

Beadnell

County of Northumberland

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## Beadnell Northumberland NE67 5BB

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Report on a CITiZAN site survey

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## Summary

This report presents the results of several surveys and training sessions carried out by CITiZAN, (the Coastal and Intertidal Zone Archaeological Network, hereafter CITiZAN), at Beadnell in Northumberland. The land on which these features were surveyed is owned by a variety of parties including the Crown Estate and the Beadnell Harbour Fisherman's Association. The foreshore around Beadnell is a Site of Special Scientific Interest and is designated an Area of Outstanding Natural Beauty.

A total of three features were surveyed in detail at Beadnell as part of the England wide CITiZAN programme to survey inter-tidal and coastal archaeological features at risk, or threatened by amongst other things coastal erosion and tidal scour. These were the standing remains of a fisherman's hut on the north side of Harbour Road, the remnants of a post-medieval lime kiln eroding out of the southern side of Dell Point and a linear stone feature, identified in the intertidal zone to the south of Beadnell harbour. These features were surveyed on 10th February 2016, the 21st and 22nd June 2016 and the 19th July 2016 respectively.

Around these more detailed surveys several guided tours, 'app walks' and monitoring visits were made to the Beadnell foreshore, during which a number of intertidal features were recorded. These features ranged in date and function but mainly related to the fishing industry and the Second World War defence of the Northumberland coast. Further information on these features can be found on CITiZAN's web-mounted, interactive map (https://CITiZAN.org.uk/interactive-coastal-map/).

# Acknowledgements

The work of CITiZAN would not be possible without the support of our volunteers, sponsors and project partners.

CITIZAN are extremely grateful to Catherine Perry and her husband Colin for their permission to record the fisherman's hut on Harbour Road and for their help on the day during the survey. CITIZAN are also grateful to the Beadnell Harbour Fisherman's Association who extended us a warm welcome. The survey work in and around Beadnell could not have been carried out so successful without the continued help and patience of Katrina Porteous and we are very grateful for all the help she provided. As well as for the wonderful blog she wrote on the history of the fisherman's hut also known as the Reading Room.

CITiZAN would also like to thank two of our longest serving volunteers, Angus Stephenson and John Matthews for their hard work and enthusiasm on site. CITiZAN would also like to thank Angus for the fantastic blog he wrote detailing the wider archaeology Beadnell. This blog can be read at:

#### https://CITiZAN.org.uk/blog/2017/Feb/01/stroll-around-beadnell/

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## Contents

| <u>Sun</u> | nmary                           | i  |
|------------|---------------------------------|----|
| <u>Ack</u> | nowledgements                   | ii |
| <u>Con</u> | ntents                          |    |
| <u>1</u>   | Introduction                    | 1  |
| <u>2</u>   | Background research             | 3  |
| <u>3</u>   | Survey methodology              | 5  |
| <u>4</u>   | Results                         | 7  |
| <u>5</u>   | Conclusions and recommendations | 10 |
| <u>6</u>   | Dissemination                   | 11 |
| <u>7</u>   | Bibliography                    | 12 |
| <u>8</u>   | Appendix 1                      | 24 |
| <u>9</u>   | Appendix 2                      | 25 |
| <u>10</u>  | Appendix 3                      | 29 |

#### List of illustrations

Front cover: CITiZAN volunteer recording the Dell Point limekiln with CITiZAN app

- Fig 1: Locations of features across Beadnell
- Fig 2: Southeast facing elevation of limekiln
- Fig 3: North facing elevation of limekiln
- Fig 4: Recording eroding limekiln with CITiZAN volunteers
- Fig 5: Recording the fisherman's hut
- Fig 6: North facing elevation of fisherman's hut
- Fig 7: Southwest facing elevation of the fisherman's hut
- Fig 8: Southwest facing elevation of the fisherman's hut
- Fig 9: South facing in elevation of fisherman's hut
- Fig 10: Northeast facing elevation of fisherman's hut
- Fig 11: North facing elevation of fisherman's hut
- Fig 12: Interior of the fisherman's hut

Fig 13: Lower course of possible pier with 1m photographic scale.

Fig 14: Detail of lowest course of the possible pier

Fig 15: Filming on the site of the possible of pier with Tern TV

Fig 16: 3D model of the possible old pier and Beadnell foreshore to the south of Beadnell harbour, taken from Sketchfab

Fig 17: Door to converted storeroom inside Beadnell Harbour limekiln

Fig 18: Boat graffiti showing vessel with possible lantern rig and fore sail

Fig 19: Boat graffiti showing vessel with possible lantern rigged mainsail and lug rigged mizzen sail

Fig 20: Ship graffiti showing vessel with possible lug rigged mizzen sail

Fig 21: Ship graffiti showing possible yacht

Fig 22: Ship graffiti showing vessel with no sail

Fig 23: Example of name graffiti

## 1 Introduction

## 1.1 Site background

Following discussions with Northumberland County Council it was decided that CITiZAN would carry out some survey work around Beadnell. David Petts (Durham University) suggested that CITiZAN should contact Katrina Porteous for help. Katrina is a resident of Beadnell and a widely published poet and historian, who has extensively investigated the foreshore around the village. Katrina kindly agreed to guide CITiZAN around the foreshore and highlight the features of interest and those sites most at risk of erosion or in need of recording. Following this guided tour CITiZAN carried out several monitoring visits, guided walks and app surveys of the foreshore. These visits took place on 22nd April 2015, 14th July 2015, 23rd March 2016, and 8th March 2018. During these visits several features which had not previously been identified were recorded. These include a possible shipwreck (CITiZAN feature: 83175) and the remnants of a concrete structure (CITiZAN feature: 83174) for more information of these features see CITiZAN's interactive map.

A total of three features were subject to further survey, these were a lime kiln eroding from the edge of Dell Point, a derelict fisherman's hut on Harbour Road and a linear stone feature on the foreshore to the south of Beadnell Harbour.

The lime kiln on Dell Point was suggested as a suitable target for recording by Katrina Porteous, who had identified the location of the kiln during research for one of her books on the history of coastal Northumberland. The lime kiln was recorded as part of a two-day training session on 21st and 22nd August 2016.

Katrina Porteous enquired whether it was possible for CITiZAN to record the fisherman's hut on Harbour Road due to the historic nature of the structure and the fact that the building was in danger of collapse. The building was recorded on 10th February 2016 with the help of Katrina and members of the Beadnell Harbour Fisherman's Association.

The stone-built linear feature to the east of Beadnell Harbour was brought to the attention of CITiZAN by Katrina Porteous. Given the nature of the feature and its difficult location on the foreshore it was deemed an ideal target for aerial survey by UAV. The survey was undertaken by Mola as part of the filming for the television show 'Britain at Low Tide' on 19th July 2016.

## 1.2 Research frameworks

The survey work conducted by CITiZAN around the foreshore of Beadnell do not easily fall within any of the research question posed by the North East Region Research Framework.

Lime kilns on the Northumberland coast are considered "a well-protected class of monument" by the North East Region Research Framework, due to the survey of lime kilns conducted for the Area of Outstanding Natural Beauty in 2010 (Petts 2006). However, the Dell Point kiln is not mentioned in Archaeological Practice *et al* (2010). As a result this feature was recorded as a feature of importance at immediate risk of destruction due to coastal erosion.

