



HISTORIC  
ENVIRONMENT  
SCOTLAND

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ALBA

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Taken into State care:	1924 (Guardianship)
Last Reviewed:	2024

## STATEMENT OF SIGNIFICANCE

# SKARA BRAE



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Cover Image: Houses at Skara Brae, Orkney, with the storm blown coast in the background.

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# HISTORIC ENVIRONMENT SCOTLAND

## STATEMENT OF SIGNIFICANCE

### SKARA BRAE

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## PART A: HEART OF NEOLITHIC ORKNEY WORLD HERITAGE SITE

### Introduction

In 1999 the Heart of Neolithic Orkney World Heritage Site (HONO WHS) was inscribed on the World Heritage list. To be inscribed, a site must meet at least one of the criteria for the assessment of Outstanding Universal Value (OUV) as defined by UNESCO (United Nations Educational, Scientific and Cultural Organisation).<sup>1</sup> A fuller exposition of the OUV of the site and further information including the latest HONO WHS Management Plan is available from the HES website.<sup>2</sup>

This brief introduction sets Skara Brae, one of the four main sites that comprise the WHS, in the context of HONO WHS and outlines the justification for Inscription on the World Heritage List. It also draws out some of the contemporary social and economic values which are relevant to HONO WHS as a whole. The Historic Environment Scotland Assessment of Significance for Skara Brae which follows at Part B, while recognising the monument as an integral part of this wider landscape and cultural ensemble, focusses in on Skara Brae itself for a closer examination of its range of heritage values.

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<sup>1</sup> The process and language of Inscription is quite technical, and the Criteria are modified by UNESCO from time to time. This means that the documentation prepared at time of Inscription may not match exactly the most up to date versions of the Criteria, or WHS guidance.

<sup>2</sup> Management and Inscription documents for the HONO WHS can be accessed from the HES website: [Heart of Neolithic Orkney \(historicenvironment.scot\)](https://www.historicenvironment.scot) (accessed: 11 October 2022).



Figure 1: Map showing Heart of Neolithic Orkney World Heritage Site Buffer Zone. Image for illustrative purposes only.

## Skara Brae within the Heart of Neolithic Orkney World Heritage Site

Skara Brae, an exceptionally well-preserved Neolithic settlement site, is one of four main sites that comprise the WHS. The others are **Maeshowe**,<sup>3</sup> a large chambered cairn of passage tomb type, and the two major ceremonial sites at the **Ring of Brodgar** and the **Stones of Stenness** with other associated monuments. The boundaries of the designated WHS are tightly drawn and coincide with those of the Properties in Care managed by HES. Other sites in the immediate vicinity such as Barnhouse and the Ness of Brodgar contribute greatly to our understanding of the WHS and support its OUV but do not form part of the WHS as inscribed. The relationships between the main sites and the wider physical landscape form part of the OUV of the WHS.

A two-part buffer zone, centred on Skara Brae in the west and on the monuments in central west Mainland, acknowledges and protects these wider relationships. This fragile landscape is vulnerable to incremental change. Physical threats to the monuments include visitor footfall, climate emergency (leading principally to increased precipitation and storminess) and coastal erosion, the latter a critical issue for Skara Brae.

Together, Skara Brae, the **Stones of Stenness**, **Maeshowe**, the **Ring of Brodgar** and associated monuments that are part of the WHS demonstrate with exceptional completeness the domestic, ceremonial and burial practices of a now vanished 5,000-year-old culture.

### The justification for inscription of the Heart of Neolithic Orkney World Heritage Site against Outstanding Universal Value criteria

*Criterion (i): represent a masterpiece of human creative genius.*

- The major monuments of the Stones of Stenness, the Ring of Brodgar, the chambered [sic] tomb of Maeshowe, and the settlement of Skara Brae display the highest sophistication in architectural accomplishment; they are technologically ingenious and monumental masterpieces.

*Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.*

- The Heart of Neolithic Orkney exhibits an important interchange of human values during the development of the architecture of major ceremonial complexes in the British Isles, Ireland and north-west Europe.

*Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.*

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<sup>3</sup> Throughout the text, site names in **bold** are managed by Historic Environment Scotland and are publicly accessible. Access information can be found at: [www.historicenvironment.scot/visit-a-place/](http://www.historicenvironment.scot/visit-a-place/) (accessed 06 October 2022).

- Through the combination of ceremonial, funerary and domestic sites, the Heart of Neolithic Orkney bears a unique testimony to a cultural tradition which flourished between about 3000 BC and 2000 BC. The state of preservation of Skara Brae is without parallel amongst Neolithic settlement sites in northern Europe.

**Criterion (iv):** *be an outstanding example of a type of building or architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.*

- The Heart of Neolithic Orkney is an outstanding example of an architectural ensemble and archaeological landscape which illustrate a significant stage of human history, that is, when the first large ceremonial monuments were built.

### **Tests of authenticity and integrity**

All WHS must meet standards of integrity and sites inscribed for cultural heritage must also demonstrate authenticity. These are defined by UNESCO's *Operational Guidelines for the Implementation of the World Heritage Convention*<sup>4</sup> and are included in the Statement of Outstanding Universal Value for HONO. The Site includes all the attributes necessary to express its OUV. A buffer zone encompasses the wider landscape setting of the monuments which provides their essential context, and other monuments that support the OUV. The authenticity of the site is assessed as high with an exceptional state of preservation.<sup>5</sup> The long history of antiquarian interest in the sites means that the various components have been well recorded over a long time period and therefore there is evidence for many of the antiquarian and archaeological interventions at Skara Brae.

### **Other values (including contemporary, social and economic values) of the Heart of Neolithic World Heritage Site**

The HONO WHS has a range of values which are not necessarily related to its world heritage value, but have national, regional and local significance and contribute to the public benefit of the site.<sup>6</sup> These broad groupings of values include:

- Intangible
- Heritage Practice
- Biodiversity and Ecological

<sup>4</sup> The Guidelines are accessible online at: [UNESCO World Heritage Centre - The Operational Guidelines for the Implementation of the World Heritage Convention](#) (accessed: 3 October 2022).

<sup>5</sup> See HONO WHS Management Plan 2014–19, 65. A copy of this management plan can be downloaded from the HES website: [Heart of Neolithic Orkney WHS Management Plan 2014-2019 \(historicenvironment.scot\)](#) (accessed: 11 October 2022).

<sup>6</sup> For a full list of key values under each broad grouping see Appendix 6 in *Climate Risk Assessment for Heart of Neolithic Orkney World Heritage Property*, available to download from HES website: [Climate Risk Assessment for HONO WHS \(historicenvironment.scot\)](#) (accessed: 08 February 2023).

- Archaeological
- Economic
- Scenery/Landscape and Seascape (Aesthetics and Experience)
- Natural Systems
- Recreational

These values, as they particularly apply to Skara Brae are discussed in more detail in Part B of this document.

## PART B: SKARA BRAE STATEMENT OF SIGNIFICANCE<sup>7</sup>

### 1. SUMMARY

This document aims to present a holistic approach to support the definitions of cultural significance of Skara Brae as a Property in Care. It highlights the key features that make Skara Brae special by assessing it against six values that cover tangible as well as intangible heritage values. The most important aspects of significance for the site are summarised under *1.2 Statement of Significance* before each value is assessed individually under *2 Assessment of values*. The overall assessment is taking into account the ongoing development of our knowledge of the site. The Statement informs Historic Environment Scotland's conservation and management activity, provides the basis for interpreting the site and highlights areas where more research is needed.

As well as being a Property in Care, Skara Brae is protected through several other designations. Part A outlines its World Heritage designation, and it is also designated as a Scheduled Monument (SM 90276). All these designations consider different, though overlapping, aspects of cultural significance and highlight the importance of the site.

#### 1.1 Introduction

Skara Brae<sup>8</sup> is one of the best-preserved Neolithic settlements in western Europe, dating to between *3360–3160 cal BC* and *2545–2440 cal BC* (Bayesian-modelled date ranges).<sup>9</sup> Its near-complete domestic structures and interiors and the artefacts found within the settlement give unique insights into life over 4,500 years ago.

The site is located in the Mainland of Orkney (HY 23125 18745), 9.5km north-west of the town of Stromness, on the southern shores of the Bay of Skail, in an area of machair grassland.

Remnants of at least 28 structures have been discovered at the site, of which parts of 10 buildings and 4 passageways are visible to the present day.<sup>10</sup> Many of their walls, which are largely of drystone construction, survive to their assumed original height (below some form of superstructure for a presumed thatch or turf roof). As the

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<sup>7</sup> The greater part of this Statement was drafted by Caroline Wickham-Jones who sadly passed away before it was completed. Caroline was well known and respected in archaeological circles and generously shared her knowledge and love of Orkney, where she lived for many years. She was a great communicator and leaves a legacy in her many publications, blogs and the memories of everyone who heard her speak. She worked with HES on many occasions and her contributions to our Orkney guidebooks and other publications brought the sites to life for visitors, residents and readers alike. Her death, in February 2022, is a great loss to us all.

<sup>8</sup> Alternative names: Skerrabrae, Skea Brea. For further information see section 2.1.8 Nomenclature, and Canmore entry: [Skara Brae \(ID: 1663\) \(canmore.org.uk\)](https://canmore.org.uk/entry/1663) (accessed: 9 September 2022). The question of nomenclature is also discussed in Clarke and Shepherd forthcoming.

<sup>9</sup> Shepherd 2016; Bayliss *et al* 2017.

<sup>10</sup> A possible twenty were identified from Childe's work and a further eight from the 1972–3 excavations. Shepherd personal communication November 2021.

roofs of the structures have not survived, visitors are able to look down into the interiors of 9 of the 10 structures,<sup>11</sup> to see their well-preserved stone-built fixtures and furniture.

Skara Brae was discovered in 1850<sup>12</sup> after a serious storm eroded away sand that had previously covered it. The area was then investigated by the landowner's family and interested antiquaries, and the importance of the buried settlement was soon realised.<sup>13</sup> Initially the site was interpreted as 'Pictish' and therefore belonging to the Iron Age;<sup>14</sup> it was only when pottery found at the site was recognised as being comparable to Neolithic pottery found elsewhere that the dating of the site was revised.<sup>15</sup>

The site was taken into State care under a Guardianship Agreement in 1924; a sea wall was then constructed to protect the site from coastal erosion which remains a constant threat today. The site was further excavated, by J. Wilson Paterson, then by Vere Gordon Childe, and presented for public viewing from 1927 onwards. Subsequent excavation by David Clarke and Anna Ritchie in 1972–3 furthered the understanding and interpretation of the site.<sup>16</sup>

The site was originally Scheduled in 1928 and the Schedule was last amended in 2004.<sup>17</sup> In 1999 Skara Brae was inscribed as a component of the Heart of Neolithic Orkney World Heritage Site (HONO).<sup>18</sup>

Considerable change has taken place in both visitor management and interpretation since Skara Brae was first formally opened to the public. This is partly as a result of

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<sup>11</sup> House 7 is now covered over with a grass roof to protect it, and its interior is therefore not visible to visitors. As part of Scottish 10, a detailed digital scan was made of Skara Brae and a tour of the interior of House 7 can be watched on YouTube: [Skara Brae: Inside House 7 \(youtube.com\)](https://www.youtube.com/watch?v=Skara_Brae_Inside_House_7), the 3D model is available to view on Sketchfab: [Skara Brae, House 7 - 3D model \(sketchfab.com\)](https://sketchfab.com/3D-models/Skara_Brae_House_7) (both accessed 7 September 2022).

<sup>12</sup> Dr Ernest Marwick wrote in an article in *The Orcadian* newspaper in 1967 that the idea that Skara Brae was unknown until it was uncovered by the storm of 1850 was 'a complete fiction'. He argued that James Robertson wrote about Skara Brae in his *Observations made in a Tour of the islands of Orkney and Shetland* in the year 1769 when he described square catacombs in the Downs of Skail and said that in one a skeleton was found with a sword in one hand and a Danish axe in the other. Contradicting Marwick, Sigurd Towrie, argued that this most likely referred to the Bronze Age cists encountered on the slopes of Sandfield, to the east of the Bay of Skail rather than Skara Brae (Towrie, S. 2021b, [Skara Brae \(nessofbrodgar.co.uk\)](https://www.nessofbrodgar.co.uk), footnote 3 (accessed: 19 December 2022)). However, as one of the cists describes Viking grave goods, it is still debated if this refers to Bronze Age cists (A. Sheridan personal communications). Nevertheless, it is still very possible that Skara Brae was first discovered in 1850. For a detailed description on the discovery and initial reporting of it, see Shepherd 2016, 215–16.

<sup>13</sup> Petrie 1867.

<sup>14</sup> Petrie 1867; compare Childe 1931.

<sup>15</sup> Piggott 1954. While Stuart Piggott recognised the Skara Brae pottery as belonging to what he termed 'Grooved ware' as early as 1936, he thought at the time that that ceramic tradition dated to the Early Bronze Age. By the time he published his *Neolithic Cultures of the British Isles* in 1954, however, he had realised that it dates to the Neolithic.

<sup>16</sup> Childe and Paterson 1929, Childe 1930, Childe 1931, Childe *et al* 1931, Clarke 1976a and Clarke 1976b.

<sup>17</sup> SM 90276; scheduling documents are accessible at:

<https://portal.historicenvironment.scot/designation/SM90276> (accessed 7 September 2022).

<sup>18</sup> Entry in the World Heritage List accessible at: [UNESCO - Heart of Neolithic Orkney \(whc.unesco.org\)](https://whc.unesco.org/en/whl/entry/109) (accessed 7 September 2022).

developing understandings, and partly to mitigate the pressures of increasing footfall on the fragile remains as well as providing better accessibility.

The site is open most of the year and attracts over 100,000 ticketed visitors annually.<sup>19</sup> A capacity management system is now in place and visitors are advised to pre-book their visit. Currently (2023) the site is approached through a Visitor Centre containing an orientation film and small exhibition. Visitors may then enter a scale replica of House 7, the best-preserved house, before making their way to the site itself some 350m from the Visitor Centre. The replica house allows the public to experience the interior of a Skara Brae house since, to help preserve the site, general access to the buildings is not permitted. Along the path to the site are stone markers featuring dates of well-known events and time periods from the past counting down to the Neolithic and conveying a sense of the antiquity of the site. On site, visitors are asked to remain on a walkway which leads them around the remains. While daily numbers are too high to allow visitors to enter the houses, occasionally evening guided tours are offered by HES that offer a more detailed experience for a small number of visitors.<sup>20</sup> Parking is available at the Visitor Centre and there is a shop and a small café.<sup>21</sup>

## 1.2 Statement of Significance

The group of sites that make up the HONO WHS are unquestionably among the most important Neolithic sites in Western Europe: together they provide exceptional evidence of the material contexts and social structures of this dynamic period of prehistory. Within this grouping, Skara Brae provides evidence of Neolithic domestic surroundings and lifeways through retained spaces, recovered artefacts and ecofacts (biological artefacts not altered by humans, but which may be indicative of human occupation) for a community of Neolithic people, principally dating to the first half of the third millennium BC. As well as being an important evidential resource, the experience offered by Skara Brae is truly exceptional in terms of allowing modern visitors to make connections with this very remote past in the context of near-complete relatable domestic structures, in contrast to the perhaps more enigmatic contemporary ceremonial sites.

Elsewhere across Orkney, other Neolithic settlements have been recorded and some excavated, though none of these is presented as well as Skara Brae or is as accessible to the public. To the south, in mainland Scotland and across the rest of the UK, traces of Neolithic settlement are rare and, with the exception of Shetland, usually confined to the ephemeral vestiges of timber structures. In this way Skara Brae remains a key resource for research and understanding of the Neolithic in the British Isles.

Of the remnants of 28 buildings that have been identified at Skara Brae, 10 are sufficiently preserved to allow interpretation as dwelling houses because of the range

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<sup>19</sup> Based on pre-pandemic visitor numbers. In 2019–20 visitor numbers reached nearly 114,000. Figures courtesy of Historic Environment Scotland (HES).

<sup>20</sup> These tours are not always available and will be advertised in advance when they occur.

<sup>21</sup> Visitors are advised to check access information, available at: [Visit a place - Skara Brae \(historicenvironment.scot\)](https://www.historicenvironment.scot/visit-a-place/skara-brae) (accessed: 10 August 2022).

of material culture found within and, in some prominent instances, the presence of apparently domestic furnishings such as bed-places and recessed shelves. Other structures (as for example 'Structure' 8 and House 14)<sup>22</sup> are identified as possible workshops rather than dwelling. While there are similarities in the layout of most of the houses, there are also distinct differences, not least in the shape and size of the internal space. This may reflect a change over time.<sup>23</sup>

The settlement was active for several centuries over the late fourth and early to mid-third millennia, albeit not continuously: an early phase of activity, associated with pottery that is likely to have been round-based, has been identified, dating to some time between c 3360 and 3160 cal BC; this has been designated by Clarke and Shepherd as 'Phase 0'.<sup>24</sup> An initial phase of Grooved Ware-associated occupation, 'Phase 1', has been dated to between 2920–2850 cal BC and 2870–2760 cal BC, and a second phase of Grooved Ware-associated activity, 'Phase 2', has been dated to between 2840–2685 cal BC and 2545–2440 cal BC.<sup>25</sup>

A combination of waterlogged conditions in part of the site and the generally alkaline microenvironment of the local shell sands means that a remarkable range of artefactual and organic material has been preserved in the houses and associated occupation deposits. Overall, the site affords an unusually detailed (if atypical) picture of life among the early farming communities of the north of Britain.

At the time the site was first inhabited the coast lay roughly half a kilometre away to the west. Today, because of coastal erosion, the site lies right at the edge of the shore and while it is protected by a sea wall it is vulnerable to ongoing erosion. In 1924 a severe storm resulted in the destruction of what was left of one of the houses (House 3, already damaged by one or more previous storm), and it is impossible to tell how much of the settlement had already been lost to the sea. On the landward side, geophysics suggest the presence of further surviving structures which warrant investigation.<sup>26</sup> The potential for Skara Brae to elucidate further detail of life in the Neolithic is extremely high. It also holds considerable potential as a resource to study past landscape change<sup>27</sup> and human adaptation and, in the future, will be a case study for heritage management in response to acute issues resulting from the climate emergency and coastal erosion.

Skara Brae is a flagship site for the display and interpretation of the archaeology of Orkney. It is an important stop for most who visit Orkney, whether they come for the day or for longer. Modern visitors are afforded a vivid and thought-provoking glimpse of a way of life in the distant past. Although the site is popular and can be crowded, few people will leave without also reflecting on contemporary life and our own issues and solutions. Skara Brae attracts a wide variety of visitors, including those who may not have a pre-existing interest in archaeology, yet it has the unique ability to provide

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<sup>22</sup> Recent analysis suggests Structure 8 may be later than the other structures (Clarke and Shepherd forthcoming). House 14 was one of the structures identified during Clarke's 1972–3 excavations and cannot be seen today.

<sup>23</sup> Clarke 2012, 15.

<sup>24</sup> Shepherd 2016.

<sup>25</sup> Shepherd 2016; Bayliss *et al* 2017.

<sup>26</sup> Brend *et al* 2020, 47–52.

<sup>27</sup> Brend *et al.* 2020, 61–66.

an excellent opportunity to enthuse and engage newcomers. The Visitor Centre and replica house provide a good basis from which to develop this.

Key aspects of the site's significance include the following:

- Well-preserved Neolithic masonry that provides a clear demonstration of aspects of architecture and domestic life in the first half of the third millennium BC. Skara Brae is one of the best-preserved examples of a Neolithic village currently known in north-west Europe. Moreover, the use of natural materials including turf and clay, together with ash and other domestic waste for constructional and insulating material, makes Skara Brae a model of sustainable architecture, providing inspiration for modern architects.
- The co-existence of several structures offers an extraordinary glimpse of social cohesion and organisation over the life of the settlement. Like Barnhouse and **Links of Noltland**,<sup>28</sup> it is a nucleated settlement, standing in contrast to the more dispersed settlements of the fourth millennium in Orkney. Unlike Barnhouse and **Links of Noltland**, the houses of the Phase 2 'village' are very close together and connected by passageways – a unique feature.
- A rich material culture that provides an unusually detailed picture of everyday life in the Late Neolithic including many artefacts and materials that are rare or unknown elsewhere. Examples include a wooden handle and spatulae, whalebone pots, pigments, puffballs (for wound staunching), and rope made of crowberry stems.
- The high likelihood of further, currently uninvestigated, stratified remains to the landward side of the site, as revealed by geophysical survey,<sup>29</sup> offers considerable potential for the elucidation of more detail as archaeological techniques develop in future.
- The local history of dynamic landscape evolution, including the period of sand accumulation that marked the temporary abandonment of the settlement around 2800 BC, means that the site provides an excellent opportunity to study the ways in which the community were able to respond and adapt to their changing circumstances.
- Skara Brae's links to the well-known broadly contemporary sites of **Maeshowe**, **the Ring of Brodgar**, **the Standing Stones of Stenness**, and the Ness of Brodgar help to create an unusually complete understanding of the varied aspects of Neolithic life in Orkney over and above the detail of everyday existence. The Grooved Ware-using occupants of Skara Brae participated in the ceremonies, social life and ritual practices of other communities in Late Neolithic Orkney at a time when certain individuals were undertaking long-distance journeys; when many other people were coming to visit the monuments and festivities in west central Mainland, and when not everyone was equal. In other words, the occupants of Skara Brae were part of

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<sup>28</sup> Throughout the text, site names in **bold** are managed by Historic Environment Scotland and are publicly accessible. Access information can be found at: [www.historicenvironment.scot/visit-a-place/](http://www.historicenvironment.scot/visit-a-place/) (accessed 06 October 2022).

<sup>29</sup> Brend *et al* 2020.

a dynamic, socially-differentiated society, and the artefacts arguably reflect this. Given the range of ostentatious jewellery/ornaments and dress accessories (with chunky beads and pendants made from a range of materials including whalebone and sperm whale ivory, and large dress pins) and 'special' carved stone artefacts at Skara Brae – frequently interpreted as symbols of power – it is possible that its occupants were members of an important lineage or other kind of group in socially-differentiated Late Neolithic Orcadian society.

