

**HAND-COLLECTED AND WET-SIEVED ANIMAL BONE FROM C257 CROSSRAIL  
FARRINGDON EASTERN TICKET HALL (XSF10)**

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# HAND-COLLECTED AND WET-SIEVED ANIMAL BONE FROM C257 CROSSRAIL FARRINGDON EASTERN TICKET HALL (XSF10)

## 1. Introduction and methodology

This report quantifies, identifies and interprets the animal bone recovered from hand-collected context groups [1], [3], [33] and [40]; and wet-sieved bulk samples [27] {1}, [28] {4}, [29] {5}, [32] {7} and [58] {9} at XSF10. All recovered animal bones were washed, air-dried and then bagged and labelled as context and sample groups.

Animal bone from each context was then described and recorded directly onto the Museum of London Archaeology Oracle animal bone post-assessment database in terms of species, skeletal element, age, epiphysial fusion, sex, modification and fragment count. Species and skeletal element were determined using the MOLA animal bone reference collection together with Cannon 1987; Schmid 1972; and Wheeler & Jones 1989. Interpretation of age at death was derived from epiphysial fusion (Schmid 1972) and dental eruption and wear (Amorosi 1989; and Payne 1973). As far as possible, each bone fragment was assigned to species and skeletal element and recorded individually. Unidentifiable fragments of vertebra and rib were assigned to the approximate category 'cattle-sized' or 'sheep-sized' as appropriate. In addition to the Oracle database records, the complete sitecode assemblage is also recorded and summarised as Excel Tables 1 and 2 for future reference and to allow comparison with available stratigraphic data.

Table 1 shows the overall assemblage summary in terms of quantification, fragmentation, preservation and general faunal group representation in terms of large mammals, small mammals, fish, birds and amphibians.

Table 2 shows the faunal composition of each context and sample group in terms of identifiable species, skeletal element, age-group, fragment counts, sex and evidence for modification; butchery, working, burning, gnawing and pathological changes.

All data are available for consultation on request on the Museum of London Archaeology Oracle animal bone post-assessment database.

## 2. Preservation and quantification (Table 1)

A total of 2.710 kg/79 fragments, one standard archive box, of well-preserved animal bone were recorded from hand-collected and wet-sieved contexts. Maximum hand-collected fragment size generally exceeded 75mm, with most bone in very good surface condition, and all tool marks, modification evidence, tooth wear, fusion lines and measurement points clearly visible. Preliminary dating evidence available at time of writing indicates late medieval/early post-medieval dates for [1], [3], [27], [28], [32], [33] and [58].

## 3. The fauna (Table 2)

The identifiable faunal assemblage derived mainly from the major domesticates; particularly ox (cattle) *Bos taurus* and sheep/goat including sheep *Ovis aries*, with a very much smaller component of pig *Sus scrofa*. Recovery of poultry was limited to a single humerus (upper wing) of chicken *Gallus gallus* from [27] {1} and a juvenile chicken innominate (pelvis) from [29] {5}. Non-consumed domesticates were represented by occasional recovery of dog *Canis lupus familiaris* and cat *Felis catus* only, with no recovery of horse *Equus caballus*. Wild 'game' species were represented only by a humerus of adult rabbit *Oryctolagus cuniculus* from [28] {4}. There was no recovery of scavengers or small wild vertebrates such as amphibians,

insectivores or rodents. The remainder of the assemblage largely comprised fragments of unidentifiable 'cattle-sized' and 'sheep-sized' vertebra and rib.

A human rib was recovered from [1] only.

Wet-sieved samples also produced a small assemblage of marine/estuarine fish including herring *Clupea harengus*, cod family Gadidae and plaice/flounder Pleuronectidae.

Although the majority of the major domesticated assemblage derived from animals in at least young adulthood, there was also relatively minor recovery of calves from [1], [33] and [40] and juvenile sheep/goat from [27] {1} and [40]. In general, non-consumed domesticates; dog and cat, were represented by adults.

Clear evidence of butchery was noted on cattle bones from the majority of contexts and to a lesser extent, on sheep/goat and pig. Chop marks were predominant, with no recorded use of knives or saws. An adult sheep horn core from [3] had been chopped at the base, probably in preparation for removal of the horn sheath as a raw material. There was no evidence for bone-working, burning, gnawing or pathological change.

There was no evidence for gnawing, burning or pathological change.

Hand-collected context groups ranged between 0.450 kg-0.950 kg/fragment counts 5-10; wet-sieved sample groups between 0.005-0.075 kg/fragment counts 1-25. Hand-collected contexts [1]; and wet-sieved samples [29] {5} and [32] {7} produced the largest assemblages.

### 3. The groups (Tables 1 and 2)

Context [1] produced 0.650 kg/ten fragments derived mainly from cattle, with a single human rib, a sheep/goat femur (thigh bone), and adult male pig mandible (lower jaws) and a pig radius (lower fore-leg). The cattle group included fragments of cattle-sized rib, calf cervical (neck) vertebra, adult metacarpal (fore-foot) and adult male innominate (pelvis).

