

Recording of Human Remains in the Bowring Vault, Dissenters Burial Ground, Exeter.

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Introduction

An articulated skeleton and a number of disarticulated bones were recorded during the work to the Bowring Vault at the dissenters cemetery, Exeter. This vault was in use between 1805-1839 (Dyer, pers. comms.), but was also disturbed during work to the cemetery in the 1980's. Due to licence restrictions the remains were not removed from the vault and were studied in situ. The vault was not fully excavated and only the exposed bones were recorded. The remains of the articulated individual were not lifted where the bones were not fully exposed, the skull and a few disturbed bones from this individual were recorded though. The bones were analysed for ageing, sexing, pathology and non-metric traits using the standards for recording human remains (Buitska and Ubelaker, 1994). Stature estimations were based on Trotter (1970).

The Human Remains

The articulated skeleton

This skeleton was orientated east-west with the head to the west and was along the south side of the vault. Several coffin nails were found associated with this individual. The lower half of the skeleton was not exposed. The bones visible were the skull, mandible, vertebral column, scapula, left and right ribs, and some arm bones. This is the skeleton of a fairly gracile individual, therefore it is difficult to ascertain the sex of the person. The mandible and certain parts of the skull have male characteristics, therefore this may be a male.

Three of the teeth from the maxilla and two of the teeth from the mandible have been lost ante-mortem and two of the mandibular teeth have caries (cavities). There is a small amount of enamel hypoplasia on the maxillary incisors. Enamel hypoplasia is best described as deficiencies (lines or pitting) in the enamel matrix composition, possibly caused by stresses such as malnutrition and disease during the formation of the enamel in childhood (Roberts and Manchester, 2010).

The disarticulated remains

Four skulls and nine other disarticulated bones were recorded (see appendix 1 for details). These come from at least four individuals, including a male and a female. Some of these bones maybe disturbed from the articulated skeleton. Pathologies noted on these bones include a large protuberance on the external surface of the left side of the occipital of skull 5, this is approximately 10cm in diameter, is roughly circular and there is porosity present on both the internal and external surfaces, this is possibly a soft tissue lesion such as a tumour. The other pathologies present are dental, these are ante-mortem tooth loss, enamel hypoplasia and caries, these kinds of dental pathologies were common in this period with some assemblages from cemeteries in London having as many as 88% of individuals with ante-mortem tooth loss. Three stature calculations were ascertained from the disarticulated remains. These are 160.7cm, 166.9cm and 167.5cm, the latter two maybe from the same individual. The male average range for the post-medieval period is 168-174cm and the female average range for the post-medieval period of 156-164cm (Roberts and Cox, 2003).

The finds

A single copper alloy pin associated with skull 4 was identified (plate 3), this was found in a small patch of dark material on the skull, this is possibly degraded textile or hair. The copper pin maybe a dress or hair pin. Five coffin nails, several coffin fragments and one piece of

curved metal possibly a coffin handle were noted. The area around skull 5 also had dark patches of decayed wood from a coffin. Several animal bones and clay pipe fragments were seen, these are likely to have been discarded into the vault after the burial of the individuals.

Conclusion

The remains of a single articulated skeleton and the disarticulated remains of at least two individuals were observed, these are from both male and female and seem to be from older rather than younger adults. Dental pathologies and a single case of trauma or pathological changes to the skull were seen on skull 1. The stature and pathologies noted are common for the period. It is not possible to ascertain which of the remains belong to which person buried in the vault, due to the disarticulated nature of the bones.

Appendix 1 – Catalogue of disarticulated remains

Skull 1 – Complete minus right zygomatic. The skull is that of an adult male (based on mastoid processes and brow ridges). The sagittal suture is closed, therefore this individual maybe a mature adult. The maxilla has four alveolar tooth sockets, the remaining teeth have been lost ante-mortem. This skull has a non-metric trait of a spicule on the left socket ($\frac{1}{2}$ occluded), non-metric traits are found normally within populations and cause no effects in life.

Skull 2 (part of articulated skeleton)

Skull 3 – This skull has the facial bones missing and only the calvarium survives. The skull is that of a female based on the mastoid processes, nuchal crest and supra-orbital margins. The sutures are fairly closed and the skull is very light, this may be the skull of an older individual, however it is not possible to be certain of this.

Skull 4 – This skull is in fragmentary condition, with only the parietals and the occipital present. Sex and age for this individual is unknown.

Skull 5 – This skull is also fairly fragmentary with only the calvarium surviving. The mastoid and nuchal crest are large therefore this individual maybe male. The sutures are all closed so it is likely this skull belonged to a mature adult.

Humerus – 1 complete right humerus. 31.3cm in length, giving a stature estimation of 166.9cm.

Ulna – 1 partial left ulna.

Radius – 1 complete radius, 21.6cm in length, giving a stature estimation of 160.7cm.

Pelvis 1 – Right ilium, ischium and pubis, complete. This pelvis has a wide sciatic notch and is likely to be female.

Pelvis 2 – left ilium and ischium. This pelvis has a narrow notch and is likely to be male.

Fibula – 1 right complete fibula, 35.7cm in length, giving a stature estimation of 167.5cm.

Other bones – 1 clavicle, 1 tibia, 1 metatarsal.

Bibliography

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Plate 1 – Burial vault with disarticulated remains



Plate 2. Articulated skeleton and skull 1 (top right)



Plate 3 – Copper Alloy pin associated with skull 4.