side of face damaged, (the crushed molar bone was found in the N/NW baulk). The skull has 18 lambdoid ossicles and marked bathrocephaly. There is also an open metopic suture and bilateral ossicles in the parietal notches. Dental caries has destroyed two teeth, and attacked two more, and an abcess has formed on the affected root stumps. The post-cranial skeleton is normal.

Burial 4. Male (probably) aged about 18 years.

Skull and skeleton lacking only the manubrium sterni and some small hand and foot bones. The lower third molars are in course of eruption and epiphyseal fusion is incomplete. The epihyses of the iliac crests and distal ends of the forearm bones are open, and the following are still distinct though fusion has started: proximal humerus, proximal and distal ends of femora, and the inter-articular rims of the lumbar bodies. Although sub-adult the left upper first molar has a caries cavity which has initiated an apical abcess. There are no other abnormalities.

Burial 5. Adult, perhaps male.

Remains of a right humerus and shoulder-girdle, both femora and a tibia. All are shaft fragments except the right femur, which retains its head. The pelvis and vertebral column are shown in a site photograph but were too rotted to remove. The tibia shaft fragment shows marked lateral flattening but could not be measured because the foramen at the level of which measurements are taken is not visible.

Burial 6. Male aged about 25 – 30 years.

Two minor developmental anomalies are present; firstly the sternal body remains in four entirely separate segments: and secondly the sacrum has a "transitional" lumbo-sacral vertebra fused onto it although five normal lumbar vertebrae are also present. There are dental caries leading to abcesses and tooth loss.

The pubic symphysis indicates a fairly young age though all epiphyses have fused. The cranial sutures are open.

Burial 7. Female aged about 18 years.

The feet and ankles of a healthy young adult, probably female, excellently preserved. The rest of the skeleton was removed by persons unknown in 1960. The distal epihyses of the tibiae are closed. The size and appearance of the bones confirms the age and sex as judged from the excavation photograph taken when uncovered (but not removed) in 1951 by the schoolboys. The skull at that time was missing.

Burials 8 and 9.

These were received in two boxes, one containing both skulls and the other both post-cranial skeletons. Both are very poorly preserved, and both are represented by fragments of vault, mandible, ilia and main long bones especially the femora. Some loose hand bones may belong to either.

Burial 8. Adult male, probably about 30 years.

The skeleton is the least well-preserved of the two. The teeth show fairly heavy wear, and there is some alveolar disease presumably in response to this. One wormian bone is present in the lambdoid suture.

Burial 9. Adult female, about the same age as 8.

The teeth show slight caries; a curious hole through the root of the left lower premolar looks like an unusual form of caries but is probably an artifact.

The right tibia is much deformed by a swelling of the lower half of the shaft. As the upper half of the same bone shows severe periostitis on the inner aspect the swelling is probably the end-result of the same inflammatory process. The left tibia and what remains of the other bones show no abnormality.

Burial 10. Adult male (?)

Sexed on a mastoid fragment, but the other bones are not robust. The fragments of the skull, a few loose teeth, long bones of legs and right arm and remnants of the ilia are all that remain. They show no abnormality.

Burial 11. Male aged about 22 – 25 years.

Back of the skull, part of the mandible, legs, ankles and remains of ilia. The skull shows one lambdoid wormian, slight periodontal disease and agenesis of an upper third molar.

Burials 12, 13, 14, were buried in a heap, numbered from above downwards.

Burial 12, Female, aged about 22 years.

This, the uppermost skeleton, is fairly well preserved except for the loss of the entire right arm and shoulder, both patellae and some hand and foot bones. The right molar bone was found detached, a little way from the skeleton. The pubic symphysis is young in type and the iliac crest epiphysis is still loose. The sacral segments

Fig 7 Dental Attrition patterns.
*: Gallows Group
N: Neolithic

are still separate, but all other epihyses are fused and obliterated. There is slight periodontal disease but no other dental pathology and all teeth were present at death.

The head of the left humerus has been fractured off through the neck and displaced backwards relative to the rest of the bone. The fracture is firmly united though the resulting deformity is considerable. The displacement is very striking, suggesting that the arm had been twisted or struck violently. The part of the shaft left exposed has formed a false joint with the acromian process of the scapula. The whole joint was evidently fixed so that the humerus could not be raised from the 'hanging' position, and there is probably considerable shortening of the humerous. Nevertheless the shoulder joint shows no arthritic change, which suggests that the injury was inflicted not many years before death. This reasoning is confirmed by the fact that there is no sign that the epiphysis was displaced, so the injury must have occured after it was firmly united at 17 years or later.

Burial 13. Young male? aged 18 21 years.

The skeleton is complete except for the proximal half of the left ulna and some hand and foot bones. The left molar bone was found detached. Dental attrition is slight, at least one third molar is 'congenitally' absent, and the lower molar crowns have been destroyed by caries. There is slight periodontal disease.

The femora are somewhat grooved and bowed, their heads being nearer a right-angle than usual, signs which might indicate mild rickets during the growth period. The arch of the first sacral segment shows a midline cleft. The sternal body consists of four segments, the middle two being partly ossified together.

The pubic symphysis is young in type and the bodies of the sacral segments are separate although their alae are fused. The epihyses at the wrist, the humerus heads, and at both ends of the femur and the medial ends of the clavicles are still open, also those of the lumbar body rims.

Burial 14, Adult, possibly male.

This body was at the bottom of the pile, bent double in 'jacknife' fashion and apparently cut into halves. Although the trunk and limbs are fairly complete the arms and scapulae are absent. The foot bones and patellae are also missing.

Some mid-thoracic vertebrae are broken and rotted, but if the body had been cut through at that level some ribs must have been severed. Enough rib fragments remain to represent the rib cage and none show evidence of cutting nor do any of the other bones. It appears more probable that the body was partially decayed when disturbed by the burial of No. 13, and the lower half was pushed aside by the grave-digger, exposing the middle vertebrae (Thoracic's 5 to 10) to contact with burial 13 during it's period of active decay.

