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excavations at Monks Cross, York  
(site code: YORYM2000.574)**

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by

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**Summary**

*Dry residues and 'flots' from fifty-eight pre-processed sediment samples recovered from further excavations of deposits at Monks Cross, York, were submitted to PRS for an assessment of their bioarchaeological potential. Nine further subsamples from the deposits were processed by PRS. Most of the features of the site were associated with an early to mid 2<sup>nd</sup> century AD Roman camp but some earlier (prehistoric) features were also identified.*

*Plant remains (the only ancient biological remains recorded) were limited to small amounts of wood charcoal, most of it being oak or ash, perhaps primarily from structural timber. None of the charcoal is suitable for dating by radiocarbon assay: it is generally rather worn, certainly in the case of material from the Roman ditches (so there is a possibility of reworking), and for the most part appears to come from branches or trunks, and thus might give a misleadingly old date.*

*No further work on this material is thought worthwhile and examination of further samples seems unlikely to yield useful results.*

**KEYWORDS:** MONKS CROSS; YORK; FURTHER ASSESSMENT; PREHISTORIC; NEOLITHIC; ROMAN; 2<sup>ND</sup> CENTURY; PLANT REMAINS; CHARRED PLANT REMAINS; ?BURNT TURVES; ROMAN CAMP

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## Assessment of biological remains from further excavations at Monks Cross, York (site code: YORYM2000.574)

### Introduction

Further archaeological excavation was carried out by York Archaeological Trust at Monks Cross, York (NGR SE 625 545), between the 24<sup>th</sup> of March and the 13<sup>th</sup> of June 2003. The works entailed the excavation of six large trenches following on from a previous evaluation in 2002.

Parts of a prehistoric landscape that included at least one Neolithic pit and a curvilinear ditch (possibly an enclosure) were revealed. To the north of this, there was a major landscape boundary, a pit alignment of probable Bronze Age or Iron Age origin. Later re-defined by a broad shallow cut, this boundary remained visible until at least the 2<sup>nd</sup> century AD. A cluster of pits and small post-holes, together with two small ring-gullies (probably hay stack or hay rick gullies) may also be of prehistoric date.

Substantial parts of an early to mid 2<sup>nd</sup> century AD Roman camp were surveyed and excavated. The camp proved to have been marked out with considerable geometric accuracy. Evidence was found to indicate that this camp was short-lived; it has been suggested that it was of a 'temporary' nature rather than created as a practice work.

The fills of the prehistoric features and the Roman camp ditch were systematically and extensively sampled. Subsamples were chosen for the assessment to reflect a cross-section of the feature types and periods represented at the site. Two series of samples were examined. The first comprised material from 58 subsamples (most of about 5 litres/8 kg, with 4 being larger) processed by York Archaeological Trust. This was submitted in the form of dried residues and 'flots' (i.e. washovers); some sorting of the former having

been carried out to separate charcoal (and any artefactual finds) from mineral material. The second series comprised nine smaller subsamples processed by PRS.

### Methods

The subsamples selected by PRS were processed following the procedures of Kenward *et al.* (1980; 1986).

The washovers resulting from processing of the sediment samples were examined for plant and invertebrate macrofossils. The residues were scanned for larger plant macrofossils and other biological and artefactual remains. Where larger concentrations of remains were present, all the material was scanned under the binocular microscope and any plant (and other biological) material noted.

### Results

The washovers from the processed subsamples were mostly of modern rootlets and the residues of sand, stones and small lumps of undisaggregated sediment. Both components were very small, generally amounting to only a few millilitres or tens of grammes

Ancient biological remains recovered were largely restricted to small amounts of charcoal. A very few other charred and uncharred plant remains were noted, but no other classes of biological material were seen.

The results of the investigations are summarised in Table 1.

### Discussion and statement of potential

Plant remains (the only ancient biological remains recorded) were limited to small (often vanishingly small) amounts of wood charcoal, most of it (where checked) being oak (*Quercus*) or ash (*Fraxinus*), perhaps primarily from structural timber. A few other charred remains were noted in one of the samples from a prehistoric feature (see Table 1), but there was no evidence for charred cereals or weeds, for example. The few uncharred remains (including the small amounts of rootlet present in most samples) seem very likely to be of recent origin, though in this respect the several uncharred strawberry (*Fragaria*) achenes from one of the prehistoric samples is unusual and not readily explained, even as modern intrusive material.

None of the charcoal is suitable for dating by radiocarbon assay: it is generally rather worn, certainly in the case of material from the Roman ditches (so there is a possibility of reworking), and for the most part appears to come from branches or trunks, and thus might give a misleadingly old date.

## Recommendations

No further work on this material is thought worthwhile unless a more detailed record of the charcoal is desired. Examination of further samples seems unlikely to yield useful results.

## Retention and disposal

There are no good archaeobotanical reasons to retain the material in the longer term.

All of the remaining unprocessed sediment samples may be discarded unless they are to be processed for the recovery of material other than biological remains.

## 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.

## Acknowledgements

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## References

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Table 1. Further excavations at Monks Cross, York (2000.574): Plant remains from samples. † - indicates those contexts/samples which have been examined in more detail, including wood species identifications for charcoal fragments where possible. The suffixes 'Y' and 'P' are used against the sample numbers to differentiate material processed respectively by YAT and PRS (see text). \* - weights of samples processed by YAT are assumed to be about 8 kg, unless stated otherwise. Charcoal: + = estimated to be <1% of original sample volume; ++ = estimated to be 1-10% of original sample volume; figure in brackets gives maximum size of any fragment; material includes: D – unidentified diffuse-porous species; F – ash; Q – oak.

