CHAPTER 9

Low Newton-by-the-Sea to Marshall Meadows Point, Berwick-upon-Tweed (Block 4 NMP)

9.1 Introduction

The area covered extends from Low Newton-by-the-Sea to the Scottish Border at Marshall Meadows Point. It falls within a single major topographical unit, the Northumberland coastal plain. Accordingly, this survey of the heritage assets has been undertaken with reference to the Historic Environment Records (HERs) maintained by Northumberland County Council. This existing data base has been enhanced by the transcription of aerial photographs held by the National Monuments Record and carried out to the standards of the National Mapping Programme (NMP). This work is referred to as the Air Photograph Transcription Exercise (APTE).

This entire section of coastline, with the exception of 2.5km at the mouth of the River Tweed, has been designated as a 'Heritage Coast' while the section as far north as Spittal lies within the Northumberland Coast Area of Outstanding Natural Beauty (AONB). These two designations also include the Farne Islands and Holy Island. In addition, the whole of the foreshore zone has been designated as a SSSI while the Farne Islands and the foreshore from Budle Bay to Cheswick Black Rocks are National Nature Reserves.

The National Trust manages sections of coastal sand dunes at Beadnell Bay and at St Aidan's Dunes, North Sunderland. The Farne Islands are also managed by the Trust as is Lindisfarne Castle and the adjoining foreshore on Holy Island.

9.1.1 Soils and landuse

The solid geology of this section of the coast is described in Chapter 3, though throughout most of the coastal zone this solid geology is mantled by varying thicknesses of glacial drift and other superficial deposits of Pleistocene and Holocene age. It is these superficial deposits that give rise to the principal soil types found along this section of the coast.

Table 9.1 Soil and landuse in Block 4

Deep loam	Stock rearing and dairying with some cereals
Seasonally wet deep loam to clay	Grassland in moist lowlands with some arable in drier areas
Seasonally wet deep loam	Winter cereals, stock and dairying
Seasonally wet deep red loam to clay	Dairying
Seasonally wet deep clay	Winter cereals, sugar beet, potatoes and field vegetables
Seasonally wet deep sandy	Cereal, potatoes and sugar beet
Loam over red sandstone	Dairying

Shallow peat over hard rock	Farne Islands
Dune sand	Recreation and some coniferous woodland

The patterns of landuse that characterise these soil types are an important consideration in evaluating the survival of heritage assets and the degree of threat arising from normal farming practices. Clearly, ploughing for arable cultivation will have had a major bearing on the survival of and the extent to which, once levelled sites can be identified on aerial photographs. Plough damage to archaeological sites is not a recent phenomenon but before the Medieval Period the scale and intensity of ploughing was insignificant compared with later periods. However, the development of ridge-and-furrow cultivation in the open fields of the Medieval and post-Medieval Periods was on a sufficient scale to pose a serious threat to existing features.

9.1.2 Coastal erosion

This section of the coast is predominantly low lying, consisting of broad sandy beaches backed by dune systems or low cliff lines (<10m OD) mainly formed in the boulder clay, the under lying bedrock being exposed at beach level and on the wave cut platforms between MHWS and LAT. The foreshore is punctuated by Whin Sill Dykes, usually trending SW-NE, and alternating beds of Carboniferous Limestone, Sandstone and Mudstones which occasionally give rise to low cliffs.

The Farne Islands lie between 2km and 4.5km offshore. The number of islands varies according to the state of the tide but 33 are usually exposed at MHWS, an inner group of 14 and an outer group of 19. Geologically they are part of the Whin Sill formation of the Late Carboniferous and support only shallow peaty soils. Holy Island is predominantly formed of limestone capped by boulder clay and alluvium in the central depression while Lindsifarne Castle is situated on a Whin Sill dyke. The westward extension of the island is a line of interlinked dunes.

The section of the coast from Cocklawburn Beach to the southern outskirts of Spittal is strikingly different from sections to the south, being formed of limestone cliffs rising to 30m OD. At Spittal the cliff line trends inland and gives way to the lowlying land around the mouth of the River Tweed, with Berwick-upon-Tweed occupying the northern shore. North of Berwick the limestone cliffs resume with an outcrop of the Scremerston Coal Group being exposed on the foreshore.

The section of the coast falls within Cell 1a of the Shoreline Management Plan (SMP). At the time of writing the SMP2 for this zone is currently being produced and the NERCZA data have to be assessed against the less detailed SMP1 criteria, produced by Posford Duvivier in 1997. This section of the coast lies within SMP1 Policy Units 6 to 19 and for each of these units the SMP1 document offers a 'Preferred Strategic Option' which is the equivalent of the 'Policy Recommendations' of SMP2. These are given as 'Do Nothing' (DN), 'Hold the line' (HTL) or 'Selectively hold the line' (SHTL), and are listed in Table 9.2.

Table 9.2 SMP1 proposed responses to predicted coastal change in Block 4

Location	SMP Unit	Policy
Marshall Meadows Point to Neddles Eye	6	SHTL
Neddles Eye to Berwick North Pier	7	DN
Berwick-upon-Tweed	8	HTL
Tweedmouth	9	HTL
Spittal	10	HTL
Dear's Head to Saltpan Rocks	11	SHTL
Saltpan Rocks to Cheswick Shiel	12	DN
Cheswick Shiel to Beachcomber House	13	SHTL
Beachcomber House to Budle Bay	14	SHTL
Budle Bay to Harkess Rocks	15	SHTL
Harkess Rocks to The Tumblers	16	DN
The Tumblers to Beadnell Harbour	17	SHTL
Beadnell Bay North	18	DN
Beadnell Bay and Football Hole	19	DN

Figure 9.1 The partially eroded C18 Limekilns at Beadnell Harbour; the SMP1 'Preferred Strategic Option' here (Unit 17) is *Selectively Hold the Line* (author)

Reference is made to *A Strategy for Coastal Archaeology in Northumberland* (SCAN), published by Northumberland County Council and English Heritage in 1993. This document focuses on two principal issues, the damage and destruction of archaeological sites through coastal erosion and the exposure of remains through dune movement, which ultimately also leads to their damage and destruction. Field work carried out by the Glasgow University Archaeology Research Division examined 112km (70 miles) of coastline and assessed the potential threat to archaeological remains in the twenty-six 1:10,000 OS Map sheets in which the coastline falls. Eleven of these map sheets cover the section of coast examined in this chapter. For each sheet *SCAN* provides an assessment of the archaeological potential and the level of risk from erosion. These data are summarised in the following table.

Table 9.3 Archaeological potential and risk from erosion in Block 4

1:10,000 OS Map sheet	Potential	Erosion
NT 95 NE	Low	Medium
NU 05 SW	Low	Low
NU 04 NW	Medium	High
NU 04 NE	Medium	Low
NU 04 SE	Medium	Low
NU 14 SW	High	High
NU 13 NW	High	High
NU 13 NE	High	Medium
NU 13 SE	High	Low
NU 23 SW	Medium	Medium
NU22 NW	High	High

(source:*A Strategy for Coastal Archaeology in Northumberland,* 1993)

The foregoing study is mainly based on the study of historic maps and aerial photographs backed up by some on the ground inspection. An example is provided by the study of shoreline at Bamburgh carried out as part of the *Bamburgh Research Project* (Young 2001-2002). Here, a study of mid C19 Ordnance Survey maps has shown that 150 years ago the sea reached the foot of the rock on which the castle is built whereas today a band of sand dunes 100m wide separates the castle from MHWS. In this case we are witnessing the opposite of coastal erosion, a situation which emphasises the need for the systematic collection of data in relation to sea level change, erosion and accretion.

9.2 Terrestrial Landscapes

9.2.1 Early Prehistory

Although Block 4 lay within the realm of Palaeolithic settlement, at least during the Late Upper Palaeolithic Period, no finds of this date have been recorded in the coastal zone. The earliest evidence for a human presence belongs to the Mesolithic Period and this category of evidence is dealt with in the section on Coastal/Maritime Landscapes.

9.2.2 The Neolithic Period and the Bronze Age

The only Neolithic finds from this part of the coast consist of four records of isolated stone axe head finds and the identification of some Neolithic leaf-shaped arrowheads from the mixed assemblage at Ness End on Holy Island (NU130438, NH 5360) while Neolithic Period activity has been identified in excavations at Marygate, Holy Island village. These finds do little other than illustrate that this part of the coast was occupied during the

Neolithic period.

Apart from the find of a spearhead on Holy Island (NH 5350) and a putative ***standing stone,*** the Bronze Age is mainly represented by ***round barrows*** or ***cairns*** and stone ***cists***, which may or may not have been originally covered by a mound.

The standing stone (NU21573201, NH 12269) is situated at about 20m OD in a field to the north of Seahouses. It is a sub-rectangular block of red sandstone standing about 0.85m high and is 0.4m wide and 0.2m thick. As such it is very small and may be misidentified. However, it is situated close to the spot where eight cists were found in 1905 and it could be an upended capstone.

The barrows and cists make an interesting addition to the corpus of Bronze Age funerary monuments on the Northumberland coast.

The Benthall round cairn was discovered in 1934 during the construction of a timber fisherman's hut (Askew 1938). It is situated immediately above the foreshore. The mound consisted of water worn boulders, pebbles and sand. It is about 15m in diameter and stands to 0.4m.Two cists, built of sandstone slabs, were found inserted into the edge of the mound. Cist 1 measured 0.9m by 0.5m by 0.45m. When the capstone was removed it was found to contain a disarticulated skeleton but no grave goods. Cist 2 was a little smaller. It contained a crouched inhumation and a Food Vessel. The Benthall round cairn is a Scheduled Ancient Monument.

Two cairns were discovered in 1970 during the construction of a caravan park at Beadnell Links (NU23042991 and NU 23022993, NH 5788) (Tait and Jobey 1971). Cairn 1 had been destroyed by the time the archaeologists arrived on site but it was established to have been about 4m in diameter. Cairn 2 was 5.8m in diameter and about 1m high. It was constructed of sea-rolled cobbles with a kerb of larger boulders. It contained a cist from which were recovered the remains of 19 individuals, though the find of a Romano-British brooch on the shoulder of an articulated burial implied that the cist had been reused (Whimster 1981).

