MERSEA OUTDOORS
REWSALLS LANE
EAST MERSEA,
COLCHESTER

ARCHAEOLOGICAL TRIAL
TRENCHING, MONITORING AND
RECORDING

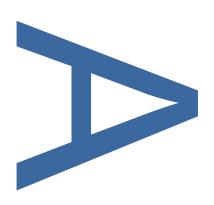


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COLCHESTER BOROUGH COUNCIL

PLANNING APPLICATION: 162825

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PRE-CONSTRUCT ARCHAEOLOGY

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ABSTRACT

This report describes the results of an archaeological test pits, strip map and record and evaluation trenches were carried out by Pre-Construct Archaeology at Mersea Outdoors, Rewsalls Lane, East Mersea, Colchester, CO5 8SX.

The investigations comprised three stages: the monitoring of 22 geotechnical pits prior to the works, a strip, map and sample investigation during removal of overburden within the footprint of the soil bund around the boating lake and the borrow pit to the east of the lake, and the excavation of 10 evaluation trenches within the footprint of the boating lake.

The investigations revealed a shallow topsoil directly above the clay natural geological deposits. Overall, there was an absence of significant archaeological features. The exception were three small, shallow deposits of poorly fired red clay, recorded in the south-western area of the borrow pit. These do not represent firing in-situ but are reminiscent of the same material that forms the 'red hill' located 200m to the east, which is an accumulation of the briquetage of the dismantling of prehistoric or Roman salt making features.

The excavations also revealed a series of sinuous, narrow, shallow ditches which are most likely natural drainage or water run-off channels. An environmental sample taken from the fill of one of the channels showed a good preservation of material, indicating a wet and periodically waterlogged environment. This fits in well with the location of the area adjacent to the shoreline.

Two post-medieval boundary ditches, which are shown on the 1879 OS map were also excavated.

1 INTRODUCTION

- 1.1 Pre-Construct Archaeology Ltd was commissioned by Land Management Farms Ltd to undertake an archaeological "strip, map and record" investigation during construction of a new boating lake at Mersea Outdoors, Rewsalls Lane, East Mersea, Colchester, Essex CO5 8SX (Figure 1).
- 1.2 An archaeological condition (3) had been attached to the planning permission for the site and the works were carried out in accordance with National Planning Policy Framework 2019. Jess Tipper, Archaeological Advisor of Colchester Borough Council (CBC), issued a brief for the works (Tipper 2019).
- 1.3 The monitoring was carried out in accordance with a Written Scheme of Investigation (WSI) (Hawkins 2018) approved by CBC prior to the start of the works. The aim of the investigations was to map and record any archaeological features present in groundworks in the lake area and the adjacent borrow pit.
- 1.4 After the first stage of geotechnical investigations, it was decided to extend the proposed development area westwards in order to extract clay for the bund from adjacent to the proposed boating lake (Figure 2). As this altered the red line of the proposed development, a new application had to be submitted to CBC and a revised WSI was approved in April 2019 (Hawkins 2019).
- 1.5 This report describes the results of the investigations. The site archive will be deposited at Colchester Museum.

2 GEOLOGY AND TOPOGRAPHY

- 2.1 The site lies on Intertidal Deposits (undifferentiated) Clay and Silt. These are Superficial deposits formed up to 2 million years ago in the Quaternary period and suggest the local environment was previously dominated by shorelines. The solid geology of the site comprises the Thames Group, formed of Clay, Silt and Sand. This is a bedrock formed approximately 34 to 56 million years ago in the Palaeogene period. The Thames Group indicates a local environment previously dominated by deep seas (BGS 2019).
- 2.2 Limited geotechnical investigations through test pitting had been observed by an archaeologist prior to the start of the current investigations and the current test pitting. The results are described below.
- 2.3 One test pit measured 1m x 2m square and the other test pit measured 1m by 4m. The first test pit was in the centre of the field, and the second was across a lower area where the grass was greener, possibly indicating a dried up creek or paleochannel that might have extended into the field from the east. In both the test pits the plough soil was between 0.20m-0.30m thick, and comprised a thin loamy till [sic], with flecks of gypsum. Below the topsoil was a hard-natural clay. There was no evidence for any alluvial material in the test pits (Mark Horton pers com).

3 ARCHAEOLOGICAL BACKGROUND

- 3.1 The following background is taken from the Archaeological Brief (Tipper 2018).
- 3.2 There have been recent prehistoric discoveries in close proximity to the site and in a similar, low-lying topographic situation on the foreshore. To the south and south-east, the remains of a late prehistoric plank walkway and hurdle structure have been recently identified. Human remains, dated to the Iron Age, have also been discovered on the foreshore, to the south of the Outdoor Centre.
- In addition, the Colchester Historic Environment Record records a red hill less than 200m to the east, in a similar topographic setting (MCC10099 on Figure 2). A further red hill is recorded to the north-west of the site (MCC 10110 on Figure 2).
- 3.4 Red hills date from the Bronze Age, Iron Age and Roman period and indicate the remains of salt making. Clay lined tanks are often associated with these features, as are mounds of briquetage, a reddish poorly fired clay used to make the tanks and other associated features and discarded soon after use in large heaps, hence the name 'red hill'.
- 3.5 Ordnance Survey mapping shows that the lake field has been in agricultural use from before 1870 and is likely to have been ploughed for several centuries. There is a cottage to the north of the field which had disappeared by 1960. The first edition Ordnance Survey map shows that flood protection has been in place for the site since at least the later 19th century.

