

## **NEOLITHIC THROUGH BRONZE AGE CHARRED PLANT REMAINS FROM LONGSTONE EDGE, DERBYSHIRE**

Wendy Smith

**Correspondence address from September 2002** – *Institute of Archaeology and Antiquity, University of Birmingham, Edgbaston, Birmingham B15 2TT* e-mail: k.w.m.smith@bham.ac.uk

The 1996 Central Archaeology Service (CAS) excavations of two Bronze Age Barrows at Longstone Edge, Derbyshire (NGR SK 2088 7841) included the collection of bulk soil samples for the recovery of charred plant remains. In total, 110 samples and/or sub-samples were collected and assessed for charred plant remains, covering all main phases of Barrow 1 and Barrow 2. In consultation with the project director, Jonathan Last, 60 samples (from a total of 17 contexts) were selected for full analysis on the basis of their archaeological significance and/or archaeobotanical content.

Analysis of the charred plant remains from Longstone Edge was undertaken in order to address the following questions:

1. Do any of the plant remains recovered provide information about the ritual use of plants at the barrow? If so, is there any patterning in this data?
2. Do any of the plant remains recovered provide information about the wider environment of the site?
3. Do any of the plant remains recovered provide information about agricultural practices in the period?

### **METHOD**

All of the samples were collected at the excavator's discretion. Sample volumes ranged from 2.5 L to 100 L, but typically sample sizes were around 10 L in volume. A CAS environmental officer processed the bulk soil samples using water flotation. Flots (the material which floats) were washed over a 500µm mesh sieve and the heavy residues (the material which does not float) were washed over a 1 mm mesh sieve and both were air-dried. The majority of heavy residues were sorted for charred plant remains and other artefacts by the CAS environmental officer. The sorted heavy residues only produced charcoal (which is not covered by this report) and, therefore, the archaeobotanical results presented here are limited to the flots.

The flots were sorted using a low-power binocular microscope at magnifications between x12 and x25. Identifications were made at magnifications between x12 and x50 and in

comparison with modern reference material in the English Heritage Centre for Archaeology archaeobotanical comparative collection, as well as in the author's or Lisa Moffett's personal comparative collections.

In almost all cases the flots contained modern root, worm cases and insects, which suggests that the sediments sampled were subjected to bioturbation. The abundance of modern root indicates that all of the deposits sampled were located quite near to the surface. As a result, any ancient charred plant remains within these deposits were subjected to freezing and thawing action, as well as wetting and drying. Both conditions are likely to have a detrimental effect on preservation. All of the flots contained large quantities of soil nodules ( $>500\mu\text{m}$  in diameter), which clearly did not break down during normal flotation. In cases where this was impairing sorting, the flots which contained large quantities of soil nodules were soaked overnight and then re-processed using the wash-over method (e.g. (Kenward *et al.* 1989).

Nomenclature for cereals follows the traditional binomial system as outlined in Zohary and Hopf (1994, Table 3 p.24 and Table 5 p.58) and nomenclature for indigenous taxa follows Stace (1997).

## RESULTS

The results are presented for each archaeobotanical sample in order of context in Table 1. Figure 1 summarises the main results for Barrows 1 and 2. Figures 2–4 present the distributions of nutshells, roots and tubers respectively. Figures 5-10 illustrate the hazel nutshell fragments, as well as some of the unidentified root and tuber material encountered.

Charred tuber and root fragments dominate the assemblages recovered from both barrows, accounting for 72.3% of all charred identifications in Barrow 1 and 77.7% in Barrow 2. Small quantities of edible plants such as nuts (hazel and unidentified nutshells –  $N = 3.0\%$ ), fruit (sloe/ bullace/ damson –  $N = 0.2\%$ ), and cereals (barley and indeterminate wheat –  $N = 1.0\%$ ) were also recovered in the Barrow 1 assemblage and nuts (hazel nutshells, one acorn and unidentified nutshells –  $N = 4.8\%$ ) were also recovered from Barrow 2.

Three cereal grains were recovered from Barrow 1. One possible barley grain was identified in sample 5091.1 (context 1059 – cist fill) and two indeterminate wheat grains were identified in sample 5143.2 (context 1095 – stone mound). In all cases, the preservation of the cereal grains was fairly poor and secure identification was not possible. In terms of the wheat grains, it was not possible to determine if they were free-threshing or glume wheats. However, there is a certain amount of overlap in the gross morphology of free-threshing wheat and glume wheat grains which means precise identification is often not possible, and identifications can only be made to type (Jones 1998).

A small quantity of charred wild plant seeds were recovered. In most cases these were not identified beyond genus level, however, many of these taxa are typical of grassland habitats (e.g. *Ranunculus acris/ repens/ bulbosus*, cf. *Rumex* sp., *Vicia* sp./ *Lathyrus* sp., *Plantago media/ lanceolata*). In addition, several species of bedstraw (*Galium* sp.) are also typical of grassland habitats.

## DISCUSSION

The abundance of charred tuber and root fragments has implications for the possible fuels used in funerary pyres. Charred nutshells, especially hazel nutshells, were also recovered from some phases of Barrow 1 and all phases of Barrow 2 (Figure 5). Charred root (Figure 6–7) and tuber (Figure 8–10) fragments were recovered from all phases of use in both barrows, which suggest that funerary practices were fairly consistent at both sites between the Neolithic and Bronze Age periods. There is limited evidence for the collection of wild foodstuffs, but no obvious archaeobotanical evidence for the character of the wider landscape in this assemblage. Whether this implies a fully cleared landscape around the barrows or is the result of the taphonomic conditions of the site, however, is not clear. There also is limited evidence for access to cereal crops in the Beaker and Beaker/ Bronze Age deposits from Barrow 1. Finally, the quantity and limited range of charred plant remains recovered from the Longstone Edge barrows appears to be fairly typical of Neolithic through Bronze Age period archaeobotanical assemblages in Britain and may well be linked to the type of site excavated.

### *Implications of charred nutshell, tuber and root fragments*

The charred plant macrofossil assemblages from both barrows were dominated by tuber and root fragments, but also produced small quantities of nutshell, especially hazel (*Corylus avellana*) nutshell. Figures 2-4 show the distribution of nutshell, root and tuber fragments for all phases of use at both Barrows.

It is notable that nutshell fragments were not recovered from phase 1 and 3 deposits at Barrow 1, however, with only one sample from each of these phases this result may be an artefact of the limited number of deposits available for archaeobotanical sampling from these phases at Barrow 1. Two interpretations for the presence of hazel nutshell are possible. First, it could be that hazelnuts were some form of burnt offering in the funerary ritual. However, as Campbell (2002, 35) notes, hazel wood charcoal has been recovered in this assemblage and, therefore, it is also possible that hazelnuts simply arrived with the wood fuel used for the funerary pyres.

The recovery of tuber and root fragments from all phases of use at Barrow 1 (phases 0-4) and Barrow 2 (phases 0 and 4 only), however, does imply that this material is repeatedly involved in charring events, mostly likely the funerary pyre. Recovery of roots and tubers, along with grass and small-seeded Fabaceae (the pea family) are typically interpreted as either 'bedding for the corpse prior to cremation' or 'as tender for lighting the fire used for cremation' (Moffett 1999, 245).

### *Evidence for wild foodstuffs*

In addition to hazelnut, one acorn, one sloe/ bullace/ damson (*Prunus* sp.) stone fragment, two possible pignut (cf. *Conopodium majus*) and several possible onion couch grass (cf. *Arrhenatherum elatius* type) tubers were identified. Acorns are primarily viewed as an animal fodder crop today, but they can be used as a famine food and are more palatable when dried and ground into a flour (Grieve 1992, 596). Both the acorn and the sloe/ bullace/ damson (*Prunus* sp.) fragment of a small-sized stone could have either been

collected as a foodstuff (possibly a fodder), but also could have come in with wood used for the funerary pyre. Certainly, both oak and *Prunus* sp. charcoal were identified by Campbell (2002, 34).

Two possible pignuts (*Conopodium majus*) were identified with the assistance of Lisa Moffett. Both were incomplete and small-sized, but were spherical and had the distinctive 'slight hollow' around the 'stump' where the tuber joined the plant stem (e.g. Moffett 1991, 188). Great pignut (*Bunium bulbocastanum* L.) could be ruled out at Longstone Edge (a site located on acid soils), because it is restricted to chalk grassland and currently is considered 'very local' in Hertfordshire, Buckinghamshire, Bedfordshire and Cambridgeshire (Stace 1997, 502). Moffett (1991, 189; 1999, 245) has argued that it is unlikely that pignut tubers would be uprooted by accident, since the tubers easily break away from the plant stem. If the pignut tubers were not collected for food, the only way they could have entered the assemblage is if whole turves were used as kindling/ fuel for the cremation (Moffett 1991, 189). Although there is abundant evidence for grassland taxa and roots/ tubers at Longstone Edge, recognisable material from grass turves was not identified. However, modern charring experiments have established that dry turves can burn completely to ash, producing little in the way of recognisable archaeobotanical remains, especially at high temperatures (Smith 1990). There is some evidence from the charcoal assessment (Campbell 2002, 35) for charring at high temperatures at Longstone Edge.

