

ARCHAEOLOGICAL ASSESSMENT AND EXCAVATION AT
CHINGFORD HOSPITAL, CHINGFORD, LONDON, E4
LONDON BOROUGH OF WALTHAM FOREST
LEVEL III REPORT

LDPEM/ACCF/214

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N. TRUCKLE

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2: REPORT INTRODUCTION

This report sets out the details of an evaluation and rescue excavation on the site of Chingford Hospital, Larkshall Road, London E4. (see fig 1a)

The work took place over a eight week period from the twenty-first of February, until the seventeenth of April, 1993. The results of the work are set out here in an ordered and structured form to facilitate the checking of the results and use of the site archive.

The report is divided into the following sections:

REPORT INTRODUCTION
ABSTRACT
SITE INTRODUCTION AND METHOD
GROUP DISCUSSION
PHASE DISCUSSION
SUMMARY AND CONCLUSIONS
BIBLIOGRAPHY
ACKNOWLEDGEMENTS
ILLUSTRATIONS
APPENDICES

A summary of the site is given in the "ABSTRACT".

The purpose of the work, work method, contract details, dates and project management details are set out in the "SITE INTRODUCTION AND METHOD".

In the "GROUP DISCUSSION" the contexts recorded on site are discussed in discrete groups. A context is any event in time represented by physical remains, eg a ditch, the material filling a ditch, a wall, a rebuild of a wall or a layer of soil. When several contexts are related, eg a pit and the material filling it, a line of postholes, a wall and its foundation trench, they are discussed together so as to see fully their archaeological implications.

Firstly the stratigraphic relationships between the contexts under discussion is illustrated in a matrix form:

| | |
|----|----|
| eg | 27 |
| | I |
| | 28 |
| | I |
| | 30 |

In this diagram the stratigraphic relationships are shown as follows: context (27) happens after both contexts (28) and (30), context (28) happens after context (30) but before context (27) while context (30) happens before both contexts (27) and (28).

Then the contexts are listed with short descriptions. The nature of the group is then described in text. Finally a list of plans, sections, black and white photographs and colour slides relevant to that group, are given for accessing the site archive. The site archive is stored in the Passmore Edwards Museum.

In the "PHASE DISCUSSION" the groups of contexts are drawn

together into phases. Phases are significant blocks of archaeology representing single or related activities within a band of time on the site under discussion, eg the occupation of a house or settlement, the complete renovation of a house, the change of settlement pattern or the abandonment of a house or settlement. When a significant change in activity is found in the archaeological record of a site then a change of phase can be said to have happened. By discussing phases and comparing them we can see the overall sequence of events at the site.

In the "SUMMARY AND CONCLUSIONS" the archaeological and specialist reports are drawn together to give dates for the various phases and more details for the activities.

The "BIBLIOGRAPHY" relevant to this report is followed by the "ACKNOWLEDGEMENTS" which thanks all the individuals and organisations involved in the archaeological fieldwork and in the production of the report.

The "ILLUSTRATIONS" include figures showing site location, trench location and a plan of Medieval features in trench 6. A site matrix is shown so that the relationship between any contexts on the site can be checked.

The "APPENDICES" include any specialist reports, other than the archaeological one, resulting from the field work. In this case there is a pottery report, the analysis for which was carried out by Dr Frank Meddens, and a resistivity report, compiled by Mark Beasley and Allison Telfer. Also included are the individual trench matrices as well as a level III archive list. This is a cross referencing index which lists the trench, plan, section and photographic numbers of each individual context as well as its phase and group number.

3: ABSTRACT

The excavations revealed evidence of Medieval occupation and farming in the north eastern part of the site, followed by a period of abandonment or pastoral activity until the resumption of arable farming across the whole site in the 18th Century. This was in turn superseded by pastoral farming in the 19th Century which lasted until the construction of the present hospital in the early 20th Century.

4: SITE INTRODUCTION AND METHOD

An archaeological assessment was required on the Chingford Hospital site, Chingford E4, by the London Borough of Waltham Forest in advance of redevelopment of the site for housing and mixed community facilities. The redevelopment work was undertaken by an association of ASRA Greater London Housing Association Limited, Family Housing Association, London and Quadrant Housing Trust and Tower Housing Association, all in partnership with Forest Healthcare NHS Trust. The archaeological assessment was funded by John Laing Construction Limited, on behalf of the above organisations.

Evaluation and rescue excavations were conducted by a field

team of the Passmore Edwards Museum on the 3.6 hectare Hospital site. Seven evaluation trenches of 1.5 metres by 15 metres were machine dug over the whole site, (see fig 1b) with reference to the programme of works to be carried out by the contractor. Thus trenches 1, 2, 3, 6 and 7 corresponded to phase 2 of the works programme, trench 5 to phase 3, and trench 4 to phase 4 . One of these, trench 6, was extended in order to conduct a limited rescue excavation due to the discovery of significant archaeological features. This rescue excavation followed on immediately from the assessment and so the results are included in this report. In addition, a 5 metre by 5 metre trench was hand dug to the rear of the "Old Lodge" in the South Eastern corner of the site, in order to locate evidence of buildings shown on a map from 1738 (Jared Hill). All trenches produced archaeological evidence with the exception of trench 1 which was found to be heavily truncated by the remains of a modern hospital building and so was not recorded.

The excavation of the above trenches was carried out in conjunction with a resistivity survey in order to identify areas of archaeological activity, and to increase coverage of the site.

The present Hospital grounds lay in a parcel of land enclosed from Epping Forest and first illustrated on a map of 1738. The assessment was based on the project design drawn up by Peter Moore (Moore 1992).

The project commenced with the resistivity survey on the twenty-first of February, the purpose of which was to attempt to define any areas of archaeological activity beneath the grassland areas to be developed. Unfortunately the technique was unable to distinguish many of the features later identified in the evaluation trenches, this failure was due to the relatively small grassed areas available for investigation and the fact that the fills of the features contained a high percentage of clay, which made it difficult to distinguish them from the natural clay geology of the site. The site concluded with the end of the trench 6 rescue excavation on the seventeenth of April, 1993.

The excavation was negotiated and directed by Mr Peter Moore, and supervised by the author.

5: GROUP DISCUSSION

Levels in metres
above ordinance datum

maximum minimum
surface surface
height height

GROUP 2.1

74
I

Context:

(74). Layer-Dark brown silty clay with moderate 41.65 41.23
small pebbles and occasional brick fragments.

The above context (74) represents a layer of 20th Century top
soil.

Plan Number:--
Colour Slide.---

Section Number:2
Trench Number:2

Black and White Print.---
Phase.VI

GROUP 2.2

I
80
I
81
I
79
I

Context:

| | | |
|---|-------|-------|
| (80) Fill of cut(79)-Mid grey brown silty clay. | 40.75 | ----- |
| (81) Circular ceramic field drain pipe . | 40.65 | ----- |
| (79) Cut-linear,vertical sides, flat base. | 40.75 | ----- |

The above contexts (80), (81) and (79) represent a 19th Century field drainage system. A series of circular ceramic pipes (81), were laid end to end in a linear trench (79) and back filled with soil (80).