The HER records the site of a round barrow at Bamburgh (NU18403451, NH 5251). This mound is irregular in shape and measures 55m by 90m and stands 3m high. Although unusually large, limited excavation in 1928 established that the mound is indeed artificial (Hodgkin 1931). There are the remains of a cist, measuring 1.38m by 0.75m, near the summit of the mound which was found to contain the fragmentary skeleton of a male while the HER records the recovery of an 'urn' in the C19. Measurements taken from the APTE transcription of this site, 38m by 50m, suggest that there has been some denudation since the site was originally recorded. The Bamburgh round barrow is a Scheduled Ancient Monument.

Another large barrow is recorded from documentary evidence about 200m from MHWS at Cheswick Beach (NU039470, NH 3968). It is recorded as having been about 15m in diameter and constructed of water-worn stones. In was opened in 1826 and found to contain a primary burial in a cist and several secondary inhumations. The cist measured 1.5m by 0.77m and, in addition to the burial, contained a bronze knife (Donaldson 1834).

A number of other HER records refer to cists, which are nevertheless attributed to the Bronze Age. There is a C19 record of two cists being found immediately adjoining the foreshore to the north of the Benthall round cairn (NU236293, NH 5784), although they appear to be no longer extant. Another C19 reference records a cist containing a burial and three 'urns' found in the yard of the Blue Bell Inn, North Sunderland (NU21113146, NH 5901). From the description as 'drinking cups', these vessels may have been Beakers (Askew 1938; Bateson 1893, 307). A further eight cists were found at Seahouses in 1905 (NU21603202, NH 5903). Most contained crouched inhumations and the assemblage included two Beakers, two Food Vessels and a cup-and-ring marked stone (Fiby 1907).

Two cists are reported from Scremerston, one found in 1922 the other in 1948 (NU01334958, NH 3964). The cists had been inserted at the south end of a low, sandy ridge. Cist 1 measured 1.2m square. It contained a female skull, fragments of a Beaker and two flints. Cist 2 was of similar size and contained two Beakers (Craw 1919-1922, 383-384).

In 1927 a cist containing two femurs was found close to the southern end of Berwick bridge (NT99345266, NH 2440). It is assumed that this is a Bronze Age burial but no further details are available (Craw 1926-1928, 131-132).

The only settlement feature that can be tentatively dated to the Bronze Age consists of a series of concentric cropmarks at North Sunderland (NU20653197, NMR 8329). The features recorded are a nearly circular ditched enclosure about 82m across, the ditch being about 10m wide. Placed concentrically within this is a second enclosure 52m across indicated by what appears to be a palisade slot, while a further concentric palisade slot has been identified outside the main ditch on the north, but probably originally continued all the way around. There is an entrance through the inner palisade and the outer ditch on the SE side and outside this two further, short lengths of palisade slot define a forecourt area. The site is undated, but morphological parallels in the region and elsewhere in England suggest a date in the early part of the 1st millennium cal BC.

Figure 9.2 Putative Late Bronze Age enclosure at North Sunderland recorded from aerial photographs (English Heritage)

Finds of Bronze Age date are also found among the mixed assemblages recovered from deflated dune areas. The most numerous group comes from Ross Links (NU145365, NH 5068), which is also the location of a Mesolithic flint scatter site (see below). Bronze Age finds include sherds from at least ten Beakers, three Food Vessels, up to 50 sherds of Late Bronze Age cinerary urns and three quartzite hammer stones. Traces of burnt bone suggest that these finds were originally associated with cremations (Buckley 1929, 92-93).

Table 9.4 Bronze Age sites identified in Block 4

NGR	Name	HER	SMP	Importance	Risk
NU21573201	Seahouses standing stone (?)	NH 12269	17	Low	Low
NU23712891	Benthall cairn	NH 5781	17	High	High
NU23042991	Beadnell cairn 1	NH 5788	n/a	n/a	n/a
NU23022993	Beadnell cairn 2	NH 5788	18	Low	Low
NU18403451	Bamburgh cairn	NH 5251	16	High	Low
NU039470	Cheswick Beach	NH 3968	12	Low	Medium
NU236293	Bethnall cists (2)	NH 5784	17	n/a	n/a
NU21113146	North Sunderland cist (1)	NH 5901	17	n/a	n/a
NU21603202	Seahouses cists (8)	NH 5903	17	n/a	n/a
NU01334958	Scremerston cists (2)	NH 3964	11	n/a	n/a
NT99345266	Berwick bridge cist (1)	NH 2440	n/a	n/a	n/a
NU20653197	North Sunderland enclosure	NMR 8329	17	High	Low
NU145365	Ross Links cremations (?)	NH 5068	14	High	High

Deflation of the dune system as Ross Links has led to the exposure of archaeological deposits spanning most of the prehistoric period. Study of historic maps by Robertson (1955quoted in Lunn 2004, 219) has shown that the whole dune system is unstable and may only have started to form in the C17 as a result of major storm activity. Any increase in storminess will add to the treat already posed to the archaeological deposits.

9.2.3 The Iron Age and Roman-British Period

The terrestrial landscapes of the Iron Age and Romano-British Periods are represented in Block 4 by what appear to be the remains of settlement sites in the form of a five ***multivallate forts***, six ***farmstead enclosures,*** three ***querns*** and several areas of ***ancient fields***.

The multivallate fort at Spindlestone Heughs (NU15253392, NH 5242) is the major site of this period on this section of the coast. It stands at 75m OD on an outcrop of Whin Sill and overlooks the head of Budle Bay to the north. The defences consist of an inner, main enclosure supplemented by annexes to the west and north. The inner enclosure measures about 100m by 60m and is defended by two ramparts on the west and north and a single rampart to the east while the south side is defined by the cliffs of the heugh. The inner rampart stands 2m high and is 5m wide. The western annexe is about 60m by 30m and is strongly defended while that to the north is weaker and measures 80m by 28m. There are two entrances into the main enclosure, one on the south close to the cliff edge and one on the west defined by upright stones. Circular areas within the main enclosure may mark the positions of round houses.(Jobey 1965, 62 no.57; Craw 1924, 197-198). The Spindlestone

Heughs hill fort is a Scheduled Ancient Monument.

The HER records a multivallate fort at NU105374 (NH 5074). This site lies partly outside the NERCZA study area but has been transcribed by the APTE exercise. As recorded the site measures 178m NW-SE and 131m SW-NE, but part of the NE section appears to have been removed by ploughing. Three ditches are recorded with what appears to be an inner palisade slot. A hut circle 10m across lies in the interior. This is a typical example of a small defended site, possibly exhibiting evidence for more than one phase.

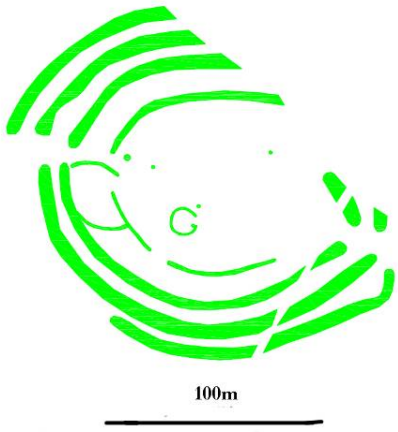

Figure 9.3 Multivallate Fort at NU105374 recorded from aerial photographs (English Heritage)

The APTE has recorded part of a multivallate fort at Fenham (NU09134013; NMR 1474811), though the cropmarks of the two outer ditches are very narrow and more likely mark the positions of palisade slots. The surviving features form concentric arcs running from the SE to the W and partially enclose an area 100m across. The remaining part of the putative circuit is very close to a low cliff about five metres high immediately above MHWS. It is likely that erosion of the cliff face has destroyed part of the site.

Another multivallate fort is recorded at NU01834968 (NMR 6483, NH 3969) which is also very close to the present cliff line. Three arcs of ditch enclose an area about 150m across. The E side is missing and it is likely that this has also been lost to erosion of the cliff.

A further multivallate fort has been recorded by the APTE at NU00115064. This consists of two arcs defining the E side of an enclosure at least 100m across, most of which lay outside the study area. This is the site originally interpreted as a Roman camp (NH 4131) (see below), due to its proximity to the Roman Road known as The Devil's Causeway.

> *The multivallate forts at Fenham and Scremerston are situated on the cliff edge and both are being actively eroded. These sites are in SMP1 Units 14 and 11 respectively and in both cases the 'Perferred Strategic Option' is 'Selectively hold the line'. In the case of the Scremerston sites this is probably due to the proximity of the main line railway while the section of the coast affecting the*

Fenham site is unlikely to be selected for mitigation.

An oval cropmark farmstead enclosure is recorded in the HER at NU21101390 (NH 5906). This site has been transcribed during the APTE and is recorded as measuring 76m by 55m. The cropmark of a second farmstead enclosure have been identified by the APTE (NMR 1471461) at NU19703350. The site is sub rectangular and measures 83m by 46m with an entrance to the SW. The APTE has recorded a sub-circular farmstead enclosure at NU02584817 (NMR 6484), and this is probably the same site as that recorded in the HER as NH 3970. The enclosure is about 54m across while the crop marks of an outer ditch have been recorded on the W and NW sides. The crop marks of a sub-circular farmstead enclosure have been identified from aerial photographs (NU02434787, NH 3974) east of Scremerston Town Farm. The APTE transcription records this site as being about 50m across. The APTE has recorded the fragmentary remains of a farmstead enclosure at NU 00705024 (NMR 1348222). This consists of traces of hut circle 7m across and two angle lengths of enclosure ditch.

The sixth farmstead enclosure lies at North Road, Berwick close to the 45m high cliffs known as Needle's Eye (NT990555, NH 2401). The enclosure has overall dimensions of 120m by 100m and part of it was excavated in advance of development over the winter of 2004/2005. Several phases of development during the Iron Age were identified, the first of which was represented by a substantial ditched enclosure dating from the period between 500 cal BC to 380 cal BC. Although no buildings were noted, only a small part of the site was examined and the presence of domestic pottery and food waste suggests occupation nearby. The second major phase of activity occurred after the enclosure had gone out of use and continued down to the C1 AD. The main feature of this phase was the recovery of quantities of briquetage from pits and the upper levels of the ditch fills. Briquetage is associated with the production and transport of salt, and this aspect of the North Road site will be considered further below (Glover 2006).

As elsewhere on the NE coast Iron Age and Romano-British activity can also be identified from the recovery of querns, usually of the rotary or 'beehive' type. The HER has three records of querns, unassociated with other archaeological features, from this section of the coast.