There are several peculiar holes in various parts of skeleton No. 14, notably in the roof of the left orbit, the rear of a tibia at the knee, and the arches of two thoracic vertebrae. They were first

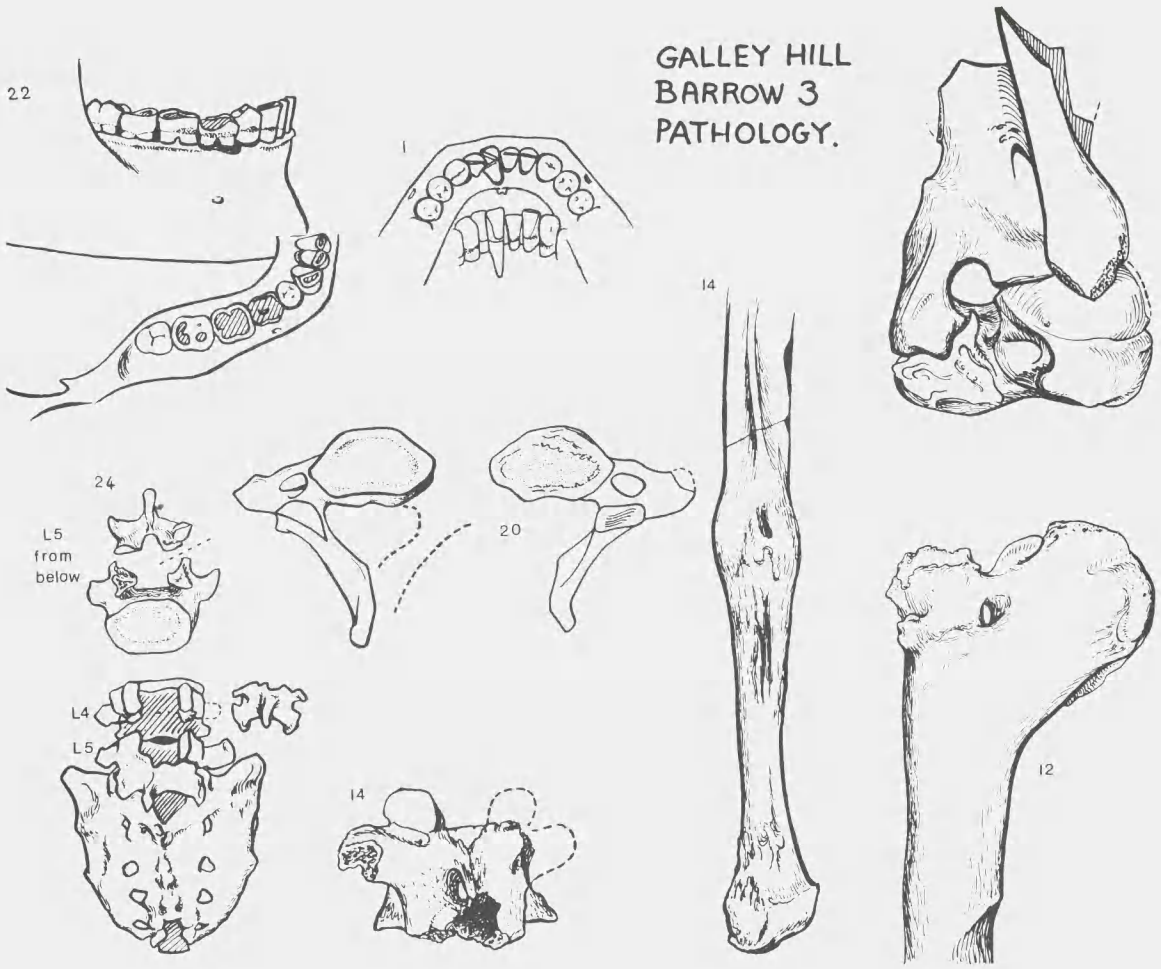


Fig 8 Pathology
Burial 22 2 views showing the functional milk-molar.
Burial 1 2 views showing the twinned lower incisor.
no. 20 2 views of the anamalous cervical vertebra (above and below).
Burial 14 Hole through arch of a thoracic vertebra.
Burial 24 The vertebral anomalies (2 views of L.4).
Burial 14 The healed fracture of the fibula (inner aspect).
Burial 12 The deformed shoulder; view from above, and humerous head from outer aspect.

thought possibly to represent metatases or some other destructive bone disease, but further study suggests that they could equally be artifacts due to the decay process. There is undoubtedly a well-healed fracture of the left fibula at the junction of it's upper and middle thirds, which can also be seen in the excavation photograph. A defect exists in the first sacral arch like that in number 13, and there is slight osteoarthritic lipping in the lumbar region. An abcess has formed on the roots of the upper right second molar (now missing) and attrition is irregular, possibly in consequence of the pain when chewing. Fourteen small wormians are present in the lambdoid suture and the upper half of the occipital is divided off by a horizontal suture (os inca).

