

Archaeological Monitoring and Excavation

Sea Defence Repair Works at

**Othona, Bradwell-on-Sea
Essex**

**ASE Project No: E8028
Site Code: BROFD 13**

ASE Report No: 2013331



December 2013

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NGR: TM 03150 08290

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**ASE Report No: 2013331
OASIS id: 166453**

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December 2013

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Abstract

In September 2013 Archaeology South-East was commissioned by the Environment Agency to undertake monitoring and excavation during repair works to the rear of the sea wall immediately north of the remains of the Roman 'Saxon Shore' fort of Othona at Bradwell-on-Sea, Essex. A single L-shaped trench was monitored for approximately 22m on the 17th September 2013.

Although the works were located within approximately 20m of the fort, no stratified remains of Roman date were identified nor any associated with the later use of the fort as a monastic site in the mid to late Saxon period. Finds consisted of a small collection of residual Roman brick and tile recovered from the topsoil and subsoil and abraded tile recovered from a sand deposit at the base of the trench. It is possible that this area was once within the intertidal zone and the finds were deposited upon a former shoreline. Alternatively, the material may have accumulated as part of a storm beach deposit during episodes of severe weather.

The only other recovered find was a fired cartridge case of a calibre used in U.S. service small arms in World War 2. This is not unusual as there are wartime defences such as tank traps and pillboxes in the area and the site is located close to a former military airfield.

Given the lack of archaeological remains the repair work has clearly had no detrimental impact on the archaeological record.

CONTENTS

- 1.0 Introduction**
- 2.0 Archaeological Background**
- 3.0 Archaeological Methodology**
- 4.0 Results**
- 5.0 Finds**
- 6.0 Discussion and Conclusions**

Acknowledgements

Bibliography

Appendices

Appendix 1: HER Summary Sheet

Appendix 2: OASIS Form

Figures

Front Cover image: Trench excavation, looking east

Figure 1: Sea defence repair works at Othona, Bradwell-on-Sea

Figure 2: E/W arm of trench looking east

Figure 3: E/W arm of trench, north facing section

Figure 4: N/S arm of trench, east facing section

Figure 5: N/S arm of trench, looking north

Tables

Table 1: Quantification of site archive

Table 2: List of recorded contexts

Table 3: Quantification of the finds assemblage

1.0 INTRODUCTION

1.1 Site background

- 1.1.1 Repairs to the sea defences immediately north of the Roman 'Saxon Shore' fort of Othona, Bradwell-on-Sea were monitored by Archaeology South-East on behalf of the Environment Agency, in September 2013. The archaeological work was required as a condition of Scheduled Monument Consent granted by English Heritage and was carried out in accordance with a Written Scheme of Investigation prepared by Archaeology South-East (ASE 2013). Archaeology South-East are the contracting division of the Centre for Applied Archaeology, Institute of Archaeology, University College, London.
- 1.1.2 The archaeological works were undertaken as the sea wall undergoing repairs is situated on the northern edge of the Scheduled Monument.
- 1.1.3 The archaeological work consisted of a programme of monitoring and excavation during the excavation of an L shaped trench to the rear (landward side) of the seawall where chain link was to be placed as an 'anti-dig' measure to prevent the undermining of the seawall by badgers (Figure 1).

1.2 Location, topography and geology

- 1.2.1 The site overlooks the mouth of the Blackwater Estuary at the north-east end of the Dengie Peninsula, and is located along the landward side of the sea wall south-east of the *Othona Community Settlement*, at the corner where the path turns westward (NGR: TM 03150 08290) (Figure 1).
- 1.2.2 The site is located within the north-eastern boundary of the Scheduled Monument (SM 24883) comprising the Roman 'Saxon Shore' fort of Othona (EHER 31) and the middle Saxon chapel of St-Peter-on-the-Wall (EHER 38600) which stands on the former west entrance of the Roman fort.
- 1.2.3 The superficial geology of the site is mapped by the British Geological Survey (BGS) as river terrace deposits of sand and gravel overlying bedrock of the Thames Group comprising silty clay/mudstone, sandy silts and sandy clayey silts of marine origin (BGS Geology of Britain Viewer; accessed 10/12/2013). Given the sites proximity to the sea, storm beach deposits of sand and gravel brought in by flood events are a potential presence.