The fisherman's hut on Harbour Road was recorded at the direct request of Katrina Porteous, due to the local importance of the building and the risk to the buildings integrity through structural damage. However, the recording of this building also falls within part of the North East Region Research Framework's research priority MD5. The origins of deep-sea fishing in the North-East:

• Investigation of standing structures should be undertaken to increase both our understanding of the chronological development of these settlements and specialist building types related to the fishing industry.

The surveys were also carried out within the terms of one or more of the themes and research priorities developed for the CITiZAN project:

- a) Coastal settlement and industries
- b) Coastal erosion

#### 1.3 Aims and objectives

The following research aims and objectives were established:

- To create a detailed record of the lime kiln at Dell Point.
- To make a detailed record of the fisherman's hut on Harbour Road.
- To record and interpret the linear stone-built feature to the south of Beadnell harbour.

#### 1.4 Scope of the survey

A CITiZAN survey is not the same as full excavation. It is designed to locate and identify significant archaeological features currently exposed on the coast or foreshore and highlights those that are under threat from erosive forces. These surveys provide a baseline dataset so that their condition can be effectively monitored in the future.

To this end CITiZAN has developed a smartphone app to enable its volunteers to quickly and effectively record archaeological remains. CITiZAN has also established a standardised system of survey, monitoring and web-based recording across England. This system is fully compatible with that used in Scotland by Scotland's Coastal Heritage at Risk Project (SCHARP).

# 2 Background research

A detailed description of the geology, archaeology and history of the site was provided in the RCZA for this section of coastline (Burn 2010). A brief resume is provided here:

## 2.1 Topography and Geology

Beadnell is a small fishing village on the coast of Northumberland, approximately 24 miles south of Berwick-upon-Tweed. The village has the only west facing harbour on the northeast coast. The settlement is sited on a rocky headland with long, sweeping sandy bays to the north and south.

The remnants of the limekiln is located in the cliff edge on the southern side of Dell Point at NGR NU 23570 29292. The fisherman's hut is located on the northern side of Harbour Road at NGR NU 232 294. The possible stone pier is located in the foreshore to the south of Beadnell harbour at NU 235 284.

The solid geology of the area consists of various types of limestone with a narrow band of win sil running north-northeast – south-southwest through Beadnell. The overlying geology of the area is formed by a band of alluvium following the coast with an area of Devensian till across Dell Point.

## 2.2 Archaeology and documentary evidence

The earliest evidence for occupation within Beadnell comes in the form of several Bronze Age monuments including the Scheduled Benthall round cairn (SAM 25048), which consisted of a cairn with a diameter of approximately 15m. The cairn contained two cist burials formed from sandstone slabs (Scott 2010).

For most of the Roman period much of Northumberland would have been beyond the frontier of the Empire and it is therefore no surprise that few sites of Roman date have been found in the area. The most intriguing being a grave discovered below a cairn on Beadnell Links (Hardie 2009). This grave contained the remains of at least 19 individuals. The only dateable find was a Romano-British brooch (PRN N5788).

The name Beadnell is thought to come from 'Bede's Hahl' meaning Bede's spur of land, though it is unlikely that this refers to the Venerable Bede associated with Jarrow-Monkwearmouth, the earliest written reference for the town comes from 1161 (Scott 2010; Porteous 2013). By the 12th or 13th a chapel (SAM 25055) had been built on the small promontory known as Ebbe's Snook. The visible remains consist of a stone built, rectangular chapel and a series of earthworks. The chapel, which was partially excavated in 1853 is situated at the centre of the complex and measures 17m east-west by 4m north-south. It consists of a nave, a chancel and a later western annexe, although it is now overgrown and much of the detail of the internal layout uncovered by the excavation is obscured. The chapel is surrounded by a range of earthwork features, some of which are considered to predate the chapel and provide evidence of an earlier monastic site here (Historic England 2018).

#### **Fishing in Beadnell**

Fishing was a distinct profession at Beadnell by at least the 14th century. Herring caught in summer, were dried, pickled or smoked; white fish, which was more valuable, were sold fresh, salted or dried. The Beadnell fishermen paid tithes on the fish to the monks of Bamburgh. 'Bednelfysch' (fish from Beadnell) also appears regularly in the accounts of Durham Priory and its dependency, Finchale Priory. Occasionally the Prior of Holy Island sent Beadnell fish to the monks of Durham as a gift. Although it is not clear what kind of fish these were, they where of high value; probably fresh cod or

codling. In 1389, for example, Durham Priory bought 80 Beadnell fish each week for two weeks at 5s per week, then 60 Beadnell fish each week for the next four weeks at 3s 6d per week. In 1626 Beadnell was said to have 14 resident fishermen, compared with only half as many at North Sunderland (Seahouses) (Porteous 2013).

After the dissolution of the monasteries (1536-40), little is known about fishing on this coast [Northumberland] for over 200 years. Although it is sometimes assumed that its inhabitants survived as fisher-farmers .... The picture which emerges locally in the second half of the eighteenth century suggests, that other than a shift from ecclesiastical to secular employment, labour involved and markets used for distribution – many practical aspects of fishing had not substantially changed (Osler and Porteous, 2010). The 19th century saw a massive change in the fishing industry with the introduction of steam trawlers and large scale off-shore drift netting. However "when the industrial herring fishery failed in the twentieth century, some local fishermen reverted to small-scale pre-industrial methods" (Osler and Porteous 2010, 22).

#### Lime production in Beadnell

The earliest evidence for lime production in Beadnell was identified in the late 1980s when a kiln (PRN N5813) was recorded as being partially destroyed by coastal erosion on the edge of Ebbe's Snook. The remains of the kiln were excavated in in 1994 and the kiln material archaeomagnetically. This dating demonstrated that the kiln had last been fired between 1480 AD and 1510 AD. The kiln had a diameter of 1.5m and two stone flues were also identified (Williams 1995; Hardie 2009).

By the 18<sup>th</sup> and 19th centuries lime became a valuable resource, used to improve the quality of poor soils so that land could be enclosed and used to grow crops. Vast tracts of moorland with their acidic soils were converted into fertile fields, but the process required 10 tons of lime for every acre of moor. The Northumberland coast developed an important lime industry to meet these needs. This industry was described as "massive" in the early 19th century, with many lime quarries and kilns dotted along a line from Beadnell Bay heading west. By 1827 however, when Parson and White's Trade Directory for the county was published, these works were note as being "discontinued some time ago" (Hardie 2009).

The earliest cartographic evidence for lime production in Beadnell comes from a map dated to 1759, which shows the estate of local land owner Thomas Wood. The map shows four draw kilns located on Dell Point

Perhaps the best preserved of the limekilns at Beadnell are the three large kiln built in 1798, on the harbourside by Richard Pringle, under agreement with Thomas Wood. The kiln was to consist of three cones, each of which were described as measuring 24ft (7.31m) in height with a diameter of 16ft (4.87m) at the base and 9ft (2.74m) at the top. The kiln was expected to produce at least a 1000 cart loads of lime a year for export. In the end Pringle constructed three conjoined cones with a height of 30ft (9.14m). Each cone had three segmental drawing arches which decreased in size inwards. At the same time Thomas Wood expanded the harbour to facilitate the export of lime around the coast of Northumberland and Scotland. However, by 1822 the kiln had ceased lime production and turn into a smokehouse for the local fishing industry (Hardie 2009).

# 3 Survey methodology

## 3.1 Training methodology

The survey was conducted as part of a 2-day CITiZAN training session and one-day workshop.