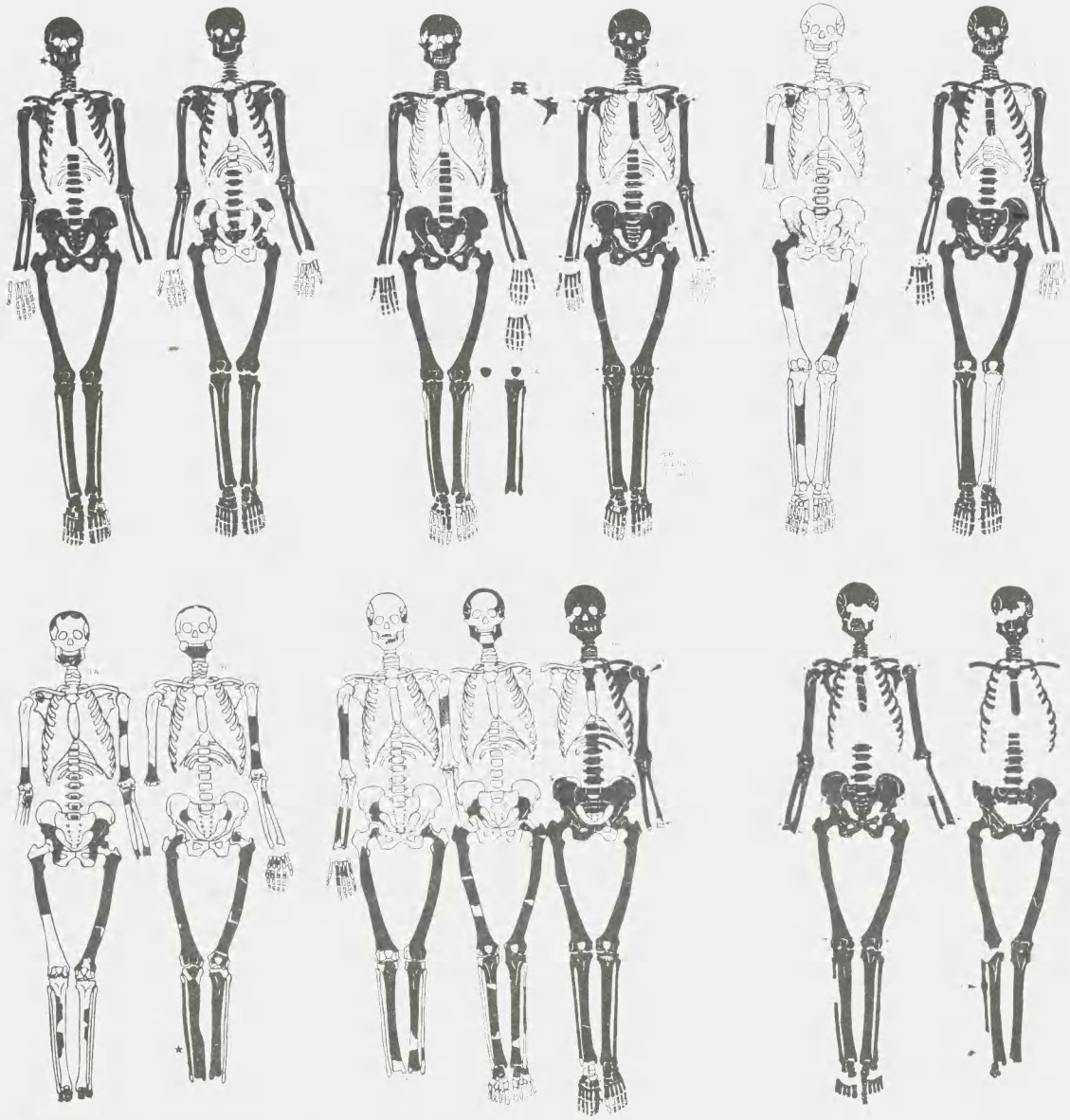


Fig 9 Skeletons from Galley Hill, barrow 3.

Presumably the absence of three arms out of a possible total of six in this series of bodies is due to post-mortem disturbance. Certainly there is no evidence of amputation.

Burial 15. Age about 14 years.

Most of this burial had been previously destroyed by a footpath. The proximal end of a femur, some hand bones and a scapula, all from the right side and lacking their epiphyses, are all that remains. The size is almost adult, the scapula in particular resembles that of the 14 year-old from the Robber Pit and on the anatomical evidence they might all be parts of one skeleton, though this is unlikely since Burial 15 was 5.5m from the Robber Pit.

The Robber Pit Burials

The robber pit material has, as far as possible, been sorted into skeletons and assigned "burial numbers" (in brackets to distinguish them from the true burials) as follows.

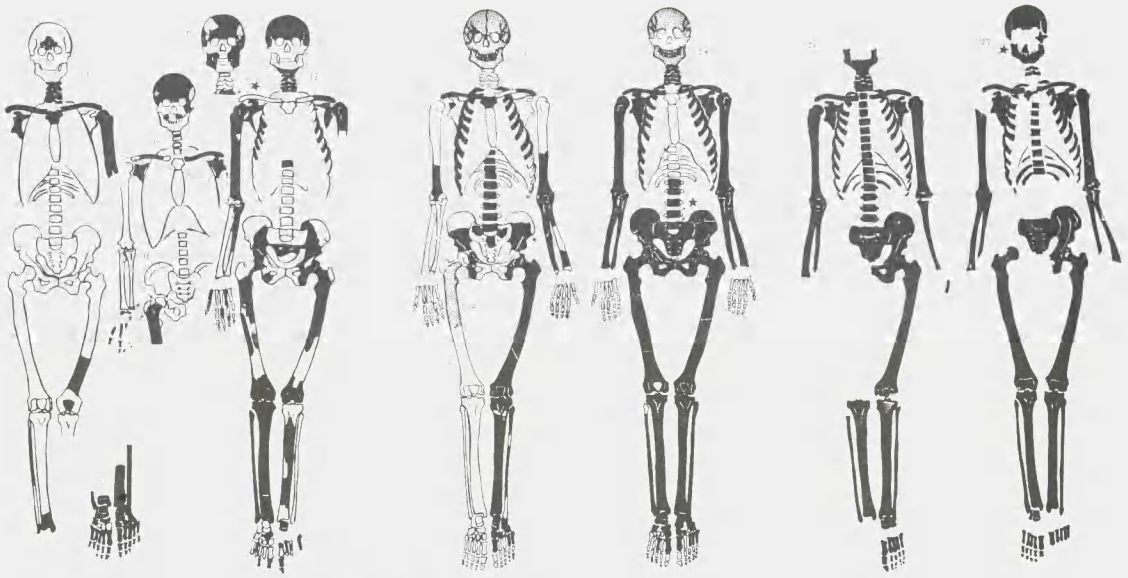


Fig 10 Skeletons from Barrow 3 at Galley Hill.

(16) One bag contained the cranium of an adolescent (aged about 14 years) whose clavicles, left scapula, and occipital fragments were mixed with the next specimen. As the only other bones of this age-group (rather infrequent in cemetery populations) are in Grave 15 it is possible on the anatomical evidence that they represent the same individual. After reconstruction the brain-case was almost complete. Two separate portions of the maxilla are also present, containing unerupted third molars and all other teeth distal to the first premolars.

The remaining bones comprise at least three adult males who are impossible to separate with certainty. The following is therefore approximate:

(17) *Male, probably over 35 years.*

Imperfect skull vault showing obliteration of the sagittal suture and some arachnoid pits on the endocranial surface. Also, part of the chin region of the mandible, including the tips of the sockets of the incisors and left canine. A complete cervical column and post-cranial bones representing most of the skeleton are also present.

