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HISTORIC ENVIRONMENT SCOTLAND STATEMENT OF SIGNIFICANCE

LINKS OF NOLTLAND



We continually revise our Statements of Significance, so they may vary in length, format and level of detail. While every effort is made to keep them up to date, they should not be considered a definitive or final assessment of our properties.

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1 Summary

1.1 Introduction

The site known as Links of Noltland is located behind Grobust Bay on the North West coast of the island of Westray. Westray is one of the north isles of Orkney.

The site occupies some 4 hectares of sand dunes and coastal machair. The area is subject to severe wind erosion and the dune system has been deflating at least since the 1980's. This erosion has led to the exposure of extensive and very well preserved archaeological remains of Neolithic, Bronze Age and Early Iron Age date.

A major component of the site was taken into state care in 1984 having been designated a scheduled monument in 1993. Since then, further extensive archaeological remains have been discovered beyond the area in care, and are included in this assessment.

Several interventions (monitoring, assessment, excavation and landscape consolidation) have been carried out since the late 1970's. The most extensive investigations commenced in 2006.

To date, five settlements comprising of over 35 Neolithic and Bronze Age structures have been identified. They are surrounded by contemporary cemeteries, middens and cultivation remains, together with a number of specialised and ritual buildings. The remains have not been substantially disturbed since prehistory and the local calcareous soil conditions are excellent for the preservation of organic materials.

Notable discoveries include the 'Westray Wife' – a carved stone figurine and the earliest human representation known from Scotland; the Neolithic cow skull house, whose walls contained 28 cattle skulls, some now genetically identified as auroch and auroch-hybrids; a near-complete subterranean Neolithic house complex containing two further figurines and numerous carved stones; a Neolithic carved stone ball, found *in situ* inside a house and; a near-complete subterranean Bronze Age ritual structure, interpreted as a sauna.

The site is not managed as a visitor attraction as the archaeological remains are not visible except during programmes of fieldwork. The site is currently undergoing landscape conservation and has not been prepared for display, though interpretation graphic panels are present outlining the fieldwork and conservation measures being undertaken.

1.2 Statement of significance

The preservation of Neolithic settlement remains in the Northern Isles is unsurpassed anywhere else in NW Europe, The Links of Noltland site represents a unique survival of international importance and the discoveries here exhibit a greater variety and time depth than any other site in Orkneywith remains ranging in date from the Neolithic, to Bronze Age and Early Iron Age (c. 3300BC to 800 BC). It is one of only four such sites that are formally accessible to the public (Skara Brae, Knap of Howar and Barnhouse).

The continuity of settlement in one area in combination with the excellent preservation of both buildings and organic remains at Links of Noltland makes it possible to build up a very detailed picture of daily life and how that changed and evolved over a 2000 year period. The story of this long lived and successful settlement, which included periods of extreme environmental change, though specific to Westray, is probably typical of what took place on ordinary farming settlements throughout Orkney, and more broadly throughout the British Isles, during this period. In this respect, this site provides a different and complimentary perspective to the Mainland ceremonial sites, such as Ness of Brodgar.

The site has produced numerous significant finds, including a group of figurines- of which the 'Westray Wife' is best known. These are the oldest human sculptures known from British Isles and are, so far, unique to this site (though recent re-discovery of a bone 'idol' from Petrie's excavations at Skara Brae is similar to some of the Noltland figurines). Other highlights include a house founded on the skulls of ancient cattle - some of which have been shown by genetic testing to be wild auroch and the recovery of many thousands of well-preserved artefacts, including fine bone tools, jewellery and highly decorated 'grooved ware' ceramics.

This site and the results of excavation here will inform and shape local, national and international research agendas for decades to come.

2 Assessment of values

2.1 Background

Historical overview

The site was first discovered by George Petrie, a local antiquarian, in the 19th century. At this time, archaeological remains were noted in exposures created by rabbit burrowing and wind erosion amongst the dunes (Information from G Petrie notebook No.9, 26-9).

By the late 20th century, archaeological remains were recorded in several areas amongst the dunes and along the adjacent coastline (D V Clarke, R Hope and C Wickham-Jones 1977).

Between 1978 and 1981 a programme of assessment and limited excavation was carried out by National Museums of Scotland, under the direction of Dr David V. Clarke (D V Clarke 1978; D V Clarke 1979; D V Clarke 1980; D V Clarke 1981).

The site was purchased and taken into state care in 1984. It was designated as a scheduled monument in 1993, with the scheduled area extending beyond the property in care area. In 1986 HES (then Historic Scotland) undertook a programme of landscape consolidation which included the reburial of exposed archaeological remains and grass planting (Owen, 1986). Between 1981 and 2006 monitoring and small scale interventions took place. These comprised:

- Inspection of erosion in 1992 (Sharples, 1992)
- Finds recovery and recording in 1998 (BOAT, 1998)
- Finds recovery and recording in 1989 (Lynn & Bell, 1990)
- Assessment of the coastal zone and hinterland in 1998 (Moore, H & Wilson, G 1998, Wilson, G. (2003)
- Rescue excavation and recording (Moore, H & Wilson, G, 2000)
- Topographic survey, geophysical survey, coring, limited excavation and review of site management in 2001 (Moore, Wilson & Barrett, 2002).

