

BINEVENAGH & CAUSEWAY COAST
AREAS OF OUTSTANDING NATURAL BEAUTY

MARITIME HERITAGE GUIDE



CAUSEWAY COAST & GLENS
HERITAGE TRUST



BINEVENAGH
AREA OF OUTSTANDING NATURAL BEAUTY



Causeway
Coast

Area of
Outstanding
Natural Beauty

DEDICATION

Dedicated to the memory of Captain Robert Anderson contributor to this booklet.

A son of a seafarer and an active shipmaster for over 40 years, Robert spent 25 years as the Dredging Master and a River Bann Pilot with Coleraine Harbour Commissioners before extending his career further afield and serving as Master on a variety of dredgers and small passenger vessels within the UK. He also served as Harbour Master at the ports of Portavogie and Portrush and was a member of Coleraine Harbour Commissioners, becoming Chairman for a number of years. He gave his time generously to further people’s understanding of the sea and ships.

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INTRODUCTION:

BINEVENAGH & CAUSEWAY COAST AREAS OF OUTSTANDING NATURAL BEAUTY (AONB)

We hope that this booklet will help you to enjoy and explore the maritime and coastal heritage of the Binevenagh and Causeway Coast Areas of Outstanding Natural Beauty (AONB). The area contains some stunning scenery and is one of Northern Ireland's most protected landscapes. The area extends from the mouth of the River Roe in County Londonderry to the mouth of the River Bann and Portstewart Strand. It has a rich maritime heritage with evidence of coastal sites and use of marine resources dating to almost 10,000 years ago. It shares its maritime heritage with the Causeway Coast, the whole of Lough Foyle and with Inishowen in County Donegal so this guide also refers to these areas in places and on some subjects. The guide to the maritime heritage of the area covers the period from the first settlers to the present day.

Seascapes reflect both the natural character of the coastline and sea over time, and the uses that people have made of them. There are two main seascapes¹ identified in the Binevenagh AONB and two in the Causeway Coast AONB.

Lough Foyle at the foot of Binevenagh, is extensive and has one of the largest catchments of all Irish sea loughs. At 3,700 km², it is the largest sea lough in Northern Ireland and several rivers run into it including the Foyle, Faughan and Roe. From the Donegal coast to the mudflats off Ballykelly, the Lough is approximately 10 km at its widest point. There is a well-marked channel down the Donegal side which is used by large ships visiting Lisahally Port or Port of Londonderry. The large expanse of water provides ever changing patterns of currents, waves and reflections of the sky. At low tide, there are extensive textured patterns of mudflats that are important feeding grounds for



Roe Estuary. Courtesy of Aerial Vision NI

wintering bird populations of some 35,000 individuals. Magilligan Strand forms an extensive, peaceful beach along the eastern shore. The Lough is also an important resource for shellfish fisheries, aquaculture and recreational activity.

The **North Coast Strands and Dunes** have panoramic open views of dramatic rolling waves and have a windswept and often wild appearance. The extensive flat sandy beaches of Benone Strand, Castlerock Strand, Downhill Strand and Portstewart Strand, all backed by large sand dune systems, are notable scenic features that define much of the coastline character. They provide an important resource for a range of coastal recreational activities. The dynamic dune system at Magilligan is the largest accumulation of coastal sands in Ireland. At Portstewart and Castlerock, there are sections of basalt forming rocky headlands that contrast with the extensive swathes of sand. The sheltered River Bann punctuates the coastline



Portstewart Beach. ©Tourism NI

and enters the sea between the coastal towns of Castlerock and Portstewart. Offshore, large rolling waves form in shallow waters above extensive areas of sandy seabed. Located on the cliff top, the iconic Mussenden Temple is visible from most of the area.

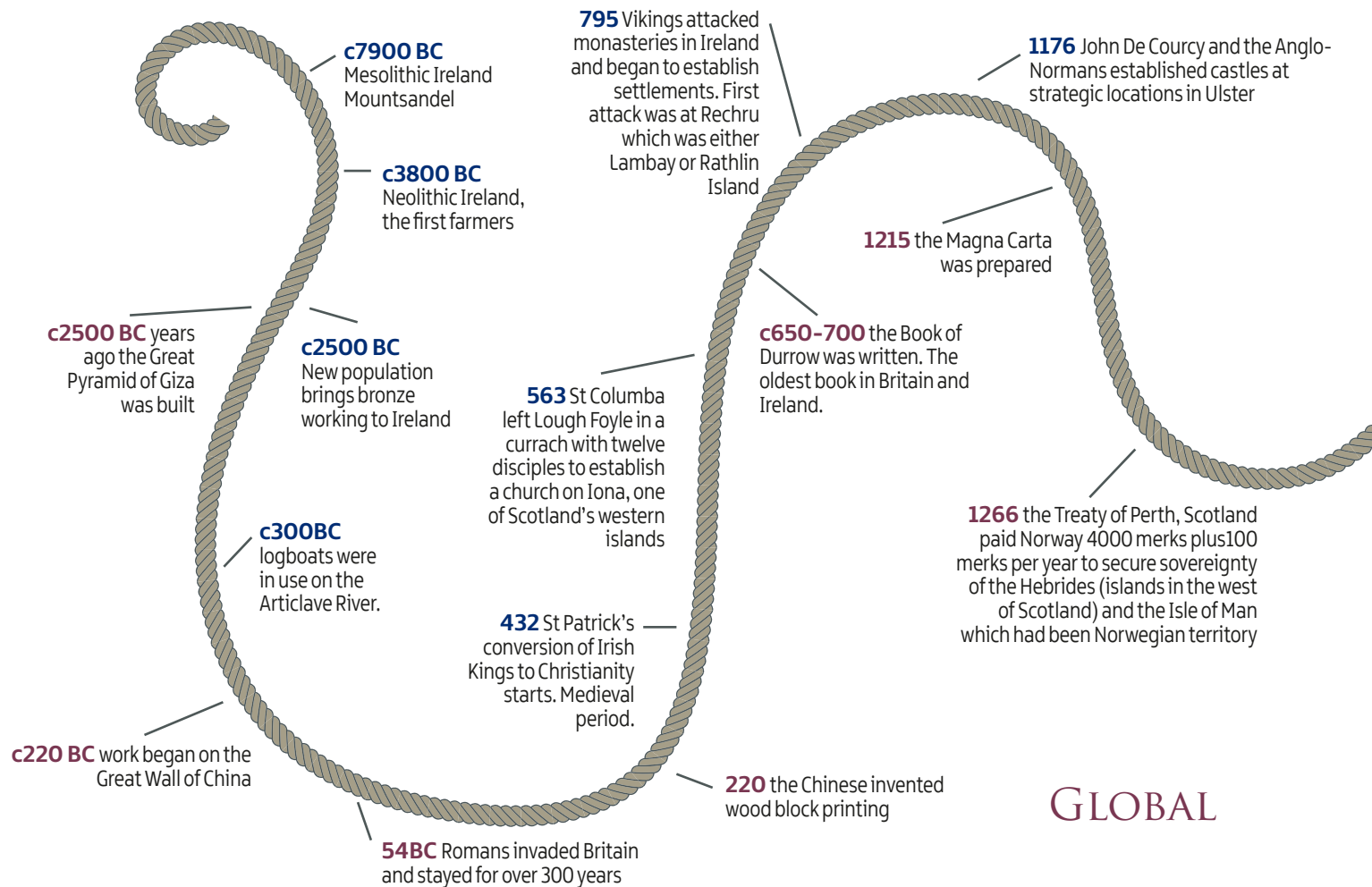
The **Skerries & Dunluce Coast** covers the coastline from Portstewart Head to the western edge of Runkerry Point, located just to the east of Bushfoot Strand. It also includes the Skerries, a distinctive cluster of offshore rocky islands, and the surrounding shallow waters. The Inishowen hills are visible to the west and Islay and Jura form a distant backdrop across open sea to the north-east. Views along the coast are curtailed by headlands with an open backdrop of wild sea. This dramatic section of exposed coastline is formed of intricate basalt and contrasting chalk cliffs with submerged sandbanks, sea caves and reefs. Ramore Head juts out to sea forming a very prominent headland and is composed of a hard dolerite sill which extends offshore to form the Skerries, a chain of nearby low lying uninhabited rocky islands. Located on a rocky outcrop, the dramatic medieval ruin of Dunluce Castle overlooks the rugged cliffs and wild sea beyond. There are three sections of scenic beach, Bushfoot Strand, Curran Strand and Portrush West Strand where high energy rolling waves are popular for surfing.

The **Causeway Coast** extends from Runkerry Point in the west to Carrick-a-Rede Island in the east and includes the shallow inshore waters. To the east of Benbane Head, nearby views of Rathlin Island are important to the setting with views across open sea of Islay, Jura, the Kintyre Peninsula and Arran in the distant backdrop. The Giant's Causeway and Causeway Coast World Heritage Site is a defining feature. The seascape is typified by rough seas crashing against a series of rocky headlands and surrounding high vertical cliffs with dramatic formations of Basalt and Chalk. There is also an impressive submerged shoreline off White Park Bay and the Giant's Causeway. There is an intricate pattern of sweeping bays, islets, rocky headlands and outcrops, punctuated by the sweeping sands at White Park Bay, backed by hummocky ground and low rising, slumped Chalk cliffs. There are small rocky islands near to the coastline including Sheep Island and Carrick-a-Rede Island with a series of submerged sandbanks, sea caves and reefs towards the west. The area has an undeveloped character with a remote and exposed experience.



