EXCAVATIONS AT COLHAM MILL ROAD, WEST DRAYTON

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SUMMARY

Excavations at Colham Mill Road, West Drayton revealed two pits with wattle linings which were linked to a line of stakes surrounded by wattle fragments. Two post holes and another line of wooden stakes were also recorded. All the features had been cut into the gravel at the bottom of a shallow pond or pool. The wood was then sealed by an organic silt deposit which had formed as a result of the pond drying up. The organic layer contained a fragment of cooking pot which is 10th or 11th century in date. A gravel trackway was laid on top of the organic material in order to consolidate the marshy ground and probably dates from the medieval period. This trackway was then sealed by a series of alluvial layers as the area became wetter and subject to flooding.

The importance of this site lies in the contribution it can make to our knowledge of late Saxon/early medieval activity in this area of West London, including the use of natural resources and the nature of the local environment. Of particular interest are the indications that 'retting', a process associated with the production of fibres from hemp, may have been conducted on this site.

INTRODUCTION

The Museum of London Archaeology Service undertook an excavation on the site of the former BASF buildings to the north of Colham Mill Road, West Drayton at OS grid reference TQ 0569 8006 (Fig 1). The site (Site Code CMR 96) is bounded to the south and east by the Fray's River. A fence and a line of trees to the rear of Fairway Avenue form the western limit of the site and the northern limit is defined by the railway embankment.

The site was to be redeveloped as a residential scheme by Acton Housing Association which commissioned the evaluation and the subsequent excavation. The purpose of the excavation was to extend the test pits from the evaluation phase towards the east and west in order to excavate and record any significant surviving archaeological remains in the area that would be directly affected by construction.

The evaluation revealed a number of wood fragments lying on terrace gravel and sealed by dark brown organic silt. The primary aim of the excavation was to determine if the wood extended across the footprint of the proposed building and to determine its age and function.

The site lies to the east of the River Colne on the west bank of the Fray's River. The solid geology of this area is London Clay overlain by Thames terrace gravels beneath alluvial deposits.

During the medieval period the manor of West Drayton comprised most of the parish except for the land between Swan Road and Colham Mill Road. This area formed part of the manor of Colham which also included villages such as Uxbridge to the north (Cox 1983, 10).

Before 1066 the manor of Colham was owned by Wigot of Wallingford and was assessed at eight hides. By 1086 the manor became the property of Roger de Montgomery, Earl of Arundel and Shrewsbury, by which time consolidation of the estate had taken place when one hide in Harmondsworth, three hides in Dawley,

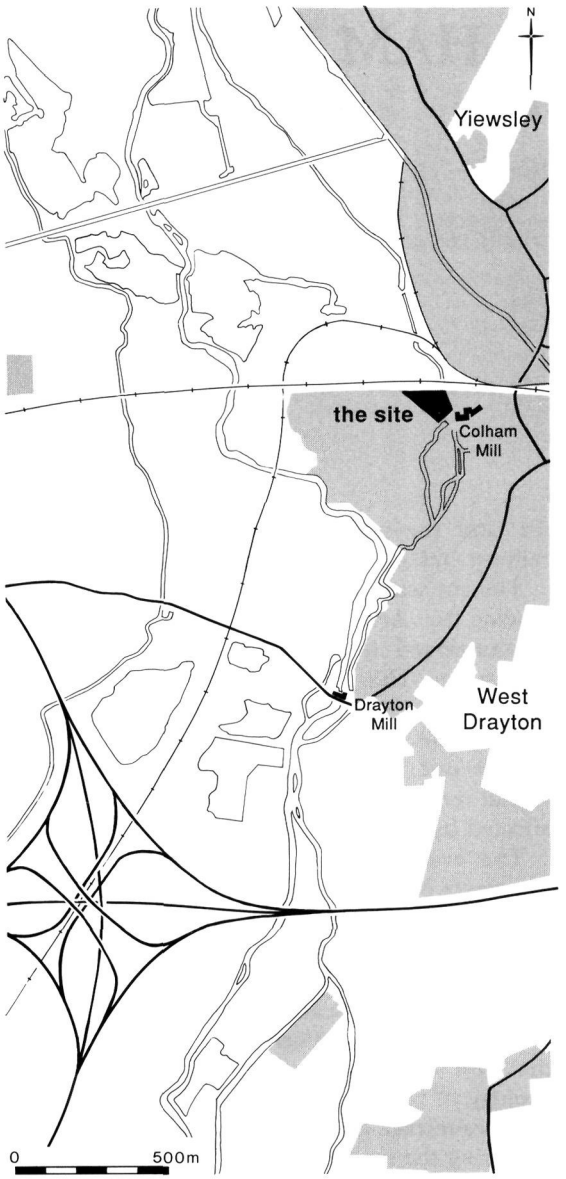


Fig 1. Site location

nine and a half hides at Tickeham and one and a half hides had become associated with Colham (VCH 1962, 84).

