Centre for Archaeological Fieldwork

School of Archaeology and Palaeoecology Queen's University Belfast



Data Structure Report: No. 1.

Excavations at Dunnyneill Island, Co. Down AE/02/90

On behalf of



Data Structure Report: Dunnyneill Islands, County Down Finbar McCormick, Philip Macdonald and Keith Adams

(CAF DSR 001) (Licence No. AE/02/90)

(SMR No. Down 024:035)

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1 Summary

1.1 Background

- 1.1.1 The Dunnyneill Islands lie in Strangford Lough, 2.5 kilometres to the north-east of Killyleagh. They consist of a larger and a smaller island linked by a causeway at low tide and, uniquely of all the islands in Strangford Lough, they are strategically located so as to command the narrows at the Lough's mouth. A narrow gravel bar, barely visible at high tide, lies *c*.200 metres to the east of the islands. The main island is formed from a small drumlin with a boulder clay core. It is roughly D-shaped, *c*.100 metres in maximum extent and rises to a height of *c*.16 metres above sea level. The southern side of the island is defined by a steep and actively eroding cliff which faces towards the mouth of the Lough.
- 1.1.2 The highest point of the island consists of a flat plateau surrounded by a counter-scarped bank, ditch and inner bank, enclosing an area *c*.30 metres in diameter. The southern half of this enclosure has been lost through erosion; however, the extant lengths of bank and ditch suggest that originally it either had an irregular layout or represents a smaller subcircular enclosure with at least one annexed addition. The surviving part of the enclosure is not continuous, it is uncertain whether this is due to it never having been completed or later destruction. An original entrance appears to be present on the northern side. In addition to the main enclosure round the top of the island, traces of a low earthwork, which apparently enclosed the base of the hill, are visible.

1.2 Objectives

1.2.1 A detailed topographic survey of the island and a limited excavation of the main enclosure was undertaken over two weeks during September and October 2002 with the aims of ascertaining the character of the site and quantifying the rate of its destruction through coastal erosion.

1.3 Topographic Survey

1.3.1 The topographic survey delimited the character of the main enclosure and a number of other archaeological and natural features on Dunnyneill Island. Analysis of the 2002 survey, combined with the study of previous surveys of the island, enabled the rate of loss of the site to the ongoing coastal erosion to be quantified. Currently, the main enclosure is being destroyed at a rate of 7.25 m² per year. It is estimated that at the current rate of erosion the main enclosure will be totally destroyed within sixty years.

1.4 Excavation

- 1.4.1 Two trenches were opened, one across an open area of the interior (Trench One) and another across the enclosing banks and ditch (Trench Two).
- Trench One was 5 metres by 4 metres in size with its longer axis aligned north-east -1.4.2 south-west. Underneath the topsoil was a short sequence of superficial deposits that included a localized spread of angular stones which may represent either collapsed or slighted bank material. These overlay several truncated features cut into, or overlying, a dark brown silty clay loam that probably represents an occupation deposit. These features included: an area of burnt clay interpreted as the base of a hearth in the southern corner of the trench; a single post hole with stone packing adjacent to the south-western edge of the trench; and two superimposed linear features which run roughly adjacent to the northwestern edge of the trench on approximately the same east-west alignment. The earlier of these two linear features was a shallow gully, c.0.1 metres deep and c.0.7 metres in width, which was cut by a slightly curved, slab-lined cut, c.0.3 metres wide and c.0.15 metres deep. The function of the two linear features is uncertain; they may be related to drainage or they may form the footings for a palisade or wall. At the eastern end of the trench the earlier of the two linear features apparently cut through a spread of stones within the dark brown silty clay loam occupation deposit which may represent a second spread of either collapsed or slighted bank material. Underlying the probable occupation deposit was a single, truncated post or stake hole in the southern corner of the site which was cut into a partially excavated clay loam that probably represents an ancient topsoil and which overlay the natural boulder clay.
- 1.4.3 Trench Two was a 1.5 metre wide cutting laid out on an approximately north south axis across the inner bank, ditch and outer bank. The southern end of the trench extended slightly into the interior of the enclosure, while the northern end terminated on top of the counterscarp bank. It is uncertain whether the inner bank, ditch and outer bank were constructed as a single event. The ditch has a U-shaped profile and is 2.6 metres wide. During excavation of the ditch a series of secondary silty clay loam fills defined by tip lines which overlie a loamy primary fill were recognized. The top of the inner bank survives to a height 2.0 metres above the base of the ditch whilst the outer bank is 1.25 metres above the base of the ditch. The inner bank had been greatly denuded, either as a result of collapse or deliberate destruction. Only its rubble core survived intact and no evidence for faced courses or timber features such as a palisade was recovered. The rubble core overlies and preserves a series of occupation deposits which overlie the natural boulder clay. The outer bank was not excavated but has an estimated width of 3.0 metres and survives to a height of 0.5 metres.

1.4.4 A large quantity of animal bones and a small, but diverse, range of finds were recovered during the excavation. Provisional analysis of the artefacts suggests evidence for an early medieval and, at least one, prehistoric phase of activity. Given its strategic position within Strangford Lough it is not surprising that excavation has revealed evidence for multi-period activity on the main island, and it is probable that full analysis of the artefactual assemblage will reveal evidence of additional phases of activity. Unfortunately, the majority of the finds were recovered from stratigraphically late or disturbed contexts and, at this initial stage within the post-excavation programme, the date of the enclosure and the other features recorded during the excavations remains uncertain.

1.5 Discussion

1.5.1 The recognition of imported ceramics, combined with the evidence for craft activity (probably either glass or metalworking) on the island, suggests that the site may have had a special status in the early medieval period. The character of this status, and the nature of the site's occupation, is uncertain but it is possible that Dunnyneill Island had an important defensive or trading role. The possibility that parts of the enclosure were deliberately slighted raises interesting interpretive questions.

1.6 Recommendations

1.6.1 The topographic survey, combined with the study of previous surveys of the Dunnyneill Islands, has quantified the rate of the site's destruction and emphasized the importance of extending the excavation programme so that the full character and chronology of the site can be established and the site meaningfully preserved through record in advance of its destruction. It is recommended that a programme of radiocarbon dating and a second season of excavations at the site are conducted in order to resolve the outstanding questions of the site's date and character. It is also recommended that study of the animal bone assemblage recovered during the 2002 excavations is undertaken, both as a prerequisite of selecting material for the proposed programme of radiocarbon dating and to inform the interpretation of the site's status in the early medieval period. Following completion of the proposed excavations, a revised data structure report will be produced outlining the post-excavation programme and resources required to meaningfully publish both seasons's excavations and bring the project to completion.



Figure One: Location Map

2 Introduction

2.1 General

2.1.1 The following report details the preliminary results of the topographic survey and archaeological excavation at Dunnyneill Island, undertaken by the Centre for Archaeological Fieldwork, School of Archaeology and Palaeoecology at Queen's University Belfast from the 23rd September to the 4th October 2002 (Licence No. AE/02/90). This programme of work was undertaken on behalf of the Environment and Heritage Services, DOE NI, who funded the survey and excavations.

2.2 Background

- 2.2.1 The Dunnyneill Islands lie in Strangford Lough, 2.5 kilometres to the north-east of Killyleagh (Grid Reference J547538) (Figure One). They consist of a larger and a smaller island which are linked by a causeway at low tide. Uniquely, of all the islands in Strangford Lough, they are strategically located so as to command both the narrows at the Lough's mouth and the entrance to the Quoile Estuary. The main island is formed from a small drumlin with a boulder clay core. It is roughly D-shaped, c.100 metres in maximum extent, rises to a height c.16 metres above sea level and is currently covered by trees. The southern side of the main island is defined by a steep and actively eroding cliff which faces towards the mouth of the Lough. There are no well defined landing places on the island although it is possible to land on the northern shore with relative ease (McErlean 2002a, 70). The smaller island, and its connecting tidal causeway, are made up of shingle and formed, at least in part, by the deposition of material eroded from the southern side of the main island. As a depositional feature the location and size of the smaller island has changed through time, but it is currently stabilized by grassy vegetation and situated c.100 metres to the north-east of the main island. It is roughly oval in shape, c.65 metres in maximum extent and rises to a height of c.5.5 metres above sea level.
- 2.2.2 The highest point of the main island (Grid Reference J54745384) consists of a flat plateau surrounded by an inner bank, ditch and outer bank, enclosing an area *c*.30 metres in diameter. The southern half of this enclosure (SMR No. Down 024:035) has been lost as a result of the ongoing coastal erosion; however, the extant lengths of bank and ditch suggest that originally it either had an irregular layout or represents a smaller sub-circular enclosure with at least one annexed addition. The surviving part of the enclosure is not continuous suggesting that it was either never completed or was deliberately slighted. An original entrance appears to be present on the northern side. It is uncertain whether the plateau has been levelled or is naturally flat. In addition to the main enclosure round the

top of the island, traces of a low earthwork, which apparently enclosed the base of the hill, are visible.

