Palaeoecology Research Services

Assessment of biological remains from further excavations at Sewerby Cottage Farm, Bridlington, East Riding of Yorkshire (site code: OSA02EX09)

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by

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Summary

Washovers and residues from thirty-five bulk sediment samples recovered from deposits revealed by further excavation at Sewerby Cottage Farm, Bridlington, East Riding of Yorkshire, were submitted for an assessment of their content of bioarchaeological remains. Six samples of hand-collected charcoal were also recorded and three deposits were investigated for the eggs of intestinal parasites. The stratigraphic sequence divided into three broad phases of Neolithic, late Iron Age and Romano-British date.

Apart from a few weed seeds and straw fragments which were clearly of modern origin, all the plant remains were preserved by charring. Quantities were very small but much of the charcoal was in a reasonable state of preservation. Remains other than charcoal were extremely sparse; there were only a few tens of poorly preserved cereal grains in total. A very little chaff (all of spelt wheat) was noted and almost no ancient weed seeds. All the cereal remains were from Romano-British contexts. Hazel nutshell was noted from eight contexts, most of them Neolithic. A few of the later (Romano-British) samples yielded small quantities of scraps of material which may have originated in burnt turves; most likely used in construction and/or fuelling the 'corn driers'.

The sample residues were sorted for larger plant macrofossils, bone, and other biological and artefactual remains. Any bone and artefacts recovered were returned to the excavator for recording and these remains are reported elsewhere.

None of the three samples examined for microfossils gave any eggs of intestinal parasites or other identifiable remains. Each consisted almost entirely of inorganic material with only a trace of organic detritus.

It may be worth undertaking a modest programme of further charcoal determinations to look at changes of use of wood through time: from, the results obtained so far it appears that all the records for ash and ?heather are Romano-British, whilst those for hazel and oak are all Neolithic, suggesting some change in the areas or resources exploited—perhaps related to changing vegetation in the region resulting from prehistoric clearance and the course of subsequent regeneration.

KEYWORDS: SEWERBY COTTAGE FARM; BRIDLINGTON; EAST RIDING OF YORKSHIRE; ASSESSMENT; NEOLITHIC; LATE IRON AGE; ROMANO-BRITISH; CHARRED PLANT REMAINS; CHARRED GRAIN; CHARRED HAZEL NUTSHELL; BURNT TURVES; 'CORN DRIERS'; LANDSCAPE CHANGE; RESOURCE USAGE

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Introduction

A further archaeological excavation was carried out by On-Site Archaeology (OSA), at Sewerby Cottage Farm, Bridlington, East Riding of Yorkshire (NGR TA 186 694), between January and March 2003.

The stratigraphic sequence has been divided into three broad phases: Neolithic; late Iron Age; Romano-British. Most features could be assigned to one of these three phases based on determinations of pottery or feature type made in the field.

The Neolithic phase was represented by five groups of pits. Some could be dated by the presence of Neolithic pottery and worked flint often found in large quantities. Others were given a provisional Neolithic date on the presence of worked flint and the absence of later pottery.

Evidence of late Iron Age activity included a square barrow with central grave, an adjacent square ditched enclosure, and the ring ditch of a probable round barrow. These were assigned to this phase by the diagnostic nature of the features, rather than through association with datable artefacts (although some pottery was recovered from the upper fills of the square enclosure and of the ring ditch).

The bulk of the archaeological features on the site belonged to the Romano-British phase and represented a farmstead (apparently dating to the early Roman period). The occupation consisted of agricultural activity relating to both arable and pastoral regimes. There was only limited evidence for domestic occupation, and this may have been focussed elsewhere (probably to the west of the excavation area). The Romano-British occupation was situated within a large ditched enclosure. The ditches extended beyond the edges of the excavation to the west, south, east and north and in some cases were equivalent to linear ditches encountered during earlier phases of the evaluation. The main enclosure was rectangular in shape and the ditches on its eastern and northern edges were contained within the excavation area. To the east there was an open area containing many postholes and small pits. They appeared to form a sub-rectangular pattern and are likely to have been part of a post-built structure. Three small cremation pits were found in the area to the south of the east-west ditch that all contained fills with large amounts of cremated bone. To the south of the baulk (Area A) the area was dominated by a series of contiguous ditched enclosures. On the southern edge of this group of features were three crop driers (located with respect to the ditches and gullies marking these enclosures).