The Domesday survey describes West Drayton as having a mill that was valued at 13s 5d and a weir that was valued at 32d. The Domesday entry for the manor of Colham lists two and a half mills. The adjoining half mill was probably in a different manor. There is no record of this mill in any other manor in Middlesex, and it is probable that it was located on the county border and included in the entries for Buckinghamshire. If so, this mill was likely to have been located on the banks of the River Colne which forms the county boundary in this area.

The Colham Mill that stands adjacent to the site today dates from the 18th century and maps from the 17th century indicate that there was a mill slightly to the south of the site, recorded as Drayton Mill. This may have been the location of the late Saxon/early medieval mill. Water mills of the 10th and 11th centuries were used almost exclusively for the milling of grain (Miller & Hatcher 1978) and the environmental samples (see below) do not include the high incidents of cereal remains that would be expected if a working mill was close to the site.

THE SEQUENCE

Below the demolition debris was a series of seven alluvial layers. These layers were very similar in colour, compaction and composition being very clayey and bluish grey in colour. The lower layers however were more brownish grey with a higher silt and organic content. The lowest layer was recorded at 24.75m OD.

The blue clay was removed to expose a gravel surface that was 1m in width and ran for 8.8m across the trench. This gravel appeared to be a path or trackway and was constructed of tightly packed flint pebbles on top of a dark brown organic layer.

The dark brown organic layer, which was recorded at 24.85m OD, was found to consist of a mixture of clay, silt and fibrous organic matter. It contained wood, animal bone and burnt flint fragments and one sherd of a late Saxon sandy ware sagging base cooking pot. This sherd has been dated to between 970–1000 AD. When the organic layer was removed it revealed terrace gravel with the finds concentrated at the interface.

The gravel was cut by two pits, three postholes, two lines of stakes and wattle fragments scattered across it (Fig 2). ^{14}C determination (see Table 1) gave a very similar date range to that given to the pottery sherd.

The pits were fully excavated to reveal wattle linings. The larger of the two measured 2.3m in long and 1.1m in wide and was 0.35m deep. The lining found on the south-western edge was constructed from interwoven alder branches