In addition to possible pignut tubers, material which compares favourable with onion couch grass (*Arrhenatherum elatius*) was also identified in the assemblage. There was not an adequate range of Poaceae (grass family) tuber/ root comparative material or time to securely identify these remains, so the identification has been left tentative since other possible taxa could not be securely ruled out. Nevertheless, tubers of onion couch (sometimes just termed 'couch grass') are fairly commonly recovered from Neolithic – Bronze Age period cremations (Moffett 1991; Robinson 1988). These could have arrived on site either as a collected wild foodstuff used as a burnt offering or in uprooted grass/ turves used as fuel for cremations (Moffett 1991, 187; Robinson 1988).

#### *Evidence for access to cereal crops*

Two samples provided limited evidence for the use of cereal crops. One possible barley grain was identified in sample 5091.1 (context 1059 – Beaker period cist fill) and two indeterminate wheat grains were identified in sample 5143.2 (context 1095 – Beaker/ Bronze Age period stone mound). The scarcity of cereal remains in Neolithic – Bronze Age period sites is well recognised (Jones 2000; Moffett *et al.* 1989; Robinson 2000), and certainly it does not appear that the adoption of arable cultivation of cereal crops occurred until the Bronze Age (Moffett *et al.* 1989), although there are two Neolithic sites in Britain – Balbridie (Fairweather and Ralston 1993) and Lismore Fields (Jones forthcoming) – which have produced substantial quantities of charred cereal grain (Jones 2000).

The limited recovery of cereal crops from Neolithic – Bronze Age 'ceremonial' or 'ritual' deposits is a well known trend (Jones 2000; Robinson 2000, 86–7). Although Jones (2000, 81) has proposed that cereal crops will be more abundant at settlement sites, which are in the minority of sites sampled for archaeobotanical remains, Robinson (Robinson 2000, 89)

has rebutted that this is not necessarily the case, citing unpublished results from the Neolithic settlement at Yarnton, Oxfordshire.

The funerary context of the Longstone Edge archaeobotanical assemblage is highly likely to be a factor in the quantity and range of plant remains encountered. Indeed, since the site clearly was not occupied it is only possible to say that those people who used these barrows had access to cereal crops and may not necessarily have cultivated cereals themselves. Although it is tempting to suggest that these were simply accidental inclusions in the cremation deposits, this may be an over-simplistic interpretation. There is a growing recognition that cereal crops, themselves, may have had some form of 'symbolic power' (e.g. Fairbairn 2000; Richmond 1999) and, therefore, consideration of a possible 'symbolic' meaning for the presence of charred cereals in these deposits should not be ruled out.

#### *The wider landscape – a significant absence of archaeobotanical evidence?*

Although there is evidence for wild foodstuffs and grassland taxa, both appear to be highly associated with the funerary rituals taking place on site and do not directly contribute to any wider understanding of the nature of the landscape in and around Longstone Edge. Whether the absence of archaeobotanical evidence for the wider landscape is significant, however, is not clear.

It has recently been argued that Neolithic – Bronze Age period monuments were intentionally 'constructed within small freshly-made woodland clearings' (Richmond 1999, 78). These interpretations are primarily made on the basis of palynological and molluscan evidence. Although no pollen evidence was available for Longstone Edge, Murphy (2002, 37) has assessed the land snail assemblage and suggests that it indicates 'open conditions and stone-strewn surfaces' in the period.

#### *Comparison of Longstone Edge with other Neolithic – Bronze Age assemblages*

Two sites are known from this period in Derbyshire – the Mesolithic – Neolithic settlement at Lismore Fields, Buxton (Jones forthcoming) and the Bronze Age (including Neolithic features) Barrow at Big Lane, Hognaston (Hunt 1996). Comparison with Lismore Fields is inappropriate as Longstone is a funerary complex, rather than a settlement site and because the assemblage (although not yet published) is clearly remarkably rich in charred cereal remains and, therefore, quite different from the assemblage encountered at Longstone Edge. The Hognaston results are, however, more comparable. A total of eight samples were reported, three of which produced a total 7 charred seeds (Hunt 1996, 158). Such a limited assemblage is difficult to interpret, but in her discussion of the results, Hunt (1996, 159) does discuss the recovery of 'well-preserved grass rhizomes (which are not listed in her table of results), together with some leaves, stems and seeds, strongly suggest[ing] that these samples represent the remains of turves'. As a result, this assemblage does appear to be quite similar to that produced at Longstone Edge.

The remains from Longstone Edge were not dominated by either wild or cultivated plants (namely cereals) and, therefore, it is difficult to discuss it in terms of sites where either

hazel nutshells or cereal grain were dominant (*sensu* Moffett *et al.* 1989); nevertheless, the limited recovery of cereal grains is consistent with sites dating to this period.

## CONCLUSIONS

The incorporation of intensive archaeobotanical sampling produced results from all phases of Barrows 1 and 2 at Longstone Edge. In particular, the assemblages from both barrows were dominated by grassland taxa, tubers and roots, suggesting that grass, or possibly whole turves, were used as kindling/ fuel for cremations. Unfortunately, there is no evidence from the archaeobotanical remains to suggest whether the cremations took place immediately on site or not. Perhaps the most significant result is the consistent recovery of material interpreted as grass or turves from all phases of use of this funerary complex. This suggests that consistent use of such material in cremations and, therefore, the possibility of a tradition of funerary practice spanning the Neolithic through Bronze Age periods at Longstone Edge.

In many cases, multiple 5 – 10 L samples were collected from the same context at Longstone Edge. At the time of assessment, the intention was to combine samples from the same context, however, during full analysis it became clear that each sample was from a discrete sampling location and ideally should be kept separate. On the basis of these results, it is strongly recommended that the average 10 L sample size should ideally be increased to a minimum of 20 – 30 L where possible, in order to increase the chances of recovery of cultivated and/or wild foodstuffs when excavating similar sites of this period. In addition to increasing the sampling size, it is also recommended that intensive sampling of all sealed contexts should take place, in order to increase the chances of detecting any patterns in the data, either between context types or over time.

Sampling a Neolithic – Bronze Age funerary complex for charred plant remains will invariably provide data on funerary practice. Whether this will provide information on agricultural practice and/or the wider environment, however, is a more contentious issue (Fairbairn 2000; Jones 2000; Robinson 2000). Certainly, archaeobotanical sampling at Longstone Edge primarily produced results about the funerary practices taking place and only scant evidence for cultivated and wild foodstuffs.