Plan Number:79

Section.----

Colour Slide:---

Trench Number.2

Black and White Print:---

Phase:V

GROUP 2.3

I
77
I
78
I
76
I

Context:

| | | |
|--|-------|-------|
| (77) Fill of cut (76)-Mid grey brown silty clay. | 41.33 | 41.05 |
| (78) Circular ceramic field drain pipe. | 41.23 | 41.14 |
| (76) Cut-linear, vertical sides,flat base. | 41.33 | 41.05 |

The above contexts (77), (78) and (76) represent a 19th Century field drain system. Circular ceramic pipes (78) were laid end to end in a linear trench (76) and back filled with soil (77).

Plan Number:76

Section Number:2

Colour slide:---

Trench Number:2

Black and White Print:---

Phase.V

GROUP 2.4

I
94
I

93

I

Context:

| | | |
|---|-------|-------|
| (94) Fill of cut (93)-light grey brown clay silt. | 41.11 | 40.83 |
| (93) Cut-linear,vertical sides, concave base. | 41.11 | 40.83 |

The above contexts (94) and (93) represent 19th Century sub soil ploughing. This process involved the use of a deeply set plough which disturbed the sub soil without bringing it to the surface, thus improving drainage on heavy clay soils.

| | |
|---------------------------|------------------|
| Plan Number:93 | Section Number:2 |
| Colour Slide:--- | Trench Number:2 |
| Black and White Print:--- | |
| Phase:IV | |

GROUP 2.5

I

75

Context:

| | | |
|--------------------------------|-------|-------|
| (75) Layer- yellow brown clay. | 41.11 | 40.73 |
|--------------------------------|-------|-------|

The above context (75) represents naturally deposited clay.

| | |
|---------------------------|------------------|
| Plan Number:75 | Section Number:2 |
| Colour Slide:--- | Trench Number:2 |
| Black and White Print:--- | |
| Phase:I | |

GROUP 3.1

82

I

Context:

| | | |
|--|-------|-------|
| (82) Layer-dark grey brown silty clay. | 41.55 | 41.20 |
|--|-------|-------|

The above context (82) represents 20th Century top soil.

| | |
|---------------------------|------------------|
| Plan Number:--- | Section Number:4 |
| Colour Slide:--- | Trench Number:3 |
| Black and White Print:--- | |
| Phase.VI | |

GROUP 3.2

I

90

I

51

I

50

I

Context:

| | | |
|---|-------|-------|
| (90) Layer-mid blue\black tarmac. | 41.30 | 41.25 |
| (51) Fill of cut (50)-dark grey brown gravelly clay silt. | 41.05 | 40.97 |

(50) Cut-linear, Sloping sides, concave base. 41.05 40.97

The above contexts (90), (51) and (50) represent a 20th Century tarmac path. Context (50) was a slight depression filled with gravelly soil (51) with the tarmac (90) overlying.

Plan Number:50 Section Number:4
Colour Slide:--- Trench Number:3
Black and White Print:---.
Phase.VI

GROUP 3.3

I
57
I
73
I
56
I

Context:

(57) Fill of cut (56)-mid grey brown clay silt. 41.08 40.94
(73) Circular ceramic field drain pipe. 41.03 40.96
(56) Cut-linear, vertical sides, flat base. 41.08 40.94

The above contexts (57), (73) and (56) represent a 19th Century field drain system. Circular ceramic pipes (73) were laid end to end in a linear trench (56) which was then back filled with soil (57).

Plan Number:56 Section Number:4
Colour Slide:--- Trench Number:3
Black and White Print:---
Phase.V

GROUP 3.4

I
53
I
72
I
52
I

Context:

(53) Fill of cut (52)-mid grey brown silty clay. 41.11 40.92
(72) Circular ceramic field drain pipe. 41.02 40.95
(52) Cut-linear, vertical sides, flat base. 41.11 40.92

The above contexts (53), (72) and (52) represent a 19th Century field drain system. Circular ceramic drain pipes (72) were laid end to end in a linear trench (52) and back filled with soil (53)

Plan Number:52 Section Number:4
Colour Slide:--- Trench Number:3
Black and White Print:---
Phase.V

GROUP 3.5

| | |
|----|----|
| I | I |
| 59 | 61 |
| I | I |
| 58 | 60 |
| I | I |

Context:

| | | |
|---|-------|-------|
| (59) Fill of cut (58)-mid grey brown clay silt. | 41.12 | 41.02 |
| (58) Cut-linear,vertical sides,concave base. | 41.12 | 41.02 |
| (61) Fill of cut (60)-light grey\brown clay silt. | 41.09 | 41.02 |
| (60) Cut-linear,vertical sides,concave base. | 41.09 | 41.02 |

The above contexts (59), (58), (61) and (60) represent 19th Century sub-soil drainage ploughing. This process involved the use of a deep set plough which disturbed the sub soil without bringing it to the surface, thus improving drainage on heavy clay soils.

Plan Numbers:58,60

Section Number:4

Colour Slide:---

Trench Number:3

Black and White Print:---

Phase.IV

GROUP 3.6

| |
|----|
| I |
| 97 |
| I |

Context

| | | |
|--|-------|-------|
| (97) Layer-light brown\grey clay silt. | 41.30 | 41.05 |
|--|-------|-------|

The above context (97) represents an alluvial deposit overlying natural clay (62).

Plan Number:---

Section Number:4

Colour Slide:---

Trench Number:3

Black and White Print:---

Phase:II

GROUP 3.7

| |
|----|
| I |
| 55 |
| I |
| 54 |
| I |

Context:

| | | |
|---|-------|-------|
| (55) Fill of cut (54)-mid brown clay silt. | 41.11 | 41.01 |
| (54) Cut-linear,slightly sloping sides, concave base. | 41.11 | 41.01 |

The above contexts (55) and (54) represent a slight depression in the natural clay (62) probably due to tree root activity.

Plan Number:54

Section Number:4

Colour Slide:---

Trench Number:3

Black and White Print:---
Phase:I

GROUP 3.8

I
62
I
63

Context

| | | |
|------------------------------------|-------|-------|
| (62) Layer-yellow\brown clay. | 41.12 | 41.05 |
| (63) Layer-mid yellowish\red clay. | 41.10 | 41.04 |

The above contexts (62) and (63) represent natural clay deposits.

Plan Number:--- Section Number:4
Colour Slide:--- Trench Number:3
Black and White Print:---
Phase:I

Group 4.1

92
I

Context

| | | |
|------------------------------|-------|-------|
| (92)- Layer,dark brown silt. | 40.80 | 39.93 |
|------------------------------|-------|-------|

The above context (92) represents 20th Century topsoil.

