

Bromborough Court House Moated Site Excavations 1979

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Introduction

Following the work carried out in 1977-78 by a joint WEA and Institute of Extension Studies evening class (Chitty *et al* 1979) the Liverpool University Rescue Archaeology Unit excavated a small trial trench in advance of redevelopment adjacent to the moat at Bromborough (figure 1). The work was carried out by a Manpower Services Commission team with grants from the DoE and UML Ltd in October and November 1979. The excavation was designed to check the possibility of medieval occupation or use of the area, and also to determine the profile and date of the south west corner of the moat. This report follows the recommendations of the Frere report on archaeological publication. The Level II and Level III archives on which it is based are lodged with the finds in the Merseyside County Museums.

The excavation

The drift geology of the area is generally boulder clay and in the excavation this deposit was represented by clay and sand. A pocket of clay had been cut by the moat, a fortunate occurrence because it facilitated the identification of material dug from the moat and spread outside. The upper surface of the sand was disturbed by small gullies and hollows, most of which were filled with iron-rich concretions. These features could not be investigated more fully because of the narrowness of the trench. The sand above these disturbances was black, virtually stone free and may represent a well developed pasture soil. Above this, over much of the trench, was a more or less clayey layer, very patchy towards the west, but quite thick and clean, nearer the moat. This is interpreted as material derived from the moat, either during recutting, or at the time of its original excavation. The capacity of the excavated section of the moat is approximately 40 m³, whereas the buildup of ground in the trench outside the moat represents only 9 m³, this being determined by calculating the greater depth of soil nearer the moat. Even allowing for much material being dispersed or eroded further to the west, this indicates that some of the material from the moat must have been disposed of elsewhere than in the area of the trench. The clay layer cannot be merely the result of superficial cleaning operations because of its thickness and cleanness which suggest that it was dug freshly. It is more likely to represent the spoil from a very massive recut or from the original excavation. This episode cannot be dated except by inference from the fact that no pottery above the clay in the ploughsoil is earlier than the 18th century. There were no artefacts at all in the layers below, except a possible struck flint. This may only mean that manuring (and therefore perhaps ploughing) in the area commenced in the 18th century. There were ploughmarks visible in the 24-26 m zone.

Above the ploughsoil was a thin, stony layer, the bottom of a worm-sorted soil. It contained 19th century pottery, coal and domestic ash. The topsoil was a well developed pasture soil. The ditch contained a wet humus rich fill, which covered fragments of late 19th century pottery. The profile suggests that the recut which they represent only affected the lower part of the ditch (3.5 m-8.5 m). This conclusion is supported by the presence of mature trees and stumps on the sides of the ditch and their absence in the bottom. The east side of the ditch was much disturbed by rabbits and roots, but the west side cut through a band of clay about 1.5m thick, overlying sand. The junction of the natural sand in the trench outside the moat and the natural clay at the top of the ditch (14 m) was obscured by tree root or rabbit disturbance and a modern pit.

Observations in a contractor's trench

While the Unit excavation was being carried out at the south west corner, contractors erecting an overhead steam pipeline bulldozed a ramp through the ditch and into the interior at the north west corner (figure 2). The opportunity was taken to clean and record the section thus revealed (figure 3). The concrete base of a stanchion, the incomplete excavation and the obliquity of the trench all conspired to confuse the interpretation, but it could be seen that the internal pond may have originally extended at least as far as the trench where it was much shallower. Mrs McMillan observed only 8" (0.20 m) of silt in the bottom of the present (dry) pond in 1957 (Chitty *et al* 1979, 6). This is at least a metre lower than the natural sand in the contractor's trench, where it is overlain by at least 0.60 m of silt. This argues for a considerable recent deepening, or at least cleaning, of the present internal pond, a process which did not encompass the western end. In fact the top metre of the section in the contractor's trench had all the appearance of a dump of soil, with tip lines of various sands and earth, which might be attributable to the deepening of the remainder of the inner pond. Another possibility is that the inner and outer ponds were once one, and the western arm of the present moat was driven through it, the spoil being

used to backfill the adjacent portions of the pond. This could easily be checked by a small excavation.

