

Woodbridge (Cheviot) Quarry excavation: WOOD05. Evaluation of environmental samples from a Neolithic site in the Milfield Basin, Northumberland, J.P. Huntley

1. INTRODUCTION

- 1.1. Excavations were undertaken by staff of Archaeological Research Services at Woodbridge Quarry (NT 9520 3269) in the Milfield Basin, Northumberland in advance of gravel extraction by Tarmac. Tarmac Northern funded the excavation and recording of this multi-phase Neolithic site that includes at least three, possibly up to seven, rectangular buildings and numerous pits and hearths, most of which have produced pottery, lithics and/or charred plant remains. As such it is the most extensive site of the period in northern England and further emphasises the importance of the Milfield Basin in early prehistoric times, not only as a ritual centre with 9 or more henges, but also as one for agricultural production. Further funding has been sought and obtained from English Heritage, via the Aggregates Sustainability Levy, for full recording of the remaining area prior to gravel extraction and subsequent post-excavation assessment, analysis and publication of the results.
- 1.2. This report evaluates the potential for analysis of the bulk environmental samples collected from the WOOD05 excavations. Charcoal samples had also been taken from a number of contexts primarily with the aim of providing material for radiocarbon dating. The reports from this dating material are presented in Appendix 1. Numerous bags of charcoal remain but they are all very small (<5ml) and thus are considered to have minimal potential to address questions other than related to dating of specific contexts.

2. METHODOLOGY

- 2.1. The bulk samples, of varying volume, had been processed on-site by the excavator and the flots sent to the laboratory for evaluation. Each sample had been sieved to 4 or 5 fractions (5mm, variously 1 and 2mm or 3mm, 500 microns and 300 microns). Each fraction had been bagged separately and given a unique sample number. In some cases any one fraction might be in 3 or 4 or more bags. Fortunately, all material from one environmental sample was kept in one large bag. An updated sample register and context information files accompanied the samples.
- 2.2. For the evaluation, initially the samples were separated into two groups – those of less than 5ml total estimated volume and the larger ones. The small-volume group was noted as such and put on one side. For the larger volume samples the approximate total volume was noted and whether there was a clear separation into size, i.e. whether most of the material was large, small or reasonably separated between the fractions since the fractions had been kept separate. Approximately 10-20ml of each of the 1mm and 2mm or 3mm fractions and 5ml of the 500µ fraction were scanned, where possible, using a Wild M5 stereomicroscope at magnifications of up to x50. In many instances any one of these fractions was less than the 10-20ml in which case all was scanned. The presence of charred cereal grains, chaff and weed seeds was noted and

approximate amounts of each scored – 1 = 1 or 2 items, 2 up to about 10 and 3 many more; taxa present were recorded if they could be identified quickly. Any one context was then classified as: a) no further action, nfa, if no charred plant remains of any sort were seen, b) second priority, do2, if a few were present or c) high priority, DO, when some 10s of plant remains were present in the volumes assessed. These data were entered into an Access database table. The excavator provided various documents containing archaeological and provisional dating information. Of these, the context register (as of 25th November 2005) was imported to another table and the two related using context number as the linked field.

3. RESULTS

- 3.1. Given the nature of the contexts and sediments any non-charred material was considered to be intrusive and only charred material contemporary with occupation.
- 3.2. 125 samples were evaluated from 114 contexts, therefore 11 contexts had two sets of samples taken. Eleven of the contexts had missing archaeological information or, apparently, did not themselves exist. It is not clear whether there has been a transcription of numbers by the author or archaeologist or whether some of the contexts were in the sequence that was re-numbered. Only in two cases is it important to clarify this as they are samples that have some potential for full analysis. Table 1 presents the information about the 25 contexts that warrant further work.
- 3.3. The matrix of most of the contexts was more or less entirely charcoal although a few also produced a little white vitreous spatter. None produced calcined or burnt bone and no other bone survived although this is not unexpected due to the acidic nature of the underlying gravels. A few contexts contained large amounts of modern roots indicating probably that they were close to the surface. Much of the charcoal was reasonably well preserved with few fresh breaks. Some contexts produced highly abraded charcoal suggesting that it had been moved around to moderate degrees prior to final burial. This makes these contexts less useful from a taphonomic point of view.
- 3.4. The charcoal was variously a mixture of taxa or dominantly oak. The oak was mostly small and, typical of the species, very flaky pieces. The mixed taxa were quite often in the form of sections of relatively small roundwood although chunks of heartwood were common; twigs were present but rare. No obvious heather was noted. Even the small contexts seemed to have a mixture of taxa suggesting that the material does not represent only, if at all, the post in a post hole.
- 3.5. Cereal grains were the most common and abundant remain found, with most being noted as *Hordeum*, barley. Well developed, hulled barley grains were frequent as were rather smaller and flatter grains although still with a somewhat angular section. Nothing clearly from the naked variety was noted. Emmer-type wheat grains, *Triticum dicoccon*, were present as was its chaff as both glume bases and spikelet forks. One grain of possible rye, *Secale cereale*, was noted – it had the high, narrow dorsal ridge and pointed embryo of rye although was not as