Plan Number:--- Section Number:1
Colour Slide:--- Trench Number:4
Black and White Print:---
Phase:VI

GROUP 4.2

| | | |
|----|----|----|
| I | I | I |
| 39 | 41 | 27 |
| I | I | I |
| 40 | 42 | 28 |
| I | I | I |

Context

| | | |
|---|-------|-------|
| (39) Fill of cut (40)-dark brown clay silt. | 40.37 | ----- |
| (40) Cut-circular,vertical sides,flat base. | 40.37 | 40.28 |
| (41) Fill of cut (42)-grey\brown clay silt. | 40.44 | 40.40 |
| (42) Cut-elliptical.Irregular sides, uneven base. | 40.44 | 40.34 |
| (27) Fill of cut (28)-dark grey\brown clay silt. | 40.01 | ----- |
| (28) Cut-sub-circular.Vertical sides,flat base. | 40.01 | 39.96 |

The above contexts (39), (40), (41), (42), (27) and (28) represent three pits of 20th Century date, probably evidence of modern gardening activity.

Plan Numbers:40,42,28. Section Number:----
Colour Slide:3 1-2,19-20,23-24. Trench Number:4
Black and White Print:1 18-19.4 3-4,7-8

Phase:VI

GROUP 4.3

I
29
I
30
I

Context

| | | |
|---|-------|-------|
| (29) Fill of cut (30)-Light grey clay silt with occasional small pebbles. | 40.25 | 40.17 |
| (30) Cut-elliptical,irregular sides,uneven base. | 40.25 | 40.03 |

The above contexts (29) and (30) represent an irregular depression probably the result of tree root activity in the 19th Century.

Plan Number:30

Section Number:1

Colour Slide:3.16-18

Trench Number:4

Black and White Print:1.32. 4.2

Phase:V

GROUP 4.4

I
37
I
38
I

Context.

| | | |
|--|-------|-------|
| (37) Fill of cut (38)-yellow\brown\grey clay silt with moderate small pebbles. | 40.03 | 40.01 |
| (38) Cut-linear,Irregular sides,uneven concave base. | 40.11 | 39.92 |

The above contexts (37) and (38) represent evidence of ridge and furrow ploughing dating from the mid 13th Century. Ridge and furrow consists of long narrow ridges of soil, lying parallel to each other and usually arranged in roughly rectangular blocks, separated by depressions or furrows. The soil is thus deliberately removed by ploughing action from the furrow and placed onto the ridge to provide a growing platform with drainage at either side. The example of this process as represented by contexts (37) and (38) has been heavily truncated by later activity, leaving only the bottom of the furrow which was 1 metre across and contained a deposit (37) contemporary to the usage of the ridge.

Plan Number:38

Section Number:1

Colour Slide:3 21-22

Trench Number:4

Black and White Print:4 5-6

Phase:III

GROUP 4.5

I

43

I

Context

(43) Layer-light brown\grey clay silt. 40.49 40.24

The above context (43) represents a layer of alluvial sub-soil.

Plan Number:43

Section Number:1

Colour Slide:---

Trench Number:4

Black and White Print:---

Phase:II

GROUP 4.6

I

91

Context

(91) Layer-yellow\brown clay. 40.48 -----

Context (91) represents natural clay.

Plan Number:----

Section Number:1

Colour Slide:----

Trench Number:4

Black and White Print:----

Phase:I

GROUP 5.1

101

I

102

I

106

I

103

I

Context

(101) Layer-brown\grey silty clay. 40.75 40.45

(102) Layer-dark brown\grey clay silt. 40.65 40.30

(106) Layer-dark grey\brown clay silt. 40.52 40.15

(103) Layer-dark brown clay silt. 40.50 40.30

The above contexts (101), (102), (106) and (103) represents a build-up of 20th Century top soils.

Plan Number:---

Section Number:5

Colour Slide:---

Trench Number:5

Black and White Print:---

Phase:VI

GROUP 5.2

I

70

I

71

I

Context

(70) Fill of cut (71)-dark grey clay silt with 40.35 -----
tile fragments and charcoal flecks.

(71) Cut-Sub-circular, Concave sides, round base. 40.35 40.27

Contexts (70) and (71) represent a small 20th Century pit, probably associated with the construction of the hospital.

Plan Number:71 Section Number:----
Colour Slide:--- Trench Number:5
Black and White Print:--
Phase:VI

GROUP 5.3

33
I
34
I
32
I
31
I

Context.

(33) Fill of cut (34)-light grey\brown clay silt 40.04 -----
with frequent small fragments of brick,
tile and coal.

(34) Cut-sub-circular, Steep sides, concave base. 40.04 39.89

(32) Fill of cut (31)-dark brown clay. 40.09 -----

(31) Cut-linear, near vertical sloping sides, 40.09 -----
base unexcavated.

Contexts (33), (34), (32) and (31) represent two modern pits probably associated with the construction of the hospital in the early 20th century.

Plan Numbers:31,34 Section Number:---
Colour Slide:--- Trench Number 5
Black and White Print:---
Phase:VI

GROUP 5.4

I
66
I
67
I

Context:

(66) Fill of cut (67)-light brown clay silt. 40.26 40.24

(67) Cut-linear, unexcavated. 40.26 -----

The above contexts (66) and (67) represent 19th Century sub-soil drainage ploughing. This process involved the use of a deep set plough which disturbed the sub soil with out bringing it to the surface, thus improving drainage as water can be prevented from draining away by tightly compacted sub soil.

Plan Number:64
Colour Slide:---
Black and White Print:---
Phase:IV

Section Number:5
Trench Number:5

GROUP 5.5

I
48
I
49
I

Context:

(48) Fill of cut (49)-grey\brown clay silt with charcoal and brick\tile flecks. 40.18 40.17
(49) Cut-linear,moderately sloping sides,base beyond limit of excavation. 40.20 -----

The above contexts (48) and (49) represent an irregular linear feature probably associated with 19th Century agricultural practices.

Plan Number:49
Colour Slide:---
Black and White Print:---
Phase:IV

Section Number:---
Trench Number 5

GROUP 5.6

I
24
I
25
I

Context:

(24) Fill of cut (25) light grey\brown clay silt with occasional small pebbles and charcoal flecks. 40.12 40.04
(25) Cut-linear,moderately sloping sides, base outside limit of excavation. 40.12 -----

The above contexts (24) and (25) represent an irregular linear feature probably associated with 19th Century agriculture.

Plan Number:25
Colour Slide:---
Black and White Print:---
Phase:IV

Section Number:---
Trench Number 5

GROUP 5.7

| | | | | | | |
|----|----|----|----|----|----|----|
| I | I | I | I | I | I | I |
| 69 | 68 | 65 | 64 | 36 | 35 | 26 |
| I | I | I | I | I | I | I |
| 89 | 86 | 88 | 87 | 47 | 46 | 44 |

The above context (83) represents natural clay.

Plan Number:--- Section Number:5
Colour Slide:--- Trench Number:5
Black and White Print:---
Phase:I

GROUP 6.1

23
I

Context:
(23) Layer-dark brown silty clay with frequent 39.63 39.33
brick\tile fragments,and charcoal flecks.

The above context (23) represents 20th Century garden soil.