1.3 Planning Background

- 1.3.1 As the site is situated within the boundary of a Scheduled Monument, archaeological work was carried out in accordance with the terms of Scheduled Monument Consent granted by the Secretary of State, under the Ancient Monuments and Archaeological Areas Act 1979. The consent was given following advice from Sarah Poppy, Assistant Inspector of Ancient Monuments (Cams, Herts and Essex) for English Heritage.

1.4 Aims and Objectives

- 1.4.1 The aim of the archaeological monitoring was to record, excavate, analyse and report on any archaeological remains exposed by the trenching, thereby achieving the *preservation by record* of those features/deposits threatened by the proposed development.

- 1.4.2 The specific objectives of the project were:
- to record and excavate any remains relating to the Roman 'Saxon Shore' fort.
- 1.4.3 If any significant discoveries were made the report would seek to relate these to current regional research objectives identified in *Research and Archaeology: a Framework for the Eastern Counties, 2. research agenda and strategy* (Brown and Glazebrook 2000) and *Research and Archaeology Revisited: a revised framework for the East of England* (Medlycott 2011).
- 1.5 Scope of Report**
- 1.5.1 This report details the results of the monitoring and excavation. The work was carried out by Trevor Ennis (Senior Archaeologist) on the 17th of September 2013. The fieldwork was managed by Adrian Scruby.

2.0 ARCHAEOLOGICAL BACKGROUND

- 2.1 The following archaeological background is summarised from Sparrow 2011 and Medlycott 2000.
- 2.2 The Roman fort, normally identified as *Othona*, is listed under the command of the Count of the Saxon Shore in the *Notitia Dignitatum*, was probably founded between AD250 and 270, and occupied until the 5th century. It was approached from the west by a Roman road, traces of which are visible along the line of the modern track which runs along a promontory to the edge of the peninsula. With the exception of St Peter's Chapel few remains survive above ground.
- 2.3 The fort defences comprised stone walls, punctuated by corner and interval towers and/or projecting bastions, surrounded by an external ditch. The south wall of the fort survives and the route of the western wall is visible as a slight bank in the arable field. The eastern side of the fort has been lost to the sea. The surviving defences enclose an area of approximately two hectares but before the loss of the eastern part of the circuit the area of the fort was probably approximately three hectares. Reference to records from earlier excavations suggest that the sea defence works lie outside the fort to the north of the wall and ditch.
- 2.4 The Middle Saxon monastic church of St Peter-on-the-Wall was built in AD 654 by St Cedd as part of his evangelisation of Essex. It is situated on the western wall of the earlier fort. The chapel may have been part of a monastery, the conventual buildings of which are thought to lie within the fort. The site was recorded as *Effecestra* in Domesday (Rumble 1983) and documentary evidence indicates that sea incursions were gradually destroying the settlement by the late 11th century. By the 17th century the chapel was being leased out for use as a barn and did not return to religious use until the early 20th century.
- 2.5 Previous trenching and recent geophysical and fieldwalking surveys in and around the Roman fort have established its plan and have identified areas of extra-mural activity. Excavations within the Othona Community site to the north of the site have been undertaken in 1991, 1992-3 (Medlycott 1994) and 2009

(Sparrow 2011) (Figure 1). The 1990s works identified ditches, natural gullies, pits and post holes of 3rd to 4th century date. The 2009 excavation recorded new evidence of extra-mural activity related to the late Roman fort including ditches and a small outbuilding. The artefactual evidence suggested that the area to the north of the fort was used for the corralling, slaughter and butchery of cattle.

- 2.6 A landscape study based on a borehole survey has shown that the fort was situated on a low promontory bounded on three sides by salt marsh and tidal creeks. The area has been prone to flooding throughout history, with the first documentary evidence noted in the Anglo-Saxon Chronicle in 1099, and subsequent incursions were recorded by Randulphus Niger and William Camden (Medlycott 1994). The marshes to the north and south of the promontory on which the fort/chapel are situated have been embanked since at least the early 17th century, indeed the defences may have their origins in the medieval period. The extant modern sea walls are substantial and have been constructed with imported clay.