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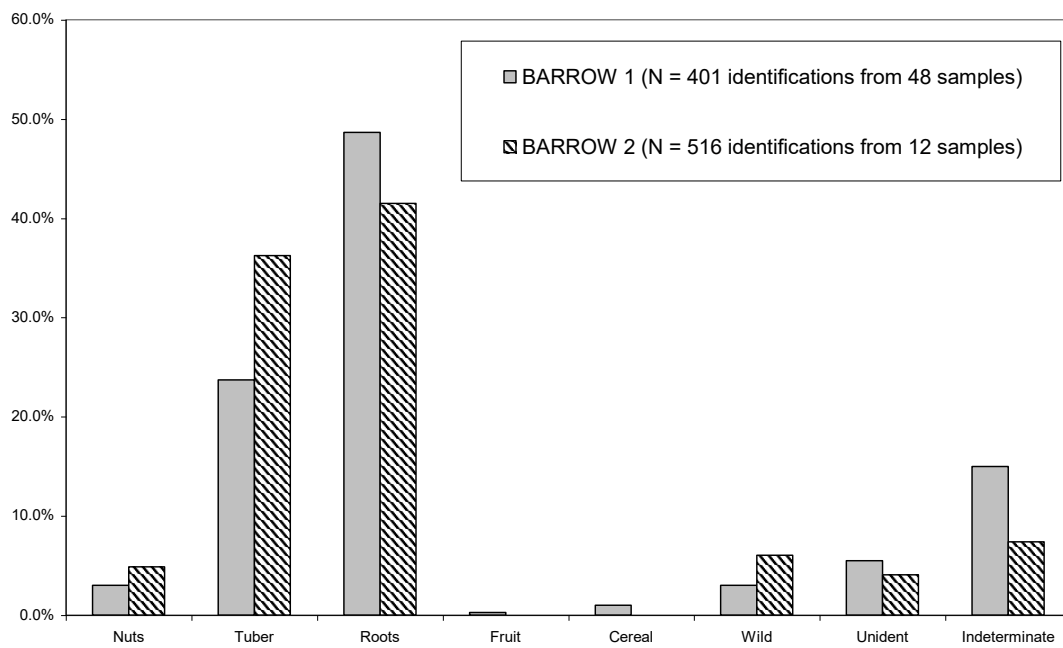
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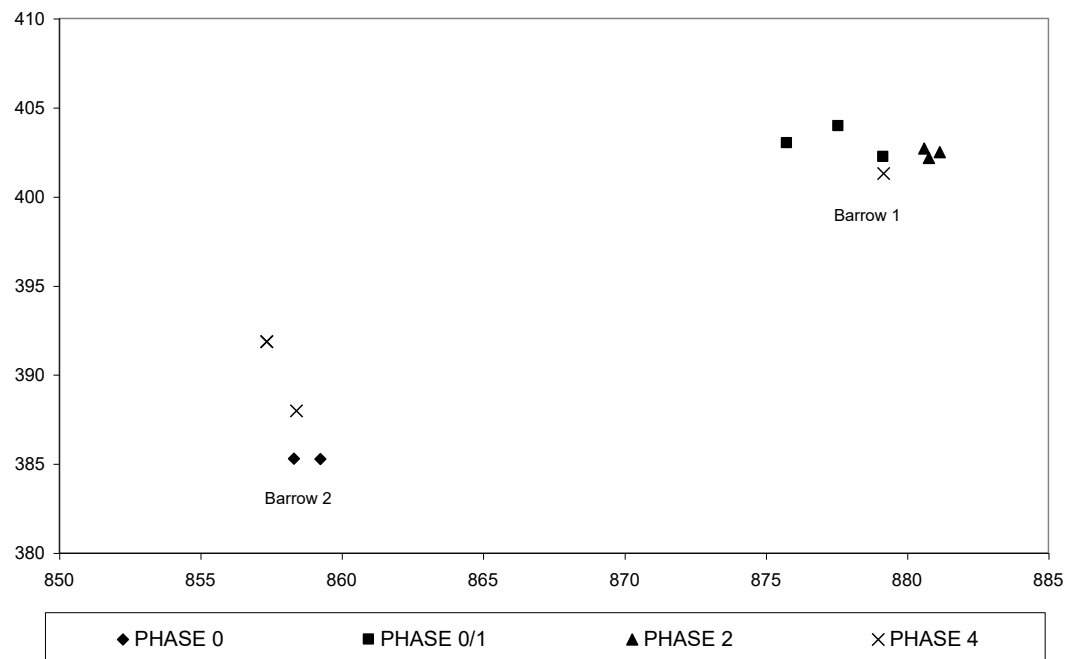
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**Figure 1: Breakdown of proportions of plant remains in Barrow 1 and Barrow 2**



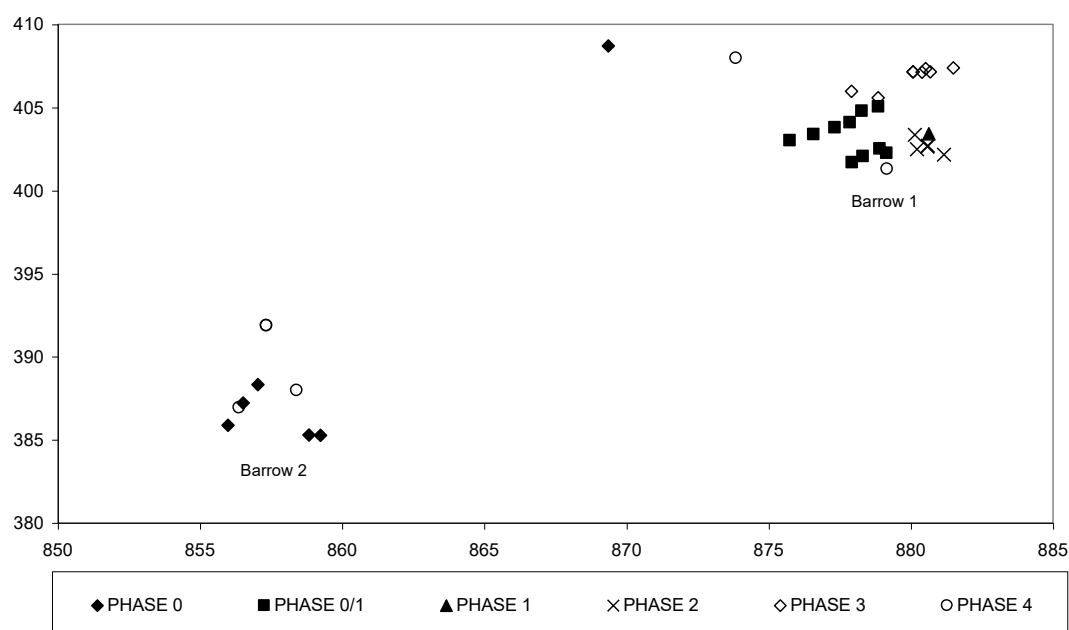
**Figure 2: Distribution of nutshell fragments at Barrows 1 and 2**



*Source data:*

Sample Number	Context Number	Context Description	Barrow/ Area	Phase	x co-ord	y co-ord	Total Nuts	% Nuts
5101	2009	Subsoil	B2/6	0	858.83	385.28	1	7.1%
5112	2058	Subsoil	B2/6	0	859.24	385.26	3	11.1%
5105.5	1053	Subsoil	B1/12	0/1	877.57	403.96	1	25.0%
5105.9	1053	Subsoil	B1/12	0/1	875.75	403.00	1	12.5%
5135.8	1057	Subsoil	B1/12	0/1	879.16	402.24	1	20.0%
5091.1	1059	Cist Fill	B1/12	2	880.77	402.16	1	2.9%
5091.2	1059	Cist Fill	B1/12	2	881.16	402.49	4	2.4%
5094.2	1060	Cist Fill	B1/12	2	880.60	402.69	1	5.9%
5062.1	2008	Cist Fill	B2/5	4	857.34	391.86	5	15.6%
5062.2	2008	Barrow mound – lower	B2/5	4	857.34	391.86	2	5.4%
5066	2008	Barrow mound – lower	B2/5	4	858.40	387.97	1	0.3%
5136	3030	Grave fill	B1/12	4	879.17	401.29	3	10.3%
5067	2009	subsoil	B2/5	0	n/a	n/a	13	23.2%

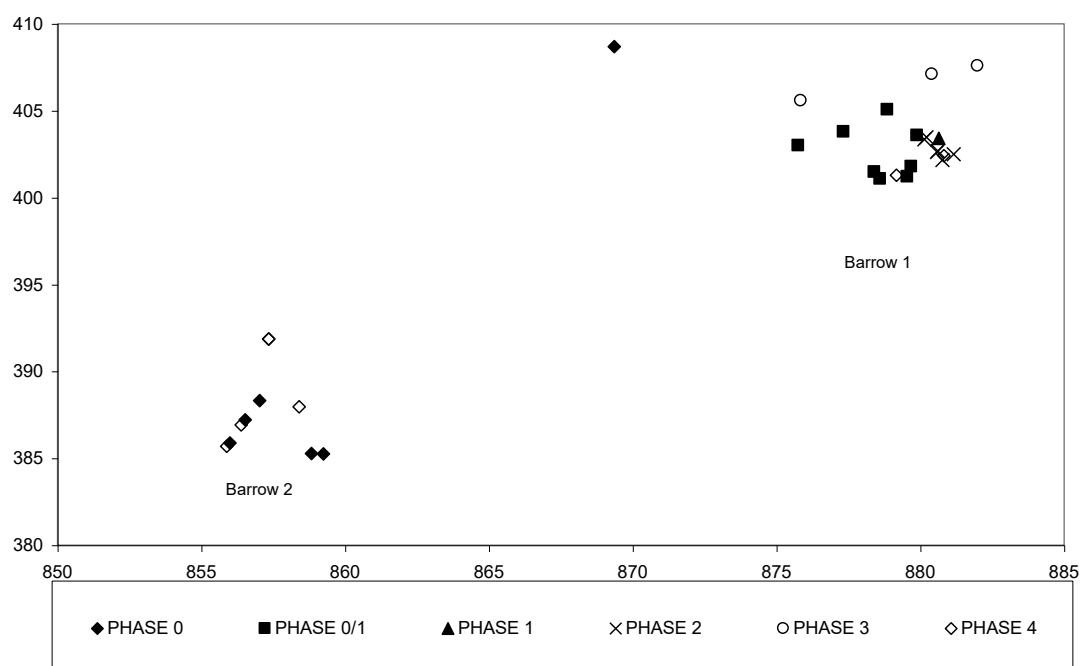
**Figure 3: Distribution of root fragments at Barrows 1 and 2**



Source data:

