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**Evaluation of biological remains from excavations associated with a pipeline for the Melton Waste Water Treatment Works, at Low Common Lane, Melton, East Riding of Yorkshire (site code: BMP03)**

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**Evaluation of biological remains from excavations associated with a pipeline for the Melton Waste Water Treatment Works, at Low Common Lane, Melton, East Riding of Yorkshire (site code: BMP03)**

by

John Carrott, Allan Hall, Deborah Jaques, Kathryn Johnson and Harry Kenward

**Summary**

*Sediment samples from 27 contexts, a small quantity of hand-collected shell and four boxes of hand-collected bone, recovered from deposits encountered during excavations at Low Common Lane, Melton, East Riding of Yorkshire, were submitted for an evaluation of their bioarchaeological potential. Most of the deposits were assigned to one of three phases of Roman activity. Seven samples were selected for evaluation.*

*The plant remains recovered were of limited interpretative value except inasmuch as the silicified material probably points to the burning of a mass of hulled grains, and this is entirely consistent with the nature of Contexts 39 (fill of flue of T-shaped kiln) and 146 (burnt deposit). Certainly they imply either that the kiln was used for drying grain, or that a mass of grain was used as fuel. The traces of insect and the remains of the burrowing land snail *Cecilioides acicula* are most likely all to be modern. The other mollusc remains recovered from the samples were a mixture of dry and damp grassland forms, with some taxa also able to exploit shadier habitats in woodland or scrub.*

*Almost all of the hand-collected shell was of rather poorly preserved oyster from deposits of Roman date. The small quantity of remains recovered, and their generally poor condition, renders the assemblage of little interpretative value. However, it seems most likely that the oyster shell derives from human food waste.*

*The deposits produced a small, but largely well preserved, assemblage of bone dominated by the remains of the major domesticates. Skeletal element representation suggested that the remains were mostly butchery waste, from both primary and secondary carcass preparation, although a component of domestic refuse was indicated by the presence of some bird and hare remains. The butchery techniques noted were typical of Roman vertebrate assemblages and comparable to other sites in the region.*

*No further analysis of the sediment samples or the remains recovered from them is warranted. Well preserved vertebrate material from rural sites of Roman date is unusual and, although this is not a large assemblage, the data from the hand-collected bones could provide a valuable contribution to any synthetic projects carried out in the region.*

**KEYWORDS:** LOW COMMON LANE; MELTON; EAST RIDING OF YORKSHIRE; EVALUATION; PRE-ROMAN; ROMAN; SILICIFIED PLANT REMAINS; CHARRED PLANT REMAINS; CHARRED GRAIN; INVERTEBRATE REMAINS; INSECT REMAINS (MODERN); OYSTER (*OSTREA EDULIS* L.); VERTEBRATE REMAINS

Contact address for authors:

Prepared for:

Palaeoecology Research Services  
Unit 8  
Dabble Duck Industrial Estate  
Sildon  
County Durham DL4 2RA

Northern Archaeological Associates  
15 Redwell Court  
Harmire Road  
Barnard Castle  
County Durham DL12 8BN

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## Evaluation of biological remains from excavations associated with a pipeline for the Melton Waste Water Treatment Works, at Low Common Lane, Melton, East Riding of Yorkshire (site code: BMP03)

### Introduction

The site at Low Common Lane was discovered in the course of a watching brief during stripping prior to insertion of a pipeline between the pumping station at Brough-on-Humber and the new waste water treatment works at Melton, East Riding of Yorkshire (SE 963 254). The site was situated just to the north of a slight eminence in an otherwise low-lying area on the north bank of the Humber and ground water was encountered at about 0.7 m below the stripped surface. Truncation of the archaeological deposits was evident, not least through the partial removal of the southern end of the Roman road.

Three phases of Roman activity (Phases 2 to 4, with Phase 3 accounting for the greatest number of features) were identified. A later phase of modern activity (Phase 5) and an earlier, pre-Roman, phase (Phase 1) were also detected. A number of features remained unphased.

Sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992) from 27 contexts, a small quantity of hand-collected shell (approximately 8 litres) and four boxes of hand-collected bone, were recovered from the deposits and submitted to PRS for an evaluation of their bioarchaeological potential.

### Methods

#### *Sediment samples*

The sediment samples were inspected in the laboratory. Seven were selected for evaluation (selection of the samples and subsequent processing was undertaken in advance of the archaeological information being available

and, as a result, one subsample was taken from a modern context – Context 12) and their lithologies recorded using a standard *pro forma*. Subsamples were processed, following the procedures of Kenward *et al.* (1980; 1986), for the recovery of biological remains.

The washovers resulting from processing were examined for plant and invertebrate macrofossils. In all cases, the washovers were examined wet; all but one then being dried before being re-checked. The residues were dried and examined for larger plant macrofossils and other biological and artefactual remains.

#### *Hand-collected shell*

Brief notes were made on the preservational condition of the hand-collected shell and the remains identified to species where possible. For oyster (*Ostrea edulis* L.) shell additional notes were made regarding: numbers of left and right valves; evidence of having being opened using a knife or similar implement; measurability of the valves (though measurements were not taken as part of this evaluation); damage from other marine biota (polychaet worms and dog whelks); encrustation by barnacles. Preservation was recorded subjectively on two four-point scales for erosion and fragmentation as: 0 – none; 1 – slight; 2 – moderate; 3 – severe.

#### *Hand-collected vertebrate remains*

For the hand-collected vertebrate remains that were recorded, data were entered directly into a series of tables using a purpose-built input system and *Paradox* software. Records were made concerning the state of preservation, colour of the fragments, and the appearance of

broken surfaces ('angularity'). Other information, such as fragment size, dog gnawing, burning, butchery and fresh breaks, was noted, where applicable.

Fragments were identified to species or species group using the PRS modern comparative reference collection. The bones which could not be identified to this level were described as the 'unidentified' fraction. Within this fraction fragments were grouped into a number of categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal (assumed to be caprovid, pig or small cervid), and totally unidentifiable. These last groups are represented in Table 3 by the category labelled 'unidentified'.

## Results

### *Sediment samples*

The results of the investigations of the sediment samples are summarised in Table 1.

As far as the plant macrofossils are concerned, small amounts of charred (and in some cases silicified) cereal remains were present in all but one of the samples, though preservation of charred grains and chaff was rarely very good.

The traces of insect remains and the remains of the burrowing land snail *Cecilioides acicula* are most likely all to be modern. Two samples from Roman (Phase 3) deposits (Contexts 39 and 146) also gave small assemblages of other land snails. These other snails (and one or two individuals from three further contexts) are rather less likely to be intrusive and perhaps offer some information on the past ecology of the site.

### *Hand-collected shell*

A small quantity of hand-collected shell (approximately 8 litres) was submitted. With the exception of a single periwinkle (*Littorina littorea* (L.)) from Context 15, all of the small quantity of shell was oyster valves recovered from 16 contexts (two unphased and 14 from Roman deposits – three Phase 2 and 11 Phase 3). Individual context assemblages were, in the main, of only a few valves, the exceptions being those from Context 15 (1160 g, a general cleaning layer of Phase

3) – which accounted for almost half (by weight and counts) of the shell from the site – and Context 77 (576 g, unphased layer). Most of the valves were rather poorly preserved being both eroded (average context erosion score 2.7) and moderately fragmented (average fragmentation score 1.6). The presence of small flakes of shell in many of the bags shows that the material is continuing to deteriorate.

Approximately 94% of the valves could be identified as either left or right valves but, less than 17% of the valves for which 'side' could be determined were measurable (though measurements were not taken as part of this assessment). Evidence of the oysters having been opened using a knife or similar implement (as shown by 'V'- or 'W'-shaped notches on the shell margins) was noted on up to 20% of the valves. There was very little evidence of damage to the valves (e.g. polychaet worm burrows, dog whelk holes) or encrustation (e.g. by barnacles) by other marine biota. Up to 24% of the valves showed some fresh breakage presumably caused during excavation.

Summary information for the hand-collected shell assemblage is presented as Table 2.

