

# PEAT SPADE TO TANGLE TRADE



DISCOVER THE INDUSTRIAL HERITAGE OF ORKNEY'S NORTH ISLES

## INDUSTRIAL HERITAGE IN ORKNEY

The late 18th and 19th centuries saw the development of three key industries in Orkney; kelp processing, herring fishing and linen production. These were secondary activities for farmers, but at times came to almost dominate the islands' economy. History shows us that the life of islanders was often dominated by the slow-downs and upturns in the wider British economy and the people of Orkney were often impacted by external events and influences.

These industries made a huge impact on the islands for the best part of a century. The kelp processing and herring fishing industries in particular have created distinctive and unique archaeological and architectural remains across the North Isles of Orkney.

Little formal recording has been undertaken on industrial archaeological sites and landscapes in Orkney, with much of it overlooked. *From Peat Spade to Tangle Trade* addressed this imbalance and focused on this significant part of Orkney's history.

Traditionally, the study of industrial archaeology has focused on architecture, machinery and sites. More recently, recording and documenting sites has linked archive records and people's stories to buildings and places.



Carting home peats, Birsay c. 1900  
Photo: Tom Kent, Orkney Library and Archive

INDUSTRIAL HERITAGE IN ORKNEY INCLUDES: PEAT CUTTING, KELP MAKING, TANGLES, QUARRYING, FARMING, MILLS, MACHINERY, THRESHING MACHINES, LIGHTHOUSES, MILLS, FISHING, FLAX, LINEN, CRAFT, STRAW PLAITING, EGG INDUSTRY, SALT AND ENERGY PRODUCTION

Scan for more information



**From Peat Spade to Tangle Trade** was undertaken by the Orkney Research Centre for Archaeology (ORCA), UHI Archaeology Institute, UHI Orkney.

Take an island trip to explore the place where you live and discover Orkney's north isles.

Celebrate and explore Orkney's industrial heritage

Find out more about the industrial heritage and visit island heritage centres.

Project area - see larger map

Kelp burning

Lighthouse, North Ronaldsay

Peat cutting

Stone crusher, Eday

Watermill, Redcastle, Eday

Visit the website at [archaeologyorkney.com/industrial-heritage](http://archaeologyorkney.com/industrial-heritage)

Poster content: Dan Lee and Sean Bell Design: iainashman.com  
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### SHAPINSAY

Agricultural improvements were made twice in Shapinsay. Thomas Balfour laid out new fields in the late 18th century at Sound. David Balfour laid a strict grid system of square fields across the whole island in the mid-19th century along with the construction of Balfour Castle, **Balfour** village and removing the commons.

David Balfour built an innovative gas system to light Balfour castle, the pier and village, completed by 1861. A stone-built gasometer used to store the gas survives today.



Stones from Noltland castle were used by David Balfour to make the gasometer look more ancient.

### ROUSAY

Rousay's agricultural story spans millennia. From Neolithic settlements (Rinyo, Braes of Ha'Breck, Wyre) to medieval head dykes. Recent excavations at **Skail**, Westness, have investigated a farm mound with 1000 years of occupation.

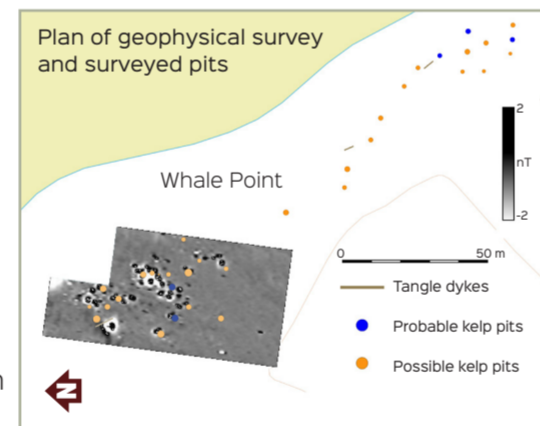
Rousay is home to the only large-scale clearance in Orkney. The township of **Quandale** was cleared of inhabitants in 1845 to make way for more profitable sheep. Twenty-eight households were evicted, some moving elsewhere on the island and others emigrating. Farming remains an important industry for the island today.

