

Reports from the Environmental Archaeology Unit, York 94/50,
8pp. + Appendix 7pp.

**Assessment of biological remains from excavations at Welton Road,
Brough, N. Humberside (site code: 1994.294)**

by

John Carrott, Keith Dobney, Allan Hall, Michael Issitt, Deborah Jaques,
Cluny Johnstone, Frances Large and Annie Milles

Summary

A group of sediment samples and hand-collected bones and molluscs, from deposits of mostly Roman date (2nd to 4th Century AD), have been assessed for their bioarchaeological potential.

Plant and invertebrate remains were present in approximately one-third of the samples but, with the exception of one context (1277), in numbers too small to be of interpretative value. One other context yielded some material which may be peat or mor humus.

The bone assemblage, though only of modest size, is of some importance: rural animal bone assemblages from the North of England, and of this period, are rare.

Shell assemblages of this region and period are also rare, and selected further work on this material is recommended.

Keywords: Welton Road; Brough; North Humberside; Roman; insect remains; plant remains; molluscs; bone; cremation.

Authors' address:

Environmental Archaeology Unit
University of York
Heslington
York YO1 5DD

Prepared for:

York Archaeological Trust
Piccadilly House
55 Piccadilly
York YO1 1PL

Telephone: (01904) 433843-51
Fax: (01904) 433850

11th February 1995

Assessment of biological remains from excavations at Welton Road, Brough, N. Humberside (site code: 1994.294)

Introduction

A total of seventy-five 'environmental' samples (66 GBAs, 15 BSs, one SRs and three spot samples, *sensu* Dobney *et al.* 1992), five boxes of hand-collected molluscs, fourteen boxes of hand-collected animal bone and a single box of human bone, all from deposits of mainly Roman date (2nd to 4th Centuries AD) were submitted for assessment of their bioarchaeological potential.

Methods

Sediment samples

The GBA samples were inspected in the laboratory and a description of their lithology recorded using a standard *pro forma*. Subsamples of 1 kg were taken from sixty-six GBAs for extraction of macrofossil remains, following procedures of Kenward *et al.* (1980; 1986). With the exception of three samples (61/T, 49/T and 15/T), 'washovers' were taken rather than 'flots', as the organic content of the samples was extremely low. Excess material from all but one of these samples (for which there was insufficient sediment) was bulk-sieved to 1 mm (with a 500 µm mesh for the washover), and the residues sorted for finds. The remaining five GBAs did not merit biological analysis but were treated as BS samples for the extraction of finds.

Plant and invertebrate macrofossils were examined from the flots and washovers resulting from processing.

None of the samples were considered suitable for examination for the eggs of parasitic nematodes.

The BS samples were sieved to 1 mm (with a 500 µm mesh for the washover) and the residues recorded and sorted for

small bones and artefacts, the latter being returned to the excavator. The bones from these residues were incorporated with the hand-collected material from the same contexts.

Bone

The thirty-eight contexts from which bone was recorded were selected on the basis of information supplied by the excavator. All were from Trenches 1 and 2. Additional information was obtained by scanning material from a further twenty-five contexts.

Bone was present in fifty-five of the BS residues, but only eighteen contained more than a few (15) fragments. Two of these assemblages appeared to consist entirely of cremated human bone fragments. The bone component of the BS residues was recorded using a simple abundance scale (present—10% or less of the total assemblage; common—10% to 50%; and abundant—greater than 50%).

Molluscs

Hand-collected molluscan remains were examined from the same contexts as those recommended for assessment of bone, although many of these contexts contained too few (less than five) shells to be worth recording. Evidence of infestation of the shells of marine taxa by other organisms was recorded where present.

Spot samples

The spot samples were inspected in the laboratory. No further action was considered worthwhile for these.

Results and discussion

The contexts from Roman deposits at this site could be dated to four main periods: the second, second to third, third, and fourth centuries AD. The results for the bones are ordered by group and then context number within these time periods, with context information from the excavator in brackets.

