

**APPENDIX II: ST. ISHMAEL, CARMARTHENSHIRE,
DESERTED MEDIEVAL VILLAGE (SN 2891 2086)**

ARCHAEOLOGICAL INVESTIGATION

SUMMARY

As part of the Arfordir Project, a small scale archaeological investigation was undertaken of the deserted medieval settlement at St Ishmael, Carmarthenshire (NGR SN 2891 2086). The site was first identified following an episode of coastal erosion in the late 19th century and has subsequently been noted and monitored on an intermittent basis, which has highlighted how the site has been eroded over many years. Although it lies at the very edge of the strand line of the highest spring tides, and is mostly effected during stormy weather, considerable portion of the site has already been lost, and it is anticipated that with climate change and the predicted sea level rises the site will be subject to more frequent erosion and eventual destruction.

Dyfed Archaeological Trust undertook the small scale investigation with help from a number of Arfordir volunteers from the local area and further afield.

The investigation involved the removal of a small amount of turf and loose material from the edge of the sand dunes to reveal the exposed parts of the medieval buildings. The areas of stone walls, floors and other features were then recorded. A survey was also undertaken of the site to accurately locate the village, in relation to Ordnance Survey national grid, as well as locating it in relation to surrounding features including the nearby slipway, observation post and St Ishmael Church. Survey was also undertaken of the scars projecting into Carmarthen Bay.

The investigation has revealed at least three distinct buildings within the edge of the sand dune (numbered as Building 1, Building 2, Building 3, from north to south), each comprising structures of two or more rooms. A doorway is visible through the wall of Building 2 with two steps into its interior. No complete floorplan was visible of any of the structures, although the majority of Building 2 is likely to survive still buried. A cobbled yard lies between Building 1 and Building 2, and a further cobbled surface may have been present between Building 2 and Building 3. A stone hearth was recorded within Building 1.

From previous finds made at the site, both in recent years and during investigations in the early part of the 20th century, the majority of datable finds are from the 13th and 14th centuries, with some possible 16th century material also present. It is unclear when the settlement was abandoned. The lack of clear documentary evidence regarding the settlement, especially one that was seemingly quite large, would suggest it is more likely to have been abandoned earlier (possibly in the 14th century). It is likely that the settlement lay at the end of a bay or inlet that was formerly located between two promontories of land projecting into Carmarthen Bay (situated over the two scars that are extant today).

Monitoring of the site in recent years would suggest that the base of the dunes is eroding at a rate of around 0.15 to 0.30m a year. With the predicted sea level rises associated with climate change, this rate of erosion can only increase.

INTRODUCTION

Project Set-Up

The archaeological investigation was undertaken at St Ishmael, Carmarthenshire through the Arfordir – Coastal Heritage project and was funded by Cadw grant aid and DAT. The work was undertaken following discussions with Owen Harris, the Secretary of the Kidwelly Local History Society, local resident and regular monitor of the eroding site.

The investigation was arranged by Dyfed Archaeological Trust in consultation with Andrew Patterson, the Common Land Officer of Carmarthenshire County Council (CCC) and Neil Matthew, of the Countryside Commission for Wales (CCW). The land is recorded as being common land, and thus CCC owned, in the absence of anyone else claiming the land. The site lies within two Sites of Special Scientific Interest (SSSI), Arfordir Pen-Bre / Pembrey Coast SSSI and Afon Tywi SSSI (the two meet almost mid-way along the site and include all of the intertidal zone as far as the sand dunes).

Consents were granted by CCW for the archaeological works to proceed, assuming three conditions were complied with, namely:

Condition 1: Section of strandline (formed of natural detritus) when moved should be incorporated into the strandline on either side of the area of work; Reason(s): To minimise adverse impacts on designated invertebrate species

Condition 2: Working area should be accessed from the road past St Ishmael rather than by traversing intertidal sands and muds; Reason(s): To avoid impacts upon designated SAC features, intertidal habitats - e.g mussel beds, etc

Condition 3: Work to be completed before end February 2010; Reason(s): To give a suitable end date to the operation

CCC gave permission for DAT to undertake the works.

Scope of the Project

The project was designed to undertake limited ground clearance of the sand dunes to reveal the walls and other features that had been exposed by coastal erosion. The locations of the building and the northern extent had been previously identified by Owen Harris. The project objectives were to expose and clean the most northerly building (Building 1) and the next building to the south (Building 2), with further clearance of Building 3 and other structures as time allowed.

The works were undertaken as part of the Arfordir project with volunteers from the local area and further afield. Information packs were given to all volunteers to provide information regarding the site, Historic Environment Record information for the vicinity and copies of the Arfordir Recording Forms/Manual.

Abbreviations

Sites recorded on the Regional Historic Environment Record (HER¹) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR).

¹ Held and managed by Dyfed Archaeological Trust, The Shire Hall, Llandeilo.

THE SITE

Location

The deserted medieval village at St Ishmael is located to the south of the Church of St Ishmael, Carmarthenshire (centred on NGR SN 3625 0798).

Topographically the site is located beneath the sand dunes on the western side of the West Wales Line railway, on the edge of Carmarthen Bay, at a height of c.5m above Ordnance Datum, at the strand line (Spring Tide mark).