- 2.2.3 The earliest reference to the enclosure is in Harris's 1744 account of County Down where the island is described as 'Doneneal-Ifle, a round ifland like a Danifh Fort' (Harris 1744, 154). A schematic representation of the enclosure was incorporated into the 1859 revision of the Ordnance Survey 6 inch map (County Down, Sheet 24). The interpretation that the enclosure is a fort was reiterated by O'Lavery (1878, 350) and McKeown (1933, 36). More recently the site has been identified as a possible rath (McErlean 2002a, 69-71).
- 2.2.4 The evidence for past use of the Dunnyneill Islands has been reviewed by McErlean (2002a, 70-71). Deposits of pink carboniferous limestone drift on Dunnyneill Island were expoited during the early seventeenth century as a source of limestone. There are local traditions that the main island was used at some point in the past as a leper colony and for the burial of victims of the 1854 cholera outbreak (McErlean 2002a, 70). An account published in the Downpatrick Recorder in 1845 describes the island as being used for pasture which supported a small number of sheep and cattle (McErlean 2002b, 142). The smaller island has also been subject to small-scale programmes of sand and gravel extraction - it is likely that the recorded changes in its location (Figure Four) were caused by disturbance to stabilizing vegetation cover during episodes of gravel extraction. The main island was targeted by treasure seekers during the 1930s; parts of it were dug over and a large pit was blasted on the northern side of the main enclosure, possibly on the site of the entrance (McErlean 2002a, 70-71). There are few records of finds being recovered from the site, some flints were recorded during the 1930s and a round bowl, subsequently broken and lost, was apparently found in the early 1960s (McErlean 2002a, 71).

2.3 Place Name Evidence

2.3.1 The evidence for variant place names of the main island, and their possible Gaelic derivations, is usefully summarized by McKeown (1933, 36) and McErlean (2002a, 71). The *dun* element to the name, meaning 'fort', almost certainly refers to the enclosure on the main island. O'Laverty derived the island's name from Dun-na-n-giull, meaning 'the fort of the hostages' and noted that MacCana recorded in 1645 a tradition that Dunnyneill was the island where Niall of the Nine Hostages confined his high status hostages (O'Laverty 1878, 350; see also McErlean 2002a, 71). Alternatively, McErlean has suggested, given the seventeenth century exploitation of pink carboniferous limestone drift, that the island's name maybe derived from *aill* meaning 'limestone' (2002a, 71). The suggestion that the islands's name is of Scandinavian origin is doubtful (cf. Anon. 1928, 66). Given the diversity of possible derivations, the value of the place name evidence for interpreting the island's archaeology is not obvious.

2.4 Reason for Excavation and Research Objectives

- 2.4.1 The threat posed by the ongoing coastal erosion to the main enclosure was recognized during the 1995 to 2000 survey of the coastal archaeology of Strangford Lough commissioned by the Environment and Heritage Service, DOE NI. During a visit to the Dunnyneill Islands it was observed that the erosion had exposed a section containing an occupation deposit across the southern edge of the surviving part of the main enclosure (McErlean 2002a, 70). Consequently, the site's investigation, and the preservation of its archaeological evidence through excavation, was identified as a priority for future work and research on the archaeology of the lough (McErlean 2002a, 71; Williams 2002, 421).
- 2.4.2 The 2002 survey and excavation were conducted in response to the recognized threat to the archaeology of the Dunnyneill Islands. Two principal objectives were identified: firstly, to ascertain the character and date of the enclosure; and secondly, to quantify the rate of its destruction through coastal erosion.

2.5 Archiving

2.5.1 A copy of this report has been deposited with the Environment and Heritage Service, DOE NI. All site records and finds are temporarily archived within the School of Archaeology and Palaeoecology, Queen's University Belfast.

2.6 Credits and Acknowledgements

- 2.6.1 The excavations were directed by Finbar McCormick and supervised by John O'Neill and Philip Macdonald. The excavation team consisted of Nicholas Beer, Graeme Heyburn, James McKee and Peter Moore. The topographic survey of the main island was undertaken by Keith Adams assisted by members of the excavation team.
- 2.6.2 Assistance during the course of the excavations and the preparation of this report was kindly provided by: Ewan Campbell (University of Glasgow), Andrew Cooper (University of Ulster), John Davison (Queen's University Belfast), Colm Donnelly (Queen's University Belfast), Bronagh Murray (Queen's University Belfast) and Richard Warner (Ulster Museum, MAGNI).

3 Topographic Survey

3.1 Methodology

3.1.1 The detailed topographic survey of the island was undertaken concurrently with the excavation. The survey was conducted using a TCR705 Leica Total Station. Due to the loss, presumably through erosion, of the triangulation point on the island it was not possible to tie the topographic survey into the Irish Grid co-ordinates. The survey data was transferred and processed using Leica LISCAD6.0 software. Additional processing of the survey data was undertaken using Surfer 8.0 software.

3.2 Results of the topographic survey

3.2.1 The results of the topographic survey are illustrated as both a contour map (Figure Two) and a hachured plan (Figure Three). The various features described below in the brief description of the topographic survey are labelled on Figure Two.

3.3 The enclosure

- 3.3.1 The enclosed plateau on top of the island is divided into a sub-circular area (A1) and an irregular-shaped area (A2). The main enclosed area (A1) has an area of *c*.390 m² and is defined on its northern, eastern and western sides by the inner bank (B1) and is delimited on its southern side by the actively eroding cliff edge. Sited on a slightly lower part of the plateau, immediately to the west of the main enclosed area, is a second area (A2) of *c*.70 m² which is delimited on its northern side by part of the outer bank (B2i), on its eastern side by the inner bank (B1), on its southern side by the actively eroding cliff and on its western side by the naturally steep slope of the drumlin.
- 3.3.2 The inner bank of the main enclosure (B1) is a more-or-less continuous feature. Its inner edge is no longer raised above the modern ground level within the enclosure suggesting that it may have been deliberately slighted. The outer bank is not a continuous feature; it consists of three sections of earthworks (B2i-iii) on the eastern and northern sides of the enclosure. Although it is a more-or-less continuous feature, the ditch between the inner and outer banks (D1) is not well defined adjacent to the breaks in the outer bank. It is not certain whether the breaks in the outer bank are the result of deliberate slighting of the earthwork or the failure to complete its construction. The western gap in the outer bank (between B2i and B2ii) may be the location of an original entrance into the enclosure (E1). Its unusual form maybe the result of blasting undertaken at the site during the 1930s (McErlean 2002a, 71). The outer bank and the ditch do not appear to extend round the western edge of the second enclosed area (A2).





3.4 The bank at the base of the drumlin

3.4.1 In addition to the main enclosure round the top of the island, a low earthwork enclosing the base of the hill survives as two relatively short lengths of low bank (B3i-ii) situated on the c.8.0 metre contour line on the north-western side of the island. At this height there is a continuous break in the steepness of the slope of the northern, eastern and western sides of the island which either represents a relict erosional feature during a former period of raised sea level or the denuded remains of the earthwork which originally extended round the whole of the island. It is possible that a slight raised feature on the eastern side of the island (F5) represents a third surviving element of this earthwork. If the change in slope at the c.8.0 metre contour does represent the remains of an enclosing earthwork, it is possible that the hollow through this break in slope (F2) is the eroded remains of an original entrance. Although this hollow may also be either a natural erosional feature or the result of digging by treasure hunters in the 1930s, it is notable that it is aligned with the possible entrance (E1) through the northern part of the main enclosure.

3.5 Other possible archaeological features

3.5.1 There are a small number of minor features detailed in the topographic survey which may also be of archaeological significance. The first is a hollow set back slightly from the northern shore of the island (F4). Immediately adjacent to the hollow on its southern side are traces of a ruined wall (F4). This feature has been identified as a possible duck trap and hide (B.Williams pers.comm.). It is probably of relatively recent date and not related to the enclosures described above. The only other two possible archaeological features are two hollows (F1 and F3) on the northern shore of the island. These are probably natural erosion features but their proximity to the possible entrance through the lower enclosing earthwork (F2) suggests the possibility that they may be artificial.

