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Ancient Monuments Laboratory
Report 23/99

CHARRED PLANT REMAINS FROM CONDERTON CAMP, IRON AGE HILLFORT, WORCESTERSHIRE

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Summary

Excavation of the hillfort was carried out in 1958-59 directed by Nicholas Thomas and occupation dated to 400-100 BC was found. A comprehensive range of small soil samples was taken and some of these contained a surprisingly rich concentration of plant remains although the numbers of items were not high. Evidence of glume wheat with a little barley was found in samples from pits on the site, with emmer (Triticum dicoccum) present in the earlier phases, and both emmer and spelt (Triticum spelta) in the later phases, although the number of remains may not be representative. Chaff, mainly glumes, formed the highest proportion of the remains followed by weed seeds which were most varied in the later contexts. The samples were thought to represent the waste from the cleaning of the glume wheat by fine sieving before use, probably from domestic activity on the site. The burnt waste was dumped in pits as rubbish, probably from domestic activity on the site. The burnt waste was dumped in pits as rubbish, probably as a secondary use of the pits. Other samples from the site contained fewer remains of the same type as the pit samples and were thought to be part of the general scatter of domestic waste.

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Charred plant remains from Conderton Camp, Iron Age Hillfort, Worcestershire.

Angela Monckton

Introduction

Conderton Camp Iron Age Hillfort is situated 6 miles NE of Tewkesbury and 2 miles NE of Beckford (SO 972 234). The site was extensively excavated in 1958-59 revealing evidence of occupation dated from 400-100 BC, with the fort going out of use before the Roman conquest (Fig. 1). The fort has a three acre enclosure with ramparts and is near to the 22 acre promontory fort of Bredon Hill which was thought to have been used by the same group of people (Thomas 1960). During the excavation small soil samples were taken from all contexts in sections of selected features including ramparts and pits. The samples were stored in Birmingham City Museum and are the subject of this report.

Method

A total of 46 samples, usually of about 1 lb in size (450 grams), were taken from each layer of the selected features from sections and the sample air dried and stored in uniform size calico bags with sewn-in labels. A sample of natural sediment was also taken but not included in this work. The samples showed no sign of deterioration after storage and were rapidly scanned and assessed for the presence of charred plant remains by Clare de Rouffignac of Central Archaeological Services in 1996. Some of the samples were found to contain charred cereal remains so analysis was recommended.

Because of the small size of the samples it was thought necessary to examine the whole sample to maximise the recovery of plant remains and also to sort for small bones and charcoal fragments. In order to do this the stones over 10mm were removed from each sample which was then washed in a 0.25mm mesh sieve. The residues were air dried and then sorted using a stereo microscope. The plant remains were identified by comparison with modern reference material in the Department of Archaeology at the University of Birmingham. The remains from all the samples were counted and recorded in a summary table (Table 2). The samples with more numerous remains were recorded in detail, some additional samples were included to show the range of variation and to represent all the phases sampled (Table 1). The plant names follow Stace (1991) and are seeds in the broad sense unless stated. The cereal grain fragments are recorded as the estimated equivalent numbers of whole grains shown in brackets but not included in the totals. Samples not in Table 1 are described in the text below.

The composition of the assemblage of plant remains was examined by calculating the percentages of cereal grains, chaff (glumes and spikelet forks which consist of two glumes joined together), and weed seeds for each sample except where the totals were too small (Table 1). This was done because the proportions of different types of remains in the samples can give evidence of cereal processing (Hillman 1981). This information could then be used for comparison with other sites and to aid in the interpretation of the remains. One of the samples was very productive and contained over a hundred items although the total numbers of remains found was generally low. However when the concentration of items per litre was considered the selected samples proved to be unusually rich compared with many others from this period.