Sediment samples

Most of the samples were sandy silt or silty sand, some with a clay component, and had colours which were described in the laboratory as various shades of grey-brown. Twenty-three of the samples were contaminated by modern roots and/or rootlets. Only one of the flots (from Context 1277, Sample 49) yielded modest amounts of plant and insect remains (see below). None of the other samples produced quantities of biological remains useful for interpretation. Very small numbers of seeds and fragments of charcoal were present in fourteen and fifteen of the other flots and washovers, respectively. A single charred wheat/barley grain was noted from the washover from the subsample from Sample 72 (Context 2105), whilst the washover from a subsample of Sample 37 (Context 5010) included traces of plant remains perhaps indicative of shallow water and there were foraminifera, also likely to be aquatic. The washover from the subsample of Sample 81 (Context 1500) yielded some lumps of organic material up to 20 mm in maximum dimension which appeared to be sandy peat or (perhaps more likely) mor humus (perhaps from a heathland soil). Eighteen of the flots and washovers contained one or a few land snails, mostly species associated with grassland. Seven of these included the burrowing species *Cecilioides acicula* (Müller), probably modern intrusive specimens.

The residues from sieving of excess sediment were mostly stone (limestone, chalk and flint), gravel, sand, and charcoal in varying proportions. As noted above, the small quantity of bone recovered from the residues is discussed together with the hand-collected bone from the same contexts. Eighteen of the residues contained land snails, again mostly grassland species, and two of these included *Cecilioides acicula*. One of the residues (Context 1252, Sample 44) included two species of

freshwater snail: *Succinea oblonga* (Draparnaud) and *S. putris* (Linné).

3rd Century

Context 1277 [trench 1, group 36, sequence 8—backfill]

Sample 49

Moist, shading from light grey to black, brittle to crumbly (working soft and slightly plastic), clay silt with fine and coarse herbaceous detritus. Very small pieces of chalk (2 to 6 mm) and smaller (1 mm) chalk flecks were present.

The modest flot was mostly seeds and insect remains (including many fly puparia) with many mites, some plant detritus and beetle larvae and a few earthworm egg capsules.

The insect assemblage was too small to be of definite interpretative value but, subjectively, may indicate a stable manure community in the early stages of formation. There was no dominant beetle group but rather a mixed community of mostly ground dwelling species.

At least twenty plant taxa could be distinguished amongst the macrofossils in the flot. They were present in moderate numbers and their state of preservation was moderately good to poor. Weed taxa predominated, but there were also quite frequent rush (*Juncus*) seeds and some probable indicators of grassland, though the assemblage was too small to say whether this might have been turf growing near the site or material from hay and/or stable manure.

Bone

Non-human material

Total fragment counts for the recorded hand-collected bone can be found in the tables of the Appendix. Tables 1, 3, 4 and 5 present the animal bone data. Data for the human remains are summarised in Table 2. Tables 6 and 7 present information from all BS residues.

2nd Century

The main deposits from this period are represented by group 1.27 and are described as ditch fills. A very small assemblage of hand-collected material from eight contexts was recorded in detail.

Preservation ranged from fair to poor, with angularity and colour both being scored as variable. Black staining was noted on a large proportion of the lighter-coloured bones and a small number had associated iron corrosion deposits attached to the bone surface. Few of the bones from this group showed evidence of dog gnawing.

The material consisted mainly cattle remains, with a few caprine, horse and dog fragments also present.

A single cow metatarsal showed a pathological condition previously only noted on caprine metatarsals (Carrott *et al.* 1993; Carrott *et al.* 1994; Dobney *et al.* 1994; O'Connor 1984). It consisted of a vertical ridge of remodelled bone on the proximal anterior aspect of the shaft. This swelling was positioned parallel and medial to the position of the median extensor tendon. This condition is of unknown aetiology.

Residues in this group contained mostly large mammal remains with several fragments of small mammal present.

In group 1.30 (a structure, also of 2nd Century date), most contexts yielded only small amounts of bone and the material was merely scanned. Of interest was the very fragmented, incomplete skeleton of a neonatal calf from Context 1556. Context 1500 gave many small bone fragments exhibiting varying degrees of burning (blackened to calcined). This indicates that the material had been subjected to a variety of temperatures. The residues from this context (Subsample 081/XS) also contained much burnt material.

