

# Two felons from Surrey

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IN 1972, during the excavation of a Saxon warrior from one of the four Galley Hills Barrows on Banstead Down, two secondary burials were uncovered which the excavators thought might have been those of executed criminals. In both cases the hands appeared to have been tied behind their backs and the necks were thought to have been dislocated<sup>1</sup>. The skeletons were lying head to toe on the natural chalk in a N-S direction and covered by no more than about 0.2m (8in) of pea-grit chalk. They were not examined, except in the ground, and were removed 'in situ' as it were by under-cutting, and taken to Bourne Hall Museum, where they stayed until being brought to our attention by Mr S. Khan the curator<sup>2</sup>. We 'excavated' the skeletons at the museum and report here on our findings.

Both skeletons had suffered a little during the ten or more years that they had been in the museum. We will call them skeletons A and B; A is the left hand one in the photograph taken in the original excavation (Fig. 1 in the original paper).

## Skeleton A

In this skeleton, the right humerus was missing, probably as the result of disturbance to the grave before the original excavation, since it is not shown in the photograph of the two skeletons. The skull had been damaged during or after the skeleton had been removed, and the right patella and most of the small bones of the feet were also missing. The skeleton was that of a male of between 35 and 45 years of age at death and about 1.76m (5ft 9in) in height<sup>3</sup>. The hands were crossed behind the pelvis towards the left hand side, and careful excavation of them showed that the fingers were tightly flexed at the inter-phalangeal joints, much as one might expect in someone who was under considerable stress or in great pain (Fig. 1). There was a comminuted fracture in the right ulna (Fig. 2), and there was no evidence of healing on any of the

broken surfaces. We consider that this was a fracture which had occurred around the time of death, shortly before or shortly after; we considered the possibility that it might have happened after burial, but do not see how this could have been the case. The pelvis was securely overlying the broken bone and was not itself damaged on its posterior aspect, as might have been expected had a blow been transmitted through it, for example, and there was no evidence that any of the bones of the lower arm had been disturbed. We think it most likely that the break occurred as the result of a severe blow to the arm when the body was being put into the shallow grave. All the cervical vertebrae were complete, and there was no evidence at all of any damage; the hyoid bone had been broken *post-mortem* and so could not give any useful information.

There were several signs of *ante-mortem* disease, including some fractures and osteo-arthritis. One of the ribs on the right hand side had a well-healed fracture in it, and there was a spiral fracture of the right tibia in its distal third. The bone had healed in excellent alignment with no displacement and with the formation of a good deal of callus; this produced a fusiform swelling of the bone which can be seen in the photograph which illustrates the original paper. Radiography of the tibia and fibula confirmed the fracture in the tibia and suggested that the fibula was also fractured just above the ankle joint. A spiral fracture above the ankle such as this would have



Fig. 1: left hand of skeleton A. The fingers are tightly flexed at the inter-phalangeal joints; this is particularly well seen on the middle and fourth fingers.

1. D. Price-Williams and J. Barfoot 'Excavations of Galley Hills Saxon Barrow' *London Archaeol* 2, no. 6 (1974) 127-30.
2. We are most grateful to Mr Khan for so kindly providing us with the facilities to examine these skeletons, and for his permission to publish our observations on them.
3. The assessment of age was based on dental wear and the morphology of the pubic symphysis. Height was determined from the combined maximum lengths of the femora and tibiae using the regression equations of Trotter (M. Trotter 'Estimation of stature from intact limb bones' in T. D. Stewart (ed.) *Personal identification in mass disasters* Washington Smithsonian Institution Press (1970) 71:97).

been caused by a violent twisting movement. The commonest modern cause of this type of injury is found in skiers where the lower leg is twisted about a fixed boot, and perhaps this man sustained his injury by twisting around a foot firmly held in a feature such as a rabbit hole. He also had a fracture of the sternum at the level of the manubrio-sternal joint, which had resulted in a small amount of backward displacement of the body of the sternum. An erosive lesion can also be seen in the sternum; it measures approximately 25 × 25mm (1 × 1in) and has smooth edges; it was most likely the result of an infection in the bone, which may have related to the fracture or have followed a penetrating wound<sup>4</sup>.