No dating evidence was recovered from any of the layers in the contractor's trench, but the peaty organic deposit at the bottom although dry was not completely decayed. Small twigs and roots could still be discerned.

The finds

The pottery was all 18th, 19th and early 20th century in date, and very fragmented. This is consistent with the night soil manuring known to have been used extensively in the region. Very few finds were of interest in their own right, but among the earthenwares was an applied slipware 'chicken' decoration, probably from a Buckley moneybox.

Other finds included nails, a modern horseshoe and bottle glass.

Stratigraphy and Pollen Analysis at Bromborough Court House, Wirral

Samples were recovered from the contractor's trench at Bromborough Court House, (fig. 2), to shed light on the stratigraphy and environmental history of the site. Dimpleby (1975) has discussed fully the interpretation of pollen assemblages from buried soils on archaeological sites, and they appear to be essentially local in nature, reflecting conditions on the site and its immediate vicinity. The interpretations and conclusions which follow reflect this contention.

Stratigraphy

Field and laboratory examination of the sampled profile revealed a complex stratigraphic succession, within which three discrete units were recognised. These are represented in the stratigraphic column displayed in fig. 3, according to the system proposed by Troels-Smith (1955). Of the 50 cms sampled, the top 10 cms was disturbed. Stratum 3, between 10 and 38 cms, is an organic clay soil. Stratum 2, from 38 to 46 cms, is a black organic peaty layer with tiny fragments of birch bark and charcoal at the top. The lowest deposit, stratum 1, is a sandy clay soil, with some organic and rootlet material.

Interpretation of the Pollen record

Pollen Zone 'a' 48-46 cms

Pollen zone 'a' is coincident with Stratum 1 and is characterised by high percentages of *Betula* (birch), *Pinus* (pine) and *Corylus* (hazel) pollen. Values for the thermophilous trees, *Alnus* (alder) and *Quercus* (oak) are low, and those for *Ulmus* (elm) are negligible. Tree and shrub pollen values are high during this phase, uniformly above 90% of total pollen. Other shrubs are represented by *Salix* (willow), and *Calluna* (heather), while the spores of *Pteridium* (bracken) are recorded, reflecting its role as an understory fern in birch woodland. Herbaceous pollen frequencies, including *Gramineae* (grasses), are very low.

Pollen Zone 'b' 46-30 cms

This pollen zone is coincident with Stratum 2 and the basal part of Stratum 3. Tree pollen frequencies are dominated by *Quercus* and *Alnus*, and *Corylus* is still well represented. *Ulmus* and *Tilia* (lime) are present, and *Fraxinus* (ash) is recorded for the first time. *Betula* and *Pinus* have declined sharply relative to zone 'a', although tree and shrub pollen still dominate the pollen assemblage. The representation of herbaceous taxa has increased, and includes some which may be indicative of human activity. Although grass pollen frequencies are still low, the presence of pollen of *Plantago lanceolata* (ribwort plantain), *Rumex* (sorrel), *Cirsium* (thistle) and other weeds, indicates the opening of the woodland through pastoral land-use. High *Pteridium* values are probably associated with this limited woodland clearance.

Pollen Zone 'c' 30-18 cms

Describing the middle part of Stratum 3, this zone is characterised by a sharp fall in frequency of *Quercus* and *Tilia* pollen and their replacement in the pollen spectra by *Betula*. Herbaceous pollen frequencies rise to over 20% of total pollen, mainly due to a marked increase in the representation of grass pollen. Cereal pollen is identified throughout this zone and the occurrence of weeds associated with arable cultivation is noted, including the *Caryophyllaceae* (stichwort), *Artemisia* (mugwort), *Matricaria* (mayweed), the *Chenopodiaceae* (goosefoot and fat hen), *Taraxacum* (dandelion) and *Centaurea cyanus* (cornflower). At the end of the zone, pollen of *Cannabis* – type (hemp) is recorded. Herbs indicative of disturbed habitats, especially *Plantago lanceolata* and *Rumex*, are present in consistently high frequency. *Pteridium* and *Calluna* values exhibit sharp peaks in what is apparently more open woodland and *Fraxinus* is recorded sporadically.