Plan Number:--- Section Number:6
Colour Slide:--- Trench Number:6
Black and White Print:---
Phase:VI

GROUP 6.2

I
108
I
107
I
114
I

Context:
(108) Fill of cut (107)-orange\brown silty sandy 39.23 38.82
clay with moderate pebbles and occasional
brick fragments and charcoal traces.
(107) Cut-sub linear,irregular slightly sloping 39.23 38.82
sides,uneven concave base.
(114) Layer-dark grey\brown silty clay with 39.23 39.13
moderate small pebbles and frequent brick\
tile flecks.

The above contexts (108) and (107) represent a long shallow gully probably resulting from early 20th Century horticultural

activity. This feature is cut through a layer (114) of plough soil, containing a high percentage of brick and tile fragments, suggesting disturbance during the construction of the adjacent hospital buildings in the early 20th Century.

Plan Number:107 Section Number:6,7
Colour Slide:4.18-21 Trench Number:6
Black and White Print:5.2-5
Phase:VI

GROUP 6.3

I I

125 126
I I

Context:

| | | |
|--|-------|-------|
| (125) Fill-light grey\brown clay silt. | 38.79 | ----- |
| (126) Fill-light grey\brown clay silt. | 38.78 | ----- |

The above contexts (125) and (126) represent evidence of linear sub soil drainage ploughing dating from the 19th Century. The cuts for these features were not excavated. For a full explanation of drainage ploughing see group 2.4

| | |
|---------------------------|--------------------|
| Plan Number:125,126. | Section Number:--- |
| Colour Slide:--- | Trench Number:6 |
| Black and White Print:--- | |
| Phase:IV | |

GROUP 6.4

I
116
I
117
I
118
I

Context:

| | | |
|--|-------|-------|
| (116) Fill of cut (118)-grey\orange\brown clay silt with moderate small pebbles and occasional brick\tile fragments and charcoal flecks. | 38.90 | 38.83 |
| (117) Fill of cut (118)-orange\brown clay silt with moderate small pebbles and occasional brick\tile and charcoal flecks. | 38.89 | 38.81 |
| (118) Cut-linear,irregular gently sloping sides, irregular concave base. | 38.90 | 38.69 |

The above contexts (116), (117) and (118) represent an irregular linear feature which is possibly the remains of ridge and furrow ploughing dating from the mid 13th Century. Contexts (116) and (117) may well represent the same deposit, (116) having been slightly contaminated by 19th Century ploughing. For a full description of ridge and furrow ploughing, see group 4.4.

| | |
|---------------------------|--------------------|
| Plan Number:118 | Section Number:--- |
| Colour Slide:--- | Trench Number:6 |
| Black and White Print:--- | |
| Phase:III | |

GROUP 6.5

I
84
I
85
I

Context:

| | | |
|---|-------|-------|
| (84) Fill of cut (85)-orange\brown gravelly clay- | 38.81 | 38.80 |
|---|-------|-------|

silt with frequent small pebbles and occasional fragments of burnt daub.
 (85) Cut-ovoid, shallow, slightly sloping sides, 38.81 38.78
 concave base.

The above contexts (84) and (85) represent a very shallow feature which may be the result of the levelling of a natural depression in the underlying clay to create a hard surface or a gravelled path. The feature ran beyond the limit of excavation and so could not be fully excavated.

Plan Number:85 Section Number:---
 Colour Slide:--- Trench Number:6

Black and White Print:---
 Phase:111

GROUP 6.6

I
 110
 I
 109
 I
 22
 I
 111
 I

Context:
 (110) Fill of cut (109)-mid grey\brown\orange 38.70 38.69
 mottled clay silt with moderate small rounded pebbles.
 (109) Cut-sub linear, Slightly sloping sides, 38.72 38.57
 uneven flat base.
 (22) Layer-dark brown silty clay with occasional 38.71 38.65
 small stones.
 (111) Layer-light orange\brown, slightly stony 38.71 38.57
 clay silt with occasional brick\tile flecks.

The above contexts (110) and (109) represent a shallow irregular feature, possibly the remains of a linear ditch which has been truncated by later ploughing. This is cut into two layers of disturbed clay-silt, (22) and (111), of unknown origin and function. The material recovered from these features dates from the mid 13th Century.

Plan Number:109,22,111 Section Number:---
 Colour Slide:5.24-27 Trench Number:6
 Black and White Print:6.10-13
 Phase:III

GROUP 6.7

I I I
 122 I 21
 I I I

| | | |
|-----|-----|----|
| 121 | I | 45 |
| I I | I | I |
| I I | I | I |
| I I | I | I |
| I | I | I |
| 120 | 123 | |
| I | I | |
| 119 | 124 | |
| I | I | |

Context:

| | | |
|---|-------|-------|
| (21) Fill of cut (45)-orange grey\brown slightly stony clay silt with frequent charcoal flecks and moderate burnt daub fragments. | 38.80 | 38.74 |
| (45) Cut-sub linear, steep sides, concave base. | 38.80 | 38.57 |
| (122) Fill of cut (121)-orange brown slightly stony clay silt with occasional burnt daub fragments. | 38.83 | ----- |
| (121) Cut-sub circular, moderately steep sides, concave base. | 38.84 | 38.63 |
| (120) Fill of cut (119)-orange brown clay silt with frequent charcoal flecks and occasional burnt daub fragments. | 38.85 | 38.83 |
| (119) Cut-linear, vertical sides, flat base. | 38.89 | 38.62 |
| (123) Fill of cut (124)-grey\brown gravelly clay silt with frequent small stones and moderate burnt daub and charcoal flecks. | 38.85 | 38.84 |
| (124) Cut-linear, vertical sides, flat base. | 38.85 | 38.68 |

The above group represents evidence of a structure of medieval date. Contexts (120), (119), (123) and (124) represent the remaining evidence of a pair of linear slots orientated north-south. These can be interpreted as the remains of sunken sill

beams from which projecting vertical timbers would have formed the framework for a wall. The presence of daub within fills (21), (122), (120) and (123) suggests at least part of the wall would have been of a wattle and daub construction. Contexts (21), (45), (122) and (121) also form part of this structure, being the remains of two post holes at either end of the narrower sill beam, (123), (124). Pottery recovered from these features points to a date in the mid 13th Century.

Plan Numbers:45,119,121,124.
 Colour Slide:3.31-36.
 Black and White Print:4.15-20.
 Phase:III

Section Number:----
 Trench Number:6

GROUP 6.8

I
 115

Context:

| | | |
|--------------------------------|-------|-------|
| (115).Layer.Orange\brown clay. | 38.98 | ----- |
|--------------------------------|-------|-------|

Context (115) represents a layer of natural clay.

Plan Number:115
 Colour Slide:---

Section Number:6

Black and White Print:---
Phase:I

GROUP 7.1

7
I

Context:

(7) Layer-grey\brown clay silt. 38.20 37.75

Context (7) represents a build up of 20th Century top soil.

Plan Number:-- - Section Number:3
Colour Slide:--- Trench Number:7
Black and White Print:---
Phase:VI

GROUP 7.2

I
8
I

Context:

(8) Layer-grey brown stony clay silt with 38.00 37.45
moderate brick\tile,charcoal and coal
fragments.