Table 9.5 Iron Age and Romano-British sites identified in Block 4

NGR	Name	HER	SMP	Importance	Risk
NU15253392	Spindlestone Heughs multivallate fort	NH 5242	15	High	Low
NU105374	Middleton multivallate fort	NH 5074	14	Medium	Low
NU09134013	Fenham multivallate fort	NMR 1474811	14	Medium	High
NU01834968	Scremerston multivallate fort	NH 3969	11	Medium	High
NU00115064	Spittal multivallate fort	NH4131	10	Medium	Low
NU21101390	Benthall farmstead	NH 5906	17	Medium	High
NU19703350	Fowberry farnstead	NMR 1471461	16	Medium	Low
NU02584817	Cockley Burn farmstead	NMR 6484	12	Medium	Low
NU02434787	Scremerston Town Farm farnstead	NH 3974	12	Medium	Low
NU00705024	Scremerston Red House	NMR 1348222	11	Medium	Low

	farmstead				
NT990555	North Road farmstead	NH 2401	6	n/a	n/a
NU227257	High Newton Farm quern	NH 5799	n/a	n/a	n/a
NT99975249	Berwick quern 1	NH 2448	n/.a	n/a	n/a
NT98345571	Berwick quern 2	NH 2393	n/a	n/a	n/a

Fragments of querns were also recovered during the excavations at North Road and it is worth noting that find HER 2393 is reported to have been recovered 700m to the NW of that site.

In addition to the settlement sites described above the APTE has identified a number of features which are best interpreted as the remains of ancient field systems. These generally consist of linear cropmarks forming an orthogonal pattern and indicating the former position of field boundaries. In cases where the pattern is sufficiently complete, the fields thus defined can be seen to have been about 200m by 100m.

About 150m to the west of the Scremerston multivallate fort (NH 3969) lies a linear feature running N-S for 400m while 80m further W a similar feature runs parallel for nearly 500m. The have been interpreted as the N-S axes of a field system associated with the site. A similar patter of boundaries, but with E-W elements in addition to the main N-S axes, has been recorded to the west of the North Road farmstead (NH 2401). About 800m to the north a similar pattern has been identified but in this case the main axis lies E-W.

Apart from a few isolated coin finds the only record of a Roman feature on this section of the coast is the putative Roman camp at Springhill (NU00025061, NH 4131). This site was first identified on an aerial photograph and trial excavations in 1946 found a sherd of C2 pottery leading to the site being published and scheduled as a Roman marching camp (St.Joseph 1951, 56). However, by the 1960s the original discoverer was beginning to express doubts about its status and re-published the site as a farmstead enclosure (St.Joseph 1961, 120), a view supported by the study of more recent aerial.

The Springhill site lay immediately adjoining the Roman Road known as The Devil's Causeway which has been traced to within 0.4km of the inland boundary of the study area at Spittal (NT99875059). This proximity probably originally contributed to its interpretation as a Roman camp. However, the fact remains that the Devil's Causeway has been traced as far as Tweedmouth and some form of Roman post at the crossing of the Tweed should be expected.

9.2.4 The Early Medieval Period

It has already been noted that the coast of NE England is justifiably well known for an important number of Early Medieval sites and mention has already been made of the early monasteries at Hartlepool, Monkwearmouth and Tynemouth and the C7 monastic cell on Coquet Island.

Undoubtedly, the most important site on this section of the coast is the Anglo-Saxon monastery of Lindisfarne (NU125417, NH 5346) on Holy Island. Given to St Aidan by Oswald of Northumbria in AD 635 it thrived until the late C8. In AD 793 it experienced the

first Viking attack on English shores and repeated harassment led to its abandonment in AD 875. The monastery was re-established in the C11 and very little that is visible at the site today, apart from the collection of C8 cross fragments in the museum, can be dated to the Anglo-Saxon period. However, excavations in 1977 (O'Sullivan 1985, 31 and 41-43) and 2000 (Williams 2000) have revealed a number of features which might be attributable to the early monastic site. Principal among these is the identification of the monastic boundary, a ditch partly filled with midden material but containing a bone comb of C9 or C10 date. Other finds consist of pits, areas of rough paving and a hearth, though none could be directly dated to the Anglo-Saxon period (Young and Fraser 2000-2001). In addition, it has been suggested that some of the remains on St Cuthbert's Isle may date from the Anglo-Saxon period, though it is generally agreed that most of what can be seen today dates from the C13 (Crossman 1890; Beavitt *et al* 1987).

The island of Inner Farne is associated with both St Aidan who, according to Bede, visited it in AD 651, and St Cuthbert who lived there between AD 676 and 684 and returned there to die in AD 687. Bede records that St Cuthbert built a cell, a landing place and a guest house. The cell is described as round in plan and built of stone and turf, and roofed with poles and grass. It was divided into two parts, a living area and an oratory. A religious house existed on Inner Farne until the Dissolution of the Monasteries in the C16 and the structures that can be seen on the island today date from the Medieval and later periods (NU21803592, NH 5880, 5881 and 5884). There is doubt about the precise location of St Cuthbert's cell and the other Early Medieval features recorded on the island.

A further Early Medieval religious site may have existed at Beadnell on a small rocky promontory known as Ebba's Nook (NU23962870, NH 5786). The remains on the site consist of the foundations of a C13 chapel (see below) and an associated enclosure within which are the remains of a putative earlier chapel. These consist of a stony earthwork measuring 3m by 4m and on a slightly different axis to the later chapel. The association of the site with St AEbba, the step daughter of AEthelfrith, the King of Northumbria, has led to the identification of this earlier structure as an Anglo-Saxon monastic foundation. St AEbba is known to have founded other monasteries in Northumberland. St Ebba's Chapel is a Scheduled Ancient Monument.

The site occupied by Bamburgh Castle has been identified with the Britonic fort 'Dungaray' recorded in various sources which also refer to its capture by the Anglo-Saxons. From the C6 to the C9 Bamburgh was the capital of the Anglo-Saxon kingdom of Bernicia. Most of what is known of Early Medieval Bamburgh comes from documentary sources which were chiefly concerned with the history of the royal family of Northumbria and their conflicts with their neighbours. Few details are provided of the site itself and what can be seen today dates from the Medieval period. However, limited excavations were undertaken on the site in the 1960s and 1970s and work was resumed in 1996 (Wood and Young 1997-1998; Young and Wood 2000-2001; Young 2004; Young 2005; Wood 2004; Wood 2005; Bamburgh Research Project 2006). Although some C7 and C8 surfaces have been exposed by excavation and a number of Anglo-Saxon small finds recovered, most of the evidence so far has been obtained from geophysical surveys which appear to have detected a series of structures some of which, from their alignment, are discordant with, and accordingly earlier than, the C12 castle.

In 1817 a severe storm eroded the sand dunes adjoining Bamburgh Castle and exposed an Anglo-Saxon burial ground at a location known as the Bowl Hole (NU18693483, NH 5252). This site was rediscovered in 1997 and excavations undertaken in 1998 and 1999. A total of 14 graves were excavated including both simple pits and stone-lined cists. Some burials were oriented east-west, suggesting a Christian rite, while others employed a different orientation and may imply the intrusion of pagan Anglo-Saxon burials in a pre-existing Christian C6 burial ground (Young and Wood 1999-2000). From 2006 the skeletons from the Bowl Hole became the subject of a detailed osteological analysis.

In the mid C19 the construction of a waggonway leading to the quarries on the north side of Holy Island led to the discovery of a group of buildings in the sand dunes at Green Shiel (NU12194363, NH 5337). At the time only a brief account was published and the buildings were attributed to kelp burners, although the find of two C9 coins was noted (Selby 1845). These remains were relocated in 1980 and were the subject of a detailed archaeological investigation between 1984 and 1990 (O'Sullivan and Young 1991).

Five buildings were located at Green Shiel, three aligned east-west and two north-south, forming a roughly cross-shaped layout. The eastern arm of the cross consisted of buildings 'A' and 'B', which were linked by a common cross wall. Overall, this pair of buildings was nearly 40m long and 5m wide internally. The walls were 1.5m thick and of dry-stone construction. Their thickness suggests they were the footings for turf walls. Centrally placed post holes probably supported a roof ridge. To the west were two buildings, 'E' and 'C', on a north-south alignment. The more southerly, building 'C', measured 18.5m by 4m and was subdivided internally into a series of compartments suggesting a function as a cattle byre. To the north of building 'C' and joined to it by a low wall was building 'E' which measured about 20m by 4m and appeared to be more domestic in function. West of building 'E' and on an east-west alignment was building 'D'. This was about 22m long and 5m wide internally. Buildings 'E' and 'D' both opened onto an irregular shaped yard.

Finds included a large number of cattle bones, mostly from immature animals, suggesting that the site may have had a specialist stock rearing function. Dating evidence was provided by 11 C9 coins and an iron spearhead. The lack of any ceramic evidence suggests that the Green Shiel site had been abandoned by the late C11. Few simple agricultural buildings of Early Medieval date are known in Northern England and the Green Shiel site provides important evidence for an aspect of Anglo-Saxon life glimpsed only rarely. The site is a Scheduled Ancient Monument.

9.2.5 The Medieval Period

Without doubt the most important Medieval sites on this section of the coast are the magnificent C12 castle at Bamburgh, the C12 priory on Holy Island and the Medieval castle and walled town of Berwick-upon-Tweed. These major sites are well known and only brief summaries of their major features can be offered here.

The castle at Bamburgh (NU183351, NH 5089) occupies a ridge of Whin Sill rising to 46m OD and as noted at the beginning of this chapter, although now separated from the shore by a zone of sand dunes, in the Middle Ages the high tide washed the foot of the rock. The castle consists of three baileys and the C12 keep. The latter is the main surviving relic of the

Medieval period though the east gatehouse is partly C11. Much of the rest of the castle has been rebuilt and added to many times since the Middle Ages, mainly in the late C18 and C19 (Grundy *et al* 1992, 154-157). However, excavations at the castle in the 1960s, 1970s and from 1996 have revealed a number of features of Medieval date (Wood and Young 1997-1998; Young and Wood 1999-2000; Young and Wood 2000-2001; Young and Wood 2003; Young 2004; Young 2005; Wood 2004; Wood 2005; Bamburgh Research Project 2006). Bamburgh Castle is a Grade 1 Listed Building.

