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**Palynological assessment of
deposits from Blackfriars Bath
Lane, Leicester**

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by

T. Hill & B. R. Gearey MIFA

Summary

*Deposits of palaeoenvironmental potential were encountered during archaeological investigations at Blackfriars Bath Lane, Leicester. Four samples were assessed but only one sample yielded sufficient pollen to enable palaeoenvironmental interpretation. Cereal and associated cereal 'weed' taxa dominated the assemblage taken from a ditch feature believed to be a cess pit. The dominance of cereal pollen could be an indicator of either cereal storage or dumping of waste material within the pit. However, the absence of charred remains or plant macrofossils suggests the latter is more likely. The presence of waterlogged wood remains and medieval pottery also within the pit deposits would suggest the pit is more likely to have been a cess pit. In addition, the potential presence of the intestinal parasite *Trichuris* may support the archaeological interpretation for a cess pit being located on site.*

KEYWORDS: *Blackfriars Bath Lane, Leicester, Pollen, Trichuris, Cess Pit*

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1. INTRODUCTION

Deposits of palaeoenvironmental potential were encountered during archaeological investigations at Blackfriars Bath Lane, Leicester (NGR SK 550046). Excavations undertaken by Birmingham Archaeology identified archaeological remains ranging in age from the pre/early-Roman period through to the medieval period (Paul, 2007). The initial results of the evaluation revealed a significant length of Roman defences across the site. In addition, a number of pits/ditches were encountered that were believed to be medieval in age. It was these features which contained the deposits of palaeoenvironmental potential.

Animal bone, worked bone, charred plant remains and wood assessments have been undertaken. An assessment of pollen preservation was also required in order to identify whether any of the deposits would provide further palaeoecological information relating to site activity and/or landscape development at the time of sediment deposition. This report describes the pollen assessments undertaken on a selection of these deposits.

2. METHODS

2.1 Sample Selection

The majority of the deposits encountered during the Blackfriars excavation were minerogenic

sediments with low organic content. This significantly reduced the potential for pollen preservation. Where organic-rich deposits were identified the sediments were deemed suitable for palynological assessment.

2.2 Pollen Assessment

A total of four samples were assessed. Samples were taken from the following contexts:

- 2065 – Humified black organic deposits
- 4009 – Alluvium, with crushed brick mortar
- 5037 – Cess-rich deposit. Fill of pit 5046
- 5049 – Gritty, silty clay. Fill of pit 5046

Pollen preparation followed standard techniques including KOH digestion, HF treatment and acetylation (Moore et al., 1991). At least 125 total land pollen grains (TLP) excluding aquatics and spores were counted for each sample. However, pollen concentrations were very low in most samples and full counts were hence not possible (see below).

3. RESULTS

No pollen was present in the samples from Contexts 2065 and 4009. Only one sample yielded a pollen assemblage suitable for palaeoenvironmental interpretation (5037) whilst the final sample (5049) contained low concentrations of pollen.

Sample **5037** provided an adequate pollen assemblage. The sample was dominated by grains of *Cerealia*-type, whilst *Centaurea cyanus* was relatively abundant. Grains of Chenopodiaceae, Poaceae, Lactuceae undiff. (dandelions etc.), *Pteridium* (bracken), *Serratula*-type (saw-wort) and *Corylus-avellana* type (hazel, sweet gale) were also identified.

Sample **5049** contained too few pollen grains to permit a reliable interpretation, although significant numbers of grains of *Cerealia*-type (cereals) were identified. In addition, grains of Poaceae (wild grasses), Chenopodiaceae (fat hen family) and *Centaurea cyanus* (cornflower) were encountered.

4. DISCUSSION

The overall poor preservation of pollen grains in the samples from Blackfriars Bath Lane limits the potential for detailed palaeoecological interpretation. However, the pollen assemblage from context sample 5037 was better preserved and provides some insight into the nature of the pitfill.

Cereal pollen is generally poorly dispersed and hence the dominance of cereals within sample 5037 (and to a lesser extent in sample 5049), suggests a local source is highly likely. The presence of 'weeds' of arable fields, especially cornflower, is further evidence that the pit fill consists of material derived from cultivation. This could be interpreted as evidence for intentional waste (kitchen/faecal) dumping or cereal processing in the close vicinity of the sampling site. The presence of well-preserved timbers and

a possible wicker basket in the pits suggests waterlogged conditions were present at the time of deposition. As no definitive interpretations could be achieved from the wood remains during the assessment (Allen, 2007), it is possible that the pit was a dump for waste material. This is further supported by the abundance of medieval pottery within the deposits.

The absence of plant macrofossil remains means it is not possible to be certain which cereal plants are represented by the pollen. This may also indicate that the pollen may derive from processing of cereals or from faecal waste rather than, for example, storage or deposition of cereals in the pit. Many of the cereal grains were crumpled and damaged, perhaps a result of passage through the human gut. Although confirmation by a parasite specialist would be required, the presence of cf. *Trichuris* (whipworm) eggs in 5037 may support this latter interpretation.

5. CONCLUSIONS

Further palynological analyses are not recommended for any of the samples assessed during this study. Radiocarbon dating of a fragment of the timbers from within the pit may elucidate the age of the sequence, although a late Romano-British to medieval timescale is more than likely due to the presence of pot sherds within the deposit. Confirmation of the presence of *Trichuris* may assist interpretation of the feature.

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