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A259 WALLAND MARSH IMPROVEMENT

ARCHAEOLOGICAL FIELDWALKING AND EARTHWORK SURVEY

ΒY

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SUMMARY

In September 1995 Cotswold Archaeological Trust carried out an archaeological survey on farmland and earthworks on and adjacent to the Flot, Brookland, Kent. The work was part of the environmental assessment of the Published Scheme for the A259 Walland Marsh Improvement. The survey was commissioned by Owen Williams (Consulting Engineers) on behalf of the Highways Agency. The project was monitored by Chris Blandford Associates.

The survey consisted of two elements; an earthwork survey of part of the medieval sea defences known as the Flot, which partly lies on the route of the present A259, and a fieldwalking survey on arable farmland immediately to the south. Both areas lie within the corridor of the preferred route.

The sea defences probably date from the early to mid 13th century and formed the principle line of defence from incursion of the sea from the south. The earthwork survey was centred on a repair of the sea wall. This repair was necessary after the sea breached the defences when land immediately to the south was over-run by the sea in the late 13th and 14th century. The land covered by the fieldwalking was reclaimed in the 14th and 15th century.

Evidence for activity pre-dating the medieval inundation exists in the form of an undated ditch system lying 1.4 km to the south-west of the Flot, sealed by a thick deposit of marine sediment. The fieldwalking survey on reclaimed farmland yielded no archaeologically significant material, but the presence of deeply buried archaeological deposits sealed below the marine sediments can not be totally discounted.

GLOSSARY OF ARCHAEOLOGICAL TERMS AND ABBREVIATIONS

ARCHAEOLOGY

For the purposes of this project, archaeology is taken to mean the study of past human societies through their material remains, from prehistoric times to the modern era. No rigid upper date limit has been set, but AD 1950 is used as a general cut-off point.

MEDIEVAL

Taken here as the period from the Norman invasion in AD 1066 to approximately AD 1500.

NGR

National Grid Reference given from the Ordnance Survey Grid.

OD

Ordnance Datum; used to express a given height above mean sea level.

POT-SHERD

A fragment of a pottery vessel.

SMR

Sites and Monuments Record.

1. INTRODUCTION AND BRIEF

1.1 Introduction

- 1.1.1 In September 1995 Cotswold Archaeological Trust was commissioned by Owen Williams (Consulting Engineers), on behalf of the Highways Agency, to carry out an archaeological Fieldwalking Survey and an Earthwork Survey at, and adjacent to, the Flot, Brookland, Kent (centred on NGR: TQ 9745 2460) (Figure 1).
- 1.1.2 The work was in line with the Department of Transport's guidelines as set out in the Design Manual for Roads and Bridges (DMRB) Volume 11 Environmental Assessment (1993 ammended 1994). The survey followed a brief prepared by Chris Blandford Associates (July 1995).
- 1.1.3 This report presents the results of the archaeological survey.

1.2 Archaeological background

- 1.2.1 An archaeological desk-assessment of the study area was undertaken by the Romney Marsh Research Trust (Eddison 1992). This identified the east-west running earthwork which crosses the study area's northern end as a medieval sea wall probably dating to the 13th century and supported by a number of other secondary walls.
- 1.2.2 These defences, created against inundations by the sea across the low lying marsh, have been shown from aerial photographs to overlie an earlier but undated ditch system to the north of the defences, although outside the study area (Eddison and Green 1988, 188). A similarly orientated ditch system, possibly of the same date, was also identified from the air 1.4km south-west of the study area scaled by a later medieval marine sediment.
- 1.2.3 The mid 13th century saw a deterioration in the climate, with a subsequent rise in sea level and a series of well documented storms in 1250, 1252 and 1287-8 (Brandon and Short 1990, 106). The study area to the south of the sea defences was flooded in the late 13th or early 14th century when the sea broke in across the marshes from the south. This resulted in a thick layer of sediment being deposited over the early land surface and against the sea wall defences. The sea wall itself was breached during this period and was later repaired with a horse-shoe shaped replacement wall.
- 1.2.4 The flooded land within the study area south of the defences was reclaimed in the 14th and 15th centuries.