All remaining residues from 2nd Century contexts contained mostly large mammal-sized fragments. Medium-sized mammal bones and fish were present in a single residue, and small mammal bones (?murine) were identified from six.

Two mandibles with teeth, a single isolated tooth and one measurable bone were also recorded.

2nd/3rd Centuries

Only one group (2.5), described as the fills of the earliest features in Trench 2, falls into this period. Two contexts (2100 and 2105) were recorded in detail. Preservation was good and the colour of the fragments was mostly ginger.

Both contexts contained a large proportion of cow-sized shaft fragments but few caprine remains. More than 50% of the remains were unidentifiable because of their very fragmentary nature and, in particular, the fact that many bones were heavily butchered.

Similar large mammal fragments were noted from the residues from this group, in addition to the bones of small mammals and birds. Sample 068/BS (Context 2100) also contained a high proportion of burnt bone.

Although a single mandible with teeth was present, no measurable bones or isolated teeth were recovered.

3rd Century

Group 1.11 represents ditch fills below the 4th Century dumps of group 1.12. Bone from seven contexts was recorded, of which three (1045, 1055 & 1061) contained moderate amounts of material. Two further smaller groups were scanned.

Preservation overall was mostly good, with colour being variable. Some of the bone fragments again showed extensive black staining. Dog-gnawing was evident on a small number of caprine bones.

The mammal species present included cattle, caprines, pigs and horses. Cattle represented the greatest proportion of these (72% of the identifiable fragments), followed by remains of caprines (14%). Most cattle fragments were non-meat-bearing elements (i.e. lower limbs, feet and heads) and this suggests that these were perhaps deposits of primary butchery waste. Caprine remains reflect a similar deposit of primary butchery waste. Some of the eighteen horse fragments showed evidence of butchery.

Domestic fowl and duck remains were represented by three fragments. The duck fragments were recorded as mallard-sized and possibly represent

wild individuals.

The residues from group 1.11 consisted mostly of large mammal fragments. Small mammal bones were again present from three residues, as were fish bones. Remains of amphibians were recorded in two residues and were provisionally identified as frog (*Rana temporaria* L.).

Scanned groups of this period (1.9, 2.8 and 2.12) contained little material, most being similar in character to those already recorded. Of note, however, were the high proportion of burnt fragments from group 1.9 (particularly Contexts 1094 and 1255) and possible heat damage noted on numbers of bones from Context 1119.

Residues from deposits of the 3rd Century produced mostly large mammal fragments, with small mammals represented in 50% of the residues. Medium-sized mammal fragments, along with bird, fish and amphibian bones, were recovered in less than 25% of the residues. The bird fragments included a tibiotarsus identified as a small passerine (possibly a blue tit) and an ulna probably from a thrush (cf. *Turdus philomelus* Brehm)

Totals of 44 measurable bones (eight from scanned contexts), 21 mandibles with teeth (five from scanned contexts) and 26 isolated teeth (eight from scanned contexts) were present in the 3rd Century material.

4th Century

Bones from group 1.12 (late dumps) represent the only assemblage dated to the 4th Century. Material from seventeen contexts was recorded in detail and this comprised a moderate quantity of bone. Preservation was noted as fair and good, both categories represented equally. Broken surfaces showed no evidence of physical abrasion, although colour was variable. Dog-gnawing was evident at low frequencies (0-10%), although, several groups were recorded as having 10-20% of bones so damaged. This is characteristic of material which has been discarded but not immediately buried.

Again, bones of common domesticates were present, the assemblage being dominated by remains of cattle (57%), caprine, pig, horse and canid. Most identifiable fragments represented non-meat-bearing elements, perhaps indicating primary

butchery waste. Some of the 13 horse bones from this period showed clear evidence of butchery.

A single fragment showing pathological changes is worthy of note. Context 1021 yielded a fragment of cow skull with a perforation in the nuchal region of the occipital bone. Although this phenomenon has been noted in a large sample of late 4th century cattle skulls from Lincoln (Dobney *et al.* forthcoming), its aetiology is still unknown.