Results

The plant remains

The cereals: Wheat was the most abundant cereal and both chaff and grains were found. The chaff consisted mainly of glume bases with a few spikelet forks. Some of the chaff was identified as emmer (*Triticum dicoccum*) because of their lack of prominent minor veins, the acute angle of the two keels and small size. A few of the glumes were identified as possible spelt (*Triticum spelta*) because of the prominent minor veins, the single prominent wide angled keel and more robust appearance. Only the most diagnostic well preserved chaff was identified, the majority of the glumes were broken and abraded so could not be identified further. Therefore most or the chaff was identified as glume wheat (either emmer or spelt). Fragments of rachis of glume wheat were also found particularly in phase 4.

Grains alone are difficult to identify with certainty, a few were of the characteristic shape of emmer (*Triticum dicoccum*) and some could only be identified as wheat (*Triticum* sp.). Most of these grains were small but were most probably those of glume wheat. Occasional grains of barley were found which could not be identified further. The majority of the cereal grains could only be classed as indeterminate cereal. Fragments of cereal grains were present in some of the samples so the number of grains may be slightly underestimated. Evidence of oats (*Avena* sp) was found as awn (barb) fragments. This may have been a weed of the crop, there was insufficient evidence to suggest that this was a cultivated variety.

Wild plants: Weeds of arable or disturbed ground were found mostly in phase 4. These included black bindweed (*Fallopia convolvulus*), docks (*Rumex* sp), vetch or vetchling (*Vicia/Lathyrus*), field gromwell (*Lithospermum arvensis*) and cleavers (*Galium aparine*). The seeds of the larger grasses (Poaceae) including brome grass (*Bromus* sp) were the most abundant and are also known as weeds of the cereals, although the seeds may have been used as part of the crop (Jones 1981). Other annual weeds of disturbed or arable land or settlements include plants such as goosefoot (*Chenopodium* sp). Some of the plants found here are of grassland and include the clover type plants (*Lotus*, *Trifolium* and *Medicago*) and cat's-tail grasses (*Phleum* sp), however these can also occur on cultivated land. Plants of damp ground include sedges (*Carex* sp) and buttercups (*Ranunculus* subgen *Ranunculus*) which may grow near ditches at field margins or in damp areas of the cultivated fields. A plant of hedgerows found here was red campion (*Silene dioica*) which may also be from such field margins. These grassland plants and damp ground plants may all originate on damp grassland so may have been brought to the site with material such as fodder. However, found here with the cereal remains it seems likely that they originate from areas of the arable fields where the cereals were grown.

The samples by phase (Fig. 1)

Phase 1, c400 BC; North and South entrances.

Sample group (5), North rampart: four samples (5A-5D) were taken from the northern rampart from the topsoil down to the ancient land surface. Sample 5C had a charred cereal grain and two seeds of goosefoot (Table 1) while 5D from the ancient land surface had a single cereal grain.

Sample group (8), East rampart: five samples (8A-8E) also had a few remains in the lower two samples. A charred cereal grain and nine weed seeds including dock and campion were found in sample 8D (Table 1) while 8E had a single cereal grain.

Phase 2i, c300 BC; Pre central rampart.

Sample group (3), Pit F: six samples (3A-3G) were taken from the topsoil to the bottom of the pit. Nothing was found in the upper layers, sample 3D had a single cereal grain. Samples 3E, F and G had cereal remains present (Table 1) with most in the bottom layer which contained 72 items per litre of sediment with chaff the highest proportion of the sample at 60% followed by seeds at 27% with grain the lowest proportion at 13%.
Sample group (11), Pit RR below House 4: two samples were taken which were similar to each other in having few cereal fragments and glumes and a couple of charred seeds as in sample 11i (Table 1).

Phase 2ii, c200 BC, central rampart and entrance, north gate.