Figure 9.4 Bamburgh Castle from the east (author)

Although the Anglo-Saxon monastery of Lindisfarne (NU125417, NH 5346) on Holy Island was destroyed by the Danes in AD 875 the site was refounded in AD 1083 by the Bishop of Durham as a Benedictine cell. Similarities with Durham suggest that building of the church might have been underway by the end of the C11 and is known to have been completed by the middle of the C12. In addition to the church the establishment consisted of a cloistral range to the south incorporating the main buildings including the chapter house and dormitory, the refectory, a warming house and the kitchen. Beyond this lay an outer court. Most of the surviving remains date from the C13 and C14 and some substantial rebuilding occurred in the C19 (Grundy *et al* 1992, 335-338). In its final, Medieval, form the whole complex presented a defensive aspect, the outer court being enclosed by a crenellated wall with parapet while a barbican led from it into the cloister. Lindisfarne Priory is a Grade I Listed Building and a Scheduled Ancient Monument.

Figure 9.5 Lindisfarne Priory seen from The Heugh (author)

The town of Berwick-upon-Tweed is justly famous for its C16 artillery fortifications, which rank among the best surviving examples in northern Europe. However, these bastions and massive curtain wall replaced a system of earlier Medieval fortifications which enclosed an area 50% larger (Grundy *et al* 1992, 172-178). Founded as a Royal Borough by King David l of Scotland in the mid C12 Berwick became the principal port of Scotland. Captured by the army of Edward l of England in March 1296 it never fully recovered. It changed hands several times after this but from the mid C14 it was effectively an English town (Lomas and Muir 2996, 63-64). The Medieval fortifications survive to the north of C16 defences and consist of Berwick Castle (NH 2424), a earthwork known as Spades Mire (NH 2431) and the fragmentary remains of a curtain wall dating from 1297 (NMR 28532). The castle at Berwick was first mentioned in 1180 but the surviving portions date from the late C13. It was an enclosure castle consisting of a curtain wall with towers and turrets. Spades Mire ran from the NE corner of the castle 800m eastwards to the foreshore, thus effectively cutting off the peninsula on which the town stands. It is thought to pre-date the late C13 curtain wall and consisted of a broad ditch with a rampart on the south side. A further length of C13 walling known as the White Wall runs from the SW corner of the castle down to the banks of the River Tweed. The Medieval town walls and castle at Berwick-upon-Tweed are Scheduled Ancient Monuments.

Figure 9.6 The White Wall, Berwick-upon-Tweed (author)

The HER also records that there is documentary evidence for a castle on the south bank of the Tweed at Tweedmouth (NH 2717). It is reported to have been built by King John of England between about 1208 and 1215, being destroyed shortly after this by the Scots. There is no physical evidence for a castle at Tweedmouth and there is some doubt about its precise location.

As was case with the coastline further south, this section of the coast also has a number of small defensive structures in the form of ***towers***. The most southerly is the tower at Beadnell (NU22912928, NH 5782), now incorporated into the Craster Arms public house. The tower appears to have measured 8.7m by 7.2m with walls up to 1.8m thick. It was of two storeys with a barrel vaulted cellar (Ryder 1994--1995). Beadnell Tower is a Grade II* Listed Building. The HER records the site of a second tower in North Sunderland village (NU21203145, NH 5900). This was apparently demolished in the late C18 when the present church and vicarage were built. A *Touris de Bambruigh* is referred to in a document of 1415 as belonging to the master of the cell of Austin canons at Bamburgh. This structure has been identified with a surviving fragment of Medieval masonry in the churchyard wall of St Aidan's (NU17883496, NH 5258). The remains consist of a wall 10m long standing 2.2m

high above a chamfered plinth (Ryder 1994-1995). One of the best surviving towers is Prior Castell's tower on Inner Farne (NU21783599, NH 5889). This tower is late Medieval in date being built around 1500. It is currently owned by the National Trust and a detailed study was undertaken during the course of repair work in 1998 (Ryder 1998-1999). The tower measures 12.3m by 7.3m and originally stood four storeys high. The ground floor is tunnel vaulted while the first floor served as a hall. Originally there were two floors above this. Following the Dissolution of the Monasteries the tower was used as a fort and an early lighthouse (see below). Prior Castell's tower is a Scheduled Ancient Monument.

The HER maintains records of a number of minor religious houses and related facilities. Mention has already been made of the putative Anglo-Saxon site on the small rocky promontory of Ebba's Nook (NU23962870, NH 5786), Beadnell. The remains on the site consist of the foundations of a C13 chapel. This was 17m long and 5m wide and divided into a nave and chancel. The nave had two doors facing each other in the north and south walls, the former having a semi-circular head cut out of two stones (Bateson 1893, 319-322 and 330). St Ebba's Chapel is a Scheduled Ancient Monument.

The present building known as the Monks House (NU20383354, NH 5899), on the road from Bamburgh to North Sunderland dates from the early C19 but is recorded as incorporating earlier features. The monks of Lindisfarne had a granary there in 1257 and the name Monks House is first recorded in 1495. A will of 1597 suggests that there was also a chapel there (Bateson 1893, 306). Monks House is a Grade II Listed Building.

The remains of the Dominican Friary at Bamburgh (NU17453483, NH 5253) are incorporated within the modern complex of farm buildings known as The Friary. It was established in 1265 and was dissolved in 1539 (Bateson 1893, 138-146). A survey of 1715 mentions the ruined church and by the late C19 fragments of the church and the wall of the cloister garth still survived. A watching brief in 1969 identified three skeletons. In 1992 and 1993 the farm buildings were converted into residential use and a number of features of the Medieval friary were exposed including sufficient of the church for its dimensions to be established as 37.3m by 6.5m with a north aisle of three bays, measuring 19.5m by 3m. The cloister lay to the south of the church and was about 16m square. The extent of the rest of the complex remains unknown (Nenk *et al* 1993). The remains of Bamburgh Friary are a Grade II Listed Building.

The Benedictine cell (NH 5882) on Inner Farne was founded in the mid C13 and dissolved in the mid c16. It consisted of a number of components of which the chapel of St Cuthbert (NU21803599, NH 5894) was the principal element. The surviving structure dates from the late C14 though it incorporates some earlier features and was heavily restored in the C19. It measures 15.6m by 5m and has an entrance through the south wall, which also has two windows. St Cuthbert's Chapel is a Grade II* Listed Building. The chapel occupies the NE corner of an enclosed area known as the East Court (NH 5891) in which burials were found in the early C19. In the SE corner of the East Court lie the remains of St Mary's Chapel (NH 5895). This building originally measured 16m by 5m and is thought to be of a similar date to St Cuthbert's Chapel though it has been much modified through its use by Trinity House as a store and by the National Trust as a visitor centre. The East Court and St Mary's Chapel are Grade II Listed Buildings. The original entrance to the monastic complex was through an arched gateway into the North Court (NH 5982), an irregular enclosure surrounded by a

stone wall 1.5m high but originally standing significantly higher with a crenellated parapet. Outside the monastic enclosure and close to the landing place lie the remains of a small building measuring 4.7m by 3.8m and standing 1.4m high with a door in the east end. These are interpreted as remains of the *hospitium* or guest house, referred to 1360/1 as the 'hall of St Cuthbert' (NH 5890). The monastic remains on Inner Farne are a Scheduled Ancient Monument.

The HER records the site of the Hermitage of Segden (NH 2392) as being in the vicinity of Folly Farm (NT98115600), north of Berwick. The hermitage is said to have belonged to the Hospital of St Mary Magdalen and was first mentioned in 1296.

The records of Lindisfarne Priory record the existence of a chapel at Fenham built around 1200 (NU086407, NH 4102). However, by the early C14 it was being used by the monks as a tithe barn (Raine 1852, 174-180) and by 1339 the Priory had established a ***grange*** at Fenham (NU08664070, NH 4100) which in 1385 was enclosed by a moat and ditch. The Account Rolls of the Priory contain detailed records of building work and agricultural activities, from which it is clear that the grange was involved in mixed farming. In 1560 it was described as 'a tower in good repair' and was still standing towards the end of the C18, though by the mid C19 only foundations remained. Today, the remains consist of the foundations of the ***moated manor house*** surrounded by a precinct wall with a series of adjoining enclosures containing traces of various agricultural and service buildings. The manor house was built on a platform measuring 35m by 33m, occupying the southern edge of the site. It was about 28m by 15.5m and was divided into three rooms. Two further buildings, each 14m by 8m, lay at the SW end of the platform. The footings of at least six other buildings, including steadings and a dovecot, have been recorded in the surrounding enclosures (Simms 2004) but here is no trace of the C13 chapel. The earthwork remains of Fenham Grane have been transcribed during the course of the APTE (NMR 6502). The remains of Fenham are a Scheduled Ancient Monument.

In addition to the famous Benedictine Priory a number of other features of Medieval date are recorded on Holy Island. These include a C11/C12 grave cover (NU12184231, NH 14785) (Collins 2001-2002), and the socket-stone (NU12724166, NH 5345) for one of the boundary crosses of the Lindisfarne Priory Precinct. This latter item is a Scheduled Ancient Monument. The remains of St Cuthbert's Chapel (NU12304161, NH 5338) lie on a small tidal islet 175m to the west of the Priory. The chapel was rectangular in plan and measured 9m by 5.8m with an entrance through the south wall. Attached to the west wall of the chapel is an annexe measuring 5.3m by 10.75m. The surviving remains of the chapel are dated to the C13, but it is thought possible that some other features identified on the island may date from the Anglo-Saxon phase of activity on Holy Island (Crossman 1890; Beavitt *et al* 1987). The remains of St Cuthbert's Chapel are a Scheduled Ancient Monument.

Figure 9.7 St Cuthbert's Isle (author)

Excavations within Holy Island village in 1977 (O'Sullivan 1985, 31 and 41-43) and 2000 (Williams 2000) have revealed a number of features of Medieval date including a C13 building (NH 14261), cobbled enclosures (NH 14267 and 14270) and rubbish pits (NH 14268). Of particular interest are complex of late Medieval buildings between the Priory and the harbour and known as 'the palace' (NU12754194, NH 5363). A survey in 1994 established that these remains were part of a trapezoidal enclosure measuring 55m by 45m with buildings along the west, north and east walls. These remains appear on a map of 1548 and have been identified from documentary sources as the C15 Harbottle Place. During the reign of Elizabeth I the site was converted into a naval supply base (see below). The Palace, Holy Island is a Scheduled Ancient Monument.