“shiny” as typical and more recent grains. Barley chaff was occasionally present. Weeds seeds were rare throughout with a few each of sedges, Polygonaceae and Chenopodiaceae only. Legumes were recorded in two contexts, and, from their somewhat flattened shape, they may well have been from *Ulex*, gorse or similar, they were not typical *Vicia/Lathyrus* types. In general, the cereals are well preserved with diagnostic features well defined and relatively few should remain in the Cerealia undiff. category. The emmer glume bases noted in this evaluation are of such quality as to be measurable with very few being longitudinally fragmented as often occurs. The flots are generally clean as well with little adherence of fine silts, thus small weed seeds should be obvious.

Table 1: details of samples containing charred plant remains

| Context | cereal grain score | chaff score | weed score | action | taxa and notes | description | date |
|-------------------|--------------------|-------------|------------|---------------|--|---|-----------|
| 2131 | 1 | 0 | 0 | do2 | several grains barley | Posthole Building 3 | |
| 262 | 0 | 0 | 0 | ?do charcoal | damp mixed charcoal, 80%>2mm | Fill of an irregular pit or depression | Neolithic |
| 262 | 0 | 0 | 0 | ?do charcoal | clean mixed charcoal | Fill of an irregular pit or depression | Neolithic |
| 224 (same as 292) | 0 | 0 | 0 | ??do charcoal | wet charcoal lots of it mixed types/spp | Fill of an irregular pit or depression | Neolithic |
| 305 | 0 | 0 | 0 | do2 | strange bubbly charcoal ?food | Pit containing posthole in Building 5 | Neolithic |
| 312 | 1 | 0 | 1 | do2 | silty charc occ barley and weed | Fill of deep posthole in Building 5 | Neolithic |
| 314 | 2 | 0 | 0 | do2 | charcoal and barley | Fill of Burning pit | Neolithic |
| 338 | 1 | 0 | 0 | do2 | damp charcoal, occ barley, dating sample | Fill of a double posthole in Building 4 | Neolithic |
| 340 | 1 | 0 | 0 | DO | grain, dating sample | Fill of pit within Building 4 | Neolithic |
| 340 | 3 | 2 | 0 | DO | stuffed. Mostly hulled barley, some emmer ?rye?, | Fill of pit within Building 4 | Neolithic |
| 341 | 0 | 1 | 0 | do2 | Dating sample, emmer spikelet | Cut of feature (340) | Neolithic |
| 342 | 2 | 0 | 0 | DO and | damp charcoal, some | Fill of burning pit | Neolithic |