3.6 The actively eroding southern cliff

3.6.1 As noted above, the southern side of the island is defined by a steep and actively eroding cliff which threatens the survival of the enclosure. The nature of the erosion is slumping caused by wave-related destabilization of the base of the cliff. The action of waves during storms preferentially erodes the base of the cliff, causing the slope to become unstable and intact blocks of the drumlin to slump under the force of gravity. This process was probably initiated during either a massive storm event or a prolonged period of gales and storms. The erosion is not taking place at a constant or uniform rate but is episodic, occurring during heavy storms and prolonged periods of high winds. It is probable that the eroded material is being transported by wave action and then deposited along the northern side of the main island, the causeway and the smaller island. This pattern of erosion on the

southern side of the island is consistent with the dominant storm wind direction from the south-east which typifies weather patterns in Strangford Lough (A.Cooper pers.comm.). Erosion will continue until the slope stabilizes at a point when its gradient and cohesion are sufficient to prevent further slumping. Apparently, the continual transportation of eroded material from the base of the cliff has, to date, prevented this from happening.

3.7 Quantifying the rate of coastal erosion

3.7.1 The rates of erosional and depositional activity are reflected in changes in the area of the main Dunnyneill Island recorded during various surveys of the islands (Table One) and the location of the smaller island (Figure Four). The earliest reference is derived from Harris's 1744 account of County Down which includes a tabulated list of the named islands of Strangford Lough with details of their acreage (1744, 153-154). Harris describes Dunnyneill Island as 'Doneneal-Ifle, a round ifland like a Danifh Fort' of about four acres (Harris 1744, 154). His failure to mention the smaller island suggests that it may not have been present in the mid eighteenth century. The accuracy of Harris's estimate of the island's size in 1744 is questionable. If valid, it would suggest that two thirds of the main Dunnyneill Island was lost, presumably through erosion, between 1744 and 1834. Such a rate of land loss is not comparable with that recorded between the 1976 Ordnance Survey and 2002 Queen's University Belfast surveys, suggesting that Harris's estimate of the acreage of Dunnyneill Island is inaccurate. However, even if it is not accurate, the estimate of the island's size in 1744 suggests that Dunnyneill Island may have been subject to a period of erosional activity prior to the current phase of erosion.

Date	Source / Reference	Area (m ²)	Area (acres)	Area (hectares)
1744	(Harris 1744, 154)	16190	4	1.619
1834	Ordnance Survey – First Edition – County Down, Sheet 24, 6 inch : 1 mile / 1:10560	5440	1.34	0.544
1859	Ordnance Survey – First revision – County Down, Sheet 24, 6 inch : 1 mile / 1:10560	5450	1.35	0.545
1933	Ordnance Survey – Second revision – County Down, Sheet 24, 6 inch : 1 mile / 1:10560	5450	1.35	0.545
1976	Ordnance Survey – 1976 Revision – County Down, Sheet 176 1:10000	5100	1.29	0.510
2002	Centre for Archaeological Fieldwork, Queen's University Belfast topographic survey	4800	1.18	0.480

Table One: Changes in the area of the main Dunnyneill Island 1744 – 2002.

3.7.2 Although Harris's 1744 record of Dunnyneill Island is of uncertain reliability, the remaining surveys by the Ordnance Survey (1834, 1859, 1933 and 1976) and the present authors (2002) are accurate enough to model the erosional history of the Dunnyneill Islands and estimate the current rate of erosion of the main island. The size of the main island remained stable between the 1834 and 1933 surveys at 0.545 hectares; however, its size had decreased to 0.510 hectares in 1976 and to 0.480 hectares in 2002 (see also Figure Four). This indicates that the current phase of active erosion began at some point between 1933 and 1976. Comparing the reduction in size of the island between 1976 and 2002 suggests that the island's current rate of erosion is c.11.5 m² per year. The 2002 topographic survey demonstrates that the actively eroding cliff face on the southern side of the main island is c.108 metres long and that the enclosure built round the flat plateau on the top of the island is exposed for c.68 metres (63%) along the length of this cliff. If, however, the site is considered to include the low earthwork, which apparently enclosed the base of the hill just above the high tide line, then the site is exposed along c.88 metres (81%) of the actively eroding cliff face. These figures suggest that the main enclosure round the top of the island is being destroyed at a rate of $c.7.25 \text{ m}^2$ per year and, if the site is extended to include the low earthwork apparently enclosing the base of the hill, the wider site is being destroyed at a rate of $c.9.30 \text{ m}^2$ per year. As the total surviving area of the main enclosure is c.460 m², this suggests that if the current rate of erosion of the island is maintained then the site will be totally destroyed within approximately sixty years.





4 Excavation

4.1 Methodology

- 4.1.1 The excavations consisted of two separate trenches, the first (Trench One) sited within the northern part of the interior of the enclosure and the second (Trench Two) located across the inner bank, ditch and outer bank on the northern edge of the enclosure (Figure Three). Trench One was 5.0 metres by 4.0 metres in size with its longer axis aligned north-east south-west and Trench Two was a 10.0 metre long and 1.5 metre wide cutting laid out on an approximately north south axis. The deposits in both trenches had been heavily disturbed by root action and, to a lesser degree, animal burrowing. The excavated deposits largely consisted of a series of similar, dark brown, silty clay loams and consequently, differentiating between separate contexts, particularly in Trench One, was difficult.
- 4.1.2 The excavations were undertaken by hand and the context record for the site was created using the standard context recording method. Individual features were photographed both prior to, and following, excavation and included in a series of overall plans (Scale 1:20) of the site which were prepared throughout the course of the excavation. Section drawings (Scale 1:20) were undertaken of the most representative edges of excavation (for details of site photography see Appendix Three and for field illustrations see Appendix Four). In addition to the photography and illustration, the principal site records consisted of context sheets augmented by separate registers of small finds (Appendix Five) and samples (Appendix Six). Following the completion of the site recording, both excavation trenches were manually backfilled.

4.2 Account of the excavations

- 4.2.1 It is intended that the Harris matrices for the site (see Appendix Two) are referred to whilst reading the following accounts of the stratigraphic sequences of Trenches One and Two.
- 4.3 Trench One
- 4.3.1 As noted above, Trench One was located within the northern part of the interior of the enclosure and was 5.0 metres by 4.0 metres in size with its longer axis aligned north-east south-west.
- 4.3.2 The topsoil in Trench One (Context No.101) consisted of a dark brown silty clay loam, c.0.25 – 0.30 metres deep, which had been heavily disturbed by root action. The topsoil, which did not support any turf or grass on its surface, was excavated in two arbitrary spits.

The lower of the two spits contained considerably more stone inclusions than the upper spit. Presumably, this sorting was a result of root action and animal burrowing.

- 4.3.3 Underneath the topsoil was a short sequence of superficial deposits (Context Nos.107, 104, 105, 102 and 106). The latest of these deposits (Context No.107) was a small spread of medium to large, sub-angular to angular shaped stones within a dark brown silty clay loam matrix, c.1.2 metres (north-east - south-west) by c.1.1 metres (north-west - southeast) in extent and located in the northern corner of the trench. This localized spread of stones represents disturbed, collapsed or slighted material from the inner bank of the enclosure. Underlying the spread of stones (Context No.107) was a deposit of small rounded stones in a dark brown silty loam (Context No.104). This irregular-shaped layer was 0.03 metres deep, c.3.0 metres (north-east - south-west) by c.4.0 metres (north-west - south-east) in extent and spread across the north-eastern side of the trench. This layer was possibly a deliberate deposit of beach gravel which may have been intended to form a roughly metalled surface. Underlying the spread of beach gravel (Context No.104) and located midway along the north-western edge of the trench and c.1.0 metres from the edge of the excavation, was a sub-circular spread (diameter c.0.20 - 0.25 metres, thickness 0.03 metres) of periwinkle shells within a dark brown silty clay loam matrix (Context No.105). Underlying the periwinkle spread was a layer of dark brown silty clay loam which extend across the whole of Trench One (Context Nos.102 and 106). This layer was c.0.05 metres thick and contained a spread of animal bone located in the north-western side of the trench which was excavated as Context No.102.
- 4.3.4 Following the removal of the dark brown silty clay loam (Context Nos.102 and 106) several truncated features cut into, or overlying, a second dark brown silty clay loam deposit (Context No.110) that formed an occupation deposit were revealed (Figure Five). These features included an area of burnt clay (Context No.112); a single post hole (Context No.116); and two superimposed linear features (Context Nos.103 and 113). The irregularshaped area of burnt red clay (Context No.112) (exposed dimensions c.0.35 metres (northeast - south-west) by c.0.45 metres (north-west - south-east), thickness c.0.04 metres) was located in the southern corner of the trench and was only partially exposed during the excavations. It presumably represents the truncated base of a hearth, although no other evidence for a hearth, such as a stone setting or raked out spreads of charcoal, were observed. The truncated post hole (Context No.116) was uncovered adjacent to the southwestern edge of the trench. It survived to a depth of c.0.45 metres and its apparently circular cut was c.0.60 metres in diameter (Figure Six). The post hole was filled with a charcoal flecked, dark brown silty clay (Context No.111) and its edge was defined by stone packing within a dark brown silty clay matrix (Context No.118). The packing consisted of stones whose maximum dimensions ranged from 0.15 to 0.50 metres and whose shape varied from sub-angular to near rectangular.



