

Colchester Archaeological Trust Ltd

A Fieldwalking Survey at Birch, Colchester
for ARC Southern Ltd

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Colchester Archaeological Trust Ltd

Archaeological Fieldwalking Survey at Birch, Colchester

NGR: TL 924193

Summary

A fieldwalking survey over 6.9 ha of farmland to the east of Birch airfield recovered large quantities of Roman pottery, tile and building stone. Distribution plots suggest that the sites of at least two buildings lie in the survey area. The date ranges of the keyed tile and pottery indicate occupation from the 2nd to the 4th century.

Background

In 1992, ARC Southern Ltd commissioned an archaeological survey on 73 ha of farmland to the east of Birch airfield as part of a comprehensive assessment of the environmental implications of proposed mineral extraction. A copy of the 1992 report is included in the appendix. Among the results from the field survey was the discovery of a scatter of Roman building materials and pottery in the fields to the north-east of Palmers Farm. This area, referred to as Area C in the 1992 report (appendix: 1992 report figure 1) covered approximately 6 ha. This year's work arises from the recommendation that Area C be subject to fieldwalking on a more intensive scale with the aim of producing a more detailed finds distribution plot which might more accurately point to the locations of underlying features of archaeological value.

Methods

The fieldwork was carried out in accordance with the 1997 Colchester Borough Council "Guidelines on Standards and Practices for Archaeological Fieldwork in Colchester".

The intensity of ploughsoil inspection was increased from the earlier 10% to the current 50% of the specified ground area. This was achieved by gridding the inspection area into 100m square boxes within which fieldwalkers followed parallel lanes spaced 4m apart. Each walker inspected a 2m wide strip in the path of his lane resulting in 50% visual coverage of the overall ground area.

The locations of the 100m grid boxes (coded A1 to D3) are shown on Figure 1. These spanned three fields (numbered Fields one to three).

Retrieval policy

Although the emphasis was to locate Roman material, fieldwalkers were briefed to pick up items from other periods if clearly identifiable, but be selective in the recovery of post-medieval finds. Building stone was identified, plotted and left in-situ. Other finds materials were removed from the site for processing and analysis.

Conditions

The ploughsoil in all three fields is a dark brown sandy clay loam with a high content of rounded and angular medium and small stones. In the western part of Field one the soil includes common fragments of concrete and hardcore from broken up airfield service roads and bays.

Surface conditions varied. Field one, which had been harrowed and drilled within the previous month, was in a near ideal state for fieldwalking with a damp and well broken up soil. Although some crop growth had occurred, this was thin and low in the ground and did not affect visibility. Field two had been harrowed some time previously but was not yet drilled. At the time of inspection its surface had dried after the previous day's rain but was favourable for finds recovery. Field three was free from crop growth but its surface was weathered, flattened and comparatively stale.

Results

The gross area inspected amounted to 6.953 ha; comprising 4.678 ha in Field one, 2 ha in Field two, and 0.275 ha in Field three (Fig.1). The survey resulted in a total of over five hundred finds which are summarised below by period and type.

ROMAN

Figure 2 contains detailed distribution plots of Roman and probably Roman materials on the surface of the ploughsoil. These have been divided into three categories: tile and brick, building stone, and pottery.

Tile and brick

Tile and brick finds resulted in 358 plots. Where of identifiable form, roof tile was the commonest, outnumbering brick finds by a ratio of approximately 4:1.

The plots include a number of fragments which, if found in isolation, would be too small or heavily abraded to permit date determination. However, these were found in conjunction with sufficiently large quantities of clearly identifiable Roman brick, tile and pottery to justify the assumption that the majority are probably of Roman date. In areas of greatest concentration plots frequently represent more than one fragment.

Five samples of keyed flue tile were found in boxes B1 and B2. Two of the three fragments in cluster "B" date to the early to mid 2nd century. The third cluster "B" piece and the two flue tiles to the south-west are of 2nd-3rd century date. Flue tiles were used in hypocaust heating systems and are keyed to improve the adhesion of wallplaster.

Building Stone

Septaria, a hard nodule found in clays, is among the commonest materials used in Roman Colchester's stone buildings. Septaria here accounts for all but 4 of the 96 plots of building stone.

Pottery

One hundred and forty six fragments of pottery were recovered from the site. Some of the sherds are only broadly dateable. Where narrower date determinations can be made 3rd - 4th century wares are present as well as 1st -early 2nd century amphorae and many examples of greyware common from the 2nd century onward.

Distribution of Roman finds (Fig.2)

Overall, the Roman distribution plots show an emphasis toward the south-eastern part of Field one (grid boxes B1 and B2) with two strong concentrations of tile and pottery (indicated in figure 2 as cluster outlines "A" and "B") and a broad, less focused, spread of material to the south ("D"). Approximately 150 metres to the north is a large isolated spread of building stone (cluster "C") in adjoining quarters of boxes C2, C3, D2 and D3.