| Context | cereal grain score | chaff score | weed score | action | taxa and notes | description | date |
|---------|--------------------|-------------|------------|----------------|---|---------------------------------------|-----------|
| | | | | ?charcoal | ?barley | in Building 4 | |
| 344 | 1 | 0 | 0 | do2 | clean charcoal, occ barley | Fill of posthole in Building 4 | Neolithic |
| 346 | 1 | 0 | 0 | DO | grain, dating sample | Fill of posthole in Building 4 | Neolithic |
| 352 | 1 | 0 | 0 | do2 | clean charcoal, occ barley | Fill of pit in Building 4 | Neolithic |
| 355 | 1 | 1 | 0 | do2 | silty charcoal, grain and emmer chaff | Fill of posthole in Building 4 | Neolithic |
| 359 | 2 | 0 | 0 | do2 | moderate barley and emmer | Fill of posthole in Building 4 | Neolithic |
| 363 | 2 | 0 | 0 | DO | grain barley; dating | Fill of posthole in Building 4 | Neolithic |
| 365 | 1 | 0 | 0 | do2 | clean charcoal, occ barley | Fill of double posthole in Building 4 | Neolithic |
| 367 | 1 | 0 | 0 | do2 | clean charcoal, occ barley | Fill of posthole in Building 4 | Neolithic |
| 373 | 1 | 1 | 1 | do2 | silty crazed charcoal. Barley and emmer, sedge | Fill of posthole in Building 4 | Neolithic |
| 477 | 3 | 0 | 0 | DO | stuffed full of grain mostly barley, some emmer | Burnt material in base of 340 | Neolithic |
| 488 | 0 | 0 | 0 | ?charcoal | mostly >2mm, small roundwood, could do charcoal | Burnt layer under 486 | Neolithic |
| 489 | 1 | 0 | 0 | do2 | damp charcoal - needs drying occ grain. Dating sample | Fill of posthole | Neolithic |
| 491 | 0 | 1 | 0 | do2 | charcoal, lots modern roots, emmer spikelet | Fill of pit | Neolithic |
| 2005 | 0 | 0 | 1 | do2, ?charcoal | charcoal but damp and needs rinsing/drying. Legume | Fill of hearth pit | Neolithic |

4. DISCUSSION

- 4.1. Twenty five contexts have sufficient charred plant remains or charcoal to warrant full analysis and, even without taking account of any archaeology, they would produce a statistically valid dataset in respect of agricultural production for the Neolithic period in northern England. As such it would be comparable with material from Marton-le-Moor in North Yorkshire (Huntley, 1994) although there fragments of *Malus/Pyrus*, apple/pear, and other native fruits were as abundant as cereals. That site, however, consisted of pits possibly associated with a ritual setting rather than settlement. The only other comparable site in the north is at Balbridie where a rectangular building produced evidence for bread wheat, *Triticum aestivum*, as well as other cereals (Fairweather & Ralston, 1993).
- 4.2. Hazelnut shells are, apparently, remarkably rare in these contexts which compares with samples taken from earlier excavations immediately to the west of this site where they were abundant in some contexts, especially those associated with Building 1 (Cotton, 2005). These differences need investigation.
- 4.3. The pottery and lithics of Cheviot Quarry suggest that there is earlier and later Neolithic occupation and some possibly into the early Bronze Age. Once dating has been finalised there may be the opportunity to investigate any changes in plant remains across time although, from the evaluation, there seems to be little difference between contexts. This is, of itself, of interest if there is no difference in cereal production over what might be a thousand years or so. However, there are clear differences between the WOOD05 and Cotton's (2005) assemblages and this might well be temporal. The two excavations are really two halves of the same site and abut each other.
- 4.4. From this evaluation, the final number of weeds seeds is likely to be extremely low and therefore will offer little in the way of interpretation. It seems most likely that this is a genuine absence rather than one due to preservation, given good survival of chaff, and perhaps reflects cultivation of virgin ground where annual species had not had previous opportunities to invade.
- 4.5. The pottery and lithics also indicate *only* early prehistoric activity even though Anglo-Saxon occupation also survives in the locale with the nearby Maelmin site being a high status stronghold of that period. Thus the likelihood of contamination from later material is slight. Their evidence is also of such quality to suggest that the structures excavated to the north of Cheviot Quarry and initially considered as Anglo-Saxon from lack of ceramic evidence might also be Neolithic and funding to date hazelnut shells from those excavations is now being sought.
- 4.6. Although there were at least three and possibly up to seven buildings or post-hole structures on the site, the WOOD05 contexts with charred plant remains are only from two of these – building 4 predominantly and, to a much lesser extent, building 5. As yet it is unclear as to how the other pits and shallow features etc relate to either of these buildings or whether they are closer, time or space, to other structures. There is therefore good potential to look at activities associated with two, and possibly more, structures. Spatial analyses across the

whole area are unlikely to be that favoured although building 1 clearly had some surviving material (Cotton, 2005).

- 4.7. The samples taken represented 100% of the context and they were quite small volumes in many cases, between 2 and 5 litres for most postholes, although many of the pits were larger.
- 4.8. No further material is available for processing. As a result, concentrations of seeds are likely to be quite low overall. Given the minute flots initially put on one side it is not considered worth looking at these – at most they might contain one or two fragments and such small amounts of material are not going to add to the interpretation of the site where some rich contexts do, after all, exist, unless they represent a different period of time and can clearly be demonstrated as not contaminated.
- 4.9. Abundant charcoal survives in several contexts determined as hearths, presumably therefore primary contexts. Analysis of this material has high potential to investigate the species and nature of wood being used at least for the latest firings of these features. It would also provide material for methodological investigations for charcoal analysis.