4 METHODOLOGY

4.1 Excavation and Sampling

- 4.1.1 Archaeological works comprised the following stages:
 - Monitoring of 22 geotechnical pits, measuring 3m (N-S) by 1.5m (E-W) in the area of the boating lake and borrow pit (Figure 3, Plate 1, Plate 2).
 - Strip, map and sample investigation during removal of overburden within the footprint of the soil bund around the boating lake and the borrow pit to the east of the lake (Figure 4, Plate 3, Plate 4).
 - Excavation of 10 evaluation trenches, measuring 50m x 2m in length, in the area of the boating lake (Figure 4, Plate 10).
- 4.1.2 Ground reduction was carried out under archaeological supervision using a 360° mechanical excavator with toothless ditching bucket. Topsoil deposits were removed in spits down to the level of the undisturbed natural geological deposits where potential archaeological features could be observed and recorded if present.
- 4.1.3 Exposed surfaces were cleaned by trowel and hoe as appropriate and all further excavation was undertaken manually using hand tools.
- 4.1.4 Spoil was mucked away by dumper to an area away from the strip, map and sample area. No vehicles were running over stripped ground until the area was signed off by the Archaeological Advisor. Within the evaluation, overburden deposits were set aside beside each trench and examined visually and with a metal-detector for finds retrieval.
- 4.1.5 Metal-detecting was undertaken during all stages of the fieldwork, across the stripped surface and spoil generated by the groundworks.

4.2 Sampling Strategy

4.2.1 Discrete features were half-sectioned, photographed and recorded by a cross-section scaled drawing at an appropriate scale (either 1:10 or 1:20). Linear features were investigated by means of regularly-spaced slots. The large post-

medieval ditch was excavated with the aid of a machine.

4.3 Recording Methodology

- 4.3.1 Deposits or the removal of deposits judged by the excavating archaeologist to constitute individual events were each assigned a unique record number (often referred to within British archaeology as 'context numbers') and recorded on individual pre-printed forms (Taylor and Brown 2009). Archaeological processes recognised by the deposition of material are signified in this report by round brackets (thus), while events constituting the removal of deposits are referred to here as 'cuts' and signified by square brackets [thus].
- 4.3.2 Where more than one slot was excavated through an individual feature, each intervention was assigned additional numbers for the cutting event and for the deposits it contained (these deposits within cut features being referred to here as 'fills'). The record numbers assigned to cuts, deposits and groups are entirely arbitrary and in no way reflect the chronological order in which events took place. All features and deposits excavated during the evaluation and excavation are listed in Appendix 1. Artefacts recovered during excavation were assigned to the record number of the deposit from which they were retrieved.
- 4.3.3 High-resolution digital photographs were taken at all stages of the evaluation process. Digital Photographs were taken of all deposits.
- 4.3.4 The limits of excavations, heights above Ordnance Datum (m OD) and the locations of archaeological features and interventions were recorded using a Leica 1200 GPS rover unit with RTK differential correction, giving three-dimensional accuracy of 20mm or better.

5 QUANTIFICATION OF ARCHIVE

5.1 Paper Archive)

Context register sheets	4
Context sheets	65
Plan registers	0
Plans at 1:50	0
Plans at 1:20	0
Plans at 1:10	0
Plans at 1:5	0
Section register sheets	1
Sections at 1:10 & 1:20	16
Trench record sheets	10
Photo register sheets	2
Small finds register sheets	0
Environmental register sheets	1

5.2 Digital Archive

Digital photos	488
GPS survey files	6
Digital plans	1
GIS project	0
Access database	1

5.3 Physical Archive

Struck flint	0
Burnt flint	0
Pottery	4
Ceramic building material (CBM)	0
Glass	0
Briquetage	0
Small Finds	0
Slag	0
Shell	0
Environmental bulk samples	2
Monolith samples	0
Other samples (specify)	0
Black and white films	0
Colour slides	0

6 ARCHAEOLOGICAL RESULTS

6.1 Overview

6.1.1 No significant archaeological layers or features were revealed during the investigations (Figure 4). The strip, map and sample investigation uncovered three small deposits of red clay, which may originate from the 'red hill' to the north (Plate 5, Plate 6). A series of possible natural drainage or water run-offs channels was also revealed (Plate 7, Plate 8) as well as a large post-medieval boundary ditch that matches with a boundary shown on the 1897 Ordnance Survey (OS) map (Figure 5, Plate 9). A similar ditch was revealed in Trench 1 of the evaluation.

6.2 Overburden and Natural Geological Deposits

6.2.1 Topsoil was a 0.15-0.25 m thick, mid clayey silt, which was consistent in all areas. No subsoil was present. Natural geological deposits were a mid yellowish brown clay.

6.3 Undated pits

- 6.3.1 Three shallow pits, [516], [518] and [520], were recorded in the southern part of the borrow pit area (Figure 4, main and insert). The pits were 100% excavated but no finds were present in any of their fills.
- 6.3.2 Pit [516] measured 1.6m x 2.2m, irregular in plan with gentle sides and flat base (Section 2 Figure 6). The fil (515), 0.10m thick, consisted of a stiff mid reddish-brown clay with frequent daub and burnt clay. It was truncated by Ditch 1 ([510]).
- 6.3.3 Pit [518] measured 2.2m x 1.5m, irregular in plan with gentle sides and flat base (Section 3 Figure 6, Plate 6). The fil (517), 0.07m thick, consisted of a stiff mid reddish-brown clay with frequent daub and burnt clay. It was truncated by Ditch 1 ([511]).
- 6.3.4 Pit [520] measured 1.4m x 1m, irregular in plan with gentle sides and flat base (Section 11 Figure 6). The fil (515) consisted of a stiff mid reddish-brown clay with frequent daub and burnt clay (Plate 5). An environmental sample was taken from the fill of this feature, however, this showed no presence of plant

macrofossils (Turner, below). The overall burnt clay context of the feature was also small (17g from a 10l sample), despite the appearance of the fill, and included no structural remains of a kiln or saltern lining.