(18) *Male, probably aged 20 – 25 years.*

Imperfect skull including the left side of the face and the outer halves of each mandibular ramus. The vault sutures are open and all teeth erupted excepting the left upper M3 which is 'congenitally' absent (agenesis). The skeleton is represented by a complete cervical column, and some bones which duplicate parts of the previous specimen, notably the left clavicle and humerus head and the distal end of the right tibia.

(19) *Adult male.*

One fragment only; the glabella region of an adult male with an open metopic suture. It is deeply eroded so that the frontal sinus is laid open. The preservation is more similar to that of 21 and 22 than to the other Robber Pit Burials. Either it represents the missing skull of 21, or possibly 22, or it is the only remaining fragment of a totally decayed burial.

(20) *Adult* (Part of burial 7 ?)

This very well preserved cervical vertebra exhibits a very rare from of double cleft. If is puzzling that no other parts of the specimen are present, and quite likely it belongs to the stolen Burial 7 which was similarly well preserved and light in colour.

Galley Hill Skeletons 21 and 22.

The impression given by photographs of the skeletons in situ, was that two men had been hacked limb from limb, and the dismembered bodies buried in the one grave. Some bones had been marked "GH I" (No 22 while others were unmarked. None were marked "GH II". (No 21).

When sorted anatomically it became obvious that the two men differed slightly in build, one being taller than the other. The longer leg bones

TABLE 1 GALLEY HILL, BARROW 3. SKULL MEASUREMENTS

	1	2	3	4	6	11	12	13	14	16	17	18	21	22	23	24	
L	184.5	178	195*	178*	179	–	175	193*	175	174	202	198		184	169	169	Cranial
B	138	143	154	148	142	–	139	145*	144	143	146	149	–	141.5	141	134	
B'	103	106	107	103.4	100	–	100.5	98*	–	96	89	106	–	98	101	92	
H'	137	–	132.5	131	–	–	136		–	142	–	–	–	141	141	140	
LB	103	–	104*	99*	–	–	103	–	–	96	–	–	–	104	104	103.3	
S1	133	125	133*	123	135	–	125	130*	125	123	129	133	–	126	127	115	
S2	123	130	133	122	117	–	126	124*	126	121	125*	136	–	127	143	120	
S3	120	–	123	109	–	109	102	138*	122	107	–			119	117	98	
S'1	115.5	108	110	108	116	–	110	113*	107	109	116*	113		108	–	–	
S'2	110	112	121	109	105	–	109	112*	108	108	113*	125		114	–	–	
S'3	95.5	–	97.5	95	–	92.5	87	109*	102	91	–	–	–	97.5	–	–	
BiB	110.4*	112	–	118	112*	104	107	109*	114	108	–	116	–	113	–	–	
G'H	70	–	–	72	–	–	–	–	–	–	–	–	–	–	70	103.3	
GL	95.5	–	–	88	–		–	–	–	–	–	–	–	–	69	–	
GB	99.8	95.8	–	–	–		108.7*	–	–	–	–	–	–	–	–	–	Upper Facial
G2	42.7	44.6	–	46	–	–	42.5	–	–	–	–	–	–	–	31	–	
G'1	43.7	–	–	–	46.5	–	47	–	–	–	–	–	–	–	39*	–	
J	136	–	–	–	–	–	–	–	–	–	–	–	–	–	113.6	129	
O2	–	–	–	–	–	–	–	–	–	–	–		–	–	32.2	32.6	
FL	31.4	–	35	38.2	–	34.3	35	–	–	34.5	–	–	–	34.7	–		
FB	29.1	–	29	31		31.6	36	–	–	28	–	–	–	28	–	–	
MH	47.3	47.7	44.8*	48.2	46.5		–	47.7*	48	46.3	–	48	–	43.7	–	–	
NB	25	–	–	25	23.6	–	25.3	23	–	–	–	–	–	–	24.6		
NH'	51.9	–	–	50.9*	49.5	–	–	–	–	–	–	–	–	–	–	–	
DC	–	–	–	–	–	–	–	–	–	26.5	–	–	–			–	
W1	129.5		119	121	116.5		115	–	121.5			–	131		122.8	122.3	
GoGo	109.5	91	97	98.4	98.5		107.5	98.5	102				116.5	107.5		–	
ZZ	46.8	47.5	45.5	46.7	47	–	46.6	45	45			–	50	50.3			
RB	33.7	30.7	28	33.8	32.7	–	30.5	30.3	31.5			30	34	36	26.2	31	
H'	33.4	32	37	34	31.6		31.5	28.5	30			–	30.4	31.5	28.5	29.8	
ML	105	100*	99	104	105	–	103	97.5	102			–	105	96	98	103	Mandibular
RL	62	57	60	59	62.5		61	56	61	–	–		67	62			
CYL	22.5		20.6	–	20.5	–	23	59.6	19.5	–			24	20.5			
CH	68	59	58	63.8	63.4	–	61	125.5	67	–	–	–	68.7	50.5	60	63.5	
M<	127	124	123	125	130	–	129	–	123	–	–	–	119.5	101.5			
Sex	M?	M?	M	M	M	M	F	?	?	?	M	M	M	M	F?	M	

Two Skulls have only some miscellaneous measurements:
8 F ZZ 48; M2H 28 10 F BiB 107

had noticably more development of the muscle attachments than the shorter set, and these differences were also perceptable in the clavicles and innominates. Only two innominates were present, both left, and each articulating unmistakably with one sacrum. The sacra differ perceptably, and so can be identified in the photographs taken of the bones in situ. Some of the other bones can also be identified, mainly through small areas of damage as on the left knee of the shorter legs, and the pubis of the larger individual, which are clear in the photograph.

When the photographs were used to make an approximate plan of the burials it was seen that the articulated trunk at one end of the grave was apparently connected with the longer left humerus (all the humeri are separately identified in the photo) and the shorter right leg. Thus, either the taller man had the shorter arms (which is not impossible, as the length difference is confined to the humeri and there is no perceptable difference in their robustness) or the legs at the other end of the grave belong to the articulated torso.

The difficulty in accepting the idea of a deliberate dismemberment is that there are absolutely no signs of artificial cutting on any of the bones. It would in fact be impossible to attempt disarticulation anywhere between the knee and the pelvis without leaving recognisable traces.