From 2006 to the present (2018) HES have commissioned regular programmes of assessment and excavation work at the site undertaken by EASE Archaeology. An interim report on the findings, Moore, H and Wilson, G (2011) 'Shifting Sands. Links of Noltland, Westray: Interim Report on Neolithic and Bronze Age Excavations, 2007-9'. Historic Scotland Archaeology Report No.4 was published in 2011.

Between 2006-present a comprehensive programme of work has been undertaken. This has encompassed geophysical and topographical survey, test pitting, coring/auguring work, partial and full excavation, extensive sampling and finds recovery, laser scanning and preliminary post-excavation research

In 2011 HES initiated an extensive programme of landscape conservation and grass planting.

Site description and archaeological overview

The Links of Noltland represents a typical Orcadian farming community and its development over some three millennia from the Neolithic to Early Iron Age periods. It provides a detailed archaeological record of everyday life during this period and also of the wider environment in which this took place.

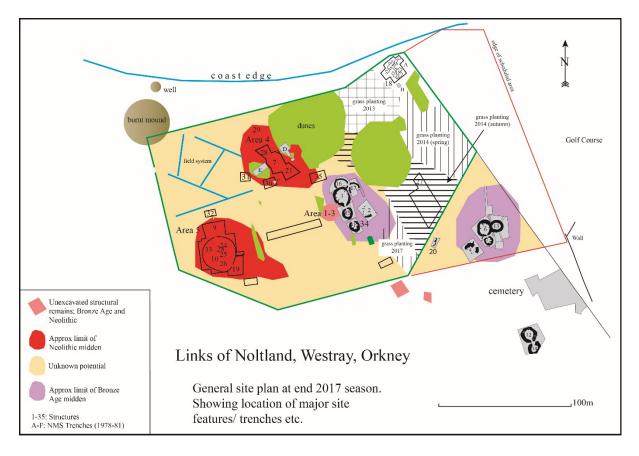
The site is exceptional in its quality of preservation, the range and variety of its remains, the overall time depth represented and the fact that it spans the Neolithic- Bronze Age transition. It is one of the largest prehistoric settlements to have been investigated in Scotland.

To date, over 35 Neolithic and Bronze Age buildings have been identified and partially or fully excavated. These include houses, agricultural stores and outbuildings, specialist crop processing structures, ritual buildings, funerary buildings and temporary structures. These buildings are set within a landscape which includes

managed farmland and wild areas. There are cemeteries and isolated burials. There are midden dumps and butchery areas.

It possible to chart the development of the community over time from the archaeological remains. Settlements change and shift location over time; new architectural styles are introduced. Meanwhile, changes in the environment can be linked to modifications in farming practices. The introduction of new technologies and exotic materials and ideas influence the local material culture and art styles.

The following is a summary of the archaeological remains which have been investigated to date.



• Area 5 (Structures 9, 10, 11, 19, 24, 25, 26, 28, 33)

This area comprises an extensive enclosed late Neolithic Settlement, located to the SW of the property in care area in a prominent and elevated position. Bounded by a stout stone wall, this enclosure measures some 30m in diameter and contains the remains of at least nine separate houses, many of which were rebuilt and modified on numerous consecutive occasions in prehistory. The enclosure wall stands over 1m high in places and several of the houses are equally well preserved. The enclosure also contains yards, butchery and midden areas. The houses vary in style and size but are generally comparable to those found elsewhere in Orkney (Skara Brae, Ness of Brodgar, Barnhouse etc.). Key features include bed recesses, dressers, central hearths, flagged floors and under floor drains. Many also exhibit

dressed and decorated stones within their fabric and casement walls. A series of flagged paths lead between buildings and through the surrounding yard and midden areas. House interiors typically contain multiple floor levels, yielding quantities of artefacts. Household refuse dumps, containing material swept out from house interiors, were also identified. During the latter phases of this settlement, houses were built over part of the enclosure wall and extending into the surrounding area. Major finds in Area 5 include:

- (i) the Orkney Venus also known aska the Westray Wife, a carved stone human figurine which was recovered from a 'closing' deposit marking the final stages of a long lived and important building (Structure 10);
- (ii) the 'cow-skull' house (Structure 9), which contained the skulls of 28 cattle within its foundations and;
- (iii) a carved stone ball found in situ between floor levels in Structure 10.
 - Area 4 (Structures 7, 21, 30)

This unenclosed Late Neolithic settlement overlaps in use with Area 5. It lies downhill to the NE of Area 5, in a more sheltered location. Partially excavated, it is currently known to comprise of three houses, at least two of which were in use concurrently. The style and key features of these building are similar to those in Area 5. These houses were built over midden and structural deposits which may extend back to the earlier Neolithic period. It is surrounded by later midden dumps, one of which contained a human burial of Bronze Age date. Important finds here include a carved stone with 'eyebrow' motif built into the exterior wall of Structure 7 and a possible pottery kiln.

