An archaeological fieldwalking evaluation at the Flakt Woods site, off Tufnell Way (adjacent to the Woods Air Movement factory), Colchester, Essex
May 2003

report prepared by Howard Brooks

on behalf of RPS

CAT project code: 03/5a
NGR: TL 979 266 (centre)
Colchester Museums accession code: 2003.147

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Fig 1  Fieldwalking survey area, with hectare locations.
Fig 2  Distribution of worked flint and burnt flint.
Fig 3  Distribution of Roman brick and tile.
1 Summary
A fieldwalking evaluation was conducted over an approximately 4.5 hectare area of land at the Flakt Woods site, off Tufnell Way (adjacent to the Woods Air Movement factory), Colchester, Essex. Prehistoric, Roman and post-medieval/modern finds were collected. The only archaeological material occurring at significant weights was Roman brick and tile. There were lower weights of burnt flint (prehistoric) and post-medieval pottery. The Roman tile may be associated with Roman tile kilns 500m to the south-east of the fieldwalking survey area.

2 Introduction
2.1 This is the report on an archaeological fieldwalking survey at the Flakt Woods site off Tufnell Way, Colchester, Essex, which lies directly north of the main Colchester to London railway line, and south-east of the Woods Air Movement factory.
2.2 The work was commissioned by RPS, and carried out by the Colchester Archaeological Trust (CAT) in May 2003.
2.3 The fieldwalking survey area is centred on National Grid Reference TL 979 266.

3 Archaeological background
3.1 A full statement of the archaeological background is given in the Environmental Statement (RPS 2003), therefore the following is a summary only.

3.2 Early prehistoric
No earlier prehistoric (Mesolithic-Neolithic) remains are recorded from the site or its vicinity. Small quantities of Bronze Age material were recorded from the Asda supermarket site (CAT report in preparation), and middle Iron Age pottery was recovered from the rectangular enclosure known from cropmarks at Westhouse Farm (now the Lexden Woods Golf Club) in 1952 (Hawkes & Crummy 1995, 137), and also in 2000 (CAT Report 59).

3.3 Late Iron Age
The development site is within the Late Iron Age dyke-defended territorial oppidum of Camulodunum. The Moat Farm Dyke, which extends along the west edge of the development site, is one of the earthworks defining the west side of the oppidum (EHCR 11627). Though the principal centres of occupation lie to the south at Gosbecks Farm and Sheepean (Hawkes & Crummy 1995, 174-8), during recent watching briefs and evaluations by CAT, small concentrations of later prehistoric activity north of the River Colne have been recorded. On the line of the Northern Approaches Road, a watching brief over the winter of 2001-2002 recorded four ephemeral pit- and ditch-like features and late Iron Age to early Roman pottery on the land to the west of Colchester General Hospital (CAT Report 186). No contemporary remains are known to survive within the Flakt Woods site.

3.3 Roman
Roman-period remains are well recorded in the vicinity of the development site. The antiquarian William Wire recorded eleven Roman burials close to North Station in the mid-19th century (EHCR 11896; Hull 1958, 257-8). In confirmation of that, over 60 Roman cremation burials and related features were recorded between 1996 and 1999 at the Asda supermarket site, east of North Station, spread out to the west of a previously unrecorded Roman road. There was a range of burial types including both inurned and unurned, with several of the latter being large, regularly-shaped and relatively well-furnished. A probable pyre site and pits containing pyre debris were also recorded. The burials were mainly of late 1st- to 2nd-century date and many lay in a circular cluster towards the southern end of the cemetery (CAT report in preparation).

Also of some significance are two tile kilns and extensive related debris lying on the slope south of the factory buildings on the south side of the railway. The kilns were excavated in 1969-70 (EHCR 11771; Holbert 1971). While no further evidence for
Roman kilns has been found near the development site, there is a possibility that others may exist in this area. Other Roman settlement evidence is as follows: during an evaluation on land west of Colchester General Hospital in 2001, a widespread area of linear features of late Iron Age/early Roman date was observed (CAT Report 165), and Roman material was also recovered at Westhouse Farm, 200m west of Moat Farm Dyke, indicating that the earthwork ditch was silting up at that time (CAT Report 59).