Mckensize's 1750 map showing the head dykes.  
Map: Orkney Library and Archive



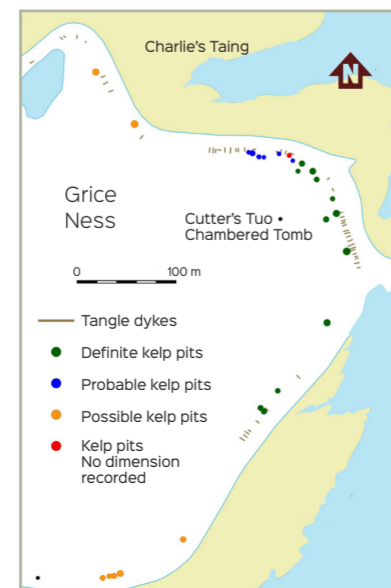
### SANDAY

Sanday was one of the main kelp producing islands in the early 19th century. Kelp working sites have been identified around the coast. At **Whale Geo**, geophysical survey showed different phases of production. At **Whitemill Bay**, once extensive areas of kelp pits and tangle dykes have largely been obscured by recent wind-blown sand or eroded by the sea. At the height of the kelp industry in 1805, Sanday exported 550 tonnes of kelp per year. Sanday heritage centre has a kelp rake, a long-handled single-toe rake used for raking the kelp pit.



### STRONSAY

Herring was a significant industry in Stronsay from the early 19th century to WW2. **Whitehall** was the focus with curing yards, gutters, coopers and a fish mart. Fish was landed, bought, processed, barrelled and exported, providing seasonal work. Traces of the industry are still visible today. A lesser-known site is the 'Gut Factory', located just outside Whitehall. It processed fish offal and sillocks into fish oil, which was exported. It operated from around 1925 until the late 1940's, at the end of the herring industry. The foundations of the building survive today.



Stronsay is home to the first kelp making in Orkney, by James Fea of Whitehall in the 1720s. The smoke and smell from early kelp burning was blamed for poor harvests in the mid-18th century, resulting in the Stronsay kelp riots in 1741-2. During the kelp boom, numerous sites were used around the island, including an improved kelp kiln in Rothiesholm near **Latan** and a double kiln on Papa Stronsay. At the height of the kelp industry in 1805, Stronsay exported 300 tonnes of kelp per year.

**Grice Ness** near Whitehall was an important kelp producing area. Recent survey has identified 25 kelp pits and 51 beeks (tangle dykes) along the shore. Many of these are now being eroded by the sea, highlighting the urgent need to record the remains of this important part of Orkney's industrial past.

### PAPA WESTRAY

Papay has its fair share of industrial heritage. A recent coastal survey identified numerous kelp working sites around the shore. Along the eastern side, the kelp store, once used to keep kelp safe before export, has been converted into a heritage centre. At Hooking, there are the remains of a farmstead and watermill.

**Holland** is the main estate farm which once owned all the island. Dating from the late 17th to the 20th centuries, the extensive range of buildings includes a circular mill-tramp, corn-drying kiln, grain loft and windmill base. This is a working farm, but you can visit the Bothy Museum, which is always open.



A famous landmark in Papay is the road roller located just off the central road.

