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**Assessment of plant remains from excavations at
Cheviot Quarry, Milfield, Northumberland (site code 02-02-00)**

by Allan Hall

Summary

Washovers/flots from 35 samples of sediment from a variety of feature fills of prehistoric date were assessed for their content of plant remains. All contained at least traces of charcoal and modern rootlets with some other modern plant material and invertebrate remains. Apart from the charcoal and a little charred hazel nutshell, plants likely to be connected with ancient human occupation were confined to a total of three charred cereal and ?cereal grains.

KEYWORDS: CHEVIOT QUARRY; MILFIELD; NORTHUMBERLAND; NEOLITHIC; BRONZE AGE; CHARRED PLANT REMAINS; CHARCOAL

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Assessment of plant remains from excavations at Cheviot Quarry, Milfield, Northumberland (site code 020200)

Introduction and methods

Washovers or flots from 35 samples of varying size from prehistoric (including neolithic and Bronze Age) deposits excavated at Cheviot Quarry were submitted for an assessment of their content of plant remains. All had been processed by the excavator and consisted of a varying amount of charcoal and matted modern rootlets folded within sheets of newspaper in polythene bags. Nearly half of the samples were still a little damp and were air-dried over a period of 40 hours, after which most could be examined easily.

For all the samples, the volume was estimated roughly using a graduated 1 l. beaker or 120 ml glass jar and a brief note made of all the components present, including the largest size of charcoal fragments. Material was scanned at an appropriate magnification under a binocular microscope, separating coarser and finer fractions using 2 mm sieves where this made the scanning easier.

The records entered to a computer database (using *Paradox* software) were then used to compile Table 1, which summarised the findings of this assessment.

Results

Although charcoal was present in all the samples, its volume varied considerably. Most was no larger than about 10 mm, though there were occasionally larger pieces, some of which were identified in passing (Table 1). The only other fossil plant material appeared to be the fragments of charred hazel nutshell from five samples (always in small amounts) and three individual charred cereal grains, one only tentatively identified as being a cereal, and one a wheat grain. For the rest, there were modern weed seeds in most

samples (typically *Atriplex* sp(p)., *Bilderdykia convolvulus* (L.) Dumort., and *Chenopodium album* L., but also including *Scleranthus annuus* L., *Silene alba* (Miller) Krause in Sturm and *Spergula arvensis* L.) presumably brought into the archaeological deposits by earthworms, whose egg capsules were present in eight samples. Modern fly puparia, especially a distinctive small type, were regularly present, too.

Potential for further study

The vanishingly small numbers of cereals and the lack of chaff indicate that these deposits have little potential for further study in pursuit of research questions concerning the arable economy of the inhabitants of the site through the period (apparently mainly late Neolithic/Early Bronze Age) represented by these deposits.

The charred hazel nutshell fragments indicate some reliance of wild resources and more taxa might be added to the list through the processing of further deposits if this aspect of the site economy were to be pursued.

The charcoal is probably mostly identifiable and would provide some information concerning the use of timber (probably mainly as fuel), though it is important to select material from deposits whose dating is secure. Equally, some of the charcoal could provide a basis for dating deposits by radiocarbon assay since some of it is clearly from roundwood rather than large, and therefore old timbers.

In view of the dating of the deposits, however, it would probably be appropriate to continue to sample and assess remains in any well-sealed feature fills or other occupation deposits revealed during further excavation at the site

Table 1. Notes on washovers (flots) from Cheviot Quarry, Milfield. *—‘+’ indicates washovers with only a very little material, whose volume was not estimated (certainly <5 cm³); **—in the Notes column, indicates samples which were damp and needed drying before examination.

Context	Sample	Weight/volume (where recorded)	Mesh used for washover (where recorded, mm)	Approx. volume/ max. size of charcoal (cm ³)*	Notes (including dating information available)
1001	1	1 tub	0.425	40/10	(late Neolithic?) ~20 cm ³ of modern rootlets; a few modern weed seeds and fly puparia; some charcoal seems to be roundwood to 10 mm diam; also a ready-sorted sample of a few cm ³ of charred hazel (<i>Corylus</i>) nutshell
1003	2	half tub	0.425	+/15	mainly charcoal, including <i>Corylus</i> , trace of modern rootlets, weed seeds and fly puparia
1005	3	1 tub	0.425	80/25	mainly charcoal but a few cm ³ of modern rootlets (also modern arthropods. including a millipede fragment, earthworm egg capsules, weed seeds, one of which had begun to germinate)
1007	4	half tub	0.425	+/10	a few cm ³ of charcoal, with modern roots, weed seeds and fly puparia
1009	5	3 tubs	0.425	40/10	charcoal (including some charred bark) with some modern rootlets and a little undisaggregated ?ashy material; modern weed seeds (including <i>Chenopodium album</i> with emerging radicle); trace of charred <i>Corylus</i> nutshell
1011	6	1 l.	0.425	+/10	charcoal and some modern roots, fly puparia, other insects and a woodlouse; a few fragments of charred <i>Corylus</i> nutshell
1015	7	-	-	25/10	** roughly equal volumes of modern roots and charcoal; rather a lot of modern weed seeds, also modern earthworm egg capsules and insect fragments
1017	8	2 l.	0.425	+/10	charcoal and modern rootlets with modern weed seeds, fly puparia, and other insects