Birds were represented only by the remains of domestic fowl, of a size similar to a small bantam.

Scanned contexts and residues from this period yielded little additional material.

Eighty-four measurable bones, (mostly cattle), 41 mandibles with teeth, (mostly caprine) and 25 isolated teeth were recorded from this group.

The human remains

The cremation (Context 1385) formed the contents of a pottery vessel of a type consistent with a 3rd Century date. The pieces of bone were all calcined and heavily fragmented, and many had been crushed to dust. Several elements could be identified and these included skull fragments as well as part of a distal humerus. No indication of sex, age at death, or pathology could be recognised. There was no evidence of any other mammal species present, although, the fragmentary nature of the cremation does not preclude this possibility.

A second cremation, recovered from Context 1327 (described as a 'grave fill'), was also dated to the 3rd Century. Although most of the fragments were calcined, they were not burnt to such a high degree as those in the other cremation. The only fragments positively identified as human were several tooth roots and a phalanx. Again, there was no indication of sex or age at death.

A single inhumation dated no more closely than 'Roman' was excavated from Context 3004. The skeleton was reasonably complete, although the bones were rather broken. Preservation was poor, with the bones being fragile and battered and with 20-50% fresh breaks evident. The colour of the bones was fawn, with extensive black staining apparent on a number of elements.

In the lower jaw, the right M1 was worn down to the roots and the left M1 had been lost some time before death, as the alveolar bone showed extensive remodelling. In the upper jaw, the right M1 had also been lost *ante mortem* and the M2 was worn down to the roots. The left M1 was also extensively worn and caries was evident on P3 and P4. Most of the anterior and one of the posterior teeth showed enamel hypoplasia. The anterior teeth were fairly well worn and, unusually, the lower cheek teeth had very rounded and polished occlusal surfaces.

At some point the right fibula had been fractured but had healed well and remodelled extensively. Both tibiae had unusual pitted striations on their surfaces associated with a chronic, low level, inflammatory response. Small localised lesions may represent the occurrence of leg sores.

On the basis of attributes of the skull and pelvis, it was established that these remains represent a mature male. Analysis of the tooth wear and the pubic symphysis indicate an age of between 30 and 40 years.

Molluscs

Counts for the hand-collected molluscs are presented in Table 8 of the Appendix.

The hand-collected shell consisted almost entirely of oysters (*Ostrea edulis* L.), although there were rare individuals of other marine species, and a spot find of approximately fifty individuals of the genus *Cepaea*, a grassland snail (Context 1195, Sample 026), likely to have been a natural aggregation.

Oysters were recovered from many of the contexts on the site. Several other contexts which yielded particularly large numbers of valves were described as backfill and the remains from them were not assessed.

In general, the oyster shell was fairly well preserved, the valves being quite thick, and often showing evidence of the attachment of other adults or 'spats'. Many contexts included valves which showed signs of slight infestation by other organisms. Some specimens showed clear knife marks.

Statement of potential

Sediment samples

The sediment samples offer no potential for overall interpretation of the site, although Context 1277 yielded some plant and insect remains hinting at the presence in the backfill of material derived from stabling or perhaps from manure deposited in a field.

Bone

The animal bone assemblage from Brough is limited in its interpretative value by its small size. Material of 2nd Century date was represented by less than one hundred fragments, of which most were unidentifiable. Two small assemblages represented 3rd and 4th Century groups, with total counts for each being no more than fifteen hundred fragments.

The 4th Century assemblage produced modest numbers of measurable bones, although the number of measurements for individual elements would be limited. Mandibles with teeth (useful for reconstructing age-at-death profiles) were also present, although their limited numbers will preclude very detailed interpretation.

Molluscs

The land snails have no significant potential for site interpretation.

The shellfish have value in a broader synthesis of such material from occupation sites.

Recommendations

Sediment samples

No further work on the present material is recommended other than a closer examination of the ?peat/mor humus from Sample 81, which could be investigated by means of pollen analysis.