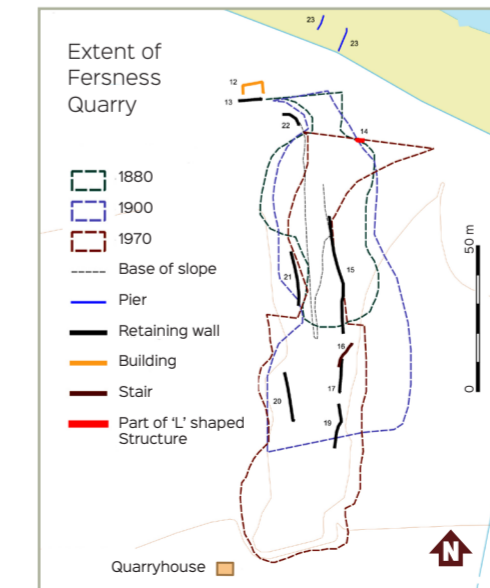
### EDAY

Industrial heritage in Eday is largely a story of stone and peat. Eday yellow and red sandstone is easily worked for building materials.

The large free stone quarry at Ferness was expanded rapidly in the mid-19th century until it was closed in the 1950s. Surrounding farms housed masons and quarrymen. Stone from here was used to repair St Magnus Cathedral and build Kirkwall town hall.

Eday has large areas of peat which were cut for fuel. The Eday Peat Company exported peat from the 1920s until Second World War. A funicular **railway**, adjacent to the Calf of Eday Lighthouse, was used to load peat onto larger vessels for export to Kirkwall, Stromness and whiskey distilleries further south. The remains of the railway survive today.

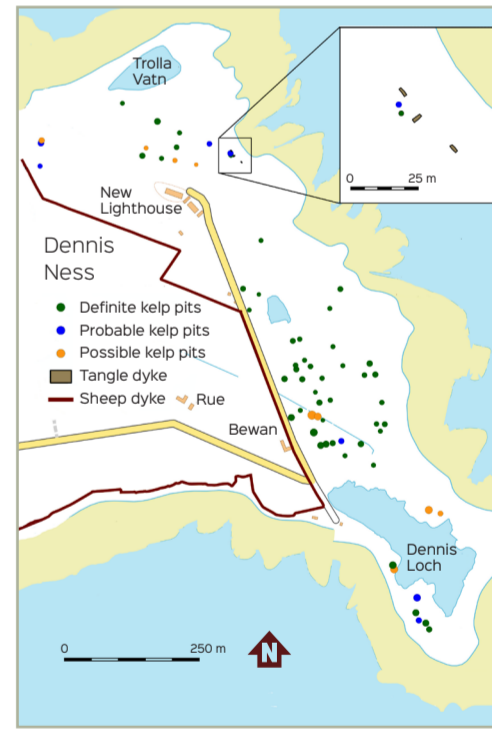
Eday is home to the **EMEC tidal test energy test site** in the Falls of Warness, currently home to the Orbital 02 Tidal Turbine, the most powerful tidal turbine in the world. The community-owned wind turbine is located nearby.



### NORTH RONALDSAY

North Ronaldsay is famous for its communally managed sheep flock and sheep dyke. It has some of the best surviving kelp making areas in Orkney and two lighthouses. The 13-mile North Ronaldsay sheep dyke was completed in 1832 due to increased pressures on cultivated land by an increasing island population. The native sheep are still gathered in numerous pounds (sheep enclosures) for clipping, lambing etc. throughout the year.

At the height of the kelp industry in 1805, North Ronaldsay exported 100 tonnes of kelp per year. Large areas of kelp pits (shallow small stone-lined pits 2-3m in diameter) survive at **Dennis Ness** (64) and over **Linklet** (over 88). Nine tangle dykes (low stone-built walls used to dry kelp stalks) can be found at **Lenswick**.

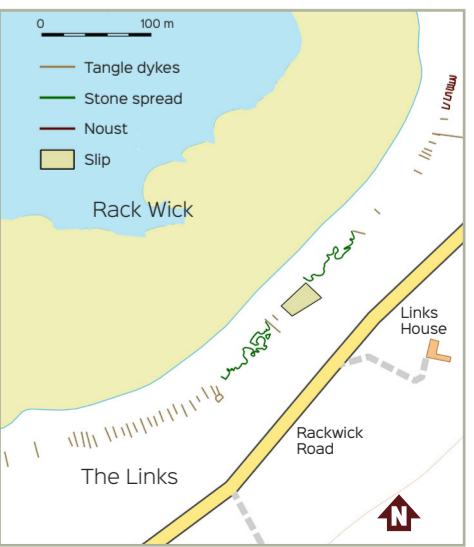


### WESTRAY

The fishing industry has played a significant role in Westray since the early 19th century making the most of the natural harbour in the Bay of Pierowall. Cod fishing and the herring boom have left their mark in the buildings along the shore and at the pier.

