Reports from the Environmental Archaeology Unit, York **96/24**, *4 pp. + 6 pp. Appendices*

Mollusc remains from excavations at an Iron Age and Romano-British settlement site at Melton, North Humberside (site code: MEL94): Technical report

by

John Carrott, Harry Kenward and Annie Milles

Summary

Six assemblages of molluscs mostly from ditch features from an Iron Age and Romano-British 'ladder' settlement at Melton, North Humberside, have been investigated. The moderate to large assemblages of well-preserved remains were dominated by dry and damp grassland taxa, with little clear evidence for tree or scrub cover.

A semi-quantitative record of assemblages from contexts investigated at the evaluation stage of the project is presented in the Appendix.

Keywords: MELTON; NORTH HUMBERSIDE; IRON AGE; ROMANO-BRITISH; MOLLUSC REMAINS; GRASSLAND; *TRUNCATELLINA CYLINDRICA*

Authors' address:

Environmental Archaeology Unit
University of York
York
YO1 5DD

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

Prepared for:

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

9 May 1996

Mollusc remains from excavations at an Iron Age and Romano-British settlement site at Melton, North Humberside (site code: MEL94): Technical report

Introduction

The site from which the material considered here was collected lies immediately to the North of the A63, to the east of Melton village, and north-west of the village of North Ferriby (SE 975 264). The deposits were dated as Iron Age to Romano-British. Evaluation of the site in 1994 (Northern Archaeological Associates 1994) revealed that land snails were preserved at the site, and "in several contexts in quantities large enough to allow useful analytical work to be carried out."

Ten trenches were excavated and bulk samples were taken for environmental analysis, where appropriate. The mollusc remains considered here were mostly recovered from the flots from these bulk samples.

The particular aim of this study was to investigate the ecological conditions on the site as demonstrated by the mollusc assemblages.

Methods

Practical methods

The samples were examined as pre-processed flots (together with a small amount of material recovered from the residues.

The samples identified by the evaluation as having the greatest potential were recorded in some detail—although semi-quantitative estimates of minimum numbers of individuals were used in a few cases (see below). All complete fossils and distinctive fragments were identified to species (with the exception of *Cepaea* sp.), although all of the flots contained numerous unidentified fragments.

Counts are for minimum numbers of individuals (MNI). Two *Vallonia* species and two *Carychium* species were present in very large numbers in four of the flots—in these cases twenty identifications were made and the MNI counts for each species proportioned accordingly.

The manuscript lists were entered to a Paradox database using a system written by JC. These data were interrogated using the Paradox database package, Microsoft Excel spreadsheet and a Pascal program written by HK, producing 'main statistics' and species lists in rank order for each assemblage and for the whole site. These data are presented in Appendix 1.

Species lists for flots which were evaluated but not recorded further are given in Appendix 2. The abundances of the species for these samples are recorded semi-quantitatively on a three point scale: p - present, c - common and a - abundant.

The small numbers of marine mollusc shells recovered are also listed in Appendix 2.

Interpretative methods

As a first step towards integrating evidence from molluscs with that from other invertebrate remains, the interpretative methods employed in this

report parallel those used for insect remains from a variety of sites by Kenward and co-workers (introduced by Kenward 1978, with refinements discussed, for example, by Kenward 1982; 1988 and Hall and Kenward 1990). The interpretation rests on certain 'main statistics' of whole assemblages of molluscs. The ecological codes applied to species are derived from those used by Dr T. P. O'Connor in his work in the EAU (e.g. Kenward and Hall 1995, 791).

The principal sources for the biology of the recorded species were Evans (1972) and Kerney and Cameron (1979).

Results and general discussion

Terrestrial taxa

All of the samples gave large numbers of remains. Preservation was generally good although most of the fossils showed some 'weathering' (surface erosion) and, as noted above, there were many unidentified fragments.

Two of the flots (from Contexts 206 and 824) showed evidence of modern bioturbation—large quantities of rootlets and
large numbers of *Cecilioides acicula* (Müller), a burrowing land snail which is almost certainly intrusive to these deposits since there are good reasons for believing it is a recent introduction (Evans 1972, 168).

The assemblages were generally uniform and yielded a substantial range of taxa.

The mollusc assemblages had a distinct general character: a mixture of dry and damp grassland forms, with some taxa also able to exploit shadier habitats in woodland or scrub. Dominant species were *Vallonia costata*, *V. excentrica*, *Carychium tridentatum*, *C. minimum* and *Cochlicopa lubrica*, but several other taxa occurred in quite substantial numbers.

