

## **Appendix 7: Environmental report for Highgate, Cleethorpes, North-East Lincolnshire (HGCL 07).**

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### **1. Introduction**

- 1.1 A total of four soil samples and three fragments of animal bone were submitted for assessment. The sample processing produced four flots which have been assessed for plant remains and charcoal, and a few additional bone fragments. In addition, magnetic material, non-marine and marine shells and fish bones were recovered and these should be subject to specialist analysis.

### **2. Methodology**

#### **Environmental samples**

- 2.1 Bulk environmental samples were processed by Archaeological Services WYAS using an Ankara style water flotation system (French 1971). Flots were collected in a 300 $\mu$ m sieve and the heavy fraction (the retent) was collected in a 1mm mesh. The retents were sorted by eye for artefacts and ecofacts and were also scanned using a magnet. The flot, once dry, was scanned using a low powered binocular microscope at magnifications of x4-45. Very few carbonised remains were encountered in the flots with most containing <2.5ml of charred material. Modern roots and other material were also rare and in amounts <2.5ml (Table 1). No charcoal fragments were present.
- 2.2 Plant nomenclature utilised in the text follows Stace (1997) for all vascular plants apart from cereals, which follow Zohary and Hopf (2000).

#### **Faunal remains**

- 2.3 Three animal bones were hand-excavated and a further ten fragments were retrieved from the retents (Table 2), of which six are fish bones.

### **3. Results**

#### **Environmental samples**

- 3.1 The four flots produced very few environmental remains, with often only single specimens of carbonised plant material present in each sample. This material was in a good state of preservation, however, allowing for the identification of *Triticum aestivum* sl. (bread/spelt wheat) in sample 1 (002) and *Hordeum vulgare* var. *vulgare* (six row hulled barley) in sample 2 (007), albeit in trace amounts. The bread/spelt wheat could not be separated into individual types and therefore this broad category is the closest identification that can be given. Other cereal grain was present in samples 3 (004) and 4 (005), but this was too vesicular and poorly preserved to be identified. The only other material encountered in the flots was a small quantity of non-marine mollusc shells in sample 3 (004), which will need identifying by an appropriate specialist. The botanical material needs no further analysis.
- 3.2 Marine/estuarine shells and magnetic material were recovered from all four retents. These require specialist analysis.
- 3.3

### Faunal remains

3.4 No meaningful interpretation can be given of such a small bone assemblage, albeit well preserved, and no further analysis is required of the mammalian bone. The six fish bones, however, should be identified to family or genus if possible.

### 4. Conclusions

4.1 Recovery of both carbonised plant material and animal bones was very scarce, although trace amounts of well preserved cereal grain (bread/spelt wheat types and hulled barley) and cattle and pig bones were identified. These categories require no further analysis, but the non-marine and marine/estuarine shells, fish bones and magnetic material should be subject to specialist analysis.

Table 1. Carbonised plant remains and other remains

	Sample	1	2	3	4
	Context	2	7	4	5
	Total CV	<2.5ml	<2.5ml	<2.5ml	<2.5ml
	Modern	<2.5ml	0	<2.5ml	<2.5ml
<b>Carbonised Cereal Grain</b>	<b>Common Name</b>				
<i>Triticum aestivum</i> sl.	bread/spelt wheat	2			
<i>Hordeum vulgare</i> var. <i>vulgare</i>	six row hulled barley		1		
Indeterminate cereal grain (+embryo)				4	4
<b>Other Remains</b>					
Non-marine mollusc shells				10+	

Table 2. Faunal remains by context (italicised entries indicate bones recovered from the soil samples)

Context	Taxon	Element
004	<i>Sheep-sized mammal</i>	<i>rib fragment</i>
004	<i>Sheep-sized mammal</i>	<i>3 long bone fragments</i>
004	<i>Fish</i>	<i>2 fragments</i>
005	Cattle	Distal radius (fused)
005	Cattle	Mandibular fragment
005	Pig	Astragalus
005	<i>Fish</i>	<i>4 fragments</i>

### ***Bibliography***

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#### ***Report***

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#### ***Sample processing***

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