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**Technical report: Plant remains from  
excavations at Hollow Banks, Scorton, near  
Catterick, North Yorkshire  
(site codes: HBS98-00 and W4338)**

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**Technical report: Plant remains from excavations at Hollow Banks, Scorton,  
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by

Allan Hall and John Carrott

**Summary**

*Archaeological excavations were carried out within fields at Hollow Banks Farm, Scorton, North Yorkshire. A variety of archaeological features and deposits were revealed dating from the mesolithic through to the post-medieval periods. Hand-collected charcoal fragments from four contexts were submitted for wood species identification in advance of submission for radiocarbon dating. In addition, material recovered from nine samples processed during the earliest programme of trial trenching was also submitted.*

*The submitted material was examined in order to obtain specimens for dating by radiocarbon assay and to explore the use of plants at the site. The ancient biological remains were restricted to those of charred plants; mostly wood charcoal, with a few fragments of hazel nutshell, a single goosegrass 'seed', and some 'tubers' of onion couch. Though the charcoal fragments were mostly rather small, the impression gained, from the lack of curvature in rings across transverse surfaces, was that this was wood from trunks or large branches.*

*The presence of only one wood species (oak) in fills of a Bronze Age cremation pit (2712) was somewhat unusual. The charred 'tubers' of onion couch and traces of charred unidentified root/rhizome fragments also seen from these fills probably represent material from turves burnt in connexion with the cremation.*

**KEYWORDS:** HOLLOW BANKS; SCORTON (NR CATTERICK); NORTH YORKSHIRE; TECHNICAL REPORT; MESOLITHIC TO POST-MEDIEVAL; MESOLITHIC; NEOLITHIC; BRONZE AGE; ?IRON AGE; PLANT REMAINS; CHARRED PLANT REMAINS; BURNT TURVES; CREMATION

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## Technical report: Plant remains from excavations at Hollow Banks, Scorton, near Catterick, North Yorkshire (site codes: HBS98-00 and W4338)

### Introduction

Archaeological excavation was carried out by Northern Archaeological Associates (NAA) within fields at Hollow Banks Farm, Scorton, North Yorkshire (centred on NGR SE 228 998). Three main phases of excavation were undertaken in April to June and December 1998, February and August 1999 and June 2000.

A variety of archaeological features and deposits were revealed dating from the mesolithic through to the post-medieval periods.

Hand-collected charcoal fragments from four contexts were submitted for wood species identification in advance of submission for radiocarbon dating. In addition, material recovered from nine samples (representing eight contexts) processed by the Trust for Wessex Archaeology (TWA) during an earlier programme of trial trenching in 1997 was also submitted.

### Methods

The submitted material was examined in order to obtain specimens for dating by radiocarbon assay (using accelerator mass spectrometry) and to explore the use of plants at the site. It consisted of dried washovers ('flots') from the sieving of samples of between 10 and 15 litres together with some remains apparently sorted from the residues, and four 'SPOT' (*sensu* Dobney *et al.* 1992) samples of hand-collected charcoal. All the material was examined under the binocular microscope and any plant (and other biological) material noted.

### Results

The results of the examinations are presented in Table 1. A checklist of the recorded ancient plant species is given as Table 2. Table 3 summarises the material available for radiocarbon dating of selected contexts with comments on its suitability.

### Discussion

Although the assessment report (Trust for Wessex Archaeology 1998) indicated that traces of charred cereal grains were present in four samples, none were observed in the material available; moreover (and also *contra* the TWA evaluation report), with a single exception, all of the weed seeds (of fumitory, *Fumaria*, and orache, *Atriplex*) present were clearly uncharred and of recent origin (particularly apparent since the same taxa were noted from most of the samples, regardless of the date of the archaeological context).

Almost all of the ancient plant material from these samples was wood charcoal, usually in fragments no larger than about 10 mm, but occasionally somewhat bigger. As Table 1 shows, there was some diversity of woody taxa in certain contexts (neolithic Context 1016, HBS99, and to a lesser extent the Iron Age pit fill represented by W4338 Context 2108) whilst in others—notably those associated with the Bronze Age cremation—a single species (oak, *Quercus*) was recorded. This may simply reflect the difference in context type, the former receiving material from a range of activities, the latter from a single event, although the complete absence of other species in the cremation-related deposits is perhaps unexpected and may be contrasted with the published data for some other cremations of this period, e.g. at Hindlow, Derbyshire (Morgan 1981), where *Corylus*,