Marine taxa

A very small number of marine mollusc shells were also recovered. These were mostly very rotted and of no interpretative value beyond demonstrating their probable utilisation for food.

Discussion by trench and context

No detailed dating or phasing information is available at the time of writing. Archaeological information provided by the excavator is presented in square brackets

Trench E [Contexts 206 and 227—tertiary fills of substantial ditch 207]

The assemblages have the general character outlined above, although there is a substantially higher proportion of damp grassland taxa in Context 227, the lower of the contexts when compared with the upper (27% and 13% respectively). The absence of any freshwater or aquatic marginal vegetation indicators suggests strongly that this was a 'dry' ditch, the damp grassland taxa perhaps being favoured by the slightly moister conditions within the cut.

All of the samples from these contexts (206AA, 227AA and 227AB) contained *Truncatellina cylindrica* (Férussac) a species which is "widespread but always very local" (Kerney and Cameron 1979) and only recorded from a few locations in the British Isles.

Trench F

Context 824 [fill of post-hole 825]

The assemblage is dominated by the burrowing snail *Cecilioides acicula* (Müller). This species aside the general character of the small residual assemblage (49 individuals) is consistent with those from the other contexts. However, the presence of *C. acicula*, together with the large quantity of rootlets in the flot, must cast doubt on ecological interpretation.

Trench G

Context 407 [primary fill of ditch 405]

The assemblage shows a markedly larger proportion of damp grassland forms and correspondingly lower proportion of dry grassland taxa by comparison with others from the site—although the numbers of species of each group is similar to the other contexts (with the exception of 824). The dominant species were *Vallonia costata*, *Carychium tridentatum*, *C. minimum* and *Cochlicopa lubrica*, all of which were very abundant and there were also numerous *Cepaea* sp. However, as in the case of the assemblages from Trench E, the absence of obligate of freshwater and aquatic marginal vegetation snails suggest that this was a 'dry' ditch.

Trench H

Context 503 [tertiary fill of ditch 504]

This group was dominated by *Vallonia costata* and *Cepaea* sp. (perhaps both *C. nemoralis* and *C. hortensis*, although the condition of the material left the identifications somewhat uncertain). Again, the assemblage suggests that this was a 'dry' ditch feature.

Discussion

For this report the authors have 'borrowed' the ecological coding system previously employed in the EAU. However, analysis of the present assemblages has served strongly to emphasise the need for a radically new approach to ecological coding for this rather difficult group. This was not feasible within project constraints.

The material was supplied pre-processed from bulk samples, and the assemblages were as a result of uncontrolled size. It is not easy randomly to subdivide material of this kind so all the snails from each of the selected samples have been recorded. Much smaller groups from 'GBA' (*sensu* Dobney *et al*. 1992) samples would have given essentially the same information for much less expenditure of effort, and more of the assemblages could have been listed in detail.

Overall, the snails indicate grassy vegetation, at least in places offering some degree of moisture and shade for the 'damp ground' taxa, which were probably favoured by conditions in the ditches and may not, therefore, reflect ecological conditions beyond them. Clearly, there were habitats for species of open, quite dry, ground, probably the general surface in the area, but conceivably only the ditch slopes themselves. It is important to establish whether the ditches infilled by colluviation, so that snails from a wide area upslope might be included, or whether infill was by inwash of finer material, in which case much of the fauna might be autochthonous (originating at the point of deposition). In the former case the snail assemblages have value in defining the broad ecology of the site, but in the latter

case they will obviously only give information about the ditches and their immediate surroundings.

Archive

All extracted fossils and flots are currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here.

Acknowledgements

The authors are grateful to Peter Cardwell of North Archaeological Associates for providing the material and archaeological information and to English Heritage for allowing AM and HK to work on this material.

References

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.

Evans, J. G. (1972). *Land snails in archaeology*. London and New York: Seminar.

Hall, A. R. and Kenward, H. K. (1990). Environmental evidence from the Colonia: General Accident and Rougier Street. *The Archaeology of York* **14** (6), 289-434 + Plates II-IX + Fiche 2-11. London, Council for British Archaeology.

Kenward, H. K. (1978). The analysis of archaeological insect assemblages: a new approach. *The Archaeology of York* **19** (1), 1-68 + Plates I-IV. London: Council for British Archaeology.