The underlying geology of the site is apparently comprised of boulder clays, lying upon glacially derived rocks, which in turn lie upon the Old Red sandstone solid geology which rises and forms the hills to the east.

Archaeological Background

A detailed historical background of the site has been compiled by Owen Harris, for a proposed forthcoming publication regarding the site, and much of the following information is included within this document with his permission.

The remains of the site first came to public attention following a severe storm in 1896, although the site had been known locally for many years previously. The storm exposed walls which were reported upon in the Welshman newspaper (June 2nd 1900) stating the exposed walls "*which were in some places a foot or two high. They formed rooms, and showed unmistakable fireplaces.... The ruins extended some two or three hundred yards on the side exposed to the sea.*" (Archaeologia Cambrensis 1900). It is thought that this article gave rise to the idea of a village lost beneath the waves of Carmarthen Bay, reported on in Archaeologia Cambrensis (1907) in the bibliographic notes associated with an article 'Llansaint' (Evans, 1907) which stated that following the storm of 1896, a local farmer removed 40 to 50 wagon loads of stone from the site.

A further article appeared in 1917 about the site (Evans 1917). Some handwritten notes and drawings are in the collection of Royal Commission for the Archaeological and Historical Monuments of Wales (RCAHMW) and give some idea of the remains visible at that time. These are discussed further below.

The RCAHMW commissioners visited St Ishmael to examine the remains in September 1912 (RCAHMW 1917). The description notes that they found a ledge of red marl exposed for a distance of some one hundred yards into which the remains of stone walls were set. One set of walls they examined were interpreted as a room 6ft 6 ins by 6ft 8 ins with walls 2 ft wide and 15 ins high. Some charcoal was found within the structure and nearby a charred pole set into the marl was discovered.

A small-scale excavation carried out by Professor J W W Stephens in 1913 resulted in the finding of a silver penny of Edward I (1272 to 1307), a medieval sickle and the bowl of a leaden spoon (Archaeologia Cambrensis 1949). Pottery dating to between the 14th to 16th centuries was recovered (*ibid*). Animal bones were also found which were identified as being from Shetland ponies, horses, sheep and red deer (*ibid*).

Studies have been carried out to determine the name of the settlement, but this is still debated. Theories have been put forward that it was the village of Hawton or Halkenchurch, although recent thinking notes that Halkenchurch is probably derived from Helgena (gentive plural of Halgan or Saint) and circe (meaning church) and thus in Welsh would be Llansaint (James 1991). Hawton may refer to the same place or alternatively an area of land further to the south. Both of these names suggest a strong Norman influence. Research by Owen Harris suggests that it is more likely that the village had Welsh origins (as may be

evidenced by the dedication of the local church to the Welsh Saint Ishmael), and is more likely to have had a Welsh name. There is still the potential that the village was known as St Ishmael, or alternatively may have taken its name from the nearby manor of Penallt.

From the existing evidence, and that which has been previously recorded and excavated, it would seem that the settlement was quite large, with a number of houses all constructed from stone. The stone would appear to be locally sourced sandstone and limestone. Dating evidence from the site suggests that it was occupied from the 13th century to the 16th century (the majority of pottery from the site that has been analysed in recent years dates from the 13th and 14th centuries only).

The surviving walls and floors of the settlement are sealed directly by sand dune deposits, and it would appear that a catastrophic storm or storms must have been responsible for the abandonment of the buildings, when they were besanded. The lack of artefacts on floor surfaces may suggest that the abandonment took place over a prolonged period, as opposed to a single event (although potentially all such remains had already been removed by tidal action). It is unclear when the site was abandoned, but a 14th century date seems more likely than the 16th century.

Considering that the buildings lie close to the sea edge at the high water mark (Spring Tide line), even with the gradual rise in sea level since the Middle Ages, they are likely to always have been susceptible to flooding. Owen Harris surmises that as 'the building remains that we now see appear to be very well constructed, of well-cut quarried sandstone, clearly built to last. We therefore feel the builders would have only placed their settlement at this point if a natural defence or a sea wall protected them. Alternatively the site must have been sufficiently inland of the sea to be safe from inundation.' The settlement was presumably located near to the sea in order to exploit the natural resources it has on offer. The cockle beds of Carmarthen Bay were certainly exploited at this time and presumably it was also an excellent fishing area. No doubt the sea provided the main stays of the economy of the settlement, and perhaps the reason for its success and possible wealth, as may be surmised from the substantial nature of the buildings.

It is possible that the scars that project into Carmarthen Bay were formerly promontories of land, formerly covered in boulder clays which have subsequently been slowly eroded as the sea encroaches towards the land. Potentially a small bay or inlet was located between the two (as can be seen in the area of sand between St Ishmael and Salmon scar today), which was used as a place to launch boats. It is likely that buildings associated with the settlement were present on these areas, but have long since been destroyed. A circular stone lined feature previously recorded quite far out on Salmon Scar, has been interpreted as a well. This may suggest settlement was formerly located on the scars. A number of fish traps and weirs of medieval date found around other scars in Carmarthen Bay, were probably built and exploited by inhabitants of the settlement at St Ishmael.