6.1 Undated Water Channels

- 6.1.1 Five shallow linear channels were revealed in the area of the Borrow Pit. The channels were sinuous in shape (Figure 4, Plate 7), suggesting they were made naturally through water run-off, but the dark nature of some of the fills also suggested a more anthropic origin (Plate 8). All channels had a shallow, concave profile and measured 0.10m-0.20m in depth (Sections 6, 13, 16 Figure 6). No finds were present in any of the features. An environmental sample was taken from segment [546]. In the following descriptions the term 'ditch' is used as a label grouping individual segments, it is not used to imply that the features were man-made.
- 6.1.2 Ditch 1 ([508], [510], [512], [514], [522], [524], [526]), was curvilinear, sinuous, in plan, measuring approximately 100m in length. The width and the sides were pretty much consistent in all slots, with an average width of 0.40m. No terminus was visible, being truncated by modern ploughing. The fill, a loose dark blueish brown silt, was consistent in all slots. Ditch 1 was truncated in plan by Ditch 4.
- 6.1.3 Ditch 2 ([506], [538], [556]), was linear, sinuous, in plan, measuring approx. 50m in length. The width and sides were consistent in all slots, with an average width of 0.40m. The terminus on the northern side was truncated by Ditch 3, possibly curving and continuing towards north. The southern terminus was dissipating, truncated by ploughing. The fill, a loose dark blueish brown silt, was consistent in all slots. Ditch 2 was truncated in plan by Ditch 3.
- 6.1.4 Ditch 3 ([554]), was curvilinear in plan, measuring approx. 30m in length. One slot was excavated, measuring 0.30m in width, with gentle sides and concave base. Ditch 3 was truncated on its eastern side by Ditch 5. The southern terminus was dissipating, truncated by ploughing. The fill consisted in a loose dark blueish brown silt.
- 6.1.5 Ditch 4 (segments [528], [530] and [532]), was linear, in plan, measuring

- approx. 30m in length. The width and the sides were pretty much consistent in all slots, with an average width of 0.40m. The termini were dissipating, truncated by ploughing. The fill consisted in a loose dark blueish brown silt.
- 6.1.6 Ditch 5 (segments [548], [550] and [552]), was linear, sinuous, in plan, measuring approx. 130m in length with an average width of 0.30m. The northern terminus was dissipating, truncated by ploughing.

6.1 Post-medieval to Modern Ditches

- 6.1.1 Ditch 6 was a modern boundary ditch, linear in plan, orientated E-W, and observed for approximately 200m in length (Figure 4). The termini of the ditch were truncated by the still existing boundary ditches. Three machine slots were excavated through the ditch ([536], [542], [546]) (Plate 9). The width of the ditch was constant in all slots, measuring between 1.8m and 2m. Depth was an average of 1.0m-1.20m (Sections 12 and 15 Figure 6). Three similar fills were noted in all slots. The top fill ((535), (539), (543)) was loose, mid reddish brown clay. The middle fills ((536), (540), (544)) consisted in redeposited natural light greyish clay. The basal fills (537), (541) and (545) were made of dark blue clay with organic material. The only find was a piece of modern CBM tile (not kept) found in the basal fill (545). This ditch is present on the same alignment on the 1897 OS map (Figure 5).
- 6.1.2 Ditch [1004] was recorded in Trench 2 and orientated north-south. The width of the ditch was c. 2m. It was recorded in plan but not excavated. This ditch is also shown on the 1897 OS map (Figure 5).

7 THE FINDS AND ENVIRONMENTAL EVIDENCE

7.1 Post-Roman pottery

Chris Jarrett

- 7.1.1 Post-Roman pottery was solely recovered from the topsoil (unstratified/(502) and consists of four sherds (82g) of pottery from a London salt-glazed stoneware (Essex Fabric 45) bottle or jug dated to the 18th-19th century. The vessel survives as the lower neck, shoulder (with an incised horizontal line) and a body sherd with a 'rats' tail' handle terminal decorated with two fingertip impressions.
- 7.1.2 The pottery has no significance as the material occurs in such a small quantity and as a single vessel with little meaning. The only potential of the pottery is to date the context it was recovered from.

7.2 Plant Macrofossils

Kate Turner

Introduction

- 7.2.1 Two samples were taken from the fills of an irregular shaped pit [520], and a linear ditch [546].
- 7.2.2 The aim of this assessment is to:
 - Give an overview of the contents of the assessed samples;
 - Determine the environmental potential of these samples;
 - Establish whether any further analysis is necessary.

Methodology

7.2.3 Sample <1> was processed using the flotation method; the sample was washed through a modified SIRAF recirculating 2-tank system, with material being collected using a 300 µm mesh for the light fraction, and a 1 mm mesh for the heavy residue. As sample <2> was observed to be waterlogged, one of the four collected buckets was wet sieved; the sediment was gently washed between 10 mm and 2 mm metal sieves suspended over a floatation tank; with the flot

being collected using a 300 µm mesh. The remaining buckets were retained, should further analysis be required.