Kenward, H. K. (1982).*Insect communities and death assemblages, past and present*, pp. 71-8 in Hall, A. R. and Kenward, H. K. (eds). Environmental archaeology in the urban context. *Council for British Archaeology Research Reports* **43**.

Kenward, H. K. (1988). Insect remains, pp. 115-40 in Schia, E. (ed.), *De arkeologiske utgravninger in Gamlebyen, Oslo. Vol. 5 Mindets Tomt - Sondrefelt.* Øvre Ervik: Alvheim and Eide.

Kenward, H. K. and Hall, A. R. (1995). Biological evidence from Anglo-Scandinavian deposits at 16-22 Coppergate. *The Archaeology of York* **14** (7), 435-797 + xxii + loose figures. York: Council for British Archaeology.

Kerney, M. P. and Cameron, R. A. D. (1979). *A field guide to the land snails of Britain and North-west Europe*. Glasgow: William Collins Sons and Co. Ltd.

Northern Archaeological Associates (1994). Interim report on an archaeological evaluation of a Iron Age and Romano-British 'ladder' settlement at Melton, North Humberside, for Anthony Walker and Partners. *NAA* **94/20**.

Appendix 1. Details of mollusc assemblages

Main statistics, site species list and context species lists in rank order for those assemblages recorded in detail from Melton, North Humberside. Nomenclature follows Kerney and Cameron (1979).

Main statistics for Melton, North Humberside

Key to Prefix: S-number of species; **N**-minimum number of individuals; **ALPHA**-index of diversity; **SEALPHA**-standard error of index of diversity; **P**-percentage.

Key to Suffix: TV-dry grassland; **RS**-rock rubble/scree; **WL**-woodland/leaf litter; **SN**-synanthropic; **WS**-woodland/scrub; **DV**-damp grassland; **DW**-aquatic marginal vegetation.

Sitecode	MEL94	MEL94	MEL94	MEL94	MEL94	MEL94	MEL94
Context	206AA	227AA	227AB	407	503	824	Whole site
S	20	18	18	17	18	6	25
N	804	859	2120	2151	298	316	6548
ALPHA	4	3	3	3	4	1	3
SEALPHA	0	0	0	0	1	0	0
STV	8	6	6	5	5	4	9
PSTV	40.0%	33.3%	33.3%	29.4%	27.8%	66.7%	36.0%
NTV	519	583	1543	843	178	48	3714
PNTV	64.6%	67.9%	72.8%	39.2%	59.7%	15.2%	56.7%
ALPHATV	1	1	1	1	1	1	1
SEALPHATV	0	0	0	0	0	0	0
SRS	4	4	4	3	4	0	5
PSRS	20.0%	22.2%	22.2%	17.6%	22.2%	0.0%	20.0%
NRS	25	48	74	85	27	0	259
PNRS	3.1%	5.6%	3.5%	4.0%	9.1%	0.0%	4.0%
ALPHARS	1	1	1	1	1	n/a	1
SEAPLHARS	0	0	0	0	0	n/a	0
SWL	3	3	3	2	4	0	4
PSWL	15.0%	16.7%	16.7%	11.8%	22.2%	0.0%	16.0%
NWL	31	45	86	29	19	0	210
PNWL	3.9%	5.2%	4.1%	1.3%	6.4%	0.0%	3.2%
ALPHAWL	1	1	1	1	1	n/a	1
SEALPHAWL	0	0	0	0	0	n/a	0
SSN	3	3	3	3	3	0	3
PSSN	15.0%	16.7%	16.7%	17.6%	16.7%	0.0%	12.0%
NSN	13	36	52	90	13	0	204
PNSN	1.6%	4.2%	2.5%	4.2%	4.4%	0.0%	3.1%
ALPHASN	n/a	1	1	1	n/a	n/a	1
SEALPHASN	n/a	0	0	0	n/a	n/a	0
SWS	6	6	7	6	6	1	7
PSWS	30.0%	33.3%	38.9%	35.3%	33.3%	16.7%	28.0%
NWS	37	74	190	209	87	12	609
PNWS	4.6%	8.6%	9.0%	9.7%	29.2%	3.8%	9.3%
ALPHAWS	2	2	1	1	1	n/a	1
SEALPHAWS	1	0	0	0	0	n/a	0
SDV	8	8	9	9	10	2	12
PSDV	40.0%	44.4%	50.0%	52.9%	55.6%	33.3%	48.0%
NDV	106	231	574	1287	102	13	2313
PNDV	13.2%	26.9%	27.1%	59.8%	34.2%	4.1%	35.3%
ALPHADV	2	2	2	1	3	n/a	2
SEALPHADV	0	0	0	0	1	n/a	0
SDW	0	0	0	1	1	0	1
PSDW	0.0%	0.0%	0.0%	5.9%	5.6%	0.0%	4.0%
NDW	0	0	0	2	4	0	6
PNDW	0.0%	0.0%	0.0%	0.1%	1.3%	0.0%	0.1%
ALPHADW	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SEALPHADW	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Complete list of mollusc taxa from Melton, North Humberside