Before turning to Berwick-upon-Tweed, attention is given to two other categories of Medieval features found on this section of the coast, ***deserted medieval villages*** and ***ridge-and-furrow***. During the Middle Ages the NE was a land of villages and many present day settlements have their origins in the Medieval period. However, not all settlements thrived and survived and the HER has six records of deserted medieval villages (Dixon 1984) on this section of the coast. Most are known from documentary sources only, but some have been recorded on the ground or on aerial photographs.

Table 9.6 Deserted Medieval Villages in Block 4

NGR	Name	HER	SMP	Importance	Risk
NU235252	Low Newton by the Sea	NH 5801	20	Medium	High
NU2329	Beadnell	NH 5795	17	Medium	High
NU204324	Old Shoreston	NH 5905	16	Medium	Low
NU162354	Warrenmouth	NH 5087	15	Medium	Low
NU15693513	Budle	NH 5091	15	Medium	Low
NU058451	Goswick	NH 4025	13	Medium	Medium

The site at Budle has been recorded during the APTE. Most of the surviving remains lie to the north of the road, opposite the modern farmstead and consist of four building sites and

associated enclosures while further north a substantial platform might be the site of a windmill.

As throughout most of the NERCZA study area traces of ridge-and-furrow cultivation are virtually an ubiquitous feature of the archaeological record. In many cases these can be seen to be associated with the surviving villages and in others with the deserted settlements listed above (fig. 9.12). However, on this section of the coast ridge-and-furrow is a comparatively rare phenomenon in the study area north of Budle Bay, most of the recorded areas lying more than a kilometre from MHWS. An exception is provided by the 34ha block recorded to the SW of the Goswick deserted medieval village.

Industrial sites of the Medieval Period are very rare, being either small scale and transitory or engulfed in later developments. The production of lime from limestone or chalk is known from Roman and Medieval times and from the C13 lime was recognised as an agricultural fertilizer. Limekilns from the Industrial period are well known (see below) but earlier examples are rare. An exception is provided by the late C15 early C16 kiln found during the excavation of the monastic site at St Ebba's Nook, Beadnell ((NU24012874, NH 5813). This kiln was found to consist of a circular pot with a single arch drawing fuel to the north. An archaeomagnetic date indicated that the last firing occurred between 1480 and 1510 (Williams, E. 1995).

Berwick-upon-Tweed

The town of Berwick-upon-Tweed has been a major feature of the NE coast from the late C11 and the HER records a large number of Medieval features both within the town and in the adjoining settlements of Tweedmouth and Spittal. Mention has already been made of the Medieval fortifications and castle and attention is now turned to the numerous religious and secular sites recorded in the HER.

The settlement of Spittal probably derives its name from the Leper Hospital of St Bartholomew (NH 4135) recorded from documentary sources. This was founded in 1234 and provided with a tower in 1369 (Raine 1852, 246-247). Local sources locate the hospital at the site of the now demolished Spittal Hall (NU00165185).

A number of minor religious houses are recorded within the town of Berwick. The Friars of Penitence erected buildings and an oratory (NT997528, NH 2712) within the town in 1267 and these were taken over by the Dominicans in 1285 who moved from a site nearer the castle (NH 2449).The Friary is said to have been burnt down in 1436 (Clack and Gosling 1976, 162; Cambridge *et al* 2001, 35 nos 5 and 10). This site is generally associated with records of the Chapel of Ravensdale (NT99735284, NH 2453). The HER records burials being found nearby in the 1970s and an archaeological evaluation in 1998 revealed both Medieval and post-Medieval burials as well as a mortared sandstone wall. The Hospital of *Domus* or *Maison Dieu* is recorded as having been founded in 1287 (NH 2454) and its location has been identified as the site occupied by the Bank of Scotland (NT99745279). The Hospital was apparently destroyed in the siege of 1333 (Clack and Gosling 1976, 162; Cambridge *et al* 2001, 35 no. 11). St Edward's Hospital (NH 2455), or *Domus Pontis,* is said to have been founded by William the Lion of Scotland around 1200. By the mid C13 it was in the hands of the Trinitarians and had closed by the end of the C15 (Clack and Gosling

1976, 162; Cambridge *et al* 2001, 35 no. 12). An alternative name, 'the hospital of the Bridge of Berwick' suggests a location near the Medieval bridge (NT99705285). A Franciscan Friary (NH 2451) is recorded as having been founded in Berwick in 1231 by Alexander II of Scotland (Clack and Gosling 1976, 162; Cambridge *et al* 2001, 35 no. 6). The location of this friary is unknown but documentary evidence suggests that it lay between the Bell Tower and Lord's Mount. A C13 Carmelite Friary (NH 2450) is also recorded and an analysis of later documents suggests that it lay on the west side of Palace Street (NT99995264) (Clack and Gosling 1976, 162; Cambridge *et al* 2001, 35 no. 12). St Mary Magdalen's Hospital (NH2437) lay outside the town wall but just within the Spades Mire earthwork (NT99895363). The hospital was founded before 1296 and continued to appoint masters until 1395 (Clack and Gosling 1976, 162; Cambridge *et al* 2001, 35 no. 4). The HER records the discovery of coffins and architectural fragments in the C19. The Nunnery of St Leonard lay outside the study area to the NW.

Of the Medieval churches of Berwick that of St Nicholas (NH 4134) is thought to have stood near to the King's Mount (NT003527) just outside the line of the defences while St Mary's (NH 2710) has been identified in the area now occupied by the main carpark and the site of Holy Trinity (NH 4136) lies within the graveyard of the present parish church (Cambridge *et al* 2001, 35 nos 7 and 8). The church of St Lawrence lay outside the study area. In 1998 the remains of another church (NH 2714), were found during excavations on a site in Castle Terrace about 330m NW of Berwick Castle (NT99155363), and therefore well outside the circuit of the Medieval walls. Only part of the structure could be exposed but this consisted of 9.5m of the nave which was 6.5m wide. At the east end was a chancel measuring 4.5m by 4.2m and beyond this a semi-circular apse extending east for a further 3m. Attached to the SE corner of the nave was a chapel. Surrounding the church are the remains of a Medieval graveyard. Forty-six graves were identified and from this it is estimated that the graveyard as a whole might contain up to 400. Many of the graves had decorated grave slabs which indicate that the graveyard was in use in the C11 and C12 and it is believed to have gone out of use by the mid C14 (Cambridge *et al* 2001, 35 no. 13). The church and graveyard in Castle Terrace are a Scheduled Ancient Monument.

The importance, and indeed prominence, of Berwick-upon-Tweed in the Middle Ages means that wherever an excavation occurs within the walled town Medieval deposits will be encountered. Since the early 1990s a series of excavations and watching briefs have been undertaken in advance of development and summary accounts of most of this work have been published in *Archaeology in Northumberland*, the 2005 edition including a helpful index of work up to that date.

Of more specific interest in the present context is the identification in 1927 of the remains of the Medieval wooden bridge (NT99485273, NH 2436) (Jervoise 1931, 2-3). This was situated about 75m upstream of the present bridge and appears on a C16 map.

9.2.6 The early Post-Medieval Period

In the first half of the C16 a number of attempts were made to adapt the Medieval defences of Berwick-upon-Tweed to developments in siege warfare, especially the deployment of artillery in defence and attack. These adaptations include the provision of a gun turret near the SW angle of the castle wall and three casemates for cannon in the tower at the end of the

White Wall, while an artillery bastion, known as the Lord's Mount, was built at the NE angle of the town wall. During the 1550s work began on a new citadel (NH 4148) on the east side of the town consisting of a quadrangular enclosure with diamond-shaped bastions at each corner. However, this was abandoned in 1558 before completion and superseded by a much more ambitious plan that, nevertheless reduced the size of the defended area by about a third.

The Elizabethan defences of Berwick-upon-Tweed consisted of a system of five massive bastions defining the north and east sides of the town. The bastions were linked to a massive, sloping curtain wall by a narrow collar which, supplied with gun loops, provided for flanking fire. A rather weaker curtain wall was built along the south and west sides which face on to the river, mainly following the line of the earlier Medieval defences. Work began in 1558 and continued for 11 years. Extensive earthworks lay at the foot of the main defences and a feature known as the Covered Way (NH 4137) ran NE from the most northerly bastion to a redoubt (NH 4138) on the foreshore. Further additions were made to these fortifications over the next four centuries. The first set of modifications occurred between 1638 and 1652 when earthwork parapets and gun platforms were added on top of the bastions, while the walls overlooking the river were substantially rebuilt in the C18. Fisher's Fort, a gun battery overlooking the river mouth and believed to antedate the construction of the Elizabethan defences was rebuilt in the C18 while two other batteries on the riverside were added circa 1745. C19 additions mainly consisted of changes to the gates to improve access while the Windmill Bastion on the east side of the town also mounted a C19 gun battery (Grundy *et al* 1992, 174 and 177-178). The fortifications of Berwick-upon-Tweed are a Scheduled Ancient Monument (NMR 28532).

Figure 9.8 The C16 Brass Bastion and C17 earthworks, Berwick-upon-Tweed (author)

9.2.7 The Industrial Period

In terms of the terrestrial landscape the records to be considered during this phase of landscape development relate to coal mining. The production of salt and lime, and the fishing industry will be considered below. Although this section of the coast lay beyond the

main outcrop of the Coal Measures the HER records a number of small coal mines or coal workings. The most southerly consisted of a group of pits at Beadnell (NU23242905, NH 5828). Coal mining is recorded here from the mid C18 until 1899 when the C19 colliery had to close due to flooding (Craster 1956, 161-175; Bainbridge 1995, 259). A further C19 colliery is recorded at North Sunderland (NU21183196, NH 12270 and NU21113241, NY 12271) (Bainbridge 1995, 258) while other workings are recorded 0.5km to the NW (NU20603259, NH 21509 and NU20493247, NH 20363). Coal workings have also been identified from OS maps north of Fenham (NU08324117, NH 20780) while the 'Old' Berwick Hill Colliery (NU003508, NH 4155) was an outlier of the Scremerston coalfield and features on the 1828 Greenwood map and the 1899 OS 6 inch map. Most of the Scremerston pits lie outside the study area but the exit from the Scremerston Old Level is reported as being clearly visible in the cliff near Hud's Head (NU012508, NH 4152). The APTE has recorded four shafts associated with the Scremerston mines (NMR 1384230) at NU01025048, NU00965059, NU01095064 and NU00965085. Although not featuring in the HER, Linsley records documentary references to coal mining on Holy Island in the late C18 and early C19 (Linsley 2005, 55). However, reserves were found to be inadequate for the demands of the local lime burning trade and by the middle of the C19 coal was regularly being imported.