Sample Number	Context Number	Context Description	Barrow/ Area	Phase	x co-ord	y co-ord	Total Roots	% Roots
5101	2058	Subsoil	b2/6	0	858.83	385.28	2	14.3%
5112	2058	Subsoil	b2/6	0	859.24	385.26	9	33.3%
5134.1	2078	Subsoil	b2/4	0	856.52	387.21	5	33.3%
5134.2	2078	Subsoil	b2/4	0	855.99	385.88	5	31.3%
5134.3	2078	Subsoil	b2/4	0	857.03	388.31	9	64.3%
5016A	1002	Subsoil	b1/2	0	869.36	408.69	11	78.6%
5105.1	1053	Subsoil	b1/12	0/1	878.86	405.05	0	0.0%
5105.2	1053	Subsoil	b1/12	0/1	878.28	404.79	1	100.0%
5105.4	1053	Subsoil	b1/12	0/1	877.86	404.08	1	50.0%
5105.6	1053	Subsoil	b1/12	0/1	877.33	403.78	1	50.0%
5105.8	1053	Subsoil	b1/12	0/1	876.58	403.37	1	100.0%
5105.9	1053	Subsoil	b1/12	0/1	875.75	403.00	6	75.0%
5135.4	1057	Subsoil	b1/12	0/1	878.91	402.51	2	100.0%
5135.6	1057	Subsoil	b1/12	0/1	878.32	402.06	2	100.0%
5135.7	1057	Subsoil	b1/12	0/1	877.94	401.68	3	100.0%
5135.8	1057	Subsoil	b1/12	0/1	879.16	402.24	4	80.0%
5080	1056	Excarnation Deposit	b1/12	1	880.64	403.42	1	10.0%
5091.1	1059	Cist Fill	b1/12	2	880.77	402.16	21	61.8%
5091.2	1059	Cist Fill	b1/12	2	881.16	402.49	80	47.1%
5093.1	1059	Cist Fill	b1/12	2	880.22	403.47	1	33.3%
5093.2	1059	Cist Fill	b1/12	2	880.14	403.34	7	53.8%
5094.1	1060	Cist Fill	b1/12	2	880.58	402.63	3	75.0%
5094.2	1060	Cist Fill	b1/12	2	880.60	402.69	12	70.6%
5065	1019	Stone Mound	b1/2	3	875.85	405.59	5	55.6%
5068	1019	Stone Mound	b1/2	3	877.92	405.98	4	80.0%
5141.1	1095	Stone Mound	b1/1	3	880.69	407.15	1	50.0%
5141.2	1095	Stone Mound	b1/1	3	880.52	407.34	2	66.7%
5141.3	1095	Stone Mound	b1/1	3	880.40	407.11	1	25.0%
5141.4	1095	Stone Mound	b1/1	3	880.08	407.14	1	100.0%
5141.5	1095	Stone Mound	b1/1	3	880.08	407.38	3	60.0%
5143.2	1095	Stone Mound	b1/1	3	881.49	408.04	5	55.6%
5025	1004	Barrow Mound–Upper	b1/2	4	873.85	407.97	1	100.0%
5062.1	2008	Barrow Mound–Lower	b2/5	4	857.34	391.86	9	28.1%
5062.2	2008	Barrow Mound–Lower	b2/5	4	857.34	391.86	23	62.2%
5066	2008	Barrow Mound–Lower	b2/5	4	858.40	387.97	130	43.6%
5131.2	2076	Layer of Stone	b2/4	4	856.38	386.93	3	50.0%
5136	3030	Grave Fill	b1/12	4	879.17	401.29	15	51.7%
5067	2009	Subsoil	b2/5	0	n/a	n/a	19	33.9%

**Figure 4: Distribution of tuber fragments at Barrows 1 and 2**



*Source data:*

Sample Number	Context Number	Context Description	Barrow/ Area	Phase	x co-ord	y co-ord	Total Tuber	% Tuber
5101	2058	subsoil	b2/6	0	858.83	385.28	3	21.4%
5112	2058	subsoil	b2/6	0	859.24	385.26	7	25.9%
5134.1	2078	subsoil	b2/4	0	856.52	387.21	2	13.3%
5134.2	2078	subsoil	b2/4	0	855.99	385.88	5	31.3%
5134.3	2078	subsoil	b2/4	0	857.03	388.31	3	21.4%
5016A	1002	subsoil	b1/2	0	869.36	408.69	1	7.1%
5103	1057	subsoil	b1/12	0/1	879.89	403.57	5	83.3%
5105.1	1053	subsoil	b1/12	0/1	878.86	405.05	2	100.0%
5105.5	1053	subsoil	b1/12	0/1	877.57	403.96	1	25.0%
5105.6	1053	subsoil	b1/12	0/1	877.33	403.78	1	50.0%
5105.9	1053	subsoil	b1/12	0/1	875.75	403.00	1	12.5%
5135.1	1057	subsoil	b1/12	0/1	878.60	401.07	3	50.0%
5135.2	1057	subsoil	b1/12	0/1	879.68	401.78	2	100.0%
5135.3	1057	subsoil	b1/12	0/1	879.55	401.21	5	83.3%
5135.9	1057	subsoil	b1/12	0/1	878.40	401.48	1	33.3%
5080	1056	Excarnation Deposit	b1/12	1	880.64	403.42	8	80.0%
5091.1	1059	Cist Fill	b1/12	2	880.77	402.16	2	5.9%
5091.2	1059	Cist Fill	b1/12	2	881.16	402.49	40	23.5%
5093.1	1059	Cist Fill	b1/12	2	880.22	403.47	1	33.3%
5093.2	1059	Cist Fill	b1/12	2	880.14	403.34	3	23.1%
5094.1	1060	Cist Fill	b1/12	2	880.58	402.63	1	25.0%
5094.2	1060	Cist Fill	b1/12	2	880.60	402.69	3	17.6%
5065	1019	Stone Mound	b1/2	3	875.85	405.59	1	11.1%
5138.1	1095	Stone Mound	b1/1	3	881.99	407.58	3	75.0%
5141.3	1095	Stone Mound	b1/1	3	880.40	407.11	1	25.0%
5062.1	2008	Barrow Mound-Lower	b2/5	4	857.34	391.86	10	31.3%
5062.2	2008	Barrow Mound-Lower	b2/5	4	857.34	391.86	7	18.9%
5066	2008	Barrow Mound-Lower	b2/5	4	858.40	387.97	130	43.6%
5090.1	1058	Barrow Mound	b1/12	4	880.82	402.41	1	100.0%
5131.1	2076	Layer of Stone	b2/4	4	855.88	385.70	1	100.0%
5131.2	2076	Layer of Stone	b2/4	4	856.38	386.93	1	16.7%
5136	3030	Grave Fill	b1/12	4	879.17	401.29	9	31.0%
5067	2009	subsoil	b2/5	0	n/a	n/a	18	32.1%

**Figure 5: Charred hazel (*Corylus avellana*) nutshell fragments at x12.5 magnification**



**Figure 6: Charred unidentified root – cf. *Arrhenatherum elatius* (L.) Beauv.  
ex J & C Presl type at x15 magnification**



**Figure 7:** *Charred unidentified root – branched structure at x10 magnification*



**Figure 8:** *Charred unidentified tuber Type A – spherical tuber (Ranunculus / Conopodium type) at x12.5 magnification*