Context (8) represents a build up of plough soil probably of 19th
Century date.

Plan Number:--- Section Number:3
Colour Slide:--- Trench Number:7
Black and White Print:---
Phase:VI

GROUP 7.3

| | | |
|----|----|----|
| I | I | I |
| 10 | 14 | 16 |
| I | I | I |
| 11 | 15 | 17 |
| I | I | I |

Context:

(10) Fill of cut (11)-light grey\brown silty clay 37.56 37.53
with occasional small pebbles,brick\tile
and coal fragments and charcoal flecks.
(11) Cut-linear,vertical sides,concave base. 37.56 37.53
(14) Fill of cut (15)-light grey silty clay. 37.39 37.35
(15) Cut-linear,vertical sides,concave base 37.39 37.35
(16) Fill of cut (17)-light grey silty clay. 37.37 37.29
(17) Cut-linear,vertical sides,concave base. 37.37 37.29

Contexts (10), (11), (14), (15), (16) and (17) represent the remains
of 19th Century sub-soil drainage ploughing, running from east to
west. For a full description of the above process, see group 2.4

Plan Number:10
Colour Slide:2.15-18
Black and White Print:1.12-17
Phase:IV

Section Number:---
Trench Number:7

GROUP 7.4

| | |
|----|----|
| I | I |
| 12 | 18 |
| I | I |
| 13 | 19 |
| I | I |

Context:

| | | |
|--|-------|-------|
| (12) Fill of cut (13)-light grey silty clay. | 37.53 | 37.28 |
| (13) Cut-linear,vertical sides,concave base. | 37.53 | 37.28 |
| (18) Fill of cut (19)-light grey silty clay. | 37.37 | 37.37 |
| (19) Cut-linear,unexcavated. | 37.37 | ----- |

The above contexts (12),(13),(18) and (19) represent 19th Century sub soil drainage ploughing, running north-south. For an explanation of this process see group 2.4.

Plan Number:10
Colour Slide:2.15-18

Section Number:---
Trench Number:7

Black and White Print:1.12-17
Phase:IV

GROUP 7.5

I
9=20
I

Context:

| | | |
|--|-------|-------|
| (9),(20) Layer-light grey with red\brown mottles. Clay silt with occasional small pebbles, charcoal flecks and brick\tile fragments. | 37.75 | 37.50 |
|--|-------|-------|

Contexts (9) and (20) represent a layer of alluvial sub-soil.

Plan Number:---
Colour Slide:---
Black and White Print:---
Phase:II

Section Number:3
Trench Number:7

GROUP 7.6

I
95

Context:

| | | |
|-------------------------------|-------|-------|
| (95) Layer-orange\brown clay. | 37.69 | 37.28 |
|-------------------------------|-------|-------|

Context (95) represents natural clay.

Plan Number:10
Colour Slide:2.15-18
Black and White Print:1.12-17

Section Number:3
Trench Number:7

Phase:I

GROUP 8.1

1
I

Context:

(1) Layer-dark blackish brown silty sandy clay 37.00 36.62
with moderate small to medium stones and
occasional large brick\tile fragments.

The above context (1) represents a deposit of 20th Century garden soil

Plan Number:---

Section Number:---

Colour Slide:---

Trench Number:8

Black and White Print:---

Phase:VI

GROUP 8.2

I
128
I
129

Context:

(128) Fill of cut (129)-yellow\orange\blue clay 36.77 -----
silt with some coarse sand,occasional small
pebbles and brick fragments.
(129) Cut-linear,unexcavated. 36.77 -----

The above contexts (128) and (129) represent a trench containing a 20th Century sewer pipe .

Plan Number:129

Section Number:---

Colour Slide:---

Trench Number:8

Black and White Print:---

Phase:VI

GROUP 8.3

I
6
I

Context:

(6).Wooden stake. 36.71 -----

Context (6) represents the remains of a 20th Century post.

Plan Number:6

Section Number:---

Colour Slide:---

Trench Number:8

Black and White Print:---

Phase:VI

GROUP 8.4

I
2
I
3
I
4
I

Context:

- | | | |
|--|-------|-------|
| (2) Fill of cut (3)-dark blackish brown silty sandy clay with moderate sub-angular pebbles and brick\tile fragments. | 36.68 | 36.59 |
| (3) Cut-shape uncertain.Steep,slightly sloping sides, flat base. | 36.65 | 36.40 |
| (4) Layer-mid red\brown silty,stonny clay with frequent brick\tile fragments and occasional whole bricks. | 36.68 | 36.60 |

The above contexts (2), (3) and (4) represent an attempt to create an increased depth of garden soil through the removal of a layer of building debris (4) and the dumping of rubble-free soil (2).

Plan Number:3,4

Section Number:---

Colour Slide:---

Trench Number:8

Black and White Print:---

Phase:VI

GROUP 8.5

I
112
I
113
I

Context:

- | | | |
|--|-------|-------|
| (112) Fill of cut (113)-dark brown stony clay silt with frequent brick\tile fragments. | 36.39 | 36.06 |
| (113) Cut-sub circular,steeply sloping sides, concave base. | 36.39 | 36.06 |

The above contexts (112) and (113) represent a small post hole of 19th Century date.

Plan Number:113

Section Number:---

Colour Slide:---

Trench Number:8

Black and White Print:---

Phase:VI

GROUP 8.6

I

100
I
98
I
105
I
104
I
99
I

Context:

| | | |
|--|-------|-------|
| (100) Fill of cut (99)-dark brown sandy, silty clay with frequent sub-angular pebbles and occasional small tile fragments and mortar flecks. | 36.47 | 36.37 |
| (98) Ceramic horse-shoe drain pipe. | 36.44 | 36.29 |
| (105) Fill of cut (99)-light green\brown slightly stony clay silt. | 36.26 | 36.19 |
| (104) Fill of cut (99)-rectangular ceramic tiles. | 36.22 | 36.16 |
| (99) Cut-linear, vertical sides, flat base. | 36.36 | 36.15 |

The above contexts (99), (104) and (105) represent the remains of a 19th Century linear tiled drain which was superseded, also in the 19th Century, by a covered drain consisting of ceramic horse-shoe style drain pipes (98) placed on top of each other to form a sub circular drain, placed within the existing drain cut (99).

Plan Number:98,99,104.

Section Number:---

Colour Slide:5.10-17.

Trench Number:8

Black and White Print:4.29-36

Phase:IV

GROUP 8.7

I
5
I

Context:

| | | |
|--|-------|-------|
| (5) Layer-orange\brown stony clay silt with frequent brick and tile fragments. | 36.48 | 36.40 |
|--|-------|-------|

The above context (5) represents a hard rubblely layer directly above natural clay and is again of 19th Century date.

Plan Number:5

Section Number:---

Colour Slide:---

Trench Number:8

Black and White Print:---

Phase:IV

GROUP 8.8

I
130

Context:

| | | |
|--|-------|-------|
| (130) Layer-orange\brown clay with occasional stony patches. | 36.38 | 36.14 |
|--|-------|-------|

The above context (130) represents natural clay.