You can visit the Westray Heritage Centre and see a graffiti wall depicting schooners and herring boats that was saved from a barn at Gallowhill.

There are numerous kelp making sites around the shores of Westray. At the height of the kelp industry in 1805, Westray exported 300 tonnes of kelp per year. But it is the remains of the tangle industry from the late 20th century that is more visible today. Recent survey recorded 37 dykes along the 'Kelp Green' at **The Links**. Tangles were collected and dried until 1998 and many of the tangle dykes survive.



*"Industrial archaeology is where technology, engineering and materials collide and become entangled with people's everyday lives."*  
Hilary Orange 2014

Kelp was rich in pot ash used in the glass and soap industries (18-19th C), and later for iodine (Late 19th to early 20th C).

Main seaweed species cut to make kelp.



Agricultural improvements were neglected in Orkney in the early 19th century due to the profits made from kelp.

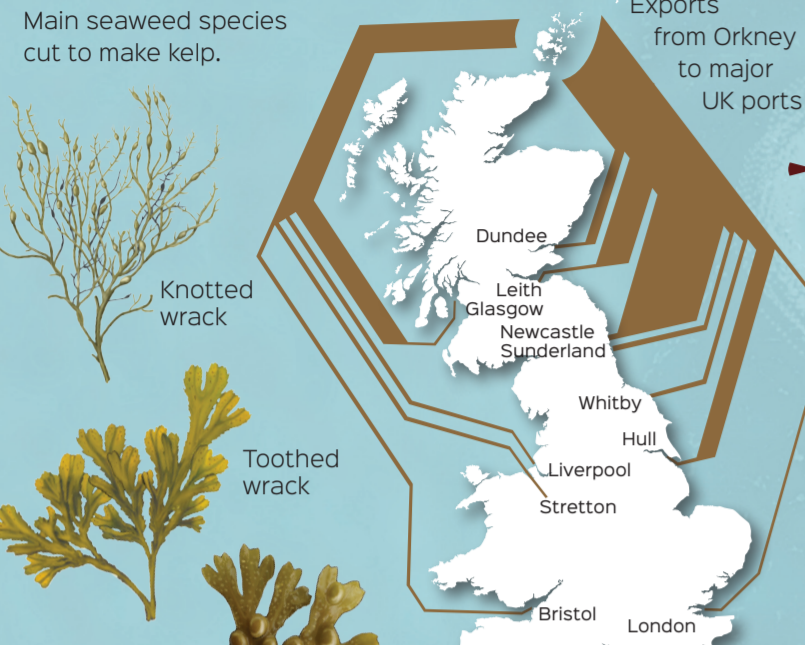
## INDUSTRIAL HERITAGE SITES IN ORKNEY

During 2023-24, the project focused on the North Isles in Orkney, working with islanders to explore, record and research industrial heritage and archaeological sites.

This activities based programme undertook archaeological building recording, photographic survey, measured survey, site visits, drop-ins, talks, walks, art/archaeology workshops, school activities and made new 3D models.

**Visiting sites:**  
Many industrial sites are visible from roads and public rights of way. Do not enter ruined buildings. Please bear in mind that many sites are located on private land. Whilst there is the right to access in Scotland, please follow the Scottish Outdoor Access Code: leave gates as you find them, avoid livestock, keep dogs on a lead, stick to paths where you can, and be prepared.

**Scottish Outdoor Access Code:**  
● leave gates as you find them,  
● avoid livestock,  
● keep dogs on a lead,  
● stick to paths where you can  
● and be prepared.