This man also had osteo-arthritis of both hands. In the left, there was proliferation of new bone around the trapezium and hamate bones of the wrist and around some of the distal joint margins of some proximal phalanges and of the proximal joint surfaces of the distal phalanges; the third distal inter-phalangeal joint showed some eburnation. The right trapezium and hamate also had some new bone around their joint margins, and so did the proximal ends of some of the distal phalanges. The third distal phalanx showed some 'tufting' and there was an erosive lesion at the base of the second metacarpal. None of these changes was severe, and all represent a relatively early stage of the disease.

Finally, this subject had lost four teeth before his death – the second left lower molar and all three right lower molars. There was a moderate degree of alveolitis, so it is most likely that these teeth were lost as a result of dental decay or gum disease.

#### Skeleton B

This skeleton was virtually intact, although the bone was more friable than in skeleton A. All the phalanges of the feet were missing and so were some



Fig. 2: right radius and ulna of skeleton A with comminuted fracture in mid-shaft of the ulna.

other small bones of the foot; the sternum was also lost. Three of the cervical vertebrae (C3 - C5) had been lost during the time when the skull and upper cervical vertebrae were separated from the rest of the skeleton in the museum.

This subject was also male, and judging from the pubic symphysis, aged between 35 and 39; he was about 1.68m (5ft 6in) in height<sup>5</sup>. The hands were crossed behind the back, but in this case the left hand had been dragged to a point just behind the right hip joint and there presumably tied; this was a most uncomfortable position as a little experimentation will soon show. The fingers were also tightly flexed at the inter-phalangeal joints, as one might expect from someone *in extremis*.

There were a few signs of pathological change. The middle and distal phalanges of the fourth finger of the right hand were fused, probably as the result of trauma. There was new bone on the heads of both calcanea and on the head of the left (and only surviving) talus, which probably represents the early stages of some undefined arthritic process. The tendon insertions (entheses) of both biceps, of the left patellar tendon and of both Achilles tendons were calcified, which suggests that the muscle groups concerned had been vigorously used. Finally, there was an enamel pearl on the buccal surface of the right upper second molar, and several teeth had been lost during life, the result of dental or gum disease.

#### Discussion

It seems very likely that these are the skeletons of felons who were hanged from a gallows on the Banstead barrow. There is no doubt that their hands had been tied rather cruelly behind their backs, and that they had suffered a violent death. The forceful clenching of the fingers is such as might be seen in someone who has died in extremes of fear or pain, or who has struggled violently against suffocation. In our experience, it is not seen in those who have had a peaceful, natural death, nor does it follow *rigor mortis*. Where the hands survive in other burials, the fingers are almost invariably found to be straight. The position of the fingers can, of course, only be noted during excavation, since it cannot be deduced when the bones are out of the ground. We were fortunate that the skeletons had been removed from the ground *in situ*, thus allowing us finally to excavate the hands in the more favourable surroundings of the museum.

Several other groups of skeletons of executed criminals with their hands tied behind their backs

4. The lesion in the sternum can clearly be seen in the original photograph (*op cit* fn 1, Fig. 1).
5. The estimation of height was made using the combined maximum lengths of the right femur and tibia.

have been excavated<sup>6</sup>. Death by hanging, in the absence of evidence for decapitation, is inferred when skeletons are discovered in this manner. The finding of flexed fingers has seldom been remarked upon previously. We have been able to find only one reference to it<sup>7</sup>. Skeleton No. IV is described as having "Hands bound behind the back touching at wrists - the left one on top - fingers half flexed towards the palms."<sup>8</sup> No particular significance is attached to this observation which was probably made because the skeleton was prone.

There was no damage to the cervical spine in either of our skeletons; this is not surprising since execution would have taken place with a running noose. Cave examined the skeleton of Mary Bateman who had been hanged for murder in 1809, and whose body was then given for dissection to the surgeons at Leeds; the skeleton was found in its final resting place in the anatomical museum of Leeds University where Cave examined it in 1941<sup>9</sup>. There was no damage to the cervical vertebrae or to those ligaments of the neck which were extant.