- Recent research has prompted speculation that some people in Late Neolithic Orkney enjoyed long-distance connections with other communities in different parts of Britain and Ireland, with certain privileged individuals from Orkney visiting the major passage tombs of the Boyne Valley in Ireland, and people from far and wide in Britain and Ireland visiting Orkney to see its impressive monuments and participate in seasonal (especially midwinter) ceremonies there. This latter movement is reflected in the rapid southwards spread of Grooved Ware use, including in the area around Stonehenge.<sup>30</sup> These add to the significance of the understandings to be gained from sites such as Skara Brae and provide clear evidence for an appreciation of the wider world at the time.
- The Grooved Ware pottery from Skara Brae has featured in discussions of this Late Neolithic pottery tradition, found from Orkney down to Cornwall and from Essex to south-west Ireland, and Skara Brae has been discussed in terms of the nationwide processes of social change associated with the appearance, spread and development of Grooved Ware pottery along with other novelties.<sup>31</sup>
- Skara Brae is a significant interpretational resource as well as a research resource. Most visitors readily identify with the personal experience of domestic life in the Neolithic that is visible at the site. It is relatively easy to 'place oneself' into the daily life on display at the site and imagine how common everyday needs might be fulfilled. Given the rarity of well-preserved dwellings from the period this makes Skara Brae highly unusual.
- Skara Brae is known throughout the world and has become an iconic Neolithic site, featuring in every textbook on Scottish prehistory, in the Scottish school curriculum, and in most tourism brochures promoting Scotland as a tourist destination. It has also inspired many works of art, including jewellery, and has contributed significantly to the Orkney GDP over the years. Its 'reach' and impact are thus very extensive and cross-sectoral.
- The role of Skara Brae in Late Neolithic Orkney is currently being re-assessed in the light of the major discoveries at the Ness of Brodgar and of the HES-funded excavations at **Links of Noltland**, as well as in the light of recently-discovered evidence for 4th millennium settlements (for example at the

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<sup>30</sup> As discussed, for example, in Parker Pearson 2020, 315; see also Copper *et al* 2024 for examples of the spread of Grooved Ware.

<sup>31</sup> For example, Thomas 2010; Parker Pearson 2020.



ceremonial structures, and chambered cairns which together provide an unusually comprehensive view of Orkney life in the Neolithic.

Skara Brae is one of several Late Neolithic settlements to have been excavated in Orkney, others include Barnhouse, **Links of Noltland**, Rinyo and Pool; the Ness of Brodgar, with its extraordinarily large ‘houses’,<sup>33</sup> may well have been a special kind of settlement, predominantly used to accommodate visitors from far and wide (at least for part of its existence).<sup>34</sup> These settlements vary in their architecture, with a so-called ‘double house’ being known from Barnhouse,<sup>35</sup> and very large ‘ceremonial’ structures for communal use being found at Barnhouse, **Links of Noltland** and the Ness of Brodgar.<sup>36</sup> The so-called ‘workshop’ at Skara Brae (‘Structure 8’) has already been mentioned, but as noted above, there is some doubt as to whether it is Late Neolithic; it could be Early Bronze Age.<sup>37</sup>

### 2.1.1 Site and location

The Neolithic settlement of Skara Brae is situated on the southern edge of the Bay of Skail on the west coast of Mainland Orkney. Due to coastal erosion the settlement is now on the shore, but it was possibly built about 500m back from the sea and could have been set on a ridge between two freshwater lochs,<sup>38</sup> in a landscape of pastoral grazing land among remnant stands of wood- and scrub-land. This location offered access to a range of land and sea resources including fresh water, while the dune system gave some shelter from the coastal weather systems (although not from the ingress of sand, which remains an issue to this day).<sup>39</sup>

The size and shape of the bay have changed considerably over the centuries. Coastal erosion was already underway during the occupation of the village and once the dune system had disappeared the impact of sand blow and salt deposition increased, apparently making cultivation more difficult. Cereal cultivation seems to have ceased after the early, pre-Grooved Ware Phase 0 settlement.

Geophysical survey suggests that further structural remains may be preserved inland, immediately to the south of the known site, perhaps doubling the size of the settlement.<sup>40</sup> Other Neolithic activity is attested in other sites in the vicinity. A Late Neolithic butchery site separated by a wall from a deposit of articulated red deer bone was found approximately 100m to the west of Skara Brae, within the sand dunes in the Bay of Skail during a series of storms over the winter of 1992–3.<sup>41</sup>

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<sup>33</sup> Card *et al* 2020.

<sup>34</sup> Sheridan 2024.

<sup>35</sup> For example, House 2 at Barnhouse. Richards 2005.

<sup>36</sup> For example, House 8 at Barnhouse. Richards 2005.

<sup>37</sup> There is one other possible ‘workshop’, or outhouse used for drying, among the remnant structures excavated in 1972–73 (Shepherd personal communications).

<sup>38</sup> De la Vega-Leinert *et al* 2000.

<sup>39</sup> Bones of cattle, sheep/goat and pig, and grains of barley were found at Skara Brae. In addition to farming, the inhabitants would have gathered plant foods and hunted: a small amount of deer bones and antlers, small numbers of bird bones (usually made into awls) and eggshell fragments were found. Deer bones relate to less than 2% of the bones found, so it is likely that farming was far more important than hunting. There is also evidence of fishing as David Clarke found fish bones, which were mainly cod and saithe, fish that can be caught close to the shore. The numerous limpets found could have been used as bait (Clarke 2012, 36–7; Bishop 2013; Bishop *et al* 2022).

<sup>40</sup> Brend *et al* 2020, 42–52.

<sup>41</sup> Richards *et al* 2015.

Closer to the Loch of Skail, fieldwalking in 1984 yielded a low-density scatter of worked lithics that may, tentatively, be ascribed a Late Neolithic date.<sup>42</sup> Just over a kilometre to the north-east, the complex stone cist at Sand Field<sup>43</sup> appears to have been in use for several centuries from the Late Neolithic onwards<sup>44</sup> and at the northern end of the bay eroding Neolithic archaeology has been ascribed to a possible second settlement.<sup>45</sup> Further to the north, remains on the hill at Vestra Fiold<sup>46</sup> have been identified as a Neolithic stone quarry, a source of standing stones,<sup>47</sup> and there are also several chambered cairns in the area.<sup>48</sup> Most recently, in 2021 human remains were found at the Links of Skail, directly east of the Bay of Skail. Through radiocarbon dating it was confirmed that the burial dates to the Late Neolithic and took place while Skara Brae was in use. Further isotope and DNA analysis is ongoing.<sup>49</sup>



Figure 3: Aerial view of settlement showing site with modern footpaths and seawall © Historic Environment Scotland.

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<sup>42</sup> Richards 1985, 14.

<sup>43</sup> Canmore ID 1689: [Sand Field \(ID: 1689\) \(canmore.org.uk\)](https://canmore.org.uk/entry/1689) (accessed 23 November 2022).

<sup>44</sup> Dalland 1999.

<sup>45</sup> Towrie 2021a.

<sup>46</sup> Canmore ID 1923: [Vestrafjeld - Stone Quarry \(ID: 1923\) \(canmore.org.uk\)](https://canmore.org.uk/entry/1923) (accessed 23 November 2022).

<sup>47</sup> See Richards *et al* 2013.

<sup>48</sup> For example, Canmore ID 1898: [Vestra Fiold - Chambered Cairn \(ID: 1898\) \(canmore.org.uk\)](https://canmore.org.uk/entry/1898) (accessed 23 November 2022); see Richards *et al* 2013.

<sup>49</sup> Wilson *et al* forthcoming.

### 2.1.2 Historical overview – occupation, discovery and consolidation

*A full description of the history of excavation and archaeological studies at Skara Brae is given at Appendix 4.*

Skara Brae was occupied at various times – not continuously – from the late fourth millennium to the mid-third millennium BC (with sporadic activity after that). Recent Bayesian modelling of radiocarbon dates has indicated that while occupation on the site started at some time between 3360 and 3160 cal BC (with the inhabitants using pottery that was probably round-based: Phase 0), the earliest houses that survive today (Phase 1) were constructed in the early third millennium BC (from 2920–2885 cal BC).<sup>50</sup> After less than a century of occupation – possibly as short a period as 50 years, that means two generations – the settlement seems to have been abandoned (probably as a result of inundation by sand), around 2870–2760 cal BC. It was then reoccupied, with new houses being built and some old houses being remodelled (early House 7, for example), within the time frame of 2840–2685 cal BC and remained in use until 2545–2440 cal BC. After its abandonment, there are hints of ‘squatting’-like activity at various times including the Iron Age (as demonstrated by, amongst other things, a horse tooth bead radiocarbon dated to 170 cal BC–cal AD 10, SUERC-40339, 2060±30 BP).<sup>51</sup> Activity after the settlement’s abandonment also included the deposition of human remains at various times, with some of the disarticulated bones found during the nineteenth century having recently been radiocarbon dated (for Whittle and Bayliss’ *The Times of Their Lives* project and for Rick Schulting) to the late third to early second millennium BC – the time when Beaker pottery was in use in Orkney.<sup>52</sup>

In 1850, after a fierce storm removed some sand and dune covering, part of the site was revealed for the first time. In the nineteenth and early twentieth centuries it was investigated by the local landowners, the Watt family, and by a number of antiquaries, some local, others (Farrer, Boyd Dawkins and Balfour Stewart) not.<sup>53</sup> Reports of some of these investigations are to be found in the *Proceedings of the Society of Antiquaries of Scotland*.<sup>54</sup> The site was taken into State care under a Guardianship Agreement in 1924, after which further storm damage resulted in more erosion. In 1925 work started on a sea wall to protect the site. Excavation and

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<sup>50</sup> Bayliss *et al* 2017. See Shepherd 2016 for details of the settlement and its changes, and for the modelled date for Phase 0 occupation.

<sup>51</sup> Sheridan *et al* 2012a.

<sup>52</sup> Sheridan *et al* 2018a. Note that the calibrated date cited by Antonia Thomas (2016, 93–4) must be a weighted mean of the two statistically different dates obtained for a femur, NMS X.HA 142: 2470–2200 cal BC (OxA-30794, 3866±35 BP) and 2120–1880 cal BC (SUERC-55453, 3603±32 BP). Bone from what may well be the contracted skeleton found in sand covering House 1 by William Watt has been dated, for Rick Schulting, to 2030–1780 cal BC (OxA-26685, 3579±27), while a skull, also found by Watt, has been dated to cal AD 540–640 (OxA-26686, 1487±24 BP) (Rick Schulting, personal communications).

<sup>53</sup> William Graham Watt (1776–1866), 7th Laird of Breckness, is usually given credit for excavating Skara Brae, however, it is more likely that his illegitimate son with Janet Inkster, also called William Watt, known as Black Willie (on account of his hair and complexion), was responsible for the excavation work. He lived at Skaill House and worked as a clerk and was a self-taught geologist. For more information see Patricia Long’s blog [A Skara Brae Whodunnit \(aboutorkney.com\)](http://aboutorkney.com) (accessed: 8 November 2022).

<sup>54</sup> For example: Petrie 1867; Traill 1868; Laing 1869; Stewart and Dawkins 1914. See Shepherd 2016, 215–16 for other relevant publications not published in the *Proceedings*. Some interventions were never mentioned in print.

clearance to consolidate the remains and present them for public viewing started in 1927, under a local contractor, J Wilson Paterson.<sup>55</sup>

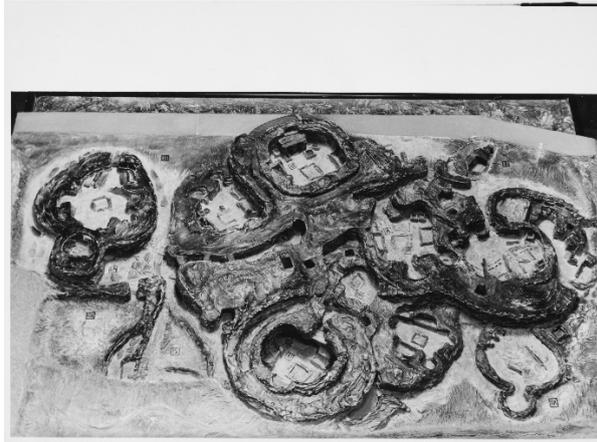


Figure 4: Photograph of a scale model showing clearance of the site c1929 (SC 2046990) © Crown Copyright HES.



Figure 5: Photograph of Prof. Childe (centre) surrounded by a group of local workers during excavations, taken in 1930. (SC 973449) © Courtesy of HES (Vere Gordon Childe Collection).

Skara Brae was scheduled in March 1928 and in the same year Gordon Childe, Abercromby Professor of Archaeology at the University of Edinburgh, was contracted to oversee and record the process.<sup>56</sup> The excavation was his first excavation in Scotland and his team consisted of local labourers and also female archaeologists, among them Margaret Simpson who studied archaeology under Gordon Childe at the time and who became the first professional female archaeologist in Scotland in 1930.<sup>57</sup> In 1972–3 further archaeological excavation took place on the site, co-directed by David Clarke and Anna Ritchie, under the auspices of the predecessor bodies to National Museums Scotland and Historic Environment Scotland, principally to obtain the dating evidence and ecofactual material not recovered by Childe.<sup>58</sup> Since then, small-scale investigations have focussed on eroding archaeological deposits immediately outside the village proper.<sup>59</sup>

Skara Brae continues to be threatened by erosion and the climate emergency. Work to extend and consolidate the sea wall was first undertaken in 1963 with further repair work in subsequent years. The latest repair works were completed in 2011. The situation remains under constant review and a digital monitoring programme is in place. The existing sea defence continues to fulfil its function of protecting the site;

<sup>55</sup> Childe and Paterson 1929.

<sup>56</sup> Childe 1931.

<sup>57</sup> Breeze *et al* 2019, 113. Throughout the twentieth century it was not widely recognised that women participated in the early excavation of Skara Brae. Most likely because women's participation is not as clearly recorded at Skara Brae as it is at other excavations overseen by Childe (for example the excavation of the chambered cairn at Kindrochat in Perthshire in 1929). Four women were tentatively identified in archival photographs as Margaret Simpson who gets acknowledgement in Gordon Childe's monograph; the second is probably Margaret Mitchell who was the only student to complete her PhD with Childe; the third is probably Mary Kathleen Kennedy and the fourth is thought to be Dame Margaret Cole. (See the BBC article by H. Williams, [Skara Brae women archaeologists who were written out of history \(bbc.co.uk\)](https://www.bbc.com/news/scotland-50784449), published 21 March 2019 (accessed: 03 October 2023).)

<sup>58</sup> Clarke 1976a.

<sup>59</sup> Barrett *et al* 1994; Richards *et al* 2015.

but the sea wall is continuously being undermined as the beach levels are dropping and a phased programme of sea wall toe enhancement is in place to address this. It is recognised that because of the climate emergency coastal erosion, flooding and erosion-related flooding, mainly caused via wave and spray rather than inundation, remain key risks to Skara Brae and the Bay of Skail.



Figure 6: Waves crashing against the sea wall, showing the vulnerability of Skara Brae structures to storm damage. © Historic Environment Scotland.



Figure 7: Overview illustration of site with houses and passages annotated. © Historic Environment Scotland.

### 2.1.3 Structures

See Appendix 3 for a full description of individual structures.

The excavated remains of Skara Brae, as currently presented, consist of a tightly clustered grouping of stone-built structures connected by narrow passageways. The passageways are identified by letters (Passage A, B, C etc) and the structures by numbers (House 1, 2, 3, 4 etc) as shown on the plan, Figure 7. The structures, many of which are interpreted as houses, have internal fittings of stone. There were two main phases of building and occupation in the development of the settlement, with a gap relating to the probable abandonment of the settlement due to inundation by sand.<sup>60</sup> Individual buildings were, at first, freestanding, with open passageways between them. Some of the passageways of Phase 2 (A-C) were subsequently roofed over, creating the passages visible today. The roofing slabs were covered with clay and turf (acting as insulation and protection from bad weather and storms),

<sup>60</sup> Childe recognised four phases of activity on the site (Childe 1931), later simplified into two by Clarke (Clarke 1976a). Most recently, Shepherd has sub-divided each into Early, Middle, and Late sub-phases and added an earlier phase: Phase 0, to accommodate the evidence for local activity that predates the Grooved Ware-associated settlement (Shepherd 2016, 216, Thomas 2016, 93–94). This was a living village, subject to a process of change and redevelopment as the needs of the community, and the circumstances, altered. (The inundation by sand around 2800 BC constituted a hiatus in occupation, followed by rebuilding and fresh building.)

on which debris eventually accumulated. It is unclear precisely when this accumulation took place; much, if not most of it, could have occurred after the abandonment of the settlement.<sup>61</sup>



Figure 8: View of House 5 showing some of the typical furnishings as well as intramural cells. © Crown Copyright HES.

The structures at Skara Brae are built of double-skinned stone walling which is largely of drystone construction. The cavity between the two skins is packed with varied amalgams of clay, sand, ash, and refuse material; this served as insulation and aided stabilisation of the building. In addition, clay, probably from local sources, was used to clad the outer walls of many of the buildings.<sup>62</sup> Each of the extant structures contains at least one, and up to four, intramural cells (carefully built corbelled recesses, set within the walls of the structure), and a complex system of well-built drains underlies the later buildings, in some cases directly sited under the cells. While the internal dimensions and precise details of the structures vary, the furnishings (interpreted as hearths, beds and ‘dressers’) are built of thin stone slabs and show considerable uniformity in layout. Overall, the building style conforms to what must have been an accepted pattern of stoneworking at the time. A similar (and

<sup>61</sup> Shepherd 2016, 217–18.

<sup>62</sup> Shepherd 2016; on the use of clay and other natural materials, see also the current HES-funded [Traditional Earth Mortars Research Project \(arc-architects.com\)](https://www.arc-architects.com) (accessed: 21 August 2023) by Tom Morton and Rebecca Little, Arc Architects.

higher) quality of stoneworking has been found at other Late Neolithic Orcadian sites, most notably the Ness of Brodgar<sup>63</sup> and **Maeshowe**.

As well as the houses, one building (Structure 8 on Figure 7) – set apart from the rest of the settlement, free-standing– has been identified as a workshop.<sup>64</sup> However, its use and age are still debated and there is a chance that it may be of post-Late Neolithic date. Although it has a central hearth, like the houses, it does not have their slab-built fittings of ‘dresser’ or bed. A neighbouring open, rectangular paved area was dubbed ‘the Market Place’ by Childe, though its function is not established.

The interiors of nine structures are currently visible from the visitor footpath which encircles the site: eight houses and one workshop. These, together with the passages between them, and the currently roofed House 7, are described in detail in Appendix 3.

#### **2.1.4 Material culture/finds**

Skara Brae has been investigated on many different occasions since the site was first revealed in 1850 and the techniques employed have developed over the years with a concomitant impact on finds recovery. While the earlier work yielded fewer, larger objects, and much of the pottery that was found during the 1920s operations seems to have been discarded,<sup>65</sup> David Clarke and Anna Ritchie’s later, research-orientated excavations in 1972–3 resulted in rich collections of artefactual and ecofactual material, some of which are still undergoing analysis.<sup>66</sup> In addition to the post-excavation work that was commissioned in association with Clarke and Ritchie’s excavations, there has been a great deal of subsequent research, some of it undertaken using high-tech approaches, such as lipid analysis of pottery<sup>67</sup> and CT scanning of coprolites (fossilised dung)(mostly dog coprolites).<sup>68</sup>

Skara Brae is significant for its material culture, which includes its structural remains as well as its many other archaeological artefacts. In addition to a wide range of flaked stone tools of flint and chert, the site is known for artefacts of coarse stone, in particular Skaill knives,<sup>69</sup> and for a well-preserved assemblage of Neolithic pottery, often decorated, known as Grooved Ware.<sup>70</sup> Organic finds include a comprehensive range of worked bone including pins, beads, small tools and even dice-like objects, and there are vessels of whale bone and a whalebone figurine nicknamed ‘Skara

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<sup>63</sup> Card *et al* 2020.

<sup>64</sup> Childe 1930; Clarke 2012, 20–1. See also Alexandra Shepherd’s suggestion (Shepherd 2016, 227) that House 7 may have been used, at the end of its long life, as some kind of workshop.

<sup>65</sup> MacSween and Clarke 2024.

<sup>66</sup> A selection of artefacts found at Skara Brae are available to view on Sketchfab: [Skara Brae: Artefacts - A 3D model collection by Dr Hugo Anderson-Whymark \(sketchfab.com\)](https://sketchfab.com/3d-models/skara-brae-artefacts) (accessed: 11 October 2022). The results of some of the recent analytical work have been published, for example, in Cramp *et al* 2014 and Romaniuk *et al* 2016; 2020, and some of the radiocarbon dates that have been obtained are published in Sheridan *et al* 2012a; b.

<sup>67</sup> Published in Cramp *et al* 2014.

<sup>68</sup> Romaniuk *et al* 2020.

<sup>69</sup> A distinctive type of flaked stone tool, generally made for immediate use, created by striking a large flake from a beach cobble. They are typically of oval shape, with one thicker end for grasping. The name ‘Skaill knives’ was first coined by Childe during the Skara Brae excavations in the Bay of Skaill. For further information, see: [Working Stone - Skaill Knives \(orkneystonetools.org.uk\)](https://orkneystonetools.org.uk) (accessed 21 September 2022).

<sup>70</sup> See MacSween and Clarke 2024 for an up-to-date review of the Grooved Ware pottery.

Brae Buddo',<sup>71</sup> as well as wooden pieces such as handles, and even short lengths of rope made of crowberry stems.<sup>72</sup> Other finds related to dietary and other practices and included eggshell, fungi, shellfish remains, and animal bones suggesting the exploitation of a range of marine and terrestrial resources in addition to those relating to farming.<sup>73</sup>

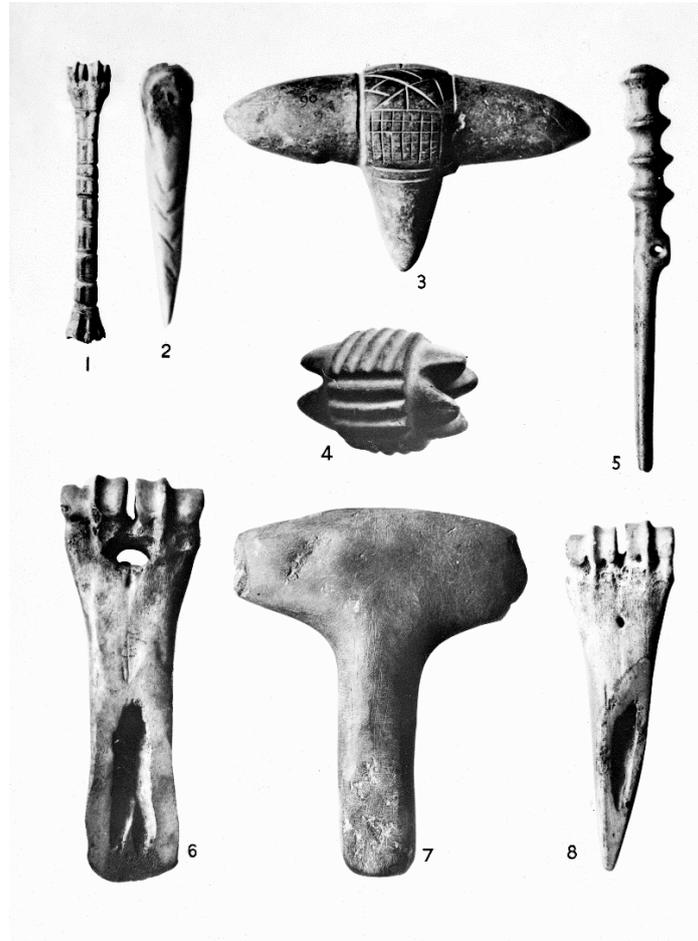


Figure 9: Skara Brae finds. Selection of bone and stone objects: bead-making debris, bone points, elaborate pin, 'mattock' and three of the carved stone objects. (SC 1165931) © Courtesy of HES (Society of Antiquaries of Scotland Collection). Reproduced with kind permission of the Society of Antiquaries of Scotland.

