

**Technical Report: Biological remains from a site at Poplar Farm,  
Dunswell, East Riding of Yorkshire (site code: TSEP905)**

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**Summary**

*Three sediment samples and a small quantity of hand-collected bone from deposits revealed by excavations at Poplar Farm, Dunswell were initially submitted for an evaluation of their bioarchaeological potential. Preliminary assessment of artefacts recovered from the site had suggested a Bronze Age date for the deposits. The few biological remains recovered from the sediment samples were mostly modern and provided no justification for further bioarchaeological analysis.*

*Part of an articulated cow skeleton was recovered from Context 10005; preliminary study showed it to be consistent in size with that of a female aurochs (*Bos primigenius Bojanus*). However, material sent for radiocarbon dating produced a medieval or post-medieval date. The skeleton is, therefore, extremely unlikely to represent an aurochs and presumably represents a late intrusion into a prehistoric layer.*

**Keywords:** POPLAR FARM; DUNSWELL; EAST RIDING OF YORKSHIRE; PREHISTORIC; PLANT REMAINS; VERTEBRATE REMAINS

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15<sup>th</sup> March 2002

## Technical Report: Biological remains from a site at Poplar Farm, Dunswell, East Riding of Yorkshire (site code: TSEP905)

### Introduction and methods

Three sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992) and a small quantity of hand-collected bone from deposits revealed by excavations at Poplar Farm, Dunswell were initially submitted to the Environmental Archaeology Unit for an evaluation of their bioarchaeological potential. Preliminary assessment of artefacts recovered from the site had suggested a Bronze Age date for the deposits. The few biological remains recovered from the sediment samples were mostly modern and provided no justification for further bioarchaeological analysis.

The following report details the work undertaken during the evaluation phase.

#### *Sediment samples*

The sediment samples were inspected in the laboratory. Two of the samples (probably from the same lithostratigraphic unit) were selected for further investigation and their lithologies were recorded, using a standard *pro forma*, prior to processing for recovery of plant and invertebrate macrofossils, following the procedures of Kenward *et al.* (1980; 1986). The washovers and residues were examined for plant remains. The washovers were also examined for invertebrate remains, and the residues were examined for other biological and artefactual remains.

Table 1 shows a list of the processed samples and notes on their treatment.

#### *Vertebrate remains*

Data for the vertebrate remains were recorded electronically directly into a series of tables using a purpose-built input system and *Paradox* software. For each context (or sample) subjective **Context 10005** [layer with Bronze Age pottery and flint]

records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Additionally, semi-quantitative information was recorded concerning fragment size, dog gnawing, burning, butchery and fresh breakage. Elements were recorded using the diagnostic zones method described by Dobney and Rielly (1988).

Where possible, fragments were identified to species or species group, using the reference collection at the EAU. Measurements followed von den Driesch (1976), whilst withers height estimates for cattle are those detailed by Fock (1966)

### Results

#### *Sediment samples*

The results are presented in context number order. Archaeological information, provided by the excavator, is presented in square brackets.

**Context 7003** [dark layer thought to be a continuation of deposit 10005 (below) in a different trench]

Sample 2/BS (12 kg sieved to 300 microns with washover)

Just moist, mid gingery-brown, crumbly (working sticky when wet), slightly sandy silty clay with small pieces of flint (6 to 20 mm, perhaps flakes) present. Root traces or invertebrate burrows were noted, as was a modern contaminant seedling.

The moderate-sized residue of about 1300 cm<sup>3</sup> was mostly sand and gravel. The small washover was mainly modern root and root bark with a trace of charcoal (to 5 mm) and modern chickweed (*Stellaria media* (L.) Vill.) seeds.

Sample 4/BS (11 kg sieved to 300 microns with washover)

Just moist, light to mid slightly grey-brown, stiff to crumbly (working sticky when wetted), slightly sandy silty clay. Charcoal and small fragments (2 to 6 mm) of rotted sandstone were present.

The moderate-sized to large residue of about 1300 cm<sup>3</sup> consisted of sand and gravel; the washover of about 50 cm<sup>3</sup> was mostly sand with a little charcoal (to 10 mm) and modern root fragments.

#### *Vertebrate remains*

Vertebrate material, amounting to 64 fragments, was recovered from two deposits, Contexts 8003 and 10005.

Sixty-three of the fragments were recovered from Context 10005, and represented part of an articulated cow skeleton. Preservation was moderately good, although the bones were quite fragile and the surface of some was broken off, giving a layered appearance. Fresh break damage was extensive. The skeleton included left and right scapula fragments, a right distal radius with unfused epiphysis, a right metacarpal, also with unfused distal epiphysis, a residual metapodial, right hand side carpals, and a set of first, second, and third phalanges. Several cervical and thoracic vertebrae were also noted, together with a single upper deciduous premolar (which may not be from the same individual) and a small burnt unidentified fragment.