Dunluce Castle. ©Tourism NI

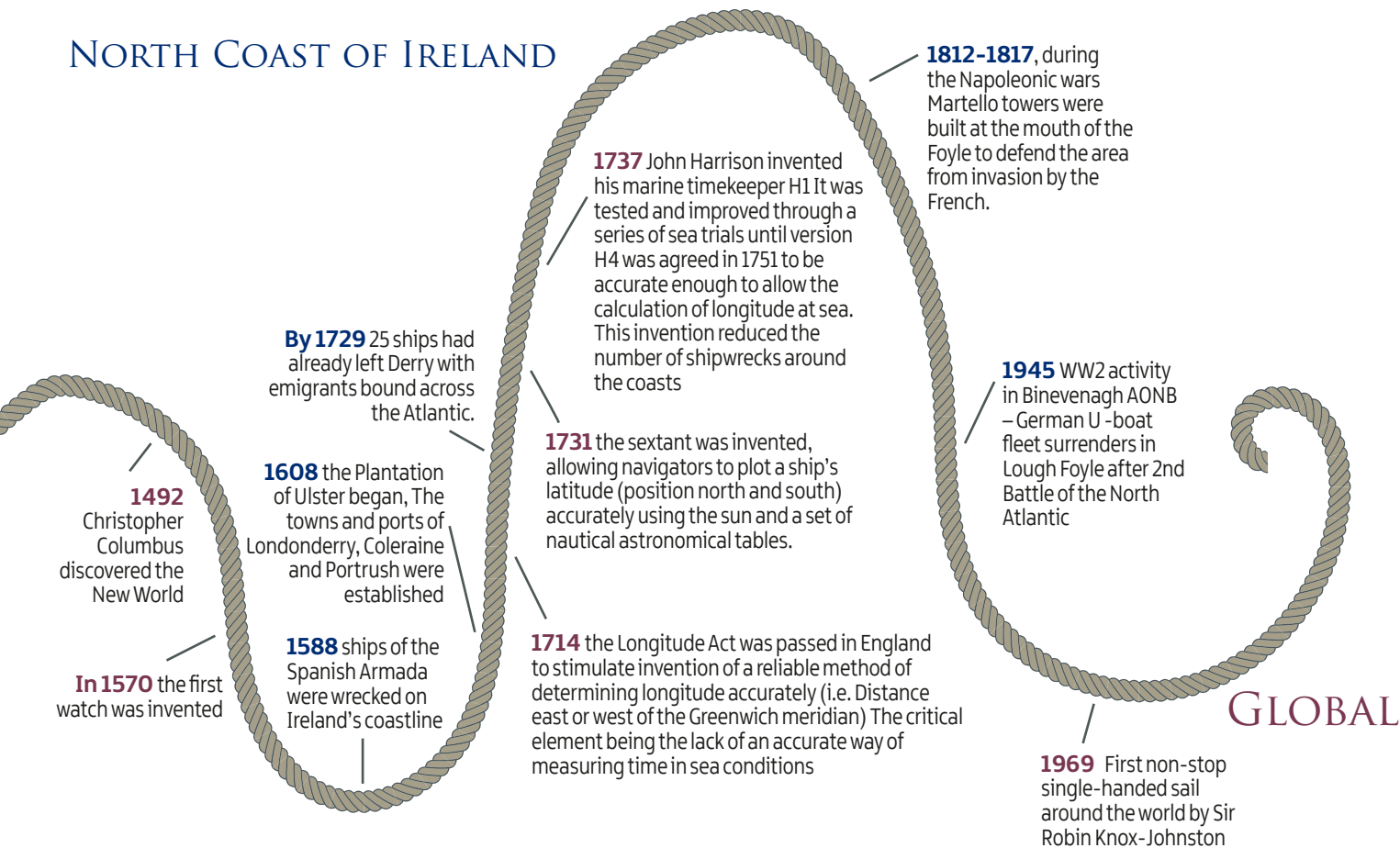
NORTH COAST OF IRELAND



GLOBAL

MARITIME HERITAGE TIMELINE

NORTH COAST OF IRELAND



LIFE ON AND BY THE SEA IN EARLY TIMES

The earliest evidence of people living in the coastal area between the mouth of the Roe and the mouth of the Lower Bann river is at Mountsandel where a seasonal Mesolithic Settlement from around 7900 BC has been excavated.

The people who lived at Mountsandel manufactured stone tools and used them with skill to hunt, and to prepare shelter. The diet of the settlers included species of fish such as salmon, trout and eels which they caught in the River Bann beside the site. They also ate duck, snipe and water lily roots as well as shellfish such as winkle, cockle, oyster, mussel and limpet.

People also lived there later, in the Neolithic period (3800-2500 BC). At this time the settlers kept domestic animals and used wool for clothing, as well as animal skins. They made necklaces out of stone beads, shells and animal teeth. They also used saddle querns to grind grain to make bread. Artefacts from the Mountsandel settlement can be viewed by appointment in Coleraine Museum.

Evidence of prehistoric settlement was also found near Castlerock at Ballywoolen during the construction of Castlerock Golf Course. Neolithic and early Bronze Age flints and pottery were recovered. Archaeological sites have also been found at Grangebeg, and at Gortcorbies two stone hearths were discovered. Sites have also been found at Ramore Head, Bann Mouth, White Rocks and White Park Bay.

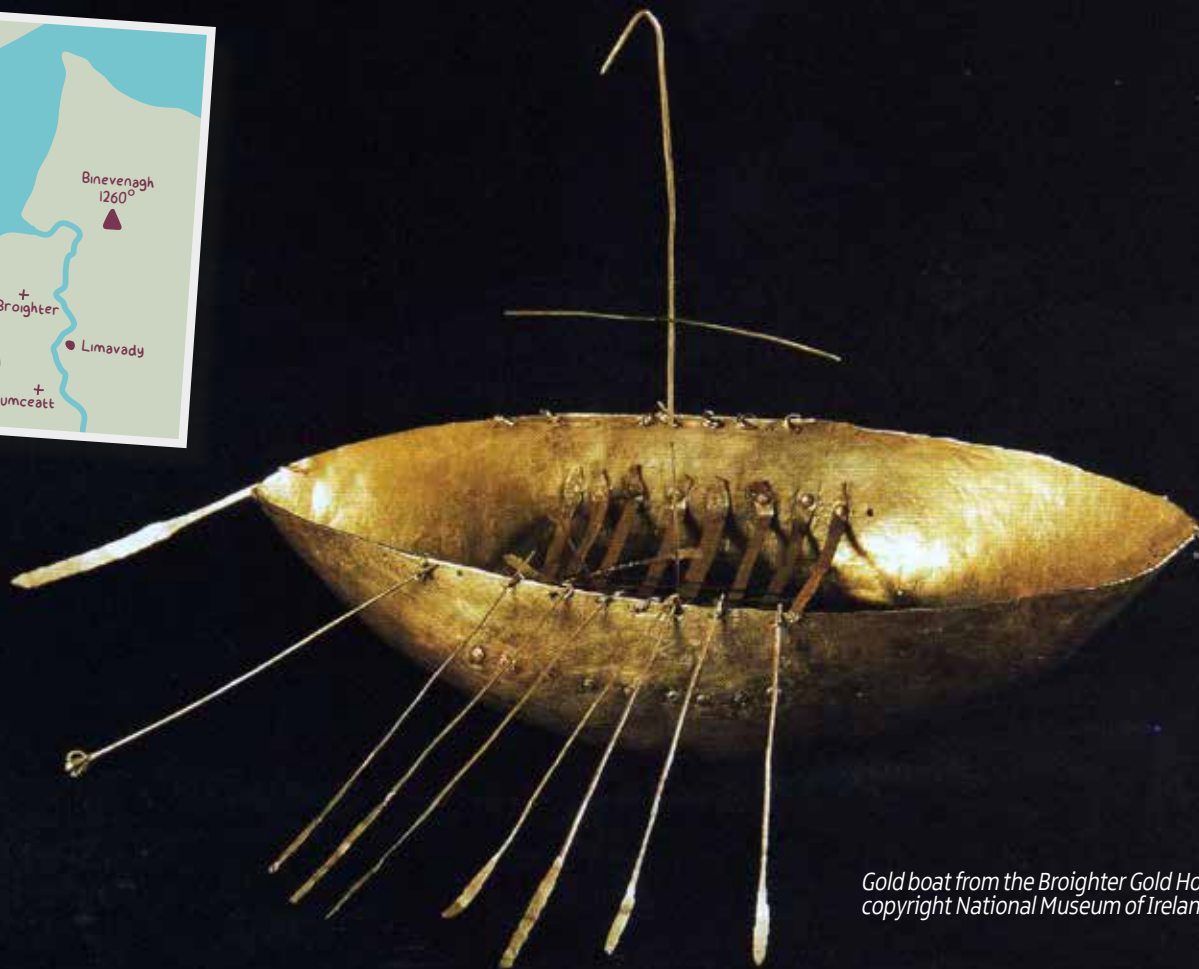
Early coastal settlement has also been indicated in the Magilligan area at the townlands of Oughtymore and Ballymulholland, from early Iron age activity through to the medieval period. Four sites were occupied or used on a seasonal basis. Middens consisting of shellfish, fish and in one case a marine mammal vertebra have been excavated in these townlands with food sources from both sea and land. In the later period crops formed part of the diet.

Along the Lough Foyle shores, other signs of early activity have been found in places on the broad coastal plain of the eastern shores. The most significant of these is the Brougher Gold hoard discovered in a field in 1896 by ploughmen. This hoard contained a model currach-like boat made from gold with intricate detail of thwarts, oars and steering oar. A collar decorated with seahorses; a bowl; two necklaces and two bracelets, were also found, all fashioned intricately from gold. The field where the hoard was found was within the flood plain of the River Roe.

Tom Nicholl, the ploughman, gave the hoard to his master, who sold it to a jeweller for £200. A collector from Cork, Robert Day then bought it and sold it to the British Museum for £600. After publication of information about the hoard the Royal Irish Academy made a case for the artefacts to be returned to Ireland where they are now in the National Museum collection in Dublin.

Little is known about the circumstances in which the hoard was deposited, there has been discussion over the years about whether the ground was previously covered by the sea or marsh and the items dropped accidentally from a boat; whether the find was a votive offering to the sea-god Mannanan or whether the gold had been hidden on land for safekeeping during a Viking or other raid and never recovered.