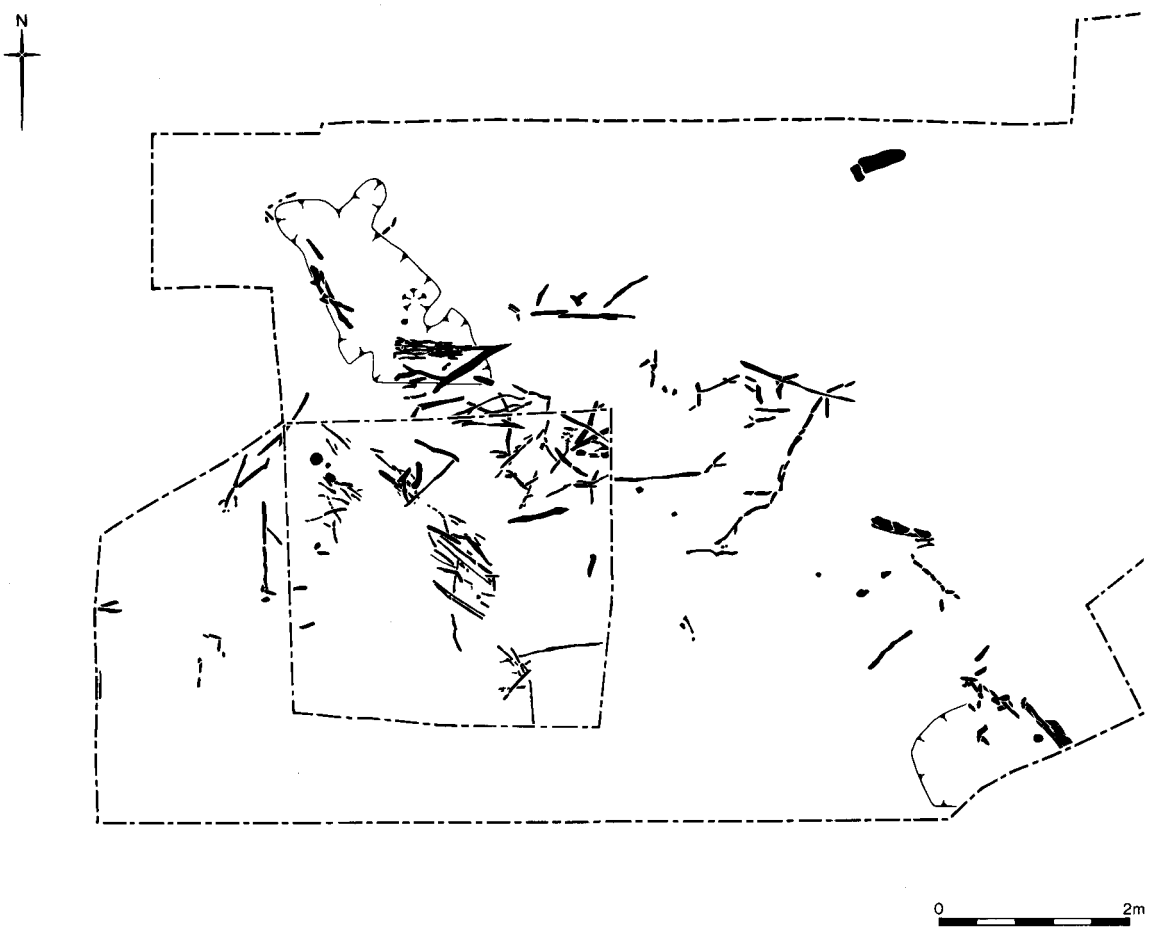


Fig 2. Features cut into natural gravel and wattle remains

which average 0.3m in length and 15mm in diameter.

The uprights, which were set into the gravel, were thicker than the rods. A line of upright stakes also set in the gravel ran between this pit and the smaller pit to the south east. The small pit, which extended beyond the limit of excavation, had a similar wattle construction on the south-eastern edge. This wattle hurdle consisted of five uprights with rods woven around them. The hurdle had probably been constructed *in situ* and was set in the edge of the cut at an angle of 30° and was held in position by five stakes (Fig 3). The scattered alder branches appeared to have originally been woven around the line of uprights that connected the two pits and would have formed wattle hurdles.

To the south west of the larger pit a single oak stake was found set into the gravel. This stake measured 0.47m in length and 80mm in diameter and showed signs of axe or adze marks where it had been sharpened to a point.

At the eastern end of the trench was a line of broken alder stakes, which ran north-south across

Table 1. ^{14}C *determinations*

Sample no.	Lab no.	Date (uncal)	Date (cal. AD)
CMR96/1	BETA 93671	1190±60BP	680–970
CMR96/2	BETA 93672	1140±60BP	880–1160

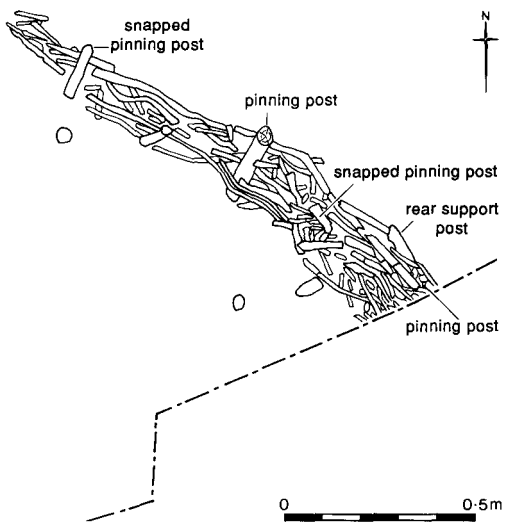


Fig 3. Detail of hurdle

the trench, from which the bark had been removed and the ends sharpened to a point. Two circular post holes, 0.35m in diameter, contained a number of these stakes but the postholes appear to have been reused and may relate to an earlier phase of activity on the site. Alder branches were also strewn across this part of the trench which, together with the stakes, seems to suggest that another line of wattle hurdles was set into the gravel and subsequently disintegrated.