<sup>71</sup> The figurine was first discovered by William Watt in the 1850s or 60s in House 3 and was illustrated by George Petrie in his notebook (sketch available online: [George Petrie Notebook No 7, p. 80 \(crowdsourced.micropasts.org\)](https://crowdsourced.micropasts.org) (accessed: 11 October 2023)), however it was subsequently lost and only the drawing remained. In 2016 it was rediscovered by Dr David Clarke in Stromness Museum's archaeological stores and is now on display in the Stromness Museum. The name *Buddo* is an Orcadian non-gender specific word of endearment. For further details visit the Stromness Museum website: [Skara Brae Buddo - Collection ID: AXXX \(stromnessmuseum.org.uk\)](https://stromnessmuseum.org.uk) (accessed: 27 September 2023).

<sup>72</sup> Clarke 1976a, 24–25.

<sup>73</sup> Most objects found at Skara Brae are held by National Museums Scotland (NMS), Orkney Islands Council (Orkney Museum) and The Orkney Natural History Society (Stromness Museum). Some artefacts are owned by Scottish Ministers and the majority of these, as well as loans from the other museums, are on display in the Skara Brae Visitor Centre.

### 2.1.5 Art

A further aspect of the site comprises the extensive range of incised ‘art’ on individual stones. This was remarked upon by Childe,<sup>74</sup> and has since formed the subject of several studies, most comprehensively by Antonia Thomas.<sup>75</sup> Much, but not all, of the art is angular, rather than curvilinear.<sup>76</sup> Thomas notes that, as at the Ness of Brodgar, there could be many other examples within the walling, obscured by other stonework.<sup>77</sup> While the faintness of some of the engraving means that new studies often reveal previously un-noticed examples, it does appear that the incised stonework has survived best in the structures that were discovered most recently, such as House 7. There are also examples of similar decoration on portable objects such as Skailk knives.<sup>78</sup> Alexandra Shepherd has drawn attention to the similarity between the angularity of some of the designs and the natural pattern of fissuring of the sandstone in Orkney and has made a persuasive argument for the ‘art’ imitating nature in this respect.<sup>79</sup>



Figure 10: Stone with carvings on one of the bed enclosures in House 7.<sup>80</sup> © Crown Copyright HES.

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<sup>74</sup> Note that Childe also observed that ‘scratches may very easily be made upon [stones] accidentally – for instance in cleaning a trowel – and such will...come to look quite old and weather-beaten’ (Childe 1930, 181), and so it is possible that a few of the many ‘designs’ at Skara Brae could be of 20th century date, made by his workers’ trowels. That said, there is no question of the authenticity of the vast majority of the ‘art’.

<sup>75</sup> Thomas 2016.

<sup>76</sup> Shepherd 2000, 152–4.

<sup>77</sup> Thomas 2016, 119–20.

<sup>78</sup> Saville 1994.

<sup>79</sup> Shepherd 2000, 149–52; 2016, 228–9.

<sup>80</sup> The inscription can be inspected in detail on Sketchfab: [Skara Brae House 7 inscription - 3D model by Historic Environment Scotland \(sketchfab.com\)](https://sketchfab.com/Skara-Brae-House-7-inscription) (accessed: 5 September 2022).

### 2.1.6 Study and interpretation

Initially, and in the absence of the dating techniques now available, Childe and other investigators understood Skara Brae as ‘Pictish’ which they saw as Iron Age. Furthermore, the degree of build-up over the passages and houses gave them the impression – since shown to be wrong<sup>81</sup> – of a semi-subterranean village ‘of indescribable filth’<sup>82</sup> engulfed by some natural disaster, causing parallels to be drawn with Pompeii.

It was only when the pottery from Skara Brae was recognised as being comparable to Neolithic pottery found elsewhere<sup>83</sup> that the site was recognised as Neolithic in date. From the 1950s, when Stuart Piggott featured the ‘lozenge and spiral’ design drawn from one of the sherds on the cover of *The Neolithic Cultures of the British Isles* (1954) Skara Brae came to be regarded as an iconic Neolithic site for Britain. Archaeological excavation in 1972–3 aimed (among other things) to recover material for radiocarbon dating to secure the chronology of the site and 24 measurements were made. Now (2023), the total of radiocarbon assays has risen to around 149, of which some of the most recently obtained examples have been determined as part of Alasdair Whittle and Alex Bayliss’ *The Times of their Lives* project.<sup>84</sup> Refinements of the site chronology are regularly published.<sup>85</sup> The 1972–3 excavation also corrected Childe’s incorrect interpretation of Skara Brae as being an essentially subterranean site and has produced a more nuanced narrative of the site’s development over time.<sup>86</sup>

While Childe may have been wrong about the dating of Skara Brae, and while his excavations fall very short of today’s standards – his early excavation, survey and analysis of the site nevertheless have underpinned our understanding of the site. However, much now needs revision in the light of the excavation and analysis conducted since the 1930s. Apart from Childe’s work, undertaken in the late 1920s and 30s, there was little physical investigation of the site. The 1972–3 excavations focused on the remnant stratigraphy between the core surviving structures, rather than on the house structures themselves. The linkage of Grooved Ware pottery found at Skara Brae (and other Orkney sites) with similar pottery that had been ascribed a Neolithic date elsewhere in Britain increased the site’s celebrity<sup>87</sup> and put it at the forefront of consideration of the Neolithic in Britain.<sup>88</sup>

Further excavations (all small in scale) and surveys in the 1970s and 1990s refined understanding and interpretation of the remains and their landscape; for more detail on the investigations see Appendix 5. The results, along with those from the 1972–3 excavations, shifted interpretation of the site away from nineteenth-century mistaken

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<sup>81</sup> Shepherd 2016.

<sup>82</sup> Childe 1931, 40.

<sup>83</sup> Piggott 1936.

<sup>84</sup> Bayliss *et al* 2017.

<sup>85</sup> Shepherd 2016; Thomas 2016, 93; Bayliss *et al* 2017.

<sup>86</sup> Shepherd 2016. Full details of excavation work in 1972–3, and an overall assessment of the site, have yet to be published but will appear as a two-volume definitive publication (Clarke and Shepherd forthcoming).

<sup>87</sup> It was Stuart Piggott who, in 1936, first recognised the similarity of the pottery to pottery from elsewhere, and names it ‘Grooved ware’ – although, at the time, he believed this pottery to be of Early Bronze Age date. The realisation that it was Neolithic was to come later (Piggott 1936; 1954).

<sup>88</sup> For example, Ritchie 2000.

ideas of an essentially underground settlement to a more accurate view of a community of freestanding stone-built houses clad with clay and roofed with local eel-grass thatch.<sup>89</sup> Both excavation and wider palaeoenvironmental studies have allowed a better understanding of the landscape and climate changes and the issues faced by the inhabitants.<sup>90</sup> With the designation of the World Heritage Site in 1999 a programme of geophysical survey was begun, including the landscape around Skara Brae, allowing an in-depth picture of the changing nature of the landscape through time.<sup>91</sup>

### 2.1.7 Conservation and management of the site

After Skara Brae came into guardianship in 1924 as a Property in Care, it was scheduled in March 1928 (SM 90276) and a large area around the landward sides of the guardianship area was scheduled separately in October 1977 as *Skara Brae, settlement* (SM 4591). In 2004, both scheduled areas were amalgamated into one schedule as *Skara Brae, settlement, mounds and other remains* (SM 90276).<sup>92</sup>

Through its designation as a scheduled monument, the site has been legally recognised as being of national importance under the Ancient Monuments and Archaeological Areas Act 1979. The Act seeks to protect scheduled monuments by making it an offence to carry out works<sup>93</sup> there without gaining prior written permission, in the form of scheduled monument consent, obtained through Historic Environment Scotland. The Scheduled Monument Consent Policy<sup>94</sup> sets out how applications for consent are considered. It states that the primary purpose of scheduling is to maintain them in the form they have come down to us and that decisions for change should be informed by an understanding of their nationally important cultural significance. Scheduled monuments, along with their settings<sup>95</sup> are also protected within the planning system. The Managing Change in the Historic Environment Guidance Notes series<sup>96</sup> provides further guidance about how the relevant policies should be applied in terms of certain types of application and in relation to setting. These policies are applied the same, whether or not a monument is also a Property in Care.

In 1999, the Heart of Neolithic Orkney was inscribed on the UNESCO World Heritage List because the combination of ceremonial, funerary and domestic sites

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<sup>89</sup> Shepherd 2016.

<sup>90</sup> De la Vega-Leinert *et al* 2000; Bates *et al* 2016; Brend *et al* 2020, chapter 3; Bunting *et al* 2022.

<sup>91</sup> Brend *et al* 2020, chapter 3.

<sup>92</sup> The scheduled area excludes the Visitor Centre and replica house, both of which are only covered by the World Heritage buffer zone. See Figure 2 for the extend of the current scheduled area. Scheduling documents are accessible at: <https://portal.historicenvironment.scot/designation/SM90276> (accessed 7 September 2022).

<sup>93</sup> Works can include anything that would add to, flood, take away from or damage a monument. It is also illegal to carry out works which may detect metals, including certain types of geophysical survey, without obtaining consent beforehand.

<sup>94</sup> The policy can be downloaded from the HES website: [Scheduled Monument Consent Policy \(historicenvironment.scot\)](https://portal.historicenvironment.scot/designation/SM90276) (accessed: 11 October 2023).

<sup>95</sup> Setting is the way a monument's surrounding contribute to how it is experienced, understood and appreciated.

<sup>96</sup> The series can be accessed on the HES website: [Managing Change in the Historic Environment \(historicenvironment.scot\)](https://portal.historicenvironment.scot/designation/SM90276) (accessed: 11 October 2023).

that together comprise the WHS bear 'a unique testimony to a cultural tradition which flourished between about 3000 BC and 2000 BC'.<sup>97</sup>

When a place is inscribed on the World Heritage List, an obligation is placed on the State Party (the government that signed the Convention) to ensure the protection, preservation and transmission of its Outstanding Universal Value (OUV) to future generations. Each property is required to have a Statement of OUV which serves as the principal reference for protection and management of the property, and a baseline for monitoring and reporting.<sup>98</sup>

To care for Skara Brae, an agreed conservation strategy is in place and is closely associated with the management regime set out below and directs all the work that is undertaken on the site. All works are subject to the planning and scheduled monument consent process.

### 2.1.7.a Guardianship management

The ruinous nature of the remains as originally found meant that, prior to acquisition of the site into State Guardianship in 1924, a certain amount of clearance and rebuilding had taken place, particularly in the years immediately following the discovery of the site. William Watt's reconstruction of the wall to the north (seaward) side of House 1 resulted in the removal of two cells, one leading from the north-east corner of the building and the other from behind the left-hand opening of the 'dresser'. He also inserted a small 'window' into this wall. Nevertheless, because only a small portion of the site was originally revealed, 'alteration' resulting from early conservation has been kept to a minimum.

In 1925 work on a sea wall to protect the site from storm damage commenced and lasted for two years. Further erosion underneath the original seawall and to the eastern end resulted in additional construction in 2009 and 2011 to enhance the foundation toe.



Figure 11: The sea wall constructed at Skara Brae to help protect the site from the damaging effects of coastal erosion. © Historic Environment Scotland.

<sup>97</sup> UNESCO, Criterion (iii). Accessible at: [UNESCO - Heart of Neolithic Orkney \(whc.unesco.org\)](https://whc.unesco.org/) (accessed 7 September 2022).

<sup>98</sup> Accessible online: [Heart of Neolithic Orkney Statement of Outstanding Universal Value \(historicenvironment.scot\)](https://historicenvironment.scot/) (accessed: 4 November 2022).

Work to lay the site out for public access and enhance interpretation started in 1927 under the supervision of a local contractor, J Wilson Paterson, with Childe taking over from 1928. At this time some of the walls and wall heads were rebuilt and consolidated, often with concrete, and metal bars inserted at key points to ensure safety. Some minor restoration was also undertaken, and a strip of lead was retrospectively inserted in the wall to indicate the divide between old and new build. In 1932 a glass roof was installed over House 7, the best-preserved house, in an attempt to facilitate preservation of fragile engravings on some of the stones. However, while the glass roof protected the house from sand scour and some frost action, it ultimately accentuated temperature fluctuations by creating a greenhouse effect. This accelerated the fragile stone decay through rapid thermal expansion and contraction and pumped salt laden ground water into the stones causing desiccation of the stones through crystallisation of salts and oxidation of iron pyrites inclusions. Moreover, the weight of the glass roof (and especially of the concrete ring that supported it) was having seriously deleterious effects on the stone wall of the house.<sup>99</sup> In 2007 a turf roof was installed in order to reduce the heat differential, create a more benign environment, and alleviate pressure on the walls (see Appendix 6).



Figure 12: House 7 with its glass roof. In 2007 it was replaced with a turf roof which created a more benign environment. © Crown Copyright HES.

Any maintenance and repair on site involve careful planning and is accompanied by archaeological supervision. When the Visitor Centre and replica house were constructed in 1996, test pits were dug to investigate the possibility of deposits to the south-east of the site, but no finds were recorded (note that both the Visitor Centre and replica house are now within the World Heritage buffer zone but were always

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<sup>99</sup> Clarke 2012, 16.

outwith the scheduled area). In 2000 the replacement perimeter fence included a small-scale watching brief which recorded occupation deposits to the south of House 7 including artefacts such as a bone point, two cobble tools and six Skail knives. With increased visitor numbers, access paths were altered in 2006 to enhance accessibility and to protect the site. As the works did not penetrate the ground beyond turf and topsoil, the accompanying watching brief did not report the encounter or disturbance of archaeological material.

Work in 2005 included a detailed standing building survey of the site undertaken by Historic Environment Scotland's predecessor body, and a survey of all known inscribed stones and reconstructions undertaken by AOC Archaeology.<sup>100</sup> In 2010 the site was scanned using advanced laser technology as part of *Scottish Ten* project.<sup>101</sup> These provide important digital records of the site and help inform conservation work.

To keep the site protected and accessible to future generations, current conservation management includes a continuous programme of monitoring environmental conditions, structural movement and coastal erosion which feeds into a detailed survey analysis of the condition of the built remains. This informs the conservation strategy which is reviewed every 5 to 10 years with specific prioritised conservation actions. Additionally, the site is inspected every year as part of the Annual Conservation Audit and regular monthly inspections identify any minor or emergency works arising.

#### **2.1.7.b World Heritage Site management**

The World Heritage property boundary is very tightly drawn and is the same as that of the Properties in Care. While HES has direct management responsibility for all the individual monuments that comprise the WHS, including Skara Brae, a formal Buffer Zone surrounds the WHS. This includes other archaeological sites in the landscape, contains the Local Authority infrastructure necessary for visitor access and management, and encompasses an RSPB reserve, private landholdings and natural heritage designations of national and international importance. The Buffer Zone helps to protect the important relationships between the monuments and their surrounding landscape and is supported by Supplementary Planning Guidance, issued by Orkney Islands Council. To ensure integrated and holistic management of the WHS and Buffer Zone as a whole a partnership Management Plan was developed.<sup>102</sup> This collaborative document, developed and delivered by the partners, is renewed periodically.

The current Management Plan partners are HES and Orkney Islands Council, while NatureScot, RSPB, University of the Highlands and Islands Archaeology Institute and Highlands and Islands Enterprise are advisory partners. A wide variety of stakeholders also have important roles in enabling the management and protection

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<sup>100</sup> Sproat 2005.

<sup>101</sup> *Scottish Ten* was a collaborative project between Historic Environment Scotland and The Glasgow School of Art's School of Simulation and Visualisation, with CyArk. For more information on the project, see [The Scottish Ten - Neolithic Orkney, Scotland \(engineshed.scot\)](https://www.engineshed.scot/) (accessed: 07 December 2022).

<sup>102</sup> The Management Plan document provides a framework for the management of the site, but proposals are still subject to the planning and scheduled monument consent process.

of the Site and its Buffer Zone. The Plan is currently under review by the management partners after disruptions caused by the pandemic. The revised HONO WHS Management Plan is due to be published in 2024.<sup>103</sup> In 2019, Skara Brae was the first World Heritage Site in Scotland to be the subject of a Climate Vulnerability Index survey, and this ground-breaking work is informing UNESCO practice and advice regarding the monitoring of other WHS sites around the world in the face of global climate emergency.<sup>104</sup>

### 2.1.8 Nomenclature

The high dunes from which Skara Brae emerged in the mid-nineteenth century have been known by various names, Skerrabrae and Skara being the most common. Accordingly, early publications of the site use a variety of terms: Skerra Brae; Skea Brae; Bay of Skail; Skail Bay; and Skara Brae are all recorded in the National Record of the Historic Environment.<sup>105</sup>

Similarly, because remains such as these had not been previously investigated, some of the terminology associated with the site has changed over the years, while other elements, though still in use, might be regarded in a different light in view of modern understandings of the past. Terms such as ‘house’ are sometimes regarded as carrying undue functional explanation, as are the words ‘village’, ‘dwelling’ or ‘industrial quarter’.<sup>106</sup> While archaeologists may seek to replace them with less laden words, such as ‘structure’ or ‘settlement’, it is also true that the creation of a successful interpretive narrative often requires some use of a variety of definitions, as well as justification for the use of the terms that are chosen. (‘House’ may indeed end up being the most appropriate term to use for most of the structures in question even though, during the course of their lives, the nature of inhabitation and use may well have changed.) Similarly, individual terms such as ‘limpet boxes’ and ‘dresser’ remain problematic.<sup>107</sup> While still in current use, the functional overtones of the names have been challenged by many and the continued use of these words perhaps embodies the problems associated with changing embedded wisdoms (although these features will indeed have had functions, and the water tightness of the ‘limpet boxes’ still implies that they may have been designed to contain liquid).

Childe regularly referred to elements of the site, and the apparent lifestyle of its inhabitants, as ‘primitive’: a word which would be eschewed today, due partly to a greater recognition of the sophistication of Neolithic technology, lifeways and people, and partly to the desire to avoid linear, evolutionary models of social development.

One of the most problematic issues of terminology in relation to Skara Brae has been the application of the label ‘midden’ to the deposits at the site. Following 19th-century assumptions midden had been used to describe all the accumulated ‘mound’ of deposits around the site. Yet when the nature of the deposits so described is examined in detail, there is no such unified body of ‘midden’.<sup>108</sup> The material at

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<sup>103</sup> A link to the current Management Plan and other management documents can be found on HES website: [Heart of Neolithic Orkney \(historicenvironment.scot\)](https://www.historicenvironment.scot) (accessed: 7 November 2022).

<sup>104</sup> Jones 2023.

<sup>105</sup> See on Canmore ID 1663: [Skara Brae \(ID: 1663\) \(canmore.org.uk\)](https://www.canmore.org.uk) (accessed 12 December 2022).

<sup>106</sup> Childe 1931, 49.

<sup>107</sup> See Richards 2005, 124 for a discussion on alternative interpretations of the ‘dressers’.

<sup>108</sup> This topic has been discussed in detail by Alexandra Shepherd: Shepherd 2016. See also Shepherd 2022.

Skara Brae is much more complex and the pivotal role of clay as a major component in the construction and formation of the site in particular has now to be recognised. Differentiation between the make-up of the deposits, identifying the varied mix of material that includes clay, ash, occupation waste, animal bone and other components helps us better understand the complex formation of the site as we know it.

## 2.2 Evidential values

In addition to the architectural values of the structures themselves, Skara Brae has high evidential value for the light it can throw on Neolithic lifeways and social circumstances. The preservation of deeply stratified deposits within and around the remains allows the investigation of elements such as diet, agriculture, heating, and the individual technologies of tool and pottery production. Recognition of a substantial amount of inscribed and etched stones adds to this through consideration of possible artistic and ritualised motifs and communications. Within and outwith the structures themselves, the recovery of palaeoenvironmental material has led to considerable information on the changing landscape and environmental setting of the site and the response of the community to the dynamic world within which they were living.

Initially Skara Brae was thought to be unique,<sup>109</sup> today it is recognised as one of several Late Neolithic settlement sites across Orkney,<sup>110</sup> distinguished from Neolithic sites on 'mainland' Scotland not least by their use of stone as a building material – a necessity given the rarity of wood at the time, and a factor determining aspects of building design, given the slabby nature of some of the stone used. The glimpse it thus affords into the life of its occupants enhances these evidential values given the rarity, through time, of surviving artefacts and ecofacts relating to daily life. At the same time, the clear relationship between Skara Brae and sites such as the stone circle at the **Stones of Stenness** and the special-purposes site at the Ness of Brodgar adds considerably to the value of the site. It affords a more comprehensive view of the relationships within society, and the wealth of the symbols of power found at Skara Brae (for example the range of elaborate carved stone objects) suggest that the occupants of Skara Brae belonged if not to the upper echelon of Late Neolithic Orcadian society, then to its well-established members. Across Orkney, the existence of a suite of sites and monuments relating to the Neolithic enhances the information from any one location providing, as it does, a wider view of life at the time. Across the UK, it is rare to find settlements, tombs, and ceremonial sites within the same geographical area.

The well-preserved physical remains of the site provide unparalleled evidence for architectural styles and traditions, in addition to oversight of building techniques. The record of successive rebuilding and new building encompassed within the two Late Neolithic phases of occupation at the site shows how the site evolved over time.

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<sup>109</sup> See Clarke 2003 on this topic.

<sup>110</sup> For example, unexcavated remains include those at the north end of the Bay of Skaill and Stove in Sanday. Excavated sites vary from Rinyo in Rousay (excavated by Gordon Childe and Walter Grant in the early 20th century – Childe and Grant 1947) to **Links of Noltland** in Westray (excavated by David Clarke 1978–81 and by EASE Archaeology from 2006 onwards).

Internal fittings – hearths, sleeping areas, ‘dressers’ – offer a highly unusual glimpse of Neolithic furnishings and the arrangement of space within the Neolithic ‘home’. This sort of detail is vanishingly rare in other parts of the UK, since such features will normally have been made from wood.

Early interventions at the site during the late 19th-century and consolidation and restoration work during the 1920s/30s, have not always been clearly recorded (a strip of lead was retrospectively inserted in the wall to indicate the divide between old and new build following the restoration work undertaken by Gordon Childe). While this work facilitated a ‘clean’ visitor experience, it may affect the authenticity of some parts of the site. In 2005 AOC Archaeology undertook a survey of all known inscribed stones and identified potential consolidation and reconstructed stonework and it suggested that stones had been cemented in the original place rather than areas of walling being reconstructed. The materials and methods of intervention, now often obsolete and sometimes even problematic (for example the use of cement-based mortars within the dry-stone walls), demonstrate contemporary conservation practices as well as contemporary principles and priorities for public display and interpretation of archaeological sites.