0 1 2 metres

Figure Six: North-east facing section of Trench One

- 4.3.5 The two superimposed linear features (Context Nos.103 and 113) ran from the western corner of the trench on approximately the same east-west alignment. The earliest of these features was a shallow gully, c.0.1 metres deep and c.0.7 metres in width (Context No.113), which was cut by a slightly curved, slab-lined cut, c.0.3 metres wide and c.0.15 metres deep (Context No.103). Both features were truncated and difficult to define, especially at the western end of the trench. The shallow gully (Context No.113) extended across Trench One into the north-eastern section of the trench; however, the slab-lined cut (Context No.103) only extended two thirds of the way across the trench where its eastern end terminated in a transversely placed slab. The edges of the later feature (Context No.103) were defined by angular stone slabs set at a slight angle to the vertical (the tops of opposing slabs were c.0.35 metres apart but at their bases they were only c.0.15 metres apart). Although only a limited number of these slabs remained in situ (see Figure Five), slabs which had been disturbed from their original position were recovered and removed during the excavation of the feature's two fills (Context Nos.108 and 115) and it is probable that it was originally slab-lined along its entire length. The slab-lined cut had two fills, an upper fill of charcoal flecked, dark greyish brown silty clay loam (depth c.0.05 - 0.10 metres) which contained a large number of small rounded stones and a significant quantity of animal bone (Context No.108) and a lower fill of greyish brown silty clay loam (maximum depth 0.05 metres) with notably less charcoal flecks and stone inclusions (Context No.115) which was only present in the eastern most section of the feature in which the defining stone slabs had survived in situ. The upper fill (Context No.108) of the slab-lined cut (Context No.103) was apparently redeposited material disturbed from the fill (Context No.114) of the earlier, shallow gully (Context No.113) when the deeper slab-lined feature was cut through it. This earlier feature (Context No.113) was filled with an identical deposit of charcoal flecked, dark grevish brown silty clay loam (Context No.114). The function of the two linear features is uncertain; they may be related to drainage or they may form the footings for a palisade or wall. The disturbance of the slab-lined cut (Context No.103) suggests that, if it does represent the foootings of a palisade or wall, it may have been deliberately slighted or demolished.
- 4.3.6 At the north-eastern end of the trench, the shallow gully (Context No.113) apparently cut through a spread of stones (Context No.117) which overlaid the dark brown silty clay loam deposit that probably represents an occupation deposit (Context No.110). This deposit of stones was a spread of either collapsed or slighted bank material; however, it was only partially exposed in Trench One and it is uncertain whether its south-eastern end, which includes the material cut by the shallow gully (Context No.103), is not just a fortuitous arrangement of stone inclusions within the underlying deposit (Context No.110). The ambiguity over this stratigraphic relationship is unfortunate because if the shallow gully (Context No.113) does cut through a spread of stones representing either the collapse or slighting of the enclosure's inner bank then this would demonstrate that the two linear

features (Context Nos.103 and 113) belong to a post-enclosure phase of activity at the site. Without further investigation of the area immediately adjacent to the north-eastern edge of Trench One it will not be possible to establish with certainty the relationship between the linear features and the spread of collapsed or slighted bank material.

- 4.3.7 The charcoal flecked, dark brown silty clay loam (Context No.110) that formed the occupation deposit (depth 0.05 0.10 metres) into which the features described above were either cut or overlay, extended across the whole of Trench One. Following its excavation a single, truncated stake or post hole (Context No.121) in the southern corner of the trench was revealed. This feature (diameter 0.15 metres, depth 0.12 0.15 metres) was filled with a dark brown silty clay loam with charcoal and burnt bone inclusions (Context No.120). It was cut into a partially excavated, sterile, orangey brown silty clay loam (Context No.119) that probably represents an ancient topsoil which overlay the natural boulder clay.
- 4.4 Trench Two
- 4.4.1 Trench Two was a 10.0 metre long and 1.5 metre wide cutting laid out on an approximately north south axis across the northern edge of the enclosure (Figure Seven). The southern end of the trench extended slightly into the interior of the enclosure, while the northern end terminated on top of the outer bank. Excavation demonstrated that the top of the inner bank survives to a height 2.0 metres above the base of the ditch whilst the outer bank is 1.25 metres above the base of the ditch. Although the excavation results are consistent with the inner bank, outer bank and ditch being constructed as a single event, this was not stratigraphically proved and should not necessarily be assumed to be the case. No evidence was recovered to suggest that the ditch had been recut or that either of the banks had been refurnished.
- 4.4.2 The topsoil in Trench Two consisted of two separate stratigraphic units. The latest was a dark brown loam (Context No.201) that extended from the southern end of the trench over the inner bank and partly across the ditch and varied in depth from 0.05 to 0.30 metres. This deposit overlay an orangey brown clay loam topsoil (Context No.202) which extended across the northern half of the trench, over the outer bank and the northern half of the ditch (depth 0.05 2.0 metres). Following the excavation of the two topsoil contexts, the three structural elements of the enclosure, that is the inner bank, ditch and outer bank, formed separate stratigraphical sequences.



Figure Seven: East-facing section of TrenchTwo

- Stratigraphially overlying the surviving core of the inner bank (Context No.217) were three 4.4.3 deposits (Context Nos.218, 212 and 214) located immediately behind the bank. The latest of these deposits (Context No.218) was a possible area of flag stones laid out in the southeastern corner of the trench. The deposit was made up of four angular slab-like stones (maximum dimensions c.0.4 metres) apparently arranged over the underlying deposit (Context No.212) to form a flat, if somewhat uneven, surface. It is possible that these deposits represent the remains of either a floor or footings for a walled structure; however, as only a small portion of the deposit was uncovered their interpretation is difficult and it is also possible that they just represent material disturbed from the bank. Underlying the slab-like stones were two deposits of collapsed or slighted bank material (Context Nos.212 and 214) which extended from the crest of the bank to the southern end of Trench Two. The earliest of these was a dark brown silty clay loam (exposed length c.1.5 metres, depth c.0.10 - 0.15 metres) with a large number of small to medium, rounded to sub-rounded stone inclusions, while the later deposit was a dark brown silty clay loam (exposed length c.2.0 metres, depth c.0.20 - 0.3 metres) with a large number of small to medium, rounded to sub-angular stone inclusions. The removal of these deposits exposed the surviving rubble core of a much denuded bank (Context No.217). This deposit was made up of a random spread of small to medium, rounded to sub-angular stones, mixed with occasional large angular and sub-angular stones, set within a dark grevish brown silty clay loam matrix. No evidence of faced courses of stone or timber features, such as a revetment, internal bracing or a palisade, were observed. However, given both the denuded quality of the bank and the relatively small width of Trench Two, the failure to observe such features is not definite evidence of their absence. Underlying the bank were two occupation deposits (Context Nos.213, 215 and 216) which overlaid the natural boulder clay. The latest of these deposits (Context Nos.213 and 215) was a charcoal flecked, dark grey brown silty loam with small, rounded to sub-angular stone inclusions (depth 0.2 - 0.3 metres) which extended from underneath the northern edge of the bank through to the southern end of Trench Two. Stratigraphically, this overlay an earlier deposit of charcoal flecked, dark brown silty clay loam (Context No.216) with occasional small to large rounded to sub-angular stone inclusions (depth c.0.03 - 0.06 metres) extending from the rear of the inner bank through to the southern edge of the trench.
- 4.4.4 The ditch cutting (Context No.207) was filled by three deposits. The latest fill was a stony dark brown silty clay loam with a maximum depth of *c*.0.25 metres. Stratigraphically, this overlay an elongated deposit of orange clay (Context No.204), with a maximum depth of *c*.0.2 metres, which had slumped into the ditch from the top of the inner bank. The primary fill of the ditch was a charcoal flecked, dark brown clay loam with occasional stone inclusions which had a maximum depth of *c*.0.2 metres. The ditch cutting (Context No.207) had a U-shaped profile with a relatively flat base and was 2.6 metres wide. Prior to the silting up of the ditch, its base had been disturbed by two substantial animal burrows or root holes (Context Nos.208 and 210) which had been filled by a dark brown clay loam

(Context No.209) and a light brown clay loam (Context No.211) respectively. The size of these features (Context No.208 had a diameter of *c*.0.2 metres while Context No.210 had a diameter of *c*.0.4 metres) suggested that they may have been artificial and, consequently, they were partially excavated until their natural character became obvious. The ditch was cut into the natural boulder clay.

