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FILE

A CREMATION FROM LAMBOURN BARROW 19, BERKS

Period: Bronze Age
Ancient Monuments Lab no: 793444

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A large sample of cremated human bone was submitted for examination. There was no animal bone present among the remains. The material was assessed for identification of representative parts of the body, age at death, sex and if possible stature and health. In addition details of colour and size of the bone fragments were taken as evidence of cremation practice. In view of the size by weight of the sample (nearly 3kgs) particular attention was paid to the evidence for the presence of more than one individual. The average, dry, fat-free skeleton weighs from 2-4kg. (Krogman 1962) and the average cremated sample weighs c1.6kg. (Evans 1963). Therefore it was felt that although it was possible for there to be only one individual present it was feasible that there were more. Compare for example, with the result for Hodcott Down, Berks where a sample of weight 2.97kg. had apparently only one individual present. (Henderson 1981). To this end the bags were examined sequentially, 1-19, thereby following the order of excavation. By this method it was hoped that it might be possible to separate the bone by individual, if more than one were found to be present.

The following parts of the skeleton could be identified in the sample: skull, teeth, vertebrae, ribs, scapula, sternum, patella, pelvis, long bones and hands and feet. There was no evidence for deliberate inclusion or exclusion of any part of the skeleton. Table 1 shows the proportions by weight of the identifiable bones. The table is not given "by bag" since it was found that all parts of the body were found in all of the bags and the only significant difference occurred in bags 12-19, which samples were much smaller.

Table 1 Weights of the Bone Samples

Bone	Weight in Gms	Percentage of the total
Skull (including teeth)	588	20
Vertebrae	245	8
Ribs	194	7
Scapula	22	1
Sternum	5	0*
Patella	10	0*
Pelvis	147	5
Long Bones	1,022	34
Hands and Feet	80	3
Miscellaneous	667	22
Total	2,980	100

*All percentage figures were rounded to the nearest whole figure. Since the results for the sternum and patella came to less than 0.5% it was decided to exclude these as insignificant (thus 0%).

Examination of the material showed that a minimum number of three individuals were present: one adult and two juveniles. This was concluded from the pelvic bones, where there were ischia present from three individuals. The skull and teeth were suggestive that there might be more than two but final data had to be taken from the pelvis. There was no evidence for the presence of more than three individuals. For further analysis it was assumed that three was the correct number.

Age at death was assessed as follows. The material could be sorted into an adult and two juveniles on the basis of bone size and maturation. For the adult there was little further evidence except that there was some slight osteophytosis

present on the anterior borders of some of the thoracic vertebral fragments. Although age is only partially causative it was nevertheless suggested that these bones probably belonged to a mature individual (of 30 years or more). The juveniles were aged on bone growth and development and the teeth at 6 months - 3 years and 6-12 years. For the teeth Schour and Massler's chart (1941) was used.

An attribution of sex was not attempted on the juveniles owing to the difficulties involved in sexing immature individuals and the absence of evidence. Lack of data also prevented a positive sexing of the adult but the extremely small size and gracility of the bones (in particular the vertebrae and long bone articulations) led to the conclusion that the remains were probably those of a female.

It was not possible to estimate stature for any of the individuals represented here.

With the exception of the vertebral osteophytosis observed on the adult bones there was no evidence for pathology on any of the material.

Details of colour and size of the sample may yield information concerning the practice of cremation. On burning bone gradually changes colour eventually becoming blue-grey and then white. Grey or blue-grey indicates the continued presence of organic matter and thus in a sense "incomplete" cremation. Further, bone does not actually burn itself but cracks and splits, for example the inner and outer tables of the cranium will split away from the diploë. The Lambourn Barrow 19 sample was overall grey in colour with some areas of white, blue-grey and some almost black. The bone fragments did not demonstrate any great degree of warping or shrinkage (particularly the long bones) although there was a fair

degree of splitting (and cracks) present. Most of the flat bones (skull and ilium) showed no evidence for separation of the bone as described above. It was therefore suggested that cremation had been relatively "incomplete". This was further substantiated by the size of the bone fragments (up to 12cm long). Complete cremation requires either prolonged exposure on an open fire or an artificial method of increasing heat intensity (Wells 1960, Brothwell 1972). With this sample it was suggested that although cremation had been sufficient to reduce the body to the bone it had not entirely destroyed all the organic matter present in that bone. The size of most of the fragments (up to 6-7cm long) may probably be taken as evidence for post-cremation breakage of bone, necessary for the inclusion of the remains in a funerary urn or container.

Summary

The cremated remains of a minimum number of three individuals from Lambourn Barrow 19, Berks were examined. It was suggested that they probably came from an adult female (aged 30 years or more), and two juveniles, aged 6 months - 3 years and 6-12 years. There was little further evidence other than to indicate that cremation had probably been "incomplete" and that the bones had been broken up after cremation.

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