Most of the wattle revetments and stakes from this site have been formed from alder which grows in wet areas by rivers and streams. The frequency of alder seeds found in the layer sealing the wood suggests that this species was growing on or very near the site when these deposits where formed.

There are four distinct phases represented in the archaeological sequence. The first is the wattle lined pits and hurdles. These were constructed *in situ* on the gravel which appeared to form the base of a large pool or pond. The two pits probably went out of use during the 11th century. The hurdles appear to have disintegrated and were then sealed below an organic layer which suggests the area became wetter.

It has been suggested that a possible use for these pits, standing in a shallow pool of water, was for the retting of hemp which was a primary process in the production of rope. First the hemp was 'rippled', the process that removed the seeds, after which the stems were 'watered' or retted. The hemp was placed in shallow pits constructed in pools of water to soak the stems to soften and rot the woody material around the fibre. The fibre was then washed and dried and beaten with wooden tools with cylindrical heads and then scraped with wooden blades to remove the outer fibre. The fibres were then separated by being drawn through heckles, sets of teeth mounted vertically in a stand, and finally made into rope (Blair & Ramsay 1991).

The possible presence of hemp pollen could support the idea that this late Saxon pool of still or gently flowing water, with its wattle lined pits, was an area used for retting or could merely indicate that hemp was growing on or close to the site.

The gravel trackway, which was constructed in order to consolidate the soft boggy ground, would have allowed access across this area of marshy land. There is, however, no direct dating for the gravel path but it is likely to be medieval in date. This path may be associated with a bridge that stood in this area. We know from 16th and 17th-century records that a bridge called Oxney Bridge led to the moor north of Drayton mill. This trackway then became redundant as the area was once again submerged by floodwater. These periods of flooding saw the deposition of the alluvial layers the anaerobic properties of which preserved the organic material at the base of the sequence. It is clear that the site has been subject to a changing environment and, subsequently, to changing usage during the late Saxon and early medieval period. These changes were very much dependent on the presence and action of the Fray's River.

ENVIRONMENTAL

Samples were collected from the site in order to attempt to reconstruct the local environment and look at the use the local population were making of natural resources. The sedimentary sequence was examined and consisted of sand and gravel, overlain by silt clay with detrital organic fragments, grading into a purely minerogenic deposit. The sand and gravel is almost certainly the Pleistocene Taplow Terrace, although the boundary (with floodplain alluvium) as it appears on the British Geological Survey map (sheet 269) is slightly to the east. The overlying organic silt was initially considered to be prehistoric, in view

of the association with the gravel. Several fragments of wood from the wattle features were submitted for ^{14}C determination, the results of which placed the deposit firmly in the historic period.

This deposit is assumed to have been laid down along the margins of the course of the Fray's River. It was slightly mixed with the top of the gravel, but this is hardly suprising, given the likely scale of truncation of the gravel and pre-Saxon deposits by river scouring. The contemporary environment is likely to have been marshy; probably not constantly submerged, but with occasional flooding leading to the deposition and preservation of vegetation remains within the alluvium. These botanical remains may have been local and forming *in situ*, or transported in by the river and deposited with the alluvium. This interpretation is supported by the botanical studies. The organic deposit was sealed by a non-organic clay silt suggesting that there was an increase in the rate of water over the site and/or a reduction in the local vegetation. The presence of coarser particles suggest that the rate of water flow had increased, while there is a possibility that the upper levels have been oxidised, which could have eradicated traces of organic material. The top of the sequence was a similar waterlain clay-silt, containing a significant amount of iron staining, which is generally an indication of drying. Unfortunately the deposit was truncated and so it was not possible to confirm whether the unit dried and weathered leading to the development of a stable land surface.

Samples were collected from the sediments to establish the range of botanical remains present in order to try to reconstruct the communities growing on and around the site, and discover evidence for human activities. Both pollen and plant macro-fossils were recovered.

