

**C254 Archaeology
Excavation of Animal Burial,
Wallasea Island
Essex
Event Code CNWA 13**

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SUMMARY

In July 2013 Oxford Archaeology/Ramboll (OAR) carried out the recording and excavation of an animal skeleton on Wallasea Island, Essex. The fieldwork was undertaken on behalf of Crossrail during works related to the distribution of spoil generated from the Crossrail scheme as well as the excavation of surface scrapes and ponds to create a wetland area for the RSPB. The remains of an adult cow lay in a shallow pit, which was cut into the silty clay which covers most of the island and is just below the present topsoil. Aside from the animal skeleton, no artefacts or ecofacts were observed within the pit or adjacent deposits. The animal is assumed to be a relatively modern interment.

1. INTRODUCTION

1.1 Background and scope of work

- 1.1.1 In July 2013 Oxford Archaeology/Ramboll carried out the recording and excavation of an almost intact animal skeleton uncovered in a shallow pit, during the machine excavation of a surface scrape/pond on Wallasea Island, Essex. This report details the results of this archaeological fieldwork.
- 1.1.2 A Site Specific Written Scheme of Investigation (SSWSI) for watching brief at Wallasea Island was produced by Crossrail (Document No: C122-OVE-TI-RGN-CR039-500001 (VER. 2.0, 29.03. 12)). This sets out the legislative and planning framework in which the excavation took place and forms the project design for the programme of Archaeological works on the Crossrail works on Wallasea Island.
- 1.1.3 The Crossrail works (C807) on Wallasea Island include; the distribution of spoil generated from Crossrail activities in London as well as the excavation of surface scrapes and ponds to create a wetland area for the RSPB.

1.2 Site Location, Geology and Topographical Setting

- 1.2.1 The animal skeleton was uncovered on the northern side of Wallasea Island. The Island is some 2.3km wide (north - south) and 6km long (east - west) although the Crossrail site is considerably less. The northern edge of the Island is formed by the River Crouch and to the south and east by the River Roach and the Brankfleet. To the west the island is separated from the "main land" by the Paglesham Creek.
- 1.2.2 The RSPB/MER Wallasea Island Wild Coast project ES (2008) sets out a description of the geology and topology of the site. This is summarised here.
- 1.2.3 Wallasea Island comprises one of six islands, which forms the so-called "Essex Archipelago". It is a large low-lying island that is entirely within coastal floodplain, surrounded by the Roach and Crouch estuaries. It is lower in elevation than the surrounding intertidal habitats, a consequence of historical reclamation and subsequent ground settlement.
- 1.2.4 The British Geological Survey (BGS) mapping describes the island deposits as comprising undifferentiated or clay, marine or estuarine alluvium, with river terrace deposits located at the western end of the island near Grapnells Farm. Assessment of historic borehole data provides the following stratigraphic profile of the island's geology (MER 2008:226):
- Made Ground (the embankments);
 - Soft marine clays;
 - Marine alluvial silts (generally under the embankments);
 - Alluvial sand (north side of the island only); and
 - Desiccated marine alluvial clays.

- 1.2.5 The report notes that prior to and during the Neolithic period (4000-2000 BC) this area would have comprised tidal silt flats and ridges of gravel and shell, with no evidence of prehistoric activity recorded during previous surveys and research on the island. The island developed into a marshland island by the Later Bronze Age (1000-700 BC) (2008: 226) as the inter-tidal flats and ridges slowly built up due to the fluvial action of silt deposition over a period of time.
- 1.2.6 Subsequent flooding events in the 20th century followed by remediation and levelling works have significantly altered the character of the island.

1.3 Archaeological and Historical Development of the Site

- 1.3.1 There are no recorded archaeological remains or features dating to the prehistoric period located within the Essex HER. The MER report notes that by the Late Iron Age and Roman periods (100 BC-410 AD) the island may have been the site of a number of red hills, or salt production sites, illustrated below.