Although the excavations of the 1970s have not yet been published, the existence of unexcavated material to the south of the site, and in other pockets, offers considerable opportunity to tease out further detail relating to the site. The use of modern archaeological techniques of analysis that have been applied by numerous researchers who have worked on the Skara Brae finds from the 1970s to the present has been revealing invaluable information related to the minutiae of everyday living, as well as community relationships with a wider world.<sup>111</sup> Publication of Clarke and Shepherd’s definitive report on the 1972–3 and 1977 excavations, with its review of past work and presentation of the wealth of results from the many and varied specialist studies that have been, and continue to be undertaken, will highlight just how much can now be said about aspects of life at Skara Brae.

In summary, the evidential value of Skara Brae is that it provides a highly unusual, intimate, view of life in Late Neolithic Orkney.

### 2.3 Historical values

The archipelago of Orkney is known for its remarkable archaeology which stretches back several thousand years to build a narrative relating to the people of Orkney over the millennia. As such it has attracted many archaeologists who have helped to illuminate that story and continue to do so.

Skara Brae has played a significant role in that story from the first. George Petrie, one of the first local antiquaries to examine the site, recounts how he notified the find to Daniel Wilson, then Honorary Secretary to the Society of Antiquaries of Scotland. Wilson went on to publish it in his *Prehistoric Annals of Scotland* (1851)<sup>112</sup> and many of the finds from this period and later excavations are now on display at the site’s

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<sup>111</sup> For example, Cramp *et al* 2014; Romaniuk *et al* 2016; 2020.

<sup>112</sup> Available to download from Project Gutenberg: [The Archaeology and Prehistoric Annals of Scotland by Sir Daniel Wilson \(gutenberg.org\)](https://www.gutenberg.org/files/17000/17000-h/17000-h.htm) (accessed: 11 October 2022).

Visitor Centre. Other well-known antiquaries who examined the site in the early decades included James Farrer in the 1860s and William Boyd Dawkins in 1913, though not all were diligent in publication. Childe, in contrast, published prompt reports of his work at Skara Brae, culminating in a comprehensive book *Skara Brae, a Pictish village in Orkney* (1931).<sup>113</sup> Since then, Skara Brae continues to occupy a prominent place in research on Neolithic Orkney, appearing in published studies by established scholars.<sup>114</sup>

The reach of Skara Brae extends well beyond Orkney, however. Though invited to work at Skara Brae by the then Ministry of Works, Childe made full use of his findings to inform his broader research. He was interested in the wider patterns of the development of civilisation around the globe and through his writings Skara Brae became known to a far greater audience than that based in Scotland. Childe's interpretation of Skara Brae as an egalitarian farming village,<sup>115</sup> coloured by his theoretical and political stance, has been much discussed, and recent developments in narratives of Late Neolithic Orcadian society are forcing a re-evaluation of the status of the settlement and its occupants.<sup>116</sup> Childe can be acknowledged, though, as the archaeologist who drew widespread attention to Skara Brae.

## 2.4 Architectural and artistic values

Skara Brae provides a unique example of Neolithic domestic architecture that survives, in some places, to assumed roof height. As such, it is extremely rare. Originally built as freestanding structures, additions to the settlement meant that the houses at Skara Brae jostled up against one another, and against the outer walling of communicating passageways. With time, buildings fell out of use or changed in function, and new structures were added. The site is underlain by a complex system of well-built drains and cisterns, some of which open below the intramural cells, leading to the suggestion that they provided some form of internal waste disposal including latrines. As a whole, the settlement offers a rare glimpse of the dynamic needs and responses of a sophisticated community over a number of generations (albeit with a gap between its first Late Neolithic phase and its second). Given the dynamic nature of the local environment and encroaching coastline, they also evidence the response of the farming community to a changing landscape and conditions.

The structures at Skara Brae evidence a high level of skill in construction. The community clearly shared considerable knowledge of local stone and an understanding of the principles of building that has stood the test of time. While the local Orkney sandstone naturally splits into slab-like pieces, not all are suitable for use. The rounded nature of the stones at Skara Brae indicates that individual pieces were selected from the local beach and brought to site. Within the houses, the fittings clearly served the contemporary needs. Evidence from communities using similar single room houses in more recent times suggests that social norms may have dictated specific divisions of space and function in order to minimise friction

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<sup>113</sup> Childe and Paterson 1929; Childe 1930; Childe *et al* 1931; Childe 1931.

<sup>114</sup> For example, Renfrew 1985; Richards 1985, 1991; Ritchie 2000 and Edmonds 2019.

<sup>115</sup> Childe 1931.

<sup>116</sup> For example, Card *et al* 2020.

among those living there and it is notable that each house is provided with a door-bar in order to prevent access from the outside.<sup>117</sup>



Figure 13: Interior of House 1 showing stone slabs forming 'dresser' to rear, central hearth flanked by box beds. (SC 1409811) © Lesley M. Ferguson. Courtesy of HES.

While most of the structures at Skara Brae share the same basic elements, the settlement underwent considerable alteration throughout its occupation. It is likely that some buildings changed in use over time, and local adaptations served to encompass this. As the settlement grew in size, so did its complexity, and the skills of the builders show considerable understanding of stone working as new structures were added, sometimes abutting or even altering previous elements. The 1972–3 excavations revealed at least two adaptations of the structure that survived as the present House 7. At some point some of the passageways were roofed over. The timing and reasons for this are unknown, but theories include that it became necessary in order to improve life in deteriorating circumstances as coastal conditions encroached ever nearer. While the settlement as we know may not have been planned as such, there was clearly an overall concept of the nature of the community that lived there and of its needs.

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<sup>117</sup> Richards' mistaken claim (1991) that House 7's door could be barred from the outside was disproved by David Clarke (Clarke 2003, 90).



Figure 14: Structure 8 at Skara Brae, thought to have been a workshop for making stone tools. © Crown Copyright HES.

One structure stands apart: 'House' or 'Structure' 8 incorporates very different internal fittings and is the only building to be separated physically from the rest of the settlement. Current interpretations suggest that Structure 8 was not used as a routine dwelling but may have comprised a form of workshop, perhaps a communal facility for the manufacture of everyday goods. In this way it adds variety to the architectural interest of the site. Recent analysis of the site has led to the suggestion that this house may be later than other buildings,<sup>118</sup> possibly Early Bronze Age, and this is currently (August 2023) being tested by the radiocarbon dating of an organic artefact found within that structure.<sup>119</sup>

Although the definition of 'art' inevitably relies on recent concepts, the inclusion of a suite of incised stonework, as well as highly decorated pottery and bone tools and of carved stone objects, some of them decorated, among the structures at Skara Brae opens the possibility that the remains may help illuminate the nature and use of art at the time. This might encompass the use of art as a method of communication fulfilling a wide range of social needs as well as aesthetic ideas.<sup>120</sup> The similarity

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<sup>118</sup> Shepherd, personal communication 12 Nov. 2021.

<sup>119</sup> David Clarke, personal communication.

<sup>120</sup> Thomas 2016.

between the famous 'lozenge and spiral'-decorated sherd and the design on Kerbstone 67 at Newgrange passage tomb in the Boyne Valley, eastern Ireland, has sparked discussion about the significance of adopting and adapting motifs and designs that had been used in Irish passage tomb art – designs that may well have been accorded sacred status.<sup>121</sup> However the majority of the motifs from Skara Brae are linear and geometric and, as Alexandra Shepherd has shown, mirror much more closely the patterning within the natural fissuring of the bedrock of outcropping on the western coastline neighbouring Skara Brae. The art may have expressed a sense of place founded on that bedrock.<sup>122</sup>

Modern artistic values of the site include the widespread use of images of Skara Brae and its fittings, particularly around Orkney. The site provides inspiration for a range of art including paintings, photographs, and novels. Local jewellery makers regularly incorporate motifs from the site into their collections. In addition, elements such as the 'dressers' have become iconic figures, often used in advertising or adapted as logos. In this way, elements of the site have been distilled into instantly recognisable artistic and cultural icons. Through the second half of the 20th century Skara Brae and other sites figured prominently in the writings of George Mackay Brown, a local author well recognised for his poetic and literary skills. In 1990 a replica of one of the Skara Brae houses was constructed in wood by acclaimed timber artist Tim Stead for the *Scotland Creates* exhibition at the McLellan Galleries in Glasgow.

## 2.5 Landscape and aesthetic values

The south end of the Bay of Skail, where Skara Brae is located, falls into the Hoy and West Mainland National Scenic Area. This is a designated landscape, defined in 1978 in order to identify and protect an area of exceptional scenery.<sup>123</sup> The beauty of the Bay, and its enclosing headlands, makes it a popular place for recreation.

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<sup>121</sup> As discussed, for example, in MacSween and Clarke 2024 and Sheridan 2024.

<sup>122</sup> Shepherd 2000.

<sup>123</sup> See further detail on NatureScot website: [Hoy and West Mainland National Scenic Area \(Site Code: 9128\) \(nature.scot\)](#) (accessed 07 September 2022).



Figure 15: General oblique aerial view of the Bay of Skail with Skara Brae, Skail House and farm in the foreground, taken from the south. (DP 059265) © Crown Copyright: HES.

The immediate environs of Skara Brae are dominated by the 17th century (and later) Skail House, a Category A listed building,<sup>124</sup> and its home steading. Skail House and its residents occupy a prominent role in the social history of Orkney and the early history of the site is intertwined with that of William Watt and his landholding relatives in the mid-nineteenth century (as set out in 2.1.2 above).

The designed landscape around Skail House dates to the 17th century with 18th, 19th, and 20th century additions.<sup>125</sup> The aim of these additions was to provide sheltered garden conditions within the locally exposed setting. This was achieved through the construction of a series of rectangular, sunken areas containing lawns and flowerbeds as well as a walled garden and various terraces.

## 2.6 Natural heritage values

The landscape has changed considerably throughout the settlement's active use phases and to today.<sup>126</sup> The immediate environs of Skara Brae comprise a landform known as 'machair', a fertile grassland that forms on shell sands in exposed

<sup>124</sup> LB 18704, designation information accessible at: <https://portal.historicenvironment.scot/designation/LB18704> (accessed 7 September 2022).

<sup>125</sup> GDL 00341, designation information accessible at: <https://portal.historicenvironment.scot/designation/GDL00341> (accessed 7 September 2022).

<sup>126</sup> Bunting *et al* 2022.

environments. Machair is rare and mainly occurs on the western coastlands of Scotland and Ireland. In places it is under threat due to changes in land management, including farming practices.

Along the shores of the bay, the submerged remains of trees were recorded by William Watt in 1820.<sup>127</sup> This ancient forest was revealed by the stripping of coastal sand during a storm. The trunks lay in association with an intertidal peat, and Watt recognised that they marked a very different landscape from that of the largely treeless vistas to which he was accustomed. He commented that they were eventually reburied by sand and, though intertidal peat deposits have been recorded subsequently by others around the bay,<sup>128</sup> the trees have not since come to light.

The landscape of the bay has proved a significant resource for the investigation of the changing environments of Orkney. T. H. Keatinge and J. H. Dickson reported on vegetation development in 1979; in 2000 A. Cristina de la Vega-Leinert published her research into the possible original position of the coast and subsequent eastwards migration and erosion of the coastal dune system; and in 2020 Richard Bates, Martin Bates, Sue Dawson and Caroline Wickham-Jones discussed the history of the immediate hinterland between Skara Brae and the Loch of Skail. <sup>129</sup> They conclude that the encroachment of the coast and the concomitant shift to a marine littoral environment was a gradual development.<sup>130</sup> During the settlement's occupation, the shore would have been far away at (or near) the other end of what is now the bay.

There are two Sites of Special Scientific Interest (SSSI) near Skara Brae. One is at the southern end of the Bay of Skail, the Stromness Heaths and Coast SSSI, which covers the stretch of coast to the golf course in Stromness. It is protected due to its coastal geomorphology, providing the best examples of the distinctive sandstone and flagstone cliffs and associated features of Orkney.<sup>131</sup> The other is Bay of Skail SSSI and is situated at the northern end of the Bay of Skail. It is protected for the internationally significant geological value of its rocks, identified as an Old Red Sandstone with a distinct floral and marine faunal fossil record dating back to the Middle Devonian.<sup>132</sup> It is one of the most important localities of *Protopteridium*, the earliest progymnosperm, and thus probably the remote ancestor of all seed plants, including the angiosperms.<sup>133</sup>

## 2.7 Contemporary/use values

World Heritage designation, achieved in 1999, reinforced international recognition of Skara Brae, but in fact the site was already iconic (as explained in section 2.1.6). A study by Angela McClanahan in 2004 considered the contemporary role of Skara

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<sup>127</sup> Watt 1820.

<sup>128</sup> For example: De la Vega-Leinert *et al* 2000.

<sup>129</sup> Chapter 3 in Brend *et al* 2020, 61–65.

<sup>130</sup> See also the results of the palaeoenvironmental work by Bunting *et al* 2022.

<sup>131</sup> See site entry and citation on NatureScot website: [Stromness Heaths and Coast SSSI \(nature.scot\)](#) (accessed: 17 November 2022).

<sup>132</sup> See site entry and citation on NatureScot website: [Bay of Skail SSSI \(nature.scot\)](#) (accessed: 17 November 2022).

<sup>133</sup> Cleal and Thomas 1995, 95–6.

Brae and concluded that it had become emblematic of Orkney, significant to both locals and visitors alike.<sup>134</sup> McClanahan and others have recognised the role that Skara Brae plays in reinforcing a strong local sense of identity, and the site (together with other sites) is, indeed, important in many accounts of local childhoods. Skara Brae and archaeology are covered by local school curricula and since 2013 Skara Brae is also included as an example in the National Curriculum of England and Wales.<sup>135</sup> It is also frequently taught in schools outwith Britain, and multiple education materials have been produced.<sup>136</sup> It remains a popular location to visit. The attractions of the bay include a sheltered beach, coastal walks on to the cliffs, and the possibility of local surfing. Wildlife such as seals are frequent visitors and add to the interest.

In 2018 Skara Brae was Orkney's most visited ticketed HES monument<sup>137</sup> and it regularly attracts over 100,000 visitors annually. Tourism, driven largely by heritage, is of considerable significance to Orkney and Skara Brae is an important part of that.<sup>138</sup> The site attracts a wide variety of visitors, some of whom have known of the site for years, learning about it at school or seeing it on television. Others learn of it as part of their holiday experience from guidebooks or it is part of the schedule of a package tour. This means that visitors have varying levels of prior knowledge of the site and of archaeology and prehistory in general. As such, it affords an excellent opportunity to inform and educate. Indeed, visitors expect and value this aspect of the site.<sup>139</sup>

Skara Brae also offers a domestic link for visitors; a way to identify with the past more easily. People often marvel at the state of preservation of the site and the familiarity of the structure of the houses and their interiors. McClanahan observed that visitors often use the site to compare standards of living of the past to today and often they have a feeling of going back in time.<sup>140</sup>

McClanahan also noted that visitors to Skara Brae are engaging with the site differently when compared to the **Ring of Brodgar** or the **Stones of Stenness**. She describes it as a 'less tactile engagement with the material fabric of the monument, and visitors seem to treat it more as an exhibit to be 'gazed' on, rather than purposefully choreographed architectural space to move within, ...'.<sup>141</sup> This is due to the fact that walking through the houses is not permitted, and visitors are only able to experience the site from the raised walkways. However, most visitors are satisfied

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<sup>134</sup> McClanahan, 2004.

<sup>135</sup> See *National curriculum in England: history programmes of study – key stages 1 and 2*, available to download from UK government website: [National curriculum in England: history programmes of study \(gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/612222/national-curriculum-in-england-history-programmes-of-study.pdf) (accessed: 08 February 2023).

<sup>136</sup> For example, [BBC Bitesize – What is Skara Brae? \(bbc.co.uk\)](https://www.bbc.com/bitesize/history/england/viking/1-10-1) (accessed: 13 December 2022).

<sup>137</sup> Gill, D., 2019, available online: [Leading Visitor Attractions 2018: Historic Environment Scotland \(heritagefutures.wordpress.com\)](https://heritagefutures.wordpress.com/2019/08/leading-visitor-attractions-2018-historic-environment-scotland/) (accessed: 11 October 2022).

<sup>138</sup> For more detail see entry on VisitScotland website: [Orkney - Tourism Research and Statistics \(VisitScotland.org\)](https://www.visitScotland.org.uk/visiting-scotland/visiting-scotland-by-region/orkney) (accessed 11 October 2022).

<sup>139</sup> McClanahan, 2004: 'People also perceive the site as a place where they can be educated about the past' and TripAdvisor reviews describing Skara Brae as a place to 'learn about the history of the island' (reviews accessible online: [Skara Brae, Stromness \(tripadvisor.co.uk\)](https://www.tripadvisor.co.uk/Attractions-Reviews-Skara_Brae-Stromness-Orkney-Scotland.html) (accessed 11 October 2022)).

<sup>140</sup> McClanahan 2004 and online reviewing platforms such as TripAdvisor (reviews accessible online: [Skara Brae, Stromness \(tripadvisor.co.uk\)](https://www.tripadvisor.co.uk/Attractions-Reviews-Skara_Brae-Stromness-Orkney-Scotland.html) (Accessed 11 October 2022)).

<sup>141</sup> McClanahan 2004, 70.

with the degree of access to the village, understanding the need to protect the historic fabric from the high volume of visitor footfall.<sup>142</sup>

Previous sections have outlined the ongoing use of Skara Brae as literary muse, advertisers' dream, and artistic model (see section 2.4). It continues to occupy a significant role in 21st century Orkney. This role extends beyond the local shores. Literary works, such as historic fiction and non-fiction,<sup>143</sup> bring the site to life and Skara Brae features commonly in television documentaries about prehistory, often joining Stonehenge to represent 'Stone Age Britain'. The site is, indeed, so widely known that in the opening sequences of the 2008 film *Indiana Jones and the Crystal Skull* the site is name checked by Indiana Jones himself.<sup>144</sup>

### 3. MAJOR GAPS IN UNDERSTANDING

- Very little is known about the nature of the earliest, pre-Grooved Ware activity at the site, but the presence of sherds of pottery consistent with round-based pot forms and cattle bone suggests that it was probably domestic in nature. It dates to a time (some time between 3360 and 3160 cal BC) when, elsewhere in Orkney, the use of timber to build houses seems to have ceased and stone had started to be used (at **Knap of Howar** on Papa Westray), but no structural evidence was found. Is it that one or more stone house had existed, but was dismantled and its stones reused when the Phase 1, Late Neolithic settlement was established?
- The precise size of the settlement, at varying time periods in its life, remains unknown because of the lack of investigation of the surviving remains to the south of the excavated structures (as revealed through geophysical survey) and the missing information as to the extent of coastal erosion and the number of structures that have been lost to the north of the site.
- In places excavation trenches have extended to the natural till surface below the walling; elsewhere, however, it has not been possible to dismantle the structures in order to investigate below. In particular, little is known about the Phase 1 structures that are still buried, in whole or in part, under Phase 2 structures. For this reason, the system of drains below the site remains poorly understood and it is hard to contextualise other elements of the site. The burial of two women in a cist under the wall behind a box bed area in House 7,<sup>145</sup> for example, is often regarded as marking that house as different, though in reality, the possibility that other people may have been buried under the walls of other structures has not been explored. Laing mentions that human remains, including a lower jaw, were found beneath the paving of one 'hut', but gives no further particulars.<sup>146</sup> Sadly, the fact that the two skeletons (of

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<sup>142</sup> McClanahan 2004, 68. Also apparent from some reviews left on TripAdvisor. (Reviews accessible online: [Skara Brae, Stromness \(tripadvisor.co.uk\)](https://www.tripadvisor.co.uk) (accessed 11 October 2022)).

<sup>143</sup> For example, *The Boy with the Bronze Axe* by Kathleen Fidler and *The Outrun* by Amy Liptrot.

<sup>144</sup> For more detail, read the HES blog from April 2017: [Heart of Neolithic Orkney - from Indiana Jones to Viking graffiti \(historicenvironment.scot\)](https://www.historicenvironment.scot) (Accessed: 11 October 2022).

<sup>145</sup> Childe 1931; Shepherd 2018.

<sup>146</sup> Laing 1869, 76.

women of advanced years) found under House 7 cannot be located means that no investigative work can be undertaken on these individuals.

- Despite the wealth of artefactual and ecofactual finds, there is little that we can say about the occupants of the settlement themselves.<sup>147</sup> What happened to the dead? How and where were they laid to rest? As noted above, are the women found under the wall of House 7 unique in their mode of interment? There is a paucity of surviving human remains for genetic or isotopic analysis and for comparison with human remains from other sites, although DNA analysis has been undertaken on the female femur, NMS X.HA 142, found 'standing in the corner of the passage near the triangular cell'<sup>148</sup> and placed there some considerable time after the settlement had been abandoned. See above and elsewhere concerning the radiocarbon dating of some of the human remains found at and near Skara Brae;<sup>149</sup> some of these date to the first millennium AD.
- Full details of the function of the different fittings within each structure remain unknown. Archaeology can offer possibilities, but it is impossible to elucidate precise meanings with certainty.
- Although considerable work has been undertaken to unravel the contemporary environmental setting of the site, investigation of the immediate surroundings is lacking. To the south and west, the present bounds of the settlement reflect the edge of Childe's excavation and to the east and north they are defined by the present coast and original edge of the dune erosion. There is, therefore, no information on the landscape immediately to the west of the settlement, between Structure 8 and the original exhibition space (marked 'Rangers' Hut' on Figure 7).<sup>150</sup> Other Neolithic settlement sites in Orkney have occasionally been bounded by enclosure walls,<sup>151</sup> while some are unenclosed.<sup>152</sup>
- The roofing of the structures in Skara Brae is still unclear. What form or shape did they have? What materials were used? Excavations at different Neolithic sites may help with these questions as for example the excavation at the

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<sup>147</sup> A pair of milk teeth found among refuse during the 1972–3 excavations are likely to have been shed by a child who lived at Skara Brae: Sheridan *et al* 2014.

<sup>148</sup> Sheridan *et al* 2018a, 9; quote from Petrie 1867.

<sup>149</sup> Tucker and Armit 2009; Sheridan *et al* 2018a, 9; 2018b, 220.

<sup>150</sup> There were excavations further to the west of the old exhibition space in 1977 and south-west in 1994. See Appendices 3 and 5 for more detail.

<sup>151</sup> For example: **Links of Noltland**, mentioned in Current Archaeology article from February 2013: [Sands of Time: Domestic Rituals at the Links of Noltland \(archaeology.co.uk\)](http://archaeology.co.uk) and on HES website: [Links of Noltland: History \(historicenvironment.scot\)](http://historicenvironment.scot) (both accessed 11 October 2022). Note also that remnant walls were found during the 1977 excavations; these have been suggested as possibly forming an enclosure around the settlement (Clarke personal communications).