It is therefore suggested that the partly articulated trunk may represent a burial (No 21) with the knees drawn up and the head somewhat raised, and the more scattered bones and intact legs and feet represent another body laid over the legs of No 21 (as No 4 was laid over 16). Disturbance, perhaps by burrowing animals, affected mostly the middle part of the grave and the missing bones (skull and both right innominates, and one right femur?) may have been rather shallowly buried so that perhaps the flattening of the ground preparatory to building the barrow destroyed them.

If this is inconsistent with the archaeological evidence, it might alternately be suggested that the bodies were dismembered when partly decayed or mummified, either by accident or design.

Using both the anatomical evidence and the photographic evidence the skeletons were sorted as follows:

Burial 21 Male. Age within 25 – 30 year range

Areas missing are the cranium, left radius, sternum, right femur, innominate and foot. (The right tibia can be seen in the plan displaced towards the head while the trunk and left limbs are still in articulation).

The body of the first sacral segment is partly free, but there are no other skeletal anomalies. The mandible shows slight periodontal disease and caries has started in the occlusal fissures of both third molars. A hole through the distal end of the right radius is clearly a post-mortem artifact.

Burial 22 Male. (Stippled on grave plan). Age probably 24 – 28 years.

The skull, left humerus, sacrum, tibiae, femora and feet are inscribed "GH I" The legs are the longer pair, the arms the shorter pair.

Areas missing are: most of the face, most of the sternum, lumbars, right innominate, head of right humerus and some foot bones. (The hand bones of the two bodies are still mixed). The skeleton is normal. Two of the lower teeth have failed to develop: the left third molar and the right second premolar. The second milk molar is still functional in place of the missing premolar. There is no caries or other dental disease. One wormian is present in the lambdoid suture and one at each parieto-sphenoid suture. There is slight osteoarthritic lipping of the lumbar bodies.

These two skeletons are the only ones in the barrow which resemble the usual prehistoric British populations in their physique and dental wear. It should be noted, however, that the cephalic index of 77 for 22 is rather high for a male Neolithic skull, but would not be incompatible with a Medieval date. Contrary to expectations they showed no evidence of cutting or mutilation, being complete except for some minor damage and rotted areas (of post mortem date).

The following were the two burials excavated by schoolboys. The skulls were studied by Osman Hill and are now in Luton Museum. Only the post-cranial skeletons were sent to the B.M.N.H.

Burial 23 Female ? aged about 21

The skull studied by Osman Hill was said to be complete, but the left orbital corner of the frontal bone was found with the skeleton. The trunk bones are crushed and fragmentary, only a manubrium sterni and one clavicle being complete; the right leg is missing except for a femur shaft fragment found with 24; the right arm is represented by the distal half of the humerus shaft and the left

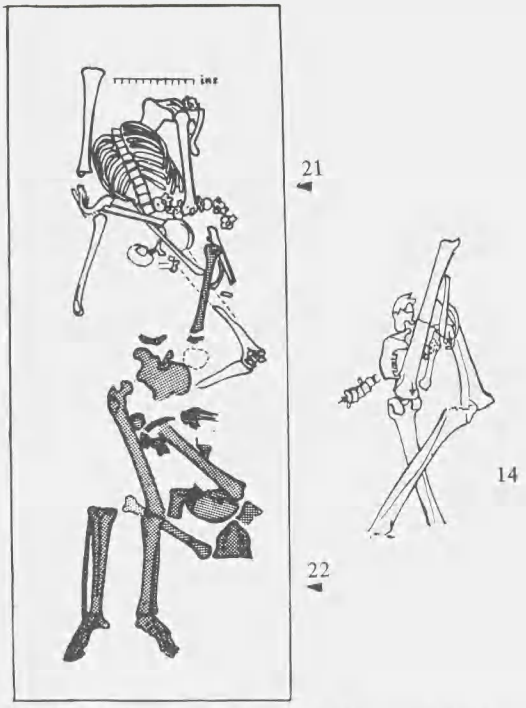


Fig 11 Galley Hill, barrow 3, the mutilated burials.
Burial 14 in situ, partly excavated.
The healed fracture and 3 'cysric' areas are marked

arm is also incomplete. A small pre-auricular sulcus is present on each innominate.

The distal epiphyses of the forearm bones are loose, and the iliac and ishial epiphyses are fusing. Those of the knee, ankle, elbow and hip are obliterated. Slight overcrowding of the teeth, and an open metopic suture are the only anomalies.

Burial 24 Robust adult male, probably aged between 22 – 28 years.

The skeleton is complete except for the upper face, the sternum, one patella and some hand and foot bones. The leg bones, especially the femora, are a peculiar build possibly due to old, healed rickets. The femur shafts are more curved than usual and the linea aspera is very promanent as if it had formed a buttress to reinforce the curvature. The bone is also thicker than usual, assymmetrically reducing the marrow cavity.

There are multiple defects in the lower back which may have caused episodes of pain during life. The spinous process of the first sacral arch is cleft, there is a lateral cleft of the arch of Lumbar 5 on the right side only, and bilateral clefts on Lumbar 4 so that the arch is detached forming a