4.4.5 Overlying the outer bank was a thin deposit (depth 0.05 – 0.1 metres) of orange brown loamy clay (Context No.219) which had slumped from the top of the bank towards the ditch. The outer bank itself (Context No.206) was not excavated but has an estimated width of 3.0 metres and survives to a height of 0.5 metres. The bank was made up of a compact orange brown loamy clay which was derived from the natural boulder clay. It was assumed that the bank directly overlaid the natural boulder clay as no evidence for a buried soil horizon was observed.

4.5 Contextual concordances between Trenches One and Two

4.5.1 With the exception of the topsoil deposits (Context Nos.101, 201 and 202) and the natural boulder clay, there is only one possible concordance between the stratigraphic sequences excavated in Trenches One and Two. It is possible that the layer of dark brown silty clay loam (Context No.110) in Trench One, which was the occupation deposit into which several truncated features were either cut into or overlaid (i.e. Context Nos.103, 112, 113 and 116), is equivalent to the dark brown silty clay loam in Trench Two (Context No.216) which was sealed by the surviving core of the inner bank.

4.6 Phasing of the stratigraphic sequences

4.6.1 The Harris Matrices of Trenches One and Two have been provisionally phased (see Appendix Two). The phasing of both stratigraphic sequences is based on a number of assumptions, most significant of which is that all three elements of the enclosure were constructed simultaneously. As noted above, the excavation results are consistent with the inner bank, outer bank and ditch being constructed as a single event but this was not stratigraphically proved. Consequently, it is possible that the Trench Two occupation deposits (Context Nos.213, 215 and 216) underlying the inner bank (Context No.217) may post-date both the cutting of the ditch (Context No.207) and the construction of the outer bank (Context No.206). Furthermore, for Trench One, it is not certain that the south-eastern end of the spread of stones (Context No.117), which is apparently cut by the shallow gully (Context No.113), does represent collapsed or slighted material from the inner bank. Consequently, the suggestion that the shallow gully (Context No.113) and the later linear feature (Context No.103) date to a post-enclosure phase of activity is not certain. The phasing of the area of burnt clay (Context No.112) and the post hole, which

are not stratigraphically related to the possible spread of collapsed or slighted bank material (Context No.117), is even more problematic.

4.7 Artefactual Dating

- 4.7.1 A large quantity of animal bones and a small, but diverse, range of small finds were recovered during the excavation (see Appendix Five). Provisional analysis of the artefacts suggests evidence for an early medieval and at least one, prehistoric phase of activity (the prehistoric activity is represented by a number of residually deposited worked flints i.e. Small Find Nos.11-13, 19, 21, 23-25, 27, 31, 35, 41-44, 48-59, 61-63, 66-72, 74-75 and 77-79). Notable finds include: three sherds of Thomas's Class E ware (Small Find Nos.36-38) (cf. Thomas 1959; 1981); a crucible fragment (Small Find No.18); four fragments of slag (Small Find Nos.20, 26, 40 and 83); a small fragment of vessel glass (Small Find No.14); four pieces of worked bone (Small Find Nos.8, 15, 46 and 60), including part of a bone comb (Small Find No.15); two fragments of copper alloy (Small Find Nos.34 and 80), including a probable penannular brooch fragment (Small Find No.34); and several pieces of ironwork (Small Find Nos.5-7, 9-10, 32-33, 47, 76 and 82). Presently, the most closely datable finds are the imported E-ware sherds (Small Find Nos.36-38), which are late sixth to seventh century AD (cf. Edwards 1990, 70, fig.27d; Wooding 2002, 21-23), and the probable penannular brooch fragment (Small Find No.34) which is paralleled by a mould fragment from Dunadd, Argyll dated to the early seventh century AD (Lane and Campbell 2000, 121, no.454, illus.4.26).
- 4.7.2 Unfortunately, the majority of the datable finds were recovered from either stratigraphically late or disturbed contexts and, to date, their study has contributed little to resolving the dating and phasing of the excavated sequence. The recovery of an iron nail (Small Find No.76) from the dark brown silty clay loam occupation deposit (Context No.110) underlying the main phase of occupation in Trench One indicates that this phase of activity can not be earlier than the Iron Age and may well be significantly later. If, as suggested above, this deposit (Context No.110) can be equated with the dark brown silty clay loam in Trench Two that was sealed by the surviving core of the inner bank (Context No.216) then this *terminus post quem* can be applied to the construction of the inner bank and arguably, by extension, to the cutting of the ditch (Context 207) and the construction of the outer bank (Context 206).
- 4.7.3 Given its strategic position within Strangford Lough it is not surprising that excavation has revealed evidence for multi-period activity on the main island. It is probable that full analysis of the artefactual assemblage will reveal evidence of additional phases of activity; however, further excavation and a programme of radiocarbon dating will need to be undertaken in order to resolve the problems with both the phasing of the site and the dating of the enclosure and the other features recorded during the 2002 excavations.

5 Discussion

5.1 Introduction

5.1.1 The 2002 survey and excavation successfully quantified the rate of the site's destruction through coastal erosion and partially ascertained the character and date of activity at the site; however, the initial analysis of the data gathered during the excavation has arguably posed more questions about the site than it has answered. Consequently, any discussion of the excavation results will, at this early stage in the post-excavation process, be inevitably provisional and speculative.

5.2 Discussion

- 5.2.1 It is not possible to identify any archaeological features with the prehistoric phase, or phases, of activity on the site witnessed by the assemblage of residually deposited flints. The recovery of an iron nail (Small Find No.76) from an early deposit (Context No.110) in the Trench One stratigraphic sequence indicates that the only feature which may be possibly contemporary with the flints is the truncated stake or post hole (Context No.121) in the southern corner of Trench One. The number of demonstrably residually deposited worked flints raises the possibility that a proportion of the animal bone assemblage recovered during the excavations might also be prehistoric material which has been residually deposited.
- 5.2.2 The provisional assessment of the artefacts recovered during the 2002 excavations suggests that the main Dunnyneill Island was an important focus of activity during the early medieval period. Although it has not yet been established that the main enclosure dates to the early medieval period, this is not an unreasonable proposition. The recognition of imported ceramics, combined with the evidence for craft activity (probably either glass or metalworking) on the island, suggests that the site may have had a special status in the early medieval period. Given the relative small scale of the 2002 excavations the recovery of three sherds of E-ware suggests that further excavation at the site may lead to the recovery of a sizable assemblage of imported ceramics. Sites with large numbers of imported early medieval ceramics are usually interpreted as import centres.
- 5.2.3 E-ware has previously been recovered from several sites in Strangford Lough and its immediate coastal hinterland. This area has the densest distribution of sites producing this material known from Ireland suggesting that it was probably an entry point for this material into north-east Ireland (McErlean 2002a, 88-89, fig.3.30, table 3.3). Both Downpatrick (Warner 2000, 44) and Kilclief (McErlean 2002a, 89) have previously been identified as

possible points of entry for this material into Strangford Lough; however, the possibility that the main Dunnyneill Island was also the primary import centre cannot be easily dismissed.

- 5.2.4 Assessing the character of the site during the early medieval period is difficult. Given the small size of the main Dunnyneill Island and the apparent lack of a permanent water supply, it is not obvious that a settlement on the island could be either self-supporting or sustainable in the long-term. Relatively little evidence of exploitation of the natural resources of the coast line and the lough, such as shell fragments and the bones of either fish or marine mammals, was recovered during the excavations. This is surprising as evidence from other coastal settlements with early medieval levels, such as the raised raths of Rathmullan, Co. Down (Lynn 1982) and Ballynarry, Co. Down (Davison 1962), suggests that a significant exploitation of these resources was the norm for coastal settlements during the early medieval period (McErlean 2002a, 67). Although the absence of this evidence may reflect the failure of the 2002 excavations to identify middens associated with the site's occupation, it might also suggest that the site had a more specialized and temporary or episodic role. Whether this role was related to defence, trade or some other form of activity is uncertain.
- 5.2.5 The form of the enclosure poses some interesting questions of interpretation. The extant lengths of enclosing bank and ditch suggest that the site either had an irregular layout or represents a smaller sub-circular enclosure (A1) with at least one annexed addition at a lower height (A2) (see Figure Three). As the southern half of the site has been lost through erosion it is possible that there was originally more than one annexed enclosure. The arrangement of a series of small annexed enclosures clustered round a central enclosure, located upon a steep hill recalls the early medieval 'nuclear' fort site type such as Dunadd and Dundurn in Scotland and Dinas Emrys in Wales (for a recent discussion of this site type see Lane and Campbell 2000, 252). Although it is not suggested that the enclosure on the main Dunnyneill Island is a nuclear fort, the analogy raises the possibility that the site should be considered within the same architectural tradition where space within a settlement was deliberately divided in order to create a hierarchy of enclosures.
- 5.2.6 The evidence for the apparent deliberate slighting of the main enclosure's inner bank recovered during the excavations also poses some interesting problems of interpretation. No evidence for the slighting of the unexcavated outer bank was observed suggesting that the two banks may represent different episodes of activity. The historical context and motivation for an episode of deliberate destruction is not obvious.