A full, 2-day CITiZAN training session consists of a half-day classroom session that includes briefings on site background, appropriate archaeological methodology, health and safety on the foreshore and legislation and organisations responsible for operations in the intertidal zone such as the Portable Antiquities Scheme (PAS) and the Receiver of Wrecks, in conjunction with a day's fieldwork; along with visits to the wider foreshore around the feature of interest. One-day training workshops consist of a shorter classroom session concentrating of a narrower field of interest, followed by a half-day of on-site practical work. Recording events are short fieldwork sessions designed to target specific archaeological fieldwork objectives, such as recording a newly exposed area of a previously recorded feature or monitor the effects of coastal erosion on a feature.

On completion of a full training session volunteers qualify for a CITiZAN Archaeology Skills Passport in which to record learnt skills.

All CITiZAN events which include some level of public participation (full training sessions, training workshops, recording events and outreach events) will contain a 'toolbox talk' or on-site health and safety brief prior to the beginning of any event in order to highlight specific concerns.

## 3.2 Field methodology

Intrusive archaeological methods will not be used during CITiZAN training and outreach events, with the exception of surface cleaning to reveal obscured archaeological detail (to a maximum depth of 80mm). Wooden features will not be cleaned with metal tools, were necessary they will be cleaned with soft brushes, sponges or the direct application of low pressure water as appropriate.

Targeted environmental sampling will occasional be conducted during CITiZAN training and outreach events. Where environmental sampling is to be used a detailed methodology will be included in.

Areas/features were cleaned by hand and surveyed by the CITiZAN volunteer team, supervised by a member of CITiZAN staff.

All features were located using a hand help Garmin eTrex 10 with an accuracy of plus or minus 3m.

## 3.3 Recording methodology

A written and drawn record of appropriate features was carried out using CITiZAN proformas and the CITiZAN app. Hand written notes were taken in the field to record the findings of on-site analysis of features during monitoring visits, workshops and training seasons as necessary. These were notes on the fabric, form, function and evidence of past changes to features. All hand written notes will be included in the material to be archived.

All appropriate features were photographed using suitable high end digital, medium and large format cameras. The photographic record illustrates all significant phases, structures, important stratigraphic and structural relationships, and individual items of interest. All site photographs, except 'working shots', will include a photographic scale of appropriate size.

All photographs are taken using digital cameras; MOLA does not use colour or black and white film.

Appropriate features were planned at a scale of 1:50, 1:20 or 1:10 as applicable, sections and elevations were drawn at a scale of 1:10 were necessary.

The drawn site records, the completed CAD drawings presented in the report and the use of existing survey drawings will conform to the conventions and procedures laid out in Museum of London Archaeology's Archaeological Site Manual (MOLAS 1994).

Other digital illustration programs, beside CAD, may be used were appropriate in the production of report drawings. All drawings used to illustrate the report will conform to the conventions and procedures laid out in Museum of London Archaeology's Archaeological Site Manual (MOLAS 1994).

Where appropriate, features will be recorded using the CITiZAN app. Sites recorded using the app will be moderated by CITiZAN staff and uploaded to CITiZAN's webhosted interactive map.

## 3.4 Recovery and ownership of finds

CITiZAN is focused on recording and monitoring structures, landscapes and archaeological features and will not systematically collect finds. However in certain circumstances finds of specific and unique intrinsic interest may be recovered. These finds will in general fall under the terms of the Treasure Act 1996.

In the event of 'Treasure' being recovered during a CITiZAN training or outreach event the artefacts in question will be reported to the local coroner and surrendered to the regional Portable Antiquities Scheme Finds Liaison Officer.

# 4 Results

For feature locations see Fig 1.

For elevations of the lime kiln see Figs 2 &3.

For elevations of the fisherman's hut see Figs 6 & 7.

For a 3D model of the possible pier see Fig 16.

## 4.1 The lime kiln

The basal deposit of the cliff face that the remnants of the kiln (Context 101) were eroding from was formed by a natural limestone pavement (100). Overlying the limestone pavement was the remnants of the kiln, which was constructed out of sub-rectangular blocks of stone which had been well-faced and squared. Approximately 90% of the blocks appeared to be limestone with the remainder appearing to be sandstone. The blocks varied in size between 0.95m by 0.22m and 0.15m by 0.10m. They had been bonded together with a hard, yellowish white lime mortar that contained frequent lumps of lime up to 12mm in length, occasional small pebbles up to 5mm in length and isolated lumps of coal up to 15mm in length.

The remnants of the kiln consisted of two eroding faces, the longest of which was orientated eastwest and ran parallel to the shoreline. This face of the kiln measured 8.10m in length and had a surviving height of 2.50m. The lower two courses of this face of the kiln appeared to be reasonably intact, although this was difficult to establish as coastal erosion had removed the outer face of the structure. However, the eastern and western sides of the structure were badly eroded and it was not possible to estimate how much of the feature survived. At the eastern end of this east-west orientated face, a second face ran into the cliff edge on an approximate north-south alignment. This north-south aligned face had an exposed length of 0.67m and a surviving height of 1.10m. The face consisted of six courses of squared limestone.

The eastern end of the kiln was overlain by a friable, mid-brown sandy loam (102). Context 102 contained frequent sub-angular pebbles to 0.10m in size, isolated fragments of roofing slate and lumps of broken brick along with small lumps of coal. The centre of the kiln (101) was overlain by a light, orangery brown sandy loam (103) that contained frequent small sub-rounded and sub-angular pebbles that varied in size between 5mm and 80mm in size. It was not possible to establish the relationship between contexts 102 and 103 due to the instability of the cliff.

## 4.2 The fisherman's hut

The fisherman's hut was a northwest-southeast aligned wooden hut that measured approximately 6.5m in length and approximately 3.85m in width. The hut was constructed from planks each of which measured approximately 1.89m in height and 0.15m in width. The northern and southern elevations of the hut were constructed from 24 planks, while the southeastern and northwestern elevations consisted of 42 planks. The planks were fixed to the internal frame of the building with square headed and shafted nails (pers comm Katrina Porteous). The outer faces of the hut had been coated with tar, in order to waterproof the building. The roof of the hut was constructed from similar sized planks as the body of the building, which were then covered with old sailcloth and then water proofed with tar. The inside of the hut had been decorated with newspaper, a fragment of which was dated August 1891 (pers com Katrina Porteous).

The northern elevation of the hut contained a doorway. The doorway measured approximately 1.70m in height and approximately 1m in width. The door was painted marine blue, apparently the traditional colour of the hulls of Beadnell cobles (pers com Katrina Porteous).

Immediately below the eaves on the southwestern facing elevation of the hut were two shuttered windows, each of which measured 0.75m in height and 0.40m in width. According to local knowledge these windows were never opened when the building was in use (pers com Catherine Perry).

The northeastern elevation of the hut (overlooking the sea) contained two boarded up windows, the southern window measured approximately 1m in height and 2m in length. The northern window measured approximately 0.90m in height and approximately 1.60m in length. The northern side of the roof had a metal stove-pipe protruding through it, which was attached to an oil-burning stove inside the hut.

A detailed history of the fisherman's hut, written by Katrina Porteous, can be found in Appendix 2.

## 4.3 The possible pier

The possible pier consisted of two courses of tightly packed limestone boulders that had been roughly squared. The boulders measured up to 0.75m in height and 1.5m in width. The pier had a maximum height of 0.75m. The feature consisted of two joined arms approximately 75° apart. The northwest-southeast aligned arm measured approximately 18.6m in length, while the east-west aligned arm measured approximately 13.5m in length.