Due to fluctuations in sea level over the past 10,000 years some of the evidence of early settlement and seasonal camps is thought to lie underwater. The coastline of Lough Foyle has changed significantly over the years with the most significant recent change being the reclamation of the Myroe Levels in the mid 1800s and the building of the coastal railway. Prior to this, settlements like Ballymacran lay on the coast line. The earliest of the six inch to a mile maps made by the Ordnance Survey (1832-1846) shows the old shoreline.



*Gold boat from the Broughter Gold Hoard
copyright National Museum of Ireland.*

DEVELOPMENT OF BOATS IN THE NORTH COAST AREA

LOGBOATS

The first settlers reached Ireland by boat. The earliest known examples were hollowed out from large trees, often oaks. Logboat finds have been common near fords and river crossings or in areas where bridges were built later. Early transportation was easier by boat at certain times of year and in some cases essential to reach islands and crannogs (man-made island dwelling places in lakes).

Examples of logboats have been found in Ireland which date from as recently as 15th and 17th centuries after which logboats seem to have gone out of use as roads and river crossings improved.

The Foyle was one of the last rivers to be bridged at the end of the 18th Century with ferries near both Derry and Strabane.

Logboat found near Strabane. On display at Tower Museum Derry. The setup of this boat includes holes for rowlocks and spaces where thwarts (or seats) could be placed. Courtesy Tower Museum

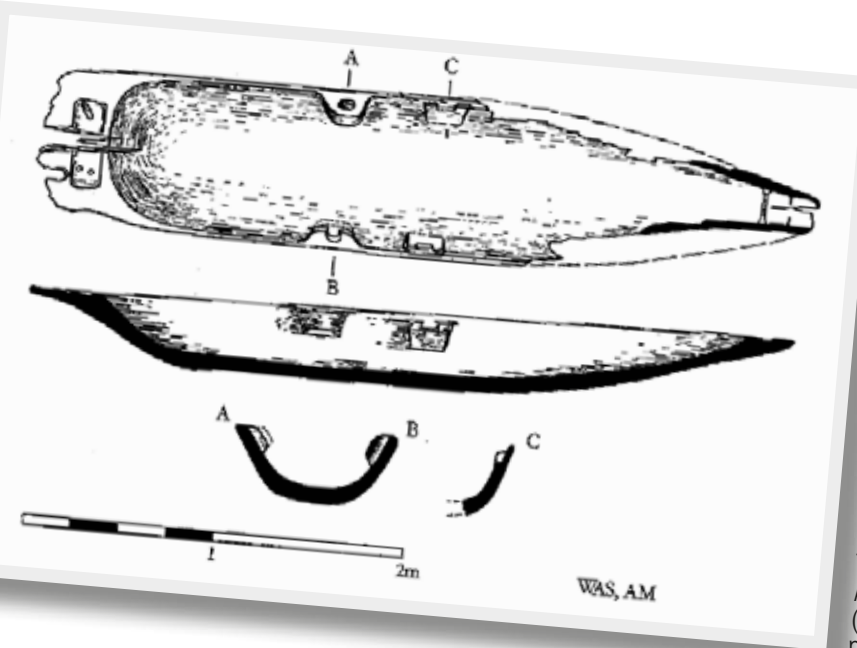
In the north coast area logboats were used on the Lower Bann and the River Foyle with finds across Ireland dating from earliest times.

Two logboats have been found within the Binevenagh AONB area, in the River Roe and the Articlave River.

BELLARENA LOGBOAT

At Bellarena on the River Roe, a logboat was found in 1954 during dredging operations at the Roe Bridge. It measured 4.10m in length with a beam of 86 cm and a maximum height of 38 cm. This logboat was not dated and its present location is not known. One of the interesting features of this boat is that it would have been rowed rather than paddled which was more common.





*Drawing of the logboat found in the River Roe near Bellarena
(source Crown. DfC Historic Environment Division)*

ARTICLAVE LOGBOAT

On the River Articlave, also known locally as the Pottagh Burn, in Grange Beg townland near Castlerock a logboat was found close to where the Articlave River enters the Lower Bann river within 2.5 km of the sea. With a hull length of 7.55 m and a beam of 57 cm it has been radiocarbon dated at over 2300 years old.

Logboats could only be used on sheltered waters due to low freeboard (how much of the boat remains above the water when loaded). The construction of some logboats includes mast steps and notches for steering oars.

CURRACHS

Voyages on open water were made in currachs that were light and portable and that did not require harbours to launch. Due to their light construction there are few remains of ancient boats but the designs from different parts of Ireland have been passed down over the years, and modified according to the needs of those who fished from them.

A currach was originally a timber or green wood framed boat (commonly hazel) covered with a skin or skins waterproofed with pitch or grease. Originally always made from animal skin, in more recent years, canvas or linen has been used with a tarred layer for waterproofing and resilience. The essential qualities of the boat are that it is light, can be carried by the crew and is buoyant, lifting with the waves. It can be launched from virtually anywhere and easily brought back out above the tide line. Many coves and bays were named as 'ports' on old maps reflecting this use.

Currachs would have been used for journeys between islands and the mainland, for fishing and for transporting animals. There is also a strong tradition of currach racing during events and celebrations and the boats are still included in some coastal rowing competitions today.



Detail of Currach construction and oars at Greencastle Maritime Museum

St. Columba sailed and rowed in a currach from Derry through Lough Foyle to Iona in AD 563 with twelve disciples. Establishing a church there, he used the island as a base from which to traverse the Hebrides, converting the native Picts to Christianity. This journey was re-enacted in 1997 by 14 members of Causeway Coast Maritime Heritage Group. The Colmcille, a 37ft Currach was built in Dingle, Kerry, launched in Easter of that year, and set off in June planning to arrive on the 1400th anniversary of St Colmcille's death. The journeys there and back were a success, and the Maritime Heritage Group has ranged much further afield in the currach even as far as Galicia, proving its continuing capability as a sea going boat.

St Columba returned to Ireland ten years later in AD 573 to a great convention held at Limavady to discuss the independence of Dalriada or Scotia Minor from having to pay taxes to Ireland and to discuss the influence of the bards which had become difficult. The convention was convened by Aedh son of Ainmire King of Ireland also known as King Hugh the second. St Columba led the delegation from Scotland and is said to have arrived at Drumceat by boat from Lough Foyle up the River Roe. At that time sea level was higher than at present.



The currach built to commemorate the death of St Columba in AD 597. Photograph courtesy of Dr Robin Ruddock

VIKING OR SCOTTISH GALLEYS

The Annals of Ulster^{iv} records the first attack by the Vikings in Ireland in AD 795 at a place called Rechru. Historians believe that this is either Rathlin Island or Lambay Island. For the next 30 – 40 years Viking attacks on Ireland remained low with only one or two attacks each year. The people living on the coast resisted such Viking attacks on a few occasions and in AD 811 the Ulaidh slaughtered a band of Vikings attempting to raid Ulster. In AD 823 the Vikings returned to attack and pillage Bangor and they repeated such attacks the following year. Some monastic settlements moved further inland at this time.

At first the Vikings in Ireland stayed within 20 miles of the coast but then made more permanent settlements with their first “wintering over” at Lough Neagh during AD 840 and AD 841. This journey would have involved entering the River Bann at Barmouth and going upstream to Lough Neagh.

The following year Viking settlements were established in Dublin, Cork and Waterford.

The boats the Vikings used were longships which could be sailed or rowed. The single square sail was raised up a single mast placed amidships.

The Vikings also used the Foyle estuary, sailing inland as far as Dunalong – the fort of the ships.

Hebridean Galleys or Birlinns which were used to sail between Scotland and Ireland are also descended from these. An image of such a craft is engraved into the rock at Dunluce Castle.

DRONTHEIMS, NORWAY YAWLS OR GREENCASTLE YAWLS

The Drontheim (also known as a ‘Greencastle Yawl’, ‘Norway Yawl’ or ‘North Coast Yawl’) is an open boat, generally between 22ft and 28 ft overall length and ranging from 5 feet 10 inches to 7 feet 7 inches beam. The Drontheim was the traditional fishing craft of the north and north-east coasts. The fine lines made it suitable for rowing and it could be sailed using a spritsail or lugrig. The Drontheim is believed to be named after the Norwegian town of Trondheim, McPolin^v records that;

It was ‘double-ended’ i.e. the bow and the stern were almost similar and was ‘clinker built’ i.e. the planks of her sides overlapped, as opposed to being fitted edge to edge as in a smooth-sided or carvel-built boat. She carried either one or two ‘sprit’ sails and a jib. A sprit being a long, loose thin pole, which held the high peak of the sail... She had a shallow keel and carried bags of gravel or large stones for ballast...There were six thwarts or seats...referred to...as ‘beams’. The fifth was loose so it could be removed to accommodate nets and other cargo

Norwegian-built yawls were being imported to the north and north-east coasts of Ireland from the mid-18th century, carried as additional cargo on the decks of ships bringing timber from Norway. From the early 19th century locally-made versions of these boats were being produced. The Traditional Yawl and Drontheim Society has researched and revived the art of building and sailing Drontheim boats and one of its members Gordon Ramsey has written a paper on the

CURIOUS DISCOVERY

In August 1813 the Caledonian Mercury reported the finding of a vessel in Ballywilliam bog about a mile from Portrush. It was said to be of a size capable of carrying 40-50 tons. The outer planking was still intact and was of one and a quarter inch thick oak. The boat was found in a mound of stones, clay and moss around 40 feet above sea level. Bones and silver coins were also found. The timbers and coins were carried off before a detailed record of the find could be made.



Evelyn M. copy of 1935 Drontheim. A mould has been taken off this boat and now thirteen GRP copies exist. Bruce Clark

relationship between these boats and the Great Lakes fishing boats in America. This traces the movement of north coast boatbuilders to North America and the spread of their boats through the waterways there.

Norway yawls are mentioned in Irish fisheries surveys at 1822 and 1836. In the latter year there is a record of a Portrush Coastguard in 1836 identifying that £10 was the cost of such a craft at that time.

