Appendix I: Osteoarchaeological Analysis Methodology *by Julie Roberts*

Age at death

In the immature individual, Burial 11, age at death was based on dental development and epiphyseal fusion (Ubelaker 1989; Buikstra & Ubelaker 1994). In the adult individuals, epiphyseal fusion and, where possible, standards developed for the appearance of the pubic symphysis and auricular surface of the pelvis, and the sternal end of the 4th rib, were used (Lovejoy *et al* 1985; Iscan & Loth 1986a; Iscan & Loth 1986b; Brooks & Suchey 1990). Age at death was based on molar attrition (Miles 1963) only in conjunction with other methods, or when there was no alternative. This is because tooth wear can vary greatly between populations and individuals depending on lifestyle, diet and genetic factors. Generalized degenerative change was also taken into account, but again this can be unreliable for the reasons cited above. Despite using multiple methods (including dental attrition) wherever possible, in almost all cases the ages at death estimated using methods developed since the time of the original report corresponded to those originally given by Harman, based on dental attrition alone.

Sex

Estimations of sex were based where possible on pelvic and cranial morphology (Buikstra & Ubelaker 1994). Where these elements were absent or in too poor a condition to be of use, a probable sex was assigned based on the sizes of the articular surfaces of the long bones (Bass 1995). Sexually dimorphic features do not fully develop until puberty, and as yet there are no standards for determining the sex of juveniles considered acceptable by most osteologists (Buikstra & Ubelaker 1994).

Metric data

Cranial measurements were taken in accordance with those outlined in *Standards for Data Collection from Human Skeletal Remains* (Buikstra & Ubelaker 1994). Related cranial and facial indices were calculated (after Bass 1995). Where any intact long bones were preserved, living stature was estimated using the formulae devised previously (Trotter 1970). Where preservation allowed, standard measurements of the proximal shafts of the femora and tibiae were made in order that platymeric and platycnemic indices could be calculated (standards used were after Bass 1995).

Non-metric traits

Non-metric traits are skeletal variants that cannot be measured on a metric scale, but are simply recorded as being present or absent. They are thought to be genetically or environmentally determined, and in some cases they have been linked to specific activities or occupations (Kennedy 1989). The significance of non-metric traits is debateable, but they are generally used to compare differences between population groups. Traits were recorded with reference to those compiled previously (Berry & Berry 1967; Finnegan 1978).

Pathology

The recognition of specific diseases is often dependent on the whole of the skeleton being present in order that the character and distribution of the lesions throughout the body might be observed. Even in a relatively complete skeleton, however, lack of pathology does not necessarily indicate a healthy individual. Infectious diseases may cause death quickly before bony manifestations have had time to develop, and many illnesses or traumatic injuries that might ultimately be fatal, do not affect the skeleton at all.

All elements from each burial were examined for evidence of pathology and where possible lesions were classified according to cause (Ortner & Putschar 1981; Roberts & Manchester 1997; Aufderheide & Rodriguez-Martin 1998). Differential diagnosis of pathological conditions was particularly difficult in the case of the more poorly preserved Iron Age skeletons. Where there were a sufficient number of elements, for example with the dentition and the vertebrae, disease frequency rates were calculated and limited comparisons were made between the Bronze Age and the Iron Age groups.