5. RECOMMENDATIONS

- The damp flots need to be dried as a matter of urgency.
- Archaeological information needs to be sorted for the two rogue contexts 131 and 292.
- All 25 contexts in table 1, assuming point 1 is satisfied, should be fully analysed for their charred cereal and weed remains. This will produce only a second large dataset in respect of agricultural production for the Neolithic period in northern England.
- The data from these contexts have good potential to discuss cereal-related activities in at least two buildings.
- The data from Jacqui Cotton's work should be incorporated with those from the current samples and an integrated report produced with appropriate collaboration.
- The two datasets together have high potential to address possible temporal patterns across the site given their already obvious differences, dominant nuts versus cereals, and this has to be tied into a suitable dating programme.
- Hearth contexts are available from Jacqui Cotton's sample too. Analysis of charcoal from those and the hearths in the present dataset would enable investigation of woodlands used by people and may have a temporal element too.
- Charcoal analysis in Britain remains non-standardised and under debate. Sufficient material is present at Cheviot Quarry to undertake some fundamental methodological experiments which would have wider applications in

archaeobotany. A project design for this should be prepared and, subject to approval from her Management Committee, the author would like to undertake this work following the completion of her Regional Review of Wood and Charcoal.

- The material is of sufficient quality that photographs of it would be suitable to use in training and publicity literature both for specialists and the interested public to raise the profile of this type of work.
- In view of the relatively small assemblage in terms of numbers of contexts and taxa, and the well preserved nature of the plant remains this site has high potential for training someone in basic archaeobotany. This would have the added advantage of a further specialist developing regional expertise in a region with very few active archaeobotanists. Subject to approval from her Management Committee, the author would be willing to act as supervisor for this and to provide the necessary training and support plus reference material.

Jacqui Huntley,
EH Regional Science Advisor
26th January 2006

6. CHARCOAL SAMPLES FOR DATING

- 6.1. Charcoal samples from the Neolithic settlement site at Cheviot Quarry, Milfield, Northumberland were identified prior to being sent for radiocarbon dating.
- 6.2. The aim of the first round was to provide material to date 7 'buildings'. Two single entity samples had been requested, by the EH dating staff, from each of 4 post-holes for each of the buildings. Ideally the pieces were to be chosen from different species to avoid the possibility of dating, in essence, the same tree/shrub.
- 6.3. Bags of hand-picked charcoal as well as flots from bulk samples were delivered to the laboratory. Initially the hand-picked charcoal was examined as the pieces were likely to be larger. In some instances the flots from environmental samples (two bin liners full) were also examined through lack of hand-recovered charcoal. This was considerably more time consuming than expected given that each flot had been separated into 5 size fractions, each of which was in its own bag and with a unique sample number. In addition, it rapidly became obvious that the flots from bulk samples had a higher potential as a) they were clean, b) they contained discrete pieces of charcoal as opposed to black soil or smears of charcoal and c) they were dry thus fractioning was less destructive.
- 6.4. Individual fragments were fractured along the transverse and the longitudinal radial and tangential planes as necessary for identification. These were examined initially under a Wild M3 stereomicroscope at magnifications of up to x50 and subsequently under a Leitz DM/LM epifluorescent microscope at magnifications of up to x200 in order to see details at the cellular level. Identification was by comparison with modern artificially charred wood of known identification held by the author.
- 6.5. Charcoal from small roundwood and/or short-lived species was preferred; *Quercus* (oak) was not considered unless sapwood/bark clearly present. Most of the oak was simply oak and, although a few pieces contained the tyloses characteristic of heartwood, most did not so might or might not have been suitable. In some instances *Fraxinus* (ash) was chosen; although the tree can live to 2-300 years most tend to be rather less and such a date "error" might be acceptable. If *Corylus* (hazel) nutshell or cereal grains were present in the flots these were chosen although the argument that a nut might have come from the same tree as the charcoal fragment could equally be applied. Once identified, all fragments from the single piece were placed together in a small bag, if they were suitable for dating.
- 6.6. The table below presents the identifications to-date. Context numbers are in circles and sample numbers in lozenges on the bags.