Pottery and tile also occurs in Field two (boxes A1, A2), where it is at its densest in the region adjoining Field one, cluster "B". The distribution pattern of the pottery broadly corresponds to that of the tile and brick in boxes A1, A2, B1, B2 and the south-western side of C1, but elsewhere pottery is rare. The building stone was limited to the region of cluster "C" with no pottery and very little tile in its vicinity. The implications of this distribution pattern are considered in the discussion section.

PREHISTORIC

Figure 3 shows the locations of isolated prehistoric materials identified in the course of the survey.

Pottery

One sherd of flint-tempered pottery, probably of late Bronze Age or early Iron Age date was found in box B1.

Flint

Six flints recovered from various parts of the site included a large fragment of an unfinished tool provisionally identified as either a middle palaeolithic handaxe or late neolithic discoidal knife. There was also a ?crested blade of possible mesolithic, or less likely, neolithic date. The others were undiagnostic, consisting of one blade fragment and three flakes, one of which may have been retouched.

Distribution of prehistoric finds

The prehistoric material was too diverse for any pattern to emerge. It is perhaps worth noting that the four undiagnostic flints lay in relatively close proximity to each other at the south-western side of the site.

Discussion

This year's survey succeeded in its aim of locating distinct concentrations of archaeologically significant materials within the broad scatter encountered in 1992.

Clusters A and B

Of the concentrations of material, clusters "A" and "B", together with the spread "D" to the south may represent several buildings or a single large villa, the site or sites of which may extend into the northern part of Field two.

The most useful structural dating evidence in this area came from the keyed flue tile which points to an early-to-mid 2nd century construction date for at least one of the buildings from which the finds are derived. This corresponds to the pottery evidence which suggests that occupation may have started in the 2nd century and continued into the 4th century.

In the region of cluster "A" there is a slight irregularity in the natural slope of the field which is possibly an indication of earlier terracing or, more likely, is a flattened remnant of a modern bank of earth which stood at the end of one of the airfield bays. Figure 4 shows the locations of the former bays and roads in this region of the field.

Cluster C

The great concentration of stone, mainly septaria, in the northern part of the site (cluster "C") appears to point to the location of a separate stone structure 150m to the north of clusters 1 and 2. It is curious that very little else was found in its vicinity. The absence of pottery might indicate that it was unoccupied: for example, an outbuilding used for storage. The lack of tile may be due to the use of other forms of roofing material or it perhaps was open to the sky as, for example, a stone walled enclosure for livestock.

On encountering the stone the survey area was extended into the adjoining Field three but recovered nothing. Surface conditions in Field three were less favourable for inspection than in Field one, but the sharply contrasting results from the two fields may indicate that the source of the stone lies entirely within Field one and has only been brought to the surface since the boundary ditch between the two fields was established. Another, highly conjectural, possibility is that the stone, which was generally larger than other finds, might gradually have been swept into this region of Field one by continual tilling action. Until at least the late 1950s Field one was subdivided by a boundary which projected west from a point about 50m south of the corner of Field three.(Fig 4). This would represent a turning point for harrowing machinery at which any lumps dragged by the harrow might possibly be dislodged with the effect that over a period of time the stone accumulated in the former corner of the field, which is where cluster "C" occurs. However, these questions are premature when the existence of the presumed structure has yet to be established.

Fieldwalking results alone can only indicate the possible presence of underlying archaeological features and help point to areas of greatest potential for further investigation.

Within these limitations, the results suggest that there may be at least two Roman buildings within the fieldwalked area.

Archive

Subject to the permission of the landowner, The Round Estate, finds will be placed in the permanent care of Colchester Museum. The accession code for the finds and research archive is 1997: 65.

Acknowledgements

This survey was commissioned by ARC Southern Ltd and took place with the co-operation of the landowner, The Round Settlement; their agents, Strutt and Parker; and the farmer, Mr J.F.Strathern. Thanks are due to Peter Berridge of Colchester Museum for comment on the flint and Ernest Black for identification of the keyed tile.

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APPENDIX

1992 Archaeological Survey

Land Adjacent to Birch Sand and Gravel Pit Colchester, Essex

PRELIMINARY ARCHAEOLOGICAL SURVEY

LAND ADJACENT TO BIRCH SAND AND GRAVEL PIT COLCHESTER, ESSEX

Background and Methods

At the request of ARC Ltd, an archaeological survey was carried out on land to the west and north of the Birch Sand and Gravel pit. The survey site, outlined on the attached plan, covers an area of approximately 73 hectares centred on TL 923196.