Context	Context type	Sample	Weight (kg)	Charcoal	Notes
<b>'Natural'</b>					
32310	fill of natural feature	96Y	*		
<b>?Prehistoric</b>					
32331†	pit fill	100Y	*	++ (15) Q F	large residue (for this group!) of about 500 cm <sup>3</sup> of angular gravel (to 50 mm) and some iron-stained and worn charcoal (probably about 60:40 by volume)
32332†	pit fill	101P	0.8	++ (10) Q F	washover of about 20 cm <sup>3</sup> mainly brittle, but rather clean, charcoal, the largest fragments apparently 'curl' wood or similar
32333†	posthole fill	102P	0.72	+ (5)	
32335†	posthole fill	107P	0.82	+ (2)	
32347†	pit fill	104Y	*	+ (10)	
32348†	pit fill	105P	1.6	+ (5)	trace of (?charred) <i>Cenococcum sclerotia</i> (these fungal resting bodies are common in many kinds of active soil, including land under arable cultivation as well as peats and woodland soils)
32350	pit fill	103Y	*	+ (8)	
33032	ditch fill	111Y	*	+ (5)	
<b>Prehistoric</b>					
32391	pit fill	112Y	*	+ (2)	
32392	pit fill	113Y	*	+ (10)	only one charcoal fragment to 10 mm, most much smaller
32393	pit fill	114Y	*	+ (5)	

Context	Context type	Sample	Weight (kg)	Charcoal	Notes
32394	pit fill	115Y	*		
32395	pit fill	116Y	*	+ (18)	only one charcoal fragment to 18 mm, most much smaller
32396	pit fill	108Y	*	+ (12)	
		117Y	*	+ (10)	
		117P <sup>†</sup>	3.0	+ (10)	traces of charred herbaceous detritus, ?peat (to 2 mm) traces of (?charred) <i>Cenococcum</i> sclerotia, perhaps all derived from burnt peat or turves
32397	pit fill	118Y	*	+ (2)	
32404	pit fill	109Y	*	+ (10)	
		109P <sup>†</sup>	3.0	+ (2)	
32447	pit fill	119Y	*	+ (7)	
32448	pit fill	120Y	*		
<b>Neolithic</b>					
33004	pit fill	94Y	*	+ (3)	
	pit fill	94P <sup>†</sup>	3.0	+ (10)	several reasonably well-preserved uncharred <i>Fragaria</i> seeds (and some other remains which look suspiciously like modern contaminants)
33005 <sup>†</sup>	pit fill	95Y	*	+ (20) F	
		99P	3.0	+ (10) Q F	
<b>?Prehistoric/?Romano-British</b>					
32164	gully fill	41Y	*	+ (8)	
		44Y	*	+ (7)	
32168		42Y	*	+ (6)	one fragment of ?modern glass
32216		84Y	*	+ (8)	

Context	Context type	Sample	Weight (kg)	Charcoal	Notes
<b>Roman</b>					
32035	camp ditch fills	22Y	*	+ (12)	
32041		23Y	*	+ (7)	
32043 <sup>†</sup>		24Y	*	+ (2)	
32049 <sup>†</sup>		25Y	*	+ (20) Q	
		25P	7.0	+ (20) Q	many small (?charred) <i>Cenococcum</i> sclerotia and flakes of modern ?woody root bark
32071		26Y	*	+ (15)	
32075		32Y <sup>†</sup>	*	+ (10)	
		33Y	*	+ (8)	some fragments marked as bone were charcoal; some fragments marked as wood were 'silted' charcoal
32092		27Y	*	+ (8)	
32101		28Y	*	+ (12)	most charcoal much less than 12 mm; one fragment of metal wire
32102		29Y	*	+ (15)	most charcoal very fine (to 1 mm); three fragments of metal wire
32103		31Y <sup>†</sup>	*	+ (10)	
		37Y	20	+ (7)	two tiny fragments of brick/tile (to 5 mm); two tubs of sample
32105		30Y	*	+ (10)	most charcoal much less than 10 mm
32136 <sup>†</sup>		39Y	*	+ (10)	
32137 <sup>†</sup>		34Y	*	+ (15) Q F	
32150 <sup>†</sup>		36Y	*	+ (10)	
32152	40Y	*	+ (5)		

32153	camp ditch fills (continued)	38Y	*	+ (12)	most charcoal much less than 12 mm
32161 <sup>†</sup>		43Y	*	+ (15) D	
32180 <sup>†</sup>		80Y	*	+ (10)	
32181		81Y	*		
32197		82Y	*	+ (4)	
32198 <sup>†</sup>		83Y	20	++ (15)	a total of about 60 cm <sup>3</sup> of coarser charcoal and what appeared to be quite coarse charred bark (to 25 mm); two tubs of sample
32238		86Y	*	+ (7)	
32254 <sup>†</sup>		89Y	*	++ (10) Q	about 50 cm <sup>3</sup> charcoal, apparently mostly oak
32259		90Y	*	+ (8)	
32260		91Y	*	+ (8)	
32261		92Y	*	+ (8)	
32302		93Y	*	+ (8)	
32312		98Y	*	+ (8)	
32325 <sup>†</sup>		97Y	*	+ (10)	
32355		106Y	*	+ (5)	
<b>Unknown date</b>					
32143	traverse ditch fill	35Y	*	+ (10)	
32243	?	87Y	20		two tubs of sample
32245	traverse ditch fill	88Y	30		a little ?iron concreted sediment; three tubs of sample
32388	buried soil	110Y	*		