3.0 ARCHAEOLOGICAL METHOD

3.1 Fieldwork Method

- 3.1.1 The archaeological work monitored the excavation of approximately 22m of trenching around the interior of the bend of the sea wall; the trenching formed a curving L-shape (Figure 1). The groundworks were undertaken by the client's building contractors using a small tracked excavator equipped with a toothless bucket.

- 3.1.2 The trench measured approximately 22m long and 0.65m wide and had a maximum depth of 1.3m.

- 3.1.3 Archaeological features and deposits were drawn, photographed and recorded on pro-forma watching brief and context record sheets. All finds were collected. Work was carried out in accordance with the IfA (Institute for Archaeologists) Code of Conduct, by-laws and guidelines (IfA 2008, 2010) and complied with Standards for Field Archaeology in the East of England (Gurney 2003). Standard ASE excavation, artefact collection and recording methodologies were employed throughout.

3.2 Site Archive

- 3.2.1 The site archive is currently held at the offices of ASE and will be deposited at Colchester Museum in due course. The contents of the archive are summarised below (Table 1).

| | |
|-----------------------------|----------------------------|
| Number of Contexts | 5 |
| No. of files/paper record | 1 file |
| Drawing sheets (permatrace) | 1 |
| Photographs | 24 digital |
| Bulk finds | 1588g (not to be retained) |

Table 1: Quantification of site archive

4.0 RESULTS

4.1 Introduction

4.1.1 The list of recorded contexts is presented below (Table 2). No archaeological features were revealed, although finds were recovered from layers [001] and [002] at the western end of the trenching, and from layer [004] at the northern end of the trenching.

| Context | Type | Description |
|---------|-------|--|
| 001 | Layer | Topsoil: Dark brownish grey, heavily rooted & organic clay silt (0.22 - 0.52m thick). |
| 002 | Layer | Subsoil: Dark brownish grey heavily rooted silty clay (0.42 – 0.54m thick). |
| 003 | Layer | Subsoil: Mid grey heavily rooted sandy silt (0.24m thick) |
| 004 | Layer | Pale yellow heavily rooted sand (0.5m+ thick). Continued beneath excavated depth. |
| 005 | Layer | Mixed deposit of light brown compact clay and gravel (0.4m+ thick). Continued beneath excavated depth. |

Table 2: List of recorded contexts

4.1.2 The entire trench was heavily root-disturbed. Natural looking sand and shelly gravel was exposed in much of the base of the trench apart from the west end, where light brown clay (a continuation of layer [005]) was exposed for a length of some 7m.

4.2 The Trench

4.2.1 In the east-west arm of the trench dark brownish grey topsoil [001] and subsoil [002] overlay mixed lighter brown clay and gravel [005] (figures 2 and 3). Roman finds consisting of tegula fragments and a piece of probable brick were recovered unstratified from machine removal of topsoil and subsoil in this area. These are likely to be residual finds from the fort deposited during modern activity. Also recovered was a single fired cartridge case used by U.S. forces in World War 2.

4.1.3 In the north/south arm of the trench, the topsoil [1] overlay subsoil [003] that was greyer in colour and more sandy in composition than in the west of the trench (Figure 4). The subsoil sealed a deposit of pale yellow sand [004] that was exposed in the bottom of the section and was seen in places to overlay shelly gravel and cleaner orange sand (Figure 5). Fragments of Roman building material that was significantly water abraded, including tegula, brick, tile and possible voussior where recovered from deposit [004].

5.0 FINDS

5.1 Introduction

A small collection of finds were recovered during fieldwork. An overview is shown in Table 3.

| Context | CBM | Wt (g) | Rifle bullet casing | Wt (g) |
|--------------|----------|-------------|---------------------|-----------|
| 001 & 002 | 4 | 726 | 1 | 13 |
| 4 | 5 | 829 | | |
| Total | 9 | 1555 | 1 | 13 |

Table 3 Quantification of finds

5.2 Ceramic Building Material by Trista Clifford

Nine fragments of CBM weighing a total of 1555g were recovered from two contexts. Roman tegula fragments in two different fabrics came from [01/02], together with a piece of probable brick with opus signinum attached to one face. The CBM from context [4] was significantly water abraded and therefore identification of particular forms has been problematic. However, fragments of tegula, brick, tile and possible voussior were identified. No mention of water abrasion was noted in material from previous excavations (Medleycott 1994; Sparrow 2011). The assemblage has been recorded in full for the archive but does not hold any potential for further analysis and is recommended for discard.