Marine

Mytilus sp.
Ostrea sp.

Terrestrial

Carychium minimum Müller
Carychium tridentatum (Risso)
Cochlicopa lubrica (Müller)
Cochlicopa lubricella (Porro)
Columella edentula (Draparnaud)
Truncatellina cylindrica (Férussac)
Vertigo pygmaea (Draparnaud)
Pupilla muscorum (Linnaeus)
Lauria cylindracea (da Costa)
Vallonia costata (Müller)
Vallonia excentrica Sterki
Acanthinula aculeata (Draparnaud)
Ena obscura (Müller)
Punctum pygmaeum (Linnaeus)
Discus rotundatus (Müller)
Vitrea crystallina (Müller)
Vitrea contracta (Westerlund)
Aegopinella pura (Alder)
Aegopinella nitidula (Draparnaud)
Oxychilus cellarius (Müller)
Cecilioides acicula (Müller)
Clausilia bidentata (Ström)
Cernuella virgata (da Costa)
Cernuella neglecta (Draparnaud)
Helicella itala (Linnaeus)
Trichia hispida (Linnaeus)
Cepaea sp.

Species lists in rank order

Key to eclological codes: **tv**-dry grassland; **rs**-rock rubble/scree; **wl**-woodland/leaf litter; **sn**-synanthropic; **ws**-woodland/scrub; **dv**-damp grassland; **dw**-aquatic marginal vegetation.

Site: MEL94 Context: 206AA - species list in rank order

Taxon	Authority	Number	%	Rank	Ecodes
Vallonia costata	(Müller)	403	50.10%	1	tv
Cecilioides acicula	(Müller)	154	19.20%	2	-
Carychium tridentatum	(Risso)	71	8.80%	3	dv
Vallonia excentrica	Sterki	71	8.80%	3	tv
Pupilla muscorum	(Linnaeus)	20	2.50%	5	tv
Clausilia bidentata	(Ström)	14	1.70%	6	wl-ws-rs
Acanthinula aculeata	(Müller)	12	1.50%	7	wl
Trichia hispida	(Linnaeus)	9	1.10%	8	dv-tv-ws
Cochlicopa lubrica	(Müller)	8	1.00%	9	dv
Vertigo pygmaea	(Draparnaud)	6	0.70%	10	tv
Aegopinella nitidula	(Draparnaud)	5	0.60%	11	sn-ws-dv-rs
Discus rotundatus	(Müller)	5	0.60%	11	ws-dv-sn
Ena obscura	(Müller)	5	0.60%	11	wl
Helicella itala	(Linnaeus)	5	0.60%	11	tv
Lauria cylindracea	(da Costa)	5	0.60%	11	dv
Oxychilus cellarius	(Müller)	3	0.40%	16	sn-ws-rs
Truncatellina cylindrica	(Ferussac)	3	0.40%	16	tv-rs
Carychium minimum	Müller	2	0.20%	18	dv
Cochlicopa lubricella	(Porro)	2	0.20%	18	tv
Cepaea sp.	-	1	0.10%	20	dv-ws