INVESTIGATION METHODOLOGY

The archaeological investigation of the St Ishmael site comprised limited ground clearance of the sand dunes to reveal the walls and other features that had already been exposed by coastal erosion. This included removal of loose material and detritus that had been washed or blown onto the site, removal of small tufts of turf over walls and floors, and the cutting of grass and other vegetation to expose archaeological remains. Hand cleaning of exposed soils (especially along the eroded edge of Building 1) was undertaken using trowels. Exposed stones of walls and floors were cleaned of loose mud and sand.

In two areas, small water channels had eroded back into the sand dunes along the sides of walls of the buildings. These were cleared of vegetation and cleaned (within health and safety limitations) to provide a view deeper into the sand dunes.

Following cleaning of the structures, the remains were photographed using high resolution digital cameras. Hand drawn plans were prepared of the exposed walls, floors and features within Building 1. Context descriptions were prepared of all deposits and structural elements. This methodology was adopted as a model for participants in Arfordir to use in the continued monitoring of and recording of coastal sites?)

Reconnaissance of the base of the sand dunes to the north and south of the site was carried out in order to determine if further archaeological remains were present around the known village site. Walkovers of the nearby scars were also undertaken to determine if features or finds were present in these areas also.

At the end of the investigation the entire site was accurately surveyed, in relation to known features (slipway, lookout station and St Ishmael church) in order to tie it into the Ordnance Survey grid. The survey included locating the larger stone blocks and floor areas within Building 1, the survey of all stones within Building 2, survey of possible yard areas between Buildings 1, 2 and 3, and the survey of the exposed ends of walls for Building 3.



Photo 1: Cleaning of Building 1

The archaeological works were undertaken with the help and assistance of a number of Arfordir volunteers including Pat Keegan, Lesley Cairns, Byron Huws, Caroline Washer, Owen Harris, Sharon and Ioan Evans, Emily Ivens, Christine and Barbara Davies. I offer my sincere thanks to all of these individuals, and my apologies to any that I have missed out.

RESULTS

Building 1

Building 1 lies at the northern end of the exposed area of the village. It measured almost 16.5m in length and appeared to comprise two rooms.

The northern most wall of (102) was aligned southwest to northeast and was partially concealed beneath beach stone further into the sand dunes. It comprised semi-dressed laid stone blocks, some of substantial size (0.4 x 0.4 x 0.3m), and measured 3.16m in exposed length, 0.94m in width and survived to a maximum height of 0.75m. The wall was neatly faced, with a rubble core. Erosion had removed most of the rubble core of the wall, and some smaller facing stones. Patches of clay visible where the wall entered the sand dunes suggest the wall had been clay bonded. One upright water worn stone within the wall, which may have been eroded in-situ by tidal action.



Photo 2: Wall (102) facing southeast

A roughly linear alignment of about four medium sized stones projecting from the end of wall (102) and well set into the underlying clay, may mark a possible return to wall (102) at its western end. Due to severe erosion it was not possible to determine the form or dimensions of the wall. What was visible implied a surviving length of around 0.8m.

A 1.1m length of a second northwest to southeast aligned wall (103) was clearly visible 5.3m to the south of (102). Together, these walls appeared to define the area of a room. Wall (103) was narrower, measuring 0.59m in width. It comprised roughly dressed stone blocks on the outer faces, with a rubble core. It

was laid directly onto the natural clays and was either drystone or clay bonded. A number of stones laid on end at its western end of the wall perhaps marking one side of a door way.



Photo 3: Wall (103) showing upright stones at the northwestern end of the wall, facing southeast (Pit [109] visible beneath)

Two possible areas of flooring were present between wall (102) and (103). These included a cobbled surface adjacent to (103), comprising a number of similar sized cobbles laid to form a relatively flat surface (107). Only an area of approximately 2m x 1.4m in size could be clearly defined, although the floor may have been present sealed under a collapse of rubble and sand dune material. The second floor (108) was located closer to wall (102) and was less substantial and well formed than (107), probably due to erosion. The floor area survived to approximately 1.6m x 0.9m in size. Both floors were set into the natural underlying clays, and evidence for small pebbles being packed between the gaps was noted.



Photo 4: Area of cobbled flooring (107) facing southeast



Photo 5: Area of possible flooring (108) facing northwest

9.03m to the south of wall (103), a 2m length of Wall (104) forming the south wall of Building 1 was visible protruding from the base of the dune. The wall measured 0.60m in width. As with wall 103 it comprised larger roughly dressed facing stones, with smaller packing and rubble between and was either drystone or clay bonded.



Photo 6: Wall (104) facing northwest

A number of large stones were noted running along the lower edge of the sand dunes in the southern part of Building 1 adjacent to wall (104). These may represent the collapsed eastern wall of Building 1. This wall (105) may be associated with the large rectangular block as can be seen at the rear of the wall in photo 6. An area of erosion from water flowing through the dunes exposed a large number of larger stones set back into the dunes, which may have formed part of this wall, but it was not possible to get a clear record photograph of the stones.

Two possible floor surfaces were located within the second room of the building. The most northerly (111), measured approximately 1.2m x 0.23m and was visible as a layer of fairly large and flat stones set into the natural clays. The majority of the floor appeared to consist of disturbed cobbles. A straight edge formed by larger flatter blocks was clearly visible in the northern part of the room. This edge, an apparent break in the floor, may suggest the presence of a drain, or may be the surviving base of a wall dividing the room into two parts. There was no evidence for any floor in the northern part of this room.

