APPENDIX 8: ASSESSMENT OF ANIMAL BONE

Alan Pipe and Kevin Rielly

1. Introduction

- 1.1 Animal bones were recovered during excavation works at Cobham Golf Course (ARC CGC 98) and also from the Watching Brief (ARC 330 98).
- 1.2 Animal bones were recovered by hand-collection on site and through wet-sieving bulk samples taken in the field. All hand-collected animal bones were washed and air-dried, then bagged and labelled as context groups. Bulk samples were washed using a modified Siraf tank fitted with 1.0mm and 0.25mm flexible nylon mesh to retain the residue and flot fractions respectively. These fractions were visually sorted for floral and faunal remains and labelled as individual sample groups.
- 1.3 The study of the material was carried with regard to the following Fieldwork Event Aims:-
 - To recover environmental, and other economic, indicators if these are to be found to be present on site
 - to determine the ritual and ceremonial uses of the landscape

2. Methodology

2.1 All contexts containing faunal remains were analysed and recorded onto the ORACLE CTRL animal bone database. No sub-sampling of contexts was carried out. Identifications of species and carcase part were made using the MoLSS Environmental Archaeology Section reference collection together with Schmid (1972).

3. Quantifications

- 3.1 Each of these two sites provided very small quantities of animal bones. Cobham Golf Course produced bones from just one soil sample, which contained a highly fragmented assemblage of 125 fragments weighing 0.02kg. Two of these bones could be identified to species. A total of 0.01kg, or 14 fragments, from a soil sample was recovered from ARC 330 98. None of the hand collected bones from ARC 330 98 could be used for study of stature or age. The quantities of identifiable, ageable and measurable bones from each of these contexts is displayed in Table 17.
- 3.2 Table 18 shows the percentage of identifiable fragments represented by all of the specified species groups. All contexts are recorded in the table, including environmental samples. It is evident that these deposits provided a limited range of species, and that there is no obvious pattern of species abundance.

4. Provenance

- 4.1 The main notable aspect of the animal bone assemblage is the extremely limited quantity of the material. The sand rich/acidic nature of Area 330 Zone 5 appears to have ensured that the animal bone has almost entirely disintegrated.
- 4.2 The ARC CGC 98 assemblage was recovered from the sampled contents [144] of pit [145], which was sampled due to the possibility of it being a human cremation. This deposit was described as 'charcoal-rich', the charcoal perhaps representing the remains of the fuel which had been used in the firing/cremation. The bones, unfortunately, were very fragmented and could not be identified to species. This feature could be late Bronze Age in date, assuming this was associated with adjacent pits dating to this period, as for example pit [142].
- 4.3 The bones from the watching brief ARC 330 98, were taken from two pits [294] and [365], the latter feature dated to the late Bronze/early Iron Age, while the former remains undated. A sample taken from the latter pit provided a small collection of calcined bone fragments. This collection was similar to that previously described from ARC CGC 98, with identification severely limited by the high level of fragmentation. There was just one diagnostic piece, the root of a tooth, which may be pig. It should be mentioned that these calcined bones (from ARC 330 98 and ARC CGC 98) were shown to Bill White (human osteologist at the Museum of London Specialist Services), who confirmed that there were no obvious examples of human bone amongst the two collections.
- 4.4 A very small quantity of animal bones was found in the undated ARC 330 98 pit. This consisted of a single dog bone.

5. Conservation

5.1 It is recommended that all material be retained for the next stage of the analysis and for any future comparative work

6. Comparative material

6.1 These assemblages could be compared to other concentrations of calcined bones recovered along the CTRL route. There is the possibility that they represent cremations, and would therefore be 'ritual' in nature. If this is the case, then they could be compared to the cremations recovered from the Area 330 Zone 3 excavations, here perhaps with the intention of determining changing methods of cremation through time.

7. **Potential for further work**

- 7.1 It can be assumed that the potential value of the bones recovered from the Area 330 Zone 5 excavations is minimal as the quantities are extremely small.
- 7.2 There is very little potential for any study of the economic use of the animals represented, especially as the identified parts are limited to one dog bone, from

- 7.3 There is perhaps some potential concerning the ritual use of animals (CTRL research aim *Ritual and ceremonial use of the landscape*), as shown by the two possible cremations from the prehistoric pits. Unfortunately, neither of these two collections contained fragments identifiable to species-level. There was a possible identification of a pig tooth, which may suggest a ritual use of animal domesticates. Conversely, both collections may simply represent the remains of hearth sweepings.
- 7.4 It is recommended that some further work be undertaken on the calcined bone collections in order to ascertain whether any bones can indeed be identified to species. The distinction between human and animal is clearly of some importance. Such data could add to the understanding of human burial practises with or without animal offerings, and also to the 'ritual' use of animals as offerings/sacrifices within the daily life of the prehistoric occupants of this area.
- 7.5 Given the possibility that there may be some animal bones within the calcined collections, and in order to meet the research aim concerning the ritual and ceremonial uses of the landscape, it will be necessary to provide the following (the second and third tasks will depend on the outcome of the first task):-
 - Identification of the calcined bones
 - Research into contemporary animal/animal and human cremations
 - Writing the report

8. Bibliography

Schmid, E, 1972, Atlas of animal bones for prehistorians, archaeologists and Quaternary geologists Amsterdam, New York, London, Elsevier

Table 17: Assessment of animal bone – quantity of identifiable bones, age, measurements and butchery

Site	Context	N. iden.	N. ageable	N. meas.
ARC CGC 98	144	2	1	0
ARC 330 98	295	1	1	1
ARC 330 98	364	0	0	0

N - approximate number of bones. iden - bones identifiable to species/species group

Table 18: Assessment of animal bone – species, quantity and interpretation

Site	Context	S.No	Interpret- ation	Period	% of identified fragments								
					Sheep goat	Cattle	Pig	Horse	Dog	Small mammal	Bird	Fish	Other
ARC CGC 98	144	10	Pit		0	0	0	0	0	0	0	0	100
ARC 330 98	295	0	Pit		0	0	0	0	100	0	0	0	0
ARC 330 98	364	72	?Cremat- ion	LBA/ EIA	0	0	0	0	0	0	0	0	0

LBALate Bronze AgeEIAEarly Iron Age