Up until the 1960s, the Drontheim was the main fishing craft of the north and west coastal areas of Ireland and Scotland. However, with the increased use of engines, the need to have a boat that would sail well or could be rowed, was less important. The traditional regattas which were a feature of places like Moville, Portstewart, Rathlin Island and Islay, were nearly consigned to history.

Drontheims could have either one or two masts. Attempts were made at times to extend the length of the craft but the additional weight made them more difficult to launch from beaches and coves, one of the practical constraints of the time and the area.

Traditional rowing boats used to ferry Victorian visitors to the Giant's Causeway and north coast caves were also Drontheims, as were boats used in the north coast salmon fisheries like Carrick-a-Rede.

The image at Portnaboe at the Giant's Causeway (on the back cover) shows the traditional craft in use to ferry visitors to the site.

Drontheims were built in Greencastle and Portrush and were also used on Islay.



The James Kelly, 1998, Drontheim. Photograph courtesy of Dr Robin Ruddock

THE FOYLE PUNT

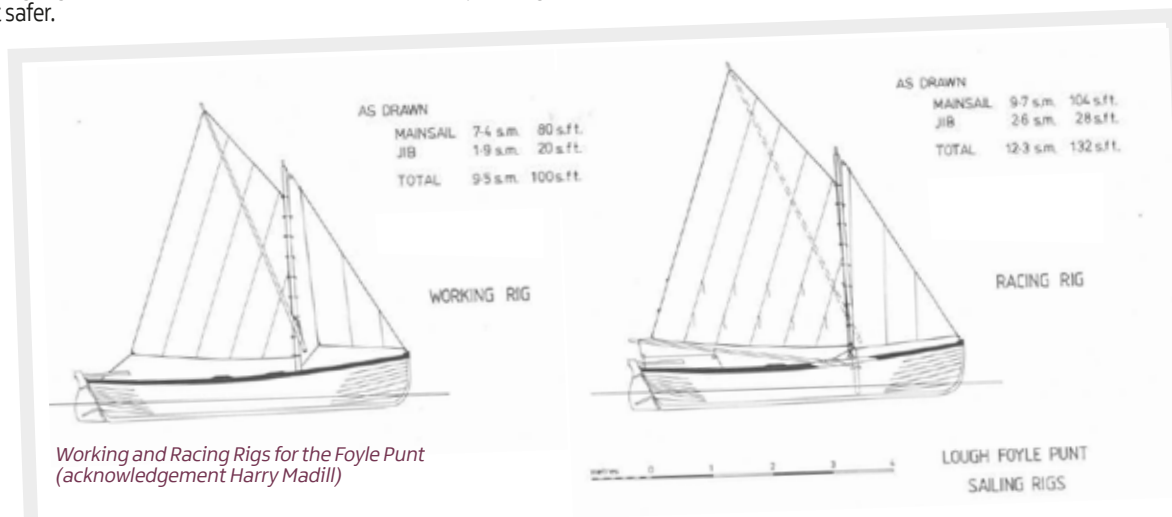
The Foyle Punt was the working fishing boat of Lough Foyle and was mainly used within the sheltered waters of the lough. The boats were typically sailed or rowed with a two-person crew sitting on thwarts with one oar on each side. When sailed this was originally with a spritsail and a working jib set on a mast which was unstayed and secured through a hole in the second beam and into a slot in the keel.

Regattas between fishermen became popular in working punts, mainly along the Donegal shore of Lough Foyle. Two boat builders, the McDonalds and the Beatties made slightly different designs with the McDonald punt being considered a sturdier working design and the Beatties to have the edge in terms of racing punts.

Punts are still sailed in regattas in the Lough today with examples at Culmore yacht club close to Port of Londonderry at Lisahally. The racing rig of the punts has a larger sail area and the mainsail is attached to a wooden boom. On the working rig the mainsail is loose footed to make operating the boat safer.



Foyle Punts racing in Lough Foyle. (credit Loughs Agency)



ROE COTS

In the Myroe area of Binevenagh AONB a shallow draught boat or cot was used as a platform for shooting wildfowl in the Roe estuary or within the shallow sand and mud flats of the Foyle. These boats were also used to place draught nets on the River Roe to catch salmon at six locations shown on the accompanying map.

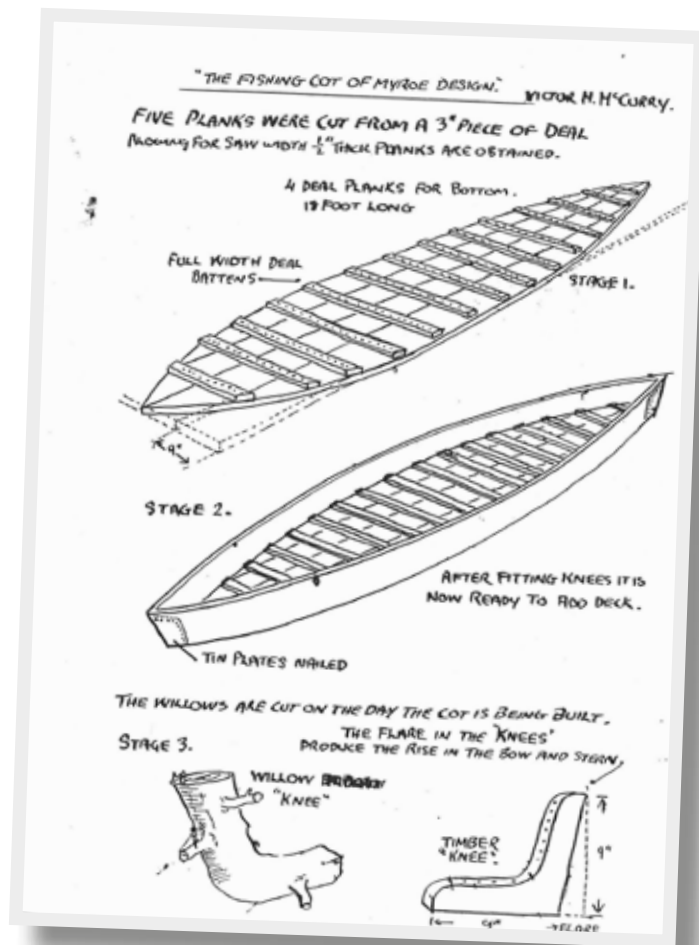
At least two types of cot were used for hunting wildfowl, a smaller one built to carry a person and a gun. The person would lie flat in the boat with only the muzzle of the gun and a little of the shallow craft showing above the water. Cots could be open or provided with decking to increase their performance in waves. These boats could also be sailed if going further into the Foyle with trips of up to 12 miles occasionally taken, or hand-paddled with a 'batteley board'. Wildfowling as a commercial operation ceased around 1948 in the area.

Some fishing cots were larger, around 18 feet long and were still used into the 1960s. The diagram of a Roe Cot (or cot of Myroe design) was supplied by Mr Victor McCurry to Alan Gailey of the Ulster Folk and Transport Museum in the early 1960s. The McCurrys of Carrowclare, Myroe used cots to catch salmon from Martin McCurry first leasing the net just after the Great Famine and with David McCurry, the fifth generation of the family to fish the Roe, still using cots into the 1960s. Ernest McCurry of Carrowmuddle also used Roe cots.

Roe or Myroe Cots were also used in the past to gather and transport seaweed to spread as fertiliser on the land.

Sir John Heygate also fished the Roe using cots to set the nets.

*The Cots of North Derry.
Supplied to A. Gailey by Victor M. McCurry*



SALMON COBLES

Salmon cobles were substantial flat-bottomed rowing and sailing craft used latterly in the North Coast salmon fisheries. This boat was based on Aberdeen cobles from Scotland but was built for many years in Portrush. The last known salmon coble in the area was built by Billy Gregg. There is a Salmon coble on display at Carrick-a-Rede. This boat is unusual as it was double ended and built specifically for that fishery.



The bow of the last salmon coble built in Portrush by Billy Gregg. Though the stern differs, not being a 'double-ended' boat due to the need to pay nets out over the stern. The boat has a serial number of A15482.



The last salmon coble built in Portrush by Billy Gregg. Note the well for an outboard engine. Courtesy Capt. Robert Anderson



The last salmon coble built in Portrush by Billy Gregg. Note the area at the stern for carrying salmon nets. Courtesy Capt Robert Anderson

THE SPANISH ARMADA AND THE NORTH COAST OF IRELAND

When Queen Elizabeth I took the throne of England, King Phillip II of Spain conspired to have her overthrown in favour of his Catholic cousin, Mary of Scotland. The plots were uncovered, and Mary was beheaded.

King Phillip then gathered a fleet of ships, now known as the Spanish Armada, to sail to England to support the Catholic cause. In 1588 the English fleet and Armada fleet engaged in the English Channel. The Spanish ships attempted to return to Spain by sailing around Scotland and Ireland, but with extremely bad weather many of the fleet foundered along the rocky shores of north and west Ireland.

Two ships of the Armada, the *Trinidad Valencera* and the *Girona* were wrecked on the north coast of Ireland, one close to the Giant's Causeway and one off the coast of Inishowen in Donegal. It is probable that the Armada ships would have been visible from Binevenagh and other viewpoints along the coast as they tried to avoid foundering on the coastline.

*Tapestry depicting the Spanish Armada and English ships engaging in the English Channel.
Courtesy of the National Maritime Museum, Greenwich*



The story of the wreck and discovery of the Spanish Galleon, the *La Trinidad Valencera* is told in the Tower Museum in Derry. The wreck was originally an Italian trade ship captured by the Spanish and re-outfitted into one of the Spanish Armada's largest war ships. It sank in Kinnagoe Bay in County Donegal. Many of the smaller items were scattered across the bay such as utensils, musical instruments, lanterns and pottery. The wreck was discovered 400 years after it sank, by divers from the City of Derry's Sub Aqua Club. The wreck was identified by matching the markings on cannons to the ship's manifest.