Pollen Zone 'd' 18-10 cms

During this pollen zone, which represents the upper part of Stratum 3, tree pollen values are much reduced, and *Betula* is the main contributor to the tree pollen sum. *Quercus* and *Alnus* have dropped to very low levels and *Tilia* is no longer recorded. This would appear to reflect major woodland clearance in the vicinity of the site. Disturbed ecological conditions are attested by the increased representation of *Fraxinus*, indicative of disturbed, yet still nutrient – sufficient soils. Other shrubs which are encouraged by woodland clearance are present, including *Calluna* and *Salix*, while the secondary nature of the woodland is confirmed by isolated records of *Acer* (maple) and *Fagus* (beech).

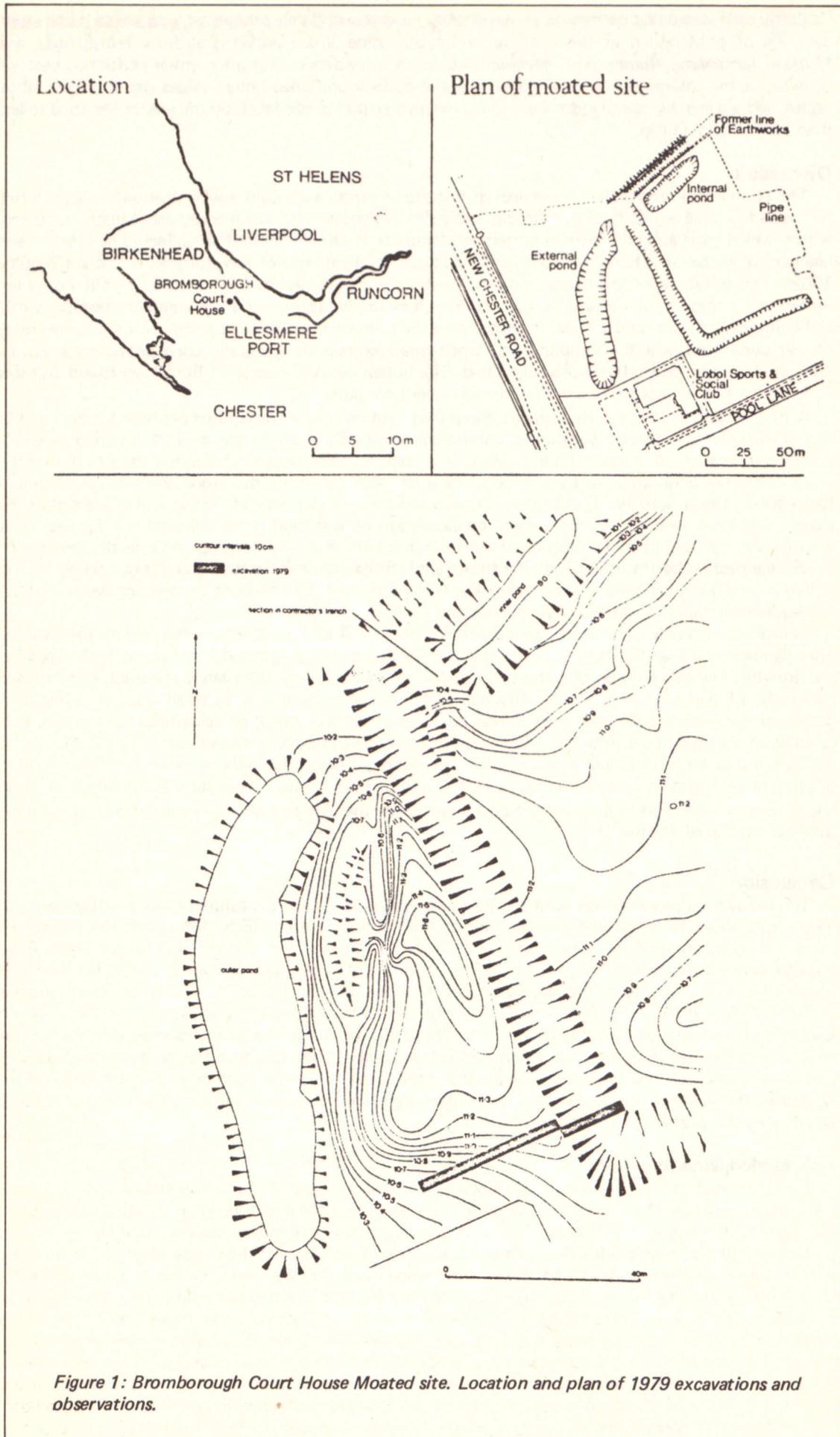


Figure 1: Bromborough Court House Moated site. Location and plan of 1979 excavations and observations.