The material examined for this assessment comprised charred remains (mostly charcoal) from 38 contexts (selected from 119 collected samples) representing a range of the features and phases of the site.

Methods

Apart from six samples of hand-collected charcoal from the 'Finds bags', samples of whole sediment (usually in multiples of 11 litres, i.e. 1 sample tub) were processed by the excavator, who submitted wet or dry 'flots' ('washovers') and residues for assessment. Thirty-five such bulk sediment samples ('BS' *sensu* Dobney *et al*. 1992), with a total volume of about 575 litres, were processed to 1 mm (with a 300 micron sieve for the lighter washover fraction).

Subsequent inspection of the residues by Palaeoecology Research Services revealed that the efficiency of recovery of charred plant

material had been poor in several cases and nine samples were subjected to a further 'washover'. Additional charred plant material was retrieved from almost all of the residues during sorting.

The washovers and residues resulting from processing were examined for plant and invertebrate macrofossils. The residues were dried (where necessary) and sorted for larger plant macrofossils, bone, and other biological and artefactual remains. Any bone and artefacts recovered were returned to the excavator for recording and these remains are reported elsewhere.

All of the biological material examined was scored for its abundance (relative to the original volume of sediment processed, using a semi-quantitative three-point scale). In the event, no sample yielded enough material of any type to justify the award of a score higher than '1'.

In addition, three of the samples were examined for the eggs of parasitic nematodes using the 'squash' technique of Dainton (1992). Each of these samples was taken from either the abdominal or pelvic area of a skeleton (Skeleton 3924).

Results

Plant remains

Notes on the plant remains are presented in Table 1, where the various separately submitted components are combined for each sample.

Apart from a few weed seeds and straw fragments which were clearly of modern origin, all the plant remains were preserved by charring. Quantities were very small, the largest concentration of charcoal being no more than about 0.7% of the volume of sediment processed (i.e. 75 ml from 11 litres), although much of the charcoal was in a reasonable state of preservation and identification would generally be fairly easy. Remains other than charcoal were extremely sparse; there were only a few tens of cereal grains from the corpus of samples taken together and these were mostly not well preserved. A very little chaff (all spelt wheat *Triticum spelta* L.) glume-bases (plus one spikelet-fork of this species) was noted and almost no ancient weed seeds. All the cereal remains were from eight contexts dated as Romano-British. Hazel (*Corylus avellana* L.) nutshell was noted from eight contexts, most of them Neolithic. A few of the later (Romano-British) samples yielded scraps of material which may have originated in burnt turves (Hall 2003)—charred root/basal twig fragments tentatively identified as heather (*Calluna vulgaris* (L.) Hull), charred herbaceous detritus and root/rhizome fragments—though the evidence for this was never very substantial. The use of such material in construction and/or fuelling the 'corn driers' seems the most likely explanation for its presence.

Sample residues

The residues from processing were mostly of stones (to 60 mm) and gravel ranging from approximately 0.3 kg to 3 kg in dry weight. They contained no biological remains other than the traces of charred plant noted in Table 1 and, occasionally, fragments of bone (returned to the excavator for assessment). Fragments of flint (some of which may have been worked) were present in some of the residues.

Parasite samples

None of the three samples examined (Sample 91 from Context 3901 (Skeleton 3924), and Samples 125 and 126 also associated with Skeleton 3924 and taken as the bones were being cleaned) gave any eggs of intestinal parasites or other identifiable microfossils. Each

consisted almost entirely of inorganic material with only a trace of organic detritus.