The Duke of Medina, commander of the Armada had written to his captains, *'take heed lest you fall upon the island of Ireland for fear of the harm that may happen to you'*

The story of the *Girona* wreck is told in detail at the Ulster Museum in Belfast and some of the finds from the ship are displayed there. The *Girona* was designed to carry 500 men but there were 1,300 on board when the ship went down in stormy seas near the Giant's Causeway. It had managed to reach Killybegs in Co. Donegal and had picked up survivors of other Armada wrecks including Captain Don Martinez d'Aleiva who had already survived two wrecks.

The crew was hoping to find refuge from the storm in Scotland when it struck. It had a damaged rudder and according to a survivor 'ran upon a submerged rock and the galleon went to pieces'. People, their possessions and fine clothes sank to the ocean floor. Only five people survived (some accounts say nine). The gold and silver coins on display at the Ulster Museum are only a small sample from the hundreds recovered. Fashionable gold rings were found including one bearing a loving message which translates as 'I have nothing more to give thee'. Amongst the finds was a small salamander or lizard made of gold and rubies.

The survivors were given refuge in Dunluce Castle, then the home of the son of Sorley Boy McDonnell^{viii}. James McDonnell, who did not give

them up to Queen Elizabeth or her officers. They then found their way back to Spain by various routes. Historians are of the opinion that there was considerable local salvage of items including a cannon and coins on the day after the shipwreck but their location is not known.

The ship was found by Belgian diver Robert Stenuit, after extensive research. Most historical accounts had given vague or incorrect detail of the position of the ship when it sank. It was believed to have been wrecked on Bunboys Rock or close to Dunluce Castle but lay closer to shore some distance east of the Giant's Causeway.

The *Girona's* historic and archaeological importance has been recognised and the wreck site is protected by law.

In contrast to the *Girona*, the *Trinidad Valencera* revealed more organic objects preserved from the wreck, including food, oil jars and a pine cone whose seeds were eaten.

Three of the other Armada ships *La Lavia*, *Santa Maria de Visión* and *La Juliana* were wrecked on Streedagh Beach in County Sligo. More than 1,000 crew from these ships died.

There was a small number of survivors, among them Captain Francisco de Cuéllar, a Spanish sailor, who managed to survive the attacks of the English forces and who passed through Dunluce Castle during his escape. He wrote a memoir of events in 1589.



Gold salamander brooch found in the wreck of the Girona.
© Ulster Museum

THE DEVELOPMENT OF THE PORTS AND HARBOURS

In 1607, following the flight of the Earls, Hugh O'Donnell and Hugh O'Neill, King James of England took steps to secure parts of Ireland, to reduce the potential for a second Spanish attack on Britain from Ireland. King James offered land and resources in what was then County Colrane to the City of London livery companies to create a well-planned, permanent and self-sustaining plantation of people whose ethos and working practices which he hoped would ensure that:

"Rising generations be trayned up to useful industrie, and civilitie, learning, religion and loyalties"

The Plantation area included the whole territory bounded by the Foyle, the sea and the Bann, including the towns of Derry and Coleraine and the fisheries of the rivers. A committee established by the City of London to negotiate with the Privy Council recommended that a body be set up in London to govern plantation affairs. The towns of Derry and Coleraine would have their own corporations, but they would take advice and direction from London. This recommendation was accepted and in 1613 - through the Royal Charters which established the towns and the County of Londonderry - James I established this body, which came to be known as The Honourable The Irish Society^x.

In 1610-11 the first settlers arrived to rebuild Coleraine and erect further fortifications. The town was laid out, surrounded by an earthen rampart and a ditch, with entrances at the King's Gate and the Blind Gate, each with a drawbridge, taken up at night.

A cut was made in the rocks across the Bann at Castleroe. The London Companies were partly persuaded to fund the whole Plantation enterprise by the value of the salmon fishing on the Bann, the River Foyle and other notable fisheries in the

county. Quantities of valuable timber were cut from great forests upriver of Coleraine. Another factor in the decision to plant the area.

In 1664 King Charles II granted a Charter to Londonderry Corporation giving it responsibility for the Port. Over the next 200 years shipping increased greatly with exports of linen and provisions, as well as emigration. In 1771 the city's merchants owned 67 ships with a total tonnage of 11,000 tons.

In 1854 the Londonderry Port & Harbour Commissioners were established to take control of the port and the waters of the Foyle from the town to the mouth of the Lough Foyle. Within seven years they spent £150,000 to improve facilities including a line of quays and a graving dock. Tramways were laid to link up with the railways that connected the town to the rest of Ireland.

The graving dock, built in 1862, allowed large vessels to be dry-docked for repair. The McCorkell Line's *Zered* was the first ship to be docked there, and the next the Cooke Line's *Dr Kane*. These were both Derry shipping companies. The Foyle was home to a small shipyard and so locally built ships operated from the town. The *Great Northern*, the first propeller-driven ship, was built by Captain Coppin in the city. Coppin had turned to ship repairs by 1854 and used the graving dock for this. In 1873 when he closed the business the commissioners created a shipyard through land reclamation. Charles Bigger leased this new shipyard in 1886 and over 5 years built 25 steel-hulled sailing ships, some for local owners.

In the 19th century passengers and goods travelled by ship from the town to destinations in Britain on very regular services until a decline in 1912 and the end of passenger services in 1922. Cargo and livestock was still carried until the mid 1960s.



PORTRUSH HARBOUR AND SCOTCH BOAT.

WAG 368

The 'Scotch' boat *Glenalbyn* at Portrush Harbour.
Courtesy The Honourable The Irish Society

*Ship in Coleraine Harbour Courtesy of
The Honourable The Irish Society.*



The Ordnance Survey Memoirs record of Coleraine Port that;
“great difficulty is offered for its approach by a bar at the mouth of the river. This bar is of shifting sand and almost always slightly changes after severe storms”

For this reason the Bann pilots were required to ‘sound the bar’ (measure the depth of water at the entrance) during the summer months, when the pilotmaster deemed it necessary. Few boats crossed the bar at that time between October and May. In the 1830s

trade was diminishing with few ships of over 100 tons register entering the port.

Portrush Harbour was built in 1827, with the advent of the railway, the small fishing village began its rapid change into a popular resort and port. It had fine hotels, the most notable being the Northern Counties Hotel. The changes at Portrush enabled the port to accommodate larger craft and provide a regular service to Scotland. This was known as the ‘Scotch Boat’ and was operated by Laird Lines.

The port of Portrush was considered more favourable than Coleraine for the import and export of goods before the erection of the moles or training walls at the mouth of the River Bann in 1888. The river was also dredged at that time.

A small railway was built to assist the construction and the rails used to carry materials can still be seen.

As a result of the investment, the shirt-making industry, a textile industry, a distillery which produced Coleraine Whisky*, and a large foundry which produced and serviced farm machinery, expanded in Coleraine.

*The Moles on the Bann at the Bar Mouth built in 1888.
Courtesy of Aerial Vision NI*



*The distillery at Coleraine used the spelling 'Whisky' rather than 'Whiskey' at the time.



Pilot boat the Violet Clarke

THE BANN AND FOYLE PILOTS

The pilot service for both Coleraine and Foyle ports were based at Portstewart and in early years worked on a competitive basis between pilots. Piloting the Bann can be tricky with a number of wrecks and losses over the years. The Ordnance Survey recorded in the 1830s there were 8 pilots licensed for the Bann and Foyle. A river pilot also lived at the mouth of the Bann. The pilotmaster was also the harbourmaster at Coleraine. Rates of pilotage in 1835 depended on tonnage and whether they were travelling into or out of the ports. For example in the 1830s a vessel of over 70 tonnes and under 75 tonnes paid 9 shillings for inward passage to Coleraine and the same if leaving fully laden. If only partly laden the tariff was half.

In Portrush the regular passenger steamers the Glenalbyn and the Coleraine paid 10 shillings a week each, with the Coleraine taking people to Larne and Liverpool once a week; and the Glenalbyn plying between Londonderry, Portrush and Greenock in Scotland twice a week.

THE LIFEBOAT SERVICE FOR THE NORTH COAST

The first Royal National Lifeboat Institution (RNLI) Portrush lifeboat arrived in Portrush harbour on board a cross-channel steamer in 1860, complete with its transporting carriage. The 'Zelanda' as she was known first was the gift of Lady Cotton Sheppard of Crakemarsh Hall, Uttoxeter. The boat was described as one of the RNLI's

'Best single-banked lifeboats' possessing 'the usual important qualities of the boats of the Institution, self righting and self-ejecting seas shipped'.

It joined 107 other lifeboats around the shores of Great Britain and Ireland. The first lifeboat in Ireland was at Rossglass in Dundrum Bay, established in 1825 due to the number of vessels wrecked there.

The Portrush lifeboat was renamed 'Laura, Countess of Antrim' in 1870 in recognition of the campaigning and support given by Lady Antrim to the placement of a lifeboat in Portrush and was in service until 1876. The boat was built by Forrests of Limehouse with the carriage built by Robinson of Camden Town. It cost £180 and was 30 feet long. The construction of a lifeboat station cost £130.10 with a



*The Hopwood 'pulling and sailing' lifeboat that served in Portrush from 1902 to 1924
image courtesy of Portrush
RNLI Museum*

subscription raised locally. This station was at Kerr Street in the town rather than at the current harbour location.

All of the lifeboats in service until 1924 were pulling and sailing boats with both oars and sails. The 'Hopwood' which came into service in 1902 and was retired in 1924 was the last of the boats without engines. The cost of the boat, £817, came from a legacy from Mr Samuel Heymouth Hopwood. This was built by the Thames Iron Works Company and was a 35 ft long Liverpool type boat with a 10 ft beam and with 12 double banked oars. She was fitted with two sliding

or drop keels to 'assist her weatherly qualities in deep water without sacrificing the flat floor and light draft so necessary when operating in shallow water'.