• Structure 18 ('Grobust' structure)

This Late Neolithic building is located in the NE corner of the property in care. It was built into a sand dune and is subterranean or semi subterranean in nature. Comprising of two rooms joined together by passages, it survives to roof height with the parts of the passage roof lintels remaining in situ. It measures some 20m by 10m overall. Following its abandonment, this structure appears to have been deliberately filled in with artefact rich midden materials. The uppermost levels of the fill were examined during National Musuem of Scotland excavations (1979-81) while the interiors and floors were investigated during the present programme of work. Of particular interest are the remains of whale rib found inside the building and thought to represent the remains of deconstructed roofing. Major finds include numerous carved stones built into the fabric of the building, two carved stone figurines and the use of animal skulls (cattle and sheep) and other remains as 'closing' deposits within the building.



Figure 1 Structure 18

• Areas 1-3 (Structures 1, 2, 3, 15, 16, 17, 34)

Within this area are the remains of at least seven buildings; there is a high probability that further structures survive beneath. The latest in the sequence (Structures 1, 2, 3, 15) are a group of Middle Bronze Age structures, thought to represent a series of houses and outbuildings which are organised in 'figure-of-eight' type paired arrangement, with opposing entrances separated by a flagged passage. Two of the earlier structures (Structures 16, 17) appear to have had a more specialised function associated with crop storage and processing. The earliest structure (Structure 34) has been briefly assessed and may belong to a transitional Late Neolithic/Early Bronze Age phase. Key finds from this area include steatite vessel sherds found amongst in the later levels, an assemblage of Bronze Age pottery and worked bone objects, re-used Neolithic architectural fragments and stone lined 'cists' set into floors (Structure 16) and a large corn-drying pit (Structure 15).

• Area 7 (Structures 4, 5, 6, 11, and 13)

In this area, a series of 5 paired Later Bronze Age houses and outbuildings was replaced *in situ* on several occasions. The latest house in the sequence (Structure 6) is reminiscent of Early Iron Age architecture and may be one of the latest buildings to have been constructed at Links of Noltland. The settlement lies within a contemporary field system on level ground outside and to the SE of the property in care area but within the scheduled area. Key

finds include 'ritual' animal burials, worked bone artefacts and a small assemblage of pottery and stone agricultural implements.



Figure 2 Structures 5 and 6

• Structures 12 and 14

A third Bronze Age settlement is located on private land outside the scheduled area, to the S of Area 7. This comprises of at least two buildings, a house (Structure 12) and a paired outbuilding (Structure 14), surrounded by a contemporary field system. The buildings contained multiple floor levels and a small but interesting assemblage of artefacts. The house contained a 'closing' deposit of a large fragment of a steatite vessel deposited over the central hearth. The outbuilding had a pit which contained some 60 agricultural stone tools, mainly cleavers.

• Bronze Age cemetery

A cemetery containing over 60 burials was located on private land beyond and to the SE of the property in care, but within the scheduled area. It bounded the southern extent of Area 7 and extended to the NE of Structures 12 and 14, with which it is thought to be contemporary. The burials included cremations, inhumations and multiple burials, some placed in lined pits and cists, others in simple graves cut into the sand. Very few burials were accompanied by grave goods. Some of the graves were marked with slabs; others (especially child graves) were marked with spreads of coral. Radiocarbon dating places the burials c. 2100 to 900 BC.

• Isolated burials and possible funerary structures

A concentration of scattered human and animal remains together with one complete burial were located within the property in care, to the south of

Structure 18. The complete burial dates to the Early Iron Age period. A ring ditch was found in close association. An enigmatic and very well preserved structure found nearby (Structure 27) has yet to be dated but may also have funerary associations.

• Subterranean Bronze Age ritual complex

A large artificial mound sited outside the NW corner of the guardianship area was investigated and found to contain a nearly intact stone structure. Entered via a monumental doorway, a 10m long roofed passage led down to a series of small subterranean chambers. These were set around a stone lined water tank. The building also contained a large enclosed furnace-like fireplace. Both the architectural detail and associated burnt stone debris suggest that 'hot stone technology' was employed, here probably to heat water and create steam. The restricted access and specialised layout are suggestive of a ritual function and it is suggested that it may have been used as a sauna or sweat lodge. The building was engulfed by sand and thereby preserved in an exceptional state of preservation. It is dated to the Bronze Age by reference to similar sites and to the small assemblage of artefacts found in association with it.

• Well House

The footings of a small rectilinear building were investigated outside the property in care to the NW of the subterranean Bronze Age ritual complex. The building lay on the coast edge and had already been badly damaged by coastal erosion. Investigations uncovered a 2m deep stone lined shaft within the building. The base of the shaft was cut down into underlying bedrock and tapped into a natural spring. The shaft functioned as a well and while no dating evidence was found in association with the structure, the detail of its construction and close proximity to the subterranean Bronze Age ritual complex suggests that it is likely to be associated.