Sample group (1), central rampart: four samples (1A -1D) were taken from trench B1 through the rampart from the top of the rampart to the ancient land surface which in total only contained one glume and a couple of indeterminate charred fragments.
Sample group (2), Pit G (near to Pit F): five samples (2A -2E) were taken from the topsoil to the bottom of the pit. Sample C had a single glume and two cereal grains, the lower two samples had more cereal remains with the lowest sample 2E having 100 items per litre of sediment with remains in similar proportions to sample 3G from pit F chaff being most numerous at 66%.
Sample group (4), north entrance west side: four samples (4A-4D) from the subsoil to the ancient land surface contained in total only a fragment of cereal grain and a single glume.
Sample group (6), north entrance east side: three samples (6X-6Z) from the subsoil to the soil beneath the inturn of the entrance had remains in the lowest sample only (Table 1). The sample 6Z contained 22 chaff fragments and only two cereal grains with charred seeds including a buttercup seed, a goosefoot seed and a grass seed. The sample seems similar in composition to the previous samples 3G and 2E.
Sample group (10) central rampart inturn: five samples (10A-10E) from the topsoil to the ancient land surface contained nothing in the upper two layers, most remains were found in sample 10C (Table 1) which contained about equal numbers of grains, glumes and seeds. The layer below this contained only one cereal grain fragment and nothing from the bottom sample.

Phase 4, c100 BC. General occupation

Sample group (7), Pit 3, NW corner: seven samples (7i -7vii) from the layer over the pit mouth to the bottom of the pit. This was by far the most productive feature with the most remains found in the lower layers. Sample 7i contained only a charred stem fragment, sample 7ii contained a seed of cleavers and an indeterminate charred fragment, samples 7iii to 7vii are recorded in table 1. Samples 7iii, iv and v had chaff as the highest proportion of the remains comparing with samples 3G and 2E. Sample 7iv was the most productive from the site having 114 items in an 0.25 litre sample (456 items per litre, the equivalent of about 18000 items in a 40 litre sample such as may be taken today if the layer was extensive). A

problem with small samples is that they may not be representative of the whole deposit but the similarity in composition of the three samples from this feature suggests that they may reflect the composition of the plant remains in the pit. Seeds were quite numerous in this deposit which contained the most arable weeds, however it must be borne in mind that larger samples may have recovered a larger variety of seeds. The sample below this, sample 7vi contained seeds as the highest proportion of the remains, little was found in the lowest sample except stone fragments from the bottom of the pit. The interpretation of these samples is considered below.

Discussion.

The main cereal found here is glume wheat (emmer and spelt) with emmer apparently most common, this result should however be treated with caution as the small samples may not be representative and many of the glumes were abraded and broken and so could not be identified further. This compares with results from Aston Mill Farm, Kemerton where wheat including emmer was found. There are very few remains from the earlier phases and phase 4 contains both emmer and spelt. On many Iron Age sites in southern England the main type of wheat is spelt with a little emmer and sporadic occurrences of bread wheat, cultivated barley was also grown (Greig 1991) as was the case at Danebury hillfort (Jones 1984) and Beckford, Worcestershire (College 1990). There is insufficient evidence here for detailed comparison except that glume wheat was also exploited here and barley was also present.

In order to consider the interpretation of the samples it is necessary to compare them with what is known about cereal processing. Emmer and spelt are both types of glume wheat which has the grains held firmly in the chaff even after initial threshing which only breaks the ears into segments called spikelets. This type of grain is thought to have been stored as spikelets with the chaff still present because the chaff protected the grains, it can also be transported in this form (Hillman 1981). Before the grain was used the chaff was removed by parching and pounding, followed by fine-sieving to remove the chaff (glumes and rachis) and small weed seeds, leaving cleaned grain for use (Hillman 1981). This may be done in small batches as required for use and it is the waste from this cleaning of grain which is often found as charred remains either because it was burnt as waste or used as fuel or kindling. The remains here have chaff or seeds as the highest proportion of the samples and may therfore represent this type of cereal processing waste. These compare with deposits of this type found at Danebury in some of the pits where they were interpreted as waste from cereal processing carried out on the site (Jones 1984).