The second floor (112) is likely to have been the same as (111), but was no longer physically connected due to later disturbance and erosion. This floor was made of rough cobbles set into the natural clays, measuring roughly 1.01m x 0.35m, but heavily disturbed.



Photo 7: Showing edge of floor (111). The remainder of the room is visible to the rear, with floor (112). South wall (104) is located adjacent to the far scale

Further investigation to the south of wall (102) and floor (111) revealed a an oval hearth made neatly cut and fitted flat stone slabs (117), edged by smaller stones set on end (118). The hearth measured approximately 1.05m along its longest length (northwest to southeast), and with a visible width of 0.7m. The hearth was located at a very similar level to the floor (111), but there was no physical connection between this or any other visible floor surface. The hearth had evidently been subjected to heat and directly above it was a compacted burnt layer (119/123) around 2cm in depth and containing charcoal and fragments of shells. To the west of the hearth two stones had been placed edge-on, forming a triangle, with the pointed end pointing away from the hearth. They had evidently been specifically placed, but their function is unclear. Perhaps with others on other side of the hearth (not excavated), they may have held a wooden or metal post from which skillets could be suspended.



Photo 8: Hearth within Building 1, flat slabs (117) and edge stones (118).

Due to the natural ground levels and patterns of erosion, the majority of the northern room of Building 1 was at a similar level to the surrounding beach level. Far more small stones were present on the beach to the north covering the underlying clay natural geology. Moving south along the building, the height of exposed clay at the base of the sand dune increases. All of the archaeological remains seen within the site were set upon, or cut into this clay (Photos 9 & 10).

Two other features which pre-dated Building 1 also recorded. The first (cut 110) was a large circular pit measured 1.6m x 0.9m in width, situated underneath wall (103) (Photo 3). The fill of the pit (109), was very waterlogged and consisted of lenses of clay alternating with layers of very dark organic matter containing fragments of wood, charcoal and small twigs. The pit had been previously identified and partially excavated by Owen Harris, and two sherds of pottery dated to the 14th century were recovered from it. Although the depth of the pit was not ascertained, it must have been at least 0.5m depth, as it was visible directly below the floor level (108) within the structure, and cut through natural clay beneath. The pit had been partially eroded away with tidal action, visible in the clay natural sloping steeply to the west.

A second small feature was noted in the exposed section of the natural clay beneath floor (111). It comprised a small cut [114] and single dark brown clayey fill (113), measuring 0.40m in width and 0.3m in depth in section (it was not seen in plan as the floor surface was not removed). No finds were recovered from the fill and it was not investigated further.



Photo 9: View east of Building 1 showing increase in depth of exposed clay natural at base of sand dune, walls (1002), (103) and (104) are marked with vertical ranging rods.



Photo 10: Overview of Building 1, with wall (102) in foreground, wall (103) by next scale bar and wall (104) beyond

Building 2

Building 2 is located around 26m to the south of Building 1. It measured 15.4m in length, and was visible as a line of stones running along the base of the dune. It comprised two rooms, the most northerly measuring around 9.5m in length internally, and the smaller southern one around 3.4m. Although mostly buried in

the sand dune and covered in vegetation, a small group of stones at the northern end of the wall (200), presumably formed the northern end of the building.

The most obvious feature at the northern end of the building comprised two upright stones spaced 0.83m apart, with a flat stone lying between them. This arrangement (201) seemingly forms a doorway into the building (photo 11 & 12).

The level of the threshold stone corresponded with a flat stone lying behind it and presumably within the building. Behind this was a step up to four flat stones that had been laid to form a rectangular surface (one stone had been removed in the past, but could be fitted back into the missing location easily; photo 12).



Photo 11: Wall (200) to left, with doorway (201) visible in centre of photo



Photo 12: View of doorway (201), with missing stone of second step replaced.



Photo 13: Wall (205)

Doorway (201) was apparently located on the western side of the building, set within wall (205). This wall survived south of the doorway, for a length of 6.8m. It comprised a single length of medium sized stone blocks set into the natural clay (photo 13). It would appear that only the internal facing stones of the wall survived, a single course in height, with all bonding stones, rubble core and outer facing stones having been previously eroded away. At the southern end of the wall all evidence of the relationship between this and the two southern walls of the building have been lost to erosion.

Wall (202) protruded from the sand dunes 9.65m to the south of wall (200). It measured 2.5m in exposed length, with a width of 0.6m. The wall was badly eroded at the western end, but some large upright blocks were present nearer the sand dune (photo 14). The wall was either drystone or clay bonded, comprising larger blocks, roughly dressed on the outer faces, with a rubble core. A number of large water worn stones were also present in the wall.

The southernmost wall of the building was (203), consisting of a 1.55m length of wall protruding from the dunes, of around 0.65m width (photo 15). The wall lay 3.7m to the south of (202, and was similar in construction as it comprised a number of large upright blocks on the outer faces of the wall. The upright stones were noticeably leaning over towards the south, presumably as a result of pressure from movement within the sand dunes (an area of sand slip is evident directly adjacent to the wall).

No floor layers were noted within this building, but the implication is that the majority of the building is still buried under the sand dune, as the western wall is only just visible along the sand dune edge.