If deposits with organic preservation by anoxic waterlogging, or concentrations of charred plant material, are exposed during development, however, every effort should be made to sample and investigate them.

Bone

Late Roman rural animal bone assemblages are rare from the region and, as a consequence, are of considerable importance. The late Roman period has been identified as a priority for academic research, since 'the nature of the Roman decline in the province of Britain is not well understood' (English Heritage 1991, 36).

The presence of the well-dated 4th Century material at Brough is, therefore, significant and detailed recording of all bone dated to this period is recommended. In addition, for intra-site comparisons, it would also be worthwhile recording all well-dated 3rd century material.

Molluscs

Although rather few were present, the rarity of published data concerning assemblages of shellfish from Northern England makes it desirable to record at least a selection of the material in more detail.

Retention and disposal

There is no justification for retaining any of the sediment samples except any remaining material from Sample 49 (Context 1277).

All the bone and shell should be retained for the present.

Archive

All extracted fossils from the test subsamples, and the residues, washovers and flots, are currently stored in the Environmental Archaeology Unit,

University of York, along with all shell and bone, and paper and electronic records pertaining to the work described here.

Acknowledgements

The authors are grateful to Kurt Hunter-Mann (York Archaeological Trust) for provision of the material and archaeological information. KD, AH and AM thank English Heritage for permission to undertake this work.

References

- Carrott, J., Dobney, K., Hall, A., Jaques, D., Kenward, H., Large, F. and Milles, A. (1993). *An evaluation of biological remains from the excavations on land to the rear of Gowthorpe, Finkle Street and Micklegate in Selby town centre (site code 1993)*. Prepared for MAP Archaeological Consultancy Ltd
- Carrott, J., Dobney, K., Hall, A., Irving, B., Issitt, M., Jaques, D., Kenward, H., Large, F. and Milles, A. (1994). *Assessment of biological remains from excavations at 148 Lawrence Street, York (site code 1993.11)* Prepared for York Archaeological Trust.
- Dainton, M. (1992). A quick, semi-quantitative method for recording nematode gut parasite eggs from archaeological deposits. *Circaea* 9, 58-63.
- 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., Fitter, R., Hall, A., Irving, B., Jaques, D., Johnstone, C., Kenward, H., Milles, A. and Shaw, T. (1994). *Biological remains from the medieval moat at Hall Garth, Beverley, North Humberside*. Prepared for Humberside Archaeology Unit.
- Dobney, K., Irving, B., Jaques, D. and Milles, A. (forthcoming). [The vertebrate remains from the City of Lincoln]. *The Archaeology of Lincoln*. York: Council for British Archaeology.
- English Heritage (1991). *Exploring our past. Strategies for the archaeology of England*. London:

English Heritage.

Kenward, H. K., Engleman, C., Robertson, A., and Large, F. (1986). Rapid scanning of urban archaeological deposits for insect remains. *Circaea* **3** (for 1985), 163-72.

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.

O'Connor, T.P. (1984). Selected groups of bones from Skeldergate and Walmgate. *The Archaeology of York* **15** (1), 1-60, plates I-II. London: Council for British Archaeology.

Appendix

Table 1. Hand-collected bone from all recorded contexts.

Species	Total fragments	Total weight (g)	No. measurable	No. mandibles	No. isolated teeth
Cattle	427	18,340	74	25	25
Caprine	186	3,176	30	35	8
Pig	35	759	1	4	5
Horse	37	3,438	12	1	6
Dog	1	23	-	1	-
Canid	2	9	-	-	-
Fowl	7	17	3	-	-
Duck	2	3	2	-	-
Total id.	697	25,765	122	66	44
Total unid.	1,807	15,982	-	-	-
Total	2,504	41,747	122	66	44

Table 2. A summary of the human remains.

Period	Group	Context	Type	Brief description
3rd C.	1.29	1385	Cremation	Calcined, very fragmented, recovered from a vessel.
3rd C.	1.31	1327	Cremation	All identified fragments are human, most are calcined.
Roman	3.3	3004	Inhumation	Fairly complete, adult male, aged between 30-40 years.