Pits of this type cut into rock on dry sites are often described as storage pits. This may well have been the primary purpose of some of these pits but this cannot often be demonstrated from the evidence of the plant remains. The presence of cereals on the site and within the feature is insufficient evidence of the function of the feature therefore comparison must be made with studies of grain storage. Glume wheat is thought to have been stored as spikelets (Hillman 1981) and in the spikelet there is one grain to each glume. In the samples from the pits here glumes are the highest proportion of the samples and no grain dominated samples were found to suggest that this was stored grain. In experiments grain always survives charring as well or better than glumes (Boardman and Jones 1990) so samples with glumes most abundant, as found here, are likely to reflect the original composition of the deposit. The presence of cereal grain fragments may mean the grain numbers are slightly

underestimated but breaking and abrasion may suggest that the cereal remains were burnt elsewhere then dumped in the pit.

At Danebury (Jones 1984) a chalk-cut pit containing partly cleaned grain with some germination was interpreted as grain in a storage pit because of the evidence of burning within the pit. During storage the grain at the bottom of the pit will be more moist and therefore deteriorate so at the end of the season may be burnt to kill fungal infections to clean the pit for re-use (Reynolds 1979). However, no evidence of in situ burning was found in the pits, nor of grain rich samples. It is likely therefore that the cereal remains were burnt elsewhere and deposited in the pit, the fills of pits often consist of secondary rubbish which does not relate to the original use of the feature (Hillman 1981). The pits may have been used initially for a purpose such as storage but no evidence was found from the plant remains of their primary purpose and the evidence found suggests a final use as rubbish pits, at least domestic rubbish was a constituent of the backfill of the pits.

The weed seeds can sometimes give evidence about cultivation of the cereals. The arable weeds found here could grow on most soil types as found in the vicinity of the site, the damp ground plants may have been from damp areas of the fields or field margins. Presumably the cereals were brought to the site from the surrounding area for use or storage. More detailed comparison with contemporary sites in the area may be possible in the future although the group of remains is small. The plants found include short and tall plants and if all are assumed to have been brought with the cereals reaping low on the straw is suggested as at Danebury (Jones 1984). Considering the season of growth, cleavers (*Galium aparine*) is one of the arable weeds often found with autumn sown cereals and wheat is usually considered to be an autumn sown crop.

The majority of the remains were found in the lower layers of the pits and compare in composition with waste from the cleaning of the glume wheats by fine sieving. This may represent the processing small batches of wheat for consumption as part of the domestic activity during the occupation of the fort. The other features sampled have few remains present and those found occur near the ancient land surface. These remains are probably part of the general scatter of waste from the above cleaning of glume wheat for consumption.

Conclusions.

A comprehensive range of small soil samples was taken during the 1958-59 excavations and some of these were surprisingly rich in remains when the concentration per litre of sediment was considered. Evidence of glume wheat, including emmer and spelt, which was found together with a little barley from pits on the site. Emmer was found in the earlier phases and both emmer and spelt in the later phases although the number of remains from the small samples may not be representative. Chaff, mainly glumes, formed the highest proportion of the remains followed by weed seeds and the samples were thought to represent the waste from the cleaning of the glume wheat by fine sieving before use. This was thought to be waste from domestic activity on the site. The burnt waste was dumped in pits as rubbish, probably as a secondary use of the pits. A surprising variety of arable weed seeds was found in the phase 4 samples thought to have been brought to the site with the cereal crop. Evidence from the weeds suggested that the wheat was autumn sown and possibly reaped

low on the straw. Other samples from the site contained fewer remains of the same type as the pit samples and were thought to be part of the general scatter of domestic waste.