*Crataegus*, *Fraxinus* and *Populus* were all identified, or at Ewanrigg, Cumbria (Huntley 1992), where the charcoal was mainly oak, but also included some *Alnus* and *Pinus*. A more careful and detailed comparison with material from other British sites of this period is needed before arriving at a firm conclusion, however. The oak charcoal from these cremation-related contexts was observed to have wide rings (up to 5-6 mm), presumably denoting wood from trees that had grown under optimal conditions. Cathy Groves (pers. comm.) observes that ring widths of this size are 'relatively uncommon but not exceptional' in material examined for dendrochronology, but a rarity in trees of this early date (though with the caveat that of course specimens with a many rings as possible are selected for tree-ring dating, which tends to filter out those with fewer larger rings). Though the fragments from Hollow Banks were mostly rather small, the impression gained, from the lack of curvature in rings across transverse surfaces, was that this was wood from trunks or large branches.

Other than charcoal, charred remains were limited to a few fragments of hazel nutshell (in Contexts 2108, 2116 and 2708), a single goosegrass (*Galium aparine*) 'seed' in one sample, and some 'tubers' (corm-like culm internodes) of onion couch, a form of false oat-grass (*Arrhenatherum elatius* ssp. *bulbosum*), from four contexts. The latter, along with some traces of charred unidentified (probably monocotyledonous) root/rhizome fragments (especially prominent, though still only present in very low concentrations, in Context 2708) probably represent material within turves burnt in connexion with the cremation; onion couch 'tubers' are quite frequently recorded from charred assemblages from archaeological deposits, though certainly not exclusively from cremation contexts.

## Archive

All of the examined material has been returned to Northern Archaeological Associates. Paper and electronic records pertaining to the work described here are stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham) and by Dr Allan Hall, Department of Archaeology, University of York, The King's Manor, York YO1 7EP.

The charred plant remains recovered should remain stable in storage provided they are protected from mechanical damage. As such, the prospects for the long-term survival of the material not required for dating are good if stored in 'crush-proof' containers.

## Acknowledgements

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Table 1. Hollow Banks, Scorton, North Yorkshire (site codes HBS98-00 and W4338): Plant remains from samples. Material was scored on a three-point semi-quantitative abundance scale from '+' (traces, less than 1% of the original sample volume) to '+++ ' (abundant, >10% of original sample volume). For charcoal, the figure gives the maximum linear dimension of any fragment.

Context, context type and date	Sample	Volume processed (litres)	Charcoal	Comments
<b>HBS98-00</b>				
91		-		a single lump of <i>Quercus</i> (oak) charcoal to 15 mm; specimen is probably from trunk/branch wood rather than roundwood
835		-		charcoal fragments to 10 mm: oak, probably not roundwood
839		-		charcoal from pot: one fragment to 10 mm (and a few small ones), apparently bark not wood
1016		-		charcoal to 15 mm, mainly <i>Prunus</i> (probably blackthorn) roundwood and cf. <i>Euonymus</i> (?spindle), with a little <i>Fraxinus</i> (ash), ?Pomoideae (hawthorn/rowan/apple, etc.), and <i>Salix/Populus</i> (willow/aspens/poplar), and a trace of <i>Ilex</i> (holly); also some baked clay and two fragments of burnt bone
<b>W4338</b>				
<i>Fills of ?Iron Age pit 2117</i>				
2108	4007	10	+ (10)	about 30 ml charcoal, mostly rather 'silted', and including oak, ? <i>Alnus</i> (alder), ?Pomoideae and hazel ( <i>Corylus</i> ); one fragment of charred herbaceous material, perhaps from a grass or rush stem; two charred hazel nutshell fragments; modern contaminants in the form of seeds, grass culm fragments and spikelets, root fragments and the burrowing, and probably intrusive, land snail <i>Cecilioides acicula</i> (Müller).
2116	4008	15	+ (5)	about 10 ml of charcoal (unidentifiable, diffuse-porous) and modern roots with a few modern seeds and roots; one fragment of hazel nutshell
<i>Fill of ?mesolithic ?tree throw hollow</i>				
2314	4013	15	+ (10)	about 30 ml of charcoal (apparently all oak) and undisaggregated sediment; a single charred seed of goosegrass, but otherwise only modern uncharred seeds, root fragments, an insect fragment and some <i>C. acicula</i>