• Cultivation and agricultural remains

The entire property in care area bears traces of prehistoric field systems. These include banks, land drains and field walls which are visible as topographic features, together with plough marks and enriched soils which are only discernible via excavation. Some of these features can also be traced via geophysical survey and it is apparent that they extend beyond the property in care and scheduled areas. In addition, a series of small buildings (Structures, 31, 32 and 35) appear to be associated with farming activity and may represent short lived camps of Neolithic date. Structure 32 is a post-built structure which appears to have been reused during the Bronze Age and may have had a specialised function. Other deposits of note include spreads of organic midden, shell middens and a cluster of deer carcases found close to Structure 7.

2.2 Evidential values

The remains at Links of Noltland are characterised as being

- (i) Very well stratified
- (ii) Deeply buried since prehistory

(iii) Not disturbed by subsequent farming or human activity
(iv) Conducive to the preservation of bone and other organics
(v) Rich in artefacts and environmental materials (the assemblage is currently estimated to comprise of some 500,000 artefacts and thousands of soil and materials samples).
(vi) A good acures of materials suitable for rediscerbon deting and

(vi) A good source of materials suitable for radiocarbon dating and other analyses (e.g. genetic analyses).

By virtue of having been buried since their abandonment in prehistory, the remains are far more intact than is usual and unlike many sites in Orkney and elsewhere, they have not been subjected to disturbance or truncation by farming. The site has not yet been prepared for display but the structural remains are sufficiently well preserved to enable consolidation to be carried out in the future. The depredations of weather in this extreme environment would, however, require that some conservation work be undertaken prior to display.

The site has not yet been fully excavated and there are substantial areas of buried archaeological remains present throughout. In this dynamic landscape and with the ever-present vulnerability to wind erosion, these remains are at risk and could rapidly become exposed and/or destroyed. It is necessary, therefore, that the site is regularly monitored for change and that landscape conservation measures are maintained and adapted as such changes occurs.

Site Documentation

The findings of the excavation have been documented in a number of site reports and a published interim report (Moore & Wilson, 2011). The excavation programme has itself been well documented. In addition to the information and data generated through onsite fieldwork, the project has also included numerous associated studies. The unusually high quality of the remains have helped to attract external academic researchers to the site, resulting in a wide range of collaborations. These have included human and animal genetics research (Universities of Edinburgh, Basel and Huddersfield), artefact research (Universities of Edinburgh and Cardiff), soils and dating research (Universities of Edinburgh, Bradford and Stirling), imaging techniques (University of Southampton). Two doctoral research studies, sponsored by HES, have now been completed. Materials and data from the site have been supplied, for example, to researchers examining pottery, burnt mound deposits and artefact imaging.

The project has also afforded many opportunities for cultural collaborations ranging from a 'residency' by the acclaimed Scottish writer and poet Kathleen Jamie, who joined the excavation team for several weeks in 2016, to associations with local artists and photographers The site has received considerable media coverage, especially in the wake of major discoveries (Westray Wife, Cow Skull house, Bronze Age 'sauna' etc.). This has resulted in newspaper, magazine and articles in national and international media. The site has featured in a number of television programmes with segments in Digging for Britain (2010), The Story of Scottish Art (BBC Scotland, 2015).

STV evening News (2016) and Britain's Ancient Capital: Secrets of Orkney (BBC2, 2017).

The site has been nominated for major archaeological awards on two occasions. In 2010 the 'Westray Wife' figurine was one of three shortlisted for the 'Best Archaeological Discovery' *and* in 2014 the site won the title of 'Best Rescue Dig', both in the Current Archaeology Awards. The Bronze Age 'sauna' was awarded second place in the <u>Heritagedaily.com list</u> of the top ten archaeological discoveries of 2015.



Figure 3 Westray Wife

2.3 Historical values

The Links of Noltland provides a detailed archaeological record of the everyday life of a typical prehistoric Orcadian farming community over three millennia from the Neolithic to Early Iron Age periods. The completeness of the remains make it possible to chart changes in architectural styles and material culture over time and between settlements. The wealth of faunal and farming remains document animal husbandry and soil management practices and provide evidence for environmental change and human adaptation to this. The range of funerary remains and monuments chart developments in treatment of the dead, as well as providing direct evidence of local demographics and human health. The existence of ritual monuments, in combination with evidence of everyday ritual found within the settlements, illuminates the spiritual beliefs and ceremonial activities of the inhabitants.

The physical remains provide comprehensive insights into how life was lived from the intimate detail of the house interiors, complete with bed recesses, dressers, fireplaces and plumbing, to the paved 'streets' winding between settlements and providing stepping stones amongst the midden heaps and wet areas.

The extremely large and varied assemblage of artefacts recovered from the site add depth and detail to our understanding of how people lived and worked, what clothes they wore and food they ate, their skill at crafts, their relationship with their animals and the wider environment, their works of art and their sense of vibrancy and display.

The ability exists at Links of Noltland to walk between Neolithic and Bronze Age settlements and, potentially, on to an Iron Age broch (Queena Howe https://canmore.org.uk/site/2766/westray-queena-howe), taking in the entire prehistoric settlement of Orkney in a microcosm. Knowing the location of farms and fields, houses and cemeteries, allows the visitor to immerse themselves in the ancient landscape without any modern disturbance.