The purpose of the survey was to assess the archaeological implications of a proposed major extension to the existing pit. This task was approached in two ways:

- 1) Study of existing records. The principal source of information was the Essex County Sites and Monuments Record, itself a compilation from a wide range of sources including the records of the Colchester and Essex Museum, Ordnance Survey, local archaeological organisations, archives and journals. In addition, the study included material provided by the National Monuments Record, Royal Air Force and individuals actively involved with aerial photography and fieldwork in the locality.
- 2) Fieldwalking. The ground surface was examined using a system of fieldwalkers inspecting 2 metre wide lanes set out at 20 metre intervals. A 20 metre grid of this type gives an overall 10% coverage of the land and is in accordance with the Essex County Council's specification for a preliminary survey of this nature.

Results of the Survey

Existing Records

Prior to the survey, few archaeological features had been noted within the boundaries of the site. In contrast, the surrounding area was known to be rich in cropmark and other evidence of prehistoric and later activity. Earlier finds and observations are plotted on the attached plan of the area and range in date from a Neolithic axe at Brakes Farm through the later prehistoric and Roman periods to medieval, here most conspicuously represented by the village of Birch, with its demolished church, castle and pond bays. Cropmarks are abundant in the areas beyond the eastern part of the site and are particularly well defined in the fields to the north of the Hardy's Green - Birch road where they indicate the sites of enclosures and trackways of possible Iron Age date. The lack of cropmark evidence to the west may be due to adverse local ground conditions rather than an absence of underlying features.

Within the survey site, several cropmark features have been observed in the field adjoining 'Curate's Cottage'. These are shown on the plan as cropmark groups 'A' and 'B'. Although too fragmentary to permit interpretation, they do not relate to any existing surface features and may well be part of a pattern of early activity in the area.

An item of interest to emerge from contacts with local people was an account of the dumping, after World War II, of large quantities of United States Air Force supplies in a 30 feet deep pit near point 'E'. Although this would not require advance archaeological investigation, it is of some importance in relation to the 20th century history of the area and should be recorded if uncovered during future quarrying.

Fieldwalking

The fieldwalking exercise was carried out at intervals between December 1991 and early February 1992. Using the grid system outlined above, a total of 1825 20 x 20 metre squares were inspected and recorded. With the exception of two grassed areas noted below, the conditions for observation of surface finds were good with much of the land recently harrowed and the season's crop low in the ground.

Generally, the fieldwalking yielded widely dispersed small fragments of brick and tile, with occasional sherds of post-medieval and modern pottery. Lumps of hardcore and concrete were common in the region of the stripped airfield service roads and their twenty five linked bays. Sherds of medieval pottery were recovered from the western part of the survey area, with an increased incidence in the fields adjoining the western boundary of the existing pit. While these provide some evidence of medieval activity, they were not found in sufficient concentrations to identify a specific occupation site.

In addition to the general spreads of material, one group of finds was recovered which point to a location of major archaeological interest:

Plot 'C'. A Roman site to the north-east of Palmers Farm. Significant quantities of Roman brick, roof tile and 1st-4th century pottery were found in this area. These are strong pointers to the presence of one or more Roman buildings in the vicinity of the finds. A small amount of Roman tile was also discovered in the region of Plot 'D', possibly outlying fragments dispersed from the main source at 'C'.

The two grass covered areas are shown on the attached plan. Both were included in the fieldwork but with unsatisfactory results due to the extent of ground cover.

Recommendations

In the event of future ground disturbance, we recommend that the following investigative action be taken to ensure that an adequate archaeological record of the site is retained;

1) Cropmark Plots 'A' and 'B'

Archaeologically controlled ploughsoil stripping followed by an initial exploratory excavation to establish the extent and date of the underlying features. Further, larger-scale, excavations might then be necessary, depending upon the results of the exploratory work.

2) The Roman Site. Area 'C'

- a) More intensive fieldwalking aimed at 100% coverage of Area 'C'. The resulting detailed finds distribution pattern should help in pinpointing the source(s) of the building material.
- b) Exploratory trenching, consisting of a number of machine trenches to strip ploughsoil from the spots most likely to produce indications of the nature and state of preservation of underlying remains.

Another option would be a geophysical survey but this would be better considered after the findings from 'a' and 'b' are known since it is costly and there is no guarantee of positive results.

On completion of the evaluation work it should then be possible to formulate plans for any necessary rescue excavation.

3) The Secondary Roman Plots. Area 'D'

More intensive fieldwalking to clarify the distribution pattern of Roman finds in this area.

4) Grassed Areas.

To ensure that the fieldwalking results are consistent with those from elsewhere, the two grass-covered areas should be re-examined after the grass has been stripped and the topsoil scarified.

5) Watching Brief on Mineral Extraction

In order to identify any sites not apparent from the preliminary survey, long-term arrangements should be made for the various stages of ploughsoil stripping to be watched by a field archaeologist.