5.3 Conclusion

5.3.1 Despite, and perhaps because of, the interpretive problems outlined above, the Dunnyneill Islands are potentially of considerable importance to the archaeology of the early medieval period in Ireland. The demonstrable threat posed to the integrity of this important site by coastal erosion is considerable. The 2002 topographic survey, combined with the study of previous surveys of the Dunnyneill Islands, has quantified the rate of the site's destruction and emphasized the importance of extending the excavation programme so that the full character and chronology of the site can be established and the site meaningfully preserved through record in advance of its destruction.

6. Recommendations for further work

6.1 Introduction

- 6.1.1 Three principal recommendations for further work on the Dunnyneill Island project are made. Firstly, it is suggested that the animal bone assemblage is studied by a specialist and that the bones are identified, measured and recorded; secondly, it is proposed that a limited programme of radiocarbon dating of material recovered during the 2002 excavations should be undertaken; and thirdly, it is recommended that a second season of excavations is conducted at the site. Following completion of the proposed 2003 excavations a revised data structure report will be produced outlining the post-excavation programme required to meaningfully publish both season's of excavations and successfully bring the project to completion. It is not intended to undertake detailed analyses of the finds assemblage until after the completion of the second season of excavations. This will enable finds recovered during both year's of excavation to be studied simultaneously.
- 6.2 Identification, measurement and recording of the animal bone assemblage [to be completed prior to the programme of radiocarbon dating]
- 6.2.1 Identification and recording of the animal bone assemblage will assist in determining the character of the site's occupation during the early medieval period. Its study may also assist in determining the degree of residual deposition of prehistoric material in later contexts. Identification of the animal bone is a prerequisite of the proposed radiocarbon dating programme.
- 6.3 Programme of radiocarbon dating of material recovered during the 2002 excavations [to be completed by September 2003]

Context No.	Material
102	Animal bone
110	Animal bone
115	Animal bone
120	Soil sample (charcoal)
205	Animal bone
216	Animal bone

Table Two: Material suggested for radiocarbon dating.

6.3.1 In order to resolve the outstanding problems concerning the phasing and dating of the site a limited programme of radiocarbon dating of material recovered during the 2002 excavations is proposed (Table Two). The contexts have been selected with a view to minimizing the chances of residually deposited material being used for dating purposes. A prerequisite of the dating programme will be the identification of the animal bone that is selected for dating and the floatation of the soil sample.

6.4 Six week excavation to be undertaken by a team of six experienced excavators [September / October 2003]

- 6.4.1 In order to establish the character of the early medieval occupation and meaningfully publish the excavations on the main Dunnyneill Island a second season of excavations is proposed. The proposed excavation work is intended to focus on the earthworks enclosing the site with the aims of ascertaining the status of the site during the early medieval period and resolving any dating problems which remain outstanding following the programme of radiocarbon dating. It will include the following elements:
 - A trench across one of the better surviving sections of the earthwork at the base of the island with the aim of establishing its character and date.
 - A partial reopening of Trench Two in order to complete the excavation of the outer bank (Context No.206).
 - A small trench within the interior of the main enclosure which will connect Trenches One and Two and thereby establish the relationship between the shallow linear feature (Context No.113) and the collapsed bank material (Context No.117) as well as confirm the suggested stratigraphic concordances between Trenches One and Two.
 - A trench across the bank separating the two enclosed areas of the site intended to ascertain the relationship between these two areas.
- 6.4.2 If the logistics of the excavation allow additional work to be undertaken, then a programme of test pitting on the slopes of the island beneath the main enclosure with the aim of identifying and sampling any potential midden deposits will be undertaken.
- 6.4.3 A priority of the proposed second season of excavation will be the recovery of as much cultural material as possible from the site. To facilitate this it is intended that a comprehensive programme of sieving of excavated spoil will be undertaken as well as the use of a metal detector to check spoil heaps for metal artefacts and survey archaeological deposits prior to their excavation.

Bibliography

Anon. 1928. The Scandinavian invasions and County Down, Down Connor Hist. Soc. J. 1, 54-67.

Davison, B. 1962. Excavations at Ballynarry Rath, Co. Down, Ulster J. Archaeol. 24-25, 9-87.

Edwards, N. 1990. The archaeology of early medieval Ireland, B.T.Batsford Ltd, London.

Harris, W. 1744. The antient and present state of the county of Down. Containing a chorographical defcription, with the natural and civil history of the fame. Illustrated by observations made on the baronies, parishes, towns, villages churches, abbeys, charter schools, mountains, rivers, lakes, medicinal and other springs, &c. with a survey of the new canal; as also a new and correct map of the county, Edward Exshaw, Dublin.

Lynn, C.J. 1982. The excavation of Rathmullan, a raised rath and motte in County Down, *Ulster J. Archaeol.* 44-45, 65-171.

McErlean, T. 2002a. Early medieval period, c.400-1177, in T.McErlean, R.McConkey and W.Forsythe 2002, 57-90.

McErlean, T. 2002b. Fish and fishing in Strangford Lough, in T.McErlean, R.McConkey and W.Forsythe 2002, 132-143.

McErlean, T., McConkey, R., and Forsythe, W. 2002. *Strangford Lough. An archaeological survey of the maritime cultural landscape*, (Northern Ireland Archaeol. Mono. No.6) Blackstaff Press Limited and Environment and Heritage Service, Belfast.

McKeown, L. 1933. The islands of Strangford Lough, Down Connor Hist. Soc. J. 5, 27-42.

O'Laverty, J. 1878. *An historical account of the Diocese of Down and Connor, ancient and modern. Volume One*, J.Duffy, Dublin.

Thomas, C. 1959. Imported pottery in Dark-Age western Britain, *Medieval Archaeol.* 3, 89-111.

Thomas, C. 1981. *A provisional list of imported pottery in post-Roman western Britain and Ireland*, (Instit. Cornish Stud. Spec. Rep. No.7), Institute of Cornish Studies, Redruth.

Warner, R. 2000. Clogher: an archaeological window on early medieval Tyrone, in C.Dillon and H.A.Jefferies (eds), *Tyrone history and society*, Geography Publications, Dublin. 39-54.

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Williams, B. 2002. The protection and management of archaeological sites in Strangford Lough, in T.McErlean, R.McConkey and W.Forsythe 2002, 418-422.

Wooding, J.M. 2002. Trade as a factor in the transmission of texts between Ireland and the continent in the sixth and seventh centuries, in P.N.Chatháin and M.Richter (eds), *Ireland and Europe in the early Middle Ages: texts and transmission*, Four Courts Press, Dublin. 14-26.

Context No. Trench Description No. Mixed topsoil Layer of silty clay loam (same as 106) Cut of linear feature partially defined by slab-packed edges Spread of beach gravel Spread of periwinkles (within the top of layer 102) Layer of silty clay loam (same as 102) Collapsed bank material in the northern corner of Trench One Fill of linear feature 103 Void Layer of silty clay loam (possibly equivalent to 216) Fill of feature 116 Area of burnt clay Cut of shallow, truncated linear feature Fill of linear feature 113 Fill of linear feature 103 Cut of post-hole Collapsed bank material in the northern corner of Trench One Fill of post-hole feature 116 Silty clay loam immediately above the boulder clay Fill of post-hole / stake-hole 121 Cut of post-hole / stake-hole 121 Mixed topsoil Mixed topsoil deposit towards northern end of Trench Two Fill of ditch cutting 207 Deposit of inner bank slump forming fill of ditch cutting 207 Fill of ditch cutting 207 Outer bank material (unexcavated) Cut of ditch Root hole in base of ditch cutting 207 Fill of 208 Root hole in base of ditch cutting 207 Fill of 210 Collapsed inner bank material Occupation deposit (same as 215) Collapsed inner bank material Occupation deposit (same as 213)

Appendix One: Context list

Context No.	Trench No.	Description
	NO.	
216	2	Layer of silty clay loam (possibly equivalent to 110)
217	2	Inner bank
218	2	Possible area of flagged stones in south-east corner of Trench Two
219	2	Deposit of outer bank slump

Appendix Two: Harris Matrices

Matrix: Trench 1 (phased).





Matrix: Trench 2 (phased).
Appendix Three: Photographic Record

Film One: Kodak E100VS 5.135 – 36 Ektachrome colour reversal film.