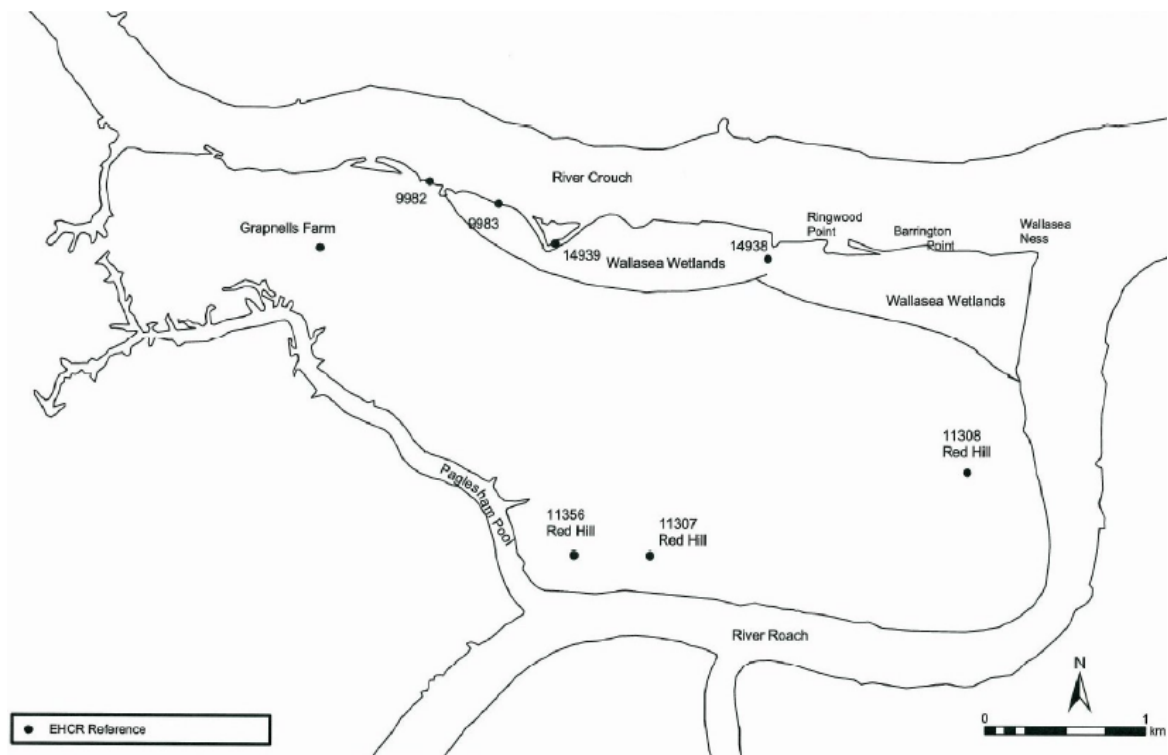


Figure 1: Indicative location of EHER Red hills (from 2008 MER)

- 1.3.2 By the Late Saxon period, rights to the valuable marshland pasture were divided between numerous parishes, as recorded in Domesday Book (1086 AD), likely to have been used for grazing of sheep. Documentary evidence suggests the island was embanked in the 13th or 14th centuries and would have been composed of a number of smaller areas of marsh. The routes of these embankments are visible on historic mapping, although most have since been levelled (2008:227).
- 1.3.3 The post-Roman settlement on the island is noted to have been initially transitory, perhaps seasonal occupation by fishermen and shepherds. No occupation sites are known prior to the early post-Medieval period, although documentary sources identify permanent settlement on the island by the Tudor period (1487-1603). The MER report noted that by 1777 there were 10 farmsteads, increasing to 13 by 1875. Agricultural decline and catastrophic flooding in the 20th century led to the gradual abandonment and demolition of the majority of settlements, and now there are no extant farms to the east of the existing Grapnells Farm. The majority of these were destroyed and any evidence of them removed after the 1953 flood and subsequent mitigation works (see 2.7 below).
- 1.3.4 On the edges of the islands there would have been a number of post-Medieval loadings such as quays and jetties which would have served the farms and as ferry points linking to the mainland and neighbouring islands. No remains were visible during the earlier 2008 walkover.