During the filming of Britain at Low Tide the pier was the target of an aerial survey conducted by Peter Rauxloh, Mola's Director of Technology Solutions, using one of the company's drones. Peter states:

Our work followed the normal process of laying out ground targets, over the beach area and stone rubble of the potential pier. The precise location of these targets was then carefully measured. We then flew the aircraft over the entire area in a tight pattern like a tractor ploughing a field. In this case it was important to accurately capture the three dimensionality of the site, (rather than just its area), so we flew the aircraft across the foreshore too. That is we ploughed up and down the field and then from left to right (Rauxloh 2016).

The aerial survey technique relies on there being very high levels of overlap between successive images; typically 75-80%. This is required because the process applied to the images needs to see the target from a variety of angles, and the criss-cross pattern increases that number. By moving around the target we understand it's structure, hence the computing approach being applied is known as structure from motion or SfM (*Ibid*).

The flight took place at 40m above the ground, captured 171 images, in which each pixel represented 1.4cm on the ground. This can be contrasted with the aerial photography you can see in Google maps, which typically has a 25cm per pixel resolution. The images and ground control targets were then processed to produce a single combined image, in which one is looking directly down over the entire area - a view that a single image cannot provide. In an orthomosaic like all digital pictures or TV screens, each cell shows a colour. However, the SfM processing also produced a plan of the area in which each cell, indicates a height. This Digital Elevation Model (or DEM) is incredibly detailed, comprising just over 1 heighted point for every 3 square centimetres (*Ibid*).

In the results of the aerial survey the feature is clearly identifiable and is much easier to visualise then on the foreshore, were the feature is partially obscured by the surrounding stone debris. This debris may result from the destruction/demolition of the possible pier, although no evidence currently points to this conclusion.

## 4.4 Training results

A total of two members of the public were provided with some experience of standing building recording during the survey of the fisherman's hut on Harbour Road. Whilst the skillsets of two returning volunteers were enhanced and strengthened during the recording of the Dell Point limekiln.

## 5 Conclusions and recommendations

## 5.1 General discussion of the survey

The function of the possible stone pier may never be known, with several different interpretations of the feature having been presented. In Britain at Low Tide it was speculated that the feature may well have formed a pier or jetty associated with the early medieval chapel on Ebbe's Snook (SAM 25055), although there is no dating and little evidence to support this theory.

Osler and Porteous prefer a use within the fishing industry, stating: "'yare' the Old English word for a fishtrap, appears in several tidal place names in the northeast, eg 'the Yares', Holy Island. Sometimes it is combined with the word 'ebbe', as in 'Ebyare', 'a fishtrap that uses the ebb tide' (Watts 1990). At Beadnell, a plan of 1759 shows an 'old pier' south of the present harbour and the remains of a large, L-shaped structure are still visible today. A potential former fishtrap site, it lies close to the early Christian site of St Ebba's Neuk .... and the association with St Ebba might just be an eponymous adaption from an older Ebyare" (Osler and Porteous 2010, 22). However, in an earlier publication Porteous and Beamish suggest that the form of the feature at Beadnell is comparable to the medieval harbour beneath Dunstanburgh Castle (Porteous and Beamish 2007, 37; Hardie 2009, 23). It seems likely that the original function of this feature will remain unidentified for the foreseeable future.

## 5.2 Answering original research aims

A detailed survey was conducted of the lime kiln on Dell Point and the fisherman's hut on Harbour Road enhancing the archaeological record of these features.

A survey of the possible pier to the south of Beadnell Harbour was carried out, creating a record for this feature possibly for the first time since it was mapped in middle of the 18<sup>th</sup> century.

## 5.3 Further work

The 1759 map of Thomas Wood's estate shows four draw kilns located on Dell Point. This survey has recorded one of those kilns, however the locations of the remaining three are unknown. Therefore it is recommended that continued monitoring visits are made to this area of the foreshore in case further kilns are identified in the cliff edge.

## 6 Dissemination

The results of the survey will be made publicly available on the CITiZAN website: <u>http://www.CITiZAN.org.uk/</u>. The feature data will be uploaded to the CITiZAN interactive database, to allow ease of future long-term monitoring of the site via the CITiZAN online interactive map and smart phone app and to permit inclusion of the data in any future academic researches into coastal and intertidal archaeology. This can be found at <u>http://www.CITiZAN.org.uk/interactive-coastal-map/</u>.

Records created by this survey will be deposited with the Archaeology Data Service (ADS) where it will make up a part of the archive of all data and materials created by CITiZAN. It will be deposited with appropriate local repositories via the ADS.

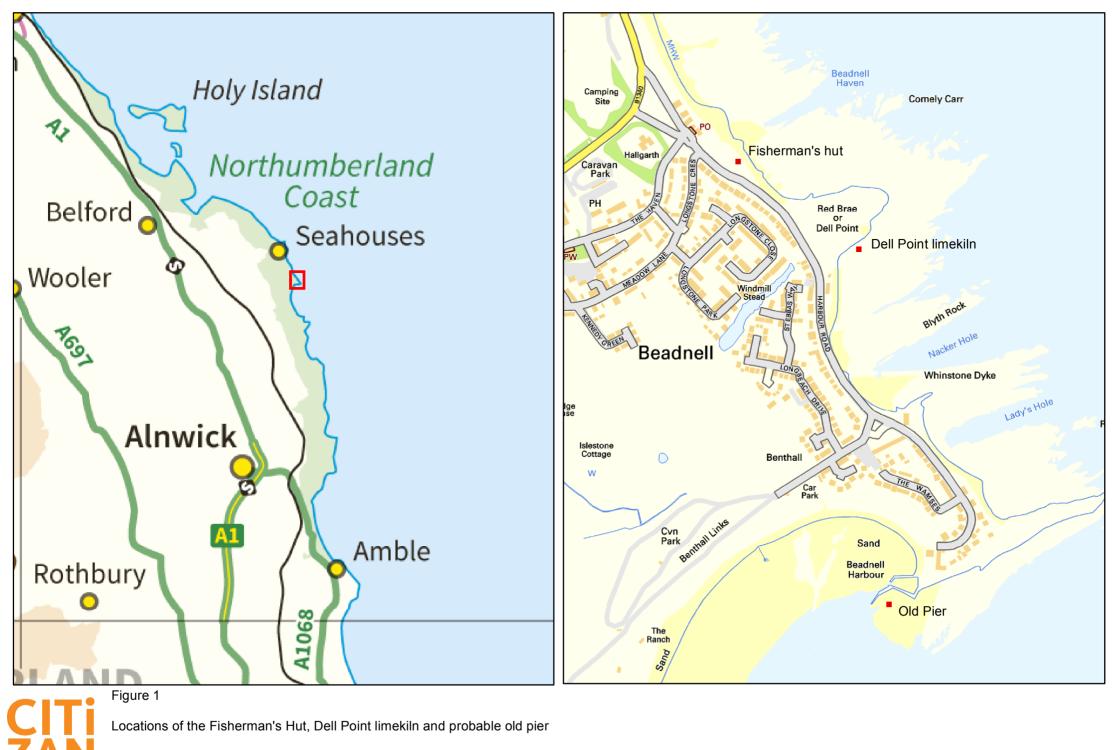
A short note on the results of the survey will be submitted to the appropriate journals to be included in annual county and period fieldwork round-ups.