Plan Number:130.

Section Number:---

Colour Slide:---

Trench Number:8

Black and White Print:---

Phase:I

6: PHASE DISCUSSION

Phase:

PHASE I.

Phase I consists of groups; 2.5, 3.7, 3.8, 4.6, 5.8, 6.8, 7.5 and 8.8. This phase represents the naturally deposited London clay that forms the underlying geology across the site. Also included within this phase are features formed by natural processes such as tree root action, where it can be shown that such features pre-date human activity. Phase I is represented in all the excavated trenches.

PHASE II.

Phase II is represented by groups; 3.6, 4.5 and 7.4, and consists of naturally deposited material, namely a layer of alluvium directly overlying the clay deposits of phase I. This layer probably represents a build up of humic material deposited whilst the site still formed part of Epping Forest and before any human activity on the site. Phase II deposits were found only in trenches 3, 4 and 7, reflecting the destructive nature of later agricultural methods, rather than merely localised deposition of material.

PHASE III

Phase III consists of groups; 4.4, 5.7, 6.4, 6.5, 6.6 and 6.7. This phase represents the earliest recorded human activity on the site, dating from the mid 13th to the mid 14th Centuries. Occupation evidence was recovered from trench 6 and consisted of a series of post holes and linear slots. These features have been interpreted as being structural in nature, the slots being the remains of sunken sill beams from which vertical timbers would have formed a rough framework for a wall. The post holes would have contained timber uprights providing structural support. The presence of burnt daub in the vicinity of the structure points to at least part of the walling being of wattle and daub construction. Other associated features belonging to this phase were also recorded in trench 6. A hard, slightly gravelled surface was excavated to the North of the structure, perhaps the remains of a pathway or yard surface. Evidence of Medieval agriculture, namely ridge and furrow ploughing, also belongs to this phase. This method of arable cultivation was widely practised in this period, especially on heavy soils and involved the deliberate removal of soil from the furrow to the ridge to

provide a series of parallel growing platforms with drainage furrows on either side. The examples recorded here were very heavily truncated by 19th Century ploughing, as were all the features in phase III, thus only the bottom of the furrows

remained. These were filled with material washed down from the ridges which could be dated from the mid 13th to the mid 14th Centuries. Evidence of ridge and furrow was recorded in trenches 4, 5 and 6 suggesting that occupation and cultivation was confined to the North-Eastern area of the site. The absence of material later than the mid 14th Century points to the abandonment of the settlement at this time, although 19th Century ploughing had destroyed any evidence of natural silting in the furrows which would represent an abandonment phase.

PHASE IV

Phase IV consists of groups; 2.4, 3.5, 5.4, 5.5, 5.6, 6.3, 7.3, 8.6 and 8.7. This phase represents evidence of renewed cultivation of the site in the late 18th to early 19th Centuries. The groups listed above are the first sign in the Archaeological record of any human activity on the site since the end of phase III in the mid 14th Century. The evidence supplied by these groups is of deep subsoil drainage ploughing, a process essential to efficient arable cultivation on heavy clay soils as water can be prevented from draining away by tightly compacted subsoil. Ordinary ploughing turns over the top soil without disturbing or opening the subsoil, thus a process was developed where a deeply set plough went along the bottom of the furrow and disturbed the subsoil without bringing it to the surface. This improves drainage and leaves slightly ephemeral linear traces in the natural clay. This activity was recorded throughout the site and must predate the field drain system of phase V as such deep ploughing would have been impossible with a ceramic drainage network in place.

PHASE V

Phase V consists of groups; 2.2, 2.3, 3.3, 3.4, 4.3, 7.2 and 8.6. This phase represents a change of land use from that shown in phase IV. A switch from arable cultivation to pasture in the 19th Century is indicated by the construction of a series of ceramic land drains. Not only does this development indicate the need for improved drainage on the clay soils, but also points to the absence of deep arable ploughing which would have destroyed such a drainage system. This change from arable cultivation to livestock production produced a build up of relatively undisturbed soil which represents the final period of agricultural land use before the construction of the hospital in phase VI.

PHASE VI

Phase VI consists of groups; 2.1, 3.1, 3.3, 4.1, 4.2, 5.1, 5.2, 5.3, 6.1, 6.2, 7.1, 8.1 and 8.5. This phase represents the end of farming activity on the site with the construction of the isolation hospital at the beginning of the 20th Century. The groups within this phase represent the latest activity in the

archaeological record and consist of features associated with the construction of the hospital and the horticultural processes employed in the surrounding gardens.

7: SUMMARY AND CONCLUSIONS

The archaeological investigation of the Chingford Hospital site commenced with a resistivity survey in an attempt to identify any areas of archaeological interest in the areas to be developed. The evidence thus recovered would then have determined the location and nature of the evaluation trenches. However, due to the high concentrations of clay within the features subsequently excavated, the technique was unable to distinguish these ephemeral features from the natural clay geology. A fuller discussion of the resistivity survey is included in the appendix. In the absence of any significant data from the above survey, the evaluation trenches were located to achieve maximum sampling of the proposed development. All the excavated trenches produced archaeological remains, although the most significant discoveries occurred within the trenches located to the north-east of the site. The nature of these remains are discussed below and a detailed analysis of the material recovered from this area can be found in a specialist pottery report in the appendix.

The archaeological investigation of the Chingford Hospital site described above, produced an interesting picture of its history and usage from the Medieval period to the present day. Perhaps the largest influence on the land use of the site through time has been the underlying geology of the area. This consists of deep deposits of alluvial London clay, producing considerable problems for generations of farmers, as such conditions produce very heavy clay soils, with associated drainage problems.

The site was once part of Epping Forest, the clearance of which has continued since man's first impact on the landscape. It is not possible to say at what date forest clearance began in this locality although the presence of two sherds of late saxon pottery may point to some activity around 1000-1150 AD.

The first substantial evidence of human settlement was discovered to the north-east of the site, in trench 6. This led to an enlargement of the trench and the commencement of a limited rescue excavation. This excavation revealed the remains of a linear structure, (fig 2), consisting of two linear slots and two large post holes. The slots would have contained horizontal timber sill beams from which vertical timbers would have projected, forming a rough framework for a wall. The presence of daub in the vicinity of the structure would suggest that at least part of the walling was of wattle and daub construction. The two post holes would have contained substantial timber uprights, providing the structural strength for the building. Only the very bottom of these features remained, due to the destructive nature of later agriculture, in particular, 19th Century deep ploughing. Unfortunately only one side of this structure was evident, this may be due to the destructive forces mentioned above or, more probably, to the nature of the building itself.

As previous excavations on clay-land sites have shown, in particular G Beresford's work at Goltho and Barton Blount in the East Midlands, the remains of Medieval timber buildings on clay soils can be very ephemeral. (Beresford.G, The Medieval Clay Land Village). Excavation at many sites has demonstrated that Medieval peasant houses survived for only a relatively short period of time and often incorporated differing construction

methods and re-builds in the same structure. Thus it is possible that whilst one side of the building used sunken sill beams and large post holes, the other made use of pad stones on which rested timber posts, or sill beams resting on the ground surface. Such construction methods would not have left any substantial archaeological evidence, especially on a site such as this that has suffered a great deal of later disturbance.

