

2515 AH 18p

'Environmental Studies of Prehistoric 'Cooking Sites' in East Anglia: I :

Lackford Bridge, West Stow (TL 77 792712).

Peter Murphy.

This site, consisting of a layer of burnt flint and charcoal, just over 20 cm. thick sealed within layers of peat, was discovered during quarrying operations in January 1977 by Richard Darrah. A vertical section (Section 1) just over 80 cm. high was available for inspection but unfortunately the sediments above this face were obscured by loose gravel and sand which could not be removed. The section was measured and samples taken for analysis of pollen and macroscopic plant remains, and C-14 dating.

In November 1977, when quarrying and subsequent landscaping had ceased, the site was re-visited in order to obtain a complete section (Section 2) through the natural deposits in the vicinity using a peat borer. Section 2 was positioned just outside and to the ~~east~~ ^{west} of the archaeological deposit.

Sediments

Details of the sediments exposed in the two sections are given in Fig. 1. With the exception of the archaeological deposits these sediments consist of peats, sands and mixtures of these two materials in varying proportions. The two basic components were coarse grey fluviatile sand containing small flints up to about 5 mm. (10YR 4-5/1) and ~~peat~~ peat (estimated as 10YR 2/2, very dark brown).

Macroscopic plant remains

Fruits, seeds, charcoal and small wood fragments were extracted from two 500 cc. samples from depths 47-70 cm. and 70-75 cm in Section 1 by flotation, after disaggregating the samples with hydrogen peroxide. The flot was collected in a 250 micron mesh sieve. Pieces of wood were also collected by hand. ~~From the 40-47 cm. depth, a small piece of wood was identified as alder.~~

Charcoal fragments smaller than approximately 5 mm. were not identified.

The wood fragments from 40-47 cm. depth included an obliquely-cut alder twig, approximately 2 cm. in diameter.

The plant remains identified are listed in Table

Pollen

Pollen from the peat immediately beneath the archaeological deposit in section 1 (Depth 70 cm) was examined. A small peat sample was disaggregated by boiling in 10% NaOH for 1 hour. The mixture was filtered through a fine steel gauze, and repeatedly centrifuged and decanted. Further chemical treatment proved to be unnecessary, and pollen mounts were prepared using glycerine jelly stained with safranin, sealing the coverslip with paraffin wax.

The results are given in Table

			Depth (cm).		
			40-47	47-70	70-75
Wood and Charcoal	<u>Alnus</u> sp.	Alder	W	CH	W
	<u>Corylus</u> sp.	Hazel	-	CH	-
	<u>Quercus</u> sp.	Oak	-	CH	W*
Seeds etc.	<u>Characeae</u> indet. oospore	Stonewort	-	1	-
	<u>Ranunculus</u> c.f. <u>repens</u> L. achene	Creeping buttercup	-	-	4
	<u>Ranunculus</u> sp. achene	Buttercup	-	-	3
	<u>Ranunculus</u> subg. <u>Batrachium</u> sp. achene	Aquatic buttercup	-	-	2
	<u>Chenopodium</u> sp. seed	Goosefoot	-	-	1
	<u>Alnus glutinosa</u> (L) Gaertner fruit	Alder	-	2	21
	<u>Stachys</u> c.f. <u>palustris</u> L. nutlet	Marsh woundwort	-	-	1
	<u>Ajuga reptans</u> L. nutlet	Bugle	-	-	1
	<u>Sambucus nigra</u> L. seed	Elder	-	-	2
	<u>Juncus</u> sp. seed	Rushes	-	-	1
	<u>Cyperaceae</u> indet. nutlet	Sedges etc.	-	-	2
	Indet.		-	-	7

* Oak wood was not seen in the soil samples, but large pieces of oak were retrieved from this approximate level during mechanical excavation.

Table 1 : Macroscopic plant remains from Section 1.

W - Wood
CH - Charcoal.

		% total pollen and spores
<u>Alnus</u>	alder	89
<u>Corylus</u>	hazel	3
<u>Pinus</u>	pine	1
<u>Gramineae</u>	grasses	3
<u>Caryophyllaceae</u>	-	1
<u>Umbelliferae</u>	-	1
<u>Pteridophyta</u>	ferns	5

Pollen and spore sum: 150 grains and spore

Table : Pollen and spores from Section 1, depth 70cm.

Only 150 grains were counted, since it was clear from scanning over all the slides that alder pollen predominated throughout.