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Table 1. Charred Plant Macrofossils from Conderton Camp, Hillfort, Worcestershire. (DC58/59)

Phase	1	1	2 i	2 i	2 i	2 i	2 ii	2 ii	2 ii	2 ii	4	4	4	4	4	
Date BC	**400**	**400**	**300**	**300**	**300**	**300**	**200**	**200**	**200**	**200**	**100**	**100**	**100**	**100**	**100**	
Sample	**5 C**	**8D**	**3E**	**3F**	**3G**	**11 i**	**2D**	**2E**	**6 Z**	**10 C**	**7iii**	**7iv**	**7v**	**7vi**	**7vii**	
Feature	**Rm nth**	**Rm east**	**Pit F**	**Pit F**	**Pit F**	**Pit RR**	**Rm cent**	**Rm cent**	**Ent nth**	**Ent cent**	**Pit 3**	**Pit 3**	**Pit 3**	**Pit 3**	**Pit 3**	
Context number	**-**	**5**	**6**	**6**	**7**	**3**	**-**	**5**	**-**	**-**	**4**	**5**	**7**	**7**	**7**	
GRAINS																
Triticum cf *dicoccum*	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	Emmer
Triticum sp.	-	-	1	-	-	-	-	1	-	-	-	3	-	1	-	Wheat
Hordeum vulgare L.	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	Barley
Cereal indet.	1	1	-	2	1	-	1	1	2	2	1	6	2	5	1	Cereal
Cereal fragments (approx no. grains)	-	-	(1)	-	(2)	(1)	(1)	(1)	(2)	(1)	(4)	(5)	(2)	(2)	(1)	Cereal fragments
Cereal/Poaceae	-	-	-	-	1	-	-	-	-	-	-	2	-	-	-	Cereal/Grass
Culm node large	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	Cereal stem
Cereal embryos	-	-	-	-	1	-	-	-	-	-	1	4	-	1	-	Cereal
CHAFF																
Triticum dicoccum Schubl. spikelet fork	-	-	-	-	-	-	-	-	1	-	1	2	-	-	-	Emmer
Triticum dicoccum Schubl. glume	-	-	-	-	-	1	-	3	2	1	-	2	1	1	-	Emmer
Triticum cf dicoccum glume	-	-	-	2	1	-	-	2	-	-	-	1	-	-	-	Emmer
Triticum cf spelta glume	-	-	-	-	-	-	-	-	-	-	-	2	1	-	1	Spelt
T. dicoccum/spelta spikelet fork	-	-	-	-	-	-	-	-	3	-	3	6	5	1	-	Glume wheat
T. dicoccum/spelta glume	-	-	2	4	8	-	3	10	10	4	11	29	15	4	3	Glume wheat
T. dicoccum/spelta rachis	-	-	-	-	2	-	-	-	2	-	5	17	-	-	1	Glume wheat
Hordeum vulgare L. rachis	-	-	-	-	-	-	-	-	-	-	-	3	1	-	1	Barley
Awns indet	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Awns
Avena sp. awns	-	-	-	-	-	-	-	-	-	-	-	3	1	5	-	Awns oat
WILD PLANTS																
Ranunculus subgen *Ranunculus*	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	Buttercup
Chenopodium album type	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	Fat-hen
Chenopodium sp.	2	-	-	-	1	-	-	-	1	-	-	-	-	-	-	Goose foot
Cerastium/Stellaria	-	2	-	-	-	-	-	-	-	-	-	1	2	-	-	Mouse-ear/Stitchwort
Silene dioica (L.) Clairv.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	Red campion
Silene sp.	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	Campion