<sup>152</sup> For example: Barnhouse. See Richards 2005 and site entry on Canmore ID 2152: [Barnhouse \(ID: 2152\) \(canmore.org.uk\)](http://canmore.org.uk) (accessed: 11 October 2022). Note though that Richards discovered a ditch west of House 2 and even though there is no positive evidence linking the ditch [1532] with ditch [938] which ran around the south of Structure 8, he maintained that 'there must remain the slightest possibility that they were originally interconnected. If this was the case then the ditch may have acted, at least for a while, as a form of enclosure for the village.' (Richards 2005, 188) Although he argues that it may also indicate another large building to the south of House 2, similar to Structure 8 (Richards 2005, 188).

Ness of Brodgar which showed that at least some buildings had stone roofs. Alexandra Shepherd has made a cogent argument (following work by Bruce Walker) for the probable use of eel-grass thatching at Skara Brae;<sup>153</sup> whether William Watt was correct in interpreting the jaw bones of a large whale in House 1 as whalebone rafters supporting slates or thatch,<sup>154</sup> is open to debate but it is an interesting suggestion.

- The degree to which aspects of the architecture at Skara Brae (for example the thickness of the walls, the addition of roofing to Passages A–C) constitute adaptations to the local, changing environment and climate remains to be ascertained.
- What relationship did the inhabitants have with other communities on Orkney and beyond?
- There is no indication of the number of people who lived within each structural unit. There has been a general assumption that they represent the home of family units, or perhaps extended family units. However, this cannot be proven, and the size of individual units remains unknown. Additionally, there is as yet no clear information relating to how many of the structures were occupied at the same time.
- Skara Brae has, arguably, tended to have been studied more as a two-dimensional archaeological site rather than a three-dimensional architectural site. This means that there has been a lack of detailed investigation of the structural elements and as a result there is currently little understanding of the precise ways in which different elements relate to one another.<sup>155</sup> This has been compounded by the piecemeal nature of investigation and consolidation since the site was discovered.
- While Petrie and Childe were meticulous in publishing their work, others have been less so. Clarity regarding the early findings on site has been adversely affected by this and by the less controlled techniques of investigation employed at the time. Early investigators clearly did not understand the stratigraphic and chronological complexities of the deposits they removed. More recently, the results of excavations in the 1970s, while scientific in approach and recording detail, have yet to be published fully. For these reasons, detail relating to elements of the structures, the nature of the occupation deposits that have accrued within and around them, and the chronological development of the site, remain insufficiently accessible (although key elements, such as the suite of 74 Historic Scotland-funded radiocarbon dates on cattle bone finds from the 1972–3 excavations that were

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<sup>153</sup> Shepherd 2016, 220. Alexandra Shepherd adds: 'It should be noted that the intra-mural cells are corbelled so we cannot entirely rule out full corbelling over the main structures with the fallen stonework robbed out over the centuries. But on balance I do think the main chambers had forms of thatched/turf roofs. I believe if they had all been corbelled there would have been much more variation in surviving wall heights.' (personal communications).

<sup>154</sup> Petrie 1867, 208; Traill 1868, 432; Childe 1931, 11–12.

<sup>155</sup> See for example the discussion below regarding the relationship between House 4 and House 5, in Appendix 3.

obtained in 2006, and some of the many scientific studies, have been published).<sup>156</sup>

- The decline of the settlement, and the nature, duration and tempo of activities that followed its abandonment around the middle of the third millennium, remain poorly understood, although it has been suggested that deteriorating climate and environmental conditions will have contributed to the reasons for its abandonment. The collapse of the social system as attested at the Ness of Brodgar may well have been another factor, but again the dating of this remains to be clarified.<sup>157</sup>
- Further research into the extent of reconstruction undertaken on site by early antiquaries and Gordon Childe will help to better understand contemporary conservation, preservation and interpretation practices as well as give a clear understanding of the original fabric of the site. The stone survey undertaken by AOC Archaeology in 2005 on behalf of Historic Environment Scotland already provided a valuable baseline study of which areas of walling may be original, which may have been consolidated, and which may have been reconstructed and helps inform any future consolidation programmes.
- The excavation at Skara Brae during the 1920s and 30s has given Gordon Childe prominence and contributed greatly to the history of Scottish archaeology, particularly prehistoric archaeology. However, further research into his excavation team needs to be done to understand and appreciate the involvement of women and working-class men and the impact it may have had on their careers.
- The HONO WHS Research Strategy 2013–2018 outlines some more specific research questions regarding Skara Brae as well as the other World Heritage sites and the whole HONO WHS Site more generally.<sup>158</sup> Additionally, the Scottish Archaeological Research Framework (ScARF) identified general Neolithic research questions in their panel report that help build narratives that describe and explain what happened in Scotland during the Neolithic.<sup>159</sup> In spring 2023 the final research symposium for Scotland's Islands Research Framework for Archaeology (SIRFA) met in Kirkwall, Orkney to agree on gaps of knowledge and understanding of Orkney's past. The results will form part of a set of key research questions for the future of archaeological research across the three Scottish island groups (Western Isles, Shetland and Orkney) and will form a regional research framework which will be set within the broader ScARF.<sup>160</sup>

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<sup>156</sup> For example, Sheridan *et al* 2012b; Cramp *et al* 2014; Romaniuk *et al* 2016; 2020.

<sup>157</sup> See Clarke *et al* 2016 for a discussion of post-'boom' Orkney during the later third millennium.

<sup>158</sup> Downes *et al* 2013. Accessible to download from HES website: [Heart of Neolithic Orkney World Heritage Site Research Strategy 2013-18 \(historicenvironment.scot\)](https://www.historicenvironment.scot/Heritage-Site-Research-Strategy-2013-18) (accessed: 23 November 2022).

<sup>159</sup> Panel Report available online: [ScARF National Framework - Neolithic \(scarf.scot\)](https://www.scarf.scot/). (Accessed 23 November 2022).

<sup>160</sup> SIRFA forthcoming. Check the ScARF website for updates: [Scotland's Islands Research Framework for Archaeology \(scarf.scot\)](https://www.scarf.scot/) (accessed: 02 October 2023).

## 4. ASSOCIATED PROPERTIES

- Other elements of the World Heritage site include the tomb of **Maeshowe**, the stone circles and henges at the **Ring of Brodgar** and the **Stones of Stenness**, and single stones: the **Watchstone** and the **Barnhouse Stone**. All are Neolithic in date (although the dating of the **Ring of Brodgar** is less precise) and likely to have been known to the inhabitants of Skara Brae.
- In addition, several other Neolithic sites lying within the HONO WHS buffer zone undoubtedly relate to the complex of sites in use at the time. These include: the possible henge monument at The Ring of Bookan; the settlement of Barnhouse; and the ceremonial site at the Ness of Brodgar.
- Geophysical surveys in the vicinity of the HONO WHS have revealed a rich landscape of cultural remains, some of which may be tentatively assigned to a probable period while others remain more enigmatic.<sup>161</sup>
- Other Neolithic settlements in Orkney include the **Knap of Howar** on the island of Papa Westray and **Links of Noltland** on the island of Westray.

## 5. KEYWORDS

Skara Brae, Neolithic, village, settlement, furniture, dresser, burials, Neolithic carvings, carved stone objects, grooved ware pottery, V. Gordon Childe, World Heritage Site, Orkney, Bay of Skail, Skail House, Vestra Field, sea wall, coastal erosion

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<sup>161</sup> Brend *et al* 2020, 32–61.

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Note: In general, footnotes throughout the text offer page numbers where appropriate. If no page number is given, this indicates that reference is being made to the general thrust of the publication cited rather than a specific point of detail.

### Further Resources

Canmore ID: 1663  
Site Number: HY21NW 12  
NGR: HY 23125 18745

Canmore entry: <https://canmore.org.uk/site/1663/skara-brae>

Scheduling Description: SM90276, details accessible at: [Skara Brae, settlement, mounds and other remains \(SM90276\)](http://historicenvironment.scot/Skara_Brae_settlement_mounds_and_other_remains_(SM90276)) ([historicenvironment.scot](http://historicenvironment.scot))

UNESCO World Heritage Convention List entry: [Heart of Neolithic Orkney - UNESCO World Heritage Centre](http://whc.unesco.org/Heart_of_Neolithic_Orkney_-_UNESCO_World_Heritage_Centre) ([whc.unesco.org](http://whc.unesco.org))

HES World Heritage Advice and Support: [Heart of Neolithic Orkney - Historic Environment Scotland](http://historicenvironment.scot/Heart_of_Neolithic_Orkney_-_Historic_Environment_Scotland) ([historicenvironment.scot](http://historicenvironment.scot))

Report describing the outcomes from a workshop in Orkney (April 2019) to apply the Climate Vulnerability Index (CVI): [Climate Risk Assessment for the Heart of Neolithic Orkney World Heritage Site – Historic Environment Scotland](http://historicenvironment.scot/Climate_Risk_Assessment_for_the_Heart_of_Neolithic_Orkney_World_Heritage_Site_-_Historic_Environment_Scotland) ([historicenvironment.scot](http://historicenvironment.scot))

Report recommending approaches for managing change in the setting of the Heart of Neolithic Orkney World Heritage site: [The Heart of Neolithic Orkney World Heritage Site: Setting Project – Historic Environment Scotland](http://historicenvironment.scot/The_Heart_of_Neolithic_Orkney_World_Heritage_Site_Setting_Project_-_Historic_Environment_Scotland) ([historicenvironment.scot](http://historicenvironment.scot))

Images of the site may be viewed on SCRAN: [Scran: Search Results Skara Brae](http://scran.ac.uk/Scran:_Search_Results_Skara_Brae) ([scran.ac.uk](http://scran.ac.uk))

A 3D digital model of the site is available at Sketchfab: [Skara Brae, Orkney - 3D model by Historic Environment Scotland \(@HistoricEnvironmentScotland\) \[db877d51\]](https://sketchfab.com/@HistoricEnvironmentScotland/db877d51) ([sketchfab.com](https://sketchfab.com)) Sketchfab also holds other 3D models of finds from Skara Brae.

A number of artefacts from Skara Brae are held within the National Museums of Scotland collections, Orkney Museum collections and Stromness Museum

collections. The National Museums of Scotland collections database can be searched via: [Search our collections \(nms.ac.uk\)](https://www.nms.ac.uk); more information on the Orkney Museum is available via: [Objects from Collections \(orkney.gov.uk\)](https://www.orkney.gov.uk); and the Stromness Museum collections database can be searched via: [Collections - Stromness Museum \(stromnessmuseum.org.uk\)](https://www.stromnessmuseum.org.uk)

More information on prehistoric stone tools of Orkney can be found on the Orkney Stone Tools website: <https://www.orkneystonetools.org.uk/>

## APPENDICES

### APPENDIX 1: TIMELINE

**Some time between 3360 and 3160 cal BC** (Bayesian-modelled dates): Phase 0: Activity, by users of (probably) round-based pottery; the nature of this activity is unclear but the presence within the deposits of cereal grains and cattle bones radiocarbon-dated to this period<sup>162</sup> suggests that this could well have been a settlement, pre-dating the establishment of the Grooved Ware settlement.

**2920–2885 cal BC to 2840–2685 cal BC** (Bayesian-modelled dates): Phase 1: The earliest houses that survive today were constructed. These buildings seem to have gone out of use after less than a century – possibly as short as two generations after the establishment of this Late Neolithic settlement.

**2840–2685 cal BC to 2545–2440 cal BC** (Bayesian-modelled dates): Phase 2: Site was re-occupied and remained in use until its abandonment around the middle of the third millennium BC.

**Later third millennium BC**: Settlement had been abandoned, though dates obtained from some of the early skeletal finds from the 19th century suggest that some activity may have continued towards the end of that millennium.<sup>163</sup>

**1850**: Skara Brae was discovered after a storm eroded away sand that had previously covered it.

**1850–67**: William Watt, a relative of the local laird, organised a series of investigations of the site. The work was often guided by visiting antiquaries including George Petrie of Kirkwall, and James Farrer from Durham. As a result, Houses 1, 3, 4 and 5 and much of Passage A were cleared.

**1884**: Skeleton found during previous excavations in House 1 was identified as female.<sup>164</sup>

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<sup>162</sup> Sheridan *et al* 2012b, 205.

<sup>163</sup> Sheridan *et al* 2018a, 9; Thomas 2016, 93–94 (but see footnote 52 above regarding Thomas' use of what must be a weighted mean value for the X.HA 142 dates).

<sup>164</sup> Garson 1884, 60.

**1913:** Further investigation of the site by William Balfour Stewart and William Boyd Dawkins, pushing northwards from Passage A and into the remains of House 2.

**1922:** Significant coastal erosion.

**1924:** Site was taken into State care under a Guardianship Agreement.

**1924:** A severe storm resulted in the destruction of what remained of House 3.

**1925–6:** A sea wall was constructed to protect the site from further damage.

**1927:** Excavation and clearance to consolidate the remains and present them for public viewing started. More of Passage A and the west side of House 2 were cleared.

**1928:** Skara Brae was Scheduled.

**1928–30:** Childe supervised more detailed archaeological investigations. This led to the discovery of Houses 6 and 7 and Passages B and C (1928), west terminal of Passage A, Houses 8, 9 and 10, Passages E and F (1929–30). Childe interpreted Skara Brae as ‘Pictish’, which he saw as dating to the Late Iron Age.

**1931:** Childe published his interpretation of the site in a comprehensive book titled *Skara Brae, a Pictish village in Orkney*.

**1932:** A glass roof was put over House 7.

**?By 1934:** Site ‘museum’ constructed with associated landscaping.

**1936:** Site recognised as being older than ‘Pictish’ after pottery from Skara Brae was recognised, by Stuart Piggott, as being comparable to other pottery found elsewhere. (At that time, Piggott regarded this ‘Grooved ware’ as dating to the Early Bronze Age.)

**1950s:** A detailed photographic survey was made of the site.<sup>165</sup>

**1954:** The site was discussed as a Neolithic settlement in Piggott’s *The Neolithic Cultures of the British Isles*.

**1963:** First major work to extend and consolidate the sea wall.

**1972–3:** A team co-directed by David Clarke and Anna Ritchie undertook excavation in two areas of the site (Trenches 1 and 2, the latter located close to Childe’s test pit IV in which waterlogged material had been found), with the support of the (then-named) National Museum of Antiquities of Scotland, the University of Edinburgh and the Department of the Environment. They successfully obtained the first radiocarbon dates from the site, confirming it as Neolithic.

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<sup>165</sup> Now available through the National Records of the Historic Environment (NRHE). Available to view online on Canmore: [Skara Brae, Shandwick Orkney \(Collection: Historic Scotland Photographic Library, Catalogue number: 551 490/1/2/8/4\) \(canmore.org.uk\)](https://canmore.org.uk) (accessed 07 December 2022).

- 1976:** Following a storm, human remains discovered at the base of a sand cliff 14m north of the sea wall, just outside the Guardianship area. Radiocarbon dated, in 2018, to cal AD 776–983 (SUERC-79482, 1139±35 BP).<sup>166</sup>
- 1977:** Further excavations were undertaken by Clarke to the west of the old museum building, 25m west of the Guardianship area, following a storm that had revealed the remains of a wall.
- 1977:** A large area around the landward sides of the guardianship area was scheduled separately (SM 4591) to the guardianship area (SM 90276).
- 1978:** Storm damage to the sea wall required rebuilding; salvage work undertaken by North of Scotland Archaeological Society (NOSAS).
- 1990:** Further repairs to sea wall.
- 1992–3:** Storm erosion over the winter exposed archaeological deposits on a shelf of glacial till approximately 100m to the west of the site, prompting further excavation in 1994.
- 1993:** Further repairs to sea wall.
- 1994:** Fragments of a human skull were recorded eroding out of the wave-cut bank to the south-west of Skara Brae; further remains of this adult male and the remains of the cist in which he had been buried were fully excavated by GUARD Archaeology in 1996, and radiocarbon-dated to cal AD 543–687 (GU-7245, 1410±50 BP).<sup>167</sup>
- 1996:** Construction of Visitor Centre begun with new access routes. Three test pits to investigate the possibility of deposits to the south-east of the site were dug by EASE in advance of the construction, but no finds were recorded.
- 1998:** New Visitor Centre was opened along with the replica house.
- 1999:** Inscribed as part of the Heart of Neolithic Orkney World Heritage Site, the first archaeological site in Scotland to be designated for its cultural values.
- 2000:** Replacement of perimeter fence, the watching brief for which (undertaken by Kirkdale Archaeology) recorded occupation deposits to the south of House 7. A bone point, two cobble tools and six Skail knives were found.
- 2004:** The two separate scheduled areas (SM 90276 and SM 4591) were amalgamated into one schedule (SM 90276).
- 2005:** A detailed standing building survey of the site was undertaken by Historic Environment Scotland's predecessor body, and a survey of all known inscribed stones and identification of potential consolidated and reconstructed stonework was undertaken by AOC Archaeology.
- 2006:** Visitor access paths were altered to enhance accessibility. The accompanying watching brief reported that no archaeological material was disturbed.

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<sup>166</sup> Sheridan *et al* 2018b, 220.

<sup>167</sup> Canmore ID 138798 accessible at: [Skail – Cist, Human Remains \(ID: 138798\) \(canmore.org.uk\)](https://canmore.org.uk/entry/138798) (accessed: 16 October 2023).

**2007:** The glass roof over House 7 was replaced by a turf roof in order to reduce the heat differential, thereby creating a more benign environment and lessening the strain on the house wall. The accompanying watching brief reported no disturbance of archaeological material.<sup>168</sup>

**2008:** Skara Brae was mentioned in the opening sequences of *Indiana Jones and the Crystal Skull*.

**2009–2011:** Latest repair works to sea wall were completed.

**2010:** The site was scanned using advanced laser technology as part of the *Scottish Ten* project.<sup>169</sup>

**2014:** A buffer zone was formalised as part of the Heart of Neolithic Orkney Management Plan. This covers a wider area to include the Loch of Skail, hills to the north, and ridge to the south, with the aim of facilitating management of the immediate environs of Skara Brae.

**2010–2021:** A terrestrial laser scanning survey of Skara Brae and its surrounding beach is undertaken every two years as part of HES digital coastal erosion monitoring programme, capturing mm-scale accurate digital scans of the site and surrounding coastline.

**2019:** Climate Vulnerability Index (CVI) survey undertaken to assess the impact of the climate emergency on Skara Brae as part of the HONO World Heritage Site and to examine the dependency of the local community on the values of the WH property.

**2021:** A cist containing a well-preserved contracted skeleton was excavated by AOC Archaeology, as part of HES' Human Remains Call-Off Contract, at Links of Skail. The remains have been radiocarbon-dated to 3260–2910 cal BC (SUERC-107827, 4403±25 BP).

## APPENDIX 2: NEOLITHIC ORKNEY

*This Appendix provides a summary description of the wider context of Skara Brae within Neolithic Orkney.*

Skara Brae is one of the abundant Neolithic sites which survive across Orkney.<sup>170</sup> These sites provide evidence for life for the earliest farming communities on the islands in the period between roughly 3800 BC and 2500 BC. A distinction can be drawn between the Early and Middle Neolithic in Orkney (c. 3800 BC–3200 BC) and the Late Neolithic (c. 3200 BC – c. 2500 BC), on the basis of both monuments and material culture (in particular pottery styles). Early Neolithic settlement appears to have featured small, individual farmsteads, built of timber (and probably other non-stone material) until forest clearance made timber no longer viable as a regular

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<sup>168</sup> Hollinrake 2007, 144.

<sup>169</sup> For more information on the project, see [The Scottish Ten - Neolithic Orkney, Scotland \(engineshed.scot\)](https://engineshed.scot) (accessed: 07 December 2022).

<sup>170</sup> More detailed information about Neolithic Scotland is to be found at [ScARF National Framework - Neolithic \(scarf.scot\)](https://scarf.scot) (23 November 2022).

building material. Early Neolithic funerary monuments comprised passage tombs, with round cairns, and stalled cairns (so called because their chambers are divided into 'stalls' by upright slabs), with round, rectangular or trapezoidal cairns.<sup>171</sup> Connections across the Pentland Firth are evident not only in tomb design but also in pottery, and there were also connections with the Outer Hebrides from 3600/3500 BC, shown in the sharing of the design of a specific vessel type known as the 'Unstan bowl'. Such connections demonstrate competence in deep-water navigation. A process of aggrandisement in the scale and elaboration of funerary monuments is evident from at least as early as c. 3500 BC, and this may indicate growing social differentiation, with monument building being the medium through which a process of competitive conspicuous consumption between different groups was expressed.

The Late Neolithic is marked by significant changes in settlement organisation, monuments, material culture and practices.<sup>172</sup> It has been suggested that these changes relate to a power strategy by a dominant group of prosperous farmers, based in the west Mainland, who successfully set out to create a new world order featuring themselves in a position of power.<sup>173</sup>

Settlements featuring a cluster of houses appeared, with Barnhouse being occupied from the 32nd century BC.<sup>174</sup> Skara Brae was established several generations later, in the late 30th or 29th century, and occupation at **Links of Noltland** may have begun during the 30th century.<sup>175</sup> At both **Links of Noltland** and Barnhouse (and at Ness of Brodgar, discussed below), the architectural development included the construction of a structure much larger than normal houses, and seemingly designed for communal use. The architecture at Barnhouse also included the construction of a 'double house', House 2. At **Links of Noltland** at least part of the settlement was encircled by an enclosing wall<sup>176</sup> and other possible enclosed settlements have been suggested elsewhere in Orkney.<sup>177</sup> Individual, free-standing (that means not semi-subterranean, as Childe had argued for Skara Brae) structures were built of thick double walls of stone and at Skara Brae there were passageways between closely spaced houses. Some of these passageways were roofed over with stone slabs at some point during the occupation of the settlement. While the principal stonework of the houses was drystone, at Skara Brae clay was used for foundation, cladding and packing of the walls, mixed with other materials – sand, ash and domestic refuse – to add stability, particularly in the internal wall cavity. Most settlements show considerable time depth including the addition of new dwellings and remodelling of older structures.

While the dwellings are distinguished by a range of stone fittings interpreted as the basis of furnishings such as beds, hearths, and 'dressers', there is some variability in their arrangement, both within and between settlements, and there is variability between settlements in the overall shape and size of houses.

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<sup>171</sup> Davidson and Henshall 1989; Sheridan and Schulting 2020.

<sup>172</sup> Edmonds 2019; Richards and Jones 2016; MacInnes 2018 and 2019.

<sup>173</sup> Sheridan 2024.

<sup>174</sup> Richards *et al* 2016.

<sup>175</sup> Marshall *et al* 2017; Bayliss *et al* 2017, fig. 5.

<sup>176</sup> **Links of Noltland** Statement of Significance, 5. Available to download online: [Links of Noltland - Statement of Significance \(historicenvironment.scot\)](https://www.historicenvironment.scot/links-of-noltland-statement-of-significance) (accessed: 19 December 2022).

<sup>177</sup> Brend *et al* 2020, 97.

