6b. Molluscan Analysis

by David Ingham and Mark Robinson

6b.1 Introduction

In line with the aim of the Ridgeway Project to attempt to set the major sites along the Ridgeway in the context of a changing landscape, a number of soil samples were taken for molluscan analysis. It is unfortunate that the potential of such analysis was not fully realised until a late stage in proceedings, and consequently few samples were available for analysis.

6b.2 Methodology

An initial assessment of the likely value of the snail samples was undertaken, which concluded that three of the eight samples (from a posthole and the middle fills of two pits) were unlikely to produce valuable environmental evidence. 1kg of each of the remaining samples was broken up in a bowl of water, and any material that floated was poured off onto a 0.5mm sieve. The residue was then sieved onto a 0.5mm mesh and allowed to dry along with the flot. Shells were then extracted from the flots and residues under a binocular microscope and identified at x10 to x20 magnification, with reference to the collections of the Oxford University Museum of Natural History.

6b.3 Results

The number of snails listed in Table 6.3 represents the minimum number of snails present in each sample. Specimens of *Vallonia* which could not positively be identified as either *V. excentrica* or *V. costata* were classified as *V.* cf. *excentrica* if no examples of *V. costata* were evident in the sample, otherwise as *Vallonia* sp. *Cecilioides acicula* was excluded from the totals where present because it burrows up to 2m and is likely to be intrusive. The specimens of *Pomatias elegans* were mainly worn fragments, rather than intact shells, so were likely to be residual.

The earliest of the samples was from context (1429), in tree-throw hole [1219]. Although undated, it pre-dated the hillfort. The majority of the shells were from shade-loving species, particularly *Discus rotundatus* and also members of the Zonitidae including *Vitrea* sp., *Oxychilus cellarius* and *Aegopinella* species. Other shade-loving species included *Carychium tridentatum* and *Macrogastra rolphii*. A few shells of obligate open-country species, including *Pupilla muscorum*, were also present. These results were entirely consistent with the interpretation of the feature as a tree-throw hole related to clearance. The shade-loving species would have been from the woodland soil which became re-deposited in the feature, while the open-country species colonised following clearance.

Layer (7319), the palaeosoil sealed beneath the rampart of the hillfort (dated to the Late Bronze Age), contained a very high concentration of shells. The presence of small chalk fragments in the soil, the absence of a turf line and the occurrence of cultivation marks from ard cross-ploughing, all indicated cultivation, which would not be conducive to a high population level of snails. The majority of the shells were of species able to tolerate some degree of ard cultivation (Evans 1972) but some, for example *Carychium tridentatum*, do not withstand ploughing. It is therefore suggested that either cultivation only began shortly before the construction of the rampart or that there were only occasional episodes of

cultivation.
The mollusc assemblage from context (7319) was dominated by species of dry-ground open habitat, particularly *Vallonia excentrica*, *Pupilla muscorum* and *Vertigo pygmaea*. Another species of such conditions, *Helicella itala*, was also well represented. The only other numerous mollusc, *Cochlicopa* sp., readily occurs in open habitats, although it is not restricted to them. Shade-loving species were almost absent, although there was a significant presence of *Carychium tridentatum*, which occurs in grassland which is not heavily grazed or trampled, as well as woodland. The results suggested that the environment, prior to the construction of the rampart, was dry grassland which had perhaps been broken up by ard cultivation not long before being sealed by the rampart.

Mollusc assemblages from the backfill of pits present problems of interpretation because there are potentially shells from individuals which lived in the pits as well as shells from individuals from the surrounding environs and residual shells amongst soil used to infill the pits. However, interpretation of the molluscs from two pits within the hillfort, context (2072) from Early Iron Age pit [2061] and context (1475) from Early Iron Age pit [1298], is straightforward because the only species that were well-represented were species of dry, open habitats. The most numerous species (excluding *Cecilioides acicula*) in these contexts were *Pupilla muscorum* and *Vallonia excentrica*, suggesting the interior of the hillfort was open. The presence of a couple of shells of an alien helicellid, probably *Cernuella virgata*, in pit [1298] suggested the feature had experienced limited disturbance, for example from a burrowing animal.

Context (6013) was from a large Early Iron Age Ditch [6002]. It too contained an assemblage of molluscs characteristic of dry open habitats, with *P. muscorum* and *V. excentrica* being the most numerous species.

6b.4 Discussion

The results from Segsbury presented an unexceptional sequence. Clearance, related to tree-throw holes, occurred at some unspecified date prior to the construction of the hillfort. The hillfort rampart itself was built in a landscape of grassland which had recently been ploughed. Conditions remained open throughout the Iron Age and probably into the Roman period. Very similar results were obtained from molluscan studies which related to Uffington Castle (Robinson 2003b). While there was limited clearance on the Berkshire Downs from the early Neolithic onwards, such clearances tended to be temporary. Large-scale permanent clearance and land division occurred in the late Bronze Age. Interestingly, the rampart of Uffington Castle also sealed a ploughsoil.

Bibliography

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Table 6.3: Molluscs from Segsbury

Feature	Early Iron Age Ditch [6002]	Tree-throw [1219]	Early Iron Age Pit [1298]	Early Iron Age Pit [2061]	Late Bronze Age Soil beneath rampart
Context	6013	1429	1475	2072	7319
Pomatias elegans	2	1	-	-	6
Carychium tridentatum	3	4	-	-	8
Cochlicopa sp.	3	-	1	-	38
Vertigo pygmaea	4	1	-	1	17
V. cf. *Pygmaea*	-	-	1	-	16
Pupilla muscorum	43	5	21	25	54
Vallonia costata	-	-	2	9	5
V. excentrica	24	-	10	11	91
V. cf. *Excentrica*	37	1	-	-	-
Vallonia sp.	-	-	13	12	139
Punctum pygmaeum	-	-	-	-	2
Discus rotundatus	-	14	-	-	3
Vitrea cf. *Contracta*	-	-	1	-	-
Vitrea sp.	-	6	1	-	-
Aegopinella pura	-	1	-	-	-
A. nitidula	-	3	-	-	-
Oxychilus cellarius	-	4	-	2	-
Zonitidae indet.	4	-	-	-	-
Cecilioides acicula	6	12	55	26	-
Cochlodina laminata	-	-	-	1	3
Macrogastra rolphii	-	1	-	-	-
Clausilia bidentata	-	-	-	-	1
cf. *Cernuella virgata*	-	-	2	-	-
Helicella itala	3	-	4	6	20
Trichia hispida gp.	-	1	2	6	-
Cepaea sp.	1	2	-	1	1
Total (excluding *C. acicula*)	124	44	58	74	404