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MOLLUSC ANALYSIS FROM WINTERBOURNE STEEPLETON, DORSET

By

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Samples were submitted by Peter Woodward from his excavation of a prehistoric settlement at Winterbourne Steepleton. The site was excavated in 1981 for the Wessex Archaeological Committee and lies at <u>c</u>. 154 m/within an area of Celtic fields (Royal Commission on Historical Monuments, 1970, p.624). The solid geology is Upper Chalk overlain by a variable thickness of what the Geological Survey (Sheet 327) describes as pebbly clay and sand of Pleistocene date, in the excavated area this deposit closely resembled Claywith-flints.

Four samples were examined for molluscs: the earliest was from a Neolithic pit and the remainder were of late bronze Age date associated with the collapse and abandonment of a hut. The methods of mollusc analysis employed were those outlined by Evans (1972) and the nomenclature follows Walden (1976). Shell preservation was not good and some examples showed a degree of surface pitting and erosion. The results are given in Table 1 and are also shown on Fig.1 as histograms of absolute numbers. On the same figure there is also a pie diagram for each context showing the proportions of open country, catholic and woodland species as defined by Evans (1972, pp.194-203). <u>Cecilioides acicula</u> has been omitted in calculating these proportions since it is a burrowing species of little palaeoenvironmental significance. The contexts examined were not ideal for mollusc studies, assemblages from features are difficult to interpret because they may reflect microenvironmental factors within the feature itself and because the feature fill is likely to be derived from unknown and possibly multiple sources.

The Neolithic pit

The sediment making up context 575 was interpreted by the excavator as the product of collapse of the pit sides and may be assumed therefore to have derived from the soil surface into which the pit was dug. Among the unfortunately small number of molluscs from this context <u>Discus rotundatus</u> is the most numerous, this is normally encountered in woods, damp herbage and leaf litter. Also present are <u>Vitrea contracta</u>, <u>Oxychilus cellarius</u> and <u>Aegopinella</u> <u>nitidula</u>, all of which prefer shade. As the pie diagram shows these shade-loving species account for most of the assemblage. There are also small numbers of species of catholic ecological preferences and individual examples of <u>Pupilla muscorum</u> and <u>Vallonia costata</u> which generally favour open conditions. Even bearing in mind the difficulties of interpretation the assemblage is not what one would expect from open grassland on the downs and it seems probable that a degree of shade may have existed in Neolithic times.

Bronze Age hut

Three samples were submitted from a late Bronze Age hut platform. Context 858 contained many flints which had formed a wall round the periphery of the hut platform. Context 804 was a triangle of sediment against the hut wall. Context 561 was another triangle of sediment overlying the former, this produced no molluscs but did contain a number of charred seeds which await identification. The

remaining two samples are considered to relate to the abandonment and collapse of the hut and the mollusc assemblages are, as Fig. 1 shows, very similar. The most numerous species are Discus rotundatus and Oxychilus cellarius. Other shade-loving species are Vitrea contracta, Carychium tridentatum, Acanthinula aculeata, Aegopinella nitidula, Nesovitrea hammonis, Clausilia bidentata and Punctum pygmaeum. Shade-loving species account for 78% in context 804 and 79% in context 858. With them are small numbers of species of catholic preferences such as Cepaea sp., Trichia hispida, and Limacidae. The most numerous open country species is Helicella itala and there are small numbers of the Vallonias and Pupilla muscorum. Open country species comprise 10% in context 858 and 16% in context 804. It was speculated in the field that the sediments forming context 804 might represent turves from the collapsed wall and roof. Had this been the case we should expect much larger numbers of Helicella itala, the Vallonias and Pupilla muscorum. The predominantly shade-loving assemblage may partly reflect microenvironmental factors within the hut walls (context 858) or the collapsing structure (context 804), but it also seems likely that the site was colonized by scrub following abandonment of the hut. We have no way of knowing whether we are dealing with a small patch of scrub on the hut platform itself or larger scale regeneration on the hillside. At some subsequent date the area seems to have gone over to grassland thus accounting for the overlying very regularly stratified earthworm sorted soil profile observed in the field. This profile contained Medieval pottery and was sealed below a ploughwash deposit.

Conclusions

It must be re-emphasized that these contexts were by no means ideal for mollusc analysis. They do, however, hint that a degree of scrub and shade persisted in this area into Neolithic and late Bronze Age times. None of the samples has provided any evidence of open turf downland although we can hypothesize a late Bronze Age episode of open conditions on the basis of the settlement itself and its probably associated field system. The picture that emerges of possible clearance, regeneration and scrub growth at various times in the Neolithic and Bronze Age is not at variance with the sequence from the Bronze Age barrow 2 km to the south at Black Down, Portesham which lies on Bagshot Beds overlying chalk. Pollen spectra from the old land surface below the barrow (Dimbleby, 1957) showed that an early period of forest conditions gave way to open country with weeds of cultivation followed by evidence for the abandonment of cultivated land associated with an increase of heath species and regeneration of hazel and alder. This regeneration is obviously earlier than that postulated at Winterbourne Steepleton but both sites show that parts of the Dorset Chalkland and overlying Tertiary deposits had not been totally and permanently cleared at an early date.

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References

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- Walden, H.W. (1976) : 'A nomenclatural list of the land Mollusca of the British Isles', Journal of Conchology, 29, pp.21-25.

	NEO	BRONZE AGE		
Granian Called	Contest	Congester.	C.a.,	C.,
as Waldén 1976	-е 575	"Е 858	804	56 56
		1		
<u>Larychium tridentatum</u> (Müller)	1	-		
<u>Cochlicopa sp</u>	1	+	2	
Pupilla nuscorum (Linnaeus)		· 2		
Vallonia costata (Nüller)	<u>т</u>	4		
Vallonia excentrica (Sterti)		1	2	
<u>Acanthinula aculeata</u> (Müller)			1	
Punctum pygmaeum (Draparnewdi)		1		
<u>Discus rotundatus</u> (Müller)	11	35	24	
Vitrea contracta (Westerlund)	4	5	1	
<u>Nesovitrea hammonis</u> (Ström)			1	
Acqopinella nitidula (Draparnaudi)	1	1		
Oxychilus cellarius (Müller)	2	21	11	
Linacidae	1	3	1	
<u>Cecilioides acicula</u> (Nüller)	7	14	10	10
Clausilia bidentata (Ström)		4		
Helicella itala (Linnaeus)		6	4	
Trichia hispida (Linnaeus)	3	5	1	
Cepaea hortensis (Nüller)	1			
Cedaed SD		1	1	
TOTAL (minus <u>C.acicula</u>)	26	86	49	
SEDIMENTS				:
Dry weight (arame)	7260	2200	2300	2800
> 5:6 man	38%	21.1	22.1	11%
	10%	кці. 11•/	~~!·	41/4
D'6 - 0.5 mm	10%		+1.	4.4
5 0.5mm	ь <u>2</u> %	657.	71%	55%

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