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The purpose of this report is to outline and to justify the procedures which have been adopted at the EAU for determining priorities and working methods for the recording of mammal and bird bone assemblages from archaeological sites. These procedures are not intended to be used as any kind of 'standard' for other workers in this field, as individual circumstances will determine the most suitable approach.

Introduction

Bone may be recovered from archaeological sites in very large quantities, and the process of identifying and recording all of it can be particularly labour-intensive. The results of a study of archaeological bone will not necessarily justify the expenditure of time and money unless there has been careful, informed selection, both of what is examined and of the procedures appropriate for that examination. Experience at the EAU, in particular in dealing with the large collection of bones from the 16-22 Coppergate site, has led to the adoption of a system of defining priorities for the bone samples from a site, and the tailoring of recording methods to suit this prioritisation. The aim has been to optimise information recovery by minimising redundancy in the data record. For the purposes of this report, the term 'sample' is used to refer to the bones collected from a single archaeological context, whether by hand during excavation or by sieving a soil sample. These samples are the basic unit in which bones are recorded.

Selectivity on site

Although it might seem rational to make some selection of bone samples during the course of excavation, this is rarely desirable. The archaeological provenance of a given sample might be clear at the time of excavation, but the importance or otherwise of a particular context in the overall archaeology of the site will usually only become apparent long after the excavation is finished. Any selection of bone samples during excavation will not, therefore, be based on all the evidence necessary to establish sensible priorities. Wet-sieving soil samples to 2mm or less in order to recover small bones should be done whenever circumstances of stratigraphy or preservation indicate that it will be productive. Selection of bone samples for study can then be made from a

primary archive of bone after the excavation is finished and in the light of the archaeological interpretation of the site.

Recording strategies

The two extremes which can be adopted are to record as many data as possible from every specimen in a sample or to reject the sample without even making a cursory examination. Full recording is justified if three criteria are met:

1. The archaeological provenance of the sample is known and closely delimited.
2. The size of the sample is sufficient to give confidence in the results.
3. There is a good reason for recording that sample, i.e. the information obtained will not merely duplicate what has already been demonstrated by an adequate number of samples.

In practice in York, a full record is made if the sample is intrinsically important, such as groups of Anglian date (even when small), or in the case of a large sample with good preservation and recovery and minimal residuality which can be taken to represent human activity in a closely-defined time and place, such as some of the large dumps in Anglo-Scandinavian levels at 16-22 Coppergate. As a halfway strategy for smaller groups not of the highest priority, such as small medieval pit groups, the procedure which has been adopted is to make a rough sort of the sample, recording the species present for a frequency analysis, and then to collect any available data which will subsequently by analysed for the phase or site as a whole. This might include measuring selected specimens, recording eruption and attrition in mandibles, or noting discontinuous genetic traits. Because a full record, fragment by fragment, is not made, species abundance within such samples cannot be quantified, and details of the relative abundance of different body parts cannot be assessed. However, small samples are generally unsuitable for this type of quantification in any case, and experience has shown that this 'scan' recording is very much faster than making a full record, involving only a small loss of data and a negligible loss of information.

Working procedures

When confronted with a complete bone assemblage from a site, the first step now undertaken is to select archaeologically well-provenanced samples of adequate size. In most cases, 'adequate size' is taken to mean 1 boxfull or more (based on the standard box used for bone storage by the York Archaeological Trust, these being of about 0.03 cubic metres or 1 cubic foot volume). These highest priority samples are all recorded in full, unless the point is reached whereby the recording of further samples is adding no new information (a point which to date has only been reached with the extensive assemblage from 16-22 Coppergate). If such a point is reached, the remaining highest priority samples are critically examined to see if any are particularly unusual in content or interpretation. Failing any pressing reason for making a full record of superfluous large samples, they are scanned and briefly recorded along

with the samples originally selected as being of lower priority.

For small samples (less than one standard box), the provenance is checked, and the samples are scanned as described above unless there is a very good reason for recording them in full. When the point is reached at which the full record of large samples and the scan record of smaller or less important samples is not being augmented by the examination of yet more bones, recording stops, although it should be stressed that for most site assemblages this point is unlikely to be reached. Even unrecorded material should be subjected to a quick visual examination in order to collect additional records of uncommon taxa (in particular birds and fish), and possibly to increase the corpus of biometrical data if this is necessary.

Experience at York has shown that an experienced operative, minimally interrupted, can make a full record of 2.5-3 standard boxes of bones per day on average, although this figure may be much lower if the samples contain a high proportion of bird or fish bones. Using the scanning procedure outlined above, an average of 5 boxes per day can be recorded with comparative ease.

Conclusions

Studies of bones from archaeological sites are potentially very inefficient in terms of information gained for man-hours contributed (and paid for). The chief factor in this inefficiency appears to be over-recording and data redundancy. Adopting a policy of fairly rigorous informed selection and sample scanning has reduced these detrimental aspects of the job. Scanning as described above does not produce detailed bone-by-bone catalogues, but such lists are only means to an end, not an end in themselves. The desired result is information relevant to the archaeology of the site under investigation, and a sensible selection policy has been shown to give an improved recovery of such information when man-hours have to be limited.

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