The market for kelp collapsed in the 1830s, leading to financial ruin for many lairds, and renewed investment in agriculture.

Saviskail, Rousay was recorded for the project. Once the site of a high-status farm in the medieval period, the remains of a 19th century mill and courtyard survive. Look out for the fishing bothys along the shore.

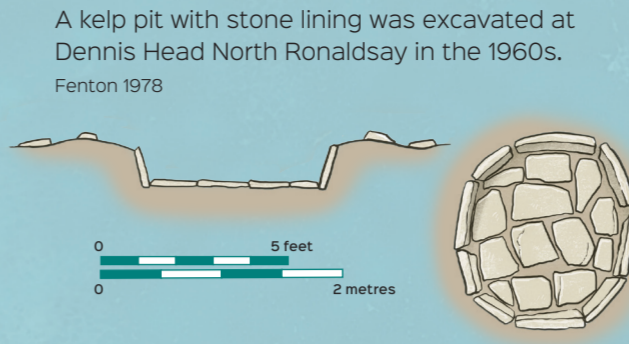
Peat was cut for domestic use in houses and exported from Eday for industrial uses such as the whisky industry.



Horse tramp, Holland, Papa Westray

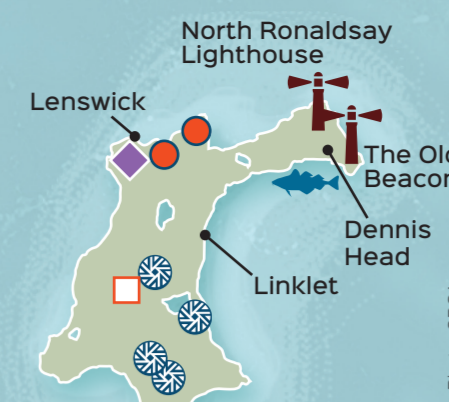


Tangles dykes, Lenswick, North Ronaldsay



A kelp pit with stone lining was excavated at Dennis Head North Ronaldsay in the 1960s. Fenton 1978

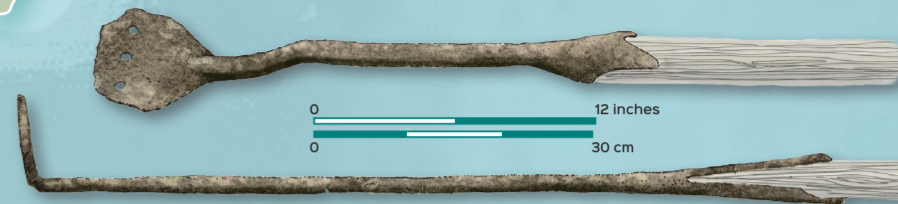
Tangles were collected and dried along the shore in the late 20th century. They were exported for alginates used in the printing industry.