Cultivation was being carried on in the vicinity, as cereal pollen is prominent, and arable herbs attain over 3% of total pollen at the culmination of this zone. Weed pollen is strongly represented, and *Plantago lanceolata*, *Rumex* and *Pteridium* are much in evidence, indicating either continued pastoral activity, or the colonisation of abandoned areas of cultivation. Grass pollen values rise to 25% of total pollen and a generally open landscape is indicated, as tree pollen has fallen by the end of the zone to less than 30% of total pollen.

Discussion

The stratigraphic and pollen sequences at this site illustrate a complex environmental history. During the period of time represented by Stratum 1, the site was apparently occupied by dense birch woodland, within which hazel and pine were important constituents. A ground flora of ferns, including bracken and heather, is indicated. This plant community suggests an acidic soil of low nutrient – status (Dimbley 1962). The influence of the nearby Bromborough Pool is reflected in the presence of pollen of alder, willow and a number of wetland herbs, including *Ranunculus* (buttercup), *Filipendula* (meadowsweet) and *Caltha* (marsh marigold). These records persist throughout the diagram and argue for the continuance of wet conditions near the sampling site, which may explain the generally good pollen preservation. Stratum 1 cannot, of itself, be securely dated. The pollen content resembles Boreal woodland, but low elm values and the presence of alder point to a rather later date.

A sharp break, both in the stratigraphy and pollen content may be recognised between Strata 1 and 2, and apparently represents a substantial chronological gap. Stratum 1 may thus be a buried paleosol, possibly truncated, of some antiquity. More open oak – alder woodland covered the site during the accumulation of Stratum 2, and the establishment of clearings within this woodland may be attributed to pastoral human activity. This organic layer could be a limnic deposit, and it would seem that the damp conditions evinced by the strong representation of wet land herbs, allowed the formation of shallow pools at this time. The record of detrital birch bark and charcoal may indicate the creation of open areas nearby, by the use of fire. The stratigraphic break between Strata 2 and 3 is not echoed in the pollen record and thus conformity is assumed. A retraction of the influence of standing water and the subsequent formation of mineral soil may account for this.

Indicators of arable cultivation are present in Stratum 3 to a depth of 30 cms and an increasingly open landscape is manifest by the pollen spectra. Clearance of oak and alder woodland took place for the growth of cereals and, briefly, hemp. Lime and elm were almost completely removed, and replaced by beech, ash and sycamore. The locality had probably become a mosaic of small areas of cultivation, stands of open woodland, and cleared areas regenerating to woodland, or being used for pasture. It is considered that the upper mineral soil of Stratum 3 may be of relatively recent date. The disturbance of Stratum 4 may be attributable to the effects of ploughing, since continued cultivation on the site would produce a complete mixing of the top soil and loss of stratification. The site may latterly have been under active tillage therefore, a contention supported by the high pollen frequencies of cultivation indicators at the top of Stratum 3.