Table 3. Animal bone from selected contexts within Group 1.27 dating to the 2nd Century.

Species	Total fragments	Total weight (g)	No. measurable	No. mandibles	No. isolated teeth
Cattle	10	352	1	-	-
Caprine	3	60	-	1	1
Horse	6	395	-	-	-
Dog	1	23	-	1	-
Total id.	20	830	1	2	1
Total unid.	63	368	-	-	-
Total	83	1,198	1	2	1

Table 4. Animal bone from selected contexts within Group 1.11 dating to the 3rd Century.

Species	Total fragments	Total weight (g)	No. measurable	No. mandibles	No. isolated teeth
Cattle	158	6,116	23	11	12
Caprine	31	549	5	3	-
Pig	9	151	-	1	1
Horse	18	2,105	6	1	5
Fowl	1	3	1	-	-
Duck	2	3	2	-	-
Total id.	219	8,927	37	16	18
Total unid.	867	5,668	-	-	-
Total	1,086	14,595	37	16	18

Table 5. Animal bone from selected contexts within Group 1.12 dating to the 4th Century.

Species	Total fragments	Total weight (g)	No. measurable	No. mandibles	No. isolated teeth
Cattle	259	11,872	50	14	13
Caprine	152	2,567	25	31	7
Pig	26	608	1	3	4
Horse	13	938	6	-	1
Canid	2	9	-	-	-
Fowl	6	14	2	-	-
Total	458	16,008	84	48	25

Table 6. Bone from bulk-sieved samples dating to the 2nd and 3rd Centuries.

P =present (i.e.<10% of total assemblage), *C* = common (10-50%), *A* =abundant (>50%). Letters in parentheses: For large mammals (*LM*), (*F*) = few measurable bones (i.e.<10%), *S* = some (10-50%). For medium (*MM*) and small mammals (*SM*), birds and fish (*L*)= low diversity (i.e. 1 species present), (*M*)= moderate (2-4 species) and (*H*)= high (>4 species).

Period	Group	Context	Sample	LM	MM	SM	Bird	Fish	Unid
2nd	1.20	1206	032/BS	A	-	P(L)	-	-	C
		1206	031/XS	-	-	P(L)	-	P(L)	A
		1207	033/BS	P	P(L)	-	-	-	A
		1235	039/XS	-	-	-	-	-	A
		1235	040/BS	C	-	-	-	-	A
2nd	1.23	1321	062	-	-	-	-	-	A
		1321	062	P	-	-	-	-	A
2nd	1.27	1044	006/XS	-	-	-	-	-	A
		1103	015/XS	P	-	-	-	-	A
		1106	014/XS	C	-	P(M)	-	-	A
		1249	041/BS	A	-	-	-	-	C
		1249	042/BS	C	-	-	-	-	A
2nd	1.30	1390	076/XS	P	-	P(L)	-	-	A
		1495	079/XS	A	-	-	-	-	-
		1500	081/XS	C(S)	-	-	-	-	A
2nd	2.3	2017	024/XS	P	-	P(L)	-	-	A
		2082	056/XS	C	-	-	-	-	A
		2083	065/XS	-	-	-	-	-	A
		2091	057/XS	-	-	-	-	-	A
		2091	067/XS	C	-	P(L)	-	-	A
2nd/3rd	2.5	2089	058/XS	C	-	P(L)	-	-	A
		2100	068/BS	A	-	-	-	-	-
		2105	072/XS	C	-	P(L)	-	-	A
		2105	073/BS	C	-	P(L)	P(L)	-	A

Table 7. Bone from bulk sieve samples dating to the 3rd and 4th centuries.

P = present (i.e.<10% of total assemblage), C = common (10-50%), A =abundant (>50%). Letters in parentheses: For large mammals (LM), (F) = few measurable bones (i.e.<10%), S = some (10-50%). For medium (MM) and small mammals (SM), birds, fish and amphibian (Amp), (L)= low diversity (i.e. 1 species present), (M)= moderate (2-4 species) and (H)= high (>4 species).