- 7.2.4 The heavy residues were air-dried, sieved at 1, 2 and 4 mm and sorted to extract artefacts and ecofacts. The abundance of each category of material was recorded using a non-linear scale where '1' indicates occasional occurrence (1-10 items), '2' indicates occurrence is fairly frequent (11-30 items), '3' indicates presence is frequent (31-100 items) and '4' indicates an abundance of material (>100 items), and the clean residue then dried and sorted as described above.
- 7.2.5 The flots (>300 μm), once dried, were scanned under a low-power binocular microscope at 10x magnification, to quantify the level of environmental material present, for example seeds, chaff, charred grains, molluscs and charcoal. Abundance was recorded as above. A note was also made of any other significant inclusions, such as roots and modern plant material. Macro-botanical identifications were carried out using standard reference catalogues (Jones, Taylor and Ash, 2004; Jacomet, 2006; Cappers, Bekker and Jans, 2012; Neef, Cappers and Bekker, 2012). Nomenclature for economic plants follows Van Zeist (1984) and for other plant taxa follows Stace (1991). Molluscs were identified with reference to Kerney (1999).
- 7.2.6 Material collected from the heavy residues was catalogued and passed on to the relevant specialists for further assessment. A full account of the sample contents is provided in Table 1.

Results

Preservation

7.2.7 Whilst recovery of environmental material was poor in sample <1>, archaeobotanical remains were preserved by waterlogging in sample <2>, which produced a large quantity of seeds, fragmented plant matter and insect remains.

Sample <1>, context (519) – fill of Pit [520]

7.2.8 Sample <1>, comprising 6 litres of sediment, was collected from the fill of a flat based ditch, [520]. With the exception of a small amount of charcoal, none of

which was a suitable size for species to be recognised (>4mm in length/width), and a single terrestrial snail shell, ecofacts were absent from this context. Fine root material was found in the flot, and a small amount of CBM was recovered from the retent.

Sample <2>, context (545) – fill of Ditch [546]

- 7.2.9 Sample <2> was taken from the clayey-peat fill of a linear boundary ditch, [546]. Plant remains were present in abundance in this context; a large quantity of seeds were extracted, predominantly specimens of pondweed (Potamogeton (*Ranunculus* spp. buttercups batrachium), horned pondweed spp.), (Zannichellia palustris) and sea club-rush (Bolboschoenus maritimus), all of which are common to wet and muddy environments, such as ponds and waterlogged ditches. Lesser concentrations of sedge (Carex spp.), goosefoots (Chenopodium spp.), welted thistle (Carduus crispus), brambles (Rubus spp.), orache (Atriplex spp.), water-milfoils (Myriophyllum spp.) and knotweed (Persicaria spp.) were also reported, along with fragmented plant remains, including thorns and tubers. Wood charcoal was observed, but in small amounts, with no sizeable specimens recovered.
- 7.2.10 Eggs of water flea (*Daphnia ephippia*), a further indicator of wet or damp environments, were common in the flot; due to the waterlogged nature of the context, insect remains were also well preserved. Animal bone and hammer-scale were identified in the heavy fraction.

Discussion

7.2.11 Ditch [546] produced a rich environmental assemblage; whilst diversity of taxa was relatively low, the species profile was generally suggestive of a damp or wet environment, signifying that this ditch may have undergone periods of significant waterlogging. Less common taxa included grassland indicators, notably welted thistle and buttercups, and plants of cultivated, disturbed or waste ground (*Chenopodium* spp.), which are likely to be representative of the area surrounding this feature. Brambles (*Rubus* spp.), a family which contains raspberries and blackberries, were also identified, and may have been growing in the area of the site, either as wild or deliberately cultivated plants. Wood

charcoal was present in small amounts, with quantities too small to indicate significant activity.

Taphonomic Considerations

7.2.12 An abundance of roots was observed in sample <1>, which could be a sign of bioturbation; the possibility for re-working of smaller remains in this context should be considered.

Table 1: Assessment of environmental samples

Sample Number		1	2
Context Number	519	545	
Cut Number	520	546	
Context Type	Fill	Fill	
Feature Type	Pit	Ditch	
Volume of bulk (litres)		6	10
Volume of flot (millilitres)		40	200
Method of processing		F	F
RESIDUE			
Charcoal			
Charcoal >4 mm			
Charcoal 2 - 4 mm		1	1
Charcoal <2 mm			
Suitable for ID?			
Finds			
Animal bone			1
CBM		2	
Hammer-scale			1
FLOT			
Charcoal			
Charcoal <2 mm		1	2
Suitable for ID?		Х	Х
Waterlogged Seeds & Plant Matter	Common Name		
Atriplex spp.	Oraches		1
Bolboschoenus maritimus	Sea club-rush		4
cf. Bolboschoenus maritimus	Sea club-rush		3
Carduus crispus	Welted thistle		3
Carex spp.	Sedges		3
Chenopodium spp.	Goosefoots		4
Myriophyllum spp.	Water-milfoils		1
Persicaria spp.	Knotweeds		1
Potamogeton spp.	Pondweeds		4
Ranunculus acris/bulbosus/repens	Buttercups		1
Ranunculus subsp. batrachium	Crowfoots		4
Rubus spp.	Brambles		3
Zannichellia palustris	Horned pondweed		4
Thorns - indeterminate			1
Tubers - indeterminate		1	
Fragmented plant material - indetermina		4	
Other Plant Macrofossils			
Roots/tubers	3		
Terrestrial Molluscs			
Vertigo spp.	1		
Biological Material			
Insect remains			3