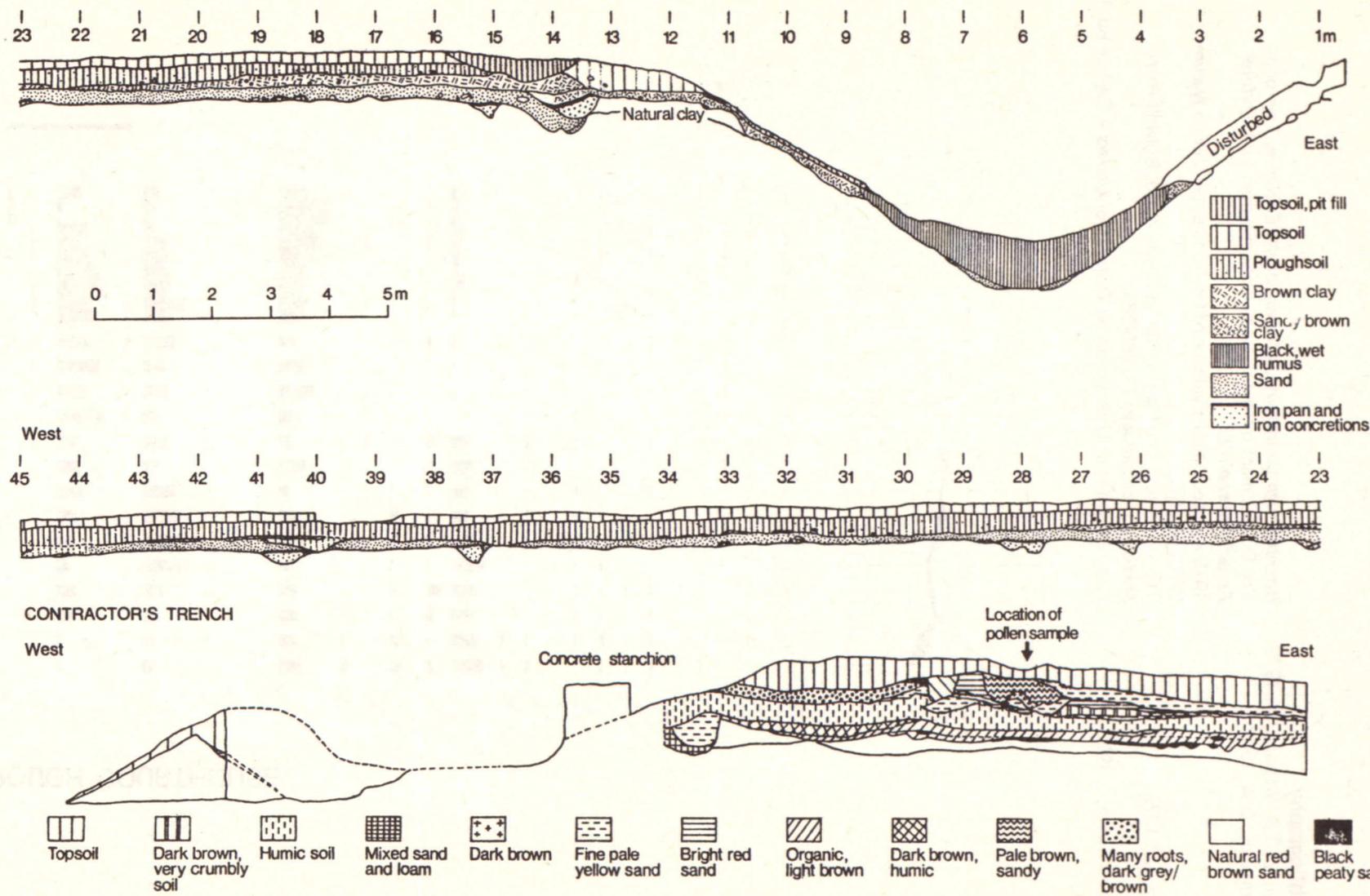
Conclusion

The excavation produced no evidence for use of the area except as pasture before the 18th century. There was no evidence for the construction of the moat before the 18th century. At this period the moat probably attained its present profile even if this was not the original excavation. There is no *a priori* reason to suppose that the present line of the moat is medieval. A map of c 1750 is the earliest known reference to a moat, although the earliest reference to buildings which may be the Court House is in 1284 (Chitty *et al* 1979, 7-8). There is increasing evidence that moat digging was a tradition which continued into the 19th century (Drage 1979, 285-288). The large size of the moated area, the lack of any medieval evidence and its use as an orchard all suggest that it may be of post-medieval date. A careful excavation at the junction of the moat and the line of the outer pond might provide evidence for or against the suggestion that the inner and outer ponds were once one and have been separated fairly recently by the western arm of the moat.