Folklore / Mythology

The prehistoric remains do not appear to have generated any stories or local folklore, possibly because it was completely buried and, therefore, unknown to subsequent populations. The expanse of sand provided an attractive location for burials in the Viking – Norse period, however, and this has generated local stories, mostly of the 'hidden treasure' kind. It may be that the uncovering of burials due to wind erosion in the late 1600's gave rise to these stories. Certainly the pagan Viking burials contained a wealth of grave goods, from horses and dogs to weaponry and jewellery. In regard to place-name, Noltland' means 'cattle land' which is an interesting coincidence – Nolt = black cattle/ox and also Nowt = 'luxuriant grass'

2.4 Architectural and artistic values

The number and variety of buildings at Links of Noltland and the duration of settlement here provide the opportunity to examine the evolution of building styles through the prehistoric period and to investigate questions of resource management, adaptation to environmental change, external influences and specialisation.

The buildings at Links of Noltland comprise of a variety of forms; no two are exactly alike. They illustrate broad trends in the evolution of the house form in Orkney from the Neolithic to the Early Iron Age periods. They are particularly important because they collectively constitute a long sequence which can be dated through stratigraphy, radiocarbon dating and by reference to artefact typologies.

The structures here benefit from group value – they are arranged in particular formations and have associations and relationships with other buildings and landscape features. They demonstrate a range of settlement types, from enclosed to unenclosed, isolated to paired etc.

Many of the buildings found at Links of Noltland exhibit a high degree of craftsmanship. This is illustrated in the preparation and execution of formal plans (many highly symmetrical, for example), their quality of masonry and their finishing with carefully chosen coloured stone and decorated and dressed stonework.

The artefact assemblages amply illustrate the artistic sensibilities of the inhabitants. The pottery assemblage, for example, includes a large number of decorated 'grooved ware' pots, with many motifs unique to this site. Designs include spirals and geometric motifs which are comparable with megalithic

tomb art. Other assemblages, such as the worked bone objects, further illustrate the range and vivacity of the Neolithic art style and draw a comparison with the more restricted and utilitarian Bronze Age styles.

2.5 Landscape and aesthetic values

The Links of Noltland retains a strong sense of place, a settlement clustered on the coast edge overlooking the Atlantic Ocean, far away from modern development and surrounded by farmland.

The landscape was changing throughout the time that people lived here, however, just as it continues to do today. At the time of the first settlers, it would have been possible to walk on dry land to the Knap of Howar settlement on Papa Westray; today this involves a 30 minute boat trip. The coastline of Orkney has undergone enormous change since the end of the last ice age and for a considerable part of this time, people lived here and had to find ways to adapt to these changes. Today, with climate change, erosion and rising sea levels, people continue to live and work here, finding new ways to adapt to the environmental challenges.

The ability exists at Links of Noltland to walk between Neolithic and Bronze Age settlements and, potentially, on to an Iron Age broch, taking in the entire prehistoric settlement of Orkney in a microcosm. Knowing the location of farms and fields, houses and cemeteries, allows the visitor to immerse themselves in the ancient landscape without any modern disturbance.

2.6 Natural heritage values

The Links of Noltland is a dynamic landscape, largely comprised of deflating sand dunes and planted marram grass. As a natural habitat, it predominantly supports rabbits, birds and voles as well as a basking beach for seals. The conservation measures being undertaken here have served to arrest habitat loss and to increase the diversity of wildlife.

2.7 Contemporary/use values

Archaeology and community benefit

The excavation results provide comprehensive insights into how life was lived at the Links site - from the intimate detail of the house interiors, complete with bed recesses, dressers, fireplaces and plumbing, to the paved 'streets' winding between settlements which give the impression of a close knit community and the 'stepping stones' which gave access onto midden heaps and wet areas. The challenge is to find sustainable ways to capture and make available this experience within available resources.

There is a growing recognition on Westray of the value of the archaeology for economic purposes and especially tourism. Conversely, the archaeology profession is now much more aware of the various communities of interest which have a stake in their work. Throughout the period of archaeological fieldwork, the site has been opened to the public and has attracted considerable attention, both in the local, national and international media and has been the prime visitor attraction on Westray throughout the summer. Major discoveries, such as the Westray Wife and Bronze Age 'sauna' building, have individually raised visitor numbers to the island significantly. The concomitant boost to the local economy has also been documented. The project has been very well supported by the Westray community and the site is regarded as a key local asset. A frequently asked question, however, concerns the longer term project legacy: how can visitor numbers be sustained when the excavation programme comes to an end and, more generally, how can the benefits to the local community be built on and extended for the future.

In late 2017 a group came together from the Westray community to investigate how best the island could assist with the promotion and future development of the site. This group includes representatives of the Westray Development Trust, the Westray Golf Club (adjacent to the site), the Westray and Papa Westray Tourist Association, the Westray Heritage Trust and Westray Community Council. A questionnaire was compiled and sent to every household on the island to gather local opinion. The outcome was very positive, with the majority of respondents in favour of a permanent display at the site (94% of 166). The group has made formal representations to HES and hopes to work with HES in the future. Current information on this project can be found at: www.westraycommunity.co.uk/links-of-noltland-legacy-project .

