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**PREHISTORIC ECONOMY AT MONTE COVOLO:
THE PRELIMINARY REPORT ON THE ANIMAL BONES**

Almost 20,000 fragments of bone were recovered from the 1972 and 1973 excavations at Monte Covolo. Of these, 5578 fragments have been identified - just under 30 per cent of the total sample. The large number of unidentifiable fragments is a result of the very high rate of recovery at the site, of even the smallest unidentifiable chips of bone. All of the archeological deposits were excavated by trowelling and most units were also water-sieved. By trowelling and then water-sieving the same earth, it was possible to compare the two samples of animal bone extracted from a particular unit by the two techniques. The preliminary analysis of these units suggests that the standard of recovery produced by careful trowelling was in fact very high: I did not observe the drastic differences in recovery noted by PAYNE (1972), who carried out similar experiments at other sites. The sieved deposits at Monte Covolo produced, for example, individual teeth of smaller animals such as dog, pig, or sheep, which had been missed in trowelling, but not in sufficient quantities to alter the percentages of the fragments derived from the trowelled deposits to any significant degree. The mass of the sieved sample consisted of very small fragments of smashed bone, probably for the most part long-bone fragments of the smaller animals, but unidentifiable. I must emphasise, however, that these are preliminary impressions, inevitably of a subjective nature: the recovery procedures and the results produced by them will be discussed properly in the final report.

The basic identifications of the fragments are shown in Table 1. The sample is drawn from the northwest, southwest and southeast quadrants of the site. For the purposes of this preliminary report, the layers from these three areas have been lumped into two major units: the late neolithic deposit in the lower part of the stratigraphy, and the upper layers with Beaker and Polada early bronze age material.

	bear	bird	caprines (sheep/goat)	cattle	dog	fish	fox	pig	red deer	roe deer	rodent	wolf	total
Early Bronze Age	3	3	1499	1128	14	1	3	1267	61	14	17	1	4011
Late Neolithic	1	3	579	432	14	—	1	441	53	16	27	—	1567

Table 1. Numbers of identifiable fragments.

All of the sample is highly fragmented; complete bones are very rare and most of the sample is almost certainly the domestic food refuse of the settlement. A single caudal centrum of a fish was found. Very small bones of rodents were recovered in many layers, however, and unless factors of differential survival have affected the sample, (which is of course possible), the occurrence of these very small specimens makes it unlikely that numerous fish bones were missed in the excavations. Practically all of the bones are those of domestic animals. Table 2 compares the domestic stock (caprines, cattle, dog, pig) with the wild species killed by the inhabitants of the site (bear, bird, fish, fox, red deer, roe deer, wolf).

	Late Neolithic		Early Bronze Age	
	N	%	N	%
Domestic animals	1466	95.2	3908	97.9
Wild animals	75	4.8	85	2.1

Table 2. Percentages of domestic and wild animals (in terms of numbers of fragments).

It is apparent from this table that, even if all these wild animals were killed for food, which is unlikely, game made very little contribution to the diet of the prehistoric community at any period in the occupation of the site.

Cattle, pigs, sheep and goats were the main animals raised at Monte Covolo. In Table 3 the cattle, caprine and pig fragments have been lumped together and the frequency of the three types of stock has been expressed as a percentage of their total.

	Late Neolithic		Early Bronze Age	
	N	%	N	%
Caprines	579	39.9	1499	38.6
Cattle	432	29.7	1128	29.0
Pig	441	30.4	1267	32.4
Total	1452	100.0	3894	100.0

Table 3. Percentages of major stock (in terms of numbers of fragments).

The minimum number of individuals is recognised to be a more reliable calculation of stock frequencies than the relative number of fragments. The main report will therefore have to test the validity of the percentages shown in Table 3, using the minimum number of individuals in the sample. However, if we take these figures at face value for the present, stock ratios seem to have been remarkably stable during the occupation of the settlement. The fluctuations in relative numbers of fragments do not seem to be significant. According to the tables in both the Late Neolithic and Early Bronze Age, the inhabitants of the Monte Covolo settlement raised cattle, caprines and swine in roughly equal numbers, although there is a bias in both periods towards sheep and goats. The area around the site was probably at least as wooded as today and was clearly suited to swine. At the same time the site was well placed for raising cattle and caprines: there is good winter grazing on the piedmont between the settlement and the Po valley, and there are accessible alpine pastures up the Val Sabbia to the north. The exploitation system developed by the first inhabitants of the site endured unchanging into the Early Bronze Age. The main report will examine the prehistoric economies at Monte Còvolo in greater detail, to try to understand the nature of a stock-keeping system which was, apparently, a stable and successful adjustment to the local environment around the settlement.

REFERENCE

- PAYNE, S. (1972) - 'Partial recovery and sample bias: the results of some sieving experiments' in E. S. Higgs (ed.) *Papers in Economic Prehistory* Cambridge, Cambridge University Press: 49 - 64.

Riassunto

L'Autore dà un primo resoconto circa i reperti animali rinvenuti nello scavo al Monte Còvolo negli anni 1972-1973. Furono recuperati 20.000 frammenti di ossa, di cui è stato possibile identificare e classificare il 30%. Da detta analisi è possibile stabilire che la maggior parte delle ossa appartengono ad animali domestici (caprini, maiali, cani, ecc.) e in percentuale assai minore ad animali selvatici, uccisi dagli abitanti del luogo (orsi, uccelli, pesci, volpi, cervi, caprioli): tutto ciò tenderebbe ad avvalorare l'ipotesi che la comunità preistorica insediatasi alle falde del Monte Còvolo praticasse la caccia soltanto per difesa, e non per procurarsi il cibo.

I frammenti trovati appartengono sia all'Età del tardo Neolitico sia alla prima Età del Bronzo: infatti, le conclusioni — come si può notare dalle tabelle riportate — sono le stesse per ambedue i periodi.