1.4 Past Impacts

- 1.4.1 Wallasea Island has flooded a number of times in the recorded past, including 1551, 1736, 1897, 1928, 1938, and during the “Great Tide” of 1953. The “Great Tide” of 1953 had a devastating effect on the island. Having over-topped the seawalls the island was flooded to a depth of 5-6ft, with subsequent tides breaching the seawalls on the north of the island. In order to drain the island a sand-bank counterwall was constructed. On the 13 February 1953 mechanical excavators were landed at an improvised hard standing at Tile Barns, on the south of the island (Greive 1959 in MER 2008:228). There are some visible dumps of stones in the intertidal area by Tide Barns which could be the remains of this work. Sections of the medieval and post-medieval seawalls were abandoned and new walls built inland. In the aftermath the island was essentially “barren” for 6 years and the land and soil on the island had to be processed by introducing 1000s of tonnes of gypsum to restructure the soil and allow it to recover from the saline intrusion.
- 1.4.2 In 1959 extensive re-drainage work took place, old boundaries infilled and new ones cut. The island to the east of Grapnells was levelled by a team of bulldozers and deep drainage put in place.

1.5 Methodology

- 1.5.1 The animal skeleton was recovered during machine excavation by the main contractor. After initial identification by Archaeologists from Crossrail and OAR, the skeleton was protected until it could be recorded and lifted. The animal skeleton was hand excavated and recorded using geo rectified photography and plotted using GPS.

1.5.2 The pit, its fill and the underlying deposit were recorded using Oxford Archaeology's Pro forma recording sheets.

1.6 Aims and Objectives

1.6.1 Generic aims and objectives are set out in the SS-WSI (C122-OVE-TI-RGN CR039-50001) and are not reproduced here. Specifically the works aimed to:

- 'Investigate, record, and where appropriate sample, any archaeological remains encountered by C807 works'.

2. RESULTS

2.1.1 Pit 02 was filled with a soft, mid-grey, silty-clay with mid brown mottling, which aside from the animal remains (03) contained no finds or inclusions. The pit was shallow, no more than 0.3 m in depth, with gentle undulating sides and an uneven base. It lay just below the present topsoil and was cut into a light brown clay silt deposit which was seen across the entire site and also contained no inclusions or finds. The mid-grey (shell rich) clay silt fill of a former lagoon was observed some 20m to the north of the pit.



Plate 1 Geo rectified Photograph of Animal Skeleton from the west

2.2 Animal Bone

- 2.2.1 After removal the animal bones were processed at Oxford Archaeology's office and were then studied by Chris Faine.
- 2.2.2 Context (02) contained 10.1kg of faunal material in the form of a partial adult cattle skeleton (03). Elements recovered included the complete axial skeleton (spine/ribs), both lower hind limbs (one femur missing), a single left metacarpal, cranial fragments and a left mandible. Metrical analysis suggests a female animal around 1.33m at the shoulder. Tooth wear analysis shows an extremely old individual (at least 15 years of age at death). No pathology was seen on the spine or lower limb elements to suggest use as a draught animal.

3. CONCLUSION

- 3.1.1 The animal remains uncovered at Wallasea Island proved to be an adult cattle of unknown date. As the excavations produced no dating material from within the pit itself nor the surrounding deposits and it has been impossible to date the animal burial.
- 3.1.2 Aside from the animal skeleton, the excavations uncovered no remains of archaeological interest.

4. REFERENCES

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APPENDIX 3 SUMMARY OF SITE DETAILS

Client name: Crossrail

Site name: Wallasea Island

Site code: CNWA 13

Grid reference: TQ 96 1940 **Type of evaluation:** Excavation of Animal Skeleton (Bovine)

Date and duration of project: The work was undertaken on 19 July 2013.

Area of site: Lagoon Wallasea Island

Summary of results:

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with the Museum of London in due course.