1.3 Study area geology and topography

- 1.3.1 The Walland Marsh region is divided into two areas; the 'Old Marshland' with its finegrained silts and clays overlying peat beds and the 'New Marshland' characterised by successive marine deposits. The major earthwork within the study area, and presently supporting a section of the A259 road, divides these two zones with the 'New Marshland' to the south and the 'Old Marshland' to the north.
- 1.3.2 The Fieldwalking Survey was conducted on flat arable farmland within the 'New Marshland' which lies at an approximate height of 3m OD. The fieldwalking survey area was crossed by two large drainage ditches, each 10m wide and 3m in depth, running approximately east-west.
- 1.3.3 The Earthwork Survey area, with the exception of the road system, is now occupied by a commercial craft centre, a transport depot and by farmland.

1.4 Project objectives

- 1.4.1 The objective of the Fieldwalking Survey was to determine the presence or absence of subsurface features over the ploughed area of the Published Scheme. The objective of the Earthwork Survey was to record an area containing a medieval sea-defence wall, and the site of a major breach in that wall.
- 1.4.2 The information gained is intended to clarify the importance of the standing remains, identify the potential of any subsurface features, and identify the need for any further archaeological works to mitigate any effects the development might have upon the buried archaeological resource.
- 1.4.3 The site archive and collected material will, with the landowners consent, be deposited at the Folkestone Museum, Folkestone, Kent.

2. FIELDWALKING METHODOLOGY

2.1 Data collection

- 2.1.1 All artefactual material of non-natural origin or clearly imported to the area was collected during the course of the survey. No discrimination was made in favour of the recovery of a particular artefact class.
- 2.1.2 An assumption is made that the recovered material will be representative of the ploughsoil. Material within features sealed below the marine sediments and therefore outside the ploughzone would be unlikely to be represented.

2.2 Methodology

- 2.2.1 The field immediately to the south of the Flot and north-west of the present route of the A259 was systematically walked along 20m spaced lines with collection points at 20m intervals. Six transects in total were walked aligned on the centre-line of the Published Scheme.
- 2.2.2 Artefacts from the surface of the field were collected and bagged over the 20m lengths and coded with the appropriate eight figure grid references. The study area was walked over a period of two days by two experienced fieldwalkers, well versed in artefact recognition. Each walker viewed the strip of ground-surface 1m either side of the transect line walked, giving a figure of approximately 10% of the study area sampled in detail during the field-walking.
- 2.2.3 Collected material was subsequently sorted, identified and plotted on a 1:2500 Ordnance Survey base map to display the distribution of the individual artefact classes.

2.3 Field and weather conditions

- 2.3.1 The fieldwalking survey was conducted after harrowing of the arable farmland had taken place. The condition of the field was favourable for the surface collection of material with almost 100% visibility of the ground surface. The soil had been weathered by heavy rain resulting in a reasonably small clod structure.
- 2.3.2 Weather conditions were variable ranging from heavy and prolonged showers prior to fieldwalking to overcast and hazy sunshine during the survey.

3. FIELDWALKING RESULTS (FIG 2)

- 3.1 The fieldwalking programme yielded a range of artefactual material from the survey area including pottery, ceramic building materials, iron, glass and flint. The vast majority of the collected material dated from the modern period. Other classes collected included bone and coke.
- 3.2 Despite good conditions only a relatively small quantity of material within each category was recovered throughout the study area.
- 3.3 No material datable to the medieval or earlier periods was recovered.
- 3.4 A thin uniform spread of all categories was present across the whole study area with no obvious patterning in the spatial distribution of, or within, any particular category. The material found was all fragmentary and highly abraded.

4. EARTHWORK SURVEY

4.1 Aims

The aim of this survey was to assess and fully record all earthwork features within the study area.

4.2 Methodology

- 4.2.1 A single plan of the entire study area was drawn at a scale of 1:500. The previously commissioned topographic survey, produced by Owen Williams (Consulting Engineers), was used as a base plan.
- 4.2.2 The survey was controlled using a SOKKIA SET4B theodolite with integral Electronic Distance Measurement. A systematic grid of surveying pegs was laid out over the survey area, and this was related to ten figure NGR numbers. All extant earthworks were then located and measured relative to this survey framework, and recorded using standard graphical methods.
- 4.2.3 In addition, four cross-sections over the earthworks were located, measured and recorded using the SOKKIA SET4B.