# 7 Bibliography

- BGS, British Geological Survey website: http://www.bgs.ac.uk
- Burn A, 2010, North East Rapid Coastal Zone Assessment: Phase 2, Archaeological Research Services Report: 2010/42
- Chartered Institute for Archaeologists, (CIFA), 2014 By-Laws, Standards and Policy Statements of the Chartered Institute for Archaeologists, Standard and guidance: the creation, compilation deposition and transfer of archaeological archives
- CITiZAN, 2015a, Code of conduct, <u>http://www.CITiZAN.org.uk/terms-and-conditions/code-of-conduct/</u>
- CITiZAN, 2015b, Finds policy and guidance, <u>http://www.CITiZAN.org.uk/terms-and-conditions/finds-policy-and-guidance/</u>
- CITiZAN, 2015c, Health and safety policy, http://www.CITiZAN.org.uk/health-and-safety/
- Hardie C, 2009, *Historic environment survey for the National Trust properties on the Northumberland Coast, Beadnell Links and the limekilns*, Archaeo-Environment Ltd, Report no: 0058/2-09
- Historic England, 2018, List entry for St Ebba's chapel and monastic site
- Osler AG and Porteous K, 2010, 'Bednelfysch and Iseland fish: continuity in the pre-industrial sea fishery of north Northumberland, 1300-1950', *The mariner's mirror*, Volume 96, Number 1, 11-25
- Porteous K, 2013, Limekilns and lobster pots, a walk around Old Beadnell
- Porteous K and Beamish H, 2007, 'Industrial Beadnell', Archaeology in Northumberland
- Rauxloh R, 2016, 'The old Pier', *Resources, CITiZAN key zones: North Beadnell, Northumberland*, accessed 02/05/18, <u>https://CITiZAN.org.uk/resources/key-zones/north/beadnell/</u>
- Scott J, 2010, Whiterock site, Bethall, Beadnell, Northumberland: archaeological desk-based assessment, TWM Archaeology

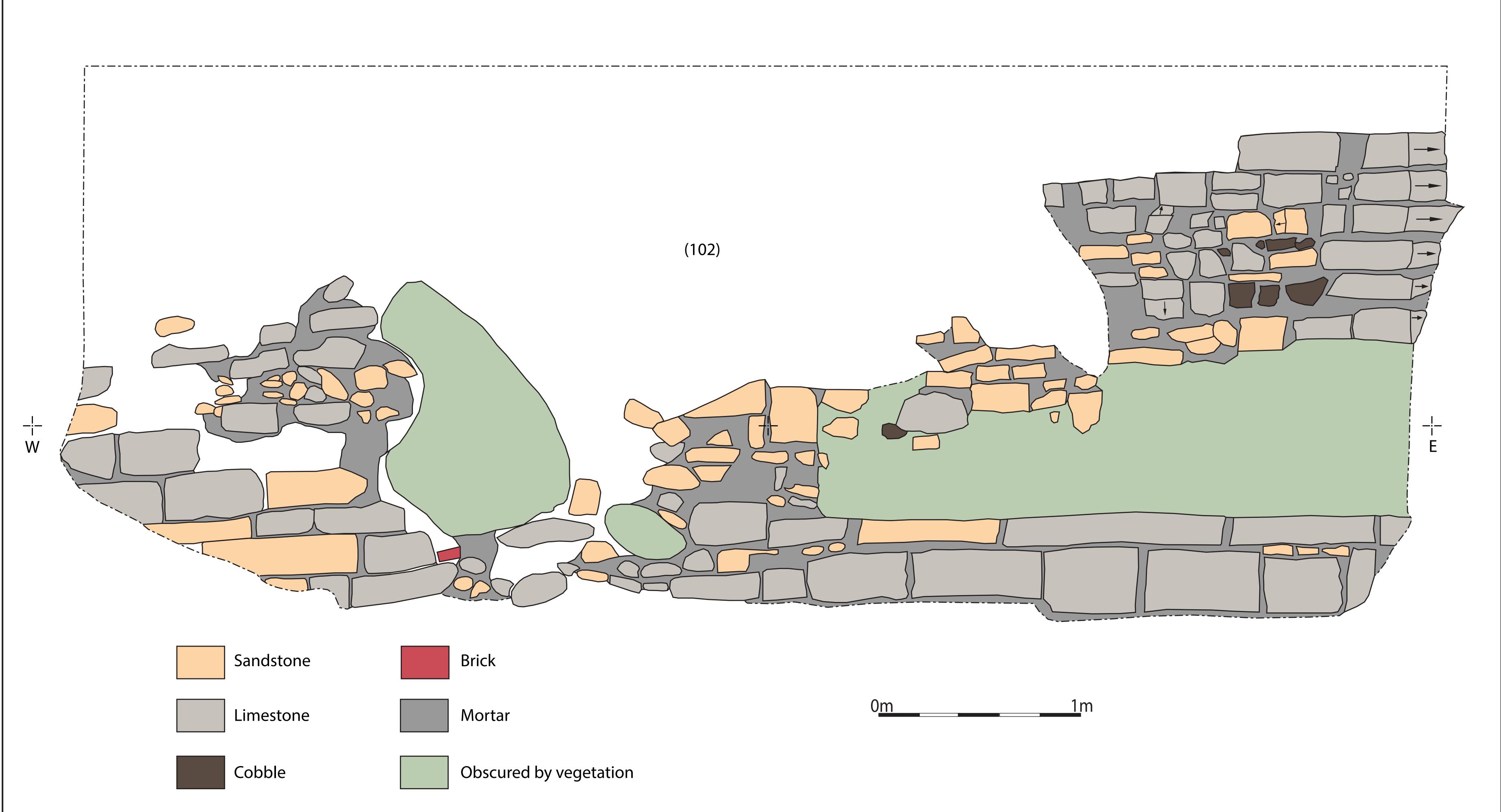
Watts, 1990, Northumbrian fishery names, 92

Williams E, 1995, 'Work on Beadnell Point', Archaeology in Northumberland, 1994 – 1995, 6



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# Fig. 2 Southeast facing elevation of limekiln