The excavator had suggested, based on archaeological information available at the time, that this (part) skeleton lay beneath a silt layer of possible Bronze Age date. Subsequent radiocarbon dating of the bones has produced an early post-medieval date: AD 1430 to 1640 (Cal BP 520 to 310, Beta-163548). The remains were not from an adult cow, and epiphysial fusion data suggests that the individual was less than two years old. Although not fully grown, measurements were taken on the metacarpal, which produced an estimated withers height of 1.41m. Details of the vertebrate remains can be Kenward, H. K., Engleman, C., Robertson, A., and Large, F. (1986). Rapid scanning of urban archaeological deposits for insect remains, *Circaea* **3**, 163–172.

found in Tables 2-4.

## Discussion

The few remains recovered from the sediment samples were mostly modern and provided no justification for further bioarchaeological investigation of the deposits.

The bovid remains from Context 10005 (and 'spoil') were of post-medieval date and represented a large individual of less than two years in age. No evidence of butchery was observed on the bones and no obvious cause of death was apparent.

## Acknowledgements

The authors are grateful to Ken Steedman of Humber Field Archaeology for providing the material and the archaeological information and to Beta Analytic Inc. for providing the radiocarbon date. AH thanks English Heritage for permission to undertake the work.

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*Table 1: List of sediment samples from excavations at Poplar Farm, Dunswell (TSEP905), processed in the EAU, with notes on their treatment.*

<b>Context</b>	<b>Sample</b>	<b>Notes</b>
7003	2	12 kg sieved to 300 microns with washover
10005	4	11 kg sieved to 300 microns with washover

Table 2. Part cow skeleton recovered from Poplar Farm, Dunswell, East Riding of Yorkshire (TSEP905).

Key: Bone Id = reference number in database; Frags. = total number of fragments; GT50 = greater than 50% of a particular zone is represented; LT50 = less than 50% of a particular zone is represented; P/FUS = proximal fusion; pf = proximal epiphysis fused; D/FUS = distal fusion; du = distal epiphysis unfused; df = distal epiphysis fused; spoil = unstratified material from spoil from pits – appears to be fragments from the same cattle burial as found in Context 10005.

Bone Id	Context	Element	Frags.	Side	GT50	LT50	P/FUS	D/FUS	Notes
1	10005	metacarpal	1	r	12345678			du	Single bone with epiphysis unfused. Bone quite fragile - damaged surface - layered appearance.
2	10005	scapula	1	l	1234	5		df	Layered appearance to bone, flaking surface and fresh breakage. Measured but estimate because of damage.
3	10005	scapula	1	r	4567	9			Layered surface as with other bones. Although main part of bone quite solid, edges are freshly broken and quite fragile.
4	10005	radius	1	r	349XJ			du	Shaft and distal epiphysis - unfused. Measured despite not being quite adult.
5	10005	1 <sup>st</sup> phalanx	2	b	123		pf		
6	10005	2 <sup>nd</sup> phalanx	2	b	123		pf		
7	10005	3 <sup>rd</sup> phalanx	2	b	12				
8	10005	carpal	6	r					Set of carpals - all right hand side
9	10005	metapodial	1						Lateral metapodial
10	10005	isolated teeth	1						Deciduous upper premolar

<b>Bone Id</b>	<b>Context</b>	<b>Element</b>	<b>Frag.</b>	<b>Side</b>	<b>GT50</b>	<b>LT50</b>	<b>P/FUS</b>	<b>D/FUS</b>	<b>Notes</b>
11	spoil	humerus	1	r	356	4		df	Fused distal articulation, but no shaft remaining - fresh breakage
12	spoil	ulna	1	r	BCDE				Rather poorly preserved - bone surface damaged - layered
13	spoil	radius	1	r	2	15	pf		

*Table 3. 'Unidentified' fraction of the vertebrate remains recovered from deposits at Poplar Farm, Dunswell, East Riding of Yorkshire (TSEP905). Key: those fragments recorded as large mammal from Contexts 10005 and spoil are assumed to be part of the cow skeleton.*

<b>Context</b>	<b>Category</b>	<b>Element type</b>	<b>Fragment count</b>	<b>Notes</b>
10005	large mammal	cervical vertebrae	4	all unfused
10005	large mammal	rib	2	including 1 articular end
10005	large mammal	unidentified	12	small freshly broken fragments - includes 1 burnt fragment
10005	large mammal	vertebrae - misc	29	unfused epiphyses
4000	large mammal	rib	3	eroded bone surfaces
8003	large mammal	shaft	1	very eroded - probably humerus fragment
spoil	large mammal	rib	1	articular end
spoil	large mammal	sacrum	1	unfused
spoil	large mammal	thoracic vertebrae	3	all unfused
spoil	large mammal	vertebrae - misc	21	broken/fresh breaks



*Table 4. Measurements (in mm) taken from the vertebrate remains recovered from deposits at Poplar Farm, Dunswell, East Riding of Yorkshire (TSEP905). Key: GL = greatest length; Bp = breadth at proximal epiphysis; Dp = depth at proximal epiphysis; SD = smallest breadth of diaphysis; Bd = breadth at distal epiphysis.*

<b>Context</b>	<b>Category</b>	<b>Element</b>	<b>GL</b>	<b>Bp</b>	<b>Dp</b>	<b>SD</b>	<b>Bd</b>
10005	cow	metacarpal (unfused)	230	71.15	44.04	37.53	-
10005	cow	radius	-	-	-	-	90.12
spoil	cow	humerus	-	-	-	-	89.25