5.3 Ammunition by Justin Russell

Context [001/002) produced a single fired 30.06 cartridge with a headstamp that reads: 'A R 43'. This can be identified as having been made at the Remington Arms factory, Bridgeport, Connecticut, United States in 1943. The 30.06 cartridge formed the greater part of ammunition used in U.S. service small arms in World War 2.

6.0 DISCUSSION AND CONCLUSIONS

6.1 Discussion

6.1.1 No stratified archaeological remains of Roman or later date were identified. Residual Roman finds were recovered from the topsoil and subsoil in the east/west arm of the trench and from a sand deposit in the north/south arm. The finds found in the sand were significantly water abraded implying that they had regularly been carried back and forth by the tide. It is possible that this area was once within the intertidal zone and the finds were deposited on a former shoreline. Alternatively, the material may have accumulated here as part of a storm beach deposit during episodes of severe weather.

6.1.2 The Roman finds themselves originally clearly derived from the fort, presumably disturbed and re-deposited in modern times. The shoreline to the west of the site is recorded as 'Tip Head' on 19th and 20th century Ordnance Survey maps. This area is associated with land reclamation works undertaken in the 1860s that used material quarried from inside of the Roman fort (Heppell 2000). It is probable that this 'tip' was the source of the abraded brick and tile.

- 6.1.3 Surprisingly, given the location of the trench at the foot of the sea wall no deposits obviously identified with this structure were identified in section. This was particularly noticeable in the north/south trench where sand deposits were found at the base of the trench. The east/west trench was located slightly nearer the wall and it is conceivable that the brown clay and gravel in the base was re-deposited bank material rather than natural.
- 6.1.4 The only non-Roman find was the fired cartridge case of a calibre used in U.S. service small arms in World War 2. The sea off of the Dengie peninsula is known to have been used for target practice during the Second World War and the site is located only a short distance from a former military airfield.

6.2 Conclusions

- 6.2.1 Although the site was located just north of the Roman fort and Saxon monastery, no remains of these dates were identified during the repair works to the sea defences. The few Roman finds recovered were all residual in modern or sea-water deposited contexts and the project has therefore had no detrimental impact on the archaeological record.

ACKNOWLEDGEMENTS

Archaeology South-East would like to thank the Environment Agency for commissioning the work and Sarah Poppy of English Heritage for guidance and monitoring of the project.

The archaeological fieldwork was carried out by Trevor Ennis. The authors would like to thank Andrew Lewsey who produced the figures for this report; Adrian Scruby who project managed the fieldwork and Mark Atkinson who project managed the post-excavation process.

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Appendix 1: HER Summary Form

| | |
|---|--|
| Site name/Address: Sea defence repair works at Othona, Bradwell-on-Sea, Essex | |
| Parish: Bradwell on-Sea | District: Maldon |
| NGR: TM 03150 08290 | Site Code: BROFD 13 |
| Type of Work: Archaeological monitoring and excavation | Site Director/Group: T. Ennis, Archaeology South-East |
| Date of Work: 17th September 2013 | Size of Area Investigated: c.22m sq m |
| Location of Finds/Curating Museum: Colchester Museum | Funding source: client |
| Further Seasons Anticipated?: No | Related HER Nos: 9981,14429-30 |
| Final Report: EAH roundup | OASIS No: 166453 |
| Periods Represented: Roman, WW2 | |
| SUMMARY OF FIELDWORK RESULTS: | |
| <p>Archaeological monitoring and excavation was undertaken during repair works to the rear of the sea wall immediately north of the remains of the Roman 'Saxon Shore' fort of Othona at Bradwell-on-Sea, Essex. A single L-shaped trench was monitored for approximately 22m.</p> <p>Although the works were located within approximately 20m of the fort, no stratified remains of Roman date were identified nor any associated with later use of the fort as a monastic site in the mid to late Saxon period. Finds consisted of a small collection of residual Roman brick and tile recovered from the topsoil and subsoil and abraded tile recovered from a sand deposit at the base of the trench. It is possible that this area was once within the intertidal zone and the finds were deposited upon a former shoreline. Alternatively, the material may have accumulated as part of a storm beach deposit during episodes of severe weather.</p> <p>The only other recovered find was a fired cartridge case of a calibre used in U.S. service small arms in World War 2. The recovery of this find is not unusual as there are wartime defences such as tank traps and pillboxes in the area, and the site is located close to a former military airfield.</p> <p>Given the lack of archaeological remains the repair work has clearly had no detrimental impact on the archaeological record.</p> | |
| Previous Summaries/Reports: | |
| <p>Medlycott, M, 1994, 'The Othona Community Site, Bradwell-on-Sea, Essex. The extra-mural settlement' <i>Essex Archaeol. Hist.</i> 25 (3rd series), 60-71</p> <p>Sparrow, P. 2011 Othona: Roman extra-mural activity at the Othona Community site, Bradwell-on-Sea' <i>Essex Archaeol. Hist.</i> 2 (4th series), 69-75</p> | |
| Author of Summary: T. Ennis | Date of Summary: December 2013 |