Sample Number	1	2
Context Number	519	545
Cut Number	520	546
Daphnia ephippia		4

Key: 1- Occasional, 2- fairly frequent, 3- frequent, 4- abundant

8 DISCUSSION AND CONCLUSION

- 8.1 The investigations at Mersea Outdoors revealed no significant archaeological remains. No prehistoric features, similar to those recently discovered in the vicinity, were present on the site.
- 8.2 Three small, shallow deposits of poorly fired red clay were recorded in the south-western area of the borrow pit. These do not represent firing in-situ but are reminiscent of the same material that forms the 'red hills' located 200m to the east and north-west respectively, which are an accumulation of the briquetage of the dismantling of prehistoric or Roman salt making features (see Section 3). A sample taken from one of the features yielded no environmental remains and, despite its appearance, a fairly low percentage of fired clay fragments. It is possible that some of the fired clay briquetage somehow got transferred across site and dumped in this area, rather than on the main mound.
- 8.3 The excavations also revealed a series of sinuous, narrow, shallow ditches which may be natural drainage or water run-off channels. An environmental sample taken from the fill of one of the ditches showed a good preservation of material, indicating a wet and periodically waterlogged environment. This fits in well with the location of the area adjacent to the shoreline. Two post-medieval boundary ditches, which are shown on the 1879 OS map (Figure 5) were also excavated.

9 ACKNOWLEDGEMENTS

9.1 Pre-Construct Archaeology Ltd would like to thank Land Management Farms Ltd. for commissioning the project. PCA are also grateful to Jess Tipper of Colchester Borough Council Historic Environment Team for monitoring the work on behalf of the Local Planning Authority. The project was managed for PCA by Helen Hawkins and Christiane Meckseper and was supervised by Tiberiu Nica. Gareth Morgan and Harvey Furniss also undertook the fieldwork. Judy Mlynarska supervised the trial trench excavation. Figures accompanying this report were prepared by Rosie Scales of PCA's CAD Department.

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10 BIBLIOGRAPHY

Campbell, G, Moffett, L, and Straker V 2011 Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition) Historic England

Cappers, R. T. J., Bekker, R. M. and Jans, J. E. A. 2012 Digital seed atlas of the Netherlands. Barkhuis

CIFA 2014 Standard and Guidance for Archaeological Excavation

Gurney, D 2003 Standards for Field Archaeology in the East of England, East Anglian Archaeology Occasional Papers 14, 2003

Hawkins, H 2018 Mersea Outdoors, Rewsalls Lane, East Mersea, Colchester, CO5 8SX: Written Scheme of Investigation for Archaeological Strip, Map and Record, Version 3. Pre-Construct Archaeology November 2018

Hawkins, H 2019 Mersea Outdoors, Rewsalls Lane, East Mersea, Colchester, CO5 8SX: Written Scheme of Investigation for Archaeological Strip, Map and Record, Version 4: Revised Application. Pre-Construct Archaeology April 2019

Jacomet, S. 2006 'Identification of cereal remains from archaeological sites. Unpublished report. Second edition'.

Jones, S., Taylor, J. and Ash, F. (2004) Seed Identification Handbook: Agriculture, Horticulture & Weeds. National Institute of Agricultural Botany.

Kerney, M. 1999 Atlas of the land and freshwater molluscs of Britain and Ireland. Colchester: Harley Books

Medlycott, M (ed.) Occasional Papers 24, 2011: Research and Archaeology Revisited: a revised framework for the East of England

Neef, R., Cappers, R. T. J. and Bekker, R. M. 2012 Digital atlas of economic plants in archaeology. Barkhuis.

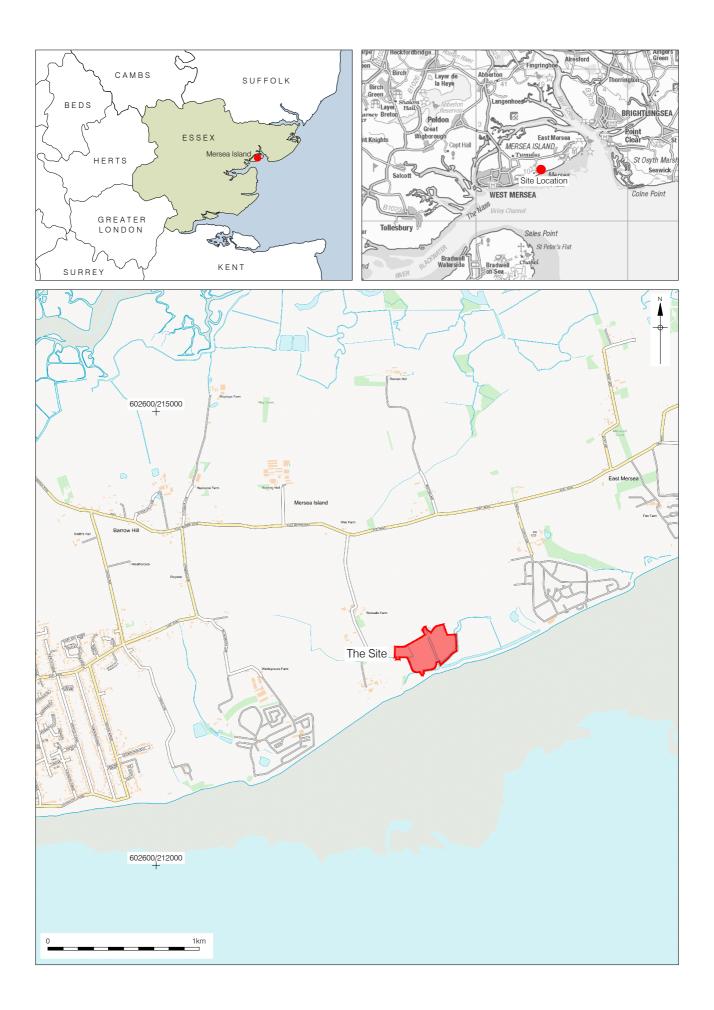
Stace, C. 1991 New flora of the British Isles. Cambridge University Press