Although well preserved pollen has been recovered, the interpretation of such alluvial sediments is complicated by the taphonomy of the pollen assemblages. It appears that the lower organic sediments are most representative of the pollen flora since these sediments seem to have remained waterlogged and unoxidised. The overlying silt/clay may represent the same alluvial sediments which have been oxidised through fluctuation of the water table. This is, to some extent, indicated by the increasing values of *Dryopteris* and *Pteridium aquilinum* spores and pollen of *Lactucae* (Fig 4), both of which have robust pollen/spore walls and thus are more readily preserved. The second factor is that of derivation via fluvial transport and over-bank deposition rather than the more normal airborne transport mechanism.

Given the age of these sediments and associated timber features, the substantial amount of tree pollen is of interest. Oak (*Quercus*) and hazel (*Corylus avellana*) appear the most important woodland elements, although small amounts of lime (*Tilia*) and beech (*Fagus*) are much under-represented in pollen spectra and may have been relatively more important than the number of pollen grains imply. This is due to entomophily (insect pollination) in the case of lime and large grains in the case of beech. Alder (*Alnus*) is not a dominant local element as this tree produces very substantial quantities of pollen. It is suggested that local occasional trees may have been growing along the stream/river bank or that the pollen is transported (fluvially or airborne) from areas of alder carr woodland. The single record of *Juglans* (walnut) is a valuable record of this Roman introduction. Its presence here implies continuity of this taxon in the post Roman period.

The herb flora is relatively diverse, representing arable cultivation and grassland/pasture. Given the potential proximity of a mill it is surprising that larger numbers of pollen grains of cereals and associated segetals are not present. This may again be a taphonomic factor, and indeed those cereal grains recorded may derive from crop processing rather than from areas of arable cultivation. As noted above, the expansion of *Lactucae* (dandelion, sow thistles, hawkbit, hawk's beard) may result from differential preservation in its favour with consequent skewing of the pollen assemblages. This phenomenon is, however, complicated by the consistent presence of less robust grasses and sedges.

From the marsh and marginal aquatic taxa recorded it would appear that the flood-plain environment was largely open grass and sedge fen (perhaps with occasional alder and willow trees). This area would have been subject to periodic flooding with over-bank flooding and deposition of alluvial sediments containing transported pollen grains. Freshwater algal *Pediastrum*, although not abundant, similarly attests to this.

Preservation of waterlogged plant macro-fossils was good in all samples, while charred remains were very rare. Seed assemblages from the samples were very similar, and came mainly from plants of wet environments. Taxa which