### *Hand-collected vertebrate remains*

Four boxes of hand-collected bone (each box of approximately 18 litres) were submitted for evaluation. Vertebrate material was recovered from 33 contexts and amounted to 1228 fragments. A large proportion of the remains (1038 fragments) were from deposits of Roman date, representing two of the phases (Phases 2 and 3) of activity dating to this period. The additional 190 fragments were from nine contexts which could not be phased because of an absence of stratigraphic and/or artefactual evidence.

Material from Context 15, a general cleaning layer, accounted for two of the boxes of bones, and just over half of the total number of fragments recovered. This assemblage was assigned to Phase 3 and, according to the archaeological information supplied by the excavator, the assemblage was associated with structures and occupation deposits.

Preservation of the bones was recorded as good or fair, with only material from a single deposit (Context 77) being recorded as of variable preservation and angularity (nature of the broken edges). Fresh breakage was evident throughout, but was particularly noticeable within material from Context 15. Generally, fragmentation was low, with most fragments being between 50 and 200 mm in maximum dimension. Burnt bones were rarely encountered, and evidence for dog-gnawing was minimal. Some mixing of the deposits is

suggested by the presence of human remains in several contexts (e.g. Context 39).

Many of the cattle bones from Contexts 15 and 107 showed butchery marks and the numerous unidentified fragments from these deposits probably results from the extensive chopping of the bones. This systematic butchery has been interpreted as evidence for the exploitation of marrow and marrow fat (Dobney *et al.* 1996). Several crania, both pig (Context 23) and caprovid (Context 27), had been split longitudinally, whilst a horse mandible had clearly been chopped to separate the two sides of the jaw. Additionally, a horse humerus fragment from Context 15 showed both chop and knife marks on the shaft. This may suggest the occasional consumption of horse meat, but could also represent the disarticulation of carcasses for disposal or for feeding to dogs. Knife marks were also visible on some of the bird bones. A large red deer antler fragment, the main beam of which had been chopped/sawn, may be an indication of craft activities. Antler would have been used for the manufacture of tools and personal items such as combs.

A range of species were identified (Table 3) from these deposits, which typically included the major (cattle, caprovids and pigs) and minor (horse, dog and cat) domestic mammals. Caprovid remains were recovered in almost equal quantities to cattle, whilst pig remains were also relatively numerous. Counts for both pigs and caprovids were exaggerated by the presence of numbers of isolated teeth, however. Other skeletal elements which were common for all the main domesticates were mandibles, and, for cattle and caprovids, tibiae were abundant.

Wild mammals were represented by single fragments of roe and red deer and hare, whilst birds, including goose, chicken and duck were also recorded.

An appreciable number of the identifiable fragments were measurable (77) and there were 21 mandibles with teeth *in situ*.

## Discussion and statement of potential

The plant remains are of limited interpretative value except inasmuch as the silicified material probably points to the burning of a mass of hulled grains, and this is entirely consistent with the nature of Contexts 39 (fill of flue of T-shaped kiln) and 146 (burnt deposit). Certainly they imply either that the kiln *was* used for drying grain, or that a mass of grain was used as fuel. Similar material is recorded from time to time in the region, the

nearest finds to that at Melton being from Roman deposits at Welton Wold (Robinson and Straker 1990)—also from the flue of a T-shaped drier—and at a site NE of Goodmanham (on the route of the Teesside-Saltend Ethylene Pipeline: Hall *et al.* 2003)—from a ditch fill of Roman date.

The mollusc remains (mainly the small assemblages from Contexts 39 and 146) were a mixture of dry and damp grassland forms, with some taxa also able to exploit shadier habitats in woodland or scrub. As remarked in connection with certain of the plant assemblages (above), the snail assemblages were similar in both size and composition to those recovered from a site north-east of Goodmanham (Hall *et al.* 2003). Some other nearby and contemporary sites have also produced snail assemblages of similar character but of significantly greater size (e.g. previous work around Melton, Carrott *et al.* 1999; Carrott 2002, and at Elloughton, Hall *et al.* 2002), all indicating a similar landscape. Given the natures of Contexts 39 and 146—kiln flue and burnt deposit, respectively—and their content of plant remains, it seems more likely that at least some of the mollusc taxa present were transported to these deposits (perhaps with the plant material) than that the fauna might be wholly autochthonous.