3.4 Medieval
There is no archaeological evidence for early medieval activity in this part of Lexden Parish, but the moated site of Lexden Lodge, south of the development site, is a medieval manorial centre (VCH 1994, 396). Local field names in Mile End indicate that tile-making was current in post-medieval times (CAT Report 31). It is reasonable to suggest that this industry may have had medieval origins, since there is published evidence of medieval pottery manufacture in Mile End and Great Horkesley (Drury & Petchey 1975; CAR 7, 364-5).

Smaller groups of medieval material have been recorded west of the District Hospital (CAT Reports 165 and 186).

3.5 Post-medieval
In the post-medieval period, as in the Roman period, there is extensive evidence of the use of the northern slopes of the Colne Valley both for kiln construction and use and, presumably, for the sand and clay extraction which would have been associated with this. One possible indication of this activity is the existence of what appears to be a farmstead labelled ‘Diggins’ shown on the Chapman and André map of Essex of 1777. This is located at the end of a track extending south-westwards from Bergholt Road. It seems clear from subsequent OS maps that this track equates to the path running north-east to south-west across the eastern end of the Flakt Woods site until the 1960s at least. It would appear that the farmstead was destroyed by the construction of the Colchester to London railway line in 1843. This being so, the site of Diggins may fall at least partly within the extreme south-eastern corner of the development site. Its name may also suggest that evidence for sand/clay extraction and possibly associated brick or tile manufacture may also be found in this area.

4 The fieldwalking survey
4.1 Aim
The aim of the fieldwalking survey was to collect and plot surface finds in order to establish whether there were any significant clusters of surface finds which might indicate the position of previously unknown archaeological sites (see section 5.2.2).

4.2 The fieldwalking survey area (Fig 1)
The fieldwalking survey area is located on Figure 1, and its outline is also shown on the finds plots (Figs 2-3).

4.3 Methods (Fig 2)
4.3.1 The fieldwalking survey and reporting methodology followed the standard Essex fieldwalking methodology: a 10% surface collection achieved by collecting finds in 2m-wide corridors extending south to north over a 20m-square grid (Medlycott & Germany 1994).

4.3.2 The fieldwalking survey area coincided with two separate OS 1km squares, numbered A-B. Within each kilometre, the hectares were numbered in map fashion, that is starting with 1 in the bottom left (south-west) corner reaching up to 10 in the top left (north-west) corner, and then progressively on to 100 in the top right (north-east) corner. Thus a typical hectare was numbered B7 (kilometre B, hectare 7) or D20 (kilometre D, hectare 20). Within the hectares, the 20m-square boxes were numbered alphabetically, starting with A in the south-west corner and reaching up to Z in the north-east corner (25 boxes, omitting the letter O). Thus a typical 20m-box would be labelled B7C or D20F.
5  Results

5.1  Character of the assemblage
A total of 17.427 kg of material was recovered for statistical analysis, which represents a recovery rate averaging 3.89 kg/ha over the area surveyed (4.48 ha). Post-medieval peg-tile represented 60% of the total by weight (10.53 kg). The second largest component was Roman brick/tile (2.49 kg: 14%), followed by post-medieval and modern pottery (1.63 kg: 9%) and worked flints (0.28 kg: 1.6%). No prehistoric, Roman or medieval pottery was found.

5.2  Quantification
5.2.1  The following types of finds were collected: prehistoric worked flint, burnt flint, Roman brick/tile, post-medieval and modern pottery, peg-tile, clay tobacco-pipe, post-medieval and modern brick, post-medieval and modern glass, slag, coal, and slate. The first five of those finds groups are discussed below, and statistical analysis is given in section 11 (below). The other finds groups are listed and quantified in the archive, but not discussed below. Peg-tile, post-medieval and modern brick and glass, and slate were not retained.

5.2.2  Each finds type has been calculated in standard deviations (using the spreadsheet facility in Microsoft Works), and subsequently plotted by finds type. Thus Figures 2-3 show finds in the following weight categories:
- < mean weight
- > mean weight and < (mean weight + 1SD)
- > (mean weight + 1SD) and < (mean weight + 2SD)
- > (mean weight + 2SD)

By common convention in the Essex fieldwalking system (Medlycott & Germany 1994), a single box with finds greater than the mean weight plus 2SD is not significant and is not taken to indicate an archaeological site. However, two such adjacent boxes are regarded as being archaeologically significant.