Pastoral farming, involving the tending of domesticated cattle, sheep/goat and (to a much lesser extent) pigs, provided the economic mainstay of life, with cattle appearing to be the dominant species to be reared. The fertile land of Orkney will have provided excellent grazing, as it does today, and offered the possibility of accumulating surpluses that could be deployed in feasting and in feeding the workforces involved in building monuments. There is evidence that, by this stage in the Neolithic, marine resources were being exploited, both to supplement the diet and to provide raw material for various uses including bead and pendant manufacture. Other wild resources were also exploited, with the presence of puffball remains at Skara Brae being interpreted as both a foodstuff and to use for medicinal purposes.<sup>178</sup>

The range of other Neolithic sites in Orkney which broadly relate to Skara Brae include stone circles and other standing stones, **Maeshowe**-type passage tombs and other chamber tombs, and the exceptional site at the Ness of Brodgar. Together they provide an unusually comprehensive view across all aspects of Neolithic life from everyday living to death, seasonal ceremonies, and the role of the ancestors, with a clear focus lying in the west Mainland, within the HONO WHS buffer zone.

The Ness of Brodgar, at the heart of this complex of monuments in west Mainland, seems to have played a pivotal role in the functioning of Late Neolithic society in Orkney.<sup>179</sup> It is located on a thin isthmus of land, between the lochs of Stenness and Harray and close to the stone circles and henge sites of the **Ring of Brodgar** and the **Stones of Stenness**, with the complex earthworks at the Ring of Bookan to the north-west and tomb of **Maeshowe** to the south-east. Additional stone settings such as the **Watchstone**, and the Stone of Odin (now destroyed), hint at the complexity of this landscape in the Neolithic, though it is also clear that it has undergone considerable change throughout the period and may only have approached the density of monuments seen today towards the end of its life. Overall, the complex is interpreted as a significant ceremonial centre, of importance to the Late Neolithic community across Orkney and far beyond.

The Ness of Brodgar may have started out, during the second half of the fourth millennium, as an ordinary settlement whose occupants used round-based pottery, but its subsequent development followed a distinctive trajectory that sets it apart from other nucleated settlements. Stone-built house structures associated with flat-based, Grooved Ware pottery were in use before the 30th century and from the 30th century, substantial piered stone structures, resembling oversized houses, were replacing these.<sup>180</sup> A massive communal building with at least three enclosing walls, Structure 10, was also in existence by the 30th century. This is closely comparable to the large structures at Barnhouse and **Links of Noltland**. The dating evidence suggests that this phase of the site's use was over by c. 2800 cal BC.<sup>181</sup> Excavation has uncovered the remains of a monumental wall some four metres thick, across the isthmus at the north-western side and a similar wall, up to two metres thick, to the south-east. Activities at the Ness of Brodgar included feasting and the manufacture and use (and in some cases, deliberate destruction), of carved stone objects

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<sup>178</sup> Clarke 2012, 37.

<sup>179</sup> Card *et al* 2020; Sheridan 2024.

<sup>180</sup> Card *et al* 2018.

<sup>181</sup> Card *et al* 2018.

including maceheads.<sup>182</sup> The presence of exotic materials including pitchstone and volcanic tuff from Great Langdale in Cumbria at the Ness indicates long-distance connections.<sup>183</sup> It has been suggested that, at least during the currency of the huge piers structures, this site may have been used to receive and accommodate visitors from far and wide, drawn to the west Mainland by the impressive monuments that were built there, and by the associated seasonal (especially midwinter) festivities held there.<sup>184</sup>

Long-distance connections are also indicated in the design of the passage tomb at **Maeshowe**, which bears a striking resemblance in layout (if not in scale) to the massive passage tomb at Newgrange in the Boyne Valley in eastern Ireland and was arguably inspired by it.<sup>185</sup> **Maeshowe** consists of a large, high-vaulted central chamber with three recessed cells, accessed by a long, low passage orientated so that the setting midwinter sun shines along the passage, lighting up the chamber (and thereby 'reawakening' the ancestors buried inside, in the cells). The quality of the stonemasonry is exceptional, matching and arguably surpassing that of the finest stonemasonry at the Ness of Brodgar, and most of the passage is made from immense slabs of sandstone, the largest weighing an estimated 3 tonnes: building **Maeshowe** was no mean feat.<sup>186</sup> Within the long-standing process of competitive conspicuous consumption in the aggrandisement of funerary monuments, the decision to introduce an exotic, Irish style of passage tomb to Orkney constituted a master stroke and a step change, with its orientation on the midwinter setting sun – the setting sun, unlike the rising sun at Newgrange – suggesting that its builders could claim they had the power to control the movement of the sun (and hence the basis for the successful agricultural year and the reproduction of society). Other evidence for connections with the Boyne Valley includes the adoption and adaptation of motifs and designs from Irish passage tomb 'art' on stones (especially lintel stones) used in **Maeshowe**-type passage tombs, and on some Grooved Ware pottery (including at Skara Brae). Even further long-distance connections are indicated by the appearance of the Orkney vole, which must have arrived in Orkney by boat from mainland continental Europe, brought as a renewable food supply by the adventurous Orcadian elite who undertook the staggeringly long-distance sea journeys.<sup>187</sup>

Not all of the chamber tombs constructed towards the end of the fourth millennium were **Maeshowe**-type passage tombs, but the influence of this architectural novelty can arguably be seen in the incorporation of square or polygonal cells into the design of stalled cairns such as **Unstan** and **Holm of Papa Westray** North.<sup>188</sup> It is also becoming clear that not everybody got to be buried in a chambered cairn during the

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<sup>182</sup> Card *et al* 2020, chapter 19.

<sup>183</sup> Card *et al* 2020, chapter 17.

<sup>184</sup> Sheridan 2024.

<sup>185</sup> Sheridan and Schulting 2020; Sheridan 2024.

<sup>186</sup> Davidson and Henshall 1989, 51.

<sup>187</sup> Sheridan 2024; see Bayliss *et al* 2017 for Bayesian-modelling of the date of their appearance in Orkney.

<sup>188</sup> Sheridan and Schulting 2020.

Late Neolithic, as is clear from the recently-discovered cist at Links of Skail<sup>189</sup> and from the cist at Sand Field.<sup>190</sup>

The construction of the stone circle with its surrounding henge at the **Stones of Stenness** during the 30th century cal BC<sup>191</sup> constitutes an innovation in monumental design and practice and is one of a series of novelties created by the dominant group in west Mainland. This will have choreographed ceremonies held at midwinter and at other significant times. The even larger stone circle and henge at the **Ring of Brodgar**, to the north of the Ness of Brodgar, may well have been constructed some 400–500 years later, perhaps inspired by the enormous stone circle and henge at Avebury in Wiltshire. Its dating leaves much to be desired, however.<sup>192</sup> The construction of these and other impressive Late Neolithic buildings in Orkney will have required the mobilisation of large numbers of people, and this in turn suggests the presence within the community of those able to conceive and organise elaborate building projects.

The novelties introduced by the ambitious dominant group in west Mainland include a wholly new style of pottery which is called Grooved Ware. Adopting and adapting some Irish passage tomb motifs, but in a markedly innovative manner, this flat-based pottery was used in domestic, funerary and other ceremonial contexts. The dating evidence from Barnhouse shows that it was in existence by the 32nd century cal BC.<sup>193</sup> Its rapid adoption outside of Orkney, as far away as south-west England and south-west Ireland,<sup>194</sup> attests to the west Mainland as being a ‘magnet’ for visitors from far and wide, coming on pilgrimage-like visits (just as people had been going to the Boyne Valley, and would go to Stonehenge). Other innovations include ostentatious jewellery made of bone and marine ivory and a series of carved stone objects that could have served as weapons (as indicated by skulls from **Cuween Hill Chambered Cairn** with macehead- or carved stone ball-sized holes in them), but which served above all as symbols of power, weapons of social exclusion in a highly inegalitarian society.

It is within this milieu that the settlement at Skara Brae can be understood. Established later than Barnhouse and the Ness of Brodgar and continuing to be occupied long after occupation at Barnhouse had ceased (and after the early third millennium *floruit* of activities at the Ness of Brodgar), it formed part of these Late Neolithic developments, its occupants using Grooved Ware, ostentatious jewellery and a variety of carved stone objects to signal their participation in the ‘new world order’. Given the presence of these symbols of power, it is reasonable to argue that the inhabitants formed part of the elite. The question of why Skara Brae was abandoned around the middle of the third millennium remains to be answered fully. Climate and environmental change may well have been significant factors, but the collapse of the early third millennium social order and its consequences will doubtless have been another. Plague or some form of pandemic is also a possible

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<sup>189</sup> Kirsty Owen, personal communications.

<sup>190</sup> Dalland 1999.

<sup>191</sup> Bayliss *et al* 2017.

<sup>192</sup> Downes *et al* 2013.

<sup>193</sup> Richards *et al* 2016.

<sup>194</sup> As discussed in Copper *et al* 2024.

reason for the collapse of previously flourishing societies. Further research is required.

## APPENDIX 3: SKARA BRAE: DESCRIPTIVE OVERVIEW

*This Appendix provides a detailed description of the individual structures that make up the Skara Brae settlement.*

### General overview

Skara Brae is located on the west coast of Mainland Orkney, on the southern shore of the Bay of Skail. It lies just above sea level and, currently, right at the water's edge. Coastal erosion is an ongoing threat. The site was in use during the Neolithic, in the late fourth and first half of the third millennia BC. Today, it lies in farmland, grazed by cattle, some 300m from Skail House, once the dwelling of the local 'laird'. At the time the village was inhabited the coast lay further west, perhaps as far as the present mouth of the bay, and research suggests that the land to the west of the site comprised a low-lying lochan, surrounded by grassland, separated from the sea by a dune system.<sup>195</sup> Coastal erosion was already underway during the occupation of the village and once the dune system had disappeared the impact of sand blow and salt deposition increased, apparently making cultivation more difficult. It is likely that the village was set into a farming landscape with fields and grazings among whatever stands of woodland may have remained. The location offered easy access to both coastal and inland landscapes providing a range of resources as well as fresh water, while the dune system meant that there was shelter from the coastal weather systems. The rounded nature of the stones used to build the village suggests that they were collected from the nearby shore, rather than quarried, although the slabs used for the internal fittings are likely to have been quarried.

While other Neolithic villages are known in Orkney, none is in the immediate vicinity, and the extent to which this was a farmed landscape remains unknown. Nevertheless, there are Neolithic sites not far away, including the monumental sites at the Ness of Brodgar, **Maeshowe**, the **Ring of Brodgar**<sup>196</sup> and the **Stones of Stenness**, making it likely that this was a well-populated landscape. As set out in Appendix 2, it is clear that Late Neolithic society involved a high degree of contact and communication, both within the archipelago and far beyond.

Elements of 28 structures have been recorded at Skara Brae and it is likely that there were, originally, more. An unknown number are likely to have been destroyed by coastal erosion – only vestigial remains survive of House 3 though it was more complete when first discovered in 1850 – and geophysical survey indicates the survival of unexplored remains to the south, immediately inland, of the village.<sup>197</sup>

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<sup>195</sup> De la Vega-Leinert *et al* 2000; Brend *et al* 2020, chapter 3.

<sup>196</sup> Although it is unclear whether the **Ring of Brodgar** was constructed during the lifetime of the Skara Brae village.

<sup>197</sup> Brend *et al* 2020.

These are interpreted as further houses although without ground-truthing the survey results, it is impossible to say whether these are of Late Neolithic date or not.



Figure 16: Overview illustration of site with houses and passages annotated. © Historic Environment Scotland.

## The Passages

Skara Brae comprises a tightly clustered group of structures linked by narrow, stone-built passageways. In general, the passages are floored and some were roofed with sandstone flags over the course of the settlement's life. This, together with the stone walls that define them, provides the misleading impression that the passages were conceived as an integral element of the original village design. Excavation indicates that they were originally open to the sky and were simply formed by the gaps between individual houses. The sinuous and changing nature of the stonework along the side of each passage is a clear reflection of this, an element of the constant growth and redesign of the settlement as a whole. Research indicates that the roofing slabs covering Passages A–C were only added during the life of the settlement; they were not always present.<sup>198</sup> While individual passageways share the same overall characteristics there is, thus, considerable variation along each one, as

<sup>198</sup> Shepherd 2016, 218.

they incorporate elements of the structures and adapt to the changing needs and desires of the inhabitants.

### Passage A



Figure 17: View of the Passage A by House 1. © Crown Copyright HES.

The main axis of the village today lies along a covered passage, known as Passage A, which runs roughly from east to west. It is highly likely that the original entrance to Passage A has been destroyed by coastal erosion at the east end, given the original presence of at least one other house, House 3 here, and possible further remains. At the western end the evidence is more equivocal. Childe felt strongly that the dwellings gave way to a more open, paved, area (which he designated as 'The Market Place') and a workshop (Structure 8).<sup>199</sup> He recorded a clear 'entrance' to

<sup>199</sup> It is now suspected, however, that Structure 8 'workshop' is of post-Late Neolithic date.

Passage A at this point, which included a doorway that could be sealed with the use of a bar set back into the passage wall, and he interpreted this as one of the main points of access for the village. From this he surmised that the village was unlikely to continue further to the west.

Passage A occupies a sinuous course as it winds between the outer walls of the house structures. It is just over 1m high and varies in width but is usually around 1.5m wide. The passage is floored with flagstones and on either side the stone walling is made up of the outer walling of the adjacent houses. Many stretches of this walling comprise well-laid horizontal courses of stone but there are also places where more complex elements have been included such as to the north of the entrance to House 4, at the eastern end of the passage, where a series of larger stones at floor level support the lintels above a low niche in the wall. In places the lower courses of the walls are made up of similarly sized larger boulders. Houses 4, 6, 1, and 2 open off Passage A, the first two to the south and the others to the north, and there are also openings into covered cells by the entrance to House 4 and between Houses 1 and 2. A second passage, Passage B, opens to the south of Passage A to the west of House 6, just before the western 'entrance'. Shepherd suggests that Passage A was built in three stages, added to with the construction of new houses. Only in the last stage was a dedicated stretch of clay-clad walling built, at the western end. Human bones were found in Passage A, somewhere outside House 1: 'in a corner of Passage A leaning against the wall near the triangular cell (A2)'.<sup>200</sup> A femur found here has been radiocarbon-dated to the second half of the third millennium, so post-dates the abandonment of the village.<sup>201</sup>

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<sup>200</sup> Childe 1931, 140.

<sup>201</sup> Sheridan *et al* 2018b.

## Passages B and C



Figure 18: First Minister of Works, George Lansbury at Skara Brae in 1930. The furthest stretch of Passage C was named 'The Lansbury Gallery' by Childe (SC 1925036). © Courtesy of HES (Vere Gordon Childe Collection).

Passage B runs southwards from Passage A to the west of House 6. Excavation showed that it started life before the development of Passage A.<sup>202</sup> To the south, as it approaches the entrance to House 7, it drops down a series of stone steps and a cell opens to the west. Childe suggested that an 'entrance gate' was originally sited here. At this point it becomes Passage C, which continues around the outside of House 7. (Childe named the furthest stretch of Passage C 'The Lansbury Gallery', after the first Minister of Works, George Lansbury, a left-wing social reformer who visited Skara Brae in 1929.) Passage C rises above the level of the nearby house floors and seemingly leads out of the settlement as it survives today. There is

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<sup>202</sup> Shepherd 2016, 218.

another possible 'entrance gate' sited by a small cell, the back wall of which blocks the original entrance to House 9.

### **Passages E and F**

Passages E and F lead from Passage C just outside the western 'gate', where it opens on to a small, paved area. Passage F leads south, between the outer walling of the houses and a freestanding piece of wall that may delimit a working or agricultural area. Passage E opens to the north and occupies the space between the outer walls of House 2 and Structure 8. Coastal erosion and modern management work mean that it is impossible to ascertain whether it led towards further structures or out of the settlement. Further walling suggests that Passage A may have continued to the west beyond the entrance of Structure 8, but this point coincides with the limits of the main excavation trench.

### **The Houses**

The numbering of the house structures has accrued gradually from the first investigations in the mid-nineteenth century. They share essential elements, from building materials to the design and layout of the fittings, though there is also considerable variation in how these elements have been combined in individual structures.

In general, the houses are built from horizontally laid stonework, with very thick walls. The rounded nature of individual stones suggests that they were brought from the nearby beach (which will have been further away than it is now). Walling comprises two separate skins of stone, bonded through the use of an amalgam of clay and other materials in the core. In some cases, an outer casing wall was used to add support – Childe cites House 7 on the south and east as a 'perfect' example of this<sup>203</sup> – though the processes of abandonment, remodelling, and new building that continued within the confined space of the settlement throughout its life also mean that it is often difficult to unpick precise structural details. There is abundant evidence of clay around the outside footing of the wall of House 4,<sup>204</sup> which is interpreted as possessing an outer skin of clay. Clay cladding was also noted throughout the 1972-3 excavations, particularly on the stonework at the back of free-standing sections of Passages A and B.<sup>205</sup> Inside, the evidence suggests that the earliest houses were bedded on local clay (probably a naturally deposited material dating to the Late Glacial period).<sup>206</sup>

The interior of most, but not all, of the houses is roughly rectangular with rounded corners, while the exteriors appear to be curved, to judge from the shape of the passageways between the houses. In fact, during the excavations, little or no attention was paid to defining precisely the exterior shape of the houses. Each house is accessed through a single, slab-lined, doorway, often slightly offset to the right. Nearly all the houses have bar-holes set into the walling at the entrance, from which

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<sup>203</sup> Childe 1931, 9.

<sup>204</sup> Childe 1931, 34.

<sup>205</sup> Shepherd 2016, 224.

<sup>206</sup> Shepherd 2016, 222, 224.

access could be impeded by those within.<sup>207</sup> In many cases the bar holes also open into intramural cells within the house. Each house has at least one cell set into the thickness of the wall and accessed through a low opening to the interior. In several houses, cells open from below the 'dresser'.

Childe lists the interior fittings as follows:

- Hearths: approximately in the centre and defined by edge-laid slabs, sometimes with a taller 'hearth-slab' towards the 'dresser'.
- Beds: larger slab defined spaces to either side of the hearth, recessed into the walls of earlier houses and projecting into the interior space in later dwellings. The bed to the right of the hearth is always larger than that to the left.
- Keeping places: sizeable recesses or aumbries built into the wall above the beds in the most extant houses.
- Other enclosures: several houses have further partitioned spaces besides the beds, in particular towards the doorway. In some cases, these are rectangular, in some cases more triangular. A variety of uses have been suggested, from additional beds to waste disposal areas.
- 'Dressers': a slab-built unit of shelves set against the back wall of each house, opposite the entrance. The 'dressers' are always identical in style, comprising three pillars of stone supporting two stone shelves one above the other and divided at the front into two bays. The 'dressers' in Houses 1 and 7 project from the wall, while in Houses 2, 4, and 5 they are set into recesses. Houses 1, 2, 5, and 9 have intramural cells opening from the left bay of the 'dresser' at floor level.
- 'Limpet boxes': small, square, stone-built boxes sunk into the floor of the more recent houses (1, 2, 4, 5, 7). 'Limpet boxes' were luted with clay and therefore watertight.
- Intramural cells: described above.
- Drains: although the site has not been completely excavated it has been possible to trace a series of well-built stone drains which run under the floors of many of the houses, in particular Houses 4, 5, and 6 as well as 1 and 3. These lie at some depth and appear to run down towards the north, though none has been traced for its full length.

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<sup>207</sup> Note that Colin Richards' claim (1991) that House 7's door could only be barred from the outside has been disproved by David Clarke (Clarke 2003, 90).

## House 1



Figure 19: Interior of House 1, showing the hearth, 'dresser', intermural cell entrances, 'limpet boxes' and the two slab-built enclosures on the left wall and one to the left of the entrance. © Crown Copyright HES.

House 1 lies to the north of Passage A and was the first, and most obvious, to be found and investigated. Initially the work was undertaken by members of the Watt family who resided at Skail House and had discovered the site after the storm of 1850 (confusingly comprising a father and son team, both named William).<sup>208</sup> The Watts excavated at least three chambers, House 1 lay in the middle and as this was the most complete, they went on to rebuild and restore its stonework. While this renovation seems to have retained the principal integrity of the house, an early ground plan, drawn by Petrie, indicates that there were originally two cells in the northern wall (Figure 20), one opening from the corner – see also top sketch of Figure 31 – and one under the 'dresser', but these were not incorporated into the Watts' rebuild. House 1 today includes a small window giving out to the present coastline and this was not part of the original structure.<sup>209</sup>

<sup>208</sup> As previously noted (footnote 53) it was likely the landowner's illegitimate son who was responsible for the works.

<sup>209</sup> See for example the 1865 painting of 'Skerra Brae' by Cairns in Petrie, 1867.

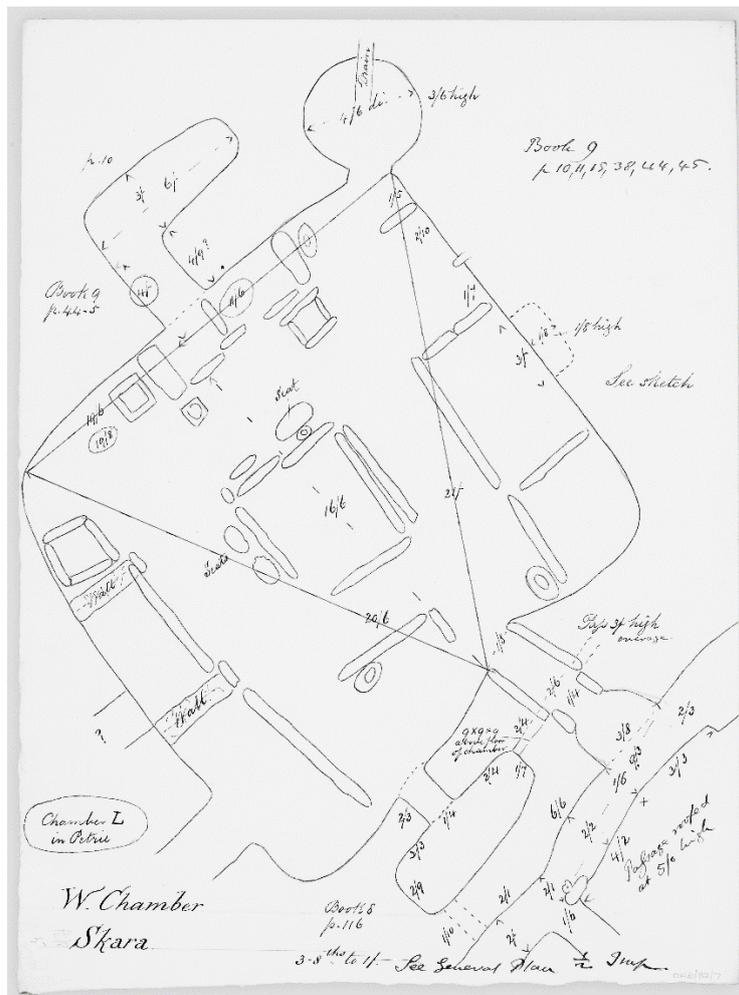


Figure 20: Plan with measurements of House 1, drawn by Dryden in 1879 from Petrie's plan of his House K. Note the two intramural cells behind and next to the 'dresser' which were not incorporated into the Watt's rebuilt. (DP 038938) © Courtesy of HES (Society of Antiquaries of Scotland Collection). Reproduced with kind permission of the Society of Antiquaries of Scotland.