Almost all of the hand-collected shell was of rather poorly preserved oyster from deposits of Roman date. The small quantity of remains recovered, and their generally poor condition, renders the assemblage of little interpretative value. However, it seems most likely that all of the oyster shell derives from human food waste.

The deposits at this site produced a small, but largely well preserved assemblage of bone. Not surprisingly, the major domesticates formed the bulk of the assemblage, with caprovid remains being as numerous as cattle. Skeletal element representation suggested that the remains were mostly butchery waste, from both primary and secondary carcass

preparation, although a component of domestic refuse was indicated by the presence of the bird and hare remains. The butchery techniques noted at this site are typical of Roman vertebrate assemblages and have also been recorded elsewhere in the region, e.g. Welton Road, Brough (Hamshaw-Thomas and Jaques 2000), Tanner Row, York (O'Connor 1988).

Many of the identified fragments and those of use for providing age-at-death and biometrical data were from Context 15, the general cleaning layer. For the current vertebrate assemblage to be of any more than limited value, the integrity of this layer would have to be established, given that Context 15 does not represent a discrete deposit or feature.

## Recommendations

No further analysis of the sediment samples or the remains recovered from them is warranted.

Well preserved vertebrate material from rural sites of Roman date is unusual and, although this is not a large assemblage, the data from the hand-collected bones could provide a valuable contribution to any synthetic projects carried out in the region. Therefore, providing dating is sufficiently reliable, the hand-collected vertebrate remains deserve further consideration; a basic archive should be recorded for the current assemblage, including biometrical and age-at-death data. These remains do show the potential of the deposits in this area for preserving bone and this should be borne in mind if further excavation is undertaken.

## Retention and disposal

The hand-collected vertebrate material should be retained. Unless there are further archaeological questions to be pursued, the remaining sediment samples and the hand-collected shell assemblage may be discarded.

## Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

## Acknowledgements

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## References

- Carrott, J. (2002). Evaluation of biological remains from excavations at Melton (A63), East Riding of Yorkshire (site code: MTN02). *PRS* 2002/36.
- Carrott, J., Kenward, H. and Milles, A. (1999). *The molluscs*, pp. 58-61 in Bishop, M. C., An Iron Age and Romano-British 'Ladder' settlement at Melton, East Yorkshire. *Yorkshire Archaeological Journal* 71, 23-63.
- Dobney, K., Hall, A. R., Kenward, H. K. and Milles, A. (1992). A working classification of sample types for environmental archaeology. *Circaea, the Journal of the Association for Environmental Archaeology* 9 (for 1991), 24-6.
- Dobney, K., Jaques, D. and Irving, B. (1996). Of butchers and breeds. Report on vertebrate remains from various sites in the City of Lincoln. *Lincoln Archaeological Studies* 5, vi + 215 pp.
- Hall, A., Jaques, D. and Carrott, J. (2002). Evaluation of biological remains from excavations at Elloughton, East Riding of Yorkshire (site code: OSA01WB33). *PRS* 2002/41.

Hall, A., Jaques, D. and Carrott, J. (2003). Technical Report: Biological remains from a site north-east of Goodmanham, East Riding of Yorkshire (site code: TSEP907). *Reports from the Centre for Human Palaeoecology, University of York* **2003/01**, 31pp. + 22pp. appendix.

Hamshaw-Thomas, J and Jaques, D., with contributions by Carrott, J., Dobney, K., Hall, A., Issitt, M., Johnstone, C., and Large, F. (2000). *The environmental evidence*, in Hunter-Mann, K., with Darling, M. J. and Cool, H.E.M., Excavations on a Roman Extra-Mural Site at Brough-on-Humber, East Riding of Yorkshire, UK. *Internet Archaeology* **9**, Section 6. (<http://intarch.ac.uk/journal/issue9/brough/eaurep.html>)

Kenward, H. K., Hall, A. R. and Jones, A. K. G. (1980). A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits. *Science and Archaeology* **22**, 3-15.