***Figure 9: Charred unidentified tuber – Type B (? bulblet) at x12.5 magnification***



***Figure 10: Charred unidentified tuber – Type C (elongated oval shape <1.5 cm long) at x10 magnification***



Table 1: Charred plant remains from Longstone Edge

Sample Number	5016A	5025	5065	5068	5105.1	5105.2	5105.3	5105.4	5105.5	
Context Number	1002	1004	1019	1019	1053	1053	1053	1053	1053	
Context Description	subsoil	BM			subsoil	subsoil	subsoil	subsoil	subsoil	
Barrow/ Area		–U	S	S	B1/12	B1/12	B1/12	B1/12	B1/12	
Phase	B1/	B1/2			0/1	0/1	0/1	0/1	0/1	
Sample Volume (l)	2	4	M	M	10	10	10	10	10	
Flot Volume (ml)		10			150	300	100	90	150	
Seeds per litre	0	3000	B1/2	B1/2	0.2	0.1	0.1	0.2	0.4	
	10	0.1	3	3						
	800		20	10						
	1.4		710	150						
			0.5	0.5						
LATIN BINOMIAL										COMMON NAME
<b>Cultivated plants</b>										<i>Cultivated plants</i>
cf. <i>Hordeum</i> sp. – hulled grain	-	-	-	-	-	-	-	-	-	possible hulled barley grain
<i>Triticum</i> sp. – indeterminate grain	-	-	-	-	-	-	-	-	-	indeterminate wheat grain
Cereal/ POACEAE – basal rachis internode	-	-	-	-	-	-	-	-	-	cereal/ wild grass
<b>Wild plants</b>										<i>Wild plants</i>
<i>Ranunculus acris</i> L./ <i>R. repens</i> L./ <i>R. bulbosus</i> L.	-	-	-	-	-	-	-	-	-	meadow/ creeping/ bulbous buttercup
<i>Quercus</i> sp. – nutshell fragment	-	-	-	-	-	-	-	-	-	oak
<i>Corylus avellana</i> L. – nutshell fragments	-	-	-	-	-	-	-	-	-	hazel
cf. <i>Rumex</i> sp.	-	-	-	-	-	-	-	-	-	possible knotgrass
<i>Prunus</i> sp. – fragment of small-sized stone	-	-	-	-	-	-	-	-	-	sloe/ bullace/ damson
<i>Vicia</i> sp./ <i>Lathyrus</i> sp.	-	-	-	-	-	-	-	-	-	vetch/ pea
cf. <i>Conopodium majus</i> (Gouan) Loret - tuber	-	-	-	-	-	-	-	-	-	possible pignut – tuber
<i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	-	-	hoary plantain/ ribwort plantain
cf. <i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	-	-	possible hoary plantain/ ribwort plantain
<i>Galium</i> sp.	-	-	-	-	-	-	-	-	-	bedstraw
ASTERACEAE – unidentified	-	-	-	1	-	-	-	-	-	daisy family
POACEAE – unidentified basal rachis internode	-	-	-	-	-	-	-	-	-	grass family
POACEAE – unidentified culm base	1	1	1	1	-	-	-	-	-	grass family
POACEAE – unidentified culm node	-	-	-	-	-	-	-	-	-	grass family
POACEAE – small caryopsis	-	-	-	-	-	-	-	-	-	grass family
cf. POACEAE – large caryopsis	-	-	-	-	-	-	-	-	-	grass family
Unidentified – possible nutshell fragment	-	-	-	-	-	-	-	-	1	possible grass family
Unidentified – plant stem	-	-	-	-	-	-	1	-	-	unidentified – possible nutshell fragment
Unidentified root – cf. <i>Arrhenatherum elatius</i> (L.) Beauv. ex J & C Presl type	3	-	1	1	-	-	-	1	-	unidentified – plant stem
Unidentified root – branched structure	7	-	3	2	-	1	-	-	-	unidentified root – cf. onion couch grass type
Unidentified tuber – type A – spherical tuber ( <i>Ranunculus</i> / <i>Conopodium</i> type)	-	-	-	-	-	-	-	-	-	unidentified root – branched structure
Unidentified tuber – type B (? bulblet)	-	-	-	-	-	-	-	-	-	unidentified root – Type A – buttercup/ pignut type
Unidentified tuber – type C (elongated oval shape < 1.5 cm long)	-	-	-	-	-	-	-	-	-	unidentified root – Type B - ?bulblet
Unidentified tuber – amorphous parenchyma fragments	1	-	1	-	2	-	-	-	1	unidentified root – Type C – elongated oval shape
Unidentified	2	-	3	-	-	-	-	1	2	unidentified tuber
Indeterminate	-	-	-	-	-	-	-	-	-	unidentified
Fungal bodies*	+++	++++	+++	+++	++	-	+	+	+	indeterminate
										fungal bodies
<b>Total</b>	<b>14</b>	<b>1</b>	<b>9</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>	

Key: \* = Fungal bodies are not included in the total count. + = <50, ++ = 50 – 100, +++ = 100 – 500, ++++ = > 500 BM = barrow mound BM–U = barrow mound – upper layer  
BM–L = barrow mound – lower (or basal) layer CF = cist fill ED = excaurion deposit GF = grave fill LS = layer of stones SM = stone mound T&C = topsoil and cleaning



Table 1: Charred plant remains from Longstone Edge continued...

Sample Number	5105.6	5105.7	5105.8	5105.9	5080	5081	5103	5117	5135.1	
Context Number	1053	1053	1053	1053	1056	1057	1057	1057	1057	
Context Description	subsoil	subsoil	subsoil	subsoil		subsoil	subsoil	subsoil	subsoil	
Barrow/ Area	B1/12	B1/12	B1/12	B1/12		B1/12	B1/12	B1/12	B1/12	
Phase	0/1	0/1	0/1	0/1	ED	0/1	0/1	0/1	0/1	
Sample Volume (l)	10	10	10	10	B1/12	10	10	10	10	
Flot Volume (ml)	80	200	275	225	1	25	60	15	25	
Seeds per litre	0.2	0.3	0.1	0.8	15 175 0.7	0	0.6	0	0	
LATIN BINOMIAL										COMMON NAME
<b>Cultivated plants</b>										<b>Cultivated plants</b>
cf. <i>Hordeum</i> sp. – hulled grain	-	-	-	-	-	-	-	-	-	possible hulled barley grain
<i>Triticum</i> sp. – indeterminate grain	-	-	-	-	-	-	-	-	-	indeterminate wheat grain
Cereal/ POACEAE – basal rachis internode	-	-	-	-	-	-	-	-	-	cereal/ wild grass
<b>Wild plants</b>										<b>Wild plants</b>
<i>Ranunculus acris</i> L./ <i>R. repens</i> L./ <i>R. bulbosus</i> L.	-	-	-	-	-	-	-	-	-	meadow/ creeping/ bulbous buttercup
<i>Quercus</i> sp. – nutshell fragment	-	-	-	-	-	-	-	-	-	oak
<i>Corylus avellana</i> L. – nutshell fragments	-	-	-	1	-	-	-	-	-	hazel
cf. <i>Rumex</i> sp.	-	-	-	-	-	-	-	-	-	possible knotgrass
<i>Prunus</i> sp. – fragment of small-sized stone	-	-	-	-	-	-	-	-	-	sloe/ bullace/ damson
<i>Vicia</i> sp./ <i>Lathyrus</i> sp.	-	-	-	-	1	-	-	-	-	vetch/ pea
cf. <i>Conopodium majus</i> (Gouan) Loret – tuber	-	-	-	-	-	-	-	-	-	possible pignut – tuber
<i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	-	-	hoary plantain/ ribwort plantain
cf. <i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	1	-	-	-	-	-	-	-	possible hoary plantain/ ribwort plantain
<i>Galium</i> sp.	-	-	-	-	-	-	-	-	-	bedstraw
ASTERACEAE – unidentified	-	-	-	-	-	-	-	-	-	daisy family
POACEAE – unidentified basal rachis internode	-	-	-	-	-	-	-	-	-	grass family
POACEAE – unidentified culm base	1	-	-	-	-	-	-	-	-	grass family
POACEAE – unidentified culm node	-	-	-	-	-	-	-	-	-	grass family
POACEAE – small caryopsis	-	-	-	-	-	-	-	-	-	grass family
cf. POACEAE – large caryopsis	-	-	-	-	-	-	-	-	-	possible grass family
Unidentified – possible nutshell fragment	-	-	-	-	-	-	-	-	-	unidentified – possible nutshell fragment
Unidentified – plant stem	-	-	-	-	-	-	-	-	-	unidentified – plant stem
Unidentified root – cf. <i>Arrhenatherum elatius</i> (L.) Beauv. ex J & C Presl type	-	-	1	2	-	-	-	-	-	unidentified root – cf. onion couch grass type
Unidentified root – branched structure	-	-	-	4	1	-	-	-	-	unidentified root – branched structure
Unidentified tuber – type A – spherical tuber ( <i>Ranunculus</i> / <i>Conopodium</i> type)	-	-	-	-	1	-	-	-	-	unidentified root – Type A – buttercup/ pignut type
Unidentified tuber – type B (? bulblet)	-	-	-	-	-	-	-	-	-	unidentified root – Type B - ?bulblet
Unidentified tuber – type C (elongated oval shape < 1.5 cm long)	-	-	-	-	-	-	-	-	-	unidentified root – Type C – elongated oval shape
Unidentified tuber – amorphous parenchyma fragments	1	-	-	1	7	-	5	-	-	unidentified tuber
Unidentified	-	2	-	-	-	-	-	-	-	unidentified
Indeterminate	-	-	-	-	-	-	1	-	-	indeterminate
Fungal bodies*	+	+	+	++	++	+	-	+	+	fungal bodies
<b>Total</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>8</b>	<b>10</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	

Key: \* = Fungal bodies are not included in the total count. + = <50, ++ = 50 – 100, +++ = 100 – 500, ++++ > 500 BM = barrow mound BM-U = barrow mound – upper layer  
BM-L = barrow mound – lower (or basal) layer CF = cist fill ED = exarnation deposit GF = grave fill LS = layer of stones SM = stone mound T&C = topsoil and cleaning

Table 1: Charred plant remains from Longstone Edge continued...