5.2.3  The condition of the field-surfaces, the extent of overgrowth and the state of the growing crop can all affect the quantities of finds collected. Most of the fieldwalking survey area was badly overgrown, being covered with weeds and moss. In places, surface visibility was as low as 5%, in other areas it was as high as 50%. Collection rates were almost certainly below what could have been achieved on freshly ploughed and harrowed land. However, among the potential sites here were Roman tile kilns. It is assumed that burnt structures such as kilns and the material derived from them would have been visible under these conditions.

5.3  Prehistoric finds (Figs 2-3)
Two classes of prehistoric material were collected, ie worked flint and burnt flint.

5.3.1  Worked flint (Fig 2)
A single worked flint was collected (weight 7g). A single find such as this does not merit detailed comment.

5.3.2  Burnt flints (Fig 2)

<table>
<thead>
<tr>
<th>total collected:</th>
<th>13 pieces (280g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>average weight per 20m box:</td>
<td>2.5g</td>
</tr>
<tr>
<td>County average:</td>
<td>4.884g</td>
</tr>
</tbody>
</table>

A total of 13 burnt flints was collected, at weights considerably below the County average. Burnt flints are not intrinsically datable, but there is common consensus that they are most likely to be of prehistoric date.

Burnt flints were thinly spread over the survey area, but were commoner over the western side. At this density, they are an indicator of nothing more than general prehistoric activity in the area.

5.4  Roman finds (Fig 3)
Classes of Roman material comprised brick and tile.

---

1 average weights for surveys in Essex and Herts kindly supplied by Mark Germany of Essex County Council Field Archaeology Unit
5.4.1 Brick and tile (Fig 3)

<table>
<thead>
<tr>
<th>Total collected</th>
<th>33 pieces (2492g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average weight per 20m box</td>
<td>22.25g</td>
</tr>
<tr>
<td>County average</td>
<td>5.091g</td>
</tr>
</tbody>
</table>

Roman brick was spread over the whole fieldwalking survey area, with a higher density over the western half. There were two locations where the density of finds indicates an archaeological ‘site’in the Essex methodology (where there are two adjacent boxes with more than the mean weight plus two standard deviations), specifically in hectares A76 and A86 (at TL 97740 26565 and TL 97850 26560). The question is how this material arrived here, and what it means. The proximity of the tile kilns prompts the question as to whether it is waste brick/tile product derived from the Roman kilns which lie 500m to the south-east or debris from Roman buildings associated with the kilns.

5.5 Medieval finds

There were no medieval finds.

5.6 Post-medieval and modern finds

5.6.1 Post-medieval and modern pottery (not plotted)

<table>
<thead>
<tr>
<th>Total collected</th>
<th>181 pieces (1936g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average weight per 20m box</td>
<td>14.509g</td>
</tr>
<tr>
<td>County average</td>
<td>3.635g</td>
</tr>
</tbody>
</table>

Post-medieval pottery was found in quantities above the County average. It was spread over most of the fieldwalking survey area.

It is conventional wisdom to interpret this post-medieval pottery as being manure scatter, ie material brought out with farmyard manure and spread onto the fields, rather than ploughed up from below-ground archaeological sites.

5.6.2 Peg-tile (not plotted)

<table>
<thead>
<tr>
<th>Total collected</th>
<th>649 pieces (10,531g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average weight per 20m box</td>
<td>94.027g</td>
</tr>
<tr>
<td>County average</td>
<td>51.009g</td>
</tr>
</tbody>
</table>

Although it may seem pointless to collect peg-tile, it is picked up in case it should turn out to be Roman brick or tile. The peg-tile was found at a much higher level than the County average, was distributed fairly evenly across the fieldwalking survey area. The conventional interpretation of such scatters is that they probably derive from scattering manure over the fields.

6 Fieldwalking survey conclusions

6.1 Introduction

The significance of the fieldwalking finds is discussed here. One important proviso is that the less favourable collecting conditions may have suppressed the figures in some parts of the fieldwalking survey area.

6.2 Prehistoric period

No prehistoric pottery was recovered. This may simply reflect the friability of the material itself, and the arable history of the area. However, prehistoric activity is much more apparent in the distribution of prehistoric burnt flints. These were found thinly spread over the survey area, more so on its northern than on its southern side. This type of distribution suggests nothing more than occasional prehistoric activity in the area.

6.3 Roman period

No Roman pottery was found. By contrast, Roman brick and tile was widespread over the western side of the survey area, and occurred at significant weights in hectares A76 and A86. This material is presumably either brick/tile produce from the kilns, or the remains of Roman structures which may be associated with the industry.
6.4 Medieval period
No medieval pottery was found. This may be evidence that the area was primarily woodland or pasture in medieval times (and not arable, where pottery might be released onto the fields as manure scatters).