9.3 Coastal/Maritime Landscapes

9.3.1 The Mesolithic Period

The HER has five records of ***flint scatter sites*** on this section of the coast, all clustered around Budle Bay. Moving clockwise around the bay the most easterly site is at Bamburgh (NU167353, NH 5092) from which a collection of 11 microliths, five scrapers and a burin are reported (Weyman 1984, 50; Wymer 1977, 218; Davis 1983, 18-24). About 1.5km to the west lies the site at Budle Crags (NU153348, NH 5283). This site was excavated by Francis Buckley in the early C20 during the course of which an assemblage including 14 microliths was found immediately above the Whin Sill bedrock (Weyman 1984, 47 and 50; Davis 1983, 18-24; Wymer 1977, 218). The site at Spindlestone Grags, (NU 15153387, NH 5246) the most prolific in this group, lies a further 1km to the SW at 70m OD towards the west end of a ridge of Whin Sill. It was excavated by Francis Buckley in 1924 (Buckley 1925, 42-47; Wymer 1977, 218) and an assemblage of 362 items was collected from across an area of $34m^2$. Three kilometres to the north on the far side of Budle Bay lies the Ross Links site (NU14483651, NH 5068). This is an area of sand dune ridges in which episodes of deflation have exposed areas of ancient ground surface revealing finds of varying date including up to 200 Mesolithic flints (Buckkley 1925, 42-47; Wymer 1977, 218; Weyman 1984, 42-43 and 51). A further, small, assemblage of Mesolithic finds has been made 1.5km to the NW at the far end of the same dune ridge at NU137377 (NH 5078) (Wymer 1977, 218).

Table 9.7 Flint scatter sites at Budle Bay

NGR	Name	HER	SMP	Importance	Risk
NU167353	Bamburgh	NH 5092	15	Low	Low
NU153348	Budle Crags	NH 5283	15	Low	Low
NU15153387	Spindlestone Crags	NH 5246	15	Medium	Low

NU14483651	Ross Links south	NH 5068	14	High	Medium
NU137377	Ross Links north	NH 5078	14	High	Medium

Deflation of the dune system as Ross Links has led to the exposure of archaeological deposits spanning most of the prehistoric period. Study of historic maps by Robertson (1955quoted in Lunn 2004, 219) has shown that the whole dune system is unstable and may only have started to form in the C17 as a result of major storm activity. Any increase in storminess will add to the treat already posed to the archaeological deposits.

Today Budle Bay is a 276 hectare expanse of beach sand and mud flat inundated at high tide. It is a rich habitat and part of the Holy Island National Nature Reserve. The clustering of Mesolithic sites around the bay is unlikely to be a coincidence. However, data from the nearest SLI point at Elwick at the north end of Ross Links suggests that between the late 7th millennium and the mid 6th BC RSL stood at between -2.1m and -1.6m leading to a displacement of LAT of up to 100m. The effect of this on the bay is unclear. The Warren Burn would still have flown through the bay but the inter-tidal zone is likely to have been less extensive. An indication of this changed topography is provided by the recovery of seven microliths and three scrapers from the inter-tidal zone (NU150360, NH 5096).

Although these finds in this group consist only of stone tools, the proximity of the sites to a major coastal feature suggests that the focus of the groups responsible was coastal. The possibility of a maritime dimension is added by the reported recovery of Mesolithic flints from Inner Farne (NU21733579, NH20739) and Staple Island (NU24743749, NH 20740). The Farne Islands are major breeding grounds for Grey and Common Seals, an established quarry of Mesolithic hunter-gatherers.

Mesolithic finds are also reported from Holy Island. These consist of a flint blade from Castle Rock (NU13624173, NH 20738) and a surface collection of over 2000 items from Ness End (NU130438, NH 5360). The Ness End assemblage is notable for the fact that it includes only a very small proportion (1.7%) of finished tools as opposed to manufacturing waste. This suggests that the primary function of the site was the acquisition of raw material and the manufacture of tools. However, the presence of bevelled pebbles, usually associated with the processing of seal skins, points to other activities taking place and underlines the coastal/maritime focus of Mesolithic activity on this part of the coast (Beavitt, O'Sullivan and Young 1987, 1-23; O'Sullivan and Young 1995. 30-1).

9.3.2 The Iron Age and Romano-British Period

As noted above the excavation of the farmstead enclosure at North Road, Berwick (NT990555, NH 2401) led to the recovery of a quantity of briquetage, a category of find associated with the production and transport of salt. Today this site lies about 200m from the 45m high cliffs at Needles Eye and it is unlikely that sea water could have been transported from the foreshore to site. However, as the assemblage included two briquetage rods, items usually associated with salt production, it is likely that some stage in the production process, possibly refining, was taking place at the site. This activity at North Road began in the late C1 BC after the farmstead enclosure had been abandoned and continued down to the C1 AD as indicated by the recovery of C1 South Gaulish Samian Ware. The North Road assemblage of briquetage is the only evidence for prehistoric salt

production north of the Fens (Glover 2006).

9.3.3 The Industrial Period

9.3.3.1 Lime burning

Limekilns have been a feature throughout the NERCZA study area and the HERs have recorded many individual or small groups of kilns exploiting locally available sources of lime to meet local needs. However, at a number of locations production was undertaken on a larger scale with a view to the supply of more distant markets. The need to import fuel for the burning of the raw limestone and the need to export the finished lime in bulk led to a number of these establishments being sited on the coast and exist on the north Northumberland coast in the area of the Carboniferous Limestone outcrop.

The most southerly group on this section of the coast is the bank of three circular ***draw kilns*** at Beadnell Harbour (NU23742857, NH 5790). They consist of one, original, central kiln dating from 1798 with two later, but early C19 additions. They are approached from the north by a ramped tramway stand over 9m high and have a single pot each. Two kilns have three segmental draw arches while the third has four. Lime from the Beadnell kilns was exported to Scottish markets but by 1821 trade had sufficiently declined for the kiln eyes to be used for curing herring (Linsley 2005, 97-86). The kilns are a Grade II Listed Building and are owned by the National Trust.

Figure 9.9 Beadnell Limekilns (author)

> *The Beadnell Limekilns have already been partially eroded by the sea (fig.9.1). They are in SMP1 Unit 17 for which the 'Preferred Strategic Option' is Selectively Hold the Line. The seaward base of the kilns is support by rock armour.*

Although there are documentary references to limestone being burned at Seahouses in the

mid C18 (Linsley 2005, 66-68) the surviving bank of four draw kilns dates from the period between 1795 and 1858 (NU21983214, NH 5907). There are seven round-headed draw arches on the seaward side and two on the NW. Fuel was provided by the local collieries (see above) and the lime produced was exported down the East Coast and north to Scotland. The Seahouses limekilns are a Grade II Listed Building.

The production of lime was a major industrial activity on Holy Island, two principal centres of production being identified. The earlier of the two is known as the Kennedy Limeworks (NU122432, NH 5353) and was situated to the NW of the village. This complex consists of two groups of draw kilns, that to the north has two kilns side-by-side while about 300m to the south lies a bank of three kilns. Tramways (NH 5368) brought limestone from the quarries to the north and coal from a jetty to the south at Tripping Chare (NU 122419, NH 5366). The same jetty was used for the export of the lime. The northern group were in use in the 1840s while those to the south replaced them in the 1850s. However, these were in use for only two years when the operation was moved to the second site on the island, Castle Point (O'Sullivan and Young 1995, 109-110).

The bank of six lime kilns at Castle Point, Holy Island (NU13834172, NH 5351) were built in 1860 by a Dundee firm, to replace the Kennedy Limeworks, which had proved to be poorly sited. These kilns were drawn from a series of barrel-vaulted tunnels with round-headed segmental arches. A high pointed arch on the south side gave access to the interior. The kilns were supplied by an embanked tramway (NH 5356) and lime was exported from the site from Cocklestone Jetty (NH 5355). The Castle Point lime kilns operated until 1896 and have been restored by the National Trust. They are a Scheduled Ancient Monument.

Figure 9.10 Castle Lime Works, Holy Island (author)

9.3.3.2 Salt Making

Apart from the archaeological evidence for salt making during the Iron Age at North Road, Berwick (referred to above) there are no records of salt making on this section of the coast earlier than the C18 and these all relate to a group of salt pans at Beadnell. It is recorded that in 1735 a Thomas Wood of Preston begun the production of salt from sea water at Beadnell using coal from the local mines as fuel. By the mid 1760s production had passed to an Alexander Long who was operating five pans by 1770. Long modified the standard method of production by first allowing natural evaporation to take place in reservoirs before pumping the brine to the pans (Linsley 2005, 80-82). The precise location of these salt pans has not been identified and they are not recorded in the HER or NMR. However, the documentary references imply that they were situated in the area of the Nacker Hole (NU238289).

9.3.3.3 Fishing and whaling

Very few sites associated with the fishing industry feature in the HER. One of the most important is the shiel at Sandstell Road, Spittal (NU00415188, NH 14258). This C18 building was used to store tackle associated with the Tweed salmon fishery. It is the only surviving unmodernised example of this type of structure on the Tweed and is a Grade II Listed Building.

In addition to salmon, Berwick was also engaged in the herring fishery, catches being shipped to London in fast 40-ton smacks. Ancillary facilities consisted of ice houses recorded from the late C18 and a herring curing station at Spittal in the 1840s (Linsley 2005, 27, 30 and 37).

Another important building associated with this industry at Berwick is the Pier Maltings on Pier Road (NU00275267, NH 22025). Although dating from the mid C19 in its present form, the eastern eight bays of this building were built *circa* 1807 as an oil house, associated with the whaling trade. The presence of an oil yard processing whale oil at Berwick is documented in the years between 1807 and 1838, although the main focus of this activity lay on the south side of the river at Tweedmouth. It is record that Berwick was the base in the early C19 for two vessels engaged in the Greenland whaling trade, the *Norfolk* and the *Lively* Barrow 2001, 60-62). The Pier Maltings is a Grade II Listed Building. A large number of whale bones have been recovered from the area at the rear of the maltings.