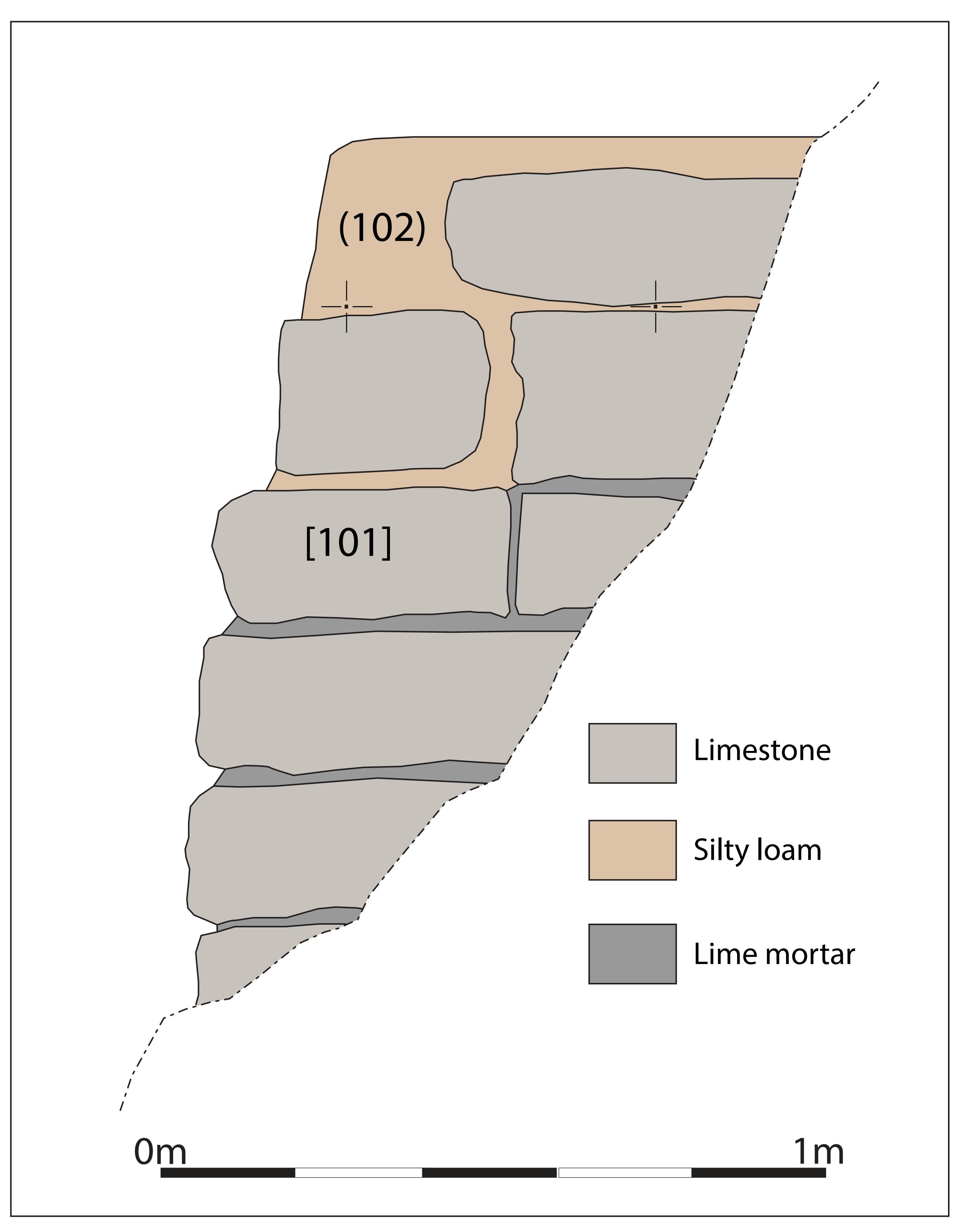


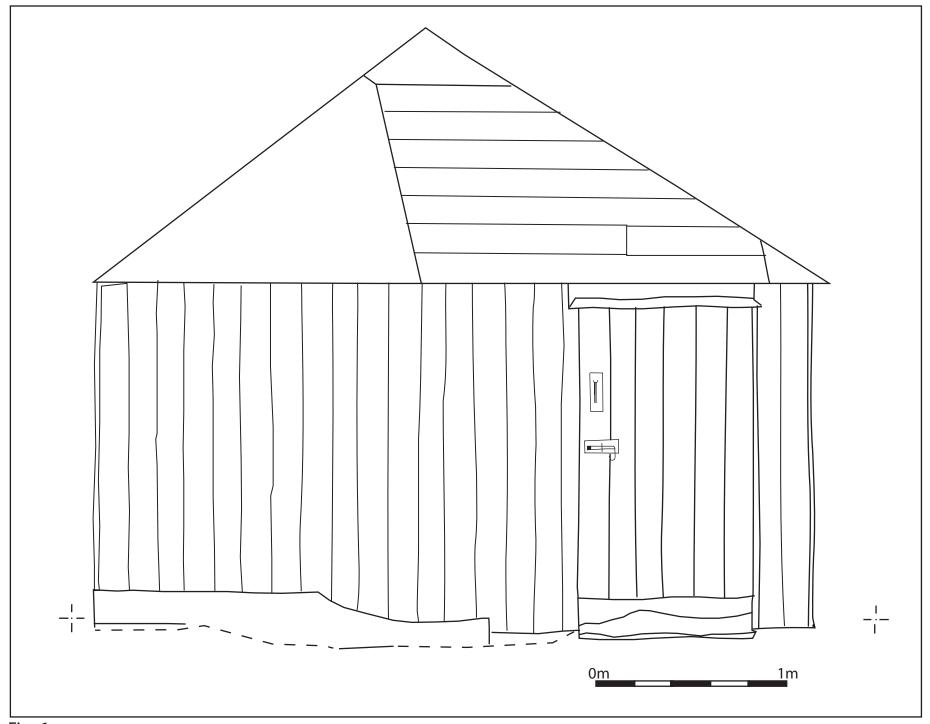
Fig. 3 North facing elevation of limekiln