House 1 is the largest of the visible houses and provides, in many ways, an archetypal Skara Brae dwelling. There are two slab-built enclosures along the right-hand wall and two to the left. In addition, a wider, but less well-built enclosure lies to the left of the entrance. The large hearth is centrally placed and beyond that stands a well-built 'dresser'. Interestingly, Cairns' painting of the site in 1863<sup>210</sup> suggests that though the slabs of the 'dresser' have been carefully rebuilt, some may have been rearranged.<sup>211</sup> Four 'limpet boxes' occupy the space between the hearth and the

<sup>210</sup> The painting is published in Childe, 1931, Plate 1, in which it is dated to 1865, however it was also published in an earlier publication of Petrie, 1867, Plate XXXIX, in which Petrie states that the sketch was 'taken on the spot in October 1863' (219), this date is also confirmed in the donation record of the sketch published in PSAS vol. VI, p. 420.

<sup>211</sup> Note, however, that Cairns' painting cannot be regarded as reliable: it is impossible, for instance, to see the two cells in the north wall that Petrie documented. This may be because the painting was made after the north wall was reconstructed – there is an arguable 'window' in approximately the right place – but in that case, there is an unaccounted-for reconstruction of the house wall above the level of the top of the dresser and the latter is rendered very poorly by being made far too broad. Similarly,

'dresser' and to the side of the 'dresser', and, as presented today, the interior of the house is scattered with stone saddle querns and potlids. Shallow aumbries are set back into the wall above each of the main beds and the head of that to the left of the hearth incorporates two small shelves.<sup>212</sup> House 1 today has two intramural cells, one opening to the left of the entrance, and one from the left-hand wall. Both also connect with Passage A. When discovered, a substantial drain led from the corner cell of the house into a complex sluice-like structure to the north of the house, but this was subsequently lost to storm damage/coastal erosion. Petrie notes that when the house was first explored it contained a contracted human skeleton in the infilled deposits ('in the sand filling hut 1') and infers that it related to a late phase of use of the structure, once it had been abandoned as a dwelling.<sup>213</sup> In 1884 this skeleton was identified as female,<sup>214</sup> and in the 2010s she was radiocarbon-dated, confirming that she post-dates the abandonment of the settlement.<sup>215</sup>

## House 2



Figure 21: Interior of House 2 looking towards the western wall. To the north are the remnants of the 'dresser' with the cell opening behind. © Crown Copyright HES.

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the stone box is inaccurately placed relative to the hearth and dresser (David Clarke, personal communications).

<sup>212</sup> A feature that looks modern but seems to appear in Cairns' 1863 illustration (Petrie, 1867) – but see the previous footnote for doubts about the reliability of Cairns' painting.

<sup>213</sup> Petrie 1867, 210; Childe, 1931, 139. This skeleton was radiocarbon-dated for Rick Schulting – one of two sets of human remains found by Watt to have ended up in the Natural History Museum in London – and it is likely to be associated with the date of 2030–1780 cal BC (OxA-26685, 3579±27) (Rick Schulting, personal communications).

<sup>214</sup> Garson 1884, 60.

<sup>215</sup> Rick Schulting, personal communications.

House 2 lies to the west of House 1 and was discovered when Balfour Stewart and Boyd Dawkins pushed the exploration of Passage A westwards in 1913.<sup>216</sup> They only investigated the entrance and eastern wall beside the casing wall of House 1. House 2 is entered from Passage A to the west of House 1. It has a slightly smaller, truncated-oval, interior and seems to be set against the outer wall of House 1. It contains all of the usual fittings: a bed to either side of a central hearth; two smaller slab enclosures to the left of the entrance, 'limpet boxes' in the north-west corner, and a 'dresser' from which a cell opens at bottom left as well as a second cell in the north-east corner of the house. Balfour Stewart and Boyd Dawkins comment on the quantities of clay at the base of the eastern wall, suggesting that it had been used to plaster the wall face. Various aumbries are set into the upper half of the walls, especially over and to the left of the entranceway. The beds include well-preserved higher corner slabs that project above the side slabs.

### House 3



Figure 22: The remains of House 3 with the intramural cell in the foreground to the left of the entrance passage. © Crown Copyright HES.

House 3 lies to the east of House 1, and little survives today, though early plans suggest that originally the fittings of the western half, including the bed, several 'limpet boxes' and the hearth, were uncovered. A bad storm in 1924 continued the destruction of previous storms, removing what had been left of the house.<sup>217</sup> Petrie's plan of 1867 shows three uprights at the rear of the house, presumably the lower supports of the 'dresser'. A single cell lies to the left of the entrance. Little more than the entrance and the cell survive today.

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<sup>216</sup> Stewart and Dawkins 1914.

<sup>217</sup> Childe 1931,33.

## House 4



Figure 23: Interior of House 4 from the entrance looking south towards the remnants of the 'dresser' and the intramural cell to the right of it. © Crown Copyright HES.

House 4 lies to the south of Passage A, at the western end of the settlement. A long straight entranceway, which could be closed by a draw bar at the interior end, opens on to the internal space which is wider than many of the other houses. Childe saw House 4 as later than House 5, but the relationship between the two is architecturally complex and would repay further study. Towards the south-east corner of the house, a stone pillar some 1.75m high has been built into the internal wall face. The eastern wall of House 4 rests on a lower, outer course of larger boulders, and Childe notes that it was coated in a layer of blue clay around 0.15m thick, though there is no visible trace of this today.<sup>218</sup> Childe recorded a substantial bastion wall (which, as previously noted, he simply termed 'midden') around the eastern side of the house, with a deep packing in between, but the visible remains here are complex and may include traces of an earlier structure, House 4'. The internal fittings of House 4 conform to the typical Skara Brae layout, but there are some significant differences. The hearth lies to the left of the entrance; longitudinal slabs divide off possible bedspaces to either side of the room, but with less definition than usual due to the lack of end slabs; and the 'dresser', which only survives in the form of the three lower supporting pillars, is also offset to the left. While there are 'limpet boxes' set near to the hearth, there is also an additional dividing slab, set parallel to that of the right-hand bed. Though the parallels are not definitive, House 4 resembles double houses such as House 2 at Barnhouse. There are two intramural cells, one entered to the right of the 'dresser', and one to the right of the doorway. House 4 was explored by William Watt and an 1867 plan by Dryden records the internal fittings in detail, together with drains that run under the floor across the centre of the house (Figure 24).

<sup>218</sup> Childe *et al* 1931, 40.

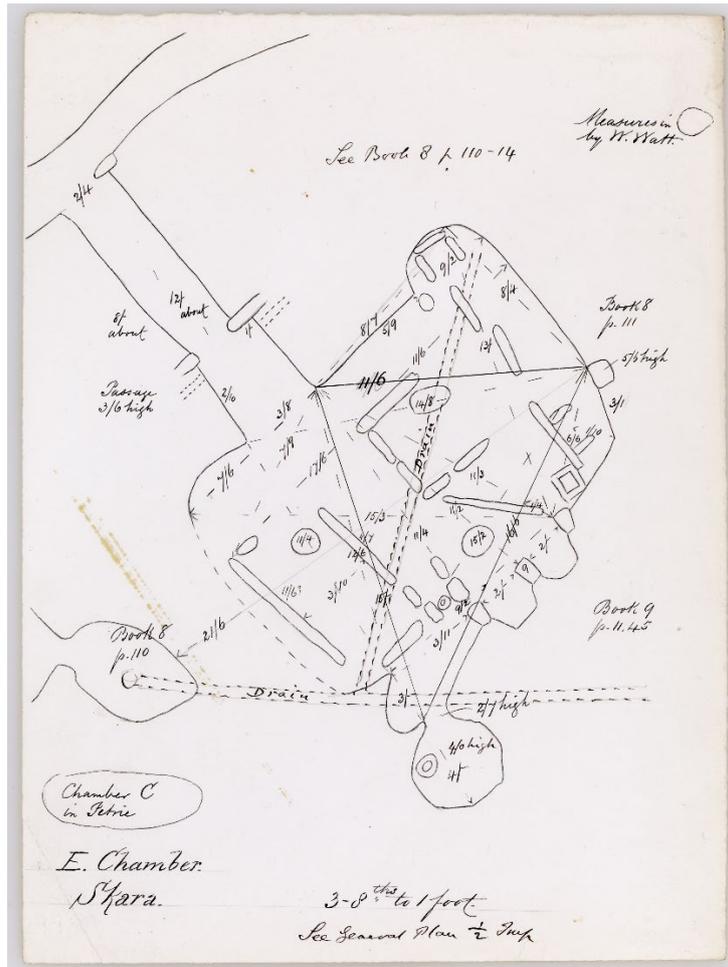


Figure 24: Plan of Skara Brae House 4 drawn by H. Dryden c. 1867. (DP 187588) © Courtesy of HES (Society of Antiquaries of Scotland Collection). Reproduced with kind permission of the Society of Antiquaries of Scotland.

### House 5



Figure 25: Interior view of House 5. © Crown Copyright HES.

House 5 lies immediately to the west of House 4 and the two share an interior wall that has clearly been much altered. As it stands today, this wall includes several vertical joints and is often thin. A number of cells and aumbries in House 5 back on to, or even open in to, House 4. The internal space of House 5 conforms more precisely to the standard house fittings, however, being roughly sub-rectangular in shape and with a central hearth, well-defined beds that project into the room, 'limpet boxes', and a 'dresser', from the left-hand side of which an intramural cell can be accessed. There are additional slab-lined enclosures along the western wall, and to the left of the doorway. Unusually, the entrance passage is short, and the doorjambs lie flush with the outer wall of the house in Passage A. Childe felt that the entranceway had been disturbed. He recorded House 5 as lying inside the casing wall that enclosed House 4, perhaps raising the possibility of a larger, more irregular structure at some point. A large stone in the wall behind the left-hand bed was found to block a narrow passage leading to a tiny cell which was opened in 1928 and found to contain a stone basin or quern alongside two whale vertebrae and a small grinding slab. Various drains have been recorded beneath the floor of House 5, running from within House 6 and from one of the intramural cells, in the south-east corner.

## House 6



Figure 26: Interior view of House 6 and House 6' in the background. © Claire Smith.

House 6 is situated to the west of House 5. It is divided into two structures, House 6 and House 6', of which House 6' to the south is generally accepted to be the earliest,

perhaps dating to an early phase of the settlement.<sup>219</sup> House 6' is entered from Passage C and the internal space is smaller than many of the structures. The hearth lies centrally, and to the right there is a bed recess, typical of the early house design. The original entrance has been blocked and little trace of internal fittings survives. House 6 lies to the north of this and is entered from Passage A. Childe describes a deposit of thin 'roofing' slabs stacked inside the doorway, a feature occasionally seen on other sites such as **Links of Noltland**.<sup>220</sup> No clear interior fittings survive within House 6. From his investigation of the outer wall of House 5, Childe felt that House 6 dated to a very late stage of the village.<sup>221</sup>

## House 7



Figure 27: Interior view of House 7. © Crown Copyright HES.

House 7, discovered in 1928 by Childe and generally considered to be the best-preserved house, lies on the southern edge of the settlement and is entered from Passage C. Childe notes that it sits on natural subsoil,<sup>222</sup> while Shepherd considers it to have early origins, albeit undergoing later alteration.<sup>223</sup> For most of its circumference, the house sits alone, surrounded on the eastern side by passage C, and with a wide gallery to the west that may have started life as a passageway. The house wall is described by Childe as 'stout',<sup>224</sup> and supplemented by a casing wall sitting on a higher foundation of accumulated deposits (which he simply designated

<sup>219</sup> Shepherd 2016, 218.

<sup>220</sup> Childe 1931, 65–66. Current Archaeology 2013: [Sands of Time: Domestic Rituals at the Links of Noltland \(archaeology.co.uk\)](https://www.archaeology.co.uk) (accessed 11 October 2022).

<sup>221</sup> Childe 1931, 67.

<sup>222</sup> Childe 1931, 37.

<sup>223</sup> Shepherd 2016, 218.

<sup>224</sup> Childe 1931, 37.

as 'midden'). Inside, House 7 is smaller than House 1, but of a similar sub-rectangular shape. The paved entranceway can be closed with a bar, controlled from a cell that opens to the outside, but Clarke suggests that this arrangement is not original.<sup>225</sup> The hearth lies centrally, in front of the entrance with a well-built bed space to either side of it. The bed to the left is smaller and flanked by tall pillars against the house wall. The bed to the right has linear engravings along the front slab (see Figure 10 above).<sup>226</sup> The taller slabs stand to the front of this bed and are not as high as those against the opposite wall. Small aumbries are built into the wall behind each bed with spaces set higher up. Further slab enclosures lie in the north-west corner and to the left of the doorway, the latter standing proud of the house wall, from which it is separated by a freestanding rectangular structure of coursed stone. On the far side of the hearth stands a well-preserved 'dresser' and three 'limpet boxes' lie beside this, in the south-west corner. To the other side of the 'dresser' a circular cell has been built into the wall. A small pit immediately beside the left-hand leg of the 'dresser' is now delimited by stones and interpreted by Childe as a sump. For Childe, House 7 provided a rare opportunity to examine a structure that had not been previously investigated. Although limited by the restrictions imposed by the working practices of the Ministry of Works at the time, he was able to record the contents in detail.<sup>227</sup> Stone tools, pot sherds, and bone jewellery were intermingled with food and animal waste. Childe's interpretation was of a 'Pompeii-like' scenario in which the inhabitants had fled at short notice, leaving behind a snapshot of life at the time. In this he saw 'indescribable filth and disorder', an impression of prehistoric life in Orkney that he found surprising.<sup>228</sup> Childe records two skeletons buried in a single cist beneath the floor of the house under the right-hand bed and running under the wall at this point. These skeletons were identified as female<sup>229</sup> and interpreted by Childe as a foundation deposit.<sup>230</sup> A third skeleton lay in a cist below the turf to the south of House 7 and Childe records a fourth, badly disturbed, interment beside this. He felt that the latter two burials were likely to be Norse.<sup>231</sup>

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<sup>225</sup> Clarke 2003, 90.

<sup>226</sup> Thomas 2016.

<sup>227</sup> Childe 1931, 37-41.

<sup>228</sup> Childe 1931, 40. See Clarke 2012 for a radically different reading of the evidence.

<sup>229</sup> Bryce in Childe 1931, 185–197. These skeletons cannot now be located.

<sup>230</sup> Childe 1931, 140–142.

<sup>231</sup> Childe 1931, 143.

## House 9



Figure 28: Interior view of House 9. © Crown Copyright HES.

House 9 lies to the east of House 7 and is accessed from Passage C which, Shepherd suggests, may originally have terminated here.<sup>232</sup> It dates from an early phase in the life of the village and has a somewhat simpler interior than later buildings. Today only a few courses of walling survive. House 9 is a smaller house, with a trapezoidal interior. The original entranceway has been much altered to form a later cell, but the bar-hole may be seen, together with one door check. There is a central hearth to either side of which recesses into the wall have been divided off to form beds. Childe describes these as corbelled.<sup>233</sup> The supports for the 'dresser' stand opposite the hearth, set into a small recess into the wall. There are no 'limpet boxes', but a cell opens from the southern corner.

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<sup>232</sup> Shepherd 2016, Figure 2.

<sup>233</sup> Childe 1931, 75.

## House 10



Figure 29: Interior view of House 10. © Crown Copyright HES.

House 10 survives in only vestigial form and lies to the east of House 9. Childe describes it as ‘hopelessly ruined’.<sup>234</sup> It appears to have had two cells, but only a couple of internal slabs and the lower supports of the ‘dresser’ may be seen today.

### **Houses 12 and 13 and 14 (1972-3 Structures 2, 3 and 10)**

These three houses were identified during Clarke’s 1972–3 excavations and cannot be seen today.

Both Houses 12 and 13 are early and lie beneath the area of the latest walling on the south side of Passage A and the outer casing wall of House 7. Only partial remains of each were uncovered. House 12 (Structure 2) related to the early phase of the main settlement and only a segment of the interior was revealed. This had the usual double-skinned wall, an internal slab, edging part of a paved bay. House 13 (Structure 3) was more fragmented, represented by a curve of walling with a remnant arc of floor surface preserved within.

House 14 belonged to a later phase 2. It survived as an arc of walling, latterly cut through by the construction of the last stage of Passage A. It is small and contained

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<sup>234</sup> Childe 1931, 76.

a central hearth though there is little sign of other fittings in the published photographs.<sup>235</sup> It may represent some form of workshop or ancillary structure.

### Structure 8 or 'Workshop'



Figure 30: Interior view of Structure 8. © Katie Logan.

One building is consistently identified as non-domestic. Structure 8 lies to the west of the rest of the houses, outside the putative western entrance to Passage A and separated from the settlement by Passage E and the paved area described by Childe as 'The Market Place'. It has a clear entrance annex, which Childe considered to be a later addition to the house.<sup>236</sup> This porch may originally have been designed with openings to both east and west, the western having been later blocked. The internal space had also been remodelled to reduce it in size. Although Structure 8 was not roofed when discovered, a fragile stone slab roof remained intact over the porch.<sup>237</sup> Inside, Structure 8 is oval in shape, and, although it contains a central hearth, it lacks the slab-built fittings of other houses. Wide recesses lie to either side of the hearth with many aumbries and openings (the wall to the east is better preserved), including a small cell. Opposite the entranceway, in place of the 'dresser', a narrow opening leads out of the structure to the north, leading off a wide recess which is lined with slab on either side to form compartments. Childe noted the large number of heat-cracked volcanic stones in this area, and immediately outside

<sup>235</sup> For example, Clarke 1976a, Figure 5. The plans showing these structures are in Shepherd 2016, figs 2 and 8.

<sup>236</sup> Childe 1931, 52–53.

<sup>237</sup> Childe 1931, 53.

the house at this point, and suggested that it may have housed a kiln or other industrial process. He describes a deposit of ash ‘over and in front of the fireplace’.<sup>238</sup> Childe also notes the unusual quantity of flaked chert discovered within the house, concluding that it had been used for flint-knapping, while piles of clay suggested the manufacture of pottery. Recent analysis of the site has led to the suggestion that this house may be later than other buildings.<sup>239</sup>

### Ancillary features

Between Structure 8 and the rest of the settlement a paved area was designated as ‘The Market Place’ by Childe. There were few finds here, and it had been infilled with sand. Various openings lead away from the ‘Market Place’: to the east along Passage A and into the settlement, to the north along Passage E between Structure 8 and House 2, to the west into the porch for Structure 8 or around its southern flank, and to the south along Passage F which flanks the village, and into an area of small enclosures, poorly defined by remnant walling.

In 1977 Clarke undertook further excavations to the west of the old museum building. A series of possible boundary walling was uncovered, but no obvious house remains. In 1994 Richards and colleagues excavated a contemporary butchery area approximately 100m to the south-west of the Property in Care.<sup>240</sup> There was no trace of houses, but a short length of walling was uncovered which apparently separated the butchery area from a deposit of articulated red deer bone. Also in 1994, Barrett, King, Murray and Jamieson recorded a human skull and isolated animal bones eroding out of the storm beach, apparently under fragmented stonework immediately to the west of the settlement.<sup>241</sup> Further remains of this adult male and the remains of the cist in which he had been buried were fully excavated by GUARD Archaeology in 1996, and radiocarbon-dated to cal AD 543–687 (GU-7245, 1410±50 BP).<sup>242</sup>

Other archaeological evaluations have taken place to monitor possible disturbance during management and maintenance work, but no structural or artefactual material of any significance has been found.

## APPENDIX 4: EARLY ANTIQUARIAN INTEREST AND ACTIVITY

Skara Brae was discovered around 1850 following storm damage to a series of high sand dunes at the south end of the Bay of Skail which revealed the existence of ancient stone structures buried within the dune system. Although it was not possible to assign an accurate date to the remains at the time, the antiquity and remarkable preservation of the remains were recognised and William Watt, the son of the local laird, organised a series of investigations of the site. News of the discovery spread quickly among both learned societies and the public, and the site attracted visitors

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<sup>238</sup> Childe 1931, 52–3.

<sup>239</sup> Shepherd personal communication, 12 Nov. 2021.

<sup>240</sup> Richards *et al* 2015; Canmore ID 91751 accessible at: [Skara Brae - Hearth, Animal Remains, Knife \(ID: 91751\) \(canmore.org.uk\)](https://canmore.org.uk/record/91751) (accessed: 20 September 2022).

<sup>241</sup> Barrett *et al* 1994; Canmore ID 91752 accessible at: [Skara Brae - Human Remains, Midden \(ID: 91752\) \(canmore.org.uk\)](https://canmore.org.uk/record/91752) (accessed: 20 September 2022).