Context [3] produced 0.950 kg/nine fragments derived largely from cattle and sheep/goat with a single adult radius (lower fore-leg) of cat. The cattle group included single fragments of thoracic (upper vertebra), rib, humerus (upper fore-leg), tibia (shin) and adult metatarsal (hind-foot); sheep/goat included an adult sheep horn core, sheep/goat tibia (shin) and adult metatarsal (hind-foot). The sheep horn core had been chopped transversely at the base, probably as preliminary preparation for removal of the horn sheath for further manufacture.

Context [27] sample {1} produced 0.050 kg/eight fragments derived from single fragments of adult chicken humerus (upper wing), ox (cattle)-sized rib, juvenile sheep/goat cervical (neck) vertebra, dog atlas and axis (neck) vertebrae and juvenile metapodial (foot).

Context [28] sample {4} produced 0.005 kg/two fragments; a single fragment of sheep-sized rib and an adult rabbit humerus (upper fore-leg).

Context [29] sample {5} produced 0.050 kg/25 fragments derived from marine/estuarine fish, poultry and sheep/goat. The fish group included herring dentary (lower jaw) and vertebrae of cod (family) and plaice or flounder. Poultry comprised a juvenile chicken innominate (pelvis); sheep/goat included an adult mandible (lower jaw) and a fragment of rib. Dental evidence from the sheep/goat mandible indicates an adult animal in the fourth year of life.

Context [32] sample {7} produced 0.075 kg/12 fragments derived from plaice/flounder vertebra and supracleithrum (gill area); cattle thoracic (upper back); sheep/goat thoracic and lumbar (upper and lower back), rib and adult male innominate (pelvis).

Context [33] produced 0.450 kg/five fragments derived from calf cervical (neck) vertebra, adult cattle scapula (shoulder blade); and pig skull.

Context [40] produced 0.450 kg/seven fragments derived from infant calf maxilla (upper jaw) and adult metatarsal (hind-foot); sheep skull (with horn cores), sheep/goat third mandibular (lower jaw) and juvenile tibia (shin); and complete paired adult dog innominates (pelves).

Context [58] sample {9} produced 0.030 kg/a fragment of ox (cattle)-sized skull.

*Table 1: Hand-collected and wet-sieved animal bone from XSF10/summary*

*Table 2: Hand-collected and wet-sieved animal bone from XSF10/detailed summary*

#### **4. Interpretation**

This small but very well-preserved assemblage is composed of waste from three probable sources; each of these components has some potential for further analysis and interpretation.

1. A small group of head and foot elements derived from primary processing of cattle, sheep/goat and pig carcasses. Virtual absence of horn cores except for single sheep examples from [3] and [40] suggests that these elements were generally removed for primary horn-processing elsewhere; although the horn core from [3] had been chopped transversely at the base suggesting preliminary preparation for removal of the horn sheath for further manufacture. The complete absence of phalanges (toe bones) may suggest that they were removed attached to hides after skinning of the carcasses.

2. Butchery and post-consumption waste provide the bulk of the hand-collected and wet-sieved assemblage. Cattle and sheep/goat head, vertebrae and limb long-bones provide the bulk of the assemblage indicating a meat diet biased heavily towards beef and, probably, mutton from carcass areas of prime meat-bearing quality; vertebrae; upper and lower fore- and hind-leg probably suggesting some degree of affluence and economic status. Evidence from epiphyseal fusion indicates negligible selection of infant cattle and sheep/goat suggesting little consumption of veal. This was less commonly noted from sheep/goat suggesting that lamb was a less important dietary component. By comparison, the very sparse recovery of juvenile and adult pig bones suggest only occasional consumption of pork. Poultry, specifically chicken, also provided only a very occasional component of the diet with single bones from [27] {1} and [29] {5}; but with no recovery of goose or duck. An adult rabbit humerus from [28] {4} provided the only evidence for consumption of wild 'game' species. The wet-sieved bulk samples indicated consumption of a limited fish diet exploiting marine/estuarine species only; herring, cod family and plaice/flounder, all of which are economically important and commercially available from the outer Thames estuary and associated coastal waters.

3. Sparse recovery of adult and juvenile dog from [27] {1} and [40]; and an adult cat from [3] indicates very limited disposal of non-consumed domesticates. Again, neither of these species showed knife-cuts linked to hide removal and there is no evidence that they represent anything other than occasional carcass disposal.

Analysis of the assemblage with reference to full stratigraphic data and feature descriptions, would allow more detailed interpretation with particular respect to meat diet including selection of species, carcass-part, age-group and butchery tools and techniques.

## **5. Bibliography**

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## **6. Table**

*Table 1: Hand-collected and wet-sieved animal bone from XSF10/summary*

*Table 2: Hand-collected and wet-sieved animal bone from XSF10/detailed summary*