TABLE 11 GALLEY HILL BARROW 3. THE POST-CRANIAL MEASUREMENTS

		FeL1	FeL2	FeL3	FeD1	FeD2	Head D	TiL1	TiD1	TiD2	HuL1	HuD1	HuD2	RaL1	UlL1	FiL1	Stature
1	L	429	415	428	24.2	35.4	46	344	34	25.7	302	24	18	227.5	255	342	165 cms
	R	430	413	427	25	33	45	349	34.9	24.3	306	23	18	230	260	343	
2	L	447	428	446	25.4	33	44	359	34	23.3	316	22	19	232	249		169 cms
	R	443	428	428	26	32	45	361	36	23	314	21.3	18	231	250	360	
3	L	464	439	460	27	36	51	368	30	21	322	24.5	21	245	264		172 cms
	R	458	430	456	24	34	49.8	362	33	27	325	25	20.5	245	269	–	
4	L	465.5	448	460	23	39	46	365	36	23	330	20.5	18	246	–	–	172 cms
	R	467	446	463	24	39.5	46	365	34	22	334	22.5	17.8	247	–	–	
5	R	–	–	–	26	34.2	–	–	–	–	–	–	–	–	–	–	–
6	L	455	434	450	24.4	35.5	46	374	34	26	332	21	20	244	260	–	171.5 cms
	R	445	441	433	27	33.6	45	361	31	22	333	21	17	242.2	–	372	
8	L	–	–	–	28	33.4	–	–	–	–	–	–	–	–	–	–	–
	R	–	–	–	26.5	33.5	–	–	–	–	–	–	–	–	–	–	
9	L	–	–	–	24	32	–	–	35	21	–	–	–	–	–	–	–
	R	–	–	–	24	32	–	–	34.5	20*	–	–	–	–	–	–	
11	R	–	–	–	28.5	39	50	–	35	24	–	–	–	–	–	–	–
12	L	441	438	417	24	37	45	350	33	23	–	–	–	–	–	–	163cms
	R	433	430	–	24	36	45	348	33	23	–	–	–	–	–	–	
13	L	429	421	427	25	34	43	360	32	23	326	20	16	237	–	353	166cms ?
	R	428	424	425	26	34	44	359	32	22	329	21	16.5	236	257		
14	L	436	420	434	27.2	30.4	47	–	39	23	–	–	–	–	–	–	162 to 167 cms
	R	–	–	–	27.2	34	47.4	–	36.5	24	–	–	–	–	–	–	
15	R	–	–	–	25	32	–	–	–	–	–	–	–	–	–	–	–
(17?)	L	–	–	–	34	39	52	–	34.4	24.6	–	–	–	–	–	–	–
	R	–	–	–	–	–	–	–	35	28	–	–	–	–	–	–	
21	L	–	–	–	29	33.6	49	360	34.2	26.5	351	22	20	254	–	–	169 cms
	R	–	–	–	–	–	–	361	35	26	358	24	20	–	267	–	
22	L	492	484.5	464	28	40	50	393	39	30	335	23	21	240	–	378	178.5 cms
	R	484.5	482	458	28	38	47	391	37	29	–	–	–	241.5	–		
23	L	436	436	418	32.5	37.5	47	353	32	23	–	–	–	–	–	–	162 to 164 cms
	R	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
24	L	475	472	446.3	28	33	51.4	–	38	25	340	21	17	253	273.5	375	176 cms
	R	474	472	457	27	33	51	390	34	25	346	23	17.5	253	275		

false joint. (Spondylolisthesis). There is mild pitting on the vertebral bodies. It is probable that the primary defect was in the supporting tissues.

Burial 25 Male?

The trunk and right arm of a well-built individual were uncovered and photographed in 1951. At that time they were in a very friable state and had vanished without trace by 1961.

The traumatic pathology and its implications for dating the burials.

Only burials 21 and 22 had well-built skeletons, all the rest that were sufficiently well-preserved to study had rather 'poor' lightly built skeletons. No's 4, 5, 9, 12, 13, 14, 24 in particular had signs which might perhaps be interpreted as healed early rickets. Because of their build the majority were extremely difficult to sex. The impression given is that 21 and 22 could be prehistoric, while all the rest might be much later, possibly post-Norman. This latter series should be considered as possible gallows victims, and representing the lowest social strata of the Medieval Society.

Contrary to expectations, none of the skeletons showed unhealed wounds or other signs of massacre.

Burial 12 had a healed fracture of the humerus head region, resulting in considerable long term deformity. It can be questioned whether this might have resulted from the Medieval method of torture – by drawing the person up on the arms while tied behind his back. Unfortunately, the other arm is missing, and so we do not know whether the damage is bilateral. Also, this form of torture is more likely to have produced dislocation than fracturing as seen here.

There is also a healed fracture of the upper third of the left fibula of number 14 in the same series. This is associated with other bone disease, although it is uncertain to what extent there is a direct association between these two anomalies.

The swollen osteitic tibia of number 9 is most probably due to some common-place cause, and is similar to a number of other Medieval cases known to me.

The dental pathology

Although most of the individuals died in their twenties, dental decay is fairly frequent, about half the cavities having commenced in occlusal fissures. Periodontal disease is slight or absent except where a large cavity has caused an abcess.

GALLEY HILL. BARROW 3

TABLE III

ANOMALIES AND PATHOLOGY

	Sex	A	B	C	D	E	F	G	H	J	K	L	M	N	P
1	M?	NO	NO	YES:1	NO	4	1	NO	NO	NO	NO	NO	YES	NO	NO
2	M?	6 caries	NO	NO	NO	NO	NO	½	NO	NO	NO	NO		NO	NO
3	M	4 caries	NO	NO	NO?	18	2	NO	YES	NO	NO	NO	NO	NO	NO
4 age 18	M?	1 caries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
*5	M		NO								–		–	–	
6	M	3 caries	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO
7 age 18	F?										–	–	–	–	–
*8	M	NO	NO	NO	NO						–		–	–	–
*9	F	3 caries	NO	NO	NO	–			–		–	–	–	–	–
*10	M		NO							–	–	–	–	–	–
*11	M	NO	NO	NO	m3	1	NO	NO			–	–	–	–	–
12	F	NO Humerus	NO	NO	NO	3	NO	NO	NO		NO	NO	NO	NO	NO
13 age 17	M?	2 caries	NO	NO	m3,m3	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO
14	M?	1 caries Fibula		NO	NO	14	NO	YES	NO	NO	NO	NO	YES	NO	YES
15 & R	J14	NO		NO	NO	NO	NO	NO	NO			–	–	–	–
(18) R	M		NO		m3	NO			NO	–	NO	NO	–	–	–
(17) R	M	NO		NO	NO	NO	NO	NO	NO	–	NO	NO	–	–	–
(19) R	M							–	YES		YES	YES	–	–	–
21	M	2 caries	NO	NO	NO		–		–		NO	NO	NO	YES	NO
22	M	NO	NO	NO	pm,m3	1	1	NO	NO		NO	NO	NO	NO	NO
23 age 21	F?	NO	NO	NO	NO	?	?	?	YES		NO	NO	NO	NO	NO
24	M	2 caries	NO	NO	NO	?	?	?	NO		3:L5rt,L4bds	NO	YES	NO	NO
		9/17 caries c 9% 1/18 other infection	2/19	1/18	4/18 c23%	2/6/13		2/12 c18%	3/15 20%	2/7	2/15	1/15	4/11 c35%	2/12 c18%	1/12 c7%

*Swollen tibia

*bathrocephalic

Key to Columns

A Inflamatory changes or caries
B Healed fractures
C Extra Teeth
D Congenitally Missing Teeth
E Lambdoid wormains
F Other wormains
G Os Inca
H Metopic suture
J Segmented sternum
K Laterak Cleft of vertebra
L Midline cleft of vertebra
M Midline cleft of sacral 1
N Transitional lumbo-sacral vertebra
P Holes in vertebral arches
Other:
R Robber Pit
* Gallows Group

This is characteristic of the later post-Saxon populations of Britain.

