AML Rept 2518

Hunstanton , Norfolk.

1. Botamical remains.
2. Faunal remains.

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Hunstanton (1396) : Botanical remains

Carbonised plant remains, including seeds and charcoal, were extracted from 2.5 litre soil samples by simple water-flotation, collecting the flot in a 250 micron mesh sieve. The non-floating residue was washed through a 1 mm. mesh sieve, and the small proportion of carbonised plant material which had failed to float was removed from this washed residue.

1. Carbonised fruits and seeds

The fruits and seeds identified are listed in Table

Layer No.		41	53	48	94	55	124	121	43	43	47	44	106
Sample No.		1	4	16	5	6	10	12	13 upper	13 lower	15	17	18
Feature-type		Pit		Pit		Pit	Pit	Pit	Pit		Pit	Pit	
Cereal indet.	ca	2	5	2	15	-	2	5	-	1	2	2	1
Triticum sp.	ca	-	1	-	-	1	-	-	-	-	-	1	-
Triticum-spelta-type	ca	-	-	-	1	-	-	-	-	-	-	-	-
Triticum sp.	gb	1	3	-	1	-	-	-	1	-	-	-	-
Triticum spelta L.	gb	2	-	-	1	-	-	-	-	-	-	-	-
Hordeum sp.	ri	-	1	-	1	-	-	-	-	-	-	-	-
Rumex sp.	nu	-	-	-	1	-	-	-	-	-	-	-	-
Corylus avellana L.	n	-	-	-	-	-	-	-	-	1	-	-	-
Carex sp.	nu	-	1	-	-	-	-	-	-	-	-	-	-
Bromus mollis/secalinus	ca	-	-	1	2	-	-	1	-	-	-	-	-
Gramineae indet.	ca	-	1	-	-	-	-	1	1	-	-	-	-
Indet.		-	-	-	-	-	-	-	-	1	-	-	-

Table Fruits, seeds etc. from Hunstanton (1396)

Abbreviations: ca caryopsis; gb glume base; n nut fragment; nu nutlet; indet indeterminate; ri rachis internode

Description of crop plants

Most of the cereal grains in these samples are in extremely poor condition, 'puffed' and fragmentary, and were not identified.

Only four wheat grains in reasonable condition were recovered. Three of these are indeterminate, elongate grains which could be of emmer (Triticum dicoccum Schubl) or spelt (Triticum spelta L.) (Fig 1.a). The fourth, however, is entirely typical of spelt, broad and flat with a blunt apex (Fig 1,b). The glume bases in the samples confirm the presence of spelt; although most were not identified to species since they are damaged or distorted, three broad, strongly-nerved spelt glume bases could be identified (Fig 1, c).

Barley is represented by two damaged rachis internodes. Both are fairly slender, with traces of pubescence, but neither is measureable (Fig 1,d).

Discussion

Small cereal deposits of this type, consisting of spelt and barley grains and chaff, and Bromus caryopses, are extremely common in features from Iron Age sites on the chalklands of Southern England (Murphy 1977). It is only to be expected that the similar environmental conditions of the Norfolk chalklands would favour a similar form of arable farming, based on spelt and barley.

2. Charcoal

Pieces of charcoal were collected by hand during excavation and smaller fragments were recovered from 2.5 litre soil samples by flotation. Most of the material in the 'flot' was too small to be identified. The taxa identified are listed in Table

Context No.	400	41	44	55	66	112	123	128	Total
Quercus sp. (oak)	-	+	-	+	-	+	+	+	5
Corylus sp. (hazel)	-	-	+	-	-	-	-	-	1
Corylus/ Alnus sp. (hazel or alder)	+	-	-	-	-	cf	+	+	4
Ulmus sp. (elm)	-	-	-	-	+	-	-	-	1
Fraxinus sp. (ash)	-	-	-	-	-	-	-	+	1
Prunus sp. (sloe?)	-	+	-	-	-	-	-	-	1

Table : Species identified in charcoal samples from Hunstanton

Most of the charcoal in these small samples is of oak and alder/ hazel. On ecological grounds the presence of alder may seem unlikely, but most charcoal fragments were too small to be definitely identified. The species identified are common components of mixed oak woodland.