<i>Fill of Bronze Age cremation pit 2712</i>				
2707	4009	15	+ (20)	the washover consisted of about 180 ml of oak charcoal and some charred onion couch 'tubers', with charred root/rhizome and herbaceous detritus fragments; some modern roots and weed seeds, earthworm egg capsules and <i>C. acicula</i> ; a further 45 ml of charcoal (with further 'tubers') was presumably sorted from the residue
2708	4010	15	++ (25)	a rather large volume of charcoal: about 450 ml, much of it 4-25 mm and apparently all oak; also present some onion couch 'tubers' with charred root/rhizome and herbaceous detritus fragments; some modern roots and weed seeds, earthworm egg capsules and <i>C. acicula</i> ; the oak charcoal fragments exhibited very wide rings (see text)
2708	4010A	15	+ (20)	material labelled 4010 'A' and possibly sorted from the residue from 4010: about 100 ml of well-grown oak charcoal with a hazel nutshell fragment and a single onion couch 'tuber'
2711	4012	15	+ (15)	a total of about 90 ml (from two fractions, presumably washover and residue) much of which was gravel and a tufa-like material), the rest being oak charcoal; also present were some onion couch 'tubers' with charred root/rhizome and herbaceous detritus fragments; some modern roots and weed seeds, earthworm egg capsules and <i>C. acicula</i>
<i>Fill of Bronze Age cremation urn</i>				
2716	?	?	+ (10)	about 20 ml of modern roots, with a little oak charcoal and traces of false oat-grass 'tubers' and burnt bone fragments (to 5 mm) and rather frequent <i>C. acicula</i> shells; some modern weed seeds
2717	5005	?	+ (10)	about 15 ml of oak charcoal with modern roots and weed seeds and <i>C. acicula</i> shells

Table 2. Hollow Banks, Scorton, North Yorkshire (site codes HBS98-00 and W4338): List of plant remains recorded; nomenclature and taxonomic order follow Tutin et al. (1964-80). Uncharred material clearly of recent origin has not been listed.

<i>Salix/Populus</i> sp(p).	willow/aspens/poplar	charcoal fragments
cf. <i>Alnus</i> sp(p).	?alder	charcoal fragments
<i>Corylus avellana</i> L.	hazel	charred nuts and/or nutshell fragments; charcoal fragments
<i>Quercus</i> sp(p).	oak	charcoal fragments
cf. Pomoideae (? <i>Crataegus/Malus/ Pyrus/Sorbus</i> )	?hawthorn/apple/pear/ rowan etc.	charcoal fragments
<i>Prunus</i>	blackthorn, etc.	charcoal fragments
<i>Ilex aquifolium</i> L.	holly	charcoal fragments
cf. <i>Euonymus europaeus</i> L.	?spindle	charcoal fragments
<i>Fraxinus excelsior</i> L.	ash	charcoal fragments
<i>Galium aparine</i> L.	goosegrass, cleavers	charred fruit(s)
<i>Arrhenatherum elatius</i> ssp. <i>bulbosum</i> (Willd.) Schübler & Martens.	false oat-grass/onion couch	charred culm base 'tubers'

Table 3. Hollow Banks, Scorton, North Yorkshire (site codes HBS98-00 and W4338): Summary information on the material available for dating by radiocarbon assay from selected contexts.

Site code	Context	Sample	Notes
HBS98-00	91		?Iron Age: a single lump of <i>Quercus</i> (oak) charcoal to 15 mm; ample material for AMS dating but, as the specimen is probably from trunk/branch wood rather than roundwood, it may give a misleadingly old date
	835		Neolithic: charcoal fragments to 10 mm: oak, probably not roundwood; ample material for AMS dating but, as the specimen is probably from trunk/branch wood rather than roundwood, it may give a misleadingly old date
	839		Neolithic: charcoal from pot: one fragment to 10 mm (and a few small ones); apparently bark, not wood, and so perhaps not suitable for dating, also less than the recommended quantity for AMS dating
	1016		Neolithic: charcoal to 15 mm, mainly <i>Prunus</i> (probably blackthorn) roundwood and cf. <i>Euonymus</i> (?spindle), with a little <i>Fraxinus</i> (ash), ?Pomoideae (hawthorn/rowan/apple, etc.), and <i>Salix/Populus</i> (willow/aspens/poplar), and a trace of <i>Ilex</i> (holly); it is recommended that the best material for dating is the <i>Prunus</i> and cf. <i>Euonymus</i> – ample material for AMS but well below the recommended quantity for conventional radiometric dating
W4338	2108	4007	two fragments of charred hazel ( <i>Corylus</i> ) nutshell selected; may be insufficient for AMS dating
	2116	4008	one fragments of charred hazel nutshell selected; may be insufficient for AMS dating
	2707	4009	charred false oat-grass ( <i>Arrhenatherum elatius</i> ssp. <i>bulbosum</i> ) 'tubers'; sufficient material for AMS dating
	2708	4010	charred false oat-grass 'tubers'; sufficient material for AMS dating
	2711	4012	charred false oat-grass 'tubers'; sufficient material for AMS dating