4.3 Descriptive account of the earthworks (Figures 3&4)

- 4.3.1 The earthworks to be described lie on open farmland. As former marshland, subjected to prolonged inundations by the sea in both the prehistoric and medieval periods, the survey area is, with the exception of the major road-bearing earthworks and associated drainage channels, essentially level.
- 4.3.2 The land in the west and north of the survey area is arable farmland, recently ploughed at the time of survey. The land in the east of the survey area is grazed pasture. In the south of the survey area is 'The Philippine Craft Centre'. This commercial centre utilises the remaining buildings of a former RAF radar base. The outlines of several other demolished buildings, of a similar type, can be discerned in this area. They are visible as areas of concrete and exposed wall footings. The ground surface over this whole area is slightly uneven and appears to be composed of material from both the construction, and partial demolition, of the RAF base. The land in the central part of the survey area is utilised as a transport depot.

- 4.3.3 The survey area contains a former medieval sea-defence wall (wall A). It is orientated north-west to south-east and was constructed to halt flooding from the south. It now supports the A259 in the southern part of the survey area, and the Beckett Road in the north. A second raised embankment (embankment B) adjoins, and runs perpendicular to wall A. Its similarity in orientation to the known location of other nearby sea-defence walls (Eddison and Green 1988, 109), built to halt flooding from the south and east, suggests it too, may have originated as a flood defence. It now supports the A259.
- 4.3.4 Wall A varies a little in height, and quite considerably in profile, over the area of survey. At the southern end of the survey area, the wall stands approximately 2.5m above the land to the north-east, and a little over 1m above the land to the south-west. At the north-east, and slightly less than 1m above the land to the south-west. These differences in ground levels between the lands to the north-east and to the south-west, over the length of the wall, are due to the sediment deposition resulting from repeated flooding to the south-west.
- 4.3.5 The profile of wall A is considerably more spread at the northern end of the survey area (Figure 4, profile 3) than at the southern end (Figure 4, profile 2). The steepness of the north-east face of wall A, south of its junction with embankment B, is repeated nowhere else along its length, within the survey area. It seems likely that this steepness has been exaggerated by wastage of the near surface peat as a result of land-drainage. It is clear that the opposing south-west face at this point has been considerably altered by modern machining of the adjacent drain channel (drain D). The spreading of wall A at the northern end of the survey area is likely to be the result of a combination of two causes; repeated flooding with subsequent sediment deposition, and continued land use.
- 4.3.6 A ditch runs parallel with wall A in the north of the survey area (ditch E). This ditch runs north-west, adjacent to the wall. It seems possible that the line of this ditch is contemporary with wall A, although its present profile is the result of modern machining.
- 4.3.7 Slightly to the south of this ditch, and on the opposite side of wall A, is another small ditch (ditch F). This ditch is 30m long, and runs at a slight angle to the road. From its steep-sided, sharply defined construction, it can safely be assumed a modern feature, perhaps associated with drainage of the road.
- 4.3.8 At the southern end of the survey area a raised linear feature (feature I) runs to the north-east of, and parallel with wall A. This may be associated with wall A itself, or the clearance of a ditch that ran parallel with wall A. If this is the case, the feature has been rendered quite slight by continued land-use.
- 4.3.9 To the north-east of feature I is a shallow gully (gully J), that splits into two and runs into ditch H. This feature is very slight, and it is almost certainly a modern feature to aid drainage.