Sample Number	5135.2	5135.3	5135.4	5135.5	5135.6	5135.7	5135.8	5135.9	
Context Number	1057	1057	1057	1057	1057	1057	1057	1057	
Context Description									
Barrow/ Area	sub	sub	sub	sub	sub	sub	sub	sub	
Phase	soil	soil	soil	soil	soil	soil	soil	soil	
Sample Volume (l)	B1/12	B1/12	B1/12	B1/12	B1/12	B1/12	B1/12	B1/12	
Flot Volume (ml)	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	
Seeds per litre	10	10	10	10	10	10	10	10	
	25	35	100	50	150	100	75	90	
	0.2	0.6	0.2	0.2	0.2	0.3	0.5	0.3	
LATIN BINOMIAL									COMMON NAME
<b>Cultivated plants</b>									<i>Cultivated plants</i>
cf. <i>Hordeum</i> sp. – hulled grain	-	-	-	-	-	-	-	-	possible hulled barley grain
<i>Triticum</i> sp. – indeterminate grain	-	-	-	-	-	-	-	-	indeterminate wheat grain
Cereal/ POACEAE – basal rachis internode	-	-	-	-	-	-	-	-	cereal/ wild grass
<b>Wild plants</b>									<i>Wild plants</i>
<i>Ranunculus acris</i> L./ <i>R. repens</i> L./ <i>R. bulbosus</i> L.	-	-	-	-	-	-	-	-	meadow/ creeping/ bulbous buttercup
<i>Quercus</i> sp. – nutshell fragment	-	-	-	-	-	-	-	-	oak
<i>Corylus avellana</i> L. – nutshell fragments	-	-	-	-	-	-	1	-	hazel
cf. <i>Rumex</i> sp.	-	-	-	-	-	-	-	-	possible knotgrass
<i>Prunus</i> sp. – fragment of small-sized stone	-	-	-	-	-	-	-	-	sloe/ bullace/ damson
<i>Vicia</i> sp./ <i>Lathyrus</i> sp.	-	-	-	-	-	-	-	-	vetch/ pea
cf. <i>Conopodium majus</i> (Gouan) Loret – tuber	-	-	-	-	-	-	-	-	possible pignut – tuber
<i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	-	hoary plantain/ ribwort plantain
cf. <i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	-	possible hoary plantain/ ribwort plantain
<i>Galium</i> sp.	-	-	-	-	-	-	-	-	bedstraw
ASTERACEAE – unidentified	-	-	-	-	-	-	-	-	daisy family
POACEAE – unidentified basal rachis internode	-	-	-	-	-	-	-	-	grass family
POACEAE – unidentified culm base	-	-	1	-	-	-	-	-	grass family
POACEAE – unidentified culm node	-	-	-	-	-	-	-	-	grass family
POACEAE – small caryopsis	-	-	-	-	-	-	-	-	grass family
cf. POACEAE – large caryopsis	-	-	-	-	-	-	-	-	grass family
Unidentified – possible nutshell fragment	-	-	-	-	-	-	-	-	possible grass family
Unidentified – plant stem	-	-	-	-	-	-	-	-	unidentified – possible nutshell fragment
Unidentified root – cf. <i>Arrhenatherum elatius</i> (L.) Beauv. ex J & C Presl type	-	-	-	-	1	2	-	-	unidentified – plant stem
Unidentified root – branched structure	-	-	1	-	1	1	4	-	unidentified root – cf. onion couch grass type
Unidentified tuber – type A – spherical tuber ( <i>Ranunculus</i> / <i>Conopodium</i> type)	-	-	-	-	-	-	-	-	unidentified root – branched structure
Unidentified tuber – type B (? bulblet)	-	1	-	-	-	-	-	-	unidentified root – Type A – buttercup/ pignut type
Unidentified tuber – type C (elongated oval shape < 1.5 cm long)	-	-	-	-	-	-	-	-	unidentified root – Type B - ?bulblet
Unidentified tuber – amorphous parenchyma fragments	2	4	-	-	-	-	-	1	unidentified root – Type C – elongated oval shape
Unidentified	-	1	-	2	-	-	-	1	unidentified tuber
Indeterminate	-	-	-	-	-	-	-	1	unidentified
Fungal bodies*	+	+	+	+	-	+	+	++	indeterminate fungal bodies
<b>Total</b>	<b>2</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>3</b>	

Key: \* = Fungal bodies are not included in the total count. + = <50, ++ = 50 – 100, +++ = 100 – 500, ++++ > 500 BM = barrow mound BM-U = barrow mound – upper layer  
 BM-L = barrow mound – lower (or basal) layer CF = cist fill ED = excarnation deposit GF = grave fill LS = layer of stones SM = stone mound T&C = topsoil and cleaning

Table 1: Charred plant remains from Longstone Edge continued...

Sample Number	5135.10	5135.11	5090.1	5090.2	5091.1	5091.2	5093.1	5093.2	
Context Number	1057	1057	1058	1058	1059	1059	1059	1059	
Context Description									
Barrow/ Area	sub	sub		BM					
Phase	soil	soil	BM	4	CF	CF	CF	CF	
Sample Volume (l)	B1/12	B1/12	B1/12	20	B1/12	B1/12	B1/12	B1/12	
Flot Volume (ml)	0/1	0/1	4	1825	2	2	2	2	
Seeds per litre	10	5	48	0.1	35	65	<9.5	<9.5	
	65	25	1775		550	2065	25	35	
	0.6	0	0		1.0	2.6	>0.3	>1.4	
LATIN BINOMIAL									COMMON NAME
<b>Cultivated plants</b>									<i>Cultivated plants</i>
cf. <i>Hordeum</i> sp. – hulled grain	-	-	-	-	1	-	-	-	possible hulled barley grain
<i>Triticum</i> sp. – indeterminate grain	-	-	-	-	-	-	-	-	indeterminate wheat grain
Cereal/ POACEAE – basal rachis internode	-	-	-	-	-	-	-	-	cereal/ wild grass
<b>Wild plants</b>									<i>Wild plants</i>
<i>Ranunculus acris</i> L./ <i>R. repens</i> L./ <i>R. bulbosus</i> L.	-	-	-	-	-	-	-	-	meadow/ creeping/ bulbous buttercup
<i>Quercus</i> sp. – nutshell fragment	-	-	-	-	-	-	-	-	oak
<i>Corylus avellana</i> L. – nutshell fragments	-	-	-	-	-	4	-	-	hazel
cf. <i>Rumex</i> sp.	-	-	-	-	-	-	-	-	possible knotgrass
<i>Prunus</i> sp. – fragment of small-sized stone	-	-	-	-	-	1	-	-	sloe/ bullace/ damson
<i>Vicia</i> sp./ <i>Lathyrus</i> sp.	-	-	-	-	-	-	-	-	vetch/ pea
cf. <i>Conopodium majus</i> (Gouan) Loret – tuber	-	-	1	-	-	-	-	-	possible pignut – tuber
<i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	-	hoary plantain/ ribwort plantain
cf. <i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	1	-	-	-	possible hoary plantain/ ribwort plantain
<i>Galium</i> sp.	-	-	-	-	-	-	-	-	bedstraw
ASTERACEAE – unidentified	-	-	-	-	-	-	-	-	daisy family
POACEAE – unidentified basal rachis internode	-	-	-	-	-	-	-	1	grass family
POACEAE – unidentified culm base	-	-	-	-	2	6	-	2	grass family
POACEAE – unidentified culm node	-	-	-	-	-	-	-	-	grass family
POACEAE – small caryopsis	-	-	-	-	-	-	-	-	grass family
cf. POACEAE – large caryopsis	-	-	-	-	-	-	-	-	grass family
Unidentified – possible nutshell fragment	-	-	-	-	1	-	-	-	possible grass family
Unidentified – plant stem	-	-	-	-	1	-	-	-	unidentified – possible nutshell fragment
Unidentified root – cf. <i>Arrhenatherum elatius</i> (L.) Beauv. ex J & C Presl type	-	-	-	-	-	-	1	-	unidentified – plant stem
Unidentified root – branched structure	-	-	-	-	19	74	-	5	unidentified root – cf. onion couch grass type
Unidentified tuber – type A – spherical tuber ( <i>Ranunculus</i> / <i>Conopodium</i> type)	-	-	-	-	-	-	-	-	unidentified root – branched structure
Unidentified tuber – type B (? bulblet)	1	-	-	-	1	-	-	-	unidentified root – Type A – buttercup/ pignut type
Unidentified tuber – type C (elongated oval shape < 1.5 cm long)	-	-	-	-	-	-	-	-	unidentified root – Type B - ?bulblet
Unidentified tuber – amorphous parenchyma fragments	2	-	-	-	1	40	1	3	unidentified root – Type C – elongated oval shape
Unidentified	-	-	-	1	-	-	-	2	unidentified tuber
Indeterminate	3	-	-	-	7	45	1	-	unidentified
Fungal bodies*	+	++	-	+++	+	++	-	++	indeterminate fungal bodies
<b>Total</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>34</b>	<b>170</b>	<b>3</b>	<b>13</b>	

Key: \* = Fungal bodies are not included in the total count. + = <50, ++ = 50 – 100, +++ = 100 – 500, +++ > 500 BM = barrow mound BM-U = barrow mound – upper layer  
 BM-L = barrow mound – lower (or basal) layer CF = cist fill ED = exarnation deposit GF = grave fill LS = layer of stones SM = stone mound T&C = topsoil and cleaning

Table 1: Charred plant remains from Longstone Edge continued...