Tipper, J 2018 Brief for Archaeological Strip, Map and Record Excavation at Mersea Outdoors, Rewsalls Lane, East Mersea, Colchester, CO5 8SX

Van Zeist, W. 1984 'List of names of wild and cultivated cereals', Bulletin on Sumerian Agriculture, 1, pp. 8–15

11 FIGURES

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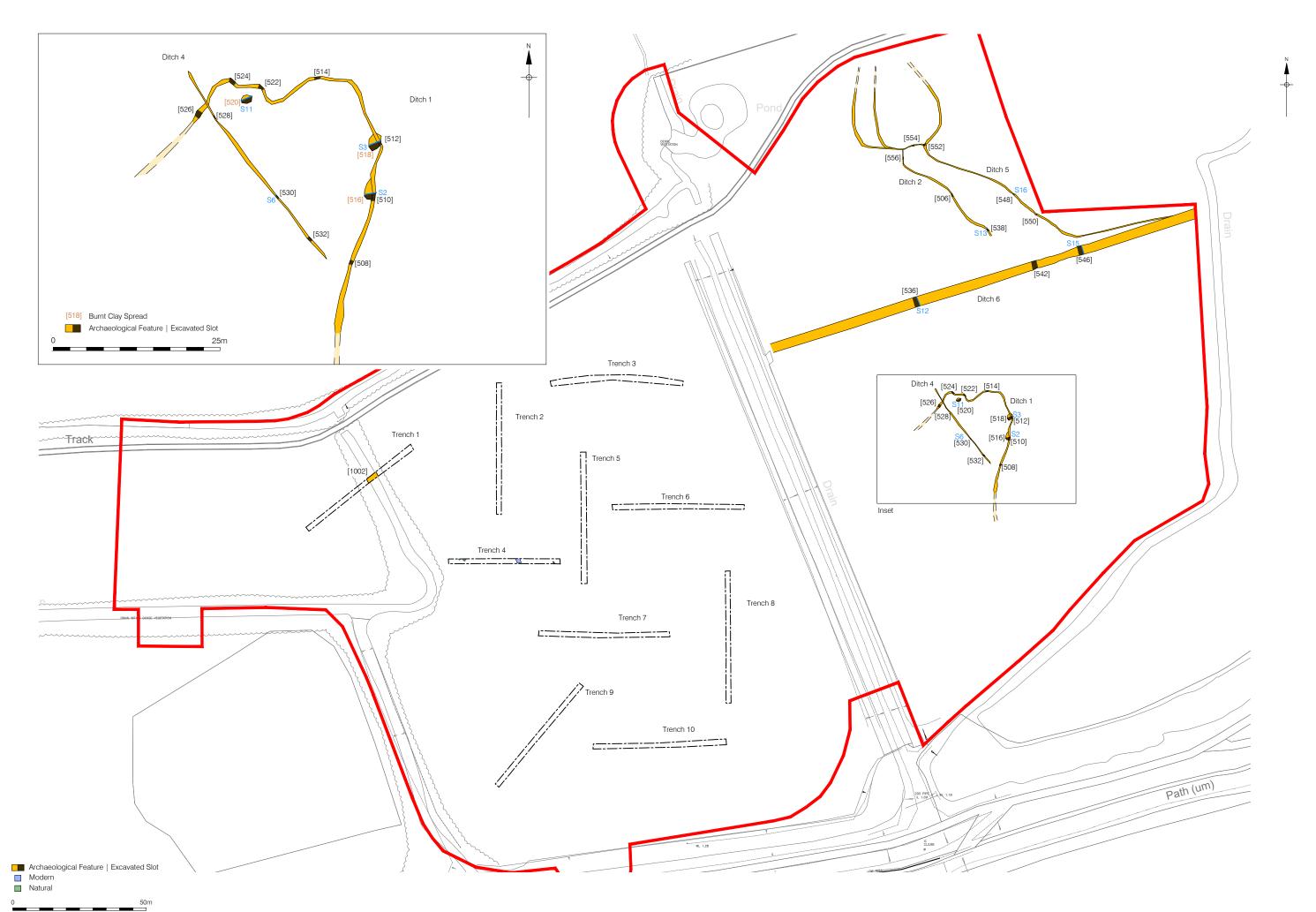




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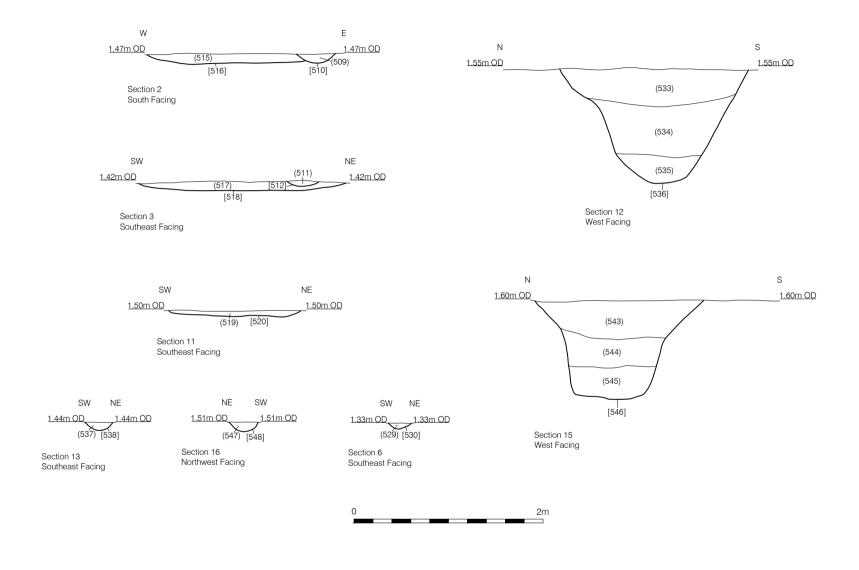