Appendix 2: OASIS Form

OASIS ID: 166453

Project details

| | |
|----------------------------------|---|
| Project name | Sea Defence Works at Othona |
| Short description of the project | Archaeological monitoring was undertaken during repair works to the rear of the sea wall immediately north of the remains of the Roman 'Saxon Shore' fort of Othona at Bradwell-on-Sea, Essex. A single L-shaped trench was monitored for approximately 22m. Although the works were located within approximately 20m of the fort, no stratified remains of Roman date were identified nor any associated with the later use of the fort as a monastic site in the mid to late Saxon period. Finds consisted of a small collection of residual Roman brick and tile recovered from the topsoil and subsoil and abraded tile recovered from a sand deposit at the base of the trench. The only other recovered find was a fired cartridge case of a calibre used in U.S. service small arms in World War 2. |
| Project dates | Start: 17-09-2013 End: 17-09-2013 |
| Previous/future work | Yes / Not known |
| Any associated reference codes | BROFD 13 - Sitecode |
| Type of project | Recording project |
| Site status | Scheduled Monument (SM) |
| Monument type | NONE None |
| Significant Finds | TILE Roman |
| Investigation type | ""Watching Brief"" |
| Prompt | Scheduled Monument Consent |

Project location

| | |
|------------------|---|
| Country | England |
| Site location | ESSEX MALDON BRADWELL ON SEA Sea Defence Works at Othona, Bradwell-on-Sea |
| Study area | 22.00 Square metres |
| Site coordinates | TM 03150 08290 51 0 51 44 09 N 000 56 33 E Point |

Project creators

| | |
|---------------------------|------------------------|
| Name of Organisation | Archaeology South-East |
| Project brief originator | English Heritage |
| Project design originator | Archaeology South-East |
| Project director/manager | Adrian Scruby |
| Project supervisor | Trevor Ennis |

Project archives

| | |
|---------------------------|--|
| Physical Archive Exists? | No |
| Digital Archive recipient | Colchester Museum |
| Digital Archive ID | BROFD 13 |
| Digital Contents | "Ceramics", "Metal" |
| Digital Media available | "Images raster / digital photography" |
| Paper Archive recipient | Colchester Museum |
| Paper Archive ID | BROFD 13 |
| Paper Contents | "Ceramics", "Metal" |
| Paper Media available | "Context sheet", "Photograph", "Plan", "Report", "Section" |

Project bibliography 1

| | |
|-------------------------------|---|
| Publication type | Grey literature (unpublished document/manuscript) |
| Title | Sea Defence Repair Works at Othona, Bradwell-on-Sea |
| Author(s)/Editor(s) | Dyson, A. and Ennis, T. |
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| Date | 2013 |
| Issuer or publisher | Archaeology South-East |
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| Description | A4, blue spine, approx. 10 pages |
| Entered by | Trevor Ennis (t.ennis@ucl.ac.uk) |
| Entered on | 17 December 2013 |



Figure 2: E/W arm of trench, looking east



Figure 3: E/W arm of trench, north facing section (1m scale)



Figure 4: N/S arm of trench, east facing section (1m scale)



Figure 5: N/S arm of trench, looking north (1m scale)

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