Kenward, H. K., Engleman, C., Robertson, A. and Large, F. (1986). Rapid scanning of urban archaeological deposits for insect remains. *Circaea* **3**, 163-172.

O'Connor, T. P. (1988). Bones from the General Accident Site, Tanner Row. *The Archaeology of York* **15** (2), 61-136 + plates III-VII. London: Council for British Archaeology.

Robinson, M. A. and Straker, V. (1990). Silica skeletons of macroscopic plant remains from ash, pp. 3-13 in Renfrew, J. M. (ed.), *New light on early farming. Recent developments in palaeoethnobotany*. Edinburgh: University Press.

Table 1. Low Common Lane, Melton, East Riding of Yorkshire: Comments on the processed sediment samples and the plant, invertebrate and vertebrate remains recovered from them, in phase and context order.

Phase	Context	Sample	Description	Comments
1 (pre-Roman)	4 (fill of gully 003)	401	Moist, mid to dark grey-brown to dark grey, crumbly (working soft), slightly sandy clay silt. Stones (6 to 20 mm, including flint), ?mortar (rotted) and ?charcoal (rotted) were present.	The small washover consisted of about 30 ml of crumbly charcoal (up to 10 mm in maximum linear dimension) and modern woody root fragments. There were also a few very poorly preserved charred cereal grains, amongst which specimens of wheat ( <i>Triticum</i> ), barley ( <i>Hordeum</i> ) and oats ( <i>Avena</i> ) could be discerned. Also present were some fragments of unidentified snail shell and traces of ?amphibian bone. Thirty tiny fragments of bone (all less than 15 mm in maximum dimension) were recovered from the residue. Preservation was not particularly good and most fragments were somewhat battered in appearance. A few fragments were burnt. Several bones were identified as small mammal remains, but more specific identification could not be determined.
	6 (fill of gully 005)	601	Moist, mid grey to mid grey-brown, crumbly and slightly sticky (working soft and somewhat plastic), slightly stony, slightly sandy clay silt to silty clay. Stones (2 to 6 mm and 20 to 60 mm) and ?charcoal were present.	The washover of about 10 ml was mainly undisaggregated (perhaps slightly concreted) sediment, with a little charcoal (to 10 mm and including material of oak, <i>Quercus</i> ), poorly preserved cereal grains (including barley and ?bread/club wheat, <i>Triticum</i> cf. ' <i>aestivo-compactum</i> '), traces of charred weed, amphibian bone, and some uncharred herbaceous detritus which might well be of recent origin. This sample produced a small assemblage of mostly well-preserved bone, amounting to 34 fragments. A single caprovid first phalanx, slightly damaged by acid etching, was identified, together with a few (7) amphibian fragments. All other bones were unidentified.
3 (Roman)	30 (fill of ditch 028)	3001	Waterlogged, light to mid grey-brown, sticky, very stony, slightly sandy clay silt. Stones (2 to 60 mm) were abundant (over 60 mm were common), large mammal bone and land snails were present.	The washover of about 15 ml was mostly modern rootlets, with some sand grains, a little fine charcoal (to 7 mm), cinder (to 5 mm) and occasional fragments of modern 'straw'. There were also some fragments of ? <i>Cepaea/Arianta</i> shell and a single <i>Cochlicopa ?lubrica</i> (Müller). Bone from this sample amounted to 73 fragments, of which one was a cattle mandible (weighing 151g) and 72 (total weight 4 g) were very small (less than 20 mm) fragments and not identifiable.
	39 (fill of flue)	3901	Moist, mid grey to mid grey-brown, crumbly, (working soft), clay silt. Stones (2 to 20 mm and 20 to 60 mm) and ?charcoal were present.	The washover consisted of a very few millilitres of charcoal (to 5 mm) and a few charred wheat grains, the last not well preserved, but probably including hexaploid forms. A single spelt ( <i>Triticum spelta</i> L.) glume-base was noted which is consistent with this identification. Also noted were some 'silicified' awn fragments from cereals (probably wheat or barley), and a few snails (including the burrowing, and probably intrusive, <i>Cecilioides acicula</i> (Müller)). Other snails present included <i>Vertigo ?pygmaea</i> (Draparnaud) (1 individual), <i>Carychium ?tridentatum</i> (Risso) (3), <i>Vallonia ?excentrica</i> Sterki (2), <i>?Punctum pygmaeum</i> (Draparnaud) (1) and <i>Aegopinella</i> sp. (4). This sample produced 15 very small (less than 15 mm in maximum dimension) fragments of bone, of which three represented small mammal remains. The latter (maxilla, scapula and atlas fragments) could not, however, be identified to species level.