Phase	1	1	2 i	2 i	2 i	2 i	2 ii	2 ii	2 ii	2 ii	4	4	4	4	4	
Sample	5 C	8D	3E	3F	3G	11 i	2D	2E	6 Z	10 C	7iii	7iv	7v	7vi	7vii	
Polygonum sp.	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	Knotweed
Fallopia convolvulus L.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	Black Bindweed
Rumex sp.	-	1	-	-	-	-	-	-	-	-	2	-	-	2	-	Dock
Lotus/Trifolium	-	1	-	-	-	-	-	-	-	-	-	-	1	2	-	Trefoil/Clover
Vicia/Lathyrus	-	-	-	-	-	-	1	2	-	-	-	-	-	1	-	Vetch/Vetchling
Medicago/Melilotus/Trifolium	1	-	-	-	1	-	1	1	-	-	-	1	1	-	-	Medick/Melilot/Clover
Lithospermum arvense L.	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	Field gromwell
Galium aparine L.	-	-	-	-	-	-	1	-	-	-	1	3	1	1	-	Cleavers
Galium sp.	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	Bedstraw
Asteraceae	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	Daisy family
Carex sp	-	2	-	-	-	-	-	-	-	-	-	3	-	-	-	Sedge
Bromus hordeaceus/secalinus	-	-	2	-	-	-	-	-	-	1	1	1	4	2	-	Brome grass
cf *Phleum* type	-	-	-	-	-	-	-	-	-	-	2	2	-	1	-	Cat's-tail grass
Poaceae large	-	-	-	-	1	-	1	2	1	3	2	1	-	3	1	Grasses
Poaceae medium	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	Grasses
Poaceae small	-	2	-	-	-	-	-	1	-	-	-	-	-	-	-	Grasses
Indetermined seeds	-	2	2	-	1	-	-	-	-	-	2	8	1	-	-	Seeds
OTHER																
Thorns	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	Thorns
Culm fragments small	-	-	1	-	-	-	-	-	-	-	-	2	-	-	-	Grass stem
Culm node small	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	Grass stem
TOTAL	4	11	8	10	18	3	8	25	22	12	36	114	39	34	8	(Items)
Vol sample	0.25	0.5	0.25	0.25	0.25	0.5	0.25	0.25	0.5	0.25	0.25	0.25	0.25	0.25	0.25	(Litres)
Vol residue 0.25-10mm	105	140	30	80	120	260	55	105	140	205	155	95	120	140	130	(mls)
Items/litre	16	22	32	40	72	6	32	100	44	48	144	456	156	136	32	(Items/litre)
PROPORTIONS																
GLUMES	-	-	-	-	60.1	-	-	65.5	-	-	54.5	52.7	65.8	20.8	-	%
GRAINS	-	-	-	-	13.3	-	-	13.0	-	-	3.0	12.9	4.9	29.2	-	%
SEEDS	-	-	-	-	26.6	-	-	21.7	-	-	42.4	34.4	29.3	50.0	-	%

Key. + = present, ++ = abundant. Rm = rampart, nth = north, Ent = entrance, cent = central. Remains are seeds in the broad sense unless described otherwise.

Table 2. Charred Plant Remains Summary, Conderton Camp, Hillfort, Worcestershire (DC58/59)

