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## 4 THE HUMAN REMAINS *by Paul Duffy*

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### 4.1 Methodology

Three separate assemblages were presented for analysis: in situ material recovered from the excavation of Context 001 (Sk 1 = SF 12), disarticulated material recovered from the excavation of the topsoil 002 (SF 1–SF 8) and disarticulated material recovered prior to excavation by Dr MacLeod. It was thought likely by the excavator that all the skeletal material belonged to the same individual, as missing elements from the in situ remains were all observed in the assemblages of disarticulated remains recovered from the disturbed topsoil above. This hypothesis was borne out through observations during analysis.

Overall methodology was applied with reference to the current IFA/BABAO standards outlined in Brickley and McKinley (2004). This report summarises the analysis of the skeletal remains recovered during the project; full osteological data and observations have been deposited as part of the site archive.

### 4.2 Results

#### 4.2.1 Minimum number of individuals

A minimum of two individuals were identified from the assemblage; one adult (Sk 1) and one infant (Sk 2). It is likely, given the consistency of bone morphology and lack of repeated elements, that the in situ adult material (Sk 1) and disarticulated adult material are from the same individual. The infant was represented by a single fragment of mandible, which was recovered from disarticulated material.

#### 4.2.2 The adult individual (Sk 1)

##### 4.2.2.1 Biological age at death

Skeletal maturity was found to be complete (28 years or older) for Skeleton 1. Third molars were present, indicating full dental maturation (18 or older) and the teeth were well worn, suggesting an age of 45 years or older. Examination of the auricular surface of the pelvis indicated a degree of wear consistent with an individual of between 50 and 59 years. An age of between 50 and 59 years at death (mature adult) is therefore suggested for the adult individual (Sk 1) based on these observations.

##### 4.2.2.2 Biological sex

The morphology of the pelvic sciatic notch and overall appearance of the mandible suggested that the adult individual was male. Metric measurements of

the glenoid fossa of the scapula supported the identification, although femoral head measurements were inconclusive. Overall morphological characteristics of the skeletal material further supported the assignment of sex as male.

##### 4.2.2.3 Metric data

Stature was calculated as 163–169 cm (5'4"–5'6"), based on measurement of the right femur and tibia.

Platymeric indices calculated for the femur shape indicate a degree of difference between the legs (83 for right, 92 for left). This may support the observation of increased loading of the right-hand side of the body. A platycnemic index for the right tibia was also calculated at 76, indicating that the tibia was broadly rounded (eurycnemic). Several reasons for such variations in the lower limb have been put forward, including mechanical stress and mineral and vitamin deficiency, but at present the utility of these observations is still open to debate (Waldron 2007, 47).

##### 4.2.2.4 Health and disease

Overall the adult showed well-developed muscle markings throughout his skeleton, with the right side showing particular muscle development, potentially indicating right-handedness. An enthesopathy was also noted at the insertion of tibialis anterior on the left tibia, although the complex aetiology of such osseous changes precludes any assignment of causal factors. Overall these observations indicate that he pursued a vigorous lifestyle and was probably well muscled.

Evidence of spinal joint disease was also noted, almost exclusively confined to the cervical portion of the spinal column. Here, osteophyte formation and porosity of vertebral bodies was noted on C2–C7, and T1, with very erosive lesions noted on the bodies of C2, C3, C5 and C7. This process had also led to the fusion of C5 and C6 at the posterior aspect of the vertebral bodies. Indications of degeneration of the bone matrix were absent and the condition is therefore probably best diagnosed as osteophytosis with associated osseous ankylosis of C5 and C6 attributed to degeneration of the intervertebral discs. The relatively advanced stage of this condition further reinforces the picture of a vigorous lifestyle and repeated spinal column stress, potentially through heavy lifting and carrying of heavy objects on the back.

Dental health was found to be good, although the mandibular teeth were highly worn. Calculus was slight where it existed, and there was a complete absence of evidence of periodontal disease, caries

or abscess formation. One tooth (right incisor 2) was found to be missing ante-mortem, although the reasons for this are unclear. The neighbouring canine was, however, rotated medially through 90 degrees, possibly a genetic trait of the individual.

Despite his age, no evidence of osteoarthritis was observed on any of the articular surfaces of the adult. This may further strengthen the suggestion that the observed spinal joint disease has a more specific cause than advanced age or a general vigorous lifestyle alone, as osteoarthritic changes

may also have reasonably been expected if general age and lifestyle were the causes.

#### 4.2.3 The infant individual (Sk 2)

No diagnostic indicators of age at death, biological sex or evidence of health and disease were identified from the single fragment of non-adult bone (Sk 2). The size of the element does, however, suggest that the individual falls into the wider age category of infant.