Figure 9.11 Pier Maltings, Berwick-upon-Tweed (author)

The advent of the steam drifter in the mid C19 had a profound effect on the fisheries of this part of the coast. Small harbours and havens could not accommodate the larger more powerful vessels and fell into decline. This is well exemplified at Holy Island Harbour where 12 or more keelboats lie inverted at the head of the beach. The corollary of this was the increasing prosperity of ports such as Seahouses which was able to support of fleet of steam drifters.

Figure 9.12 Keel boat sections at Holy Island Harbour (author)

The HER records the putative remains of two fish weirs at Budle Bay (NU15183580, NH 5086) and The Cages at Fenham (NU083426, NH 4117). The former consisting of lines of stones visible at low water and the latter is based on an interpretation of the place name.

9.3.3.4 Harbours

Harbour facilities along this section of the coast range from sheltered havens where vessels may safely lie at anchor or take the ground at low tide, to formerly constructed harbour works of piers and docks, with at least one example where coastal topography has been modified. Beadnell Bay, a 3.2km stretch of sheltered sandy foreshore, was considered in the early C19 to be capable of offering shelter to 'half the navy of England (Linsley 2005, 79). To the north of Beadnell Point the foreshore is rocky and inhospitable, except that differential erosion has left a number of natural inlets, notably Lady's Hole, Nacker Hole, Beadnell Haven and Collith Hole. These were probably the earliest fishing havens. The Nacker Hole was partly obstructed by a whinstone dyke and an opening was quarried through this in the mid C18 to create a small key from which lime from the nearby kilns and salt from the salt pans could be exported (Linsley 2005, 81). In the later C18 steps were taken to improve the harbour facilities at Beadnell and the decision was taken to construct a small harbour at Ebba's Nook (NU23702855, NH 5798) where there was already a small pier. The harbour was constructed by Robert Cramond who was also responsible for the harbour works at North Sunderland (Seahouses). Several schemes were produced and that finally built in 1798 consists of two piers, one straight the other dog-legged, providing about 212m of moorings. The harbour at Beadnell mainly served the adjoining limekilns and the herring fishery, the latter becoming increasingly important with the decline of lime burning in the early C19 (Linsley 2005, 82-87). Beadnell Harbour is a Grade II Listed Building.

Before the final quarter of the C18 the haven at North Sunderland (Seahouses) consisted of no more than a narrow channel between the rocks but by 1786 Robert Cramond was employed to build a 'pier' which was in fact a small harbour similar to that Cramond later built at Beadnell (Linsley 2005, 66-67). This consists of the existing, straight south pier and the inner part of the dog-legged north pier. By 1886 this first harbour was found to be insufficient and plans were made to construct an extension to the north pier with a terminal lighthouse. The new north pier was 267m long and the new lighthouse was a hexagonal concrete tower 8.2m high. A breakwater was also constructed across the rocks to the east of the harbour. Work began in 1886 and was completed in 1889 (Linsley 2005, 69-70). The Powder House (NU22493217, NH 5914) was built in 1886 for the storage of explosives used in the construction of the North Pier. It is situated on the rocks adjoining the North breakwater and is a Grade II Listed Building. The construction of the breakwater provided shelter for vessels taking the ground in the Fluke Hole, a sandy embayment east of the harbour entrance. The entry to the Fluke Hole is partly blocked by a reef, The Brigses. Although this can be passed over at high tide, a channel, similar to that at the Nacker Hole at Beadnell, has been cut through the reef to facilitate access.

In most respects the harbour at Holy Island is no more than a sheltered anchorage and an expanse of sand and shingle on which vessels can 'take the ground' at low tide. However, to facilitate the export of lime and the import of coal two jetties were constructed at the ends of the tramways serving the lime kilns. The remains of the Tipping Chare Jetty (NU122419, NH 5366) lie below MHWS. This jetty was constructed for the import of coal and the export of lime from the Kennedy Limeworks. A similar *raison d'etre* applies to the Cocklestone Jetty (NU13474168, NH 5355), associated with the Castle Point Lime Kilns (Linsley 2005, 56-60).

According to the 1st Edition Ordnance Survey in the mid C19 there was a pier at the mainly natural harbour of Budle Bay, probably for the export of grain from Waren Mill (Linsley 2005, 47-48).

The earliest record of formal harbour facilities at Berwick is the construction of a pier or breakwater, known as the Holdman Wall, in the late C13 (Linsley 2005, 24-25). This was replaced in 1557 by a new pier about 300m long and about 10m wide but by the late C18 this was in decay and Berwick had reverted to being a natural harbour. The general increase in trade and the size of vessels employed led to proposals being drawn up in 1808 for improved harbour works. These were to involve the construction of a new pier on the Berwick side (NH 4133), the extension of the existing quay and the construction of a stone jetty on the Spittal side. Work began in 1810 and was completed in 1825 (Linsley 2005, 31-33). The pier is a Grade II Listed Building. Trade continued to develop and in 1873 work began on the construction of a wet dock at Tweedmouth (NT996523, NH 2722), the 1.4ha dock being opened in 1876 (Linsley 2005, 38-45).

9.3.3.5 Shipbuilding

Shipyards do not feature in the Northumberland HER but Linsley's 2005 book on *Ports and Harbours in Northumberland* provides details of a number of yards on this section of the coast. Small fishing boats could have been built anywhere where access to the tide line was suitable.

The main larger scale ship building facilities were at Seahouses and Berwick. Dawson's Shipyard at Seahouses at the NW corner of the inner harbour used C18 methods down to 1980, but closed in the 1990s. Shipbuilding at Berwick can also be traced back to the mid C18 with the establishment of Byram's yard in 1751, which remained in production until the 1970s. By the end of the C18 Byram's was joined by Bruce's yard at Tweedmouth and Linsley records that between 1786 and 1813 an aggregate tonnage of 12,828 tons was launched on the Tweed (Linsley 2005, 27, 29-30). Byrams appear to have mainly built larger vessels in the schooner and smack category while the yard at Tweedmouth concentrated on fishing boats and cobbles.

Records exist of shipbuilding on Holy Island from the late C14 while the best two documented vessels built on the island are the 500 ton *Sally* launched in 1763 and the 360 ton *Kent* launched in 1766, both probably built for the lime burning and limestone trade (Linsley 2005, 50 and 55).

9.3.3.6 Aids to Navigation and Safety at Sea

Lighthouses

In 1673 Charles II gave Sir John Clayton and George Blake a license to erect lighthouses on the Northumberland coast and it was decided to adapt the partly ruinous Prior Castell's tower on Inner Farne to this purpose. It appears that only the southern portion of the uppermost floor was still serviceable and this was provided with a fire grate supported on a wooden platform. However, the refusal of Newcastle merchants to pay tolls in support of the light meant that it was never lit (Woodman and Wilson 2002, 98-99). By the end of the

C18 the tower was ruinous. In 1778 two lighthouses were established on the Farnes, one on Inner Farne the other on Staple Island. The latter was damaged in 1784, rebuilt and damaged again in 1800. In 1796 a new lighthouse was built on Brownsman's Island, the keeper being Robert Darling, the grandfather of Grace Darling immortalised through the rescue of survivors from the wreck of the *Forfarshire* in 1838. In 1810 Trinity House appointed Daniel Alexander to organise the building of two new lighthouses on the Farnes, one on Inner Farne the other on Longstone (NU24603895, NH 5888), Robert Darling being transferred to the latter. The work was finally completed in 1826 by Joseph Nelson, Alexander's successor (Woodman and Wilson 2002, 98-99). The Longstone Lighthouse is a Grade II Listed Building.

Bamburgh, or Blackrocks, Lighthouse (NU173358) is a C20 structure while a building known as the Chapel of the Lamp (NU12604166, NH 5340), situated towards the west end of The Heugh to the south of Holy Island Harbour has been interpreted as an early lighthouse or coastguard lookout. It measures 10m by 8m and the walls stand up to 3m high (Beavitt *et al* 1987). The ecclesiastical attribution is thought to derive from the inclusion in the structure of two stones from a plastered doorway, but these were probably robbed from the priory ruins. The HER reports a local tradition that this building dates from the C14 and was operated by the monks as a primitive lighthouse.

Seamarks

The difficulties faced by mariners trying to enter Holy Island Harbour have led to the provision of a number of beacons whereby vessels may fix their position and establish the correct bearing to follow. The most prominent of these are the two brick-and-stone-clad obelisks at Guile Point (NU13114054 and NU12994052, NH 5375). These were designed by the famous Newcastle architect John Dobson and built between 1820 and 1840. The Guile Point Beacons are Grade II Listed Buildings. Further beacons were provided in 1830s on the Heugh between Holy Island village and the harbour and on Emmanuel Head, designed to assist vessels approaching from the north (Linsley 2005, 57-58). The latter, now a prominent white pyramid, is a major Holy Island landmark.

Figure 9.13 The Guile Point obelisks, Holy Island Harbour (author)

Lifeboat Stations

The Seahouses lifeboat station was established in 1827 by the Lord Crewe Trustees, the first RNLI lifeboat being provided in 1865. The lifeboat house was replaced in 1935 to accommodate a new motor lifeboat and was rebuilt again in 1991 to cater for a further upgrade of vessel (Linsley 2005, 77-78).

Two lifeboat stations are recorded on Ordnance Survey maps at the Old Law Dunes, south of Guile Point. That shown on the 1866 1st Edition is at NU13563964 (NH 20725) while that on the 1899 2nd Edition is shown at NU13463961 (NH 20726).

The first lifeboat station on Holy Island lay at the Snook, the extreme NW point of the island, in 1839. This was replaced on the same site in 1869 (Linsley 2005, 53).A second lifeboat house stands beside to shore opposite St Cuthbert' Isle (NU12484172, NH 14045). This is marked on the 2nd Edition Ordnance Survey map of 1898.

The Tweed's first lifeboat was stationed at Spittal in 1835 although it was not provided with a purpose built house at Carr Rock until 1859 (Linsley 2005, 37).

9.3.3.7 Shipwrecks

As is the case with the rest of the NERCZA study area, shipwrecks are also a feature of the coastal/maritime landscape of Block 4. Large numbers of shipwrecks are recorded in the NMR with a few additional entries in the HER. Most of these are in deep water beyond LAT. However, a number are recorded between LAT and MHWS and these are listed in the following table. Most of these records have been taken from historical sources such as Lloyds Registers and the local press and the existence of a record does not necessary imply that remains are still visible on the foreshore.