### NORTH RONALDSAY



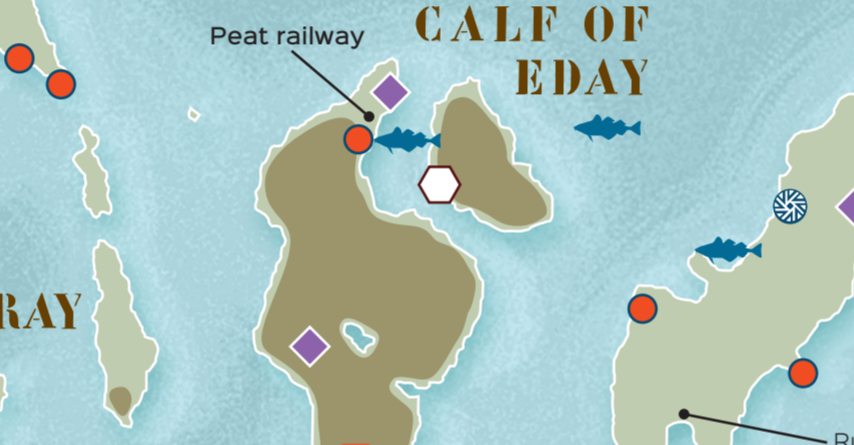
The Old Beacon, North Ronaldsay



Kelp shovel and rake

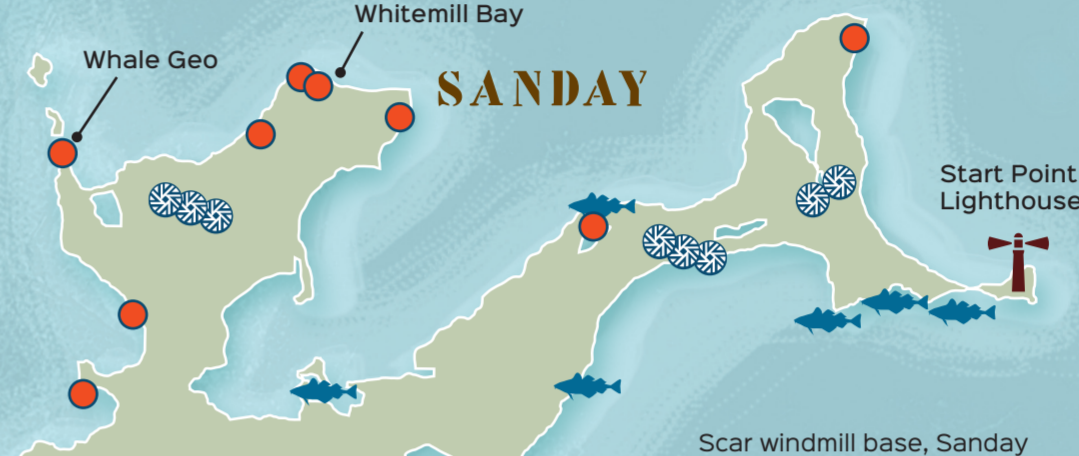


Kelp pit, Dennis Head, North Ronaldsay

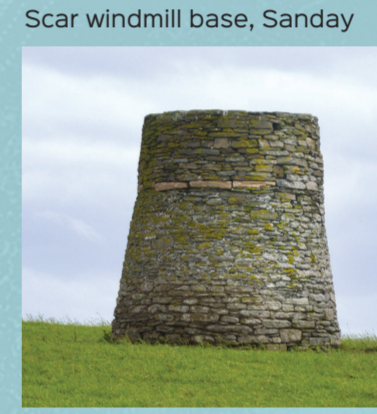


Restrictions on domestic salt making in Eday were enforced as it was using too much valuable peat.

### CALF OF EDAY



### SANDAY



Scar windmill base, Sanday



Drying kiln, Start Point, Sanday

Eday supplied peat to much of Orkney (18-19th C), including Kirkwall and Stromness.



Ruins of Stove 'model' farm



Sealskerry bay, Eday



### ROUSAY

### EGILSAY

Peat was cut for domestic use in houses and exported from Eday for industrial uses such as the whisky industry.

Eday is famous for its 'Eday Free Stone', exported from Fersness quarry.



### EDAY

### LINGA HOLM



### STRONSAY

Tangles dykes have different names: beeks in Stronsay, steeths in North Ronaldsay.



Fish offal factory, Whitehall, Stronsay

Carrying peats in a caisie, c. 1900



Peat cuttings, Auskerry

### GAIRSAY

### SHAPINSAY



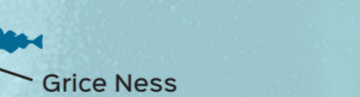
- Mills (wind & water) [wheel icon]
- Quarries [diamond icon]
- Kelp Sites [red circle icon]
- Lighthouse [tower icon]
- Salt Production [hexagon icon]
- Fish Processing [fish icon]
- Peat Extraction [brown oval icon]
- Heritage Centre [square icon]

Visit island heritage centres to find out more about industrial heritage



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### AUSKERRY



Auskerry Lighthouse

Illustration: Iain Ashman

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