Associated with the structure was a rough gravelled area which may have been a path or yard surface. Unfortunately this feature lay close to the limit of excavation and so could not be fully investigated.

Two evaluation trenches, numbers 4 and 5 to the West of trench 6 also revealed evidence of Medieval activity in the form of ridge and furrow ploughing. This type of agriculture was widely used in the Medieval period, especially on heavy soils where it considerably increased the drainage of the soil. The method involved the removal of soil by ploughing from a series of adjacent, parallel furrows, thus creating an extended linear growing platform flanked on either side by drainage furrows. The finds recovered from these features proved to be contemporary with the material recovered from the trench 6 structure, strongly suggesting the presence of a small farmstead in a recently deforested area.

The pottery recovered from all the excavated Medieval features has been dated from 1150 to 1400 AD. This covers a period of optimum climatic conditions when the population as a whole was rising sharply, producing great demands on the prevalent system of subsistence agriculture. (M Beresford and J G Hurst, *Deserted Medieval Villages*). This inevitably led to the cultivation of more marginal land, such as that with heavy clay soils. This process was in serious decline by the end of the 14th Century as worsening climatic conditions made cultivation of such lands an unviable proposition. This, combined with the decline of the population due to plague epidemics, reduced the need to cultivate marginal lands which produced low crop yields, and led to widespread abandonment of such sites. Unfortunately the disturbance caused by Post Medieval agriculture had destroyed any evidence that may have remained of an abandonment phase, such as the silting-up of the drainage furrows. However, the absence across the site of pottery dating from 1400 to 1600 AD, suggests that the settlement falls into the abandonment pattern described above.

The site then appears to have been unoccupied until the 17th Century when arable cultivation resumed. According to a map of the area drawn up in 1738 (Jared Hill), the settlement was situated to the South of the site, trench 8 being sited in this area to attempt to locate any surviving remains. Although a series of early 19th Century drains were recorded, which may have been related to the farm, it seems probable that any buildings lay outside of the existing Hospital boundary. Evidence of 18th and 19th Century cultivation was recovered however. Once again this was due to the heavy nature of the prevailing soil conditions. Long linear lines in the top of the natural clay were

the remains of deep subsoil drainage ploughing, a process developed to improve soil drainage by breaking up the compacted subsoil. These features were rendered unnecessary in the mid 19th Century by the installation of a system of ceramic land drains, covering the entire site. This development provides evidence of a change of land use from arable to pasture as the deep ploughing, essential for crop cultivation, would have destroyed the newly installed drainage system. This land-use continued until the construction of the present Hospital at the beginning of this Century.

In conclusion it can be seen that the history of the Chingford Hospital site is influenced by the nature of the land itself. Occupied initially only at a time of severe land shortage, when the Medieval peasant farmers, to judge from the low status of the recovered material, struggled to subsist until wider factors made their settlement uneconomic. The site then remained unoccupied until the improved agricultural methods of the Agrarian Revolution again made the site a viable economic proposition.

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10: ILLUSTRATIONS

Figure 1a : Site location plan.

Figure 1b : Trench and resistivity grid plan

Figure 2 : Trench 6 Medieval structure plan

Figure 3 : Medieval pottery wares and forms

1 : Organic tempered storage jar.

2 : Sandy tempered grey ware cooking pot, previously unidentified fabric type.

3, 4 and 5: Medieval jug forms.

6 and 7 : Medieval jar fragments.

8 : Medieval roof furniture.

11:APPENDIX

CF-LR 93 POTTERY REPORT

BY F M MEDDENS

JUNE 1993

INTRODUCTION

A total number of 410 potsherds with a weight of 2394 grams was recovered from the CF-LR 93 site. The medieval component forms the largest part of the assemblage (78.6%), and appears stratigraphically well separated from later material. The medieval constituent dates to AD 1150-1400, and includes a few fragments of residual Roman building material as well as two intrusive pieces, a fragment of Early Post Medieval Red Ware and a piece of post medieval tobacco pipe. The Post Medieval phases are characterised by small amounts of post-medieval pottery, mostly dating between AD 1600-1800 and a few fragments of 19th century date, with two residual late Saxon sherds AD 1000-1150 and a few fragments of residual Roman building material.

THE MEDIEVAL MATERIAL

The medieval phase (phase III) will be discussed in detail as it is represented by a discreet assemblage rather than redeposited material associated with agricultural activities as appears to be the case for the later phases.

The medieval assemblage was part of generalised debris from rural occupation remains. Only a limited number of fabrics and vessel types were represented (Table 1).

TABLE 1

| FABRIC | NUMBER OF SHERDS | PERCENTAGE | DATE |
|--------|------------------|------------|------|
|--------|------------------|------------|------|

| | | | |
|---------------------|-----|--------|-----------|
| Colchester Ware | 21 | 7.07% | 1150-1250 |
| Early Post medieval | | | |
| Redware | 1 | 0.34% | ----- |
| Harlow Medieval | | | |
| Sandy Ware | 12 | 4.04% | 1200-1300 |
| Medieval Essex | | | |
| Coarse Ware, | | | |
| Beeleigh Mount | 21 | 7.07% | ----- |
| Mill Green Coarse | 2 | 0.67% | 1270-1350 |
| Mill Green Fine | 4 | 1.35% | 1270-1350 |
| Medieval Grey Sandy | | | |
| Ware | 45 | 15.15% | 1200-1400 |
| Organic Tempered | | | |
| Ware | 166 | 55.89% | ----- |
| Sible Hedingham | | | |
| Ware | 3 | 1.01% | 1200-1300 |
| Kaolin (tobacco | | | |
| pipe) | 1 | 0.34% | 1600-1900 |
| Tile (building | | | |
| material) | 21 | 7.07% | ----- |

There were 15 sherds which were either too heavily eroded to determine their fabric type or of unknown fabrics. One piece is of particular interest. This is a coarse grey ware cooking pot rim, a thin, hard coarse sandy ware, pale grey in appearance. The rim is sharply everted similar to Mill Green Coarse Ware cooking pot rims (Figure 1.2).

The dating of this assemblage clearly falls between 1150 and 1400 AD (Table 1). The two anomalies being the two pieces of post medieval date. These are almost certainly intrusive in the collection because of contamination at the excavation or processing stages, and do not therefore invalidate the general dating or integrity of the contexts involved.

THE QUANTIFICATION OF THE VESSEL FORMS

As the material is largely highly fragmented and eroded the recognisable vessel shapes are few, these consist of cooking pots (Figure 1.1, 1.2) and jugs (Figure 1.3-1.5) (Table 2).