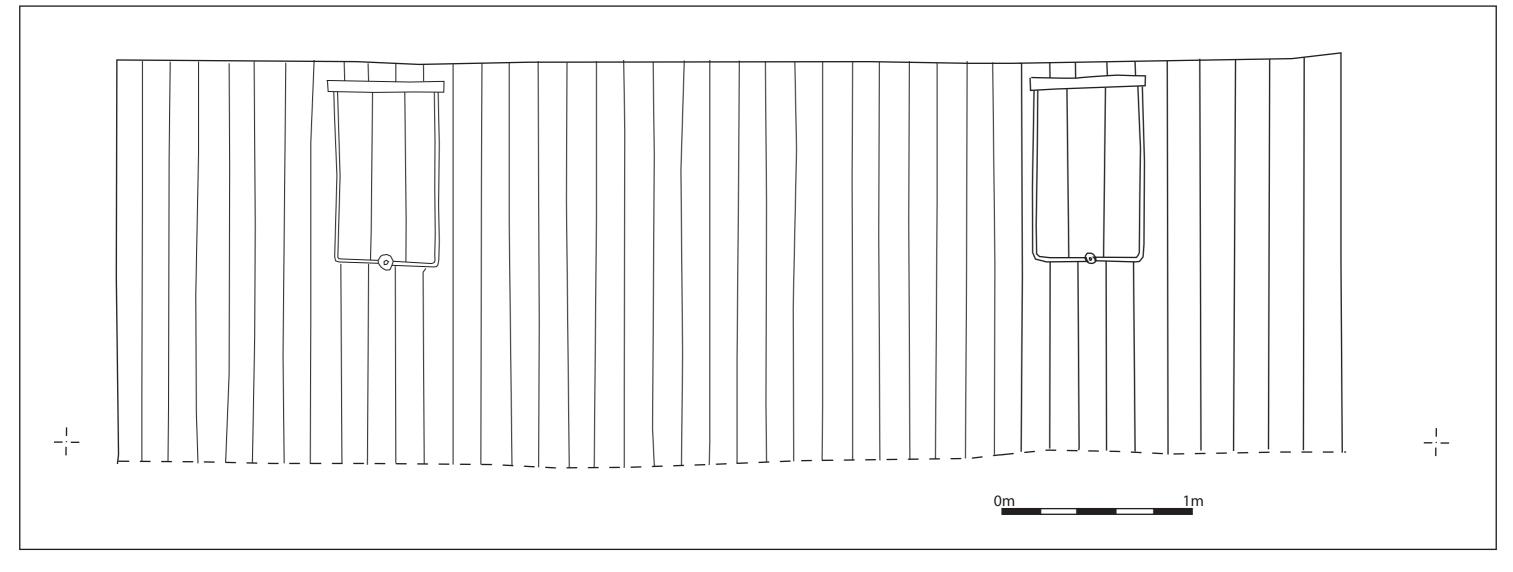


Fig 4: Recording eroding limekiln with CITiZAN volunteers



Fig 5: Recording the fisherman's hut





# Fig. 7 Southwest facing elevation of fisherman's hut



Fig 8: Southwest facing elevation of the fisherman's hut



Fig 9: South facing in elevation of fisherman's hut



Fig 10: Northeast facing elevation of fisherman's hut



Fig 11: North facing elevation of fisherman's hut

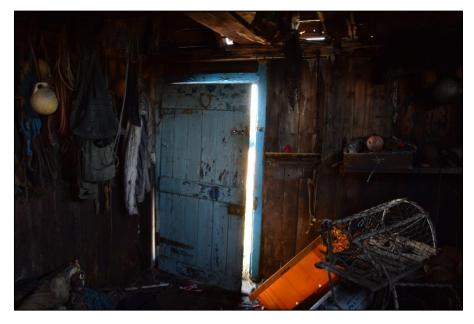


Fig 12: Interior of the fisherman's hut



Fig 13: Lower course of possible pier with 1m photographic scale. (Scale at extreme left side of feature)



Fig 14: Detail of lowest course of the possible pier



Fig 15: Filming on the site of the possible of pier with Tern  $\mathsf{TV}$ 



Old Beadnell Pier, Chathill, Northumberland



⊙ 332 ★ 4

Fig 16: 3D model of the possible old pier and Beadnell foreshore to the south of Beadnell harbour, taken from Sketchfab

# 8 Appendix 1

#### Context index for the Dell Point limekiln

| Context number | Context description             |
|----------------|---------------------------------|
| 100            | Natural limestone               |
| 101            | Limekiln                        |
| 102            | Mid brown sandy loam            |
| 103            | Light, orangey brown sandy loam |

## 9 Appendix 2

#### A history of Beadnell's reading room by Katrina Porteous

In February 1856 Mr W Brown, a surgeon from North Sunderland Seahouses, visited Beadnell to deliver the first of a series of science lectures intended "to raise our thoughts from earth to heaven". <sup>[i]</sup> About 40 years later, in January 1897, professional nurses were brought to Beadnell, to care for fever victims housed in a temporary hospital. "Many of the cases," a newspaper reported, "were of a very severe character, but only one person, a young woman, succumbed to its ravages." <sup>[ii]</sup> Nearly 100 years later, in 1992, fisherman John Douglas sat, as he often did in winter-time, hammering a wedge into a cane bow through the base of a wooden 'creeve' (lobster pot), and recalled the story of his father and grandfather's lucky escape from a nearly-fatal blizzard in 1894, in the coble Jane Douglas. <sup>[iii]</sup>

These three snapshots, separated by almost a century and a half, have one thing in common. They are all associated with, and probably all took place within, a simple wooden hut, familiar to Beadnell's inhabitants from its prominent roadside position near the entrance to Harbour Road, and known to older Beadnell residents as 'the Reading Room.'

The hut was once one of many 'black huts' in the village. It stood in a little archipelago of huts, on the grassy bank close to Beadnell Haven, where, until relatively recent times, fishing cobles were drawn up on the sand. The path which led from it to the sea was paved with broken mussel and limpet shells, bait from innumerable generations of long lines. Although it was built to serve the whole community – or at least the male half – from the beginning, its position at the Haven associated it with the fishing community, in particular with Fisher Square, a nearby structure of 11 stone cottages arranged around a central courtyard, built in 1777 by John Wood, to house Beadnell's fishing families. The Square remained important to the fishing community until it was demolished in 1939. [iv]

The date of the Reading Room is not known. A Durham University thesis of 1993 dates 'The Beadnell News Room' to 1886, about the same time as Craster Memorial Hall Reading Room. <sup>[v]</sup> There is no evidence that 'the members of the Beadnell Reading Room' who attended Mr Brown's uplifting lectures in 1856 met in that hut; but the likelihood is that they did. The fishermen's story-telling tradition was reliable throughout their father's memories, which stretched back to the 1880s, and they assumed that the Reading Room had existed before that, in their grandfather's time. The historical development of the Reading Room movement also suggests a mid-19<sup>th</sup> century date.

It is not known whose idea it was to provide a Reading Room for the village, who paid for it, or who built it; but again some clues exist. The mid-19<sup>th</sup> century Reading Room movement came about as part of a temperance drive to keep working men – particularly miners – out of taverns and alehouses. The Northern Association of Mechanics' Institutes, whose President in the early 1850s was Sir George Grey of Howick, succeeded in 1858 by the Duke of Northumberland, included, in 1853, 28 institutions. By 1858, there were 84. <sup>[vi]</sup> The first reference to North Sunderland Reading Room, which occupied part of the Lord Crewe's property in what is now the Bamburgh Castle Hotel, dates from that year. <sup>[vii]</sup> The Vice Chair of the Association's committee at the time, Dr Robert Embleton, lived in Beadnell. There is no evidence that Beadnell Reading Room was at that time part of the Northern Association of Mechanics' Institutes; indeed, evidence suggests that it joined much later; <sup>[viii]</sup> but it would seem likely that Dr Embleton was at least involved in setting the idea in motion.

The leading landowner in Beadnell at this time was John Wood's son, Thomas Wood Craster. He owned Fisher Square and the land at the Haven. It is not known whether he was a member of the

Association of Mechanics' Institutes, but he would certainly have known people, like Dr Embleton, Sir George Grey and the Duke of Northumberland, who were committee members and important subscribers, and he might well have provided financial support for the building of the Reading Room. Another likely subscriber was local colliery owner Richard Taylor of Beadnell House. The colliery and adjoining limekilns and quarry were active in the 1850s, <sup>[ix]</sup> and would have added to the perceived need to provide an alternative to the ale-house.

Further along Harbour Road, next to the site of old Windmill Steads, stands another, similar, hut of comparable age to the Reading Room. Known as 'Aa'd Weir's hut', this belonged in the late 19<sup>th</sup> century to the Fawcus fishing family. In common with many Beadnell black huts, it was used as occasional accommodation by the family, who moved out of their house during summer to let it to visitors for additional income. <sup>[x]</sup> Like Fisher Square, Windmill Steads belonged to Thomas Wood Craster. It is likely that whoever built the Reading Room also constructed Aa'd Weir's hut. The joiner in Beadnell in 1855 was George Summers, father and grandfather to a dynasty of joiners and village postmasters. Again, there is no evidence that he built either hut, but he would be the most obvious contender. <sup>[xi]</sup>

Whatever its exact date and provenance, it is clear that for much of the second half of the 19<sup>th</sup> century the Reading Room provided a place for Beadnell's working men to meet and relax. The hut housed a billiard table, and subscribed to newspapers. If it did have any association with the Mechanics' Institute, it could have subscribed to its 'itinerating library' of improving volumes. The hut was originally heated by a wood-burning stove. Inside, it was finely wainscotted and wallpapered. Scraps of wallpaper from its original incarnation, heavily-patterned, smoke-stained and lined with newspaper so friable it turned to dust, yielded just enough print to date it to August 1891: the last time the Reading Room was decorated. During the 1896-7 fever epidemic, the hut would have provided warmth, relative isolation and healthy sea air.