- 4.3.10 Diverging from the south of ditch H is a slight scarp (feature K). This feature may be associated with the clearing of ditch H, although its angle suggests that this is unlikely.
- 4.3.11 Immediately to the north of the junction of embankment B with wall A, there is a break in the continuity of wall A for a length of some 15m. Along this length, there is little appreciable change in ground level, both of the land on either side, and along the line of the wall itself. It seems certain that this break is in fact a breach in wall A.
- 4.3.12 Around this breach a loop of repair wall (wall C) was built, which now supports the road north to Appledore (Beckett Road). Contained within the southern half of this loop, in an area now called 'The Flot', is a bowl-shaped, poorly drained, marshy area. This bowl is probably a scour-hole created during the breach, and is currently used for grazing. A modern ditch has been dug across this area, running into the ditch to the north-west of embankment B (drain G), probably to aid the drainage of this area.
- 4.3.13 The northern half of the repair loop contains a large, commercial garage called 'The Transport Depot'. This comprises a large building complex with a partly metaled driveway and standing area. There is a considerable area of modern dumped material to the south of the depot, with which this material is almost certainly associated.
- 4.3.14 In profile, wall C is quite shallow. It is not as wide as wall A, and generally seems to be of a slightly less substantial construction (Figure 4, profile 4). It stands 1m above the ground surface within the scour hole and slightly less than 0.5m above the land to the west. The southern half of the loop of wall C is bounded, to the south and east, by the continuation of drain D, which then turns to the south-west.
- 4.3.15 Embankment B varies little in both height and profile within the study area, and is quite similar to wall A in dimension (Figure 4, profile 1). It stands slightly over 1m above both the land to the north-east, and the land to the south-west.
- 4.3.16 Embankment B is associated with two ditches, which run parallel with, and adjacent to it, on either side. The ditch to the south-east (ditch H) has a marshy, flat bottom, is 0.5m deep and may be contemporary with embankment B. The south-east face of embankment B, rising above ditch H, is slightly more spread than, but similar to, the east face of the southern part of wall A. The ditch to the north-west (drain G) may also be contemporary, but its profile, and consequently the north-west face of embankment B, are the result of modern machining.

5. DISCUSSION

5.1 Fieldwalking survey

- 5.1.1 The fieldwalking survey produced a very limited amount of artefactual evidence. All of the datable material was modern and the rest of the material was assumed to be modern. No significant distributions occur within the artefactual categories, comprising of recent brick and tile, pottery and undatable material such as oyster shell, bone, iron objects and glass. The presence of this material may well have derived from long-term manuring of the study area with episodes of casual loss and discard.
- 5.1.2 No archaeologically significant material was recovered. Due to the lack of this material, statistical analysis of the results from the field-walking survey was deemed inappropriate.
- 5.1.3 An early ditch system, 1.4km to the south-west of the study area, has been recognised from the air, but no traces have been identified within the study area. These features were sealed below a thick marine sediment and must date at the latest to the early 14th century. Therefore, although the results of the fieldwalking survey, coupled with previously known aerial evidence, showed no evidence for shallow sub-surface features or structures, medieval or otherwise, there is still a small possibility that early medieval features may exist within the study area. If such deposits existed sealed below the thick marine sediment, these deposits would remain unaffected by ploughing activity. Since material from these possible deep sub-surface features would not be represented in the material collected from the surface of the plough-soil, such features would have remained unlocated.

5.2 Earthwork survey

- 5.2.1 The survey area contains part of a former medieval sea-defence wall and associated ditches. This wall has, at sometime, been breached and a new wall has been constructed around this breach. Both of these walls have now been altered to carry public roads.
- 5.2.2 Another road-bearing earthwork, and its associated ditches, is partly contained within the survey area. From its orientation, it seems possible that this too, was originally a flood defence wall.
- 5.2.3 This survey has now comprehensively recorded the details of these earthworks, and their associated features. Whilst the exact dating of these structures remains unresolved, these earthworks all form, or potentially form, part of a medieval flood control system. They have all been altered to some degree by the construction of roads, and the modern clearing of drain channels. No other features of any potential historical significance were recorded within the survey area.