Discussion and statement of potential

In view of the nature and low concentrations of plant remains, the potential for further analysis of this material is not high. It may be worth undertaking a modest programme of further charcoal determinations to look at changes of use of wood through time: from, the results obtained so far it appears that all the records for ash and ?heather are Romano-British, whilst those for hazel and oak are all Neolithic, suggesting some change in the areas or resources exploited—perhaps related to changing vegetation in the region resulting from prehistoric clearance and the course of subsequent regeneration.

No identifiable microfossils, and, in particular, no eggs of intestinal parasites, were seen in the 'squash' subsamples. It is most likely that this absence will be repeated through the other deposits encountered at this site which, consequently, have no potential for further study via microfossils.

Recommendations

Some additional wood species identifications of charcoal fragments should be undertaken to further investigate the apparent change in resource exploitation/landscape between the Neolithic and Romano-British periods. Furthermore, if any sufficiently well dated deposits with charred plant remains not so far assessed could provide additional relevant data then these too should be examined.

No further investigation of these deposits for the eggs of intestinal parasites or other microfossils is warranted.

Retention and disposal

Any remaining sediment from the samples examined in this assessment may be discarded unless it is to be processed for the recovery of remains other than those considered here. Similarly, the mineral component of the residues need not be retained.

Archive

The charred plant remains (whether currently wet or dry) recovered should remain stable in storage provided they are protected from mechanical damage. As such, the prospects for the long-term survival of this material are good if stored in 'crush-proof' containers.

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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References

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Table 1. Plant material from samples from Cottage Farm, Sewerby (OSA02EX09). CN – context no.; SN – sample no.; Dates coded as NEO (neolithic), IA (Iron Age) and RB (Romano-British).'SPT' indicates material from Finds bags.'n/r' = not recorded by OSA. For charcoal, the figures give the approximate volume (in ml, with '+' = less than 10 ml and not measured), and the largest linear dimension of any fragment in mm. The few random charcoal identifications are coded thus: Bet = Betula = *birch; Cor* = Corylus = *hazel; Fra* = Fraxinus =*ash; ?Pru* = ?Prunus *(blackthorn, cherry, plum), Que* = Quercus = *oak; Sal/Pop* = Salix/Populus = *willow/aspen/poplar. Samples for which an asterisk is placed in the last column may contain some evidence for burnt turves.*

CN	Date and feature type	SN	Vol. (l.)	Charcoal	Other remains
3114	RB: lower fill of flue in crop drier 1	15	33	-	one charred cereal grain, very eroded, and two pulse cots, perhaps very small pea (*Pisum*) or large *Vicia* (but not field bean, *V. faba* L.)
3121	NEO: fill of pit 3107	11	11	25/15, inc Sal/Pop	traces of charred root/rhizome (to 5 mm)
3171	NEO: fill of pit 3170	12	11	75/20, inc Cor,	some of hazel charcoal was from roundwood
3194	RB: lower fill of crop drier 1 ring ditch 3195	16	11	+/5	traces of hazel nutshell, barley (*Hordeum*), ?oats (cf. *Avena*), ?heather (cf. *Calluna vulgaris* (L.) Hull) root/twig (to 5 mm) and root/rhizome(to 5 mm) *
3199	RB: fill of ring ditch re-cut around crop drier 1	17	11	+/5	traces of hazel nutshell, brome (*Bromus*), ?heather root.twig fragments (to 4 mm), one spelt (*Triticum spelta* L.) glume-base, herbaceous detritus and root/rhizome fgts (to 5 mm) *
3258	?RB: cremation deposit in pit 3259	19	11	15/10	
3288	NEO: fill of pit 3293 rich in pot and flint	3288	SPT	1 fgt/35, Que	
3321	?NEO: fill of pit 3319	28	11	30/10, inc Cor, Sal/Pop	
3340	IA: fill of ring ditch 3463 part of group 3738	62	11	+/5	one fragment of root/rhizome (to 5 mm)
3502	?IA/RB: fill of pit 3504	3502	SPT	2 fgts/35, Bet	traces of *Plantago media* L. and herbaceous detritus; one spelt glume-base *
3606	RB: backfill of sfb 3612 associated with crop drier 2	46	11	+/5	
		3606	SPT	5 fgts/15, inc Sal/Pop	
3610	?IA/RB: fill of sunken building/crop drier	3610	SPT	1 fgt/55, Fra	