Photo 14: Wall (202)



Photo 15: Wall (203), showing outward lean of stones

Building 3

The elements of Building 3 comprised east-west walls projecting through the sand dunes. It was not possible to expose much of these walls as they lay in a steep face of the sand dune. It cannot be confirmed that they form part of the same building.

The probable northern wall of the building (300) was comprised of medium sized stones, roughly coursed, surviving to a height of 0.55m. The wall was around 0.5m in width. The stones included angular blocks and water worn stones. No bonding material could be discerned.



Photo 16: Wall (300)

Wall, (301) was located around 15.6m to the south of wall (301), and survived to a similar extent. The wall was roughly two courses in height, and was exposed to a length of around 0.7m. The stones included angular blocks and water worn stones. No bonding material could be discerned.



Photo 17: Wall (302)

Building 4

Building 4 was located some 10m to the south of Building 3. During the investigations, only one wall of the structure could be seen, although it is known from previous monitoring and recording by Owen Harris that two walls connected by a wall to the west were present, but now lie buried under a collapsed part of the sand dune.

This building is the only one where a standing stretch of an eastern wall has been revealed. The side walls of the structure (400) and (401) comprised roughly coursed angular blocks of medium and small sizes. The eastern wall of the structure, comprising medium and large stones was also roughly coursed using the varying sized blocks. Again the walls were set upon or into the underlying natural clay. This building was narrow, c.3m wide and only survived to a length of 1m into the dunes. No floor surface was revealed in the building, although it is possible that the floor was directly upon the underlying natural clays.



Photo 18: Wall (400) and adjacent collapse of sand dune



Photo 19: Previous photograph of area, with wall (400) to left, wall (401) to right (hidden by vegetation) and wall (402) to rear. (Owen Harris photograph)

Yard Areas

The areas visible between Buildings 1 and 2 and between Buildings 3 and 4 are considered to represent yards, as there is no evidence of walls around them. The first yard area lies around 10m to the south of Building 1 (photo 20). It comprises a number of flat sandstone slabs laid on the natural clay to form a rough surface. An area of the surface approximately 3.5m x 1.6m is exposed, with more likely to be buried beneath the dunes to the north, south and east.



Photo 20: Yard surface between buildings 1 and 2

The second yard area lies 4m to the south of Building 3, visible as a small stretch of stones 2m in length sitting on top of the clay within the sand dune face. The top of the surface was only partially exposed. The stones in the floor were smaller (most around 0.15m square), and well laid to form a fairly level surface. The surface had been visible on previous visits, when a possible feature was also noted underneath cutting through the clay in the exposed section. This feature was not clearly identified during these investigations and not yet been recorded further.



Photo 21: Yard surface between Buildings 3 and 4

DISCUSSION

From the available evidence for the site, from its large scale exposure in 1896 through to today, an idea of the extent of coastal erosion of the site can be made.

The storm event in 1896 revealed remains of such significance that they were nationally reported in the *Welshman*. The report on the remains suggest a number of buildings were exposed, including stone walls, with door and window openings that could still be discerned. Soon after, the site was used as a quarry by a local farmer and 40 to 50 cart loads of stone were removed, again suggesting a substantial amount of stonework had been exposed.

The RCAHMW survey of 1912 includes a description based on the earlier account as well as two photos of the site (photos 22 and 23). These show the dunes, with stone work exposed at the base on top of the same clay natural as was seen during the recent investigations. What is most evident in the two photos is the extent of clay natural exposed (possibly around a 3 or 4m band), with the sand dune set much further back in relative terms to how it lies at present. Vegetation is only just growing back on the edge of the dunes in the photos, indicating that a substantial part of the sand dune must have been stripped away in 1896.



Photo 22: RCAHMW photograph from 1912 visit to the site (RCAHMW 1917)

Although no clear remains are visible in the first photograph, the extent of stone work at the bottom of the dune is indicative of former structures. In the second photograph a substantial part of a building is visible exposed on top of the clay natural. The building appears to be short-end-on to the sand dune (similar to Building 4 of these excavations) with a substantial part of the southern and eastern walls exposed. The coastline has changed considerably since this time, and certainly the building in photo 23 has been completely eroded by now. Both photographs were taken over 10 years after the removal of the 40 to 50 cart loads of stone, and subsequent episodes of erosion over those years. The relative lack of stone across the clays in photo 20 may be indicative of this stone removal and erosion. The implication is that the stone of the building in photo 21 would have been removed if it had been exposed in 1896.



Photo 23: RCAHMW photograph from 1912 visit to the site (RCAHMW 1917)

From research undertaken by Owen Harris, some handwritten notes and drawings are in the collection of RCAHMW, prepared by G E Evans following a visit he undertook in 1912. The sketches show two erect stone slabs, set less than 1m apart. These may be similar to stones seen in wall (203) and with others noted by Owen Harris in the past few years (that have subsequently collapsed). This construction method (with pairs of uprights built into the wall, perhaps to add strength or even form one side of a doorway or entrance) appears to be common to several of the stone walls at the site.