Sample Number	5094.1	5094.2	5138.1	5138.2	5138.3	5138.4	5141.1	
Context Number	1060	1060	1095	1095	1095	1095	1095	
Context Description								
Barrow/ Area								
Phase	CF	CF	SM	SM	SM	SM	SM	
Sample Volume (l)	B1/12	B1/12	B1/1	B1/1	B1/1	B1/1	B1/1	
Flot Volume (ml)	2	2	3	3	3	3	3	
Seeds per litre	10	210	10	10	10	10	10	
	140	325	775	1000	1000	1250	550	
	0.4	21.7	0.4	0	0	0	0.2	
LATIN BINOMIAL								COMMON NAME
<b>Cultivated plants</b>								<b>Cultivated plants</b>
cf. <i>Hordeum</i> sp. – hulled grain	-	-	-	-	-	-	-	possible hulled barley grain
<i>Triticum</i> sp. – indeterminate grain	-	-	-	-	-	-	-	indeterminate wheat grain
Cereal/ POACEAE – basal rachis internode	-	-	-	-	-	-	-	cereal/ wild grass
<b>Wild plants</b>								<b>Wild plants</b>
<i>Ranunculus acris</i> L./ <i>R. repens</i> L./ <i>R. bulbosus</i> L.	-	-	-	-	-	-	-	meadow/ creeping/ bulbous buttercup
<i>Quercus</i> sp. – nutshell fragment	-	-	-	-	-	-	-	oak
<i>Corylus avellana</i> L. – nutshell fragments	-	1	-	-	-	-	-	hazel
cf. <i>Rumex</i> sp.	-	-	-	-	-	-	-	possible knotgrass
<i>Prunus</i> sp. – fragment of small-sized stone	-	-	-	-	-	-	-	sloe/ bullace/ damson
<i>Vicia</i> sp./ <i>Lathyrus</i> sp.	-	1	-	-	-	-	-	vetch/ pea
cf. <i>Conopodium majus</i> (Gouan) Loret – tuber	-	-	-	-	-	-	-	possible pignut – tuber
<i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	hoary plantain/ ribwort plantain
cf. <i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	possible hoary plantain/ ribwort plantain
<i>Galium</i> sp.	-	-	-	-	-	-	-	bedstraw
ASTERACEAE – unidentified	-	-	-	-	-	-	-	daisy family
POACEAE – unidentified basal rachis internode	-	-	-	-	-	-	-	grass family
POACEAE – unidentified culm base	-	-	-	-	-	-	-	grass family
POACEAE – unidentified culm node	-	-	-	-	-	-	-	grass family
POACEAE – small caryopsis	-	-	-	-	-	-	-	grass family
cf. POACEAE – large caryopsis	-	-	-	-	-	-	-	grass family
Unidentified – possible nutshell fragment	-	-	-	-	-	-	-	possible grass family
Unidentified – plant stem	-	-	1	-	-	-	-	unidentified – possible nutshell fragment
Unidentified root – cf. <i>Arrhenatherum elatius</i> (L.) Beauv. ex J & C Presl type	-	1	-	-	-	-	-	unidentified – plant stem
Unidentified root – branched structure	3	11	-	-	-	-	1	unidentified root – cf. onion couch grass type
Unidentified tuber – type A – spherical tuber ( <i>Ranunculus/ Conopodium</i> type)	1	-	-	-	-	-	-	unidentified root – branched structure
Unidentified tuber – type B (? bulblet)	-	-	-	-	-	-	-	unidentified root – Type A – buttercup/ pignut type
Unidentified tuber – type C (elongated oval shape < 1.5 cm long)	-	-	-	-	-	-	-	unidentified root – Type B - ?bulblet
Unidentified tuber – amorphous parenchyma fragments	-	3	3	-	-	-	-	unidentified root – Type C – elongated oval shape
Unidentified	-	-	-	-	-	-	1	unidentified tuber
Indeterminate	-	-	-	-	-	-	-	unidentified
Fungal bodies*	+	-	++++	++++	++++	++++	++++	indeterminate fungal bodies
<b>Total</b>	<b>4</b>	<b>17</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	

Key: \* = Fungal bodies are not included in the total count. + = <50, ++ = 50 – 100, +++ = 100 – 500, +++ > 500 BM = barrow mound BM-U = barrow mound – upper layer  
 BM-L = barrow mound – lower (or basal) layer CF = cist fill ED = excarnation deposit GF = grave fill LS = layer of stones SM = stone mound T&C = topsoil and cleaning

Table 1: Charred plant remains from Longstone Edge continued...

Sample Number	5141.2	5141.3	5141.4	5141.5	5143.2	5143.3	5028	
Context Number	1095	1095	1095	1095	1095	1095	2001	
Context Description								
Barrow/ Area								
Phase	SM	SM	SM	SM	SM	SM	T&	
Sample Volume (l)	B1/1	B1/1	B1/1	B1/1	B1/1	B1/1	C	
Flot Volume (ml)	3	3	3	3	3	3		
Seeds per litre	10	10	10	10	10	10	B2/5	
	250	350	600	750	500	400	6	
	0.3	0.4	0.1	0.5	0.9	0.1	2.5	
							400	
							0	
LATIN BINOMIAL								COMMON NAME
<b>Cultivated plants</b>								<i>Cultivated plants</i>
cf. <i>Hordeum</i> sp. – hulled grain	-	-	-	-	-	-	-	possible hulled barley grain
<i>Triticum</i> sp. – indeterminate grain	-	-	-	-	2	-	-	indeterminate wheat grain
Cereal/ POACEAE – basal rachis internode	-	-	-	1	-	-	-	cereal/ wild grass
<b>Wild plants</b>								<i>Wild plants</i>
<i>Ranunculus acris</i> L./ <i>R. repens</i> L./ <i>R. bulbosus</i> L.	-	-	-	-	-	-	-	meadow/ creeping/ bulbous buttercup
<i>Quercus</i> sp. – nutshell fragment	-	-	-	-	-	-	-	oak
<i>Corylus avellana</i> L. – nutshell fragments	-	-	-	-	-	-	-	hazel
cf. <i>Rumex</i> sp.	-	-	-	-	-	-	-	possible knotgrass
<i>Prunus</i> sp. – fragment of small-sized stone	-	-	-	-	-	-	-	sloe/ bullace/ damson
<i>Vicia</i> sp./ <i>Lathyrus</i> sp.	-	-	-	-	-	-	-	vetch/ pea
cf. <i>Conopodium majus</i> (Gouan) Loret – tuber	-	-	-	-	-	-	-	possible pignut – tuber
<i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	hoary plantain/ ribwort plantain
cf. <i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	possible hoary plantain/ ribwort plantain
<i>Galium</i> sp.	-	-	-	-	1	-	-	bedstraw
ASTERACEAE – unidentified	-	-	-	-	-	-	-	daisy family
POACEAE – unidentified basal rachis internode	-	-	-	-	-	-	-	grass family
POACEAE – unidentified culm base	-	-	-	-	1	-	-	grass family
POACEAE – unidentified culm node	-	-	-	-	-	-	-	grass family
POACEAE – small caryopsis	-	-	-	-	-	-	-	grass family
cf. POACEAE – large caryopsis	-	-	-	-	-	-	-	grass family
Unidentified – possible nutshell fragment	-	-	-	-	-	-	-	possible grass family
Unidentified – plant stem	1	-	-	-	-	-	-	unidentified – possible nutshell fragment
Unidentified root – cf. <i>Arrhenatherum elatius</i> (L.) Beauv. ex J & C Presl type	1	1	-	-	1	-	-	unidentified – plant stem
Unidentified root – branched structure	1	-	1	3	3	-	-	unidentified root – cf. onion couch grass type
Unidentified tuber – type A – spherical tuber ( <i>Ranunculus</i> / <i>Conopodium</i> type)	-	-	-	-	-	-	-	unidentified root – branched structure
Unidentified tuber – type B (? bulblet)	-	1	-	-	-	-	-	unidentified root – Type A – buttercup/ pignut type
Unidentified tuber – type C (elongated oval shape < 1.5 cm long)	-	-	-	-	-	-	-	unidentified root – Type B - ?bulblet
Unidentified tuber – amorphous parenchyma fragments	-	-	-	-	-	-	-	unidentified root – Type C – elongated oval shape
Unidentified	-	2	-	-	1	-	-	unidentified tuber
Indeterminate	-	-	-	1	-	1	-	unidentified
Fungal bodies*	++	++	++	++++	+++	+++	+	indeterminate
								fungal bodies
<b>Total</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>9</b>	<b>1</b>	<b>0</b>	

Key: \* = Fungal bodies are not included in the total count. + = <50, ++ = 50 – 100, +++ = 100 – 500, ++++ > 500 BM = barrow mound BM-U = barrow mound – upper layer  
 BM-L = barrow mound – lower (or basal) layer CF = cist fill ED = exarnation deposit GF = grave fill LS = layer of stones SM = stone mound T&C = topsoil and cleaning

Table 1: Charred plant remains from Longstone Edge continued...

