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**Technical report: biological remains from
excavations at R708 Waterford Airport Road,
Waterford, Republic of Ireland
(site code: 02E1448)**

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Technical report: biological remains from excavations at R708 Waterford Airport Road, Waterford, Republic of Ireland (site code: 02E1448)

by

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Summary

Small quantities of biological remains recovered from the processing of bulk sediment samples from deposits encountered at R708 Waterford Airport Road, Waterford, Republic of Ireland, were submitted for analysis.

The remains were restricted to very small quantities of charcoal, uncharred seeds (possibly of modern origin), a single fragment of charred hazel nut shell, and six fragments of burnt bone.

Sufficient charcoal was recovered from F5 and F13 for radiocarbon dating to be attempted (at least via AMS). The fragments were too small and too poorly preserved for wood species identification to be made, however. Furthermore, it was not possible to determine if the material derived from twigs (or other growth likely to be contemporary with charring) or from trunks of great age. Whether the fact that wood from charred trunks could give an artificially early radiocarbon date is important or not depends on the archaeological questions to be addressed.

KEYWORDS: R708 WATERFORD AIRPORT ROAD, WATERFORD; REPUBLIC OF IRELAND; TECHNICAL REPORT; ?PRE-19TH CENTURY; PLANT REMAINS; CHARRED PLANT REMAINS

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Technical report: biological remains from excavations at R708 Waterford Airport Road, Waterford, Republic of Ireland (site code: 02E1448)

Introduction

An archaeological excavation at R708 Waterford Airport Road, Waterford, Republic of Ireland, was undertaken by Archaeological Consultancy Services Ltd (ACS).

The site was tested in advance of the construction of the R708 Waterford Airport Road. For the purposes of testing the site was divided into three fields. One test trench was excavated in the first, nine in the second and one in the third. The first and last fields revealed no evidence of archaeological features or deposits. In the second field, a number of archaeological features were exposed as well as evidence of substantial ploughing of the field. The main features of archaeological interest revealed were two enclosure ditches, both of which appear to pre-date an existing graveyard (and so probably pre-19th century), as well as possible pits and postholes. No evidence for burials was found during the testing.

Small quantities of biological remains recovered from the processing of bulk sediment samples were submitted to PRS for analysis.

Methods

The soil samples were placed onto 1 mm nylon mesh in a sieving tank. The light organic fraction was washed over through a 2 mm sieve into a 500 micron sieve to collect the flots. Each of the soil samples was put through this system twice to ensure that as much material as possible was recovered.

The sediment samples were processed by ACS prior to delivery to PRS and only the small

quantities of recovered plant remains were submitted for analysis. These remains were examined and identified where appropriate.

Results

The results are presented in context/feature number order. Archaeological information, provided by the excavator, is given in square brackets. The sediment description was also supplied by the excavator.

F5 [Primary fill of outer ditch F6] Sample 9

Grey silty clay, with occasional inclusions of small stones and charcoal.

A little charcoal (less than 1 g) recovered from this sample was submitted for wood species identification prior to radiocarbon dating. The fragments were mostly too small (to 10 mm) and crumbly for identification. The larger pieces were of either ?oak (cf. *Quercus*) or bark, with some vivianite infiltration (possibly from other organics in the soil) and some buff silt remained on some of the surfaces.

There were also the remains (as fragments) of about ten uncharred seeds (mostly unidentified but a few of ?elder, ?*Sambucus*).

F8 [Primary fill of pit F9] Sample 14

A layer of dark grey silty clay containing frequent inclusions of charcoal and occasional inclusions of burnt bone.

The remains recovered from this sample comprised fragments of three uncharred seeds, a single fragment of charred hazel (*Corylus*) nut shell and three small fragments of burnt bone (to 8 mm). The largest bone fragment was probably of a medium-sized mammal (pig or sheep/goat) phalanx.

F13 [Primary fill of possible pit or portion of a ditch F14] Sample 25

Mid brownish grey silty clay, with moderate inclusions of charcoal and a piece of slag.

A little charcoal (less than 1 g) recovered from this sample was submitted for wood species identification prior to radiocarbon dating. As with the charcoal from F5 (Sample 9), the fragments were mostly too small (to 10 mm) and crumbly for identification. The larger pieces were again of either oak or bark and some buff silt remained on some of the surfaces.

F58 [Primary fill of ditch F59]
Sample 5

Light greyish brown silty sand containing occasional inclusions of charcoal, slag and small stones.

Three (two of which indicated fresh breakage) small fragments of unidentified burnt bone (to 5 mm) were recovered.

F62 [Primary fill of outer ditch F63]
Sample 6

Compact grey clay, with moderate inclusions of stones and occasional inclusions of charcoal.

The remains consisted of fragments of about six unidentified uncharred seeds.

Discussion

Sufficient charcoal was recovered from F5 and F13 (Samples 9 and 25 respectively) for radiocarbon dating to be attempted (at least via AMS). The fragments were too small and too poorly preserved for wood species identification to be made, however. Furthermore, it was not possible to determine if the material derived from twigs (or other growth likely to be contemporary with charring) or from trunks of great age. Whether the fact that wood from charred trunks could give an artificially early radiocarbon date (perhaps by several hundred years for, for example, oak heartwood) is important or not depends on the archaeological questions to be addressed.

The few uncharred plant remains are likely to be of modern origin and were, in general, not identified.

Only trace quantities of burnt bone were recovered from F8 (Sample 14) and F58 (Sample 5). These remains were of no interpretative value.

Retention and disposal

All of the material (other than that required for radiocarbon dating if undertaken) should be retained as part of the physical archive for the site.

Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

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