The hut was replaced in 1906 by a new village Reading Room in the front part of the new school on Meadow Lane. It was paid for by the Craster family, in memory of the late Mr Edmund Craster, and officially opened on November 11<sup>th</sup> that year. <sup>[xii]</sup> Two years later, the Berwick Advertiser reported that the Reading Room membership was 42, "both ladies and gentlemen", and – tellingly – that "It was decided to join the Northern Union of Mechanics' Institutes". <sup>[xiii]</sup> In practice, women did not seem to use the Reading Room. Fishermen born before World War I recalled congregating there in the evenings between the Wars, to play billiards, dominoes and cards, and to read newspapers by oil lamp around the fire in an entirely masculine environment.

The 'old' Reading Room was probably given to the fishermen in 1906 by the Crasters, then landlords at the Haven and Square. The years leading up to World War I were particularly difficult in small fishing villages like Beadnell, which struggled to cope with the collapse of the herring industry, the introduction of big steam drifters, and falling white fish catches on the long lines. Several families left Beadnell around this time, heading south to the better prospects of the industrial colliery settlements of Amble, Blyth and Tyneside. Those who stayed hauled up their old herring drifters, some turning them into huts like those which can still be seen on Holy Island. A couple of upturned boats joined the various fishermen's huts, wash-houses, stables, haylofts and the old Reading Room at Beadnell Haven. <sup>[xiv]</sup>

From then on, for roughly a century, the Reading Room was used by the Douglas family as a place to make and mend gear. For the first half-century, long lines were baited at a table under the east window in winter. Lines were an ancient form of fishing, dating back to the medieval period in Beadnell. <sup>[xv]</sup> In more recent times they were normally baited in back kitchens by the womenfolk, but the imbalance of men to women in the Douglas family meant that, in the first half of the 20<sup>th</sup> century, the men often baited their own lines. The Reading Room was also used for making and mending creeves, storing nets, and the myriad other tasks of fishing life, from tying hooks to 'sneeds' (snoods) and stretching 'tows' (ropes), to mixing paint and making 'flaggy bows' (buoys) for potting and

salmon netting. It was usually stacked inside with fleets of creeves and 'fakes' (bundled coils) of tows. At the same time, it continued to serve its original purpose as a place for the village men to meet and share news and stories. Whenever fishermen were at work there, others would call in to sit around the stove and chat.

The Reading Room had many characteristic features. Externally it was covered in tar, which made it weatherproof. Tar was used extensively in fishing villages to preserve ropes. A few metres to the north of the Reading Room door lay one of the village wells, and between it and the Haven stood a row of bark-pots, some of which were used to boil tar. <sup>[xvi]</sup> The tar itself was brought from nearby gasworks, notably at Bamburgh. The fishing economy recycled its materials. Beneath its sealing layers of tar the hut's wooden roof was neatly covered with old canvas sails. Repairs were made using square-sided blacksmith's boat-nails. The door was painted marine blue, the traditional colour used for cobles.

Inside, the Reading Room consisted of one large room with a wooden floor, a wooden net-loft extending about three quarters of the length of the roof, a wood-burning stove (originally central, later moved towards the east), tongue-and-groove wainscotting half way up the walls, and a set of shelves and cabinets – presumably originally bookcases – on its southern wall. Two windows looked out to sea on the east side. On the roadside, a pair of windows were permanently shuttered. It was said that the door to the Reading Room had originally been on the west. Fisherman Charlie Douglas (1909-1995) remembered that his father, as a lad, had played a forbidden knocking game involving a button and a string when the hut was still a Reading Room and the door was on the west side. Recent investigations have found no structural evidence for this. The east side of the hut has, however, been replaced at some point. The fishermen recalled that one of the ceiling beams, blacker and harder than the others, had originated in an old smokehouse at the harbour. The panels of the loft were said to be hatches from the holds of 19<sup>th</sup> century herring keelboats.

The Reading Room contained within its fabric a patchwork of Beadnell's history. Inside, it smelled of brine and woodsmoke, and its walls were soaked in the stories of a century and a half of seafaring at the Haven, a tradition which stretched back to medieval times. The hut sadly fell out of use in the early 21<sup>st</sup> century, with the passing of the last of the Douglas fishermen who had kept it in good repair for a century.

- 1. Newcastle Journal, 16.2.1856
- 2. Shields Daily Gazette, 22.1.1897
- 3. Porteous K, 2013, Limekilns and Lobster Pots, Jardine Press, 42
- 4. Porteous K, 2003, The Bonny Fisher Lad, The People's History 2003, 109

5. Stockdale C, 1993, *Mechanics' Institutes in Northumberland and Durham 1824-1902*, unpublished Durham University thesis, appendix

- 6. Newcastle Courant, 17.9.1858
- 7. Berwick Advertiser, 10.12.1858
- 8. Berwick Advertiser, 10.1.1908
- 9. Whellan's Directory, 1855
- 10. Porteous K, 2013, Limekilns and Lobsterpots, 36
- 11. Whellan's Directory, 1855; Porteous, ibid, 66
- 12. Berwick Advertiser, 29.6.1906

13. Berwick Advertiser, 10.1.1908

14. Porteous K, 1990, Beadnell – a history in photographs, Northumberland County Library, 37

*15.* Osler A and Porteous K, 2010, 'Bednelfysch and Iseland Fish: continuity in the pre-industrial sea fishery of North Northumberland, 1300-1950', *Mariner's Mirror vol. 96 no. 1, 11-25* 

*16.* Porteous K, 2007, 'Know your fishing heritage: Bark-pots', *Archaeology in Northumberland* volume 17, 26-27

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# 10 Appendix 3

#### Ship graffiti on the doors of Beadnell harbour limekiln

In November 1798 it was agreed that Richard Pringle should build a limekiln measuring 24ft (7.31m) in height on the pier at Beadnell, which should have a pot 16ft (4.87m) in diameter at the top and 9ft (2.74m) diameter at the bottom. John Wood from whose estate the coal and limestone were extracted, would complete the harbour there and maintain it in good repair. The kiln was expected to produce at least a thousand cart loads of lime each year, to be exported by sea to other ports in England and Scotland (National Trust HBSMR, PRN 14633).

The lime sold well so that John Wood built a second and third kiln on the site. The coal and limestone were brought to the top of the kiln on a tramway. A load of coal was used to burn two loads of limestone. Three circular kilns c30ft (9.14m) tall, divided at ground level by tunnel-vaulted passages. Each kiln has three segmental drawing arches decreasing in size inwards. The most southerly kiln has partly collapsed on the seaward side and temporary joists have been used to add support to the kiln arches. By 1822 trade at the kiln had declined and the kiln eyes used for curing herring (*lbid*).

The limekilns have been restored by the Natural Trust and are currently used by local fishermen to store gear. The interiors of each kiln are now secured by heavy wooden, one of which has a significant amount of graffiti carved into including names, initials and dates. Of most interested to CITIZAN however were a series of carvings of sailing vessels.



Fig 17: Door to converted storeroom inside Beadnell Harbour limekiln



Fig 18: Boat graffiti showing vessel with possible lantern rig and fore sail



Fig 19: Boat graffiti showing vessel with possible lantern rigged mainsail and lug rigged mizzen sail



Fig 20: Ship graffiti showing vessel with possible lug rigged mizzen sail



Fig 21: Ship graffiti showing possible yacht



Fig 22: Ship graffiti showing vessel with no sail



Fig 23: Example of name graffiti