Site: MEL94 Context: 227AA - species list in rank order

Taxon	Authority	Number	%	Rank	Ecodes
Vallonia costata	(Müller)	438	51.0%	1	tv
Carychium tridentatum	(Risso)	139	16.2%	2	dv
Vallonia excentrica	Sterki	110	12.8%	3	tv
Cochlicopa lubrica	(Müller)	34	4.0%	4	dv
Clausilia bidentata	(Ström)	23	2.7%	5	wl-ws-rs
Acanthinula aculeata	(Müller)	17	2.0%	6	wl
Discus rotundatus	(Müller)	16	1.9%	7	ws-dv-sn
Carychium minimum	Müller	15	1.7%	8	dv
Trichia hispida	(Linnaeus)	13	1.5%	9	dv-tv-ws
Oxychilus cellarius	(Müller)	12	1.4%	10	sn-ws-rs
Vertigo pygmaea	(Draparnaud)	12	1.4%	10	tv
Aegopinella nitidula	(Draparnaud)	8	0.9%	12	sn-ws-dv-rs
Ena obscura	(Müller)	5	0.6%	13	wl
Pupilla muscorum	(Linnaeus)	5	0.6%	13	tv
Truncatellina cylindrica	(Ferussac)	5	0.6%	13	tv-rs
Lauria cylindracea	(da Costa)	4	0.5%	16	dv
Cepaea sp.	-	2	0.2%	17	dv-ws
Cecilioides acicula	(Müller)	1	0.1%	18	-

Site: MEL94 Context: 227AB - species list in rank order

Taxon	Authority	Number	%	Rank	Ecodes
Vallonia costata	(Müller)	1113	52.5%	1	tv
Carychium tridentatum	(Risso)	281	13.3%	2	dv
Vallonia excentrica	Sterki	278	13.1%	3	tv
Cochlicopa lubrica	(Müller)	114	5.4%	4	dv
Trichia hispida	(Linnaeus)	93	4.4%	5	dv-tv-ws
Clausilia bidentata	(Ström)	42	2.0%	6	wl-ws-rs
Vertigo pygmaea	(Draparnaud)	40	1.9%	7	tv
Acanthinula aculeata	(Müller)	37	1.7%	8	wl
Carychium minimum	Müller	31	1.5%	9	dv
Discus rotundatus	(Müller)	25	1.2%	10	ws-dv-sn
Aegopinella nitidula	(Draparnaud)	17	0.8%	11	sn-ws-dv-rs
Pupilla muscorum	(Linnaeus)	14	0.7%	12	tv
Lauria cylindracea	(da Costa)	10	0.5%	13	dv
Oxychilus cellarius	(Müller)	10	0.5%	13	sn-ws-rs
Ena obscura	(Müller)	7	0.3%	15	wl
Truncatellina cylindrica	(Ferussac)	5	0.2%	16	tv-rs
Cepaea sp.	-	2	0.1%	17	dv-ws
Columella edentula	(Draparnaud)	1	0.0%	18	ws-dv

Site: MEL94 Context: 407 - species list in rank order

Taxon	Authority	Number	%	Rank	Ecodes
Vallonia costata	(Müller)	765	35.6%	1	tv
Carychium tridentatum	(Risso)	625	29.1%	2	dv
Carychium minimum	Müller	340	15.8%	3	dv
Cochlicopa lubrica	(Müller)	143	6.6%	4	dv
Cepaea sp.	-	69	3.2%	5	dv-ws
Aegopinella nitidula	(Draparnaud)	47	2.2%	6	sn-ws-dv-rs
Trichia hispida	(Linnaeus)	44	2.0%	7	dv-tv-ws
Oxychilus cellarius	(Müller)	32	1.5%	8	sn-ws-rs
Vallonia excentrica	Sterki	25	1.2%	9	tv
Ena obscura	(Müller)	23	1.1%	10	wl
Discus rotundatus	(Müller)	11	0.5%	11	ws-dv-sn
Pupilla muscorum	(Linnaeus)	7	0.3%	12	tv
Clausilia bidentata	(Ström)	6	0.3%	12	wl-ws-rs
Lauria cylindracea	(da Costa)	6	0.3%	12	dv
Cecilioides acicula	(Müller)	4	0.2%	15	-
Vertigo pygmaea	(Draparnaud)	2	0.1%	16	tv
Vitrea crystallina	(Müller)	2	0.1%	16	dw-dv