Other contemporary uses

Outside of the excavation season, the Links of Noltland is visited predominantly by casual walkers and surfers on the bay. It lies behind one of the more attractive beaches on Westray and could, if developed, enhance the attractiveness of this area as a local amenity.

At present, the property in care area is fenced off and there is signage advising visitors not to enter parts of the area due to ongoing conservation measures. This is necessary as a short term measure to protect newly planted areas but tends to discourage visitors. There are currently limited interpretation graphic panels, site literature, signposts or local displays available outside of excavation season.

Education and corporate opportunities

Links of Noltland offers excellent opportunities for educational experiences, based on the surviving architectural remains and on the artefact assemblage. The local school has taken advantage of this and organises yearly activities on site while the excavations are underway.

Links of Noltland is a rare opportunity, one which has not been available for a generation or more, for HES to explore the sustainable conservation and management of an excavated prehistoric Orcadian site. It is an opportunity for HES to develop and demonstrate its grasp of best practice and place this within the context of a local community.

Spirituality

The discovery of the figurines at the site has sparked a wave of interest amongst self-styled 'Neopagans' and those with an interest in ancient goddess worship. This is discernible both by the interests of visitors to the excavation and the comments and writings on the subject which have appeared on the internet.

No research has yet been carried out on this subject.

3 Major gaps in understanding

The previous programme of excavation work undertaken by NMS has not yet been fully published nor the findings made available to researchers.

With regard to the current programme of work, it is too early to identify where the gaps in our archaeological understanding will lie, since analyses have yet to fully commence. This question will form part of the project research agenda, to be examined in detail as part of the specialist analyses.

In terms of chronological gaps, little is yet know about the transition from Mesolithic to Neolithic on Westray, or more generally in Orkney. To date, no evidence has been found at Links of Noltland to suggest a Mesolithic presence here. It is, therefore, unlikely that this gap can be filled through work at this site.

The link between the Links of Noltland Neolithic settlement and chambered tombs in the wider vicinity are not understood. There are two cairns located nearby, which may have been used by the local population. One stands on the hill to the W of the site (Iphs / The Lum Head chambered cairn https://canmore.org.uk/site/2769/westray-the-lum-head); the other is located between the sandy links area and Pierowall village (Pierowall Quarry cairn https://canmore.org.uk/site/2789/westray-pierowall-quarry). The latter cairn also produced artwork in the form of carved stones, which are unlike anything else yet found in Orkney. The possibility that this novel artwork may suggest an association with the settlement, which also has also produced unique artworks (figurines, spiral pottery decoration etc.) remains to be tested. It maybe that both manifestations can be related to a founder population with origins distinct from those of peoples in other parts of Orkney; this possibility is also suggested by genetic studies. Here again, there are gaps in our knowledge for which the potential exists at this site to investigate further.

The transition from Bronze Age to Iron Age is not well understood in Orkney. At Links of Noltland there are some remains of Early Iron Age date, although it is believed that there was a settlement shift around this time which saw the removal of the population to less sandy areas. There are Iron Age remains located on the coast nearby at Queena Howe and further remains of this period indicated in the vicinity of Noltland Castle and around Noltland Farm. It is likely that Pierowall, and more generally Westray, were centres of wealth during the Iron Age. A minimum of eight high status Iron Age settlements are known to have existed here, although none has yet been properly investigated. The question of how the farming settlements of the Bronze Age gave rise to such wealth remains untested and nor do we know what importance the superb natural harbour at Pierowall may have had to an Iron Age population for whom trade and travel was increasingly important. There exists at Links of Noltland the opportunity to pursue some or all of these questions through further investigation of the nearby site at Queena Howe. This site, which is badly affected by erosion, is likely to represent a direct link to the settlement at the Links.

In the wider hinterland there are probable Viking/Early Medieval burial monuments. Excavation on these sites would provide much complementary information to that being revealed at Links of Noltland, making it possible, for example, to track long term environmental and concomitant changes in agricultural practice into the historic period. As these sites are also actively eroding, work here would also help to recover valuable information before the remains are entirely lost to the sea. These sites offer considerable potential for future learning and hands on opportunities encompassing survey, excavation, post-excavation research and consolidation work.

4 Associated properties

The Neolithic settlement at Links of Noltland is broadly contemporary with the following settlements in Orkney: **Skara Brae**, **Knap of Howar**, Ness of Brodgar, Barnhouse, Stonehall, Crossiecrown, Rinyo and Pool.

The site also relates to the large number of contemporary ritual and ceremonial Neolithic sites in Historic Environment Scotland's care in Orkney (see for example the World Heritage Site and all the chambered cairns).

The Bronze Age – Early Iron Age settlement at Links of Noltland is broadly contemporary with Skaill (Deerness), Tofts Ness, Knowe of Skea.

The Bronze Age ritual building is broadly comparable with Liddle and Meur burnt mounds, but more closely comparable to Cruester (Bressay) and Tangwick (Eshaness) in Shetland.