Phase	Context	Sample	Description	Comments
	127 (fill of ditch 126)	12701	Just moist, mid brown to mid grey-brown, crumbly to unconsolidated, stony, slightly clay, silty sand. Stones (including flint and chalk) of 2 to 6 mm were abundant, and those of 6 to 20 mm and 20 to 60 mm were recorded as common and present, respectively. Some charcoal was also present.	The very small washover consisted of a few rootlet fragments, a trace of charcoal (to 2 mm), stinging nettle ( <i>Urtica dioica</i> L.) achenes and parts of two beetles identified as <i>Bembidion</i> sp. The last of these were in a very fresh condition, especially in comparison with the plant remains, and it is suspected that they are of recent origin. A few snails were also present, mostly fragments of <i>C. acicula</i> but a single <i>Pupilla muscorum</i> (L.) was also identified. A single eel vertebra was identified from this sample.
	146 (deposit of burnt material)	14601	Moist, mid grey-brown to dark grey to black, crumbly (working soft), slightly ?ashy, clay silt. Stones (2 to 20 mm), ?charcoal (or other fine charred material), ?bone and modern roots were present.	The washover of about 20 ml was of charcoal (to 5 mm) with some snails and a few very poorly preserved charred wheat grains (with a trace of barley and oats); other cereal remains included a modest number of eroded spelt glume-bases and there were also modest numbers of silicified cereal awns, these remains together pointing to a component probably originating in the burning of a mass of cereal material. There were also traces of charred weeds seeds and some small vertebrate bones and snails (including <i>V. ?excentrica</i> , <i>V. pygmaea</i> , <i>C. ?tridentatum</i> , <i>Cochlicopa ?lubricella</i> (Porro), <i>Trichia ?hispida</i> (L.), a clausilid apex fragment, an indeterminate Succineidae and <i>C. acicula</i> ), some of both of these showing some signs of having been burnt, too. Bone recovered from this sample was of fair preservation, although the colour of the fragments was rather variable. A few burnt fragments were noted. Most fragments were small, less than 25 mm in maximum dimension, and not identifiable, although one small mammal shaft fragment and a lizard/snake/amphibian vertebra were noted.
5 (Modern)	12 (fill of gully 011)	1201	Moist, mid grey, crumbly (working soft), slightly sandy clay silt. Stones (2 to 20 mm), charcoal, ?twigs (very rotted fragments), large mammal bone (some burnt), modern rootlets and live springtails ( <i>Collembola</i> sp. indet.) were present.	The moderately large washover of about 150 ml comprised some modern woody roots and quite large (to 20 mm) charcoal fragments. Also noted were a few very poorly preserved wheat grains, a few snails (mostly unidentified fragments but including a <i>V. ?excentrica</i> and two <i>Discus rotundatus</i> (Müller)), and a little fine (less than 5 mm) charred herbaceous detritus (which may have been culm material from grasses or rushes). A moderately large assemblage of bone (216 fragments) was recovered from this sample, of which 75% were less than 25 mm in any dimension and few fragments were identifiable. The bones were very fragmented, with much erosion damage evident; twenty of the fragments were burnt. Identified remains included large mammal vertebra, cranium and mandible fragments, a few medium-sized mammal rib and shaft fragments and several unidentified bird and fish bones. One amphibian bone, a small mammal incisor and an isolated pig tooth were also recorded.