Period	Group	Context	Sample	LM	MM	SM	Bird	Fish	Amp	Unid
3rd	1.6	1132	019/XS	C	-	-	-	-	-	A
		1132	020/BS	C	-	-	-	-	-	A
		1137	022/XS	P	-	C(M)	-	-	-	A
		1137	023/BS	C(F)	-	-	-	-	-	A
		1187	025/XS	C	-	P(M)	-	-	-	A
3rd	1.8	1113	015/XS	P	-	-	-	-	-	A
3rd	1.9	1094	011/XS	A(F)	-	-	-	-	-	C
		1094	012/BS	A(F)	-	-	-	-	-	C
		1255	046/XS	C	-	-	-	-	-	A
3rd	1.11	1045	004/BS	C(F)	P	P(L)	-	P	P	A
		1045	005/BS	C	-	C(M)	-	P	-	A
		1055	009/XS	A	-	-	-	-	-	C
		1055	017/BS	C(F)	-	P(L)	-	P	-	A
		1061	010/XS	C	-	-	-	-	C	C
3rd	1.21	1194	029/BS	P	-	P(M)	P(L)	P(L)	-	C
3rd	1.34	1288	050/XS	-	-	A(M)	-	-	-	-
3rd	1.36	1247	043/XS	C	-	C	-	-	-	C
		1252	044/XS	-	-	-	-	-	-	A
		1277	049/XS	P	-	P(L)	-	-	P(L)	A
3rd	2.2	2090	059/BS	P	P(L)	P(L)	-	P	-	A
3rd	2.7	2077	061/XS	C	P(L)	P(L)	-	-	-	C
		2094	063/BS	C	-	-	P(M)	-	-	A
		2094	064/XS	C	-	P(L)	P(L)	-	-	A
		2099	069/XS	C	-	-	-	-	-	A
3rd	2.8	2069	055/BS	C	-	-	P(L)	-	-	A
		2076	052/XS	C	-	P(L)	P(L)	-	-	A
		2081	054/XS	C	-	-	-	-	-	A
3rd	2.11	2075	051/XS	C	-	P(L)	-	-	-	A
4th	1.12	1006	001/XS	-	-	P(L)	-	-	-	A
		1019	002/XS	P	-	-	-	-	-	A
		1019	003/BS	C	-	P(L)	P(L)	-	-	A

Table 8. Hand-collected mollusc from all recorded contexts.

Knife marks: ? = probable; Infestation: Y = evidence of infestation present, ? = probable evidence of infestation;
Other species: 'number' = number of individuals present, F = a few; Action: R = should be recorded more fully,
?R = second priority but should probably be recorded more fully, NWR = not worth further recording).

Period		4th C.									3rd C.		post-med
Trench/group		1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	2.8	2.8	2.18
Context no.		1123	1029	1022	1024	1030	1020	1006	1021	1019	2080	2088	2026
Context type		dump	dump	dump	dump	dump	dump	dump	dump	dump	make-up	make-up	plough-soil
<i>Ostrea edulis L.</i> Common oyster	upper	10	4	24	8	5	6	47	35	11	29	16	39
	lower	8	5	28	8	4	7	49	48	15	32	23	39
	measurable	3	2	19	4	1	4	23	22	9	23	10	24
	ageable	5	2	23	5	2	2	21	22	8	11	8	22
	weight (g)	480	153	1300	290	120	260	1930	1870	740	790	650	1720
	Knife marks			?	?				?				
	Infestation:	<i>Polydora ciliata</i> (Johnston)	Y		Y	Y		Y	Y	Y	Y	Y	Y
	cf. <i>Polydora hoplura</i>							?				Y?	
	<i>Cliona celata</i> Grant			Y				Y		Y	Y		Y
	<i>Balanus</i> sp.							Y	Y				
Other species:	<i>Buccinum undatum</i> (L.) common whelk									1			
	<i>Mytilis edulis</i> (L.) common mussel									1			
	<i>Pecten maximus</i> (L.) great scallop			F									
Action:		?R	NWR	?R	NWR	NWR	NWR	?R	?R	?R	?R	?R	R