Historic Environment Scotland also cares for a number of chronologically unrelated monuments on the same island of Westray: the nearby **Noltland Castle**, **Westside Church** and **Pierowall Church**.

5 Keywords

Neolithic, Late Neolithic, Bronze Age, Early Iron Age,

Settlement, houses, cemetery, field system, well, ritual building, sauna, enclosed settlement, unenclosed settlement, paired structures, ring ditch, subterranean, middens

Erosion, sand dunes, environmental change, deflation, stabilisation, grass planting, consolidation, conservation,

Grooved ware, figurines, Orkney Venus, Westray Wife, worked bone, flint, carved stone ball, eyebrow motif, carved stones, beaker pottery, agricultural tools, cow skulls, aurochs. red deer, whalebone, beads, pins, pendant, haematite.

Bibliography

Barclay, G J. (1996) Neolithic buildings in Scotland', in Darvill, T and Thomas, J, Neolithic houses in northwest Europe and beyond, Neolithic Studies Group seminar papers 1; Oxbow monograph 57. Oxford.

Barclay, G J. (2003) The Neolithic', in Edwards, K J and Ralston, I B M, Scotland after the Ice Age: environment, archaeology and history 8000BC - AD 1000. 2nd. Edinburgh. Page(s): 142, 148

Bayliss, A, Marshall, P, Richards, C, Whittle, A (2017) Islands of History: The Late Neolithic Timescape of Orkney. Antiquity vol 91, 1171- 1188.

Brend, A. (2010l) Links of Noltland, Westray, Orkney (Westray parish), geophysical survey', Discovery Excav Scot, New, vol. 11, 2010. Cathedral Communications Limited, Wiltshire, England. Page(s): 134-5

Clarke and Sharples, D V and N. (1985) Settlements and subsistance in the third millenium B.C.', in Renfrew, C, The prehistory of Orkney. Edinburgh. Page(s): 54, 58, 65, 67, 68, 72-7

Clarke, D V. (1978b) Links of Noltland. Grooved ware settlement', Discovery Excav Scot, 1978. Page(s): 18

Clarke, D V. (1979) Links of Nortland (Westray p). Grooved ware settlement', Discovery Excav Scot, 1979. Page(s): 77-8

Clarke, D V. (1980b) Links of Noltland (Westray p). Grooved ware settlement', Discovery Excav Scot, 1980. Page(s): 25

Clarke, D V. (1981b) Links of Noltland (Westray p). Grooved ware settlement', Discovery Excav Scot, 1981. Page(s): 25-6.

Clarke, D, Sheridan, A, Shepherd, A, Sharples, N, Armour-Chelu, M, Hamlet, L, Bronk Ramsay, C, Dunbar, E, Reimer, P, Marshall, P, Whittle, A (2017). The End of The World, or just 'Goodbye to all that' ? Contextualising the Red Deer Heap from Links of Noltland, Westray, within Late 3rd Millennium Cal BC Orkney', Proc Soc Antiq Scot, vol. 146, 2017. Page(s): 57 – 90.

Clarke, Hope and Wickham-Jones, D V, R and C (1977) Westray. Links of Noltland-Grooved ware settlement', Discovery Excav Scot, 1977. Page(s): 24-5

Clarke, Hope and Wickham-Jones, D V, R and C R (1978) The Links of Noltland', Curr Archaeol, vol. 6, 2, 1978, No. 61) April. Page(s): 44-6.

Dunwell, A J (1995) Links of Noltland, Westray (Westray parish), topographic and archaeological survey', Discovery Excav Scot, 1995. Page(s): 104

Fraser, S M, (2015) Mammals in Late Neolithic Orkney (with reference to mammal bone recovered from Links of Noltland, Westray). Unpublished Phd thesis, University of Edinburgh.

Fraser, S, Elsner, J, Hamilton, W D, Sayle, K L, Schlumbaum, A, & Bartosiewicz, L, (2017). Matrilines in Neolithic cattle from Orkney, Scotland reveals complex husbandry patterns of ancestry. Journal of Archaeological Science, 14, 46–54.

Gannon and Geddes, A and G. (2015) St Kilda: The Last and Outmost Isle. Edinburgh.

Gibson, J. (2008) Rising tides: the loss of coastal heritage in Orkney. Page(s): 51-2 RCAHMS Shelf Number: D.9.1.ALL

Hamlet, L E, (2014) Anthropic Sediments and the Scottish North Atlantic Seaboard: Nature, Versatility and Value of Midden. Unpublished PhD thesis, University of Stirling.

Kinnes, I. (1987) Circumstances not context: the Neolithic of Scotland as seen from outside', Proc Soc Antiq Scot, vol. 115, 1985. Page(s): 28, 30

Lynn and Bell, D and B. (1990) Survey of broch sites on Westray', Discovery Excav Scot, 1990. Page(s): 45

Marshall, P, Clarke, D, Sheridan, A, Shepherd, A, Sharples, N, Armour-Chelu, M, Hamlet, L, Bronk Ramsey, C, Dunbar, E, Reimer, P, Whittle, A (2016) Links of Noltland, Westray, Orkney: Radiocarbon Dating and Chronological Modelling. Historic England Research Report Series No. 39 – 2016.