TABLE 2

| | NUMBERS | OF | SHERDS | WEIGHT | RIM | EVES | AV.WEIGHT |
|--------------|---------|----|--------|--------|-------|------|-----------|
| Cooking pot | 81.2% | | | 39.4% | 49.4% | | 2.6 |
| Jug | 2.2% | | | 4.7% | 27.6% | | 11.3 |
| Unknown | 6.5% | | | 14.3% | 23.0% | | 8.4 |
| Tobacco pipe | 0.3% | | | 1.8% | 0% | | 3 |
| Tile | 9.9% | | | 41.5% | 0% | | 22.7 |

The numbers to weight ratio provides a measure of fragmentation of the material involved. The cooking pot being both the softest and coarsest is also the most fragmented (Table 2). The assemblage is quite badly broken up. It appears that much of it

will have lain around on the surface for a considerable period of time before being finally buried. This concurs with the generally eroded appearance of the collection. The exception to this appears to be some of the Organic Tempered Ware cooking pot which when found appeared to be part of the same vessel and to have been re-used as packing in a post hole (Figure 1.1). The softness of this ware is such that general soil conditions appear to have had a decomposing effect on the fired clay matrix. It therefore too has the appearance of having been heavily eroded and fragmented.

MATERIAL FROM THE OTHER PHASES

From the earliest two phases 5 potsherds were recovered, these are medieval in date. As these phases have been interpreted as representing natural events rather than direct human activity. It appears therefore likely that these potsherds were either introduced through some natural activity, like worm action or as a result of contamination at the excavation or processing stages.

Small amounts of post medieval wares and 19th century pottery, and a 19th century land drain were associated with 16th to 19th century agricultural practices.

CONCLUSIONS

The assemblage associated with phase III is limited both in the fabrics and vessel forms represented. It is clearly utilitarian in nature and reflects a relatively low status stratum of society. It is fairly typical of Essex collections of similar date and rural background.

The two redeposited sherds of Early Medieval Flinty Ware with a Late Saxon date 1000-1150 AD, suggest there may have been an earlier Saxon landuse associated with this site. The small amounts of post medieval pottery are indicative of the type of assemblages resulting from agricultural processes such as manuring.

A 19th century land drain indicates that the land was part of a land improvement scheme common at this time in the Essex area.

RESISTIVITY REPORT

Introduction

A resistivity survey was carried out by members of the Passmore Edwards Museum between 22nd February and 2nd March 1993 in the grounds of Chingford Hospital (fig 1a). The area surveyed was, by necessity, divided into eight separate areas between and around the hospital buildings (fig 1b). Although the areas were all grassed and apparently well drained, the frequency of surface features such as roads, paths and flower beds considerably reduced the size of the areas under survey. The object of the survey was to determine the extent of archaeological remains below the ground surface and therefore establish a controlled basis for excavation.

The Survey

A Geoscan RM15 Basic resistivity meter with 0.5m. separation twin array was used in the survey. There were a total of twenty-two grids surveyed, located in separate areas of between one and six grids. Readings were taken at 1m. sample intervals with a 1m. traverse and any obstructions were dummy logged. The meter was set at a current of 0.1mA with a gain of x10 and written information, such as location and conditions, was recorded for each grid on Museum pro-forma sheets.

Distances between grids meant that eight separate base lines had to be established to maximise the number of complete grids surveyed. These base lines were then tied into either existing survey points or to hospital buildings.

Results

The strongest patterns to emerge from the completed survey appeared to relate directly to modern hospital re-building. Grid 17, for example, showed a linear feature which followed the line of the present road. The present turfs were almost certainly laid

over a depression presumably where rubble and tarmac had been removed, hence giving a reading of low resistance. Similarly, in Grid 6, there appeared to be two parallel linear features, running north to south. The broader of the two appeared to extend into the area to the east of the grid which also ran towards the existing road.

More notable, however, were four linear features situated in various gridded areas, all seemingly incongruous with regard to the current layout of the hospital. The first of these ran from east to west across the northern end of Grid 3 and was approximately 3m. to 4m. in width, the extent of it being obscured by the road system of the hospital. Another 20m. further north in Grid 5 and running parallel, was a narrower linear feature, or line of features, possibly postholes or the line of a hedged field boundary.

Another area of low resistance readings appeared at the southern end of Grid 20. Its alignment was east to west and was approximately 3m. in width, but shrubbery at the western side and a hospital building at the east again limited the survey.

In Grid 22, situated near the north-west boundary of the hospital, there appeared to be another linear feature, obscured by scrub-land to the north, but which did not relate to any existing trees or shrubs. In the same grid, to the east, there appeared to be another line of low resistance readings, in this case showing up as a feature of less than 2m. in width. If these two features were continued northwards, it is feasible that they would intersect, although, again, the scrub-land in the northern half of the grid prevented the survey from defining any such relationship.

The remainder of the grids consistently showed either root disturbance from existing trees and shrubs, or else the spatial patterns associated with natural clay or gravel.

Interpretation

Examination of the topsoil revealed that conditions were ideal for use of the resistivity meter, which reads at between 0.5m. and 1m. below ground surface. Features under consideration for excavation are therefore more likely to be archaeological, rather than geological. Reference to sketch plans from the entire gridded area can eliminate anomalies such as potential root disturbance from existing trees and flower-beds, allowing a precise location of trial trenches and test pits.

Plans and maps from the grounds of Chingford Hospital, dating from 1738 (Jared Hill), show the existence of a field boundary system before the hospital was built around the turn of the last century. Although it is impossible to establish the dating and the depth of features which have emerged as a result of the survey, it is possible that some of them may relate to this previous field system. It must be stressed, however, that the reduction in the size of the survey, due to its location and subsequent spatial divisions, limits conclusions, while excavation work may change any proposed interpretations.

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| CONTEXT. | TRENCH. | PLAN. | SECTION. | COLOUR. | BLACK & WHITE. | GROUP. | PHASE |
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| 4 | 8 | 4 | -- | -- | -- | 8.4 | VI |
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| 6 | 8 | 6 | -- | -- | -- | 8.3 | VI |
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| 14 | 7 | -- | -- | -- | -- | 7.3 | IV |
| 15 | 7 | 10 | -- | -- | -- | 7.3 | IV |
| 16 | 7 | -- | -- | -- | -- | 7.3 | IV |
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| 57 | 3 | -- | 4 | -- | -- | 3.3 | V |
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| 60 | 3 | 60 | 4 | -- | -- | 3.5 | IV |
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| 63 | 3 | -- | 4 | -- | -- | 3.8 | I |
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| 65 | 5 | 64 | 5 | -- | -- | 5.7 | III |
| 66 | 5 | 64 | 5 | -- | -- | 5.4 | IV |
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| 116 | 6 | -- | -- | -- | -- | 6.4 | III |
| 117 | 6 | -- | -- | -- | -- | 6.4 | III |
| 118 | 6 | 118 | -- | -- | -- | 6.4 | III |
| 119 | 6 | 119 | -- | -- | -- | 6.7 | III |
| 120 | 6 | -- | -- | -- | -- | 6.7 | III |
| 121 | 6 | 121 | -- | -- | -- | 6.7 | III |
| 122 | 6 | -- | -- | -- | -- | 6.7 | III |
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