

King's Mews, Chester.

Environmental Assessment



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KING'S MEWS, CHESTER (E762): ENVIRONMENTAL ASSESSMENT

1 INTRODUCTION

- 1.1 Oxford Archaeology North (OA North) was commissioned by Earthworks Archaeological Services Ltd on behalf of their client Daniel Construction Ltd, to assess six environmental bulk samples for charred and waterlogged plant remains from Kings Mews, Chester (site E762). They were all secure contexts taken from a possible pre-Roman fortress buried soil and a Roman drain. It was hoped that the samples would shed light on the economy and environment of the site during its period of use. The six contexts are listed with their associated feature details in Table 1.

Context No	Feature Type
56	Possible pre-fortress buried soil horizon
81	Main fill of Roman drain
81 (sub-sample)	Sub-sample containing possible coprolites
90	Lens between 80 and 81
90 (sub-sample)	Sub-sample containing possible coprolites
91	Basal fill of Roman drain

Table 1: Details of the four assessed samples from Kings Mews, Chester

2 QUANTIFICATION AND METHODOLOGY

- 2.1 Three of the contexts, **81**, **90** and **91**, came from a large Roman drain running parallel to the intervallum road, and the fourth, **56**, came from a possible pre-fort buried soil horizon. Two sub-samples, one from context **81** and one from **90**, which were believed to contain coprolites, were also assessed for any plant remains.
- 2.2 The samples were hand-floated, and the flots were collected on 250 micron mesh and air-dried. The flots were scanned with a Leica MZ6 stereo microscope and plant material was recorded and provisionally identified. The data are shown on Table 2. Plant remains were recorded on a scale of abundance of 1-5, where 1 is rare (less than 5 items) and 5 is abundant (more than 100 items). The components of the matrix of the flot were also noted. Botanical nomenclature follows Stace (1997).

3 RESULTS

- 3.1 The results of the assessment are shown in Table 2. Rare cereal remains, including a single *Hordeum vulgare* (barley) and *Triticum* sp. (wheat) grain, were recorded in the context **81**, from the main fill of a Roman drain. A number of the contexts contained charred weed seeds, including *Persicaria lapathifolia* (pale persicaria), *Ranunculus* sp. (buttercups), and *Rumex acetosa* (common sorrel), however these were in low quantities. All of the samples contained abundant charcoal fragments.

- 3.2 No obvious coprolites were present in the two sub-samples taken from **81** and **90**; however **81** contained heat?-hardened sediment, and **90** contained metallic lumps. Most of the samples also contained coal fragments, and industrial waste and/or ceramic building material (cbm).
- 3.3 The fills of the Roman drain, (**81** and **91**) both contained occasional waterlogged seeds of *Carex* (sedges). In addition, *Juncus* sp. (rushes) seeds were present in the former.
- 3.4 All of the drain fill contexts contained rare to common small mammal bone, fish bone and/or bird bone and context **91** contained a single juvenile sheep tooth (S. Rowland pers comm).

4 Discussion

- 4.1 The range of finds within the Roman drain fill contexts, such as the small bones, charcoal, coal, industrial waste and cbm, suggests that the material is largely made up of domestic waste, which is likely to have been either accidentally washed into, or deliberately dumped in, the feature. Although the evidence suggests that wheat and possible barley were being utilised on the site, their rarity suggests that very little information will be gained by further analysis. Similarly, although the charred weed seeds are typical of open grassland and/or waste/cultivated ground, the relatively sparse assemblage means very little more would be achieved through further analysis. The fill of a Roman drain from the intervallum road of the main fortress, assessed earlier by OA North, also contained a very sparse plant assemblage (OA North 2005).
- 4.2 Although all four samples contained very abundant charcoal remains its uncertain taphonomy, coming from within a drain and buried soil horizon, means that any further charcoal analysis would also be of limited use.

5 POTENTIAL AND RECOMMENDATIONS

- 5.1 Given the low quantities of both charred and waterlogged plant remains in all four of the samples there is little potential for further analysis. However, the charred seeds would provide suitable material for radiocarbon dating if necessary.

6 ACKNOWLEDGEMENTS

- 6.1 Sandra Bonsall processed the samples and both Sandra and Denise Druce undertook the assessment and wrote the report. Elizabeth Huckerby and Alan Lupton both checked the report and managed the project.

7 BIBLIOGRAPHY

Stace, C. 1997, *New Flora of the British Isles*, 2nd ed., Cambridge

OA North, 2005, Grosvenor Park Precinct, Chester: Environmental Assessment, unpubl. client report

Context No	Feature	Sample vol. (litres)	Flot description	Plant remains	Potential
56	Possible pre-fortress buried soil	4	45 ml. Charcoal 5, >2mm (3) <2mm (5), Fine sand (5), Coal (2), Industrial waste (1)	CPR: Weed seeds (1) incl. Poaceae (grass family) <2 mm	None
81	Main fill of Roman drain	10	100 ml. Charcoal 5, >2mm (5) <2mm (5), Fine sand (5), Mammal bone(2), Fish bone (1), Earthworm egg cases (2), Modern seeds (1), Hardened sediment (5)	CPR: Cereals (1) incl. Cerealia indet, cf. <i>Hordeum vulgare</i> (barley). Weed seeds (2) incl. <i>Persicaria lapathifolia</i> (pale persicaria), cf. <i>Ranunculus</i> sp. (buttercups), Indet, unknown WPR: Weed seeds (1/2) incl. <i>Carex lenticular</i> (sedges), <i>Juncus</i> sp. (rushes)	Low
81 (sub-sample)	Possible coprolites	5	60 ml. Charcoal 2, >2mm (1) <2mm (1), Small mammal bone (1), Coal (1), Modern roots (5), Hardened sediment (5), cbm (3)	CPR: Cereals (1) incl. <i>Cerealia</i> indet, <i>Triticum</i> sp. (wheat)	None
90	Lens in fill of Roman drain	10	700 ml. Charcoal 5, >2mm (5) <2mm (5), Sand (5), Mammal bone (3), Bird? bone (2), Coal (4), Insect frag. (2), Earthworm egg cases (2), Modern seeds (1), cbm (1)	CPR: Weed seeds (1/2) incl. <i>Rumex acetosa</i> (common sorrel), <i>Persicaria lapathifolia</i> (pale persicaria), plus <i>Corylus</i> (hazel) nut frag. (1), unknown (1)	None
90 sub-sample)	Possible coprolites	250 ml.	60 ml. Charcoal 2, Mammal bone (1), Fine sand (2), Coal (2), Industrial waste (2), cbm (2)		None
91	Basal fill of Roman drain	5	125 ml. Charcoal 5, >2mm (5) <2mm (5), Insect fragments (2), Fish bone (1), Fine sand (5), Sheep tooth (1), Clinker/cinder (1), Industrial waste (1), Modern seeds (1)	CPR: Weed seeds (1/2) incl. Poaceae <2mm, <i>Prunella vulgaris</i> (selfheal), Indet. WPR: Weed seeds (1) incl. <i>Carex lenticular</i>	None

Table 2: Assessment Results of the charred and waterlogged plant remains from Kings Mews, Chester, Cheshire. Plant remains are scored on a scale of 1-5, where 1 is rare (1-5 items), and 5 is abundant (more than 100 items).

CPR= Charred plant material.

WPR=Waterlogged plant material

cbm = ceramic building material