McCormick and Buckland, F and P C. (2003) Faunal change: the vertebrate fauna', in Edwards, K J and Ralston, I B M, Scotland after the Ice Age: environment, archaeology and history 8000BC - AD 1000. 2nd. Edinburgh. Page(s): 91

Moore and Wilson, H and G. (1998a) Orkney Coastal Survey 1998, Westray, Papa Westray, Mainland', Discovery Excav Scot, 1998. Page(s): 69

Moore and Wilson, H and G. (2000e) Links of Noltland, Westray, Orkney (Westray parish), prehistoric settlement, burial', Discovery Excav Scot, vol. 1, 2000. Page(s): 69

Moore and Wilson, H and G. (2006e) Links of Noltland, Orkney (Westray parish), archaeological survey and assessment', Discovery Excav Scot, vol. 7, 2006. Dorchester. Page(s): 127

Moore and Wilson, H and G. (2007b) Links of Noltland, Orkney (West Wray parish), rescue excavation', Discovery Excav Scot, vol. 8, 2007. Cathedral Communications Limited, Wiltshire, England. Page(s): 149

Moore and Wilson, H and G. (2007c) Links of Noltland Bronze Age Houses, Orkney (West Wray parish), excavation', Discovery Excav Scot, vol. 8, 2007. Cathedral Communications Limited, Wiltshire, England. Page(s): 149

Moore and Wilson, H and G. (2008b) Links of Noltland, Orkney (Westray parish), excavation', Discovery Excav Scot, New, vol. 9, 2008. Cathedral Communications Limited, Wiltshire, England. Page(s): 138

Moore and Wilson, H and G. (2009b) Links of Noltland, Orkney (Westray parish), excavation, survey and trial trenching', Discovery Excav Scot, New, vol. 10, 2009. Cathedral Communications Limited, Wiltshire, England. Page(s): 142-143

Moore and Wilson, H and G. (2010a) Links of Noltland, Orkney (Westray parish), excavation', Discovery Excav Scot, New, vol. 11, 2010. Cathedral Communications Limited, Wiltshire, England. Page(s): 134

Moore and Wilson, H and G. (2009) Shifting sands: Links of Noltland, Westray: Interim report on Neolithic and Bronze Age excavations, 2007-09, Archaeology report No 4. Edinburgh. RCAHMS Shelf Number: E.7.11.LIN

Moore and Wilson, H and G. (2011) Links of Noltland, Orkney (Westray parish), excavation', Discovery Excav Scot, New, vol. 12, 2011. Cathedral Communications Limited, Wiltshire, England. Page(s): 142

Moore and Wilson, H and G. (2015) Orkney, Links of Noltland, Excavation, Discovery Excav Scot, New, vol. 15, 2014. Cathedral Communications Limited, Wiltshire, England. Page(s): 154

Moore and Wilson, H and G. (2015) Orkney, Links of Noltland, Watching brief, evaluation and excavation, Discovery Excav Scot, New, vol. 15, 2014. Cathedral Communications Limited, Wiltshire, England. Page(s): 154-155

Moore, Wilson and Barrett, H, G and J. (2001) Links of Noltland, Orkney (Westray parish), survey; assessment', Discovery Excav Scot, vol. 2, 2001. Page(s): 73

RCAHMS. (1946) The Royal Commission on the Ancient and Historical Monuments of Scotland. Twelfth report with an inventory of the ancient monuments of Orkney and Shetland, 3v. Edinburgh. Page(s): 361, No.1081 RCAHMS Shelf Number: A.1.1.INV/12

RCAHMS. (1983c) The Royal Commission on the Ancient and Historical Monuments of Scotland. The archaeological sites and monuments of Papa

Westray and Westray, Orkney Islands Area, The archaeological sites and monuments of Scotland series no 19. Edinburgh. Page(s): 31-2, No.116 RCAHMS Shelf Number: A.1.2.ARC/19

Renfrew and Buteux, C and S. (1985) Radiocarbon dates from Orkney', in Renfrew, C, The prehistory of Orkney. Edinburgh. Page(s): 265

Saville, A. (1994b) A decorated Skaill knife from Skara Brae, Orkney', Proc Soc Antiq Scot, vol. 124, 1994. Page(s): 104

Sharples, N {M. (1985b) Individual and community: the changing role of megaliths in the Orcadian neolithic', Proc Prehist Soc, vol. 51, 1985. Page(s): 66

Tresset, A. (2000) Early husbandry in Atlantic areas. Animal introductions, diffusions of techniques and native acculturation at the North-Western fringe of Europe', in Henderson, J C, The prehistory and Early History of Atlantic Europe: papers from a session held at the European Association of Archaeologist fourth annual meeting in Goteborg 1998', BAR International Series 861. Oxford.

Wickham-Jones, C. (2012) Monuments of Orkney: a visitor's guide. Edinburgh. RCAHMS Shelf Number: D.9.1.WIC

Wilson, G. (2003) Assessment survey: Orkney coastal zone', in Dawson, T, Coastal archaeology and erosion in Scotland. Edinburgh. Page(s): 52