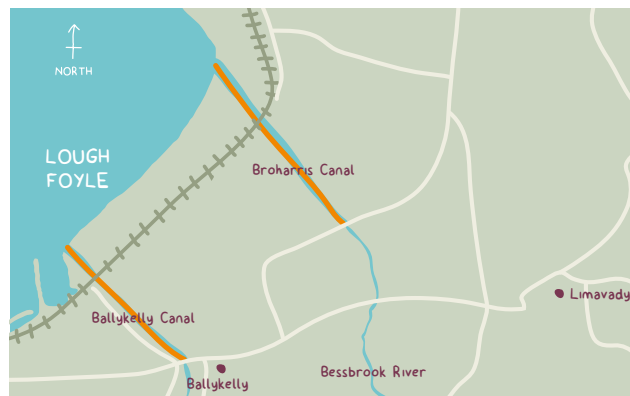
The 'Hopwood' was kept at the lifeboat station at Landsdowne Road on the east side of Portrush built in 1900 to replace the Kerr Road site which had been deemed unsuitable.

At the time of her arrival the 'Hopwood' was one of 288 vessels operated by RNLI of which 36 were stationed around the coast of Ireland.

SOME NOTABLE SERVICES UNTIL 1960

- In 1889 the lifeboat launched on 1 November to a schooner but her assistance was not required. Due to the weather she could not return to Portrush so made for Bush Strand. As the lifeboat was manoeuvring, she was struck by an exceptionally heavy breaker and capsized. Three of the crew unfortunately lost their lives.
- In 1891 *Ellen Myvanwy* anchored in Skerries Roads in a north-westerly gale with very heavy seas on 2 March 1891. After several attempts over two days the lifeboat succeeded in taking off the schooner's three-man crew and land them safely ashore. Mr McAllister's award was for swimming out through heavy surf to rescue one of two crew washed overboard from the lifeboat. The other man was also saved.
- The lifeboat crew rescued a boy from a capsized boat at considerable risk. One member of the crew wearing his clothes and heavy sea boots jumped in and swam to the boy. Another crew member, twice as far away on shore, ran to the quay threw off his coat and jumped in. Both men supported the boy until a boat from the shore reached them.
- The service attempted to save the crew of the *SS Corsewell* in distress on 9 April 1916.
- In 1924 the first motor lifeboat was allocated to the Portrush station
- In 1960 all 14 of the crew of the *Argo Delos* of Piraeus that went ashore on the islet of Tor Beg in a fresh south-easterly wind and rough sea were rescued.
- In 1965 the lifeboat launched on 1 November, when five men were lost overboard from the Norwegian Frigate *Bergen* in a north westerly storm with a very rough sea.

The Portrush lifeboat now covers a very wide area from Malin Head in County Donegal to Fair Head in County Antrim.



Map of locations of Broharris and Ballykelly Canals

THE BROHARRIS AND BALLYKELLY CANALS

In the 1820s a cut was made about two miles long on the south shore of Lough Foyle near Ballykelly towards Limavady. It served both as a drainage channel and a navigation with goods being brought from the port of Londonderry. It was also used to bring in shellfish, and shells and kelp for fertiliser from the sand banks along the shore. This was the Ballykelly Canal.

The merchants of Limavady worked towards raising funds for a canal from the town to Lough Foyle so that it too could become a port. The cut, known as the Broharris Canal, was the nearest they came to achieving a navigable link with the lough^{xii xiii}.

The railway between Limavady and Londonderry was then laid and removed the need for a navigable channel from the town.

The canal basin in Ballykelly is still a visible feature of the town but the canal itself is no longer navigable.

EMIGRATION VIA THE PORTS AND HARBOURS

Many people from Ulster have emigrated over the years, travelling from Londonderry, Moville, Coleraine and Portrush.

In July 1729 one Londonderry merchant reported that 25 ships had left the port that summer already, each carrying 140 passengers. Not only did ships sail to Colonial America, some also sailed to Canada, docking in Nova Scotia. Emigration to America was closely linked to the flaxseed trade, itself crucial to Ulster's economy. Ships bringing flaxseed to the province were refitted to carry migrants back across the Atlantic. Other ships brought timber or cotton to Ireland and Great Britain before returning with migrants. In the early nineteenth century there were several shipping companies operating a passenger service out of Londonderry. By the late 1830s ships from Derry were also sailing to Australia.

In the years leading up to the Famine the Cooke brothers, John and Joseph, established a small trading fleet between Londonderry and America. Emigrants were carried; on the return voyages the cargo was timber. As a result of the Famine the numbers emigrating rocketed. In 1847 over 12,000 people left Londonderry, over 5,000 on ships owned or chartered by J. & J. Cooke. After 1847 the numbers emigrating declined quite dramatically. Another important shipping company at this time was the McCorkell Line, founded by William McCorkell and continued by his son Barry. The catchment area for the port of Londonderry included nearly all of counties Donegal, Londonderry and Tyrone. A small number came from even further afield, including some from counties Fermanagh, Antrim, Roscommon and Leitrim. Local shipping companies were eventually forced out of the passenger trade by steamships operating out of Glasgow and elsewhere. The last passenger voyage by a Londonderry-owned ship to New York was made in 1873. Those wishing to travel to North America were now carried down the Foyle in paddle tenders to Moville where they were transferred to the transatlantic steamships.

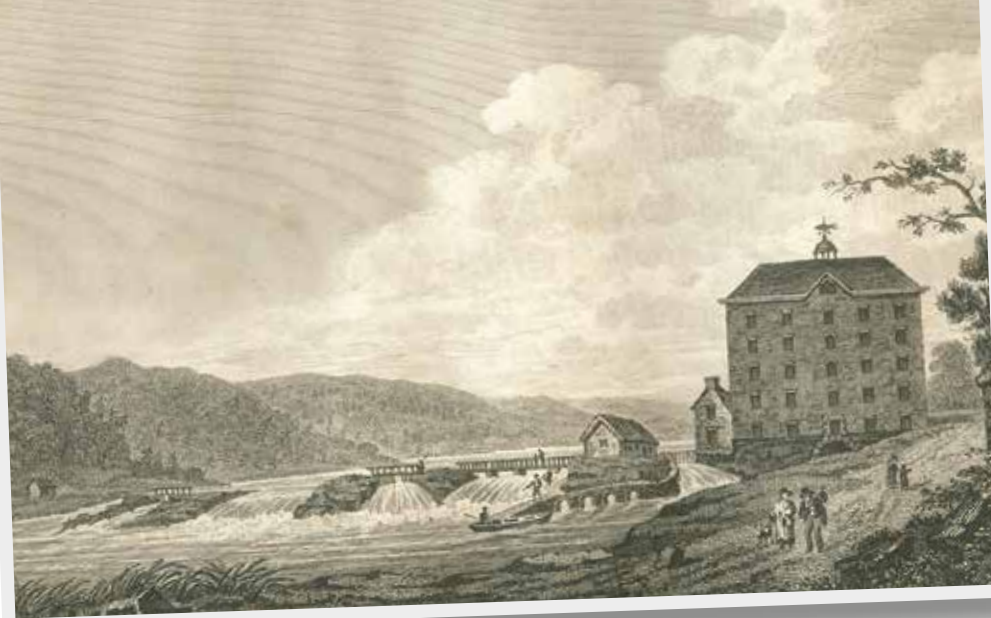
The Allan line had a weekly service from Liverpool to Canada in 1861 which called at Moville. A Liverpool to New York service was started 5 years later by Anchor-Donaldson which called at Moville and this continued until 1939.



Magilligan Ferry (present day). Courtesy of Aerial Vision NI

THE FERRY AT MAGILLIGAN

In 1835 there were two boats employed at the Magilligan ferry crossing between Greencastle and Magilligan Point. A large one for conveying cattle and goods and a smaller one for passengers. The owner of the boats at that time was Sir Arthur Chichester. He took a portion of the goods to pay for each crossing and half of this went to the boatman. If money was available, he took one shilling and eight pence for a cow or horse; three pence for a pig or sheep; six pence for five bushels of potatoes. Passenger fares were six pence for a person of reasonable appearance and three pence for a poor person.



*The Fishery at the Cutts on the River Bann above Coleraine Circa 1820.
Image Courtesy of the Honourable the Irish Society*

THE SEA'S BOUNTY

The archaeology of salmon fishing on the North Coast dates back 10,000 years. At Mountsandel near Coleraine salmon bones were discovered from that period. There is no doubt that fish and shellfish formed an important part of the diet of early coastal settlers. Salmon is a fish particularly rich in oils and has a high protein content shellfish also providing calcium.

Shell middens dating from the Neolithic and Medieval periods have been found in the area within archaeological sites. Lough Foyle has a native oyster population, which although now gathered by boats

based in Co. Donegal must also have been exploited by those on the East Lough Foyle shore in former times.

Documentation of the history of the salmon fisheries begins in the 13th and 14th Centuries when there was large-scale exploitation of salmon by the Anglo-Normans and their monasteries, and later in the 15th and 16th Centuries by the McQuillans and the O'Cahans.

The rights to exploit the valuable salmon fisheries of the Foyle and Bann both within the river and

at sea were granted by King James I to the London companies as part of the incentive to 'settle' or 'plant' what was then County Colerane with people from Scotland and England.

The Bann had two salmon fisheries, one at Cranagh downstream of Coleraine and one at the Salmon Leap upstream. By the mid-19th century these were netting around 15,000 salmon per year.

*1964 record catch of a salmon of 35lbs weight
at Cutts Fishery upstream of Coleraine town.
Courtesy The Honourable The Irish Society*



Ordnance Survey surveyors recorded in 1835 that at Cranagh the fish were taken by draught nets. Two were being kept extended across the river then drawn at high water. The net nearest to the sea was drawn and placed above the other ready to be drawn at the next time of fishing. The nets were partially removed to allow the passage of ships. 32 men were employed at that time at Cranagh, half employed for the daytime catches, and half for the high tides at night. Their remuneration was 1 shilling and 1 pence per day.