Other drawings in the collection are labelled as "*the corner of a building*" and "*an erect dressed stone with hole*". The corner of the building may well be that seen in photo 23. The dressed stone with a hole appeared to have been over 1m in height and presumably the hole would have once housed a door or gate hinge. Such a stone is visible in 2010 lying below the high tide mark. The final sketch is of a stone well head described as being sand filled, but unfortunately this was inadequately located and has not subsequently come to light (although local residents do claim to have seen something similar quite far out on the adjacent scar). It is thought that all of the remains seen in 1912 have now eroded away, so it is possible that a number of the larger seemingly dressed sandstones that lie below the high tide line may be some of those recorded in 1912.

Looking at the 1912 photographs it is evident that the natural clay layers exposed beneath the dunes have since eroded away, and it is estimated that this would be about a 4m wide strip (based on the size of the exposed stones and height of the sand dune). This estimate may be quite conservative, as it assumes that the base of the dunes has not retreated back any further.

From the monitoring undertaken by Owen Harris he estimates that between 0.15m to 0.30m erodes from the base of the dunes each year. He states that 'Some features visible in the Autumn of 2007 have now disappeared'.

The buildings previously identified were evidently located further to the west than those recorded during the 2010 investigations, and assuming they are contemporary, it is most likely that a road or track way would have separated them. Should this be the case, it suggests a fairly sizeable and nucleated

settlement in existence during the 13th and 14th centuries. The actual extent of the entire settlement is unknown.

It is most likely that the settlement was located for convenient access to the sea. The site is presently located at the end of a sand inlet between St Ishmael's and Salmon Scar. Both the scars were probably formerly fingers of land projecting into Carmarthen Bay, and it is tempting to think that the gap between formed an inlet from which fishing boats could have been raised. As the boulder clay natural soils have been stripped from the scars, revealing the glacially derived stone, the tide has steadily encroached further inland, and any remains of buildings or structures has long since been eroded.

The 1900 description of the removal of stone from the site (Archaeologia Cambrensis 1900) says that the buildings covered an area of around 200 to 300 yards length at the base of the dunes. The present length of exposed archaeological remains is presently only a c.100m stretch.

The Great Western Railway undertook improvements of the sea defences along this stretch of coastline in the earlier part of the 20th century. This comprised the insertion of regularly spaced lengths of railway track into the beach (presently about 5m from the edge of the base of the dunes) between which railway sleepers were fixed, and then a substantial quantity of material was placed behind, comprising industrial waste, comprising mostly slag and iron /steel manufacture waste (presumably brought down the line from the foundries to the east). It is uncertain how long these defences held out, but now they are only visible as the upright tracks (much eroded) with substantial quantities of slag etc scattered across the beach and the base of the sand dune.

Obvious changes to the site have taken place in the last few years. This has included the recovering of Building 4 by the sand dune following its exposure during a storm in 2007, as noted above. The threshold of the doorway into Building 2 has evidently been exposed in the last few years and is likely to be dislodged in the near future. The entire length of the western wall of Building 2 has already been eroded, such that only a few of the larger stones on the inside face of the wall survive, but these will not last for very much longer.



Photo 24: Doorway into Building 2 in October 2007. Note that there is a large stone in front of the door which is no longer present, and that the ground level corresponds with the top of the threshold stone. (Owen Harris)



Photo 25: Doorway into Building 2 in September 2008, note that the threshold stone and adjacent uprights are completely exposed to their base (Owen Harris)

In 2007 one of the walls within Building 1 had two large upright stones at its western end. Neither of the stones now survive, but they may be present on the beach in front. It is unclear which wall these stones were associated with, or whether they were actually part of a western wall that has since been eroded.



Photo 26: Upright stones seen in 2007 within Building 1 (Owen Harris)

More large stones were present within the northern wall of Building 1 in May 2008, which have again since been eroded.



Photo 27: Wall (102) Building 1 in May 2007 (Owen Harris)

CONCLUSIONS

The archaeological remains appear to represent a settlement of medieval date, certainly occupied between the 13th and 14th centuries and possibly into the 16th century. From the extant evidence there are at least four structures surviving at the site, three aligned lengthways at the base of the dune – roughly north to south, the fourth roughly east to west. The three buildings on the same alignment may suggest a street or roadway was present along their western edges.

Very few artefacts were recovered during the 2010 investigations, which is possibly unsurprising as the works were more geared towards cleaning the exposed areas of walls as opposed to intrusive excavation of the remains. The majority of evidence recording at the site related to the physical evidence of the structures, walls and floors. Of great interest was the area of the surviving hearth within Building 1, a well made cooking area comprising closely fitting stone slabs surrounded by narrower edging stones. The stone slabs had evidently been subjected to heat. The hearth was set at the same level as the surrounding floors, sitting upon the clay natural. It is unclear if the feature was merely the base which had a fire laid directly upon it, or in a fire basket, or whether it had a specific purpose, as the base of a bread oven for example or a hot stone used in the processing of food stuffs (such as cockles or other shellfish).

From previous evidence recorded at the site, the suggestion is that more buildings were present to the west, which have subsequently been lost to the sea. This may add weight to the suggestion of a street along the western side of the surviving remains. Following the 1896 storms it is said that around 40 to 50 wagon loads of stone were removed from the site by a local farmer, again suggesting far more substantial remains were present than exist today.

Records from 1912 indicate substantial building remains still survived, but again these are now no longer extant. Potentially some of the larger possibly dressed sandstone blocks, that are still present below the high tide line, may have originated from these earlier exposed remains.