Table 2. Low Common Lane, Melton, East Riding of Yorkshire: Summary information for the hand-collected shell, by phase and context. A '?' before numbers indicates possible numbers (e.g. '3/?4 = definitely 3, possibly 4). Key: 'Cn' = Context number; u/s = unstratified; 'left' = number of left (or lower) valves; 'right' = number of right (or upper) valves; 'in' = number of valves of indeterminate side (the figure in parentheses is the additional number of larger fragments); 'meas' = estimated number of valves intact enough to be measured; 'e' = average erosion score for valves; 'f' = average fragmentation score for valves; 'kn' = number of valves showing damage characteristic of the oyster having been opened using a knife or similar implement; 'worm' = number of valves showing damage by polychaet worms; 'barn' = number of valves with barnacles; 'dog' = number of valves showing damage from dog whelk boring; 'fr' = number of valves showing fresh breakage; 'wt' = total weight of shell in grammes.

Phase	Cn	Oyster valves											wt
		left	right	in	meas	e	f	kn	worm	barn	dog	fr	
?2	138	2	2	1	0	2	2	1/?2	1/?2	0	0	1	96
?2	141	2	1	0	1	2	1	?1	0	0	0	0	76
?2	143	2	0	0	0	3	1	?1	0	0	0	0	108
3	15*	26	25	4 (13)	6/?11	3	2	2/?7	0	0	0	13	1160
3	23	1	0	0	0	3	1	0	0	0	0	1	20
3	25	2	0	0	0	3	3	0	0	0	0	1	46
3	54	3	1	0 (1)	?1	2	2	2	0	0	0	1	93
3	55	0	1	0	?1	2	1	0	0	0	0	0	6
3	67	3	1	0 (5)	0	3	3	?1	0	0	0	0	123
3	93	1	1	0	1	2	1	1	0	1	0	0	48
3	106	0	1	0	0	3	2	0	0	0	0	1	8
3	107	1	2	0	0	3	1	1	0	0	0	?1	40
3	109	1	0	0	?1	3	1	?1	0	0	0	0	24
3	169	0	1	0	0	3	1	?1	0	0	0	0	19
-	21	6	5	0 (6)	?1	3	2	?2	0	0	0	2/?3	220
-	77	14	12	3 (5)	?2	3	2	4	0	0	0	6	576
		<b>64</b>	<b>53</b>	<b>8 (30)</b>	<b>8/?19</b>			<b>11/?24</b>	<b>1/?2</b>	<b>1</b>	<b>0</b>	<b>26/?28</b>	<b>2663</b>

\* - this context also gave a single periwinkle, *Littorina littorea* (L.)

Table 3. Low Common Lane, Melton, East Riding of Yorkshire: Hand-collected vertebrate remains by phase.  
Key: 'np' = not phased.

Species		?2	2	3	np	Total
<i>Lepus</i> sp.	hare	-	-	1	-	1
<i>Canis</i> f. domestic	dog	-	-	1	-	1
<i>Felis</i> f. domestic	cat	-	-	1	-	1
<i>Equus</i> f. domestic	horse	-	-	11	2	13
<i>Sus</i> f. domestic	pig	-	-	39	4	43
<i>Cervus elaphus</i> L.	red deer	-	-	1	-	1
<i>Capreolus capreolus</i> (L.)	roe deer	-	-	-	1	1
<i>Bos</i> f. domestic	cattle	1	-	92	10	103
Caprovid	sheep/goat	-	1	90	12	103
<i>Anser</i> sp.	goose	-	-	19	7	26
<i>Branta leucopsis</i> Bechstein	barnacle goose	-	-	1	-	1
<i>Anas</i> sp.	duck	-	-	2	-	2
<i>Gallus</i> f. domestic	chicken	-	-	8	3	11
cf. <i>Gallus</i> f. domestic	?chicken	-	-	3	-	3
unidentified	unidentified	9	3	755	151	918
<b>Total</b>		<b>10</b>	<b>4</b>	<b>1024</b>	<b>190</b>	<b>1228</b>