At the Cutts or Salmon Leap was a second fishing station where the river runs over a natural rock sill. Above the top of the falls the river was divided into 8 sections by stone walls parallel to the sides of the river. In six of these divisions salmon traps called cuts were constructed with closely set stakes to guide the fish into stone basins. Four men were permanently employed there to remove the fish (1835). A "King's gap" was left to allow a proportion of the migrating salmon to pass upstream for spawning

Up to 1823 on the Foyle the annual salmon catch amounted to 40 tons, which more than trebled to 140 tons after that time, owing to the increased use of stake-nets, drag-nets and better protection of the river during the spawning season.

The north coast has a long heritage of salmon fishing. A 1630 Carrickfergus inquisition highlights salmon fisheries at coastal

Stake net operated at Rosses Bay by Foyle Fisheries Commission circa 1970 Photo courtesy of Loughs Agency.



*Rod fishing on the lower Bann.
Courtesy The Honourable The Irish Society*



*North coast fisherman. Picture courtesy
Sam Henry Collection, Coleraine Museum*

locations including Portbradden, and Larrybane, Ballintoy. Fishery stations were also sited at Portstewart, Portrush, Portballintrae, Portmoon, Portbradden, Dunseverick, Larrybane, Carrick-a-Rede and Kinbane. For years, the salmon were caught by drift nets worked from boats, but 1834 legislative changes introduced bag nets and there were soon over 30 of these across the north coast from Magilligan to Ballycastle. Increasing concerns over fish stocks saw a closed season being introduced in 1842.

By the late 20th century, most of the fisheries had become unviable. In 2014 in order to protect declining fish stocks, the Salmon Netting Regulations (NI) 2014 was passed, prohibiting the use of nets to fish salmon in Northern Irish waters. The coastal landscape is dotted with the remnants of this thriving industry, including the salmon stations, ice houses, slipways, and salt pans. Unfortunately, some ice houses have been demolished to make way for new infrastructure and buildings.

The area is still very well known for recreational angling for salmon and trout with visitors from far afield enjoying the Foyle and its tributaries, the River Roe and the Lower Bann and its tributaries.

SEA FISHING, WILDFOWL AND SHELLFISH

The crofters of the parish of Tamlaght Finlagan and Magilligan in Binevenagh AONB were chiefly fishermen with the seas being described in 1835 as 'abounding with codfish, trout, salmon, greyloids, black soles, herrings and oysters' by Ordnance Survey staff at the time. These fishermen had no piers or major shelter for their boats but launched from river mouths and beaches to catch whatever was in season. They reported trips of up to 16 miles from shore in open boats which were more often rowed than sailed. Cod was caught on long lines with hooks 6 feet apart. White fish was generally salted and sent to market but could be

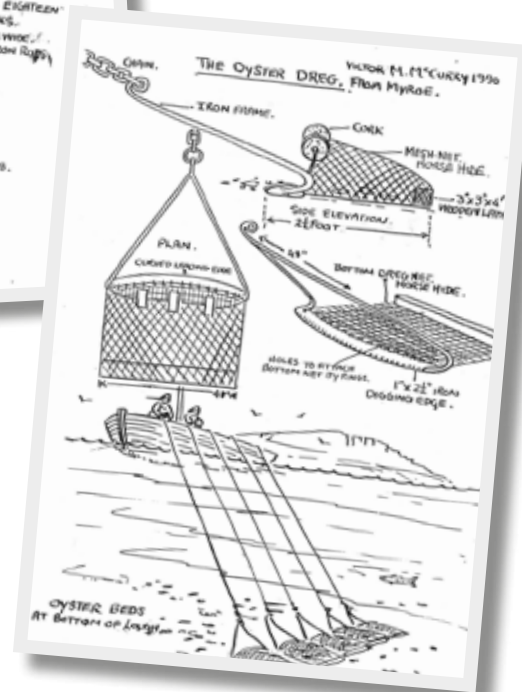
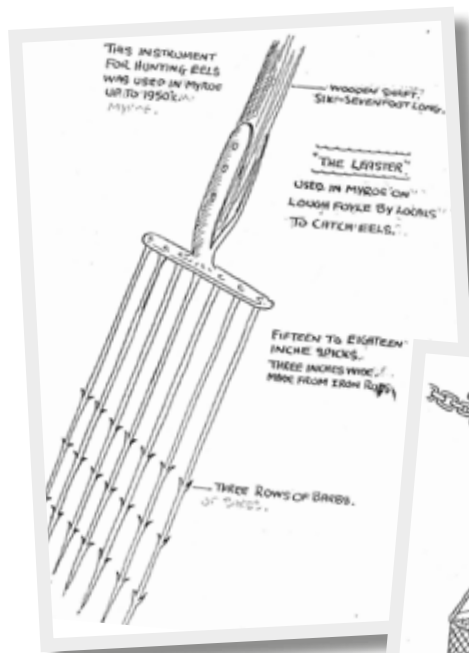
bought at the shore on landing at a lower price. Herring could be bought at the shore at that time for 6 pence for 20 fish which rose to 10 pence for 20 at the market.

Around the year 1700 a number of fishing boats went out from Magilligan towards the Tunns or Tons Bank to fish. A hurricane scattered the boats with only one fisherman saved by hanging onto an oar. Tradition holds that 65 women became widows on that day. The man saved was William Magennis who made it to shore at the Umbra, which is now a nature reserve.

People from Magilligan at that time took sea-fowl such as barnacle geese, wigeon and teal using nets suspended 6 to 8 feet in the air on poles. The fowl were sold in Limavady, Londonderry and Coleraine.

Shellfish was an important part of the diet with oysters caught in a drag towed from the boat. Catches of four to five hundred oysters a day were taken and carted to Limavady for sale. The carters were reported by surveyors to have taken around a hundred oysters per load in payment for their services.

Whale fishing was practiced at a time, with the formation of the Greenland Whaling Company in Londonderry in 1785. Parliamentary debates of the time record a petition by the company to be able to receive the 'British bounty' paid per whale, even when landed at Irish ports. The reason for this was that after the blubber and fins of three whales had been landed in Liverpool by the company's ship *Neptune*, the ship was lost in Ballycastle Bay on the return journey.





Cranagh Fisheries. Courtesy The Honourable The Irish Society

Cutts House & Red House pre 1930. Courtesy The Honourable The Irish Society

THE ORDNANCE SURVEY

THE LOUGH FOYLE BASE MEASUREMENT

Between the years 1824 and 1846 a major survey of Ireland was carried out by the Ordnance Survey under the direction of Major General Thomas F. Colby. Colby calculated that the most important part of the triangulation for the survey was the determination of scale by means of the precise measurement of a base.

In 1824 he selected a site on the flat eastern shore of Lough Foyle for a base which was to be the longest of its kind and measured by methods to a very high standard of accuracy.

Colby devised an original apparatus for the measurement - a compensation bar of iron and brass about 10 feet long between the pivots, the total length of which was unaffected by temperature changes. Measurement of the base commenced on 6 September 1827, initially under Colby's supervision but later under the direction of Lieutenant Thomas Drummond, one of the Ordnance Survey's leading mathematicians. Work was completed on 20 November 1828 having taken the most part of two summers to complete. The length of the base, levelled and reduced to the adjoining sea level, was 41,640.8873 feet or nearly 8 miles. In 1960 the Ordnance Survey of Northern Ireland remeasured the base using electronic equipment; the difference was approximately 1 inch.

A base at Salisbury Plain in England was measured in 1849 using the same apparatus and methods perfected by Colby in Ireland and is connected to the Lough Foyle Base through the principal triangulation network. To preserve the site the Government acquired the land and erected three base towers that can still be seen today. The North Base Tower at Ballymulholland and Minearny Base Tower at Minearny are surrounded by private land and are not readily accessible to the public. South Base Tower, situated at the rear of the Kings Lane Estate in Ballykelly Village, can be visited.



The Ordnance Survey then sent surveyors onto the ground between 1830 and 1839 to record the location of key infrastructure, buildings and activity to support the production of accurate maps at a scale of six inches to the mile. The notes, called memoirs, made by the map makers have been edited and published in recent years as a series by the Institute of Irish Studies in association with the Royal Irish Academy. The series of publications covers Counties, Armagh, Londonderry, Antrim, Down, Tyrone and Donegal and has a section on South Ulster.

The publications cover a wide range of topics about townlands and parishes including detail of the locality including lakes, topography, streets, houses, public buildings, places of worship, flour and corn mills, roads, Government, arrangements for relieving the poor, occupations, banks, amusements, schools, rivers bogs, geology and courts. The information was required to create a uniform valuation on which to base taxation. The survey was halted between 1839 and 1840, due to the expense, after the northern counties had been covered.

COASTAL WRECKS AND THE SECOND WORLD WAR

The narrowing of the sea between Magilligan Point and Greencastle has strategic importance. The coast of Binevenagh AONB played an important role in WWII and features of the coastline testify to this. Lough Foyle was used both as a flying boat base and naval anchorage in support of keeping the North Atlantic trade route open.

The coastline has many wrecks of downed aircraft and sunken ships dating from wartime and other periods. These can be viewed in detail on the Department of Communities' Historic Environment Map Viewer at <https://dfcgis.maps.arcgis.com/apps/webappviewer> and on the Department of Agriculture, Environment and Rural Affairs marine map viewer. <https://apps.d.aera-ni.gov.uk/marinemapviewer/>



The wreck of an aircraft exposed at low tide. Photography courtesy of Aerial Vision NI

Some examples of the wrecks along the coastline of the Binevenagh and Causeway Coast AONBs include:

WRECK	TYPE	DATE OF WRECK	LOCATION DETAILS
<i>Girona</i>	Spanish Galleas	1588	Causeway Coast
<i>Dei Sei</i>	French Privateer	1782	Off Portrush
<i>Nokossis</i>	Barque	1884	Off Portstewart
<i>City of Bristol</i>	Steam Trawler	1906	North coast Ballintoy
<i>Towey</i>	British Steamship	1930	Between Portstewart and Portrush
Aircraft	A Whitley Bomber	1940	Off Mussenden
Aircraft	Vought F4U Corsair	1944	Lough Foyle
Aircraft	Fairey Firefly	1954	Off Portstewart Strand
<i>Erris</i>	Dutch Motor Vessel	1981	Inishowen Coast
<i>Nellie M</i>	Motor Vessel	1981	Lough Foyle W

Other defence heritage includes a series of pillboxes in Lough Foyle, along the Benone shore and at the Bann Mouth, gun emplacements at Magilligan, and the Martello towers at Magilligan and at Greencastle built between 1800 and 1819 during the Napoleonic wars. They were two of 74 such towers built around the coastline to resist the invasion of Ireland by France. The tower at Magilligan Point used to be at the shore line but dune formation has left it 100 metres from the sea. The towers were based on the design of the Mortella Tower in Sicily, which

had resisted days of bombardment by the British Fleet. They have three floors, the top one for a 24 pound gun able to swivel and shoot in any direction. There is a small furnace set into the wall, used to heat shot to set fire to the wooden ships of the time. The middle floor provided living quarters for one officer and twelve men. Below this was a cellar for storage of food and gunpowder.

