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WILSFORD BARROWS: CHARCOAL IDENTIFICATION

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Summary

Charcoal excavated from barrows G1 and G33 represented a range of species including Quercus, Fraxinus, Acer, Corylus, Prunus, the Pomoideae (Rosaceae) and a conifer (? Pinus).

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WILSFORD BARROWS 1960: Charcoal identification

Samples of charcoal collected from barrows G1 and G33 during the excavations in 1960 were examined for species identification. Two samples (<67> and <71>), one from each barrow, had been retrieved from contexts disturbed by the original excavations carried out by William Cunningham in 1805 and were thought possibly to represent contaminated material.

PREPARATION AND EXAMINATION

The charcoal varied in condition from very friable (<8>, <70> and <74>) to fairly firm in texture. The fragments were initially examined using a X20 hand lens and sorted into groups based on the anatomical features visible on the transverse surface. Representative samples were then selected from each group for detailed examination. The fragments were fractured to expose flat surfaces in the transverse, tangential longitudinal and radial longitudinal planes, and mounted in sand. These fragments were examined at magnifications of up to X400 using an epi-illuminating light microscope. The anatomical structure was matched to authenticated reference material.

RESULTS

Wilsford G1

Small find 25, Context 23, ditch silt, inner ditch:

8 fragments *Prunus* sp., blackthorn, cherry or bird cherry. These arose from stems with a maximum diameter of 10 mm.. The cellular structure had collapsed and it was impossible to identify to species level.

Small find 67, Context 03/32, disturbed central grave:

227 fragments *Quercus* sp., oak, heartwood. The purity of species of this comparatively large sample of charcoal suggested that contamination was perhaps unlikely.

Wilsford G33

Small find 13, Context 07:

6 fragments family Rosaceae, subfamily Pomoideae. Members of this group include *Crataegus* sp., hawthorn, *Malus* sp., apple, *Pyrus* sp., pear, and *Sorbus*, whitebeam, rowan and wild service tree. These genera are anatomically very similar.

Small find 71, Context 10, central grave:

136 fragments *Fraxinus* sp., ash;
46 fragments *Acer* sp., maple;
8 fragments *Corylus* sp., hazel;
3 fragments *Quercus* sp.,oak.
All the fragments from this possibly disturbed context originated from stem material.

Small finds 7, Context 12, pre-barrow land surface:

28 fragments *Fraxinus* sp., stem;
1 fragment *Quercus* sp., stem;
1 fragment family Rosaceae, subfamily Pomoideae.

Small finds 70, context 12, pre-barrow land surface:

I fragment conifer, probably *Pinus* sp., pine. The poor structural condition of this sample prevented a positive identification.

Small finds 8, ? Context 12:

10 fragments *Quercus* sp., heartwood from trunk/ branch.

Small finds 74, ? Context 12:

11 fragments *Quercus* sp., heartwood from trunk/ branch.

Samples <8> and <74> arose from below the pre-barrow land surface samples <7> and <70> and may have been associated with Context 12 but it was thought that the charcoal may have derived from root wood. The charcoal from both samples was ring porous, a feature of oak that only occurs in the aerial wood. The vessel arrangement in the root wood of oak is diffuse porous. It is therefore possible to establish that this material did not arise from root wood.

COMMENTS

The species represented in the charcoal samples included *Quercus* (oak), *Fraxinus* (ash), *Acer* (maple), *Corylus* (hazel), *Prunus* (cherry, blackthorn or bird cherry), member/s of the Pomoideae group (hawthorn/ apple/ pear/ whitebeam/rowan/ wild service tree) and a conifer (?pine). Three samples with relatively large quantities of charcoal (<67>, <8> and <74> consisted of heartwood from a single species (*Quercus*). Much of the charcoal from the remaining samples consisted of fragments from woody stems.

The broadleaf species named above (excluding rowan and bird cherry) grow commonly on chalk soils. *Pinus* is considered to be an acid loving species naturally growing on sandy soils.

Owing to the relative paucity of material and the uncertainty of contamination of some samples it is difficult to comment further on implications from the identification of the charcoal.