The areas observed at the site between Buildings 1 & 2 and Buildings 3 & 4 are only loosely interpreted as yards. It is possible that associated walls may have been eroded away, robbed or remain partially hidden beneath the dunes.

Monitoring of the site in recent years would suggest that the base of the dunes is eroding at a rate of around 0.15 to 0.30m a year. With the predicted sea level rises associated with climate change, this rate of erosion can only increase.

The investigation has provided very useful information regarding the site in terms of its present state of survival. The work has provided the first accurate location survey of the site, showing it in relation to the adjacent scars projecting into Carmarthen Bay. The investigation has confirmed the presence of at least four structures and two possible yard areas. It has confirmed that the walls of the buildings were clay bonded.

This excavation and recording work undertaken as part of the Arfordir project, is an excellent example of how the project was envisaged to work and develop. It has enabled the enthusiastic and highly motivated volunteers to be directly involved in the discovery and investigation of their local heritage, while also providing them with a better understanding of the purpose, aims and process of archaeological investigation as a means of making a useful record of threatened cultural heritage. The range of methods used, and the process of recording that the volunteers were involved in will enable them to continue to monitor of the

site, and to produce a more useful, meaningful and accurately observed record of the features exposed.

The new links between the local community and DAT that have been developed as a result of the project will greatly enhance the flow of information about the site to DAT allowing appropriate management decisions for the site to be made, and providing further opportunities for public engagement and education.

The site is obviously one of great interest, providing evidence of a coastal settlement of which there is little clear record, and about which we know little. Indications suggest that the settlement was quite expensive, with fairly robust buildings, and its absence from clear documentary records is intriguing. The site is most definitely worthy of further investigation beyond merely monitoring its erosion, and such opportunities would greatly benefit (and be suitable for) community involvement. Investigative work at the site, must be weighed against the potential impacts on the SSSIs and also the effect it may have on the archaeological remains. It is possible that by exposing more of the walls, they will become less stable and erode quicker. Of course, without further detailed work, the site will be lost to the sea without any detailed record at all. Possibilities for reinstatement following investigation might be considered to at least keep erosion of the site at its existing rate.

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Figure 1: Location map, based on the Ordnance Survey.

Reproduced from the 1995 Ordnance Survey 1:50,000 scale Landranger Map with the permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright Cambria Archaeology, The Shire Hall, Carmarthen Street, Llandello, Carmarthenshire SA19 6AF. Licence No ALS1842A



Figure 2: Site area in relation to adjacent scars and other features showing full extent of deserted medieval village