Reference:

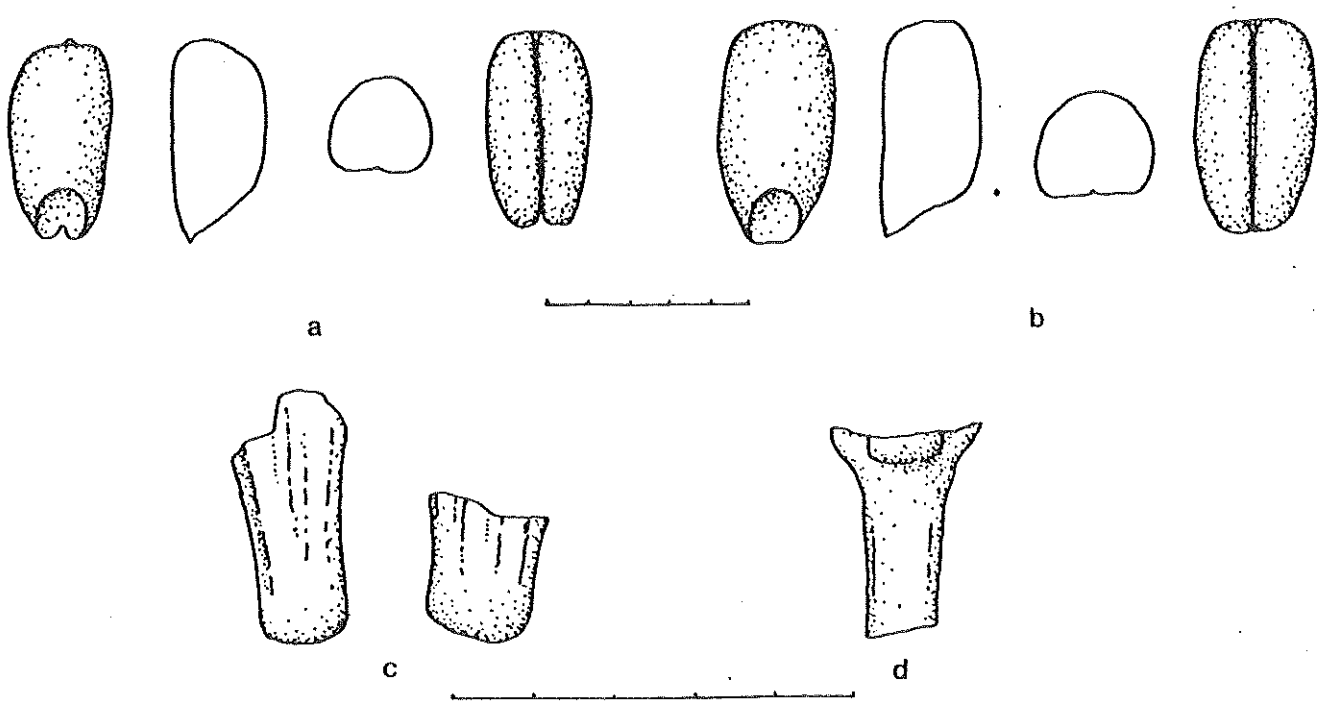
Murphy, P. (1977) Early Agriculture and Environment on the Hampshire Chalklands : circa 800 B.C. - 400 A.D. M.Phil. Thesis, University of Southampton

Caption to Fig. 1.

Fig. 1. Carbonised cereals from Hunstanton

a. Triticum sp. caryopsis Sample 5.
b. Triticum spelta caryopsis Sample 5.
c. Triticum spelta glume bases (Right) Sample 1 and (left) Sample 5
d. Hordeum sp. rachis internode. Sample 4.

