

APPENDIX 10: ASSESSMENT OF HUMAN BONE

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1. Introduction

- 1.1 Human skeletal material was recovered during the excavation of the Anglo-Saxon cemetery. There were 36 graves on the site but grave [240] contained remains from two skeletons, an adult female at the base and the partial remains of a child in the sieved sample [239]. It is likely this female died in childbirth or the later stages of pregnancy.
- 1.2 Investigation of the two urns, mentioned in the interim report (URS 1999) as possibly containing cremations, found there were in fact, no cremation burials on the site.

2. Methodology

- 2.1 All the human skeletal material was scanned and assessed in accordance with the MoLSS Environmental Archaeology Manual (in preparation).
- 2.2 Preservation/bone condition, the rough percentage of completeness, general age (child/adult) and obvious pathology/sex were noted and these details are summarised in the table below. The data has been entered onto the MoLAS Oracle database for human bone and transferred to RLE Datasets.

3. Quantification

- 3.1 During the excavation of ARC CXT 98 the remains of 37 inhumation burials were recovered from 36 separate graves, in which skeletal material survived in 32. Of this total 28 (87.5%) were clearly adults and 7 (21.8%) were clearly children. Of the adults four (12.5%) were obviously men and four (12.5%) were obviously women. This proportion may change after further work involving reconstruction of the skeletons.
- 3.2 It is known that at least one, probably more graves were destroyed by 19th century railway construction (London to Chatham railway) and it is possible others were removed during the construction of the M2 Medway Road Bridge. Recent work has shown that no burials occurred to the east of the M2 Bridge (A2/M2 Junctions 1 to 4 Road Widening works, ongoing) so it may be stated that the cemetery may have originally contained a maximum of 40 to 45 graves.

4. Provenance

- 4.1 The skeletal material came from an Anglo-Saxon cemetery provisionally dated 550 to 650 AD. Three provisional phases have been identified, based on burial alignment, but no true phasing of the cemetery has been attempted. It is thought

that the burials represent a small, possibly family, group that used this site over a number of generations.

4.2 The condition of the bone was poor in 23 individuals (71.8%) and in only four burials (12.5%) was the condition regarded as good. This is surprising because the inhumations were made into chalk and a mildly alkaline environment such as this normally tends to lead to good preservation of bone mineral. Possibly the hillside situation, with rainwater channelled through the graves, acting as “soakaways”, and certainly tree-root activity, has affected bone stability

4.3 Although in a minority of cases little remained of the buried body apart from a few teeth, truncation of the skeleton was not great. Thus, sixteen (50%) had 50% or more of the skeleton present and a further nine (28%) had more than 80% of the skeleton present. Accordingly there is an adequate quantity of skeletal material to be sampled for DNA analysis or carbon-14 dating.

5. Conservation

5.1 The material does not require any conservation for the purpose of long-term storage, as, under the terms of the CTRL Act 1996 all human remains are to be reburied. The material also does not require any conservation in preparation for further analysis.

6. Comparative material

6.1 Comparative material exists from Anglo-Saxon sites in the south of England comes from Dover, Portchester Castle (Hooper 1976), Alton (Evison 1988), Great Barrington (Malin & Hines 1998), Raunds Furnells (Boddington 1996), Bidford-on-Avon (Brash 1923), and North Elmham (Wells 1980).

6.2 Preliminary indications from the CTRL Saltwood Anglo-Saxon cemetery are that there will be little comparative material, due to poor survival of skeletal material.

7. Potential for further work

7.1 The human skeletal material has potential for further work, despite the generally poor condition of much of the bone, due to the rarity of burial sites of this date. This together with what is assumed to be the relatively high proportion of the original cemetery population, associated grave goods and the opportunity to study this transitional period, increases its interest.

7.2 Fieldwork event Aim:

- *Palaeo-demographic and palaeo-pathological analysis*

7.3 Despite the poor condition of much of the bone itself the individual skeletons were reasonably complete and, hence the potential for demographic analysis and palaeo-pathology is high. Detailed analysis, following reconstruction, will allow diagnosis of age, sex and pathology not evident during the original rapid-scanning of remains.

- *Consider the effect on the landscape of known historical events, eg the arrival of the Anglo-Saxons*

7.4 The burials appear to cover a tight time span and there is the strong possibility that they represent a few generations of an extended family. Despite fragmentation there is a good chance that non-metric traits registered on the bone will support close family relationship. DNA analysis could then confirm genetic relationship. It may be possible to detect if this was a 'native' Kentish family that had adopted Anglo-Saxon ways, or was a distinct colonial group.

- *Ritual and ceremonial use of the landscape*

7.5 The burial site is of great importance because of the period concerned and of the fact that the graves are relatively rich (although not especially rich by Kent standards).

Further Work

7.6 Further work on the human skeletal remains should include analysis, recording and written text to publication level. In addition DNA-profiling may allow the confirmation of family grouping among burials.

- high preservation: 3 skeletons
- medium preservation: 9 skeletons
- low preservation: 23 skeletons
- data inputting
- photography and radiography
- writing the osteological report

8. Bibliography

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Table 20: Assessment of Human Bone, Inhumations ARC CXT 98

Context	Context type	Period	Preservation (high/medium/low)	Completeness %	Age	Comments (pathology noted/sex)
164	Skeleton	EM	Low	40	adult	
166	Skeleton	EM	Low	50	adult	Osteomyelitis
168	Skeleton	EM	Low	20	adult	
172	Skeleton	EM	Low	50	child	
178	Skeleton	EM	Low	50	adult	
186	Skeleton	EM	Low	35	child	
190	Skeleton	EM	Low	50	adult	
193	Skeleton	EM	Medium	90	adult	Male
210	Skeleton	EM	Low	25	adult	
214	Skeleton	EM	High	90	adult	Female
217	Skeleton	EM	Low	20	child	
239	Grave fill	EM	Low	10	child	
240	Skeleton	EM	High	40	adult	Female
242	Skeleton	EM	Low	20	child	
246	Skeleton	EM	Low	40	adult	
249	Skeleton	EM	Medium	90	adult	Male
261	Skeleton	EM	Medium	90	adult	Male
276	Skeleton	EM	Medium	10	child	
280	Skeleton	EM	Medium	50	adult	
282	Skeleton	EM	None	00	-----	
285	Skeleton	EM	None	00	-----	
290	Skeleton	EM	None	00	-----	
293	Skeleton	EM	Low	10	child	
296	Skeleton	EM	Low	60	adult	Female
299	Skeleton	EM	High	80	adult	Male
302	Skeleton	EM	Medium	40	adult	
305	Skeleton	EM	Low	75	adult	
312	Skeleton	EM	Low	10	adult	
315	Skeleton	EM	Low	40	adult	
318	Skeleton	EM	Low	25	adult	
323	Skeleton	EM	Low	25	adult	
357	Skeleton	EM	None	00	-----	
360	Skeleton	EM	Low	40	adult	
363	Skeleton	EM	Medium	90	adult	Female
367	Skeleton	EM	None	00	-----	
372	Skeleton	EM	Medium	60	adult	
378	Skeleton	EM	Medium	75	adult	