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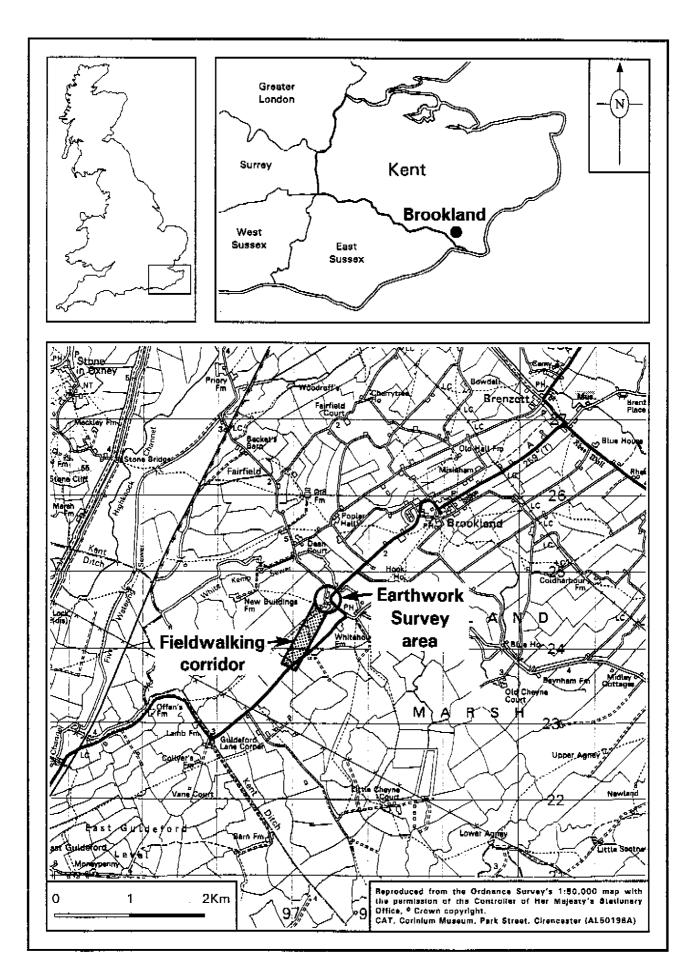


Figure 1. Location plan

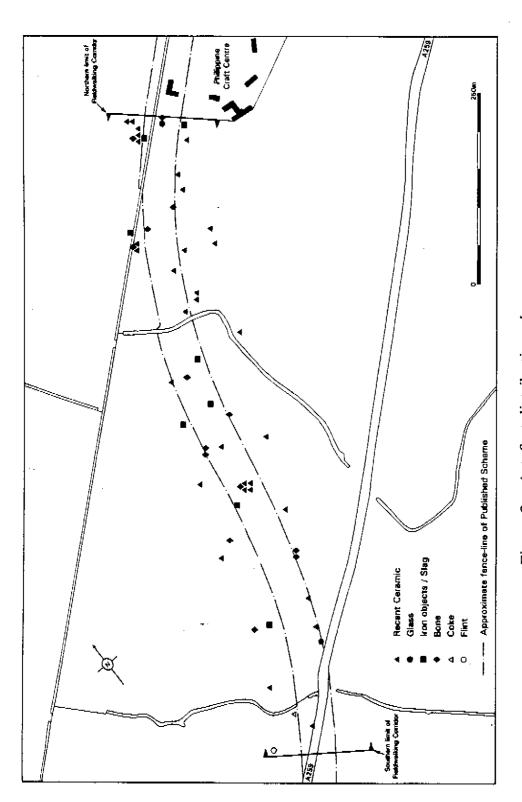
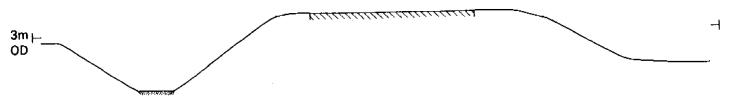