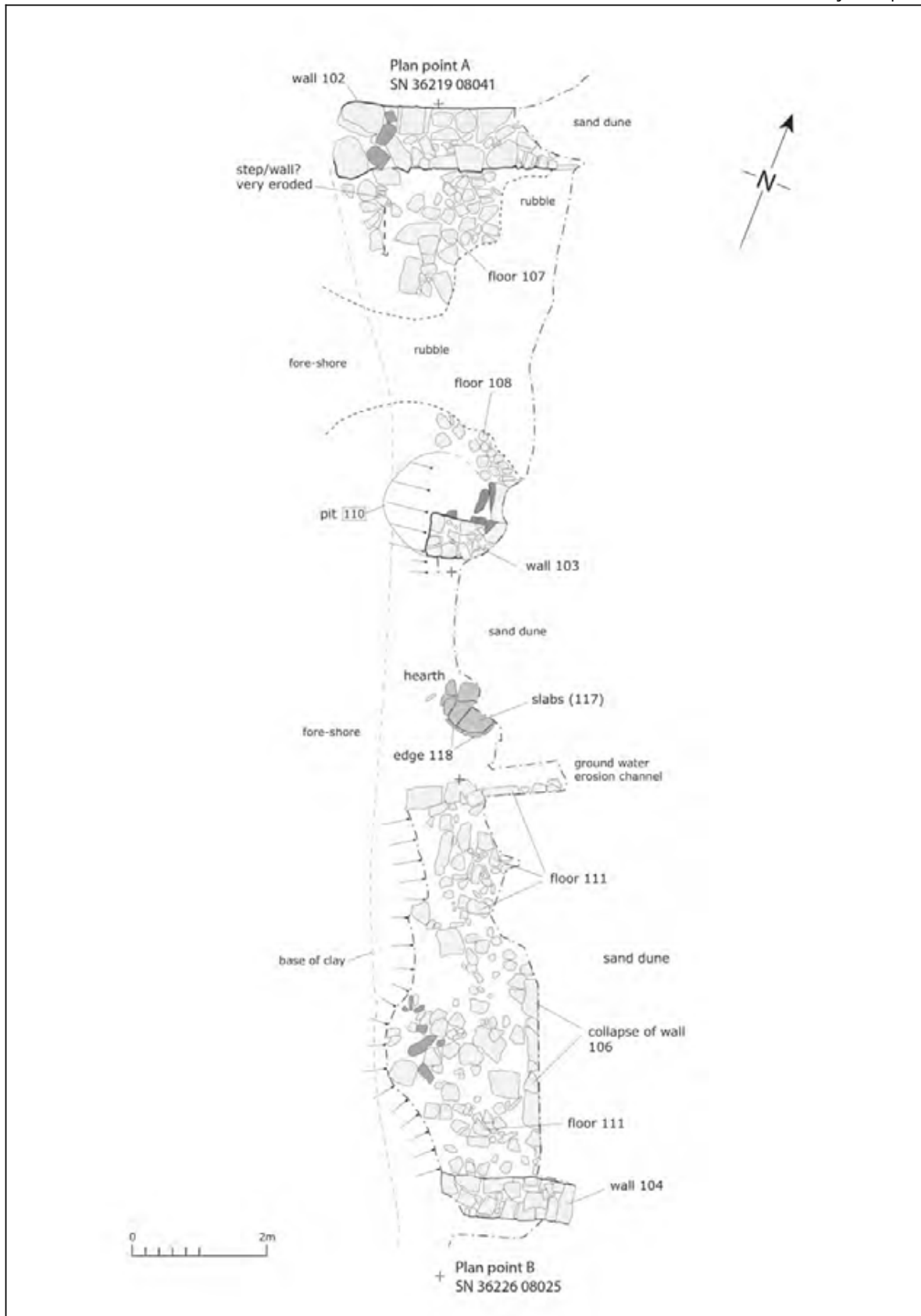


Figure 3: Detail of Exposed Area of Building 1

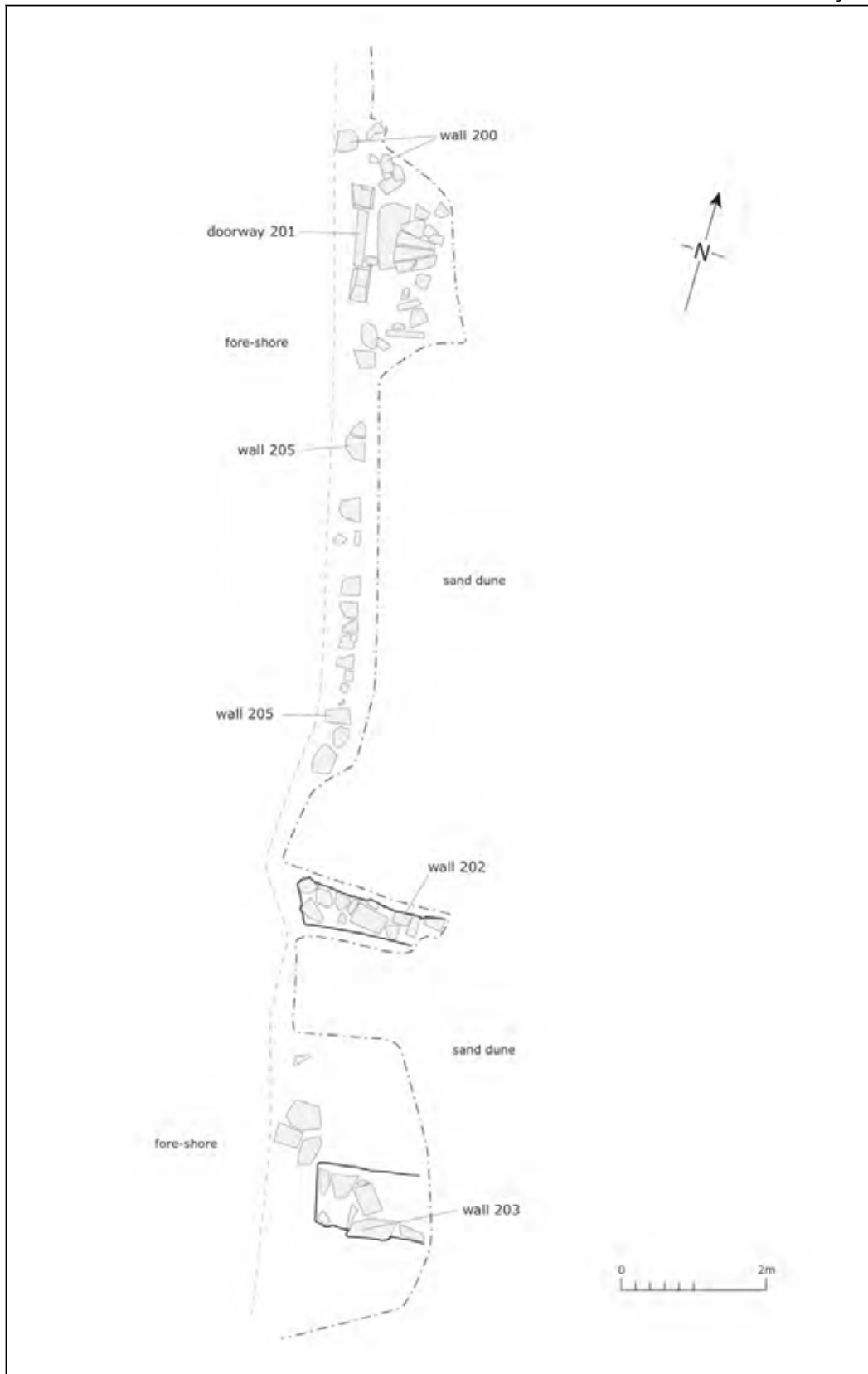


Figure 4: Detail of exposed area of Building 2