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Figure 5 All Features Plan on 1897 OS Map 1:1250 at A3



12 APPENDIX 1: PLATES



Plate 1: Test Pit in area of Boating Lake (example)



Plate 2: Test Pit in area of Borrow Pit (example)



Plate 3: Stripping of soil bund around Boating Lake



Plate 4: Stripping of Borrow Pit



Plate 5: Red clay patch [520]



Plate 6: Red clay patch [518] and sinuous channel [511]



Plate 7: Sinuous channel pre-excavation



Plate 8: Sinuous channel post-excavation



Plate 9: Post-medieval ditch slot [546]



Plate 10: Trench 1 looking north-east

13 APPENDIX 2: CONTEXT INDEX

Context				Length	Width	Depth	
No	Cut	Туре	Category	(m)	(m)	(m)	Description
							Loose, dark blueish brown silty
101	101	Layer	Topsoil	0	0	0.15	clay
							Loose, light brown silty clay.
							Topsoil/natural interface, rather
102	102	Layer	Subsoil	0	0	0.05	than a separate layer
103	103	Layer	Natural	0	0	0	Stiff, grey clay
				_	_		Loose, dark blueish brown silty
301	301	Layer	Topsoil	0	0	0.3	clay
302	302	Layer	Natural	0	0	0	Stiff, grey clay
=04	504					0.45	Loose, dark blueish brown silty
501	501	Layer	Topsoil	0	0	0.15	clay
E03	E02	Lavor	Toncoil	_	0	0.15	Loose, dark blueish brown silty
502	502	Layer	Topsoil	0	0	0.15	clay Loose, dark blueish brown silty
503	503	Layer	Topsoil	0	0	0.2	clay
504	504	•	Natural	0	0		Stiff, grey clay
		Layer				0.3	
505	506	Fill	Ditch	0.8	0.4	0.1	Loose, dark blue silt
506	506	Cut	Ditch	0.8	0.4	0.1	Linear in plan, gentle sides, concave base
507	508	Fill	Ditch	1	0.45	0.1	Loose, dark blueish brown silt Linear in plan, gentle sides,
508	508	Cut	Ditch	1	0.45	0.1	concave base
		Fill					
509	510	FIII	Ditch	1	0.4	0.1	Loose, dark blueish brown silt Linear in plan, gentle sides,
510	510	Cut	Ditch	1	0.4	0.1	concave base
511	512	Fill	Ditch	0.8	0.3	0.05	Loose, dark blueish brown silt
311	312	1 1111	Ditti	0.0	0.3	0.03	Linear in plan, gentle sides,
512	512	Cut	Ditch	0.8	0.3	0.05	concave base
513	514	Fill	Ditch	0.8	0.4	0.12	Loose, dark blueish brown silt
313	317	1 1111	Ditteri	0.0	0.4	0.12	Linear in plan, gentle sides,
514	514	Cut	Ditch	0.8	0.4	0.12	concave base
							Stiff, mid reddish brown clay
515	516	Fill	Pit	1.6	2.2	0.1	with frequent burnt clay
							Irregular in plan, gentle sides, flat
516	516	Cut	Pit	1.6	2.2	0.1	base
							Stiff, mid reddish brown clay
517	518	Fill	Pit	2.2	1.5	0.07	with frequent burnt clay
Г10	F10	Cut	D:t	2.2	1 5	0.07	Irregular in plan, gentle sides, flat
518	518	Cut	Pit	2.2	1.5	0.07	Stiff, mid reddish brown clay
519	520	Fill	Pit	1.4	1	0.05	with frequent burnt clay
313	320	1 1111	110	1.4		0.03	Irregular in plan, gentle sides, flat
520	520	Cut	Pit	1.4	1	0.05	base
521	522	Fill	Ditch	0.8	0.4	0.14	Loose, dark blueish brown silt
221	522	• • • • • • • • • • • • • • • • • • • •	5.001	0.0	0.7	0.17	Linear in plan, gentle sides,
522	522	Cut	Ditch	0.8	0.4	0.14	concave base
523	524	Fill	Ditch	1	0.5	0.1	Loose, dark blueish brown silt
524	524	Cut	Ditch	1	0.5	0.1	Linear in plan, gentle sides,