<sup>242</sup> Canmore ID 138798 accessible at: [Skail - Cist, Human Remains \(ID: 138798\) \(canmore.org.uk\)](https://canmore.org.uk/record/138798) (accessed: 16 October 2023).

from early on. Work continued between 1850 and 1867, often under the guidance of visiting antiquaries including George Petrie of Kirkwall, and James Farrer from Durham. Skara Brae appears in several publications from the time including papers by Wilson,<sup>243</sup> Laing,<sup>244</sup> Petrie,<sup>245</sup> Thomas,<sup>246</sup> and Traill.<sup>247</sup>

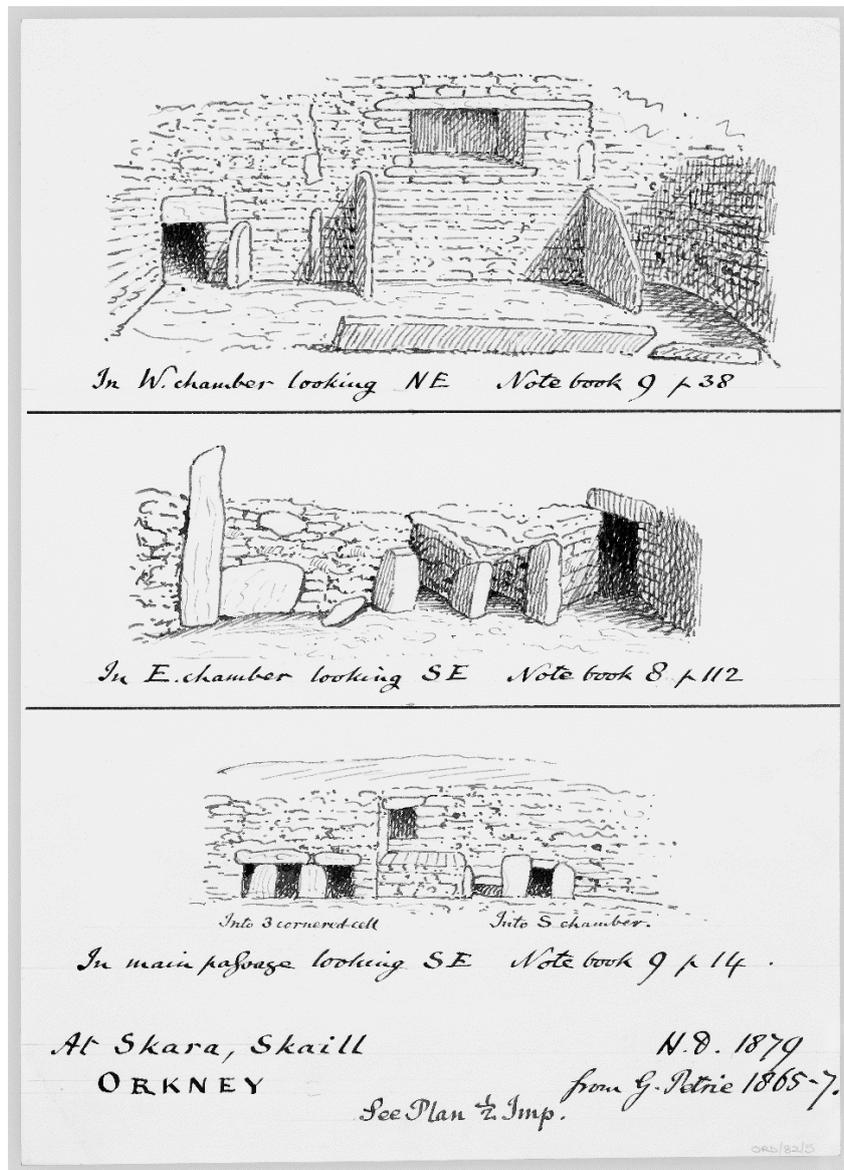


Figure 31: Three sketch elevations, the top one of House 1 looking north-east (note the opening to a cell on the left which is now bricked up), the middle of House 4 looking south-east and the bottom of main passage looking south-east. Sketches were copied by Dryden in 1879 from Petrie's notebooks 8 and 9, 1865–7. (DP 038937) © Courtesy of HES (Society of Antiquaries of Scotland). Reproduced with kind permission of the Society of Antiquaries of Scotland.

<sup>243</sup> Wilson 1851, describing Skara Brae as 'subterranean dwelling or weem at Skara, in the Bay of Scales, Sandwich'. Wilson's is the first publication, using information rushed to him by Petrie straight after the site's discovery.

<sup>244</sup> Laing 1869, describing Skara Brae as the 'Underground House of Skail'.

<sup>245</sup> Petrie 1867, referring to the site as 'Skara'.

<sup>246</sup> Thomas 1852, referring to the site as 'Skara'.

<sup>247</sup> Traill 1868, referring to the site as 'Skerrabrae'.

This work resulted in the clearance of the north-east part of the remains, including Houses 1,3,4, and 5 as well as much of Passage A. The recording of the work was mixed, but it included an element of rebuilding and consolidation, especially of House 1 where Watt removed some features, such as a pair of intramural cells in the northern (seaward) wall, and inserted others, such as a small 'window' out to sea. The site was then left open to the elements until the 1920s. The only recorded investigation in this period is that of William Balfour Stewart and William Boyd Dawkins in 1913 when they pushed northwards from Passage A and into the remains of House 2.<sup>248</sup>



Figure 32: Interior view of House 1, presumably taken around the time when the site was taken into state guardianship in 1924. (SC 2046978) © Crown Copyright: HES.

In the years following its discovery, Skara Brae gradually came to be recognised as a totally new and important type of site and in 1924 it was taken into state guardianship. At this point a detailed photographic record of the remains was made<sup>249</sup> and in the winter of that year further storm damage took place. Work on a sea wall to protect the structures from further erosion was started in 1925, and in 1927 a local contractor, J Wilson Paterson, was appointed to clear the existing remains and consolidate the site for public viewing. Although this work took place

<sup>248</sup> Stewart and Dawkins 1914.

<sup>249</sup> Held by the National Record of the Historic Environment in Scotland. Accessible online on Canmore: [Skara Brae General Views, Finds etc \(Catalogue number: 551 490/1/2/8/4/3\)](https://canmore.org.uk) ([canmore.org.uk](https://canmore.org.uk)) (accessed: 08 February 2023).

under supervision from HM Commissioners of Works, in 1928 the newly appointed Abercromby Professor of Archaeology at the University of Edinburgh, Vere Gordon Childe, was brought in to direct the more detailed archaeological investigation of newly uncovered structures and occupation deposits. Under Childe, the complexity of the site was slowly revealed, and a detailed interpretation of the site published.<sup>250</sup>

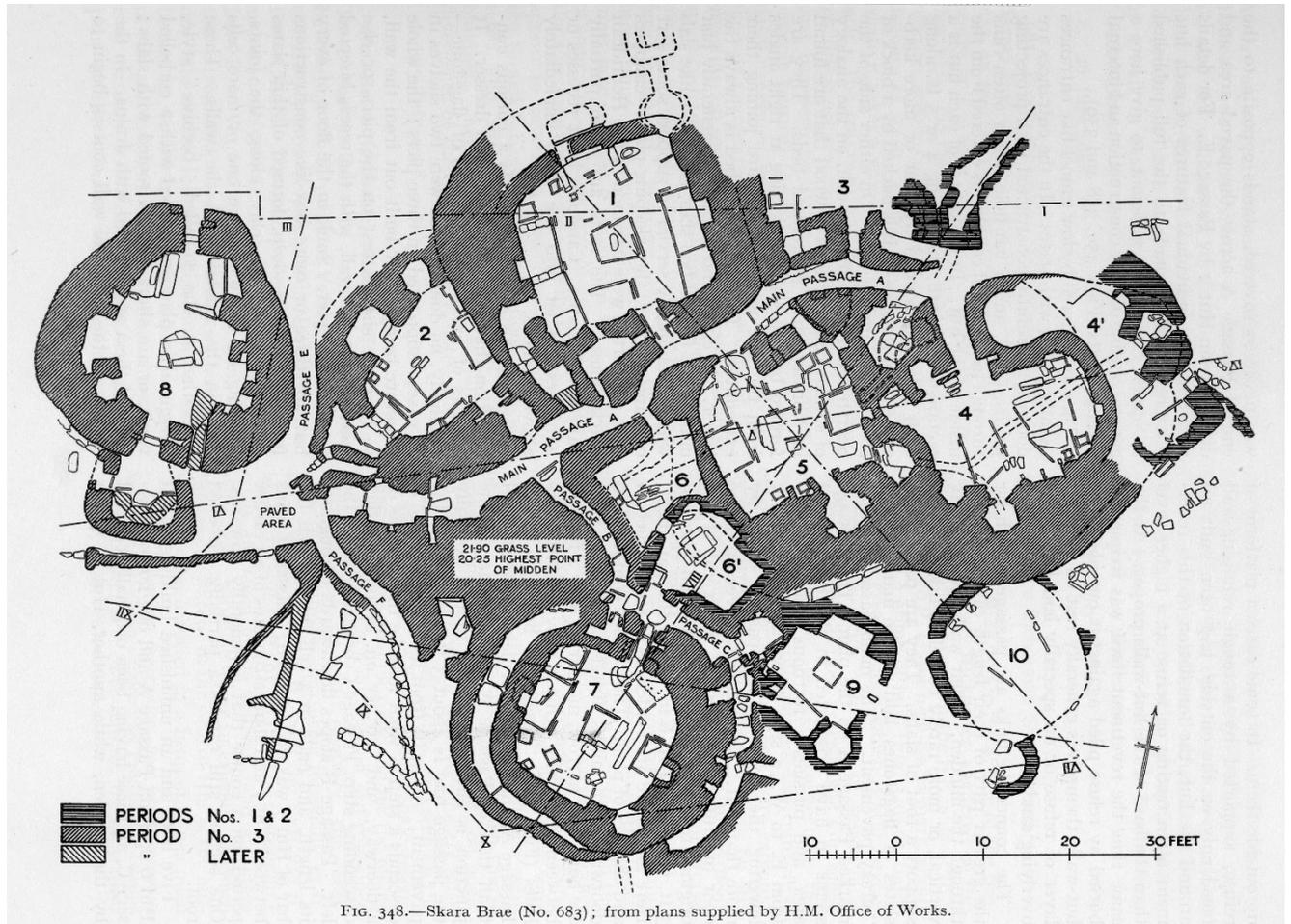


FIG. 348.—Skara Brae (No. 683); from plans supplied by H.M. Office of Works.

Figure 33: Plan of Skara Brae based on Childe's plan. Note the periods identified by Childe were later simplified into two by Clarke (Clarke 1976a) and most recently Shepherd has subdivided each into Early, Middle and Late sub-phases and added an earlier phase: Phase 0, to accommodate the evidence for local activity that predates the Late Neolithic settlement (Shepherd 2016). (SC 2238277) © Crown Copyright: HES.

At this point, physical investigation of the site ceased for over forty years, though its significance meant that it continued to occupy a central role in archaeological discourse. For Childe the village came to represent the apogee of early farming settlements and was published as such in a series of influential publications on the development of civilisation around the world. Nevertheless, one area of discussion related to the age of the site. In the absence of the dating techniques now available, Childe initially published Skara Brae as 'Pictish' (which he saw as Late Iron Age) but suggested that it related to a local culture that might be ascribed to the 'Stone Age' while apparently contemporaneous with Iron Age sites further south. In this he recognised apparent 'Baltic' features at Skara Brae, suggesting connections with the

<sup>250</sup> Childe 1931.

Arctic Stone Age. Others were influenced by the apparent underground nature of the remains and by parallels with elements seen in broch sites. J. Graham Callander, Keeper of the National Museum of Antiquities of Scotland in Edinburgh, published an extensive overview of the material culture from Skara Brae, concluding that the site was Iron Age.<sup>251</sup> Only when the pottery from Skara Brae was paralleled by Neolithic finds from Clacton was the site recognised as pre-dating the Iron Age. In 1954 Stuart Piggott, the second Abercromby Professor at the University of Edinburgh, focussed in detail on Skara Brae in his consideration of Neolithic Britain, regarding the site as iconic to the extent that one of the design motifs from the pottery was used on the front cover.<sup>252</sup>

Although Childe himself recognised that many questions remained unanswered after his work at Skara Brae, there was no further work on site until the 1970s when a team led by David Clarke and Anna Ritchie undertook excavation in 1972–3 with the support of the (then-named) National Museum of Antiquities of Scotland, the University of Edinburgh, and the Department of the Environment (as was). This, and more recent, investigation is covered in Appendix 5.

## APPENDIX 5: ARCHAEOLOGICAL SURVEY AND EXCAVATION AROUND SKARA BRAE

In 1972 and 1973 excavation took place at Skara Brae in an investigation designed to examine aspects not addressed by Childe, in particular the contemporary environment and economic activity of the inhabitants, and to collect samples for radiocarbon dating. Two trenches were opened: Trench 1 in the area between Passage A, Passage B and House 7; and Trench 2 to the east of the known remains just outside House 4, close to Childe's test-pit 4.<sup>253</sup> Finds included structural remains relating to at least nine further structures in Trench 1, a considerable number of artefacts and abundant faunal and environmental evidence, and samples for dates. In 1977, further trenches were opened by David Clarke to the west of the site where erosion had revealed Neolithic material and a series of possible boundary walls was uncovered.<sup>254</sup>

The results of these excavations during the 1970s include the refinement of the phasing of Skara Brae as well as new detail on house construction and on the nature of the deposits previously categorised, following Childe, simply as 'midden'.<sup>255</sup> The results are currently being finalised for publication.<sup>256</sup> They move interpretation of the site away from nineteenth-century ideas of an essentially underground settlement to a more accurate view of a community of freestanding stone-built houses, clad with

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<sup>251</sup> Callander 1931.

<sup>252</sup> Piggott 1954, 321–337.

<sup>253</sup> Clarke 1976a; Shepherd 2016; Clarke and Shepherd forthcoming.

<sup>254</sup> Clarke 1977.

<sup>255</sup> See Shepherd 2016 and Shepherd 2022 on why 'midden' as a term needs to be deconstructed and used only to refer to specific accumulations of household debris.

<sup>256</sup> Clarke and Shepherd forthcoming.

clay<sup>257</sup> and probably roofed with local eel-grass thatch. Information relating to changes in the local environment has been added from both excavation and wider palaeoenvironmental studies<sup>258</sup> and this, together with the newly created chronology for the site, permits interpretation to include elements of the adaptation of the inhabitants to worsening conditions due to local coastal erosion.<sup>259</sup>

Further excavation took place when storm erosion over the winter of 1992–93 exposed archaeological deposits on a shelf of glacial till approximately 100m to the west of the site. Richards and colleagues report a butchery site, including remains of both red deer and cattle as well as a whale mandible, and a selection of stone tools including Skailk knives. This was separated, by the remains of a stone wall, from a deposit of articulated red deer which lay to the east. The remains here included an area of stone paving and a hearth setting.<sup>260</sup>

In 1994 fragments of a human skull were recorded eroding out of the wave-cut bank to the south-west of Skara Brae. Associated material included faunal remains and a layer of irregular flat stone covered the whole.<sup>261</sup> Further remains of this adult male and the remains of the cist in which he had been buried were fully excavated by GUARD Archaeology in 1996, and radiocarbon-dated to cal AD 543–687 (GU-7245, 1410±50 BP).<sup>262</sup>

The dynamic nature of the landscape into which Skara Brae is set was confirmed by palaeoenvironmental investigation outlining the existence of a terrestrial landscape to the west of the site, sheltered from the sea by a dune ridge lying behind the coast.<sup>263</sup> This was a watery landscape comprising a series of freshwater ponds on the surface of the glacial sediments. As the coast gradually eroded eastwards towards the site from the mid Holocene onwards, a series of sand blows infilled the wetlands and contributed to sand infill around the site. Agriculture would also have been affected. Coastal migration continued after the abandonment of the site and has not stopped today.

With the designation of the World Heritage Site in 1999 a programme of geophysical survey to include the landscape around Skara Brae was initiated. The survey suggests that structural remains may be preserved inland, immediately to the south of the known site, perhaps doubling the size of the village.<sup>264</sup> The results present an in-depth picture of the changing nature of the landscape through time. Varied sites from the unexplored remains of assumed Neolithic date at Skara Brae, to an Iron Age broch at Loupandessness, and the traces of medieval farming and later settlement are explored in the resultant publication.<sup>265</sup> This work includes palaeoenvironmental investigation in the immediate proximity of the site which sheds

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<sup>257</sup> Evidence for clay cladding was found during the 1972–3 excavations and had previously been noted by Watt (reported by Petrie) – ‘walls coated over by a layer of clay’ – a claim subsequently supported by Stewart and Boyd Dawkins’ findings (Shepherd 2016, 222 and 224).

<sup>258</sup> De la Vega-Leinert *et al* 2000; Bates *et al* 2016 and Brend *et al* 2020.

<sup>259</sup> Shepherd personal communications.

<sup>260</sup> Richards *et al* 2015.

<sup>261</sup> Barrett *et al* 1994.

<sup>262</sup> Canmore ID 138798 accessible at: [Skaill – Cist, Human Remains \(ID: 138798\) \(canmore.org.uk\)](https://canmore.org.uk/record/138798) (accessed: 16 October 2023).

<sup>263</sup> De la Vega-Leinert *et al* 2000.

<sup>264</sup> Brend *et al* 2020, 42–52.

<sup>265</sup> Brend *et al* 2020.

light on the development of the Loch of Skail and the changing nature of waterflow from the loch to the sea.<sup>266</sup>

Other Neolithic activity has been found in the vicinity of Skara Brae. Closer to the Loch of Skail, fieldwalking in 1984 yielded a low-density scatter of worked lithics that may, tentatively, be ascribed a Late Neolithic date.<sup>267</sup> Just over a kilometre to the north-east, the complex stone cist at Sand Fiold<sup>268</sup> appears to have been in use for several centuries from the Late Neolithic onwards,<sup>269</sup> while at the Links of Skail, just over a kilometre to the east-north-east from Skara Brae and within the WH buffer zone, a cist containing a well-preserved contracted skeleton, radiocarbon-dated to 3260–2910 cal BC (SUERC-107827, 4403±25 BP), was found in 2021.<sup>270</sup> Isotopic and DNA analysis have been undertaken on this individual. At the northern end of the bay eroding Neolithic archaeology has been ascribed to a possible second settlement.<sup>271</sup> Further to the north, remains on the hill at Vestra Fiold have been identified as a Neolithic stone quarry,<sup>272</sup> a possible source of standing stones, and there are also several potential chambered cairns in the area, including at Vestra Fiold.<sup>273</sup>

## APPENDIX 6: CONSERVATION CASE STUDY: THE ROOF OF HOUSE 7

*This case study summarises the conservation project which replaced the glass roof of House 7 with a 'green roof' in 2007.<sup>274</sup> It showcases the extent and depth of planning and consideration taken of any conservation intervention at Skara Brae to protect the site in its current form for future generations.*

As the best-preserved structure, House 7 was fitted with a metal framed and glass sheeted protective roof shortly after its excavation in 1930 to protect the structure and its interior. This roof remained, with minor modifications, the same until June 2007.

During the late 1990s and early 2000s four main conservation concerns had been identified regarding House 7:

- Threats to the historic fabric as the condition of the fixtures and fittings of House 7 became more delaminated and friable when compared to other buildings which also endangered the Neolithic carvings. The walls were also showing a stress cracking pattern not observed elsewhere.

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<sup>266</sup> Brend *et al* 2020, chapter 3.

<sup>267</sup> Richards 1985, 14.

<sup>268</sup> Canmore ID 1689: [Sand Fiold \(ID: 1689\) \(canmore.org.uk\)](https://canmore.org.uk/entry/1689) (accessed: 23 November 2022).

<sup>269</sup> Dalland 1999.

<sup>270</sup> Kirsty Owen, personal communications; *The Scotsman* 19.2.2021.

<sup>271</sup> Towrie 2021a.

<sup>272</sup> Richards *et al* 2013; Canmore ID 1923: [Vestrafliold - Stone Quarry \(ID: 1923\) \(canmore.org.uk\)](https://canmore.org.uk/entry/1923) (accessed: 23 November 2022).

<sup>273</sup> For example, Canmore ID 1898: [Vestra Fiold - Chambered Cairn \(ID: 1898\) \(canmore.org.uk\)](https://canmore.org.uk/entry/1898) (accessed: 23 November 2022); Richards *et al* 2013.

<sup>274</sup> The information was taken from an internal briefing report created by Historic Environment Scotland in 2011. The full report is available upon request, please contact [CRTenquiries@hes.scot](mailto:CRTenquiries@hes.scot).

- Threats to the historic fabric of the wider site as traditional access paths were crossing over the centre of the site directly on the 5,000 year old wallheads. By the early 2000s visitor numbers regularly exceeded the capacity of what the paths were designed for and additional crowding effects from cruise ships and similar tour operators added extra pressure.
- Health and safety concern for visitor and staff around the site and structure when the glass roof was opened to remove the condensation that would form on sunny days. A timber viewing walkway with handrails had been added in the 1990s to accommodate larger visitor numbers, however this obstructed views and led to congestions.
- Lack of detailed digital records which was recognised as a concern considering the long-term threats to the site as a whole from coastal erosion and the more immediate threat to the internal fabric of House 7.

In June 2002 an initial analysis of the interior of House 7 was carried out by the Historic Scotland Conservation Centre (HSCC) which found that ‘...most of the problems associated with the rapid deterioration of this house and its contents are due to the design and performance of the glass roof.’ A two phased approach was adopted to first gather all necessary information which would then inform a long-term solution as part of the second phase.

### First phase

A series of monitoring programmes were initiated. Two separate photogrammetry surveys were undertaken over two periods within 18-months as part of structural monitoring which concluded that movement was attributed to the footfall directly on the wallheads. Data loggers measuring temperature and relative humidity as part of environmental monitoring were set up within House 7 and control structures in Skara Brae and two fully enclosed tombs on mainland Orkney (**Knowe of Unstan Chambered Cairn** and **Cuween Chambered Cairn**). The results showed a very damaging pattern of substantial fluctuations in internal conditions in House 7. Two separate laser scans were also taken of the carvings over two periods within 18-months. The scans confirmed that the carvings were stable over this period, however, this relied on the continued survival of the stones which were threatened by salt crystallisation caused by environmental factors.

The stone conservator analysis and reports concluded that controlling the environment was more effective than consolidation works to the stonework in conserving the stones. Different methods were trialled, for example, the effect of keeping the windows closed in 2004 which improved the environmental conditions but was not fully effective. A thermal reflective film on glazing was trialled in 2005 to try and reduce temperature fluctuations. This had a beneficial effect but was not able to provide the consistent environmental conditions required.

To alleviate the pressure on the wallheads from visitor footfall, access was removed in March 2006. The peripheral circular route around the site was paved to take the increase in footfall that was previously spread across the wallheads.

## Second phase

As the existing roof could not be made any more light- or water-tight, the decision was made to replace the roof. After a series of option appraisals and feedback from structural engineers it was decided to proceed with a lightweight timber structure using hydroponics and sedum. The resulting 'green roof' would provide both a visual and thermal screen with good weathering abilities and environmentally friendly qualities.

In March 2007 a mock-up of the roof construction was created at Fort George to test the construction theory. All the works associated with the construction were controlled and carefully planned to ensure that the monument was not damaged, and the works could be completed in a timely manner. All roofing work was completed in July 2007 and the HSCC conservators who analysed the condition of the masonry confirmed that the historic fabric had not been damaged by the works and that initial effects of the new roof on the environment were 'encouraging'.

Since then, monitoring continued and some remedial works had to be carried out. The sedum roof was replaced by a new type of soil-free turf mat in 2009 after sedum had proved difficult to survive on site. In 2008 the ridge beam was insulated to reduced condensation which had been forming on the steel beam and dripping down into the building.

Additional laser scanning took place in 2010 as part of the Scottish 10 project of the carvings, the interior and the exterior of House 7 as well as the rest of the site.

## Conclusion

The roofing project successfully addressed the conservation concerns that had been identified in the early 2000s. It stabilised the environmental conditions within House 7 and stopped the damaging effects of rapid thermal expansion and contraction as well as the fluctuation of relative humidity causing stressing the stones. Furthermore, the roof protects the stones from frost shattering.

For the wider site the project removed access paths on vulnerable historic wallheads, protecting these from damaging visitor footfall. The improved access paths leading around the site are less likely to lead to congestion which means safer access for visitors and staff.

Finally, the project created valuable detailed digital records of House 7 as well as Skara Brae from different time periods which provide key data for future research and conservation strategies by enabling data comparisons.

The loss of visual access of House 7 to visitors has been mitigated as much as possible by creating digital reconstructions, the replica house as a physical reconstruction offering an immersive experience and printed publications.