CN	Date and feature type	SN	Vol. (l.)	Charcoal	Other remains
3611	RB: lower fill of 3612 sfb assocd with crop drier 2	55	44	85/20, inc Fra, ?Sal/Pop	traces of grass/cereal culm, barley, ?heath grass (cf. *Danthonia decumbens* (L.) DC. in Lam. & DC., a single caryopsis), herbaceous detritus, root/rhizome (to 3 mm) *
3654	RB: fill of flue 3717, collapsed sides in drier 3	64	?11	+/5	
3656	IA: fill of square barrow ditch 3657	63	55	+/10	
3676	RB: upper fill of flue 3687 in crop drier 2	48	11	+/5	trace of Cerealia indet.
3718	IA: fill of square enclosure ditch 3720	67	33	+/5	
3756	RB: burnt deposit lining flue 3687 in crop drier 2	56	22	+/2	trace of oats, wheat, small grass caryopses
3757	RB: fragments of daub from large block from flue lining, drier 2	57	11	-	completely barren
3781	IA: fill of sq barrow ditch 3780	66	n/r	15/15	traces of hazel nutshell
3797	?RB: cremation deposit in posthole 3798	69	44	180/15, inc Fra	trace sedge (*Carex*) nutlets, ?heather root/twig, herbaceous detritus, root/rhizome *
3805	NEO: fill of pit 3806 rich in flint and pot	74	11	20/20, inc Cor	traces of hazel nutshell
3811	RB: fill of flue 3717, collapsed sides in drier 3	79	11	+/3	
3812	?	73	?	15/15, crumbly Que	
3841	NEO: fill of pit 3842 rich in pot and flint	81	11	50/15	traces of hazel nutshell
3841	NEO: fill of pit 3842 rich in pot and flint	3841	SPT	7 fgts/25, incCor	
3856	RB: scorched lining of flue in crop drier 3	96	11	+/2	traces of Cerealia indet. and wheat
3858	RB: fill of flue 3717, collapsed sides in drier 3	80	22	-	

CN	Date and feature type	SN	Vol. (l.)	Charcoal	Other remains
3865	?	3865	SPT	1 fgt roundwood to 20, rather 'coalified'; apparently Fra	
3869	RB: lowest fill of fire pit 3868	97	33	35/10	traces of oats, barley, wheat (including spelt—one spikelet fork and some glume-bases, and tentatively identified grain—and bread/club wheat), brome and dock (*Rumex*)
3877	NEO: fill of posthole 3878 (same as 906 in evaluation)	83	11	25/15, inc Cor	traces of hazel nutshell
3879	NEO: fill of pit 3880 (same as 902 in evaluation)	85	11	20/10, inc Cor, ?Pru, Sal/Pop	
3887	NEO: fill of postpipe 3888 within post-hole 3878 (=907 in evaluation)	84	~5.5	15/15, inc Cor	traces of hazel nutshell
3901	?RB: fills associated with skeleton 3924	91	11	+/5	
3901	?RB: fills associated with skeleton 3924	93	11	+/5	
4005	RB: burnt deposit at base of flue in crop drier 3	105	11	-	traces of oats, Cerealia indet., wheat and one spelt glume-base
4148	RB: fill of hearth cut 4155 probable ash deposit	114	11	70/15	trace of ?oats
4160	NEO: fill of pit 4161 rich in pot and flint	116	33	40/20, inc Cor	
4179	?RB: lower fill of pit 4178; possible industrial use	118	11	15/25	
4191	NEO: fill of posthole 4192	120	'1 bag'	30/20, flaky Que	