Figure 2. Artefact distribution plan





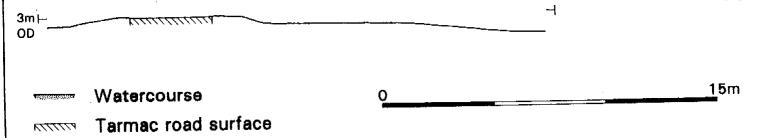
Profile 2

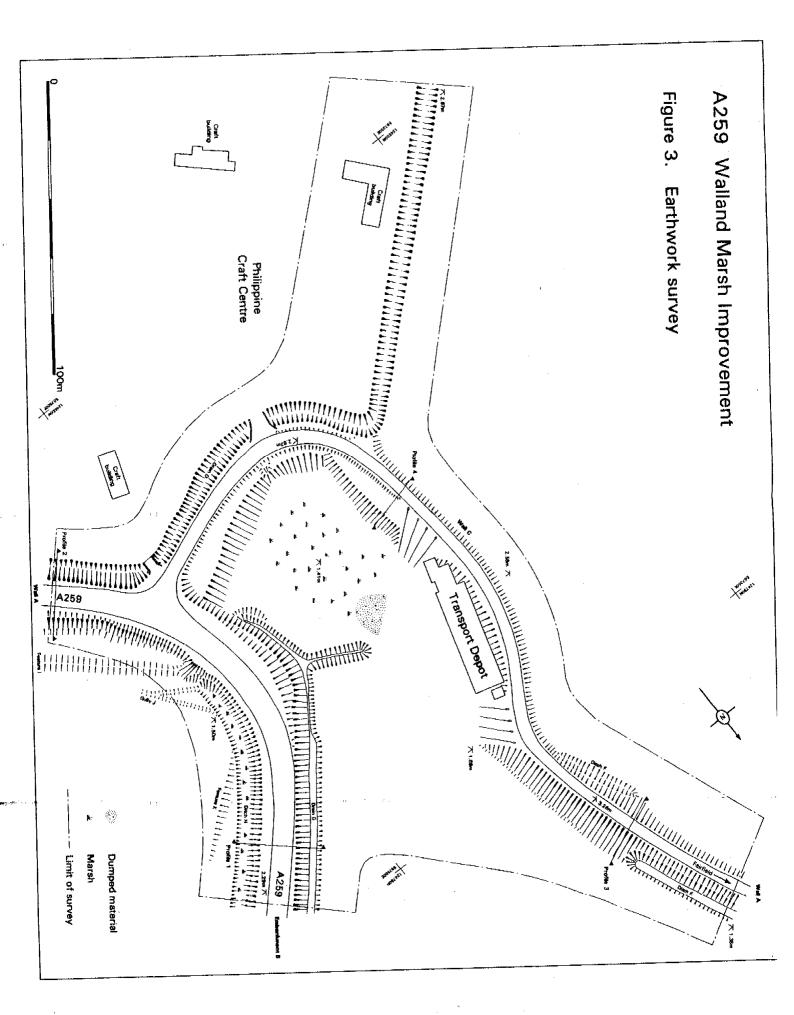


Profile 3



Profile 4





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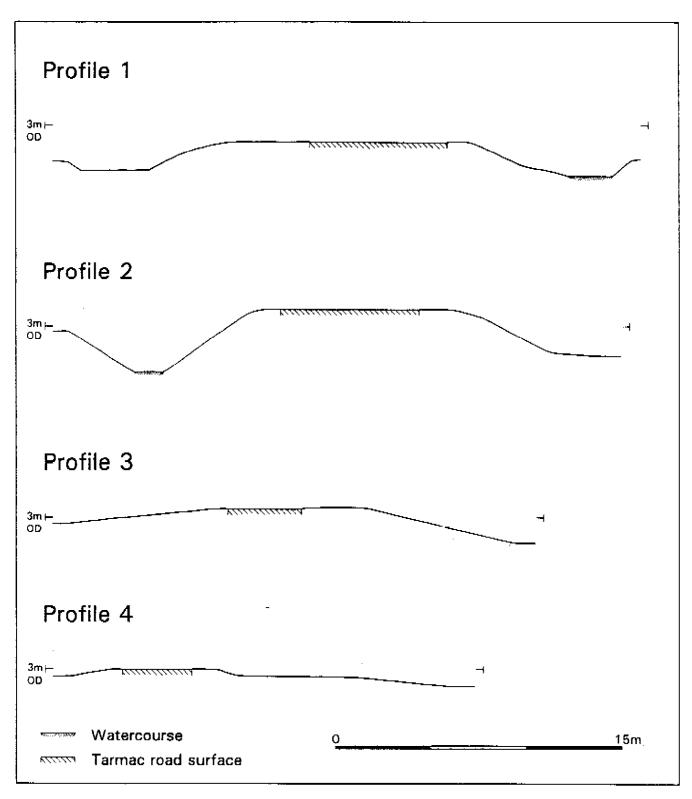


Figure 4. Earthwork profiles