1018	9	2 bags	-	+/5	(late Neolithic?) small amounts of charcoal and modern rootlets still rather 'silty'; traces of modern weed seeds
1031	10	1 large bag	0.425	10/25	charcoal, with some modern rootlets, weed seeds, and insects
1032	15	1 bag (approx. 11 kg)	0.425	300/10	** all five bags of washover forming this sample had roughly similar volumes of charcoal, with a small amount of modern rootlet material; only bag 2/5 checked
1033	11	1.5 + 1 bags	0.425 and 0.15	65/10	(Neolithic/Early Bronze Age) mainly charcoal and some modern rootlets (11a: about 60 cm ³ , 11b: a very few cm ³ : the washovers are sufficiently different to indicate they are from different deposits or from different parts of a rather heterogeneous deposit); some modern weed seeds and insects
1034	12	1 large bag	0.15	95/10	flot mostly charcoal with a few modern weed seeds and rootlets, but with a trace of charred <i>Corylus</i> nutshell
1036	16	~12 kg	0.425	250/20	** rather large amount of charcoal, including <i>Corylus</i> (some small roundwood) and willow/poplar/aspens (<i>Salix/Populus</i>), with a trace of charred hazel nutshell, and a single charred ?cereal grain, as well as mod rootlets, beetles, seeds, earthworm egg capsules and fly puparia
1061	20	1 tub	0.6	450/30	** two quite large bags [and a third bag with a few small ?pebbles including igneous material], both containing charcoal (amongst which was <i>Salix/Populus</i>) and modern rootlets, with a few modern weed seeds and fly puparia
1065	22	14.50	0.6	+/5	** about 50 cm ³ of modern rootlets with a little charred material (charcoal and a single hemispherical structure not identified), with modern earthworm egg capsules
1073	21	5	0.6	+/20	a few cm ³ of charcoal and modern rootlets (scarcely worth recording, in any case, if deposit is, as indicated on context sheet, from a rabbit hole!)
1078	28	8.50	0.6	2	barely 1 cm ³ of sand, charcoal, modern weed seeds and modern rootlets

1079	30	1 tub	1.0	45/10	** (prehistoric) charcoal with a few modern rootlets, modern seeds, and earthworm egg capsules
1081	24	1 bag	0.6	80/15	** (Neolithic/Early Bronze Age) rather 'silty' charcoal with traces of modern rootlets, weed seeds and moss
1083	32	3 kg	-	20/5	charcoal with a little modern rootlet material and fly puparia
1088	31	1 tub	1.0	20/10	** 'silty' charcoal and modern rootlets in roughly equal volumes, with a trace of modern weed seeds
1090	29	4.5 kg	0.6	+/5	a few cm ³ of sand, charcoal and modern rootlets with a trace of modern weed seeds
1095	27	15.5 kg	0.6	30	** (prehistoric) 2 bags of washover; bag 1/2 consisting of charcoal (including <i>Corylus</i> roundwood) with some modern rootlets and weed seeds; the other bag with a few small pebbles;
1099	33	4.5 kg	0.6	+/10	a few cm ³ of charcoal and modern rootlets and earthworm egg capsules, with a single well-preserved wheat (<i>Triticum</i>) grain, perhaps a tetraploid type; a second bag with some small (<10 mm) gravel
1101	34	3 kg	0.6	+/5	two bags, one with a very little modern rootlet material and some small charcoal fragments, with modern insect fragments; second bag with burnt bone to 10 mm and a little gravel
1105	35	2 tubs	-	+/10	** about 150 cm ³ of 'silty' modern rootlets and charcoal (rewashed, to 0.3 mm, before being dried and re-examined): this yielded a sample of about 100 cm ³ , mostly rootlets but with a little charcoal, with modern weed seeds, fly puparia, other insects and earthworm egg capsules
1110	40	2 kg	0.6	+/5	a very little modern rootlet and charcoal, with modern weed seeds and insects (including fly puparia)
1112	42	6 kg	0.6	40/10	** 'silty' modern rootlets and charcoal with a trace of modern weed seeds

1114	36	9.5 kg	0.6	140/15	** 'silty' modern rootlets and charcoal with some modern weed seeds, earthworm egg capsules and fly puparia; a trace of charred hazel nutshell
1115	44	4.5 kg	0.6	+/10	** about 30 cm ³ of which most was modern rootlets, with trace of charcoal, modern weed seeds and fly puparia
1117	45	7.5 kg	0.6	+/3	** (end of 3 rd mill. BC or earlier) about 60 cm ³ of modern rootlets with a tiny trace of charcoal, modern weed seeds and fly puparia
1121	46	1 tub	1.0	+/10	** about 20 cm ³ of modern rootlets with a tiny amount of charcoal, modern weed seeds and fly puparia
1123	39	4 kg	0.6	+/5	a few cm ³ mostly of modern rootlets with a trace of charcoal and a single charred cereal grain; modern earthworm egg capsules also noted
2000	19	2 bags	0.6	+/5	small amounts of charcoal and modern weed seeds and rootlets [and a second bag with a few rounded ?pebbles, one rather like granite]