CATTERICK

The human skeletal material from Catterick Sites 251 and 273 was examined in the laboratory. Much of this material was in a poor state of preservation, with considerable postmortem damage having occurred. Long bones generally had suffered erosion of their proximal and distal ends, with some splintering of brittle shafts. Cranial and vertebral remains were fragmentary and eroded. Very few complete bones were present, which considerably reduced the information obtainable from the material. However, where possible, metric and non-metric data were recorded, together with any skeletal and dental pathology, and an estimate of sex, age at death, and stature was attempted.

Site 251

Two individual skeletons, 8310941 and 8310942, were recovered from this site, neither complete, but with nearly all parts of the body represented. The former was probably a male with an estimated age at death of 20-25 years, and stature of just over 1.7 m (5'6"). The latter was possibly also male, estimated to have been over 40 years of age at death.

Incomplete dentitions were present in both cases. Skeleton 8310941 had a total of 10 maxillary and 4 mandibular teeth, the majority of which had slight calculus deposits. Only the mandible was present in skeleton 8310942, containing six teeth, several more having been lost postmortem. Cavities were visible in the roots of both second molars buccally, some 2-4 mm below the cemento-enamel junction. Despite postmortem erosion, these were considered from their appearance to have been due to caries. In addition, there was a large carious cavity in the left third molar, which would have exposed the pulp. Evidence of periodontal disease was present in the form of considerable alveolar recession around the molars, together with subgingival calculus.

Several morphological variants were recorded. 8310941 had an ossicle present at the lambda, and both individuals had wormian bones within the lambdoid suture. There was a lateral squatting facet on the left tibia of 8310941. A small accessory calcaneal bone had been present in 8310942 at the margin of the anterior facet for the talus on the left side.

The left talus of 8310941 had an oval lesion in the convex articular surface for the navicular, smooth-edged but with trabecular bone exposed in the floor. This may represent a case of osteochondritis dissecans, where a fragment of bone had become detached due to avascular necrosis, possibly due to trauma. Although the head of the talus is not the most common site for this lesion, cases are not unknown (Pappas 1981).

Evidence of degenerative joint disease was present in the cervical spine of skeleton 8310942. There was slight marginal lipping around the facet on the atlas for the dens of the axis, and slight lipping also of a further two intervertebral facets. Marginal osteophytes were present on three cervical body fragments, and in one case there was slight eburnation close to the postero-lateral lips.

Site 273

The incomplete postcranial remains of two individuals were recovered, 8413562 and 8413593, together with various eroded fragments of bone from a further 6 contexts. 8413562 was probably male, and a fragment of pubic symphysis suggests that he was a young adult. 8413593 was probably a female, also adult, with an estimated stature of 1.47 m (4'8½").

A septal aperture was present in the right humerus of 8413593, and there was a lateral squatting facet on the left tibia. The poor preservation of the material did not permit further observations.

SUMMARY

The human remains from Catterick Sites 251 and 273 were examined. Bone preservation was generally poor. Four individuals were identified, of whom all could be tentatively sexed, with age and stature estimates only possible in two cases. Dental and skeletal pathology was recorded in one individual.

Reference

Pappas, A M 1981 Osteochondrosis dissecans. Clin Orthop 158: 59-69

INDIVIDUAL SUMMARIES

Site 251

8310941

Relatively complete skeleton, more of lower half than upper. Considerable postmortem damage, loss of most longbone ends, some erosion of shafts, with splintering. Probable male, based on damaged sciatic notch, size of nuchal crest, and femoral measurements. Age ?20-25, based on very slight molar wear. Stature 170.93 cm + 2.99, using femur and tibia.

8310942

Incomplete upper half, right leg and left foot; bone very fragile and liable to splinter. Considerable postmortem breakage and loss, slight surface erosion. Possible male, based on size of nuchal crest and diameter of humerus head. Age 40+, based on considerable molar wear.

Site 273

8413562

Incomplete left arm, left innominate and both legs, in poor condition, fragmentary and eroded. Probable male, based on damaged sciatic notch and femoral measurements. Age: adult; a fragment of pubic symphysis with rugged grooved and ridged symphyseal face suggests young rather than old.

8413593

Fairly complete postcranial skeleton; bone matrix in relatively good condition, although some erosion of long bone ends, particularly lower limbs. Probable female, based on damaged sciatic notch and on humeral and femoral measurements. Age: adult, based on complete epiphyseal fusion.

8413563 - Context 266

6 small cranial vault fragments, diploe and inner table only

8413564 - Context 269

Long bone shaft fragment, possibly tibia, plus many small fragments and splinters of bone

8413574 - Context 298

Fragments of cranial vault, in very poor state of preservation

8413584 - Context 267

4 small unidentified bone fragments

8413585 - Context 115

Approximately 20 small fragments, all appear to be cranial vault.

8413586 - Context 264

Distal half of femoral shaft, badly eroded
2 unidentified fragments

METHODS

Sexing

Both morphological and metrical variables were considered when attempting to sex individuals. For the pelvis, the main morphological features observed were the width of the sciatic notch, presence or absence of a preauricular sulcus, and the shape of the sub-pubic angle of the innominates, together with the width of the first sacral vertebra in relation to the sacral alae, and the length of the auricular surface on the sacrum. For the skull, the features considered were the size of the mastoids, the size of the supraorbital ridges, the extent to which the posterior root of the zygomatic process continued beyond the external auditory meatus, and the development of the nuchal crest. In cases where the sexing criteria of pelvis and skull tended to contradict one another, the characteristics of the pelvis were preferred.

Bone measurements used for sex determination included the maximum diameter of the femur head, the bicondylar width of the femur, the maximum diameter of the head of the humerus, the epicondylar width of the humerus, and the length of the clavicle (Krogman 1978).

Ageing

Age at death for the subadult individuals was assessed from the state of tooth eruption (Brothwell 1981) and epiphyseal fusion of the bones (Gray's Anatomy 1980). For the adults, the degree of tooth wear on the molars was assessed (Brothwell 1981) together with the metamorphosis of the pubic symphysis (Ubelaker 1980), the sternal rib ends (Iscan et al 1984) and the auricular surface of the ilium (Lovejoy et al 1985).

Stature

Stature was calculated for adults only, using the formulae developed by Trotter (1970).

Brothwell, D R 1981 Digging Up Bones, 3rd edition. Oxford: Oxford University Press

Gray's Anatomy 1980 36th edition, eds P L Williams and R Warwick. Edinburgh: Churchill Livingstone

Iscan, M Y, Loth, S R and Wright, R K 1984 Metamorphosis at the sternal rib end: a new method to estimate age at death in white males. Am J Phys Anthrop 65: 147-156

Krogman, W M 1978 The Human Skeleton in Forensic Medicine. Springfield, Ill.: Charles C Thomas

Lovejoy, C O, Meindl, R S, Pryzbeck, T R and Mensforth, R P 1985 Chronological metamorphosis of the auricular surface of the ilium: a new method for the determination of adult skeletal age at death. Am J Phys Anthrop 68: 15-28

Trotter, M 1970 Estimation of stature from intact long limb bones. In Personal Identification in Mass Disasters, T D Stewart (ed), 71-83. Washington: National Museum of Natural History

Ubelaker, D R 1980 Human Skeletal Remains, 2nd edition. Washington: Taraxacum