Four out of seventeen individuals show absence (agenesis) of one or more wisdom teeth, one also showing absence of a premolar with retention of the milk molar as a functional tooth. Another individual shows a supernumary tooth, probably due to "twinning" of the left lower incisor germ, or, alternatively, the presence of a "mesodens".

Vertebral pathology

Probably due to the youthfulness of the individuals, there is very little osteoarthritis, although this is usually a common condition in early British populations. There is a high frequency of minor clefts of the first sacral arch, one of which shows lateral clefts of the lumbar vertebrae as a secondary condition. There is also an extremely rare case of double cervical cleft combining a midline cleft and a separation of the lateral structures from the body on the left side.

Sutural 'anomalies'

There are noticeable occurrences of open metopic suture, accessory wormian bones, and the os inca. Two crania are actually malformed as a result of the sutural anomalies. The two cases of segmented sterna might perhaps be relatives. However, there is no strong evidence for any pair of individuals being related, although considering the smallness of the sample and the number of minor congenital anomalies, it is tempting to suggest that some might indicate family relationships, or the perpetuation of founder effects in small inbred communities.

Radiographic report
by Theya Molleson: British Museum (Natural History)

Only those bones that showed obvious or possible anomalies were X-rayed.

The skulls were radiographed in previously standardised positions (Brothwell *et al.* 1968, Stringer *et al.* in press), giving frontal, lateral, basal, and mastoid views from which a study of the sinus development, skull bone thickness and mandibular trabeculae could be made and integrated with similar studies of other populations from archaeological sites.

Some of the radiographs were shown to two consultant radiologists, Dr George DuBoulay, St Bartholemews Hospital, London and Dr John

TABLE IV DENTAL FORMULAE

NOTES

A = Abcess
X = Tooth lost during life
/ = Tooth missing, socket remains
C = Massive caries.
c = Small caries cavity.
cc = Contact caries
oc = Occlusal caries.
BC = Buccal caries
NP = "Congenitally" absent tooth.
e = Persistant milk molars.

1M

8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8
8 7 6 5 4 3 2 1 11 2 3 4 5 6 7 8

2M?

c c
8 7 X 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 X 8
oc oc C oc
A

3M

A
X X 6 5 4 3 2 1 1 2 3 4 5 C 7 X
X X 6 5 4 3 2 1 1 2 3 4 5 X 7 8
C

4M? A
C
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

6M
oc A
7 6 5 4 3 2 1 1 2 3 4 5 X 7 8
8 7 X 5 4 3 2 1 1 2 3 4 5 6 X 8
C C oc

8F

- - - - - - - - - - - - - - - -
8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8

9F

- - - - - - - - - - - - - - - 8
8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8
BC c

10M

- - - - 4 3 - - - - - - - - - -
8 7 - - 4 3 2 - - 2 3 4 - - - -

11M

- 7 6 5 4 3 2 1 1 - - - 5 6 7 NP
8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8

12F

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

13?

- - 6 5 4 3 2 1 1 2 3 4 5 6 - -
NP 7 6 5 4 3 2 1 1 2 3 4 5 X 7 NP
C C
A A

14?

A
- 7 6 5 4 3 2 1 1 2 3 4 5 6 7 -
8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8

16

8 7 6 5 - - - - - - - - 5 6 7 8
- - - - - - - - - - - - - - - -

17M

- - - - - - - - - - - - - - - -
- - - - - - - - 1 2 3 - - - - -

18M

- - - - - - - - 1 2 3 4 5 6 7 NP
8 7 6 - - - - - - - - 5 6 7 8

21M

- - - - - - - 1 - - - - - - - -
8 7 6 5 4 3 2 1 1 2 3 4 5 6 7 8
oc

22M

8 - - 5 4 3 2 1 1 2 - - - - - 8
8 7 6 e 4 3 2 1 1 2 3 4 5 6 7 NP
5 is NP

Price, Surrey County Hospitals, to whom grateful thanks are due for opinions used in the report.

Galley Hill 3, burial No 22.

The skull, which lacks the face, is noticeably asymmetrical in the basel view. This is probably a result of burial pressures, but it was also noted that both the basisphenoid and frontal sinuses were larger on the left side.

The basisphenoid sinus, does not extend into the basisphenoid. Since the maxilla is not present it was not possible to measure its development.

The air-cells of the mastoids are largest in the process itself, extending posteriorly somewhat short of asterion and anteriorly into the temporal bone above the temporal ridge. The air-cells are smallest in this area.

The bones of the skull are not thickened, inner and outer tables being separated by a thinnish but clearly discernible diploic layer. No bone lesions were observed.

The mandible shows fine trabeculae at the gonial angle and between the roots of the molars.

The right M3 is congenitally missing, while dm2 is retained on the left side and the second premolar is missing. The pulp-cavities are normal.

R L

8 7 6 e 4 3 2 1 1 2 3 4 5 6 7
c c

Galley Hill 3 burial 1

This skull is well preserved and reasonably complete. No bone lesions were noted, the thickness of the parietal and frontal bones being normal for a young adult. Inner and outer tables, separated by a well developed diploi were discernible.

The sinuses are well developed and of medium size as can be seen from Table 1. The mastoid sinuses although partly obscured by matrix, are seen to extend posteriorly beyond the third molars.

The size of the air cells of the mastoids is small especially in the process itself. The cells become larger just above the temporal line, the maximum dorsal extent of the mastoid air cell development.

The mandible has fine trabeculae at the gonial angle and between the roots of the molars.

The pulp cavities of the teeth are closed. No caries were noted. The supernumerary tooth behind the Left 1_1 is not repeated on the right side. It seems likely however that the extra tooth is in fact the rather small tooth in the position of the right 1_1; that the true right 1_1 has been displaced

to the position of the Left I_1 and that the left I_1 appears in the position of the supernumerary.