Discussion

Before the River Lark was confined to its present ^{channel} ~~course~~ by drainage and embankment its course would have been braided, consisting of a number of streams and rivulets meandering over the valley bottom. The sequence of peats and river-bone sands visible in section 2 can be interpreted as representing a series of minor changes in the courses of such channels and intermittent flooding episodes.

In both sections the basal sand was overlain by some 60-70 cm. of peat reflecting a prolonged period during which the site, though still wet, was relatively free from major inundations. It was during this phase that the archaeological deposit was formed. The macroscopic plant remains from the peat immediately beneath this deposit consisted predominately of wood and fruits of alder with seeds of species characteristic of damp woodlands, meadows and other wetland habitats including creeping buttercup, aquatic buttercup, marsh woundwort, bugle, rushes and sedges. A few seeds of plants common in disturbed soil conditions - elder and goosefoot - were also present. The peat contained very high levels of alder pollen, with a few grains of hazel and pine, grasses, herbs and fern spores. This deposit is therefore a typical example of 'brushwood peat full of wood, cones and fruits of alder... (in which) ... alder pollen frequencies are almost always between 80 to 100 per cent of the total tree-pollen' (Godwin 1956, 194), representing a dense cover of alder carr. Pollen from peats of this kind reflects almost entirely the nature of the vegetation of the immediate area, ^{since} and alder is a prolific pollen producer.

The trees on the site were clearly felled to provide fuel; the occupation deposit produced charcoal of alder, hazel and oak.

Unfortunately no faunal remains or artefacts were recovered so although the plant remains give a good picture of the environmental conditions prevailing when the site was established, there is no information about the site's precise function. However, a sample of the occupation deposit gave a Carbon-14 date of
3940 ± 80 b.p., or 1990 b.c. (HAR-2484)

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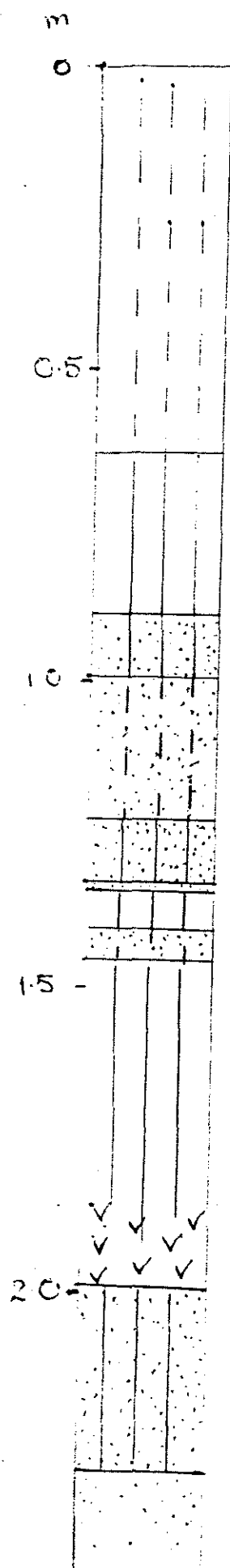
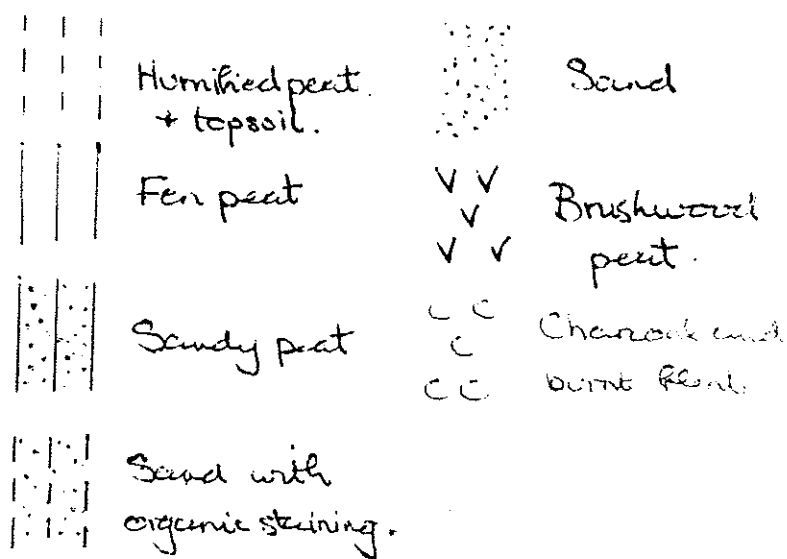


Fig. 1 : LACKFORD BRIDGE

SECTIONS 1 + 2.



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