Table 9.8 Shipwrecks between MHWS and LAT in Block 4

NGR	Name of vessel	Date lost	HER	SMP
NU239286	*The Misterley*	?	NH 5806	18
NU241288	*The Yewglen*	1960	NH 5807	17
NU07154576	?	?	NMR 907661	14
NU08104536	?	?	NMR 907660	14
NU09864493	?	?	NMR 907659	14
NU13723982	?	?	NMR 907657	14
NU149372	?	?	NH 5083	14
NU080433	?	?	NH 4114	14
NU083430	?	?	NH 4116	14
NU05254639	?	?	NH 4027	13
NU24182545	?	?	NH 20730	19
NU23773844	*Forfarshire*	1838	NH 5885	Farnes

NU01045262	HMS *Ben Heilem*	1917	NMR 943573	9
NU00005444	*Oscar den Forste*	1848	NMR 1434785	8

9.4 Military Coastal Defence

9.4.1 C16 to C19

With Dissolution of the Monasteries in the early C16 the buildings of Lindsifarne Priory were to turned into a supply base for the ships of the Tudor navy, the Priory church becoming the 'great storehouse' (Linsley 2005, 50), although a survey of 1550 reported that this was in a state of collapse. However, some time before this an additional storage facility was established at a complex of C15 buildings lying to the east of the Priory and known as 'The Palace' (NU12754194, NH 5363). The earlier history of this site as a private residence has already been referred to and its conversion into a Tudor supply base that was the main feature of the investigation carried out by Channel 4's *Time Team* in June 2002 (CH/NAA 2001, 20-21). A plan of 1548 complied by the Crown Agents shows that the site consisted of a group of buildings arranged around a courtyard, with the northern building containing two circular features thought to be brewing vats and a survey carried for Queen Elizabeth in 1559/1560 refers to the 'Pallace' as a 'storehouse' with a 'brew house' and a 'bakehouse'. The excavations in 2000 identified the brewing vats and evidence for a granary. This seems to have been a short lived facility as by 1596 the brewing vats are described as useless and the site was ruinous by the late C18.

In 1539 it was ordered that 'all havens should be fenced with bulwarks and blockhouses against the Scots' and an earth and timber defence work was erected within ten years on Benblow, the whinstone crag on the north side of Holy Island Harbour. However, these flimsy defences were considered inadequate and were replaced by a stone castle between 1565 and 1571 (Linsley 2005, 50). Lindisfarne Castle (NU13634175, NH 5347) was built as an artillery fort to protect the anchorage and harbour. The present building dates mainly from 1902 when the castle was substantially rebuilt by Sir Edwin Lutyens as a country residence. It is one of the outstanding houses of the Arts and Crafts Movement and it is a Grade I Listed Building . Only a few original features survived the rebuilding. The castle has an irregular polygonal plan. It mounted gun batteries on two levels while an entrance on the south side is approached by a cobbled ramp leading to a portcullis gate. Lindisfarne Castle remained garrisoned until 1819 (Grundy *et al* 1992, 339-340). It is owned by the National Trust.

Figure 9.14 Lindisfarne Castle (author)

Lying about 600m to the west and on a rocky Whin Sill promontory on the opposite side of Holy Island Harbour lie the remains of The Fort on the Heugh, also known as Osborne's Fort (NU12954165, NH 5339). Built between 1671 and 1675 its layout can be established from a plan of 1742 and a survey carried out on site in 1986. The fort consisted of a polygonal enclosure, measuring 64m east-west by 32m north-south, surrounding a rectangular blockhouse or redoubt. The north, east and south sides follow the edge of the promontory while that to the west, including the main entrance runs across level ground. The south and east, seaward facing, sides were originally protected by a double wall, but much of the outer wall has collapsed down slope. The space between these walls was occupied by the gun platforms. According to the 1742 plan small turrets stood at the west, north and east corners of the enclosure. The redoubt was 6.6m square and probably of two storeys with a pitched roof (Beavitt, O'Sullivan and Young 1987, 20-21; O'Sullivan and Young 1995, 91-92, 98-99). The north and east walls still stand to 4m. The Fort on the Heugh is a Scheduled Ancient Monument.

Figure 9.15 The Fort on the Heugh, Holy Island with Lindisfarne Castle in the background (author)

With the Dissolution of Monasteries, Prior Castell's tower on Inner Farne was converted into a fort, garrisoned jointly with Lindisfarne Castle. In 1637 the two forts were reduced to a single garrison which probably implies that Prior Castell's tower was abandoned (Ryder 19989-1999).

9.4.2 World War II

The majority of coastal/maritime features in Block 4 date from WWII and the approach followed here is that set out in Chapter 5 of NERCZA. Major sites are described in detail with minor sites being given a more general treatment, or presented in tabular form. The WWII military features in the coastal zone can be divided into two groups according to whether their role was mainly to defend against bombardment, from the sea or from the air, or to confront a possible invasion, although the two categories are not mutually exclusive.

Figure 9.16 WWII anti-tank obstacles at the Beal end of the Holy Island causeway
(author)

There are few sites other than ***pillboxes*** and ***anti-tank obstacles,*** as this section of the coast does not incorporate any major ports or industrial complexes. The only major site to be considered is the ***emergency coastal battery*** at Spittal (NU006517). This site is recorded in the NMR (NMR 1421589) and features in Dobinson's gazetteer (2000, 297-298) and Civic Trust leaflet on coastal defences in the NE. This battery covered the mouth of the River Tweed, apparently mounting two 6 inch naval guns and was in commission between 1940 and 1944. It had been manned by the Home Guard and had been put on a care and maintenance footing by September 1944. It had been dismantled by February 1945 though according to the NMR some features can still be traced (NMR 1421589).

The Civic Trust leaflet also records the emplacement of three emplacements for 4 inch guns on the mainland foreshore facing Holy Island, identified as Beal Battery. These emplacements do not feature in Dobinson's gazetteer but the most northerly site does have an HER entry (NU03174809, NH 19976) and has been recorded by the APTE (NMR 1421615). The other emplacements appear to have been towards the end of the Holy Island causeway and overlooking Budle Bay. The latter has been identified by the APTE at NU16083576 (NMR 1421614). This appears to have consisted of two gun emplacements with an associated magazine and ***searchlight battery***. This site is recorded in the HER as NH 5101 and 5102.

A ***searchlight battery***, not directly associated with a gun emplacement, has been recorded by the APTE at NU20323272 (NMR 1471609). This consists of three emplacements with associated military buildings.

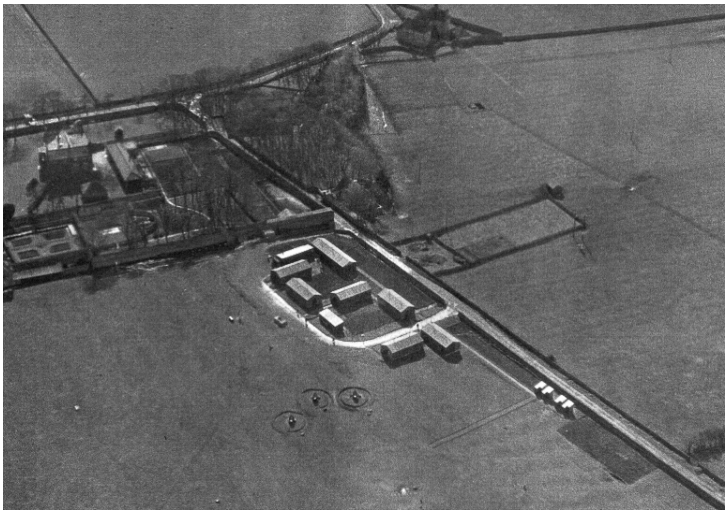

Figure 9.17 Searchlight Battery at Shoreston Hall, Seahouses (NMR NU 2032/26 (31056/PO-04855) 31-MAR-1941 © English Heritage. NMR)

The site of a 6pdr Hotchliss gun at Bamburgh is also recorded in the Civic Trust leaflet. This site has been recorded by the APTE at NU17823548 (NMR 1421604). This emplacement does not feature in Dobinson's gazetteer and the calibre of the weapon suggests that it should be regarded as a ***beach defence battery.***

The APTE recorded a large number of other features for which basic details are provided in the following tables.

Table 9.9 Pillboxes recorded from aerial photographs

OS Sheet	Eastings	Northings	NMR	SMP
NU 04 NE	05129	46292	1421689	13
NU 04 NE	055	457	1472613	13
NU 04 NW	0412	4705	1472872	13
NU 04 SE	0652	4280	1421569	14
NU 04 SE	0798	4318	1474720	14
NU 04 SE	0761	4315	1474728	14
NU 13 NE	178	355	1421604	16
NU 13 NE	161	358	1472105	15
NU 13 NE	1724	3590	1472251	15
NU 13 NE	1732	3573	1472261	15
NU 13 NE	176	355	1472288	16
NU 13 NE	1763	3525	1472346	16
NU 13 NE	1822	3529	1472372	16
NU 13 NW	148	369	1472273	14
NU 13 SE	198	342	1421644	16
NU 22 NW	23171	28990	1421651	17
NU 22 NW	22061	27060	1421652	19
NU 22 NW	2249	2971	1471523	18
NU 22 NW	223	289	1471543	18

NU 22 NW	2417	2500	1471688	20
NU 22 NW	2305	2533	1471741	19
NU 22 NW	2351	2528	1471750	19
NU 22 NW	2352	2514	1471755	19
NU 22 NW	2378	2521	1471761	19
NU 22 NW	2366	2606	1471790	19
NU 23 SW	2281	3164	1471530	17
NU 23 SW	2026	3382	1471623	16

Table 9.10 Anti-tank blocks recorded from aerial photographs

OS Sheet	Eastings	Northings	NMR	SMP
NU 04 NE	05991	45551	1421608	13,14
NU 04 NE	055	457	1472613	13
NU 04 NW	0482	4656	1472868	13
NU 04 SE	080	427	1417828	14
NU 04 SE	074	443	1472668	14
NU 13 NE	159	356	1472082	15
NU 13 NE	1775	3558	1472290	16
NU 13 NE	1802	3537	1472331	16
NU 13 NW	134	370	1472199	14
NU 22 NW	2371	2864	1471579	17
NU 22 NW	235	288	1471624	17
NU 22 NW	231	282	1471657	18
NU 22 NW	228	272	1471727	19
NU 23 SW	2223	3105	1417827	17
NU 23 SW	2252	3145	1471507	17
NU 23 SW	2112	3263	1471618	16