The effects of suspending a body from a running noose are complex. Pressure on the neck may inhibit

6. For reviews of the different sites see M. Harman, T. L. Molleson and J. L. Price 'Burials, bodies and beheadings in Romano-British and Anglo-Saxon cemeteries' *Bull Br Mus Nat Hist (Geol)* **35** (1981) 145-88; R. Poulton 'The former Goblin works. Leatherhead: Saxons and sinners' *London Archaeol* **5**, no. 12 (1987) 311-7.
7. D. M. Liddell 'Excavations at Meon Hill' *Proc Hants Field Club Archaeol Soc* **12** (1933) 127-62.
8. *Op cit* fn 7, 135.
9. A. J. E. Cave 'The earliest English example of bilateral cervical rib' *Brit J Surg* **29** (1941) 47-51.
10. C. J. Polson 'Hanging' in *The essentials of forensic medicine*,

the vagus nerves in the neck and also occlude the carotid and vertebral arteries and obstruct the airways. Very little pressure is required to occlude the arteries (about 3.5kg, 8lbs, for the carotids and 16.6kg, 37lbs, for the vertebrae)<sup>10</sup> and unconsciousness rapidly supervenes unless the point of suspension is low or the ligature exerts pressure under the chin and does not encircle the neck; it may be several minutes before the victim dies, however. There is no bony injury although the hyoid may be fractured. Modern judicial hangings with a 'drop', however, may result in injury to the cervical spine or to the base of the skull, although the precise nature of these injuries appears to be a matter of dispute amongst forensic pathologists<sup>11</sup>.

It seems likely, therefore, that osteological evidence for hanging will be absent in most excavations, and more circumstantial evidence such as the tying of the hands behind the back will be crucial. In this context, the signs of a violent, rapid death such as we postulate from flexion of the fingers may be invaluable supportive evidence, and we suggest that careful attention to this point in future excavations of buried criminals may be fruitful.

4th edition, Oxford, Pergamon Press (1985) 357-88.

11. Sir Arthur Keith, in a letter to A. W. G. Lowther about the skeletons discovered at Guilddown writes that "one skull (that of a man) shows rupture of its base - a lesion found in death by hanging - with a long drop." (Appendix II, p. 46 in A. W. G. Lowther 'The Saxon cemetery at Guilddown, Guildford, Surrey' *Surrey Archaeol Collect* **39** (1931) 29-50. Unfortunately Keith did not say to which skeleton he is referring, and seems to have given no further details subsequently. The skeletons are no longer extant, so it is impossible to re-examine them. Keith is wrong to infer that the lesion he found resulted from a long drop since hanging would have been with a running noose.

## Letters

### GRAVEL-STONE IN MIDDLESEX CHURCHES

I READ with great interest the recent article and especially the reference to the church of St. Mary, Harrow on the Hill.

As a Drainage Engineer with Harrow Council, I recently supervised the excavation and laying of a new sewer along Football Lane, Harrow on the Hill. During the course of the excavation work it was brought to my attention that the excavator was pulling out lumps of rock, whereas until then all the excavation had been in clay. On inspection I found a depression in the clay filled with this mixture. As we only excavated a trench 600mm (2ft) wide through it, by 1.1m (3ft 6in) deep, I have no knowledge of its extent in a N-S direction, but it was about 5m (16½ft) long in the E-W direction.

As a keen amateur archaeologist I have always kept an eye on any excavations I supervise and have considered that Harrow on the Hill would have early occupation so kept a weather eye open for any indications of ditches etc. in the trench in Football Lane. Although the shape of the depression was a shallow ditch, the fill was geological not archaeological.

I kept a piece of this rock and compared in to that built into the church tower, after reading the article. They are definitely the same material, which bears out the hypothesis that the church builders would use local materials where possible.

Subsequent discussion with colleagues in the office has unearthed an old Geological Survey map of the relevant part of the Borough, to a scale of 6 inches to the mile, which shows the boundary of the Claygate Beds and London Clay crossing Football Lane at exactly the spot where I recovered the rock sample. There are also hand-written notes on the map suggesting that blocks of iron conglomerate have been found in the Claygate Beds.

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THE ARTICLE by Eric Robinson endeavours to establish 'ferricrete' as a nomenclature covering all iron-cemented  
(continued on p. 446)