Scale graduated in mm.


a
b
c
d

Hunstanton (1396) : Faunal remains

The non-floating residue from 2.5 litre soil samples was washed through a 1 mm. mesh sieve, and small faunal remains (fish and amphibian bone, fragments of shell) were extracted from this dried, sieved residue. Land molluscs were recovered separately, as described below.

Land snails

Shells of land snails were present in all excavated features, but only the snails from two representative archaeological features and three 'natural' features were examined in detail. Shells were extracted from 2 kg. soil samples by the method described by Evans (1972, 44). The taxa identified are listed in Table

	Layer No.	41	53	55	63	66	82	83	
	Sample No.	1	4	6	7	8	2	3	19
	Feature type	Pit			Pit		'Natural'		
Woodland Species	Zonitidae	-	-	-	-	-	-	3	-
	Carychiumtridentatum (Risso)	1	-	-	-	1	1	2	-
	Discus rotundatus (Muller)	-	-	-	1	-	1	6	-
	Clausiliidae	-	1	-	-	-	-	1	-
Open Country Species	Vallonia spp.	10	9	6	1	3	1	13	53
	Pupilla muscorum (L.)	18	12	4	-	3	3	3	30
	Helicella itala (L.)	6	4	1	-	2	1	-	13
	Truncatellina cylindrica (Ferussac)	-	-	-	-	-	-	-	4
Others	Cepaea/Arianta sp.	-	-	-	-	-	3	1	-
	Cecilioides acicula (Muller)	58	104	52	14	52	62	146	23

Table : Land molluscs from archaeological and 'natural' features at Hunstanton.

Discussion

As Evans (ibid, 34) notes, the interpretation of snail assemblages from pits is complicated by uncertainties about the origin of the pit fill. An additional problem in this case is the fact that few shells were recovered. The pits were presumably filled rapidly, and consequently there would be little opportunity for molluscs to become incorporated in their fills. However, the predominance of species characteristic of open country in the two pits examined suggests that the immediate vicinity of the site was open at the time these deposits were formed.

Samples from three 'natural' features were also examined in an attempt to deduce something of their mode of formation. These were 82, a small oval feature possibly representing a tree-root hollow, 83, a curving linear feature, and which was detected as an anomaly in the geophysical survey, and subsequently exposed in a sondage. Very few shells were recovered from sample 2 from 82, but sample 3 from 83 contained rather more snails. These include both 'woodland' and open country species, and 83 is therefore unlikely to have been formed under glacial or peri-glacial conditions, as was initially suspected.

The third feature produced very large numbers of shells (only 100, apart from specimens of Cecilioides were counted), all characteristic of open country, and including Truncatellina cylindrica, a xerophile living in dry, exposed situations including maritime turf. (Evans, 1972, 140). The presence of this species, which was apparently absent from Britain in the late Weichselian, suggests that this feature was not formed under peri-glacial conditions during the last Ice Age.

The snail assemblages from these 'natural' features therefore suggest that they are of post-glacial origin, but their mode of formation remains obscure.

Small mammal and amphibian bone

These remains were identified by John Goldsmith of the Natural History Department, Norwich Castle Museum, and are listed in Table

Layer No.		41	53	94	63	66	134	121	43	99	44	106
Sample No.		1	4	5	7	8	11	12	13	14	17	18
Feature-type			Pit	Pit	Pit		Pit		Pit		Pit	
Microtus agrestis L.	Upper incisor			1								
	Molar				1		2	1		1	1	
	Sacrum		1									
	Femur		2									
	Tibia	1	2									
Small mammal	Vertebrum	1										
	Long bone frag.							1				
Amphibian	Long bone frag.					1			1		1	1

Table : Small faunal remains from Hunstanton

The short tailed field vole (Microtus agrestis) is a species commonly found in grassland, and the presence of this vole supports the picture of open country around the settlement suggested by the land snails.

Hunstanton (1396) : Fishbone

The specimens extracted were identified by Dr Alwyne Wheeler of the British Museum (Natural History), who writes:

'The tooth from sample 12 (layer 121) is the upper part of the cusp of a shark, possibly a porbeagle, Lamna nasus. Sample 1 (layer 41) contains part of the otolith of a gadoid fish (cod family), but this is too fragmentary to idenfity to species'.