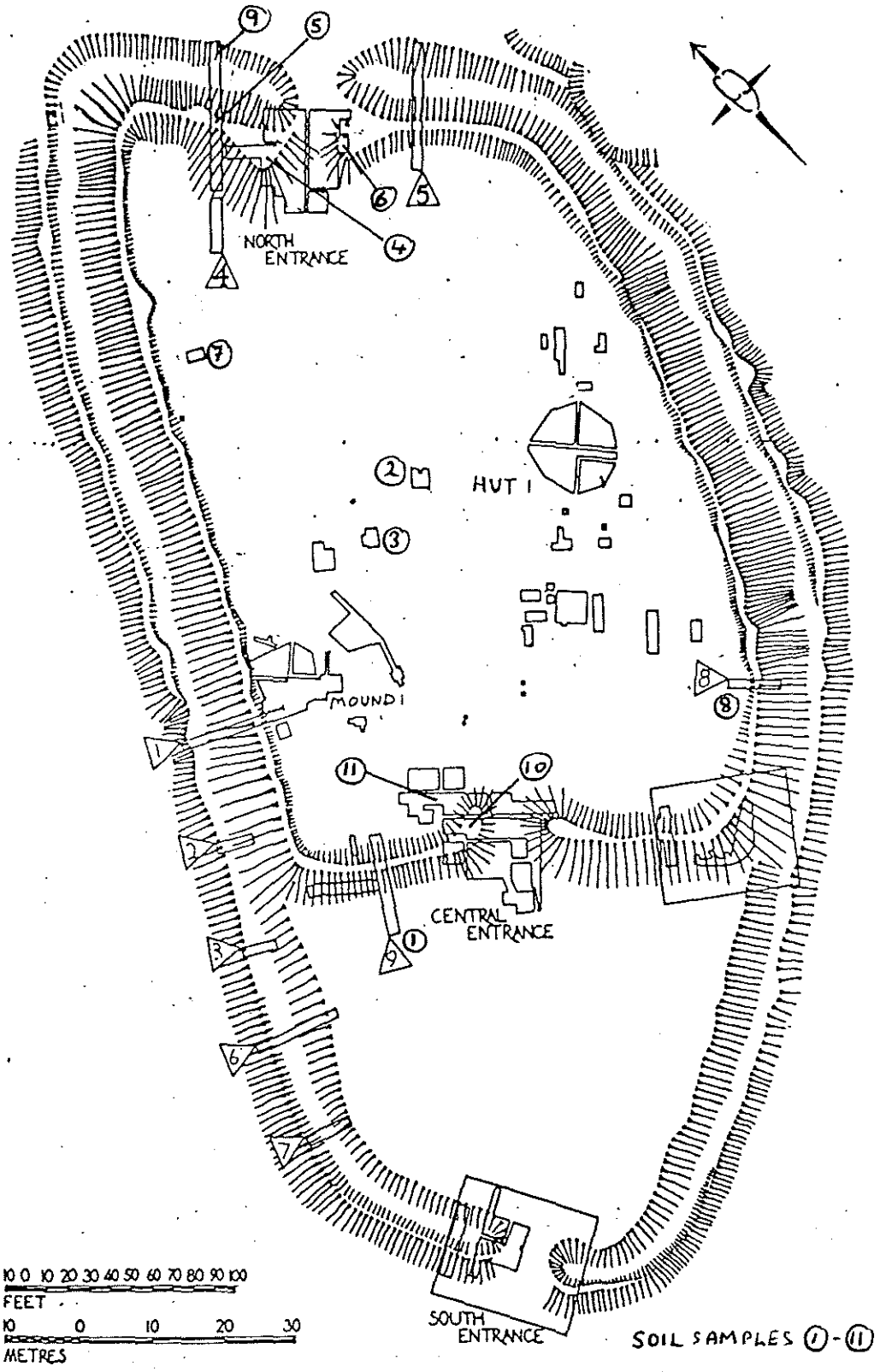
Samp	Feat	Samp litres	Stone mls.	gl	sf	gr	se	oth	Bo	Sm Bo	ch	Comments
(1)A	Ramp Cent.	0.25	70	-	-	-	-	-	-	-	-	1 Snail.
(1)B	..	..	105	-	-	-	-	1	-	-	-	Charred fragment indet. 1 Snail.
(1)C	..	..	150	1	-	-	-	+	-	-	-	Glume wheat. 4 Snails
(1)D	..	..	-	-	-	-	-	1	-	-	-	Indet frag.
(2)A	PIT G	0.25	-	-	-	-	-	-	-	-	-	Uncharred seeds only.
(2)B	..	..	-	-	-	-	2	3	-	-	-	Seeds, stem fragment.
(2)C	..	..	35	1	-	2	-	-	-	-	-	Wheat. 22 Snails.
(2)D	..	..	140	3	-	1	4	-	+	-	-	Cereal, cleavers seed, vetch type seed. 1 Snail. *
(2)E	..	..	80	15	-	3	5	-	+	-	-	Emmer glumes, wheat grains, barley grain, medick seed, ?seed. *
(3)A	PIT F	0.25	-	-	-	-	-	-	+	-	-	Uncharred seeds only.
(3)B	..	..	-	-	-	-	-	10	+	+	-	Charred stem fragments.
(3)C	..	..	200	-	-	-	-	2	+	+	-	Stem fragments, slag?
(3)D	..	..	156	-	-	1	1	+	+	+	-	A cereal grain, a grass seed. 10 Snails
(3)E	..	..	80	2	-	1	4	1	+	+	-	Wheat glumes. 1 Snail. *
(3)F	..	..	90	6	-	2	2	+	+	-	-	Glume wheat chaff, Cereal grains, Grass seed. 2 Snails. *
(3)G	..	..	30	9	-	2	4	3	+	+	-	Wheat, seeds, glume wheat rachis. 1 Snail. *
(4)A	North Ent.	0.25	55	-	-	1fr	-	-	+	-	-	3 Snails.
(4)B	..	..	15	-	-	-	-	-	-	-	-	2 Snails.
(4)C	..	..	30	1	-	-	-	+	+	-	-	Glume wheat
(4)D	..	..	110	-	-	-	-	-	-	-	-	4 Snails.
(5)A	North Ramp	0.25	20	-	-	-	-	1	-	-	-	Stem frag. 11 Snails.
(5)B	..	..	190	-	-	-	-	-	-	-	-	3 Snails
(5)C	..	..	85	-	-	1	3	+	-	+	+	Charcoal, seeds. 9 Snails *
(5)D	..	..	55	-	-	1	-	+	-	+	-	11 Snails
(6)X	North Ent.	0.5	290	-	-	-	-	-	-	-	-	5 Snails
(6)Y	..	..	150	-	-	-	-	-	+	-	-	7 Snails
(6)Z	..	..	40	12	4	2	4	3	+	-	-	Wheat, seeds. 2 Snails. *