- 1 N/A
- 2 N/A 3 N/A
- 5 N/A
- 4 N/A

23rd September 2002

- 5 Trench One prior to excavation looking south-west
- 6 Trench One prior to excavation looking south-west
- 7 Trench One prior to excavation looking south-east
- 8 Trench One prior to excavation looking south-east
- 9 Trench One prior to excavation looking north-west
- 10 Trench One prior to excavation looking north-west
- 11 Trench One prior to excavation looking north-east
- 12 Trench One prior to excavation looking north-east

25th September 2002

- 13 Trench One following excavation of Context 101 (topsoil) looking north-west
- 14 Trench One following excavation of Context 101 (topsoil) looking north-west
- 15 Trench One following excavation of Context 101 (topsoil) looking north-west
- 16 Trench One following excavation of Context 101 (topsoil) looking north-east
- 17 Trench One following excavation of Context 101 (topsoil) looking north-east
- 18 Trench One following excavation of Context 101 (topsoil) looking north-east

26th September 2002

- 19 Trench Two prior to excavation looking east
- 20 Trench Two prior to excavation looking east
- 21 Trench Two prior to excavation looking east
- 22 Trench Two prior to excavation looking east
- 23 Trench Two prior to excavation looking west
- 24 Trench Two prior to excavation looking west
- 25 Trench Two prior to excavation looking west
- 26 Trench Two prior to excavation looking west
- 27 The southern half of Trench Two prior to excavation looking south
- 28 The southern half of Trench Two prior to excavation looking south

- 29 The southern half of Trench Two prior to excavation looking south-east
- 30 The southern half of Trench Two prior to excavation looking south-east
- 31 The northern half of Trench Two prior to excavation looking north
- 32 The northern half of Trench Two prior to excavation looking north
- 33 The northern half of Trench Two prior to excavation looking north-east
- 34 The northern half of Trench Two prior to excavation looking north-east

27th September 2002

- 35 Dunnyneill Island
- 36 Dunnyneill Island
- 37 Dunnyneill Island

Film Two: Kodak E100VS 5.135 – 36 Ektachrome colour reversal film.

27th September 2002

- 1 Southern half (inner bank) of Trench Two following excavation of Context 201 (topsoil) looking south
- 2 Southern half (inner bank) of Trench Two following excavation of Context 201 (topsoil) looking south
- 3 Southern half (inner bank) of Trench Two following excavation of Context 201 (topsoil) looking south
- 4 Southern half (inner bank) of Trench Two following excavation of Context 201 (topsoil) looking west
- 5 Southern half (inner bank) of Trench Two following excavation of Context 201 (topsoil) looking west
- 6 Southern half (inner bank) of Trench Two following excavation of Context 201 (topsoil) looking west

30th September 2002

- 7 Feature 103 prior to excavation looking north-east
- 8 Feature 103 prior to excavation looking north-east
- 9 Feature 103 prior to excavation looking north-east
- 10 Feature 103 prior to excavation looking east
- 11 Feature 103 prior to excavation looking east
- 12 Feature 103 prior to excavation looking south-west
- 13 Feature 103 prior to excavation looking south-west

- 14 Feature 103 prior to excavation looking west
- 15 Feature 103 prior to excavation looking west

2nd October 2002

- 16 Record shot of burnt clay Context 112 looking south-east
- 17 Record shot of burnt clay Context 112 looking south-east
- 18 Record shot of burnt clay Context 112 looking south-east
- 19 Top of Trench Two (inner bank) following removal of Context 201 looking south-east
- 20 Top of Trench Two (inner bank) following removal of Context 201 looking south-east
- 21 Top of Trench Two (inner bank) following removal of Context 201 looking south
- 22 Top of Trench Two (inner bank) following removal of Context 201 looking south
- 23 Top of Trench Two (inner bank) following removal of Context 201 looking north-west
- 24 Top of Trench Two (inner bank) following removal of Context 201 looking north-west
- 25 Top of Trench Two (inner bank) following removal of Context 201 looking north-west
- 26 Top of Trench Two (inner bank) following removal of Context 201 looking north-west
- 27 Southern part of the top of Trench Two (inner bank) following removal of Context 201 looking east
- 28 Southern part of the top of Trench Two (inner bank) following removal of Context 201 looking east
- 29 Northern part of the top of Trench Two (inner bank) following removal of Context 201 looking east
- 30 Northern part of the top of Trench Two (inner bank) following removal of Context 201 looking east
- 31 General shot of Trench One following excavation of features 103 and 113 looking southwest
- 32 General shot of Trench One following excavation of features 103 and 113 looking southwest
- 33 Linear features 103 and 113 following excavation looking west
- 34 Linear features 103 and 113 following excavation looking west
- 35 Linear features 103 and 113 following excavation looking north
- 36 Linear features 103 and 113 following excavation looking north

Film Three: Kodak E100VS 5.135 – 36 Ektachrome colour reversal film.

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- 1 Linear features 103 and 113 following excavation looking east
- 2 Linear features 103 and 113 following excavation looking east

- 3 General shot of Trench One following excavation of features 103 and 113 looking northeast
- 4 General shot of Trench One following excavation of features 103 and 113 looking northeast
- 5 General shot of Trench One following excavation of features 103 and 113 looking northeast
- 6 General shot of Trench One following excavation of features 103 and 113 looking northeast
- 7 General shot of Trench One following excavation of features 103 and 113 looking northeast
- 8 Record shot of feature 116 (with north-east to the top of frame)
- 9 Record shot of feature 116 (with north-east to the top of frame)
- 10 General shot of Trench Two following excavation of ditch fills
- 11 General shot of Trench Two following excavation of ditch fills
- 12 General shot of Trench Two following excavation of ditch fills
- 13 General shot of Trench Two following excavation of ditch fills
- 14 General shot of Trench Two following excavation of ditch fills
- 15 General shot of Trench Two following excavation of ditch fills
- 16 General shot of Trench Two following excavation of ditch fills
- 17 General shot of Trench Two following excavation of ditch fills
- 18 General shot of Trench Two following excavation of ditch fills
- 19 General shot of Trench Two following excavation of ditch fills
- 20 General shot of Trench Two following excavation of ditch fills
- 21 General shot of Trench Two following excavation of ditch fills
- 22 General shot of Trench Two following excavation of ditch fills
- 23 General shot of Trench Two following excavation of ditch fills

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- 24 General shot of Trench Two inner bank following excavation of layer 216 looking south
- 25 General shot of Trench Two inner bank following excavation of layer 216 looking south
- 26 Final shot of Trench One looking south-west
- 27 Final shot of Trench One looking south-west
- 28 Trench One, linear features 103 and 113 following excavation looking south
- 29 Trench One, linear features 103 and 113 following excavation looking south
- 30 Final shot of Trench One looking north-east
- 31 Final shot of Trench One looking north-east
- 32 Record shot of south-western part of Trench One showing area excavated to the boulder clay looking south-east

- 33 Record shot of south-western part of Trench One showing area excavated to the boulder clay looking south-east
- 34 Trench One, feature 121 following excavation (south-west to the top of frame)
- 35 Trench One, feature 121 following excavation (south-west to the top of frame)
- 36 Trench One, feature 116 following excavation (south-west to the top of frame)

Film Four: Kodak E100VS 5.135 – 36 Ektachrome colour reversal film.

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- 1 Trench Two, general shot of Context 207 (ditch) following excavation looking east
- 2 Trench Two, general shot of Context 207 (ditch) following excavation looking east
- 3 Trench Two, general shot of Context 207 (ditch) following excavation looking east
- 4 Trench Two, general shot of Context 207 (ditch) following excavation looking west
- 5 Trench Two, general shot of Context 207 (ditch) following excavation looking west
- 6 Trench Two, general shot of Context 207 (ditch) following excavation looking west
- 7 Trench Two, general shot of Context 207 (ditch) following excavation looking north-west
- 8 Trench Two, general shot of Context 207 (ditch) following excavation looking north-west
- 9 Trench Two, general shot of Context 207(ditch) and Context 217 (inner-bank) following excavation looking east
- 10 Trench Two, general shot of Context 207(ditch) and Context 217 (inner-bank) following excavation looking east
- 11 Trench Two, general shot of Context 207(ditch) and Context 217 (inner-bank) following excavation looking south-east
- 12 Trench Two, general shot of Context 207(ditch) and Context 217 (inner-bank) following excavation looking south-east
- 13 Top of Trench Two (inner bank), east facing section following excavation looking west
- 14 Top of Trench Two (inner bank), east facing section following excavation looking west
- 15 Top of Trench Two (inner bank), east facing section following excavation looking west
- 16 Top of Trench Two (inner bank), east facing section following excavation looking west
- 17 Top of Trench Two (inner bank), southern part of east facing section following excavation looking west
- 18 Top of Trench Two (inner bank), southern part of east facing section following excavation looking west
- 19 Top of Trench Two (inner bank), middle part of east facing section following excavation looking west
- 20 Top of Trench Two (inner bank), middle part of east facing section following excavation looking west