| Context | Sample | Archaeology | Charcoal |
|-------------------|-------------------------|----------------------|--|
| Building 1 | | | |
| 2019 | <340> flot | Building 1 post hole | 1 fragment <i>Corylus</i> charcoal and 1 hulled <i>Hordeum</i> (barley) grain selected. |
| 2023 | 2048 | Building 1 post hole | 1 fragment probable <i>Alnus</i> (alder) selected. Nothing else present. |
| 2027 | 2047 | Building 1 post hole | 1 fragment indet. twig – too fragile to confirm whether <i>Calluna</i> (heather) or not but doesn't look like it. |
| 2037 | <315> 5mm | Building 1 post hole | 2 fragments <i>Corylus</i> charcoal selected, these had very different growth patterns. Otherwise there was only 1 fragment of <i>Fraxinus</i> . |
| 2037 | <316> 2mm | Building 1 post hole | Couple of tiny scraps of charcoal and one fragment of small indet cereal. Not suitable. |
| 2029 | <520> 2mm | Building 1 post hole | No 5mm fraction. 1 fragment glassy charcoal but not identifiable. 1 fragment each <i>Betula/Corylus</i> and <i>Salix/Populus</i> . The latter two not separable as a rule. The former two can be separated but the fragment was so small that dust would result if fractioned. Nothing in <521> the 1mm fraction |
| 2017 | <411> 5mm | Building 1 post hole | 1 fragment <i>Corylus</i> , 2 bits from a single unidentifiable twig selected. <i>Fraxinus</i> 2 and <i>Quercus</i> 1. Otherwise a couple of small fragments of monocot root base. |
| Building 2 | | | |
| 2089 | 2003 | Building 2 post hole | Single piece of ? <i>Quercus</i> , very tarry. Not suitable |
| 2089 | 2000 | Building 2 post hole | Single ? <i>Quercus</i> again. Not suitable |
| 2091 | <370> 2mm | Building 2 post hole | 1 fragment <i>Crataegus</i> -type and 1 fragment <i>Betula</i> sorted |
| 2093 | <387> 5mm | Building 2 post hole | 1 <i>Quercus</i> only |
| 2093 | <388> 2mm | Building 2 post hole | 2 fragments <i>Quercus</i> otherwise minute fragments that should have gone through mesh! |
| 2099 | 2001 | Building 2 post hole | Single ? <i>Quercus</i> again. Not suitable |
| 2107 | <376> 2mm and 5mm | Building 2 post hole | 5mm = 1 piece burnt soil; 2mm 1 small indet piece of roundwood with only 1 vessel visible amongst parenchyma, 1 <i>Salix/Populus</i> and a few tiny scraps of charcoal. |
| 2047 | <322> 2mm | Building 2 post hole | 1 <i>Salix/Populus</i> and 1 <i>Corylus</i> selected |
| 2051 | 2002 | Building 2 post hole | Single fragment <i>Corylus</i> – selected. |
| 2053 | <274> 3mm | Building 2 post hole | 1 hulled <i>Hordeum</i> , 1 <i>Hordeum</i> undiff. and 1 <i>Corylus</i> selected |
| 2057 | <400> 2mm | Building 2 post hole | 1 hulled <i>Hordeum</i> , 1 fragment <i>Betula</i> selected |
| Building 3 | | | |
| 2117 | 18 flot | Building 3 post hole | 1 fragment <i>Fraxinus</i> (ash) selected from 5mm and 1 fragment <i>Betula</i> (birch) from 2mm fraction. |
| 2125 | <600> 2mm | Building 3 post hole | 1 <i>Corylus</i> otherwise 4 fragments <i>Quercus</i> and nothing else |