Table 2. Charred Plant Remains Summary contd.

Samp	Feat	Samp litres	Stone mls	gl	sf	gr	se	oth	Bo	Sm Bo	ch	Comments
(7)i	PIT 3	0.25	-	-	-	-	-	1	+	-	-	Stem fragment. 1 Snail.
(7)ii	..	..	90	-	-	-	1	1	+	-	-	Cleavers seed. 2 Snails
(7)iii	..	..	25	11	3	1	14	7	+	+	-	Emmer wheat, rachis of glume wheat, cleavers, campion, field gromwell seeds. 5 Snails. *
(7)iv	..	..	10	33	8	12	32	30	++	-	-	Glume wheat, charred awns, campion, + seeds. *
(7)v	..	..	20	17	5	2	12	3	+	+	-	Glume wheat, awns, cleavers, field gromwell, thorn. 2 Snails. *
(7)vi	..	..	20	5	1	7	12	8	+	-	++	Glume wheat, awns, embryo of cereal. Charcoal. *
(7)vii	..	..	120	4	-	1	1	2	-	-	-	Rachis.
(8)A	Ramp Cent	0.5	-	-	-	-	-	-	-	-	-	3 Snails
(8)B	..	..	330	-	-	-	-	+	-	-	+	Charcoal. 16 Snails
(8)C	..	..	400	-	-	-	-	+	-	-	+	Charcoal. c50 Snails.
(8)D	..	..	40	-	-	1	9	-	+	-	-	11 Snails. *
(8)E	..	..	370	-	-	1	-	1	-	+	-	10 Snails.
(10)A	Cent. Ent.	0.25	20	-	-	-	-	-	-	-	-	
(10)B	..	..	70	-	-	-	-	-	++	-	-	2 Snails.
(10)C	..	..	25	5	-	3	4	-	+	+	+	Wheat, barley grain. Charcoal. 1 Snail. *
(10)D	..	..	115	2	-	3fr	-	-	+	-	-	
(10)E	..	..	105	-	-	-	-	-	-	-	-	4 Snails.
(11)1	PIT RR	0.5	140	1	-	2	2?	-	+	-	-	Glume wheat, 12 Snails.
(11)2	..	..	20	1	-	1	-	+	+	-	-	Charred stem, 11 Snails.

Key: gr = grain; sf = spikelet fork (chaff); gl = glume base (chaff); se = charred seed; oth = other charred item; ch = charcoal; Bo = bone; Sm Bo = small mammal bone.
Feat = Feature, Ramp = Rampart, Ent = Entrance, Cent = Central.
Stone = approx volume in mls of fragments over 5mm size.
* = selected for analysis see Table 1.

NB. Samples listed from top to base of sections.



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