Sample Number	5062.1	5062.2	5066	5067	5101	5112	5131.1	
Context Number	2008	2008	2008	2009	2058	2058	2076	
Context Description				sub	sub	subsoil		
Barrow/ Area	BM	BM	BM	soil	soil	B2/6	LS	
Phase						0		
Sample Volume (l)	-L	-L	-L	B2/5	B2/6	10	B2/4	
Flot Volume (ml)				0	0	60	4	
Seeds per litre	B2/5	B2/5	B2/5	10	10	2.7	15	
	4	4	4	200	35		200	
	80	20	10	5.6	1.4		0.1	
	1760	210	40					
	0.4	1.9	29.8					
LATIN BINOMIAL								COMMON NAME
<b>Cultivated plants</b>								<i>Cultivated plants</i>
cf. <i>Hordeum</i> sp. – hulled grain	-	-	-	-	-	-	-	possible hulled barley grain
<i>Triticum</i> sp. – indeterminate grain	-	-	-	-	-	-	-	indeterminate wheat grain
Cereal/ POACEAE – basal rachis internode	-	-	-	-	-	-	-	cereal/ wild grass
<b>Wild plants</b>								<i>Wild plants</i>
<i>Ranunculus acris</i> L./ <i>R. repens</i> L./ <i>R. bulbosus</i> L.	-	-	1	-	1	-	-	meadow/ creeping/ bulbous buttercup
<i>Quercus</i> sp. – nutshell fragment	-	1	-	-	-	-	-	oak
<i>Corylus avellana</i> L. – nutshell fragments	5	1	1	13	1	3	-	hazel
cf. <i>Rumex</i> sp.	-	-	1	-	-	-	-	possible knotgrass
<i>Prunus</i> sp. – fragment of small-sized stone	-	-	-	-	-	-	-	sloe/ bullace/ damson
<i>Vicia</i> sp./ <i>Lathyrus</i> sp.	-	-	-	-	-	-	-	vetch/ pea
cf. <i>Conopodium majus</i> (Gouan) Loret – tuber	-	-	-	-	-	1	-	possible pignut – tuber
<i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	1	-	-	-	-	-	hoary plantain/ ribwort plantain
cf. <i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	-	-	possible hoary plantain/ ribwort plantain
<i>Galium</i> sp.	-	-	-	-	-	-	-	bedstraw
ASTERACEAE – unidentified	-	-	-	-	-	-	-	daisy family
POACEAE – unidentified basal rachis internode	-	-	-	-	-	-	-	grass family
POACEAE – unidentified culm base	1	1	4	-	-	1	-	grass family
POACEAE – unidentified culm node	3	-	1	-	-	-	-	grass family
POACEAE – small grass caryopsis	-	-	2	-	-	-	-	grass family
cf. POACEAE – large caryopsis	-	-	-	-	-	-	-	grass family
Unidentified – possible nutshell fragment	-	-	-	-	-	-	-	possible grass family
Unidentified – plant stem	-	1	3	4	6	-	-	unidentified – possible nutshell fragment
Unidentified root – cf. <i>Arrhenatherum elatius</i> (L.) Beauv. ex J & C Presl type	2	-	6	2	1	-	-	unidentified – plant stem
Unidentified root – branched structure	6	22	120	17	1	8	-	unidentified root – cf. onion couch grass type
Unidentified tuber – type A – spherical tuber ( <i>Ranunculus</i> / <i>Conopodium</i> type)	-	1	3	-	-	-	-	unidentified root – branched structure
Unidentified tuber – type B (? bulblet)	-	1	-	7	1	3	-	unidentified root – Type A – buttercup/ pignut type
Unidentified tuber – type C (elongated oval shape < 1.5 cm long)	1	-	1	-	-	-	-	unidentified root – Type B - ?bulblet
Unidentified tuber – amorphous parenchyma fragments	9	5	126	11	2	3	1	unidentified root – Type C – elongated oval shape
Unidentified	5	1	-	-	1	6	-	unidentified tuber
Indeterminate	-	2	29	2	-	2	-	unidentified
Fungal bodies*	+++	+++	++	+++	+	+	+	indeterminate
								fungal bodies
<b>Total</b>	<b>32</b>	<b>37</b>	<b>298</b>	<b>56</b>	<b>14</b>	<b>27</b>	<b>1</b>	

Key: \* = Fungal bodies are not included in the total count. + = <50, ++ = 50 – 100, +++ = 100 – 500, +++ > 500  
 BM = barrow mound BM-U = barrow mound – upper layer  
 BM-L = barrow mound – lower (or basal) layer CF = cist fill ED = exarnation deposit GF = grave fill LS = layer of stones SM = stone mound T&C = topsoil and cleaning

Table 1: Charred plant remains from Longstone Edge continued...

Sample Number	5131.2	5134.1	5134.2	5134.3	5136	
Context Number	2076	2078	2078	2078	3030	
Context Description		subsoil	subsoil	subsoil		
Barrow/ Area		B2/4	B2/4	B2/4		
Phase	LS	0	0	0	GF	
Sample Volume (l)		10	10	10		
Flot Volume (ml)	B2/4	150	200	100	B1/12	
Seeds per litre	4	1.5	1.6	1.4	4	
	2				35	
	200				450	
	3.0				0.8	
LATIN BINOMIAL						COMMON NAME
<b>Cultivated plants</b>						<i>Cultivated plants</i>
cf. <i>Hordeum</i> sp. – hulled grain	-	-	-	-	-	possible hulled barley grain
<i>Triticum</i> sp. – indeterminate grain	-	-	-	-	-	indeterminate wheat grain
Cereal/ POACEAE – basal rachis internode	-	-	-	-	-	cereal/ wild grass
<b>Wild plants</b>						<i>Wild plants</i>
<i>Ranunculus acris</i> L./ <i>R. repens</i> L./ <i>R. bulbosus</i> L.	-	-	1	-	-	meadow/ creeping/ bulbous buttercup
<i>Quercus</i> sp. – nutshell fragment	-	-	-	-	-	oak
<i>Corylus avellana</i> L. – nutshell fragments	-	-	-	-	3	hazel
cf. <i>Rumex</i> sp.	-	-	-	-	-	possible knotgrass
<i>Prunus</i> sp. – fragment of small-sized stone	-	-	-	-	-	sloe/ bullace/ damson
<i>Vicia</i> sp./ <i>Lathyrus</i> sp.	-	-	-	-	-	vetch/ pea
cf. <i>Conopodium majus</i> (Gouan) Loret – tuber	-	-	-	-	-	possible pignut – tuber
<i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	1	-	-	hoary plantain/ ribwort plantain
cf. <i>Plantago media</i> L./ <i>Plantago lanceolata</i> L.	-	-	-	-	-	possible hoary plantain/ ribwort plantain
<i>Galium</i> sp.	-	-	-	-	-	bedstraw
ASTERACEAE – unidentified	-	-	-	-	-	daisy family
POACEAE – unidentified basal rachis internode	-	-	-	-	-	grass family
POACEAE – unidentified culm base	1	-	-	1	-	grass family
POACEAE – unidentified culm node	1	4	-	-	-	grass family
POACEAE – small caryopsis	-	-	-	-	-	grass family
cf. POACEAE – large caryopsis	-	-	-	-	-	grass family
Unidentified – possible nutshell fragment	-	-	-	-	-	possible grass family
Unidentified – plant stem	-	-	-	-	1	unidentified – possible nutshell fragment
Unidentified root – cf. <i>Arrhenatherum elatius</i> (L.) Beauv. ex J & C Presl type	-	-	1	1	2	unidentified – plant stem
Unidentified root – branched structure	2	5	4	7	13	unidentified root – cf. onion couch grass type
Unidentified tuber – type A – spherical tuber ( <i>Ranunculus/ Conopodium</i> type)	-	-	-	-	-	unidentified root – branched structure
Unidentified tuber – type B (? bulblet)	-	1	3	3	4	unidentified root – Type A – buttercup/ pignut type
Unidentified tuber – type C (elongated oval shape < 1.5 cm long)	-	-	-	-	-	unidentified root – Type B - ?bulblet
Unidentified tuber – amorphous parenchyma fragments	1	1	2	-	5	unidentified root – Type C – elongated oval shape
Unidentified	1	3	2	2	1	unidentified tuber
Indeterminate	-	1	2	-	-	unidentified
Fungal bodies*	+	+	+	+	++++	indeterminate fungal bodies
<b>Total</b>	<b>6</b>	<b>15</b>	<b>16</b>	<b>14</b>	<b>29</b>	

Key: \* = Fungal bodies are not included in the total count. + = <50, ++ = 50 – 100, +++ = 100 – 500, ++++ > 500 BM = barrow mound BM-U = barrow mound – upper layer  
BM-L = barrow mound – lower (or basal) layer CF = cist fill ED = exarnation deposit GF = grave fill LS = layer of stones SM = stone mound T&C = topsoil and cleaning