Galley Hill 3 burial 14

This is a much thinner boned skull from an older individual. The diploic layer of the parietal and frontal bones is very thin and unevenly developed but still within normal limits. No bone lesions were noted.

The frontal sinuses are not developed. The base of the skull and most of the face are not preserved. As far as can be seen the roots of the upper molars do not extend into the mastoid sinuses. The air-cells of the mastoids are especially large on the right side while they remained small in the left mastoid process, suggesting an infection at some time. The air-cell development of the mastoids extends to the lambdoid suture and dorsally above the temporal line.

The mandible has medium sized trabeculae at the gonial angle and quite dense trabeculae between the roots of the molars, which are rather short. No caries were noted although there is a certain amount of periodontal bone resorption.

TABLE V

	GH3.1	GH3.14	GH3.22
Frontal sinus width	51.45	–	52.2
height	13.65		13.2
thickness	10.9	–	12.4
Basisphenoid width	–	–	–
length	16.3	–	–
Mastoid L. width	34.8	26.1	48.1
height	40.1	41.0	51.3
R width	27.3	37.3	51.7
height	38.4	c 45.0	–
Parietal thickness			
L boss	7.55	3.8	5.25
R boss	6.3	3.6	4.35
Frontal thickness (mid-point)	7.35	3.7	5.3
subtenuse to inner surface	20.0	25.1	23.7

Post-cranial bones

Several of the post-cranial bones showed some unusual features. Unfortunately the most interesting cases were unassociated and it was difficult to assess the extent of the deformity in the rest of the skeleton, or even to determine its nature.

Galley Hill 3 burial 9

The distal two-thirds of a right adult tibia showing a marked sclerosing periostial reaction, giving rise to an uneven thickening of the cortical bone on the medial side of the shin, especially noticeable in the distal swelling. A translucent track through this thickened cortex could be related to a chronic infection but there is no definite evidence of a sequestrum. There are signs in the pitted texture of the periosteal bone of an inflammatory process about mid-shaft.

The inner trabeculae are somewhat coarsened, proximally, but their distribution and orientation is normal for a young adult. Distally the trabeculae are only slightly thickened and there are one or two Harris's lines near the condyle. The spongy bone extends some way up the shaft especially on the medial, diseased, side.

The cortical bone on the lateral side, that next to the fibula, is if anything thinner than normal. Its texture is normal.

The medullary cavity is constricted by the growth of the periosteal bone. The shaft is not bowed and the distal articular surface is still normal.

It would seem that here is a chronic osteomylitis which developed after growth had ceased and was quiescent or completely healed by the time of death. It is rather more extensive than one would think could be due to a varicose ulcer. There is no clue as to whether it was the direct result of an injury or was blood borne.

The few other bones present of this skeleton were normal.

Galley Hill 3 burial 12.

The deformity of the humeral neck and upper shaft causing the articulation at the shoulder to be twisted at right angles to the articulation at the elbow. The shaft is much shortened even below the deltoid tubercle with an oblique bulge about mid-shaft. This could be the remaining callus of a well-healed fracture sustained during infancy. But, if this bone had fractured at the surgical neck, as it must have done if it fractured at all, it is unlikely that it would have re-united in one line. There ought to be angulation or overriding. Therefore, the possibility of a developmental abnormality should be considered, as well as that it is the end result of an injury in very early infancy.

The cortical bone is of normal thickness, suggesting that though twisted and probably awkward, the arm regained almost full power and considerable, albeit restricted movement. (fig 8)

Galley Hill 3 burial 14 skeleton

All the bones of the skeleton were X-rayed to

check on a number of cystic holes noted in the vertebrae and the tibiae as well as the orbits of the cranium. However, the radiographs did not reveal a generalised cystic condition. Some of the vertebrae showed mild arthritic lipping but otherwise appeared normal. The cystic cavity on the posterior surface of the left tibia appears as a translucent area surrounded by an unevenly distributed area of denser bone. The trabeculae of both tibiae are normal except for a number of Harris's lines both proximally and distally. The shafts are slightly bowed laterally (knock-knees) suggesting healed mild juvenile rickets. Below midshaft the external lateral cortex of the right tibia is rather thicker than that of the left tibia. This is probably related to the healed fracture of the distal end of the right fibula. The fracture is well healed but there is still a marked callus with cortical thickening extending proximally. The shaft is also slightly bowed but there is no misalignment.

Galley Hill 3 burial 20 Congenital hemivertebra

This is a double cleft of a lower cervical vertebra. There is no sign of the right half of the spinal arch. Trabeculation of the centrum is fairly dense but not otherwise anomalous. No other bones of this skeleton were found.

PHOTOGRAPHS – A complete set of photographs of all the burials has been deposited in Luton Museum.

ANIMAL BONES FOUND WITH GALLEY HILL BARROW 3 HUMAN BONES.

Identified by Juliet Clutton-Brock.

Animal bone with Burial 14:

? small domestic ox – vertebra of juvenile animal.

With Robber Pit Burial:

Rabbit – femur of juvenile animal. (Rabbits are post-Norman in Britain)

? Domestic sheep or goat – fragment of mandible of juvenile animal without teeth..

With Lower Burial No. 3:

Cervus elaphus – 1st phalanx. (Can be seen above right shoulder of skeleton in excavation photo)

Domestic ox – upper molar.

Domestic sheep or goat – fragments of mandible with deciduous teeth.

Sourthern Quad:

Small domestic ox – 2nd phalanx.

2 fragments of bone – not identifiable.

With 23 and 24

Domestic ox – calcaneum of juvenile animal.

? Domestic ox – coronoid process of mandible.

Small fragment of bones, possibly fragment of tibia, – not identifiable.

With Burials 12, 13 and 14.

? Domestic ox – coronoid process of mandible.

Piece of flat bone, not identifiable.

With Burial 1 & 2:

? Domestic ox – condyle of mandible, possibly from a juvenile animal.

Piece of flat bone – not identifiable.

With Burial 15:

Small fragment of bone, – possibly from a metapodial, not identifiable.

With Burial 9:

Rib of small artiodactyl. Not specifically identifiable but could be from a domestic pig, sheep or goat, or from a deer.

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