| Context | Sample | Archaeology | Charcoal |
|-------------------|------------------|----------------------|---|
| 2127 | No number flot | Building 3 post hole | 1 nice fragment <i>Corylus</i> charcoal in 5mm flot; nothing suitable in any of the rest of the flot bags. |
| 2129 | <11> 2mm | Building 3 post hole | 1 <i>Calluna</i> otherwise tiny scraps only |
| 2131 | <10> 2mm | Building 3 post hole | 1 <i>Corylus</i> and 1 <i>Betula</i> but doubtful anything else suitable |
| 2137 | <500> 2mm | Building 3 post hole | 1 <i>Corylus</i> and 1 <i>Fraxinus</i> sorted, more <i>Fraxinus</i> but otherwise lots of <i>Quercus</i> |
| 2141 | 4 flot fractions | Building 3 post hole | Nothing at all |
| 2145 | 4 flot fractions | Building 3 post hole | Nothing at all |
| 2147 | <605> 2mm | Building 3 post hole | Half a <i>Hordeum</i> , 1 fragment <i>Corylus</i> and nothing else |
| 2153 | 2044 | Building 3 post hole | 1 flake of what might be <i>Quercus</i> . Not suitable. Dream on. |
| 2153 | 2045 | Building 3 post hole | 1 fragment <i>Quercus</i> heartwood. Not suitable. Nothing more. |
| 2175 | 4 flot fractions | Building 3 post hole | 1 <i>Quercus</i> and 1 something with no vessels. |
| Building 4 | | | |
| 338 | 93 5mm flot | Building 4 post hole | <i>Corylus</i> roundwood ca 4 years old – chosen |
| 338 | 94 2mm flot | Building 4 post hole | 1 fragment <i>Fraxinus</i> charcoal and 1 hulled <i>Hordeum</i> – both selected |
| 363 | 96 | Building 4 post hole | 2 years old <i>Corylus</i> twig and 1 <i>Corylus</i> charcoal selected – some modern root penetration noted. |
| 363 | 101 | Building 4 post hole | All <i>Quercus</i> – very soft, silty and many modern roots, completed |
| 365 | <99> 5mm | Building 4 post hole | Building 4 post hole |
| 369 | 89 | Building 4 post hole | <i>Quercus</i> twig (<2mm d) and 1 tarry fragment of <i>Betula</i> / <i>Corylus</i> / <i>Alnus</i> selected. Otherwise massive heartwood <i>Quercus</i> , not counted. Completed |
| 489 | 162 2mm flot | Building 4 post hole | 1 hulled <i>Hordeum</i> grain, at least 2 other grain so flot needs analysing. |
| 489 | 161 5mm flot | Building 4 post hole | 1 <i>Corylus</i> half roundwood ca 3 years old – selected. Lots more <i>Corylus</i> roundwood fragments, occasional oak and hazelnut shell. |
| 363 | <81> 5mm | Building 4 post hole | <i>Corylus</i> 8-10mm roundwood selected. Another similar piece and large nubers <i>Quercus</i> / <i>Fraxinus</i> fragments. 1 fragment <i>Betula</i> selected and ditto 1 fragment <i>Arrhenatherum</i> (false oatgrass) tuber. A few other fragments of diffuse porous types. |
| 363 | <82> 2mm | Building 4 post hole | Hulled <i>Hordeum</i> , emmer wheat and <i>Avena</i> grains, culm nodes – this context needs full analysis. 1 grain each of barley and wheat selected. Gives Alex a good choice. |
| 348 | <69> 5mm | Building 4 post hole | 1 fragment each Pomoideae and <i>Corylus</i> selected. Lots of <i>Quercus</i> / <i>Fraxinus</i> left but not much other diffuse porous. |
| 348 | <70> 2mm | Building 4 post hole | Emmer and barley grain again, maybe 10 or so of each. Emmer chaff noted in |