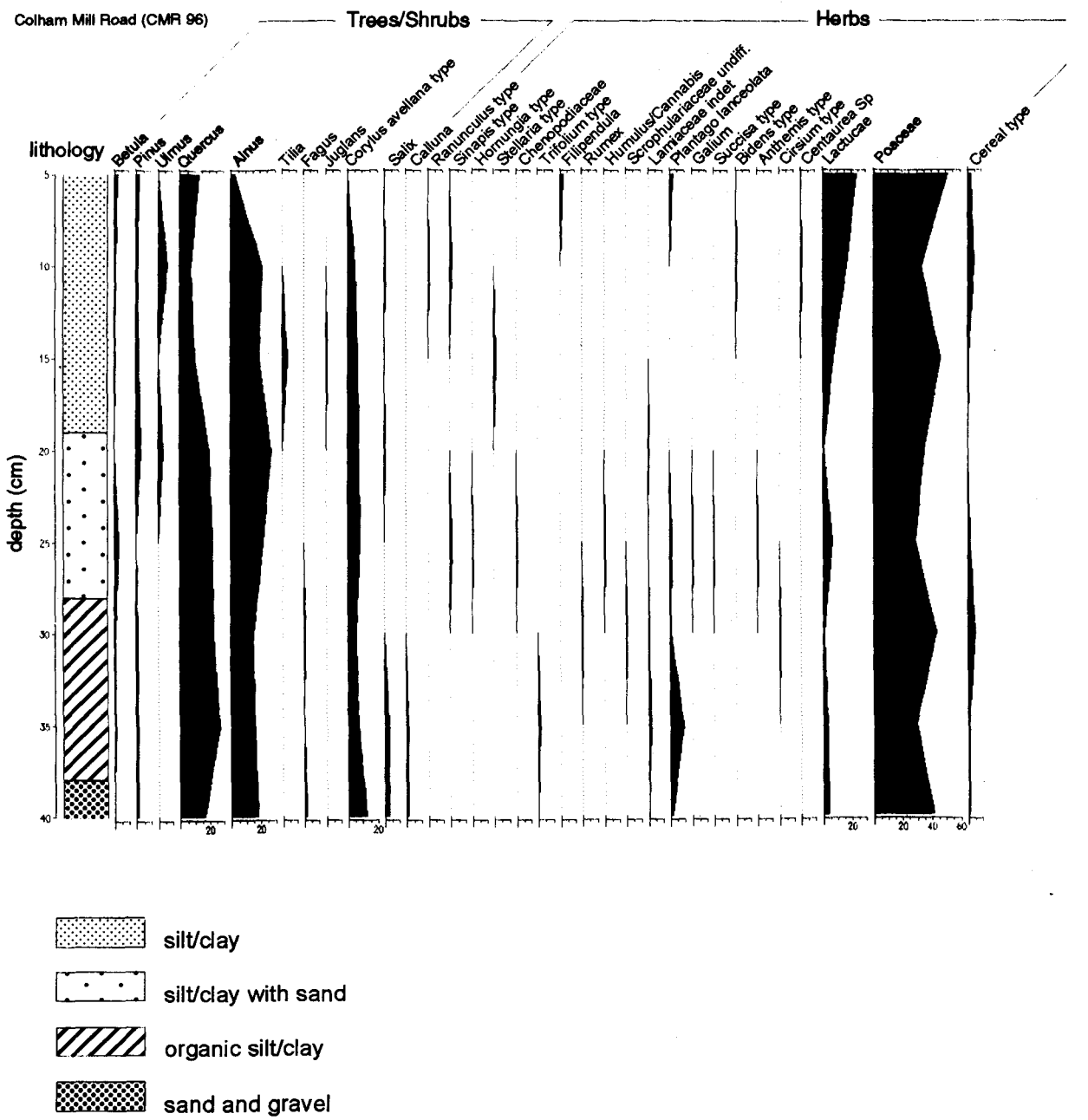
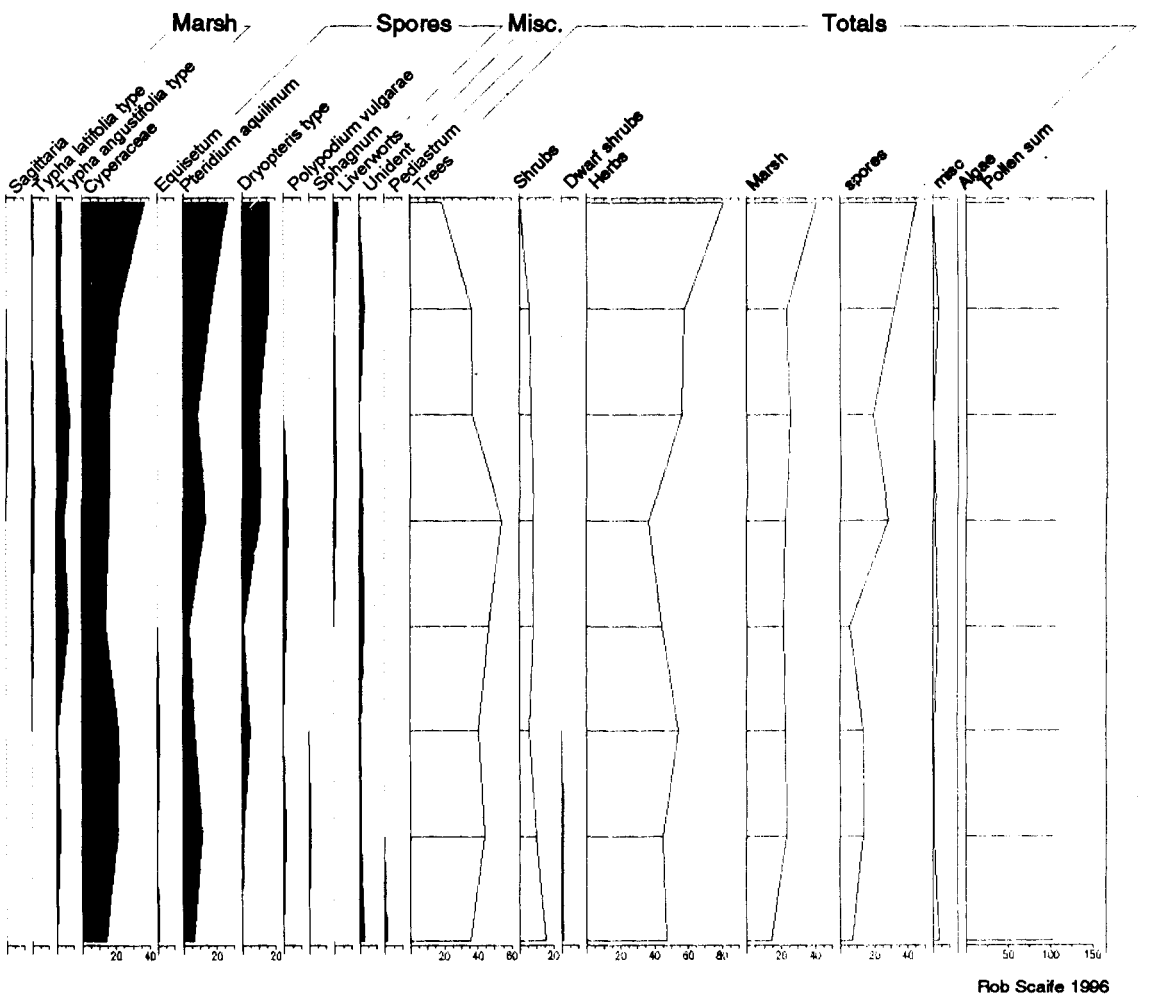