- 21 Top of Trench Two (inner bank), northern part of east facing section following excavation looking west
- 22 Top of Trench Two (inner bank), northern part of east facing section following excavation looking west
- 23 Trench Two, Context 218 (possible flag stones) (west to top of frame)
- 24 Trench Two, Context 218 (possible flag stones) (west to top of frame)

Drawing	Scale	Туре	Description
No.			
1	1:20	Plan	Plan of Trench One following excavation of Context 101 (mixed topsoil)
2	1:20	Plan	Plan of Trench One following excavation of Contexts 102 and 106
3	1:20	Plan	Plan of linear features 103 and 113, post holes 116 and 121, bank matrix 117 and area of burnt clay 112 within Trench One
4	1:20	Plan	Plan of slumped inner bank deposits 212 and 214 in Trench Two
5	1:20	Plan	Plan of counter-scarp bank and ditch (inner bank/wall) of Trench Two [continuation of Drawing No.4]
6	1:20	Section	North-east and south-west facing sections of Trench One
7	1:20	Section	East facing section of Trench Two

Appendix Four: Field Drawing Register

Small Find No.	Description	Trench No.	Context No.	Easting	Northing	Height (corrected)
1	Stone bead	1	101	1006.197	1001.944	15.495
2	Pot sherd	1	101	1005.761	1002.117	15.532
3	Pot sherd	1	101	1005.654	1002.327	15.511
4	Pot sherd	1	101 (2 nd spit)	1003.811	1004.346	15.489
5	Iron nail	1	101 (2 nd spit)	1004.802	1002.529	15.490
6	Iron knife	1	101 (2 nd spit)	1004.302	1002.162	15.470
7	Iron nail	1	101 (2 nd spit)	1004.005	1002.658	15.489
8	Bone point/pin	1	101 (2 nd spit)	1003.579	1003.561	15.501
9	Iron binding	1	101 (2 nd spit)	1003.027	1001.687	15.396
10	Iron binding/fitting	1	102	1006.141	1001.864	15.466
11	Flint	1	101 (2 nd spit)	1003.664	1004.392	15.500
12	Flint	1	101 (2 nd spit)	1004.822	1002.980	15.477
13	Flint	1	101 (2 nd spit)	1004.424	1002.814	15.464
14	Glass	1	102	1006.068	1001.927	15.403
15	Bone comb fragment	1	102	1005.729	1002.258	15.451
16	Stone spindle whorl	1	102	1005.980	1002.648	15.420
17	Pot sherd	1	106	1005.209	1003.158	15.450
18	Crucible	1	107	1002.385	1000.352	15.378
19	Flint flake	1	106	1004.603	1002.793	15.458
20	Slag	1	106	1004.016	1002.974	15.426
21	Flint debitage	1	104	1003.396	1001.266	15.358
22	Flint debitage	2	201	1000.279	995.348	14.214
23	Flint	1	104	1003.243	1001.279	15.356
24	Flint	1	104	1003.076	1001.248	15.353
25	Flint core	1	104	1003.852	1000.864	15.397
26	Slag	1	104	1003.804	1001.004	15.400
27	Flint	1	104	1004.382	1000.785	15.435
28	Pot sherd	1	106	1005.697	1001.344	15.461
29	Pot sherd	2	201/202	999.623	996.042	14.415
30	Flint - butt trimmed flake	2	201	1000.247	995.215	14.174
31	Flint flake	1	104	1002.123	1001.280	15.340
32	Iron binding	1	106	1002.842	1002.689	15.375
33	Iron object	1	106			
34	Copper alloy brooch	1	102	1003.182	1002.167	15.376
35	Flint flake	1	102	1002.985	1001.901	15.349
36	Pot sherd	2	203	-	-	-
37	Pot sherd	2	203	999.752	995.401	13.987

Appendix Five: Small Finds Register

Small Find No.	Description	Trench No.	Context No.	Easting	Northing	Height (corrected)
38	Pot sherd	2	203	1000.213	995.496	13.981
39	Iron nail ?	2	203	1000.575	994.993	13.996
40	Slag	2	203	999.961	994.678	14.116
41	Flint	1	108	1002.852	1001.461	15.228
42	Flint	1	108	1001.862	1001.529	15.184
43	Flint	1	108	1001.703	1001.590	15.192
44	Flint	1	108	1001.948	1001.422	15.175
45	Hammer stone	1	111	1005.871	1002.641	15.305
46	Wood or bone handle	2	201	999.769	999.237	15.451
47	Iron nail	1	106	1003.543	1003.139	15.396
48	Flint flake	1	106	1003.994	1002.733	15.398
49	Flint flake	1	106	1003.832	1002.873	15.398
50	Flint core	1	106	1003.279	1003.157	15.407
51	Flint	1	106	1003.256	1002.694	15.395
52	Flint	1	106	1003.024	1002.891	15.386
53	Flint	1	114	1003.622	1001.789	15.323
54	Flint	1	108	1001.826	1001.685	15.197
55	Flint	1	108	1001.734	1001.452	15.185
56	Quartz flake	1	108	1001.518	1001.524	15.203
57	Flint flake	1	114	1003.118	1001.819	15.291
58	Flint	1	114	1002.702	1001.737	15.277
59	Flint	1	110	1003.176	1002.179	15.386
60	Worked bone fragment	1	110	1002.854	1000.899	15.300
61	Flint	1	110	1003.163	1000.720	15.319
62	Flint	1	110	1003.293	1000.516	15.322
63	Flint	1	110	1003.062	1000.616	15.307
64	Pot sherd	1	110	1002.458	1000.521	15.264
65	Pot sherd	1	110	1002.387	1000.801	15.271
66	Flint tool	1	110	1002.383	1001.178	15.248
67	Flint flake	1	110	1004.299	1003.220	15.385
68	Flint flake	1	110	1003.360	1003.277	15.359
69	Flint flake	1	110	1003.770	1003.022	15.355
70	Flint	1	110	1003.424	1001.104	15.327
71	Flint	1	110	1003.598	1001.195	15.329
72	Flint	1	110	1001.818	1002.397	15.289
73	Pot sherd ?	2	216	999.517	1000.033	15.110
74	Flint debitage	1	119	1003.554	1002.083	15.347
75	Flint debitage	1	119	1003.391	1002.083	15.347

Small Find No.	Description	Trench No.	Context No.	Easting	Northing	Height (corrected)
76	Iron nail	1	110	1004.953	1002.286	15.382
77	Flint	1	110	1003.898	1001.117	15.348
78	Flint	1	110	1004.146	1001.232	15.359
79	Flint	1	110	1004.321	1001.401	15.359
80	Copper alloy mount	1	110	1004.297	1001.519	15.331
81	Pot sherd	2	216	999.564	999.534	15.090
82	Ironwork	1	101	-	-	-
83	Vitrified Stone	1	110	-	-	-
84	Pot sherd	1	108	-	-	-

Sample No.	Trench No.	Context No.	No. of Bags	Volume (estimate)
1	1	102 (above western end of 'stone setting' 103)	2	4 litres
2	1	105	1	0.5 litres
3	1	102 (above eastern end of 'stone setting' 103)	2	6 litres
4	1	108	2	6 litres
5	2	203 (base of deposit)	1	1 litre
6	1	108 / 114	1	1 litre
7	2	201 (top of trench over bank)	2	3 litres
8	1	115	1	1.5 litres
9	1	110	1	0.25 litres
10	1	111	1	0.5 litres
11	2	213	1	
12	1	120	1	0.1 litres
13	2	213	1	0.5 litres
14	2	209	1	1 litre
15	2	211	1	1 litre
16	2	201 (top of bank – bone and shell)	1	1 litre
17	2	213	1	0.25 litre
18	2	215	1	2 litres

Appendix Six: Samples Record



Plate One: The Dunnyneill Islands (looking south-east)



Plate Two: The smaller Dunnyneill Island and the tidal causeway (looking northeast)



Plate Three: The inner bank (B1) separating the lower enclosed area in the foreground (A2) from the upper enclosed area in the background (A1) (looking east)



Plate Four: The low earthwork enclosing the base of the hill (B3i) (looking south-west)



Plate Five: The possible duck trap and hide (F4) (looking west)



Plate Six: Detail of the actiely eroding southern cliff face of the main island (looking north-east)



Plate Seven: The actively eroding southern cliff of the main island (lokking north-east)



Plate Eight: Trench One showing linear features (Context Nos.103 and 113) (looking south-west)



Plate Nine: Trench One showing eastern end of linear feature (Context No.103) (looking north)



Plate Ten: Part of Trench Two following excavation of the ditch cut (looking south-east)