6.5 Post-medieval and modern periods
The post-medieval and modern material collected in this fieldwalking survey (pottery and peg-tile) is possibly the result of manuring operations over the last three or four centuries. It is not likely to be of archaeological significance.

7 References

<table>
<thead>
<tr>
<th>Reference</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT Report 31</td>
<td>1998</td>
<td>Brinkley Grove: an investigation of a scheduled earthwork to the north of Colchester, by Steve Benfield</td>
</tr>
<tr>
<td>CAT Report 59</td>
<td>2000</td>
<td>An archaeological evaluation at the Lexden Wood Golf Club (Westhouse Farm), Lexden, Colchester, Essex, by H Brooks and C Austin</td>
</tr>
<tr>
<td>CAT Report 165</td>
<td>2001</td>
<td>An archaeological evaluation on land west of Colchester General Hospital (NHS Estates West District Site) Colchester, Essex, by C Crossan</td>
</tr>
<tr>
<td>CAT Report 186</td>
<td>2002</td>
<td>An archaeological watching brief on the line of the Northern Approaches Road Phase 2a and on land to the west of Colchester General Hospital, Colchester, Essex, by Kate Orr</td>
</tr>
<tr>
<td>Chapman &amp; André</td>
<td>1777</td>
<td>map of Essex</td>
</tr>
<tr>
<td>Drury, P J, &amp; Petchey, M R</td>
<td>1975</td>
<td>‘Medieval pottery kilns at Mile End and Great Horkesley, near Colchester’, Essex Archaeology and History, 7, 33-60</td>
</tr>
<tr>
<td>Hull, M R</td>
<td>1958</td>
<td>Roman Colchester, Reports of the Research Committee of the Society of Antiquaries of London, 20, 257-8</td>
</tr>
<tr>
<td>RPS</td>
<td>2003</td>
<td>Flakt Woods site environmental statement (archaeology chapter)</td>
</tr>
<tr>
<td>VCH 1994</td>
<td></td>
<td>The Victoria History of the County of Essex, vol 9, 396</td>
</tr>
</tbody>
</table>
8 Acknowledgements
The project was commissioned by RPS: thanks to Mr Rob Masefield for advice, maps and other information supplied. Thanks also to Michael Lawson and Miriam Addy of OCA for help with access. Fieldwork was carried out by David Sims and Emma Spurgeon.

9 Glossary
Bronze Age period from circa 2000 BC to 700 BC
EHCR Essex Heritage Conservation Record (Colchester District)
Iron Age 7th century BC to Roman invasion of AD 43
medieval from AD 1066 to Henry VIII
modern 19th and 20th centuries
Neolithic New Stone Age (around 4000-2000 BC)
NGR National Grid Reference
OS Ordnance Survey
Palaeolithic Old Stone Age
post-medieval after Henry VIII and up to Victorian
pot boiler a fire-crackled cooking stone which has been heated and placed in liquid
prehistoric pre-Roman, or generally the years BC
Roman the period from AD 43 to circa AD 430
tesserae ceramic cube from a Roman floor

10 Archive deposition
The finds and the paper and digital archive are held at the Colchester Archaeological Trust, 12 Lexden Road, Colchester, Essex CO3 3NF, but both will be permanently deposited with Colchester Museums under accession code 2003.147.
11 Statistical information

Key:
- \( n \) = number of 20m boxes walked
- \( \text{sum} \) = number of objects collected
- \( \text{Ex} \) = total weight of individual finds type (ie Roman potsherds)
- \( \text{Ex}^2 \) = sum of weight of individual finds individually squared
- \( \mu \) = average weight of finds type
- \( \sigma \) = standard deviation
- \( +1\sigma \) = +1SD weight
- \( +2\sigma \) = +2SD weight

Struck flint
\[ n = 112 \]
\[ \text{sum} = 1 \]
\[ \text{Ex} = 7g \]
\[ \text{Ex}^2 = 49g \]
\[ \mu = 0.063g \]
\[ \sigma = 0.000 \]
\[ +1\sigma = 0.063g \]
\[ +2\sigma = 0.063g \]