During WWII the Foyle and Londonderry became the most important escort base in the UK. Following the capture of the French Atlantic ports in 1940, convoys were routed through the north-western approaches around Ireland's north coast. The naval base (*HMS Ferret*) was created at the old shipyard and a new jetty and moorings built at Lisahally, the site of the present Foyle Port. Royal Navy and Royal Canadian Navy ships provided most of the Londonderry Escort Force. In February 1942 the United States Navy commissioned the US Naval Operating Base Londonderry. By mid-1943 there were about 150 ocean-going escort ships based in the Foyle, more than Liverpool, Glasgow and Belfast combined. By 1945 the Canadians, with about 100 ships, were the mainstay of the base.

On 14 May 1945 Lisahally was chosen as the location for the official surrender of the German U-boat fleet when the first seven submarines were escorted upstream by three frigates from the Royal Navy, Royal Canadian Navy and United States Navy.

From 1947 until it closed in 1970, an Anti-Submarine school operated from Ebrington Barracks which was renamed *HMS Sea Eagle*, and *HMS Stalker*, a submarine depot ship nicknamed "*HMS Neverbudge*" by the locals.

The picture right shows the mass of surrendered German U-boats at their mooring at Lisahally, Lough Foyle, Northern Ireland. There are nine of the 21 class (1600 tons carrying 23 torpedoes), four of the 9 class (500 tons) and thirty nine of the 7 class (also 500 tons), a total of fifty-two U-boats.

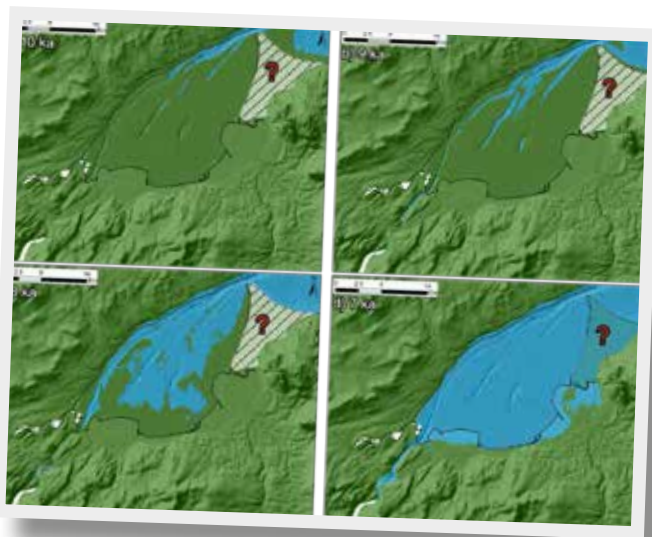


Mass of German U Boats gathered at Lisahally on the Foyle Estuary. Copyright Imperial War Museum IWM A29241

CHANGES IN SEA LEVEL AND COASTAL EROSION

There is evidence that the sea level in the Binevenagh area has varied during and since the period when the area was covered by ice^{iv}. The shape of the Lough Foyle shoreline is believed to have been different in the past and at times the lough has been smaller and at times the Magilligan Foreland area has been covered by the sea.

There is evidence of a raised beach which represents an earlier shoreline meaning that the flat lands to seaward of the Seacoast Road was formerly sea bed some 7000 years ago. 10,000 years ago, parts of the current bed of Lough Foyle were above sea level and archaeological evidence from that period may now be on the sea bed or have been destroyed. At its lowest point sea level in the Binevenagh coastal area may have been 30 metres below its present day level, whilst in early Mesolithic times sea levels are estimated to have been between 8m and 15m lower than the present day.



Possible changing sea levels in Lough Foyle from 10,000 years ago to 7000 years ago. From Wesley, K and Henry, S 2015. Archaeological Assessment of the Sea Bed in Northern Ireland Submerged Archaeological Landscape Potential.



The raised beach at the foot of Binevenagh. Photo courtesy Richard Donaghey CCGHT

Further east along the coast towards Castlerock is Downhill Palace. Close to it, perched on the top of a 40 m basalt cliff is Mussenden Temple which was built as a library for the Palace. The Bishop of Derry sited the library on the cliff so he could enjoy spectacular views over the sea. This cliff is being eroded through wave action. In 1997 the National Trust undertook a major cliff stabilisation project to protect the Temple from falling into the sea.

During winter storms waves of up to 15 m can crash in to the cliff with a force of several tons. Tiny pockets of air get trapped in the face of the cliff and this compressed air can fracture the rock. The stack close to the railway tunnel is evidence that the sea has already eroded part of this cliff. Across the north coast erosion is a slow but present issue due to strong tides and wave action.

Landowners between Ballykelly and Magilligan are concerned about the erosion of farmland in the area and some archaeological sites have been claimed by the sea. The situation at the Magilligan dunes is complex with scientists believing that there is a cycle of approximately 40 years involving the dunes and the Tunns bank, the ebb shoal for Lough Foyle. As the bank gets bigger it shelters Magilligan and causes more sand to accumulate. As the Tunns bank is reduced by storm waves, erosion action increases at the dunes.

The Joint Irish Bathymetric Survey has surveyed the seabed around the Irish coastline and has produced images that reveal the shape of the sea bed and associated features such as wrecks.

The Marine Planning process in Northern Ireland has led to the mapping of coastal and sea bed features and resources. This can be accessed on <https://apps.daira-ni.gov.uk/marinemapviewer/>



Mussenden Temple ©Tourism NI

FINDING OUT MORE ABOUT MARITIME HERITAGE IN THE AREA

THE PLANTATION OF ULSTER AND THE DEVELOPMENT OF THE PORTS

There is an exhibition about the Plantation of Ulster in the Guildhall in Derry/Londonderry.

History of the Plantation: www.honourableirishsociety.org.uk/about-us/our-history/plantation-begins

THE SPANISH ARMADA

The Ulster Museum has a display of finds from the Armada Ship the Girona. The museum is at Botanic Gardens in Belfast.

The Tower Museum in the Derry/Londonderry has an exhibition of the finds from the Armada Ship the Trinidad Valencera. It can be found in Union Hall Place in the city which is planning a Maritime Heritage Museum.

Some information about the Girona is presented in the visitor centre at the UNESCO Giants Causeway and Causeway Coast World Heritage Site near Bushmills. The Spanish Armada ship sank in the area.

LIFEBOAT SERVICE

The services of the lifeboat together with detail of all the boats, rescues and personnel can be viewed in the Portrush RNLI Museum within Portrush Harbour.

HISTORY OF LONDONDERRY PORT

Foyle Port website tells the story of Londonderry Port.
<https://www.londonderryport.com/history-of-the-Port>

SEA AND FRESHWATER LIFE

The Lough's Agency Riverwatch visitor centre at Prehen, Londonderry provides information on the lifecycle of the salmon and has aquaria that show sea and freshwater life in the area.

The Coastal Zone at Portrush is the Department of Agriculture, Environment and Rural Affairs' main coastal and marine centre. Discovery pools and tanks along with displays and activities give visitors the chance to learn more about Northern Ireland's marine and coastal wildlife and heritage.

TRADITIONAL BOATS

The Ulster Folk and Transport Museum in Cultra near Belfast has a maritime collection.

The Causeway Coast Maritime Heritage Group takes an active role in using traditional craft and has a website <http://ccmhg.co.uk>

Greencastle Maritime Museum on the Donegal side of Lough Foyle has examples of currachs and Drontheims on display along with information on local fishing and shipping. This can be reached in summer via the car ferry from Magilligan Point.

FINDING OUT MORE ABOUT VISITING THE AREA

Walkers may access the coastline via the beaches and the waymarked coastal paths. Information on these is available, with other activity information on canoeing and kayaking, surfing and other adventure sports at www.outmoreni.com

Cyclists can use the Sustrans cycle network route 93 www.sustrans.org/ncn/map

ANGLERS CAN FIND INFORMATION ON

<https://www.ufishireland.org/> for the Foyle catchment, and buy a licence on <https://ellicence.loughs-agency.org/index.asp>

Lower Bann Fishing: www.honourableirishsociety.org.uk/gofishing

and for the rest of the area information is available at <https://www.nidirect.gov.uk/information-and-services/angling/angling-everything-you-need-go-fishing>

Translink runs bus services that allow the visitor to explore the coastline and stop off to enjoy its key features. Translink's online public transport journey planner can be found at <http://journeyplanner.translink.co.uk>

For more information about access to the area, accommodation, boat journeys and points of interest visit www.visitcausewaycoastandglens.com and click on the visitor guide.

For more information about wrecks and the historic environment sites in the area see <https://dfcgis.maps.arcgis.com/apps/webappviewer>

NI ARCHIVE

www.niarchive.org includes trails, exhibition panels on the history of Causeway Salmon, WWI and WWII and the project of Plantation, by Causeway Coast and Glens Borough Council Museum Services.

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THE BOAT HARBOUR PORT-NA-BOE (COW PORT) GIANTS CAUSEWAY. R.W. 996.

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