Fig 4. Pollen diagram

were common in most samples included celery-leaved crowfoot (*Ranunculus sceleratus*), lesser spearwort (*R. flammula*), fool's watercress (*Apium cf. nodiflorum*), water pepper (*Polygonum hydropiper*), alder (*Alnus glutinosa*), gypsy-wort (*Lycopus europaeus*), yellow flag (*Iris pseudacorus*), branched bur-reed (*Sparganium erectum*), rushes (*Juncus spp.*) and sedges (*Carex spp.*). All these plants grow in wet places, either in or beside water, most of them suggesting shallow, slow-moving ditches or



streams. Pondweed (*Potamogeton sp.*) occurred in four samples, and horned pondweed (*Zannichellia palustris*) and oospores of stonewort (*Chara sp.*) in sample 1. These plants are fully aquatic, and can only live in water. A small number of seeds from dryer environments were also present. These included stinging nettle (*Urtica dioica*), which was found in the majority of samples, as well as fat hen (*Chenopodium album*), parsley piert (*Aphanes arvensis*), black nightshade (*Solanum nigrum*), stinking mayweed (*Anthemis cotula*) and elder (*Sambucus nigra*), which were only found in one or two.

These seeds all come from plants of disturbed ground, such as arable fields or waste land, but made up only a small proportion of the assemblages. Single seeds of fig (*Ficus carica*), probable coriander (*Coriandrum sativum*), and hazelnut (*Corylus avellana*) were found in samples from contexts 11 and 14.

Fine charcoal fragments were noted in several samples, and a very small number of charred cereal remains were found. These consisted of single grains of wheat (*Triticum sp.*) and possible oats (*Avena sp.*), and several glume bases from spelt wheat (*T. spelta*). The finds of spelt wheat are interesting, as this has been found mainly from the Roman period and earlier in London. Previously, spelt glume bases have been found at nearby Harmondsworth, whereas only bread wheat (*T. aestivum* s.l.) has been found from mid Saxon *Lundenwic* sites.

The wood from the structures was identified and almost all fragments were alder (*Alnus glutinosa*), but a single piece from context 8 more closely resembled hazel (*Corylus avellana*). Some of the more poorly preserved pieces could not be identified with certainty. The single stake from context 36 was found to be oak (*Quercus robur*). The use of alder wood indicates exploitation of local resources, as alder grows in wet places by rivers and streams. Frequent finds of alder seeds in the samples from deposits overlying the wood, suggest that these trees were growing on or very near the site when the deposits were formed.

The dominance of seeds from aquatic and wet-ground plants reflects the nature of the local environment. These plants may have grown *in situ* or been washed in, but in either case are likely to have grown nearby, and thus confirm the wet nature of the environment. A stream or drainage ditch containing water must have run through the site or very close by. Disturbed ground plants, which may indicate human activity nearby, very often dominate assemblages, but here they form only a very minor component. The only definite signs of activity were fig and coriander, and the charred cereal remains. Hazelnut could have been used as food, but could equally well have arrived on site by natural means.

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