Burnt flint
\[ n = 112 \]
\[ \text{sum} = 13 \]
\[ \text{Ex} = 280g \]
\[ \text{Ex}^2 = 13,278g \]
\[ \mu = 2.500g \]
\[ \sigma = 23.708g \]
\[ +1\sigma = 26.208g \]
\[ +2\sigma = 49.915g \]

Roman brick and tile
\[ n = 112 \]
\[ \text{sum} = 33 \]
\[ \text{Ex} = 2492g \]
\[ \text{Ex}^2 = 376,333g \]
\[ \mu = 22.250g \]
\[ \sigma = 81.442g \]
\[ +1\sigma = 103.692g \]
\[ +2\sigma = 185.134g \]

Post-medieval and modern pottery
\[ n = 112 \]
\[ \text{sum} = 167 \]
\[ \text{Ex} = 1625g \]
\[ \text{Ex}^2 = 112,647g \]
\[ \mu = 14.509g \]
\[ \sigma = 33.922g \]
\[ +1\sigma = 48.431g \]
\[ +2\sigma = 82.353g \]

Peg-tile (medieval and post-medieval)
\[ n = 112 \]
\[ \text{sum} = 649 \]
\[ \text{Ex} = 10,531g \]
\[ \text{Ex}^2 = 2,742,827g \]
\[ \mu = 94.027g \]
\[ \sigma = 129.362g \]
\[ +1\sigma = 223.389g \]
\[ +2\sigma = 352.751g \]
**Site address:** the Flakt Woods site, off Tufnell Way (adjacent to the Woods Air Movement factory), Colchester, Essex

**Parish:** Colchester  
**District:** Colchester

**NGR:** TL 979 266 (centre)  
**Site code:** Museum accession code 2003.147

**Type of work:** Fieldwalking  
**Site director/group:** Colchester Archaeological Trust

**Date of work:** May 2003  
**Size of area investigated:** 4.5 hectares

**Location of finds/curating museum:** Colchester Museums  
**Funding source:** Developer

**Further seasons anticipated?** No  
**Related EHCR nos:** 11627, 11771, 11896

**Final report:** CAT Report 229 and summary in EAH

**Periods represented:** prehistoric, Roman, post-medieval, modern

**Summary of fieldwork results:**
A fieldwalking evaluation was conducted over an approximately 4.5 hectare area of land at the Flakt Woods site, off Tufnell Way, Colchester, Essex. Prehistoric, Roman and post-medieval/modern finds were collected. The only archaeological material occurring at significant weights was Roman brick and tile. There were lower weights of burnt flint (prehistoric) and post-medieval pottery. The Roman tile may be associated with Roman tile kilns 500m to the south-east of the fieldwalking survey area.

**Previous summaries/reports:** None

**Author of summary:** Howard Brooks  
**Date of summary:** 19th May 2003
Fig 1  Fieldwalking survey area, with hectare locations.
Fig 2  Distribution of worked flint and burnt flint.
Fig 3  Distribution of Roman brick and tile.

- **Roman brick and tile**
  - △ 0-22g (< mean wt)
  - ▲ 23-103g (> mean wt and < (< mean wt + 1SD))
  - ▼ 104-185g (> (mean wt + 1SD) and < (mean wt + 2SD))
  - ▼ 186+ (> (mean wt + 2SD))

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prepared by Professor Roth in 1932. These two drafts are of interest chiefly because the articles which they contain set forth the rules governing State responsibility in general, regardless of the content of the obligations violated, instead of confining themselves to failure by a State to observe its obligations relating to treatment of aliens. See also the report by Mr. L. Strisower, ibid., tome I, pp. 455-562, and general discussion, ibid., tome III. Download Free PDF. Urea project report prepared by. 107 Pages. Urea project report prepared by. Ingrid Montalvo. Download PDF. By the International Nonproprietary Name (INN) carbamide, as established by the World Health Organization. Other names include carbamide resin, isourea, carbonyl diamide, and carbonyldiamine. Report prepared by: UNDP Kosovo. Research and Policy Unit. Written by: Faton Bislimi Research and Policy Consultant Research and Policy Unit, UNDP Kosovo. Chapter 5: The EU Visa Liberalisation Process Atdehe Hetemi. Public Pulse Project Officer Research and Policy Unit, UNDP Kosovo. Statistical Analysis: By Iris Duri Statistician. The views expressed in this Report are those of the opinion poll respondents and do not necessarily represent the views of either UNDP or USAID. Selected Economic Indicators. Column1.