Small specimens of Lamna nasus, up to 40 kg. in weight, come sufficiently close to be caught from the shore (Wheeler, 1969, 51) and many species in the cod family live in shallow and coastal waters (ibid., 255).

These fishbones may therefore be derived from stranded fish, or could reflect coastal fishing.

Hunstanton (1396) : Marine molluscs and crustacean

All samples examined contained fragments of marine mollusc shells, normally up to 5 mm. across but in very small quantities. It was unusual for the fragments in a 2.5 litre sample to represent more than a single valve, and in some cases only two or three fragments were present. Three molluscan species were identified in the soil samples: Mytilus edulis L. (mussel), Cerastoderma sp. (cockle) and Ostrea edulis L. (oyster).* A fragment of whelk shell (Buccinium or Neptunea sp.) and a valve of a scallop (Chlamys sp.) were recovered by hand selection.

Since the surface of the ploughed field in which the site is located was strewn with fragments of shell, the result of marling, some degree of contamination of the archaeological deposits with recent shell by worm action has probably occurred. This would explain the presence of small quantities of shell in the 'natural' features.

The distribution of shell fragments in the archaeological layers is indicated in Table

Layer No.	41	53	82	83	48	94	55	63	66	123	124	134	121	43	99	47	44	10
Sample No.	1	4	2	3	16	5	6	7	8	9	10	11	12	13	14	15	17	1
Feature-type	Pit		'Natural'		Pit		Pit			Pit		Pit		Pit		Pit	Pit	
Mytilus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cerastoderma	+	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
Ostrea	+	-	+	-	-	+	-	-	+	-	-	+	-	+	+	-	+	
Crustacean	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	

Table : Shell fragments in features at Hunstanton

+ - present - - absent

In addition the following shells were recovered by hand-selection during the course of excavation:

41. Ostrea Lower valve with central perforation. 2 upper valves.
Chlamys cf. varia. Valve (beak damaged).
44. Ostrea Upper valve fragment
48. Ostrea Upper valve and frag. of lower valve
Mytilus 2 frags
54. Mytilus 2 frags (one of beak)
58. Ostrea 1 upper valve
64. Ostrea 1 frag
89. Ostrea 2 upper valve frags
91. Ostrea 1 upper and 1 lower valve frag
94. Ostrea 3 lower valve frags
97. Ostrea 1 upper valve

* A single fragment of unidentified crustacean carapace was also recovered, and sample 14 produced a fragment of tube from a Serpulid worm, probably originally attached to a shell.

100. Mytilus 1 frag
112. Ostrea 1 upper and 1 lower frag
117. Ostrea 1 lower valve frag
Mytilus 1 frag
118. Ostrea 1 lower valve (burnt)
123. Mytilus 1 frag
124. Ostrea 1 valve
126. Mytilus 1 frag
130. Ostrea 1 upper valve
166. Buccinium/Neptunea sp.
Columella frag
181. Cerastoderma frag
203. Ostrea 1 upper valve frag
238. Mytilus 1 frag
254. Ostrea 1 frag
297. Mytilus 1 frag

The small quantity of shell recovered can be taken to indicate either than shellfish were exploited only in a minor way, or that shells were not disposed of in these pits. It seems unlikely that such a rich food resource would be neglected, and it could be suggested that shell was not normally discarded as refuse, but was used to marl the fields of the settlement.

In either case no quantification of shellfish exploitation is possible, although the presence of mussel in 18 samples, of oyster in 8 and of cockle in only 3 may indicate the relative importance of the three main species. Oyster shells predominate in the material collected by hand, but this is probably a result of the fact that the large robust shells of this species are less inclined to fragment than mussel shells.

References:

Evans, J.G. (1972) Land Snails in Archaeology London.

Wheeler, A. (1969) The Fishes of the British Isles and North-West Europe. London