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Figure 2: Bromborough Court House Moated Site. Sections in 1979 excavations and contractor's trench.



Penny Brown for typing the report. Figure 1 is based on the survey carried out by the Archaeological Survey of Merseyside published in Chitty *et al* 1979.

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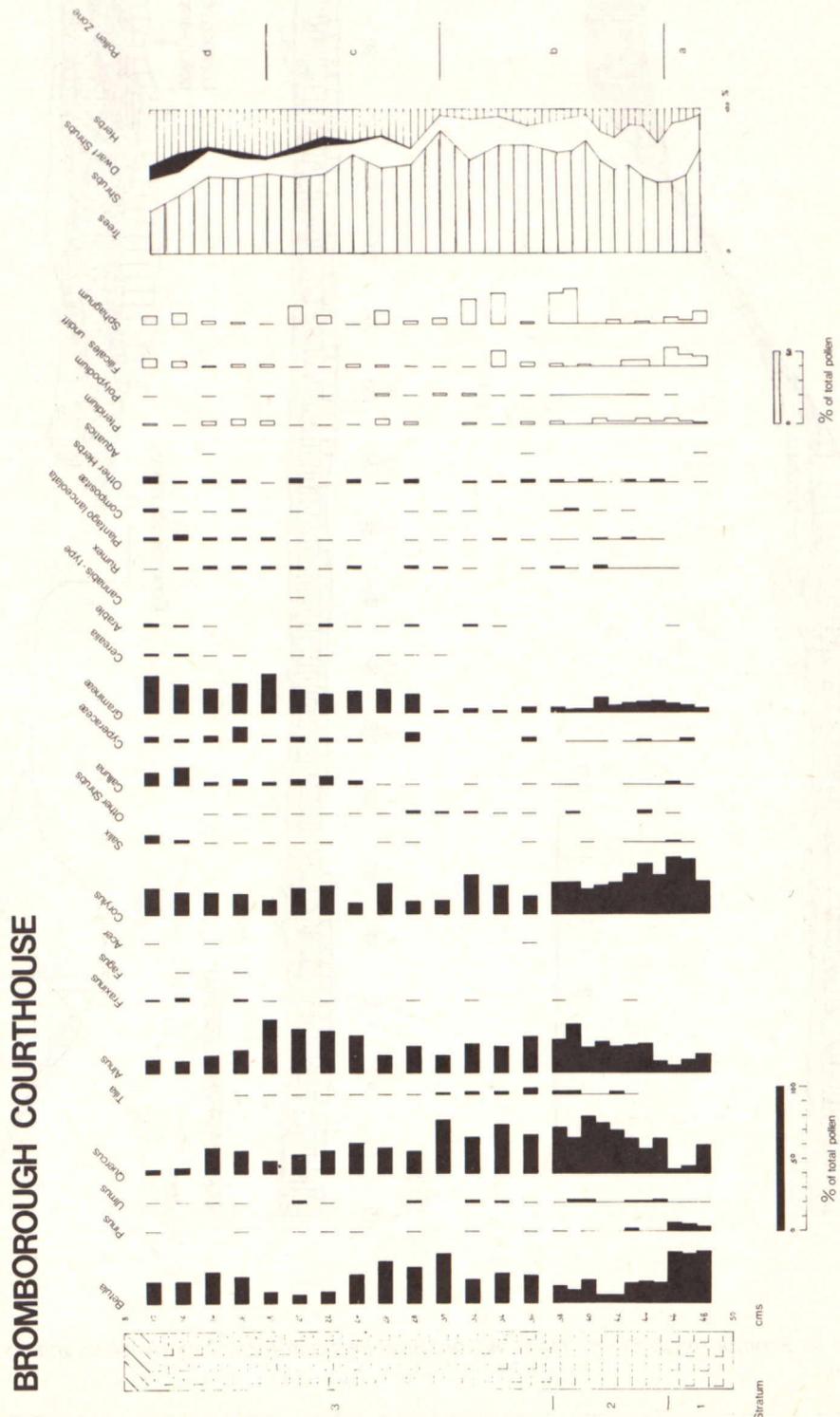


Figure 3: Stratigraphy and Pollen Analysis