Context No	Cut	Typo	Catagory	Length (m)	Width (m)	Depth (m)	Description
INO	Cut	Туре	Category	(111)	(111)	(111)	concave base
F2F	526	r:II	Dital		0.5	0.43	
525	526	Fill	Ditch	1	0.5	0.12	Loose, dark blueish brown silt
526	526	Cut	Ditch	1	0.5	0.12	Linear in plan, gentle sides, concave base
							Loose, dark blueish brown clayey
527	528	Fill	Ditch	0.8	0.2	0.07	silt
528	528	Cut	Ditch	0.8	0.2	0.07	Linear in plan, gentle sides, concave base
529	E20	Fill	Ditch	0.8	0.25	0.07	Loose, dark blueish brown clayey silt
529	530	FIII	Ditch	0.8	0.25	0.07	Linear in plan, gentle sides,
530	530	Cut	Ditch	0.8	0.25	0.07	concave base
							Loose, dark blueish brown clayey
531	532	Fill	Ditch	0.8	0.15	0.07	silt
							Linear in plan, gentle sides,
532	532	Cut	Ditch	0.8	0.15	0.07	concave base
533	536	Fill	Ditch	0	0	0.4	Loose, mid reddish brown clayey silt
534	536	Fill	Ditch	0	0	0.6	Moderate, light grey clay
535	536	Fill	Ditch	0	0	0.5	Moderate, dark blue peat
							Linear in plan, steep irregular
536	536	Cut	Ditch	2	2	1.5	sides, concave base
537	538	Fill	Ditch	0.8	0.3	0.1	Loose, dark blueish brown silt
							Linear in plan, gentle sides,
538	538	Cut	Ditch	0.8	0.3	0.1	concave base
539	542	Fill	Ditch	0	0	0.4	Mottled, grey orange brown clayey silt
540	542	Fill	Ditch	0	0	0.3	Stiff, light orangeish grey clay
340	342	ГШ	DILCII	0	0	0.5	Moderate, dark blueish brown
541	542	Fill	Ditch	0	0	0.4	peat
							Linear in plan, steep irregular
542	542	Cut	Ditch	2	1.8	1.2	sides, concave base
				_	_		Mottled, grey orange brown
543	546	Fill	Ditch	0	0	0.4	clayey silt
544	546	Fill	Ditch	0	0	0.3	Stiff, light orangeish grey clay
545	546	Fill	Ditch	0	0	0.3	Moderate, dark blueish brown peat with occasional CBM
343	340	1111	Ditteri	0	0	0.5	Linear in plan, steep irregular
546	546	Cut	Ditch	2	1.8	1	sides, concave base
547	548	Fill	Ditch	1	0.3	0.1	Loose, dark blueish brown silt
							Linear in plan, gentle sides,
548	548	Cut	Ditch	1	0.3	0.1	concave base
549	550	Fill	Ditch	0.8	0.2	0.07	Loose, dark blueish brown silt
		6 /	5			2	Linear in plan, gentle sides,
550	550	Cut	Ditch	0.8	0.2	0.07	concave base
551	552	Fill	Ditch	1	0.3	0.2	Loose, dark blueish brown silt
552	552	Cut	Ditch	1	0.3	0.2	Linear in plan, gentle sides, concave base
553	554	Fill	Ditch	1	0.3	0.3	Loose, dark blueish brown silt

Context				Length	Width	Depth	
No	Cut	Type	Category	(m)	(m)	(m)	Description
							Linear in plan, gentle sides,
554	554	Cut	Ditch	1	0.3	0.3	concave base
555	556	Fill	Ditch	1	0.3	0.2	Loose, dark blueish brown silt
							Linear in plan, gentle sides,
556	556	Cut	Ditch	1	0.3	0.2	concave base
							Topsoil, recoderd in evaluation
1000		Layer	Topsoil	0	0	0.2	trenches 1 to 10
							Natural, recoderd in evaluation
1001		Layer	Natural	0	0	0	trenches 1 to 10
							Loose, dark blueish brown silt;
1002	1003	Fill	Ditch	2	2	0	not excavated
1003	1003	Cut	Ditch	2	2	0	Linear in plan, not excavated

14 **APPENDIX 3: OASIS FORM**

OASIS ID: preconst1-368947

Project details

Project name Mersea Outdoors, Rewalls Lane, East Mersea, Essex

Short description of Monitoring of geotechnical test pits, strip, map and record and trial the project

trenching during construction of a new boating lake at Mersea Outdoors. The investigations revealed no significant archaeological remains. No prehistoric features, similar to those recently discovered in the vicinity were present on the site. Three small, shallow deposits of poorly fired red clay were recorded in the south-western area of the borrow pit. These do not represent firing in-situ but are reminiscent of the same material that forms the 'red hill' located 200m to the east, which is an accumulation of the briquetage of the dismantling of prehistoric or Roman salt making features. It is possible that some of the fired clay briquetage somehow got transferred across site and dumped in this area, rather than on the main mound. The excavations also revealed a series of sinuous, narrow, shallow ditches which may be natural drainage or water run-off channels. Two post-medieval boundary ditches, which are shown on the 1879 OS

map were also excavated.

Project dates Start: 12-03-2019 End: 02-09-2019

Previous/future work No / No

associated ECC4301 - Museum accession ID Any

project reference

codes

associated ECC4301 - Sitecode Any

project reference

codes

Type of project Recording project

Monument type **BOUNDARY DITCH Post Medieval**

Monument type DRAINAGE DITCH Uncertain

FIRED CLAY DEPOSIT Roman Monument type

Significant Finds **POTTERY Post Medieval**

Project location

Country England

Lane, East Mersea, Essex

Postcode CO5 8SX

Study area 6 Hectares

Site coordinates TM 0434 1339 51.781259526322 0.962710059416 51 46 52 N 000 57 45

E Point

Project creators

Name of Pre-Construct Archaeology Limited

Organisation

Project brief Colchester Borough Council

originator

Project design Pre-Construct Archaeology

originator

Project Helen Hawkins

director/manager

Project Christiane Meckseper

director/manager

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Project supervisor Judyta Mlynarska

Type of Developer

sponsor/funding

body

Project archives

Physical Archive Colchester and Ipswich Museum

recipient

Physical Contents "Ceramics", "Environmental"

Digital Archive Colchester and Ipswich Museum

recipient

Digital Contents "Ceramics", "Environmental", "other"

Digital Media "Database", "Images raster / digital photography", "Survey", "Text"

available

Paper Archive Colchester and Ipswich Museum

recipient

Paper Contents "other"

Paper Media "Context sheet", "Diary", "Section"

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