| Context | Sample | Archaeology | Charcoal |
|-------------------|-----------------|----------------------|---|
| | | | <71> the 1mm fraction. Context needs full analysis. 1 emmer selected. |
| 346 | <117> 5mm | Building 4 post hole | 1 fragment <i>Betula</i> , 1 <i>Corylus</i> and 1 hulled <i>Hordeum</i> selected. Lots and lots of <i>Quercus</i> flakes. |
| 346 | <118> 2mm | Building 4 post hole | 10+ grain noted – mostly barley but 1 emmer too. |
| 346 | <119> 1mm | Building 4 post hole | Emmer glumes and occasional spikelet forks, 1 barley rachis internode and quite a few <i>Stellaria media</i> and undiff Polygonaceae – context needs full analysis. |
| Building 5 | | | |
| 306 | 137 | Building 5 hearth | 1 <i>Corylus</i> and 1 <i>Betula</i> selected for dating – some fine modern roots on <i>Betula</i> . |
| 308 | 127 | Building 5 post-hole | <i>Corylus</i> roundwood 7 years old and <i>Corylus</i> roundwood 3 years old different ring patterns – selected for dating. 2 <i>Quercus</i> . Completed |
| 308 | 130 | Building 5 post-hole | 3 <i>Quercus</i> – no use for dating. Completed |
| 308 | 151 | Building 5 post-hole | 7 <i>Quercus</i> – no use for dating. Completed |
| 312 | 156 | Building 5 post-hole | 1 <i>Salix/Populus</i> and 1 <i>Corylus</i> half round section, 5 years old selected for dating. 5 <i>Quercus</i> . Completed |
| 316 | 128 | Building 5 post-hole | 1 <i>Corylus</i> 6 years old roundwood – selected. Otherwise 6 <i>Quercus</i> – not suitable. Completed |
| 316 | 150 | Building 5 post-hole | 1 <i>Corylus</i> part roundwood section selected for dating, otherwise 6 <i>Quercus</i> . Completed |
| 320 | 141 | Building 5 post-hole | 2 <i>Corylus</i> for dating; otherwise 2 <i>Quercus</i> and 3 more <i>Corylus</i> . Completed |
| 320 | 149 | Building 5 post-hole | 1 <i>Corylus</i> roundwood for dating plus 3 other <i>Corylus</i> . Completed |
| Building 6 | | | |
| 427 | 71 | Building 6 post hole | 2 pieces <i>Fraxinus</i> , 1 chosen for dating |
| 419 | 97 | Building 6 post hole | 1 piece <i>Fraxinus</i> and nothing else – chosen for dating |
| Building 7 | | | |
| 324 | 140 | Building 7 post hole | 2 <i>Quercus</i> only, not suitable. Completed |
| 328 | <225> 2mm | Building 7 post hole | 1 <i>Corylus</i> roundwood and 1 <i>Corylus</i> |
| 328 | <226> 1mm | Building 7 post hole | 1 grass stem |
| 334 | 142 | Building 7 post hole | Only 1 <i>Quercus</i> – not suitable |
| 334 | 196 2mm flot | Building 7 post hole | No 5mm fraction. 1 <i>Corylus</i> charcoal scrap and 1 <i>Betula</i> scrap. Nothing else so both chosen |
| 341 | 575 2mm flot | Building 7 post hole | 5mm fraction all oak. <i>Corylus</i> charcoal – 1 selected, some oak too |
| 341 | 576 1mm flot | Building 7 post hole | 1 emmer wheat spikelet fork – selected. |
| 395 | 199 1mm flot | Building 7 post hole | 1 <i>Calluna</i> twig – selected given the presumed age of deposits therefore less likely to be old heather from peat burning. 5mm fraction only oak. |
| 453 | 153 | Building 7 post hole | >8 <i>Quercus</i> – very thin radial flakes, no sapwood seen. Not suitable. Completed. |
| 453 | 124 | Building 7 post hole | 7 <i>Quercus</i> flakes. Not suitable. Completed. |

| Context | Sample | Archaeology | Charcoal |
|-----------------------|--------------|----------------------|--|
| 457 | <564> 5mm | Building 7 post hole | <i>Corylus</i> – the single fragment present. |
| 457 | <565> 2mm | Building 7 post hole | 1 <i>Corylus</i> roundwood selected and another 3-4 pieces <i>Corylus</i> present. |
| Other features | | | |
| 314 | 132 | Hearth Building 5 | All <i>Quercus</i> , not counted. Completed |
| 314 | 148 | Hearth Building 5 | 1 <i>Betula</i> , 1 probable <i>Corylus</i> selected for dating. Silty and some modern roots on both |
| 340 | 119 | Pit fill building 1 | 1 <i>Corylus</i> shell – selected. completed |
| 340 | 93 | Pit fill building 1 | All <i>Quercus</i> . Completed |
| 340 | 92 | Pit fill building 1 | All <i>Quercus</i> . Completed |
| 340 | 83 | Pit fill building 1 | 1 <i>Corylus</i> roundwood – selected. Both <i>Quercus</i> and <i>Corylus</i> wood in rest – not counted |

- 6.7. Building 3 samples are minute and it is extremely unlikely that 2 fragments of different taxa will be present in any one context. Flots from any one context are all less than 1ml volumes, mostly considerably so and much is in the 300 micron fraction anyway.

Jacqui Huntley

11th January 2006

7. REFERENCES FOR EVALUATION REPORT

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