Site: MEL94 Context: 503 - species list in rank order

Taxon	Authority	Number	%	Rank	Ecodes
Vallonia costata	(Müller)	148	49.7%	1	tv
Cepaea sp.	-	50	16.8%	2	dv-ws
Vallonia excentrica	Sterki	16	5.4%	3	tv
Carychium tridentatum	(Risso)	15	5.0%	4	dv
Clausilia bidentata	(Ström)	14	4.7%	5	wl-ws-rs
Oxychilus cellarius	(Müller)	10	3.4%	6	sn-ws-rs
Trichia hispida	(Linnaeus)	10	3.4%	6	dv-tv-ws
Carychium minimum	Müller	9	3.0%	8	dv
Cochlicopa lubrica	(Müller)	9	3.0%	8	dv
Vitrea crystallina	(Müller)	4	1.3%	10	dw-dv
Acanthinula aculeata	(Müller)	2	0.7%	11	wl
Aegopinella nitidula	(Draparnaud)	2	0.7%	11	sn-ws-dv-rs
Cernuella neglecta	(Draparnaud)	2	0.7%	11	tv
Ena obscura	(Müller)	2	0.7%	11	wl
Pupilla muscorum	(Linnaeus)	2	0.7%	11	tv
Discus rotundatus	(Müller)	1	0.3%	16	ws-dv-sn
Punctum pygmaeum	(Draparnaud)	1	0.3%	16	wl-dv
Vitrea contracta	(Westerlund)	1	0.3%	16	dv-rs

Site: MEL94 Context: 824 - species list in rank order

Taxon	Authority	Number	%	Rank	Ecodes
Cecilioides acicula	(Müller)	267	84.5%	1	-
Vallonia excentrica	Sterki	18	5.7%	2	tv
Pupilla muscorum	(Linnaeus)	17	5.4%	3	tv
Trichia hispida	(Linnaeus)	12	3.8%	4	dv-tv-ws
Carychium tridentatum	(Risso)	1	0.3%	5	dv
Vertigo pygmaea	(Draparnaud)	1	0.3%	5	tv

Appendix 2. Records of terrestrial and marine molluscs from samples not recorded in more detail

Records are given in context number order.

Terrestrial taxa

Context 210AB

Carychium minimum	a
Carychium tridentatum	a
Cochlicopa lubrica	c
?*Truncatellina cylindrica*	c
Vertigo pygmaea	
Vallonia costata	
Vallonia excentrica	a
Acanthinula aculeata	a
Punctum pygmaeum	a
Vitrea crystallina	
Vitrea contracta	
Aegopinella pura	
Oxychilus cellarius	c
Cecilioides acicula	a
Clausilia bidentata	c
?*Helicella itala*	
Trichia hispida	

Context 228AA

Carychium minimum	a
Carychium tridentatum	a
Cochlicopa lubrica	a
?*Truncatellina cylindrica*	a
Vertigo pygmaea	
Pupilla muscorum	c
Vallonia costata	
Vallonia excentrica	a
Ena obscura	
Punctum pygmaeum	c
Discus rotundatus	
Vitrea crystallina	
Vitrea contracta	
Aegopinella nitidula	c
Oxychilus cellarius	c
Cernuella virgata	
Trichia hispida	
Cepaea sp.	

Context 303AA

Cochlicopa lubrica	p
Pupilla muscorum	p
Vallonia excentrica	p
Cecilioides acicula	a
?*Helicella itala*	
Trichia hispida	

Context 378AA

Pupilla muscorum	p
Vallonia excentrica	p
Cecilioides acicula	a
Trichia hispida	

Context 393

Vallonia excentrica	p
Cecilioides acicula	a

Context 411AA

Carychium minimum	c
Carychium tridentatum	c
Vertigo pygmaea	
Pupilla muscorum	p
Vallonia costata	
Vallonia excentrica	a
Punctum pygmaeum	p
Cecilioides acicula	a
Clausilia bidentata	p
Cernuella virgata	
Trichia hispida	a
Cepaea sp.	a

Context 508AA

Carychium minimum	a	c
Carychium tridentatum	a	c
Cochlicopa lubrica	c	
Vertigo pygmaea		
Pupilla muscorum		c
Vallonia excentrica		a
Punctum pygmaeum		c
Aegopinella nitidula	c	c
Cecilioides acicula	c	a
?*Helicella itala*		p
Trichia hispida		p

Context 529AA

Cochlicopa lubrica		p
Vertigo pygmaea	c	c
Pupilla muscorum		c
Lauria cylindracea		p
Vallonia excentrica	a	c
Cecilioides acicula		a
Cernuella virgata	c	c
Trichia hispida		a
	c	
	a	
	a	

Marine taxa

Context 300	c	
Ostrea sp.	c	p
	c	
Context 305		
Ostrea sp.		p
Context 404		
Ostrea sp.		c
Context 406		
Mytilus sp.	p	p
Ostrea sp.	p	p
Context 407		
Mytilus sp.		p
Context 411		
Ostrea sp.	p	p