QUARRIES, MINES AND LIFE UNDERGROUND


Key
Causeway Coastal Route
Additional Scenic Routes
Motorways
Roads
Railway
Ferry Crossings
Causeway Coast and Glens Region
Area of Outstanding Natural Beauty AONB
UNESCO World Heritage Site
Marinas
Airports
0 5 km 10 km 15 km 20 km
0 5 miles 10 miles 15 miles
World Heritage Site
Giant's Causeway
Whitepark Bay
Ballintoy
Portballintrae
CAUSEWAY COAST AONB
Ballycastle
Bushmills
Portrush
Portstewart
Castlerock
Greencastle
Magilligan Point
Benone
Coleraine
Dervock
Armoy
Glenshesk
Glentaisie
Lough Foyle
Binevenagh Mountain
Macosquin
Bann Valley
BINEVENAGH AONB
Ballymoney
Loughguile
City of Derry Airport
Limavady
Ballykelly
Eglinton
Londonderry
Roe Valley
River Roe
River Bann
Cloughmills
Garvagh
Kilrea
Rasharkin
Dungiven
Cloudy
Feeny
SPERRINS AONB
Sperrin Mountains
Swatragh
Upperlands
Portglenone
Cullybackey
Grocehill
Ahoghill
Maghera
Bellaghy
Castledawson
Magherafelt
Toome
Randalstown
Lough Neagh
Belfast International Airport
Causeway Coastal Route

CAUSEWAY COAST & GLENS
HERITAGE TRUST

This short booklet explores the mining and quarry industries which have shaped the landscapes of the Causeway Coast, both above and below ground.

The natural stone and minerals which form the iconic sweeping valleys and rising headlands from Derry~Londonderry around the rugged coast to Belfast have long provided locals with stone for houses and land to farm; but dotted throughout the area are larger, industrial workings extracting minerals and stone. These industries have left their mark on the people and the landscape of the area.

Introduction

The Causeway Coast includes over one hundred miles of rugged, exposed coastline from Derry~Londonderry to Belfast. This booklet looks at the history of the quarrying and mining industries along the Causeway Coast, specifically between Castlerock in the West and Cushendun in the East.

People have always used the land whether it is to grow food, provide fuel such as turf or stone for building, the land has always been seen as a resource essential for life.

Tievebulligh, Cushendall

Stone Wall in the Glens of Antrim

Evidence of people using local stone dates back many thousands of years. A study on Tievebulligh, near Cushendall, shows Neolithic people were using porcellanite, a rock harder than flint, to make axes three thousand years ago. It is believed to have been an axe factory, with over ten thousand axes found throughout the area so far. Further investigation shows that Neolithic people on Rathlin used this rock to make tools. The Ulster Museum in Belfast holds a large collection of crafted porcellanite.

It is clear to see that people made use of materials that were available. Stone was used to build field boundaries and houses and in later years as villages formed and grew builders used local stone. This gives villages today a unique character.

House constructed from local stone

Cushendun Old Church built using sandstone

Ballintoy Harbour constructed from limestone

The mid–eighteenth century saw industrialisation boost the need for materials and fuel. To keep these new factories and production going, quarries and mines were scaled-up throughout the UK. This was also the case in Northern Ireland, with prospectors capitalising on coal, minerals and stone, although on a smaller scale.

The effect these new quarries and mining businesses had on the land and the people who lived on it is explored and documented.

The Causeway Coast and Glens Heritage Trust

Since 2002 the Causeway Coast and Glens Heritage Trust has worked to conserve, protect and promote awareness of the wealth of natural, built and cultural heritage in the area.

Now a charity, the Trust, or CCGHT, has worked with local councils, community groups and government agencies to deliver enhancement works, encourage people to get out and enjoy their local landscapes, as well as producing informative publications and providing a management service for three local Areas of Outstanding Natural Beauty and Northern Ireland's only World Heritage Site.

Whitepark Bay

Safety

It is important to note that quarries and mines are dangerous and no attempt should be made to enter them. Most abandoned sites are gated and closed. Entering is considered trespassing, is extremely dangerous and may constitute an offence.

This booklet is for information purposes, it is not advised that any member of the public put themselves at risk by seeking to enter any of the sites mentioned in this publication.

Geology: What's under our feet

The geology of Northern Ireland is some of the most diverse in the world. One day's travel in Northern Ireland can take you over (almost) all of the geological phases, the exclusion is the Pre-Cambrian which is not evident in Northern Ireland. One of the best ways to see much of this geology is to drive along the Causeway Coastal Route, the many cliff faces and rocky outcrops display the variation: white limestone cliffs at Portrush, dark basalt at the Giant's Causeway and red sandstone in the Glens of Antrim.

This amazing variation can be attributed to the dynamic earth processes which this land went through. Over millions of years Northern Ireland travelled northwards from the equator. At one time it formed part of a mountain chain believed to be higher than the Himalayas, at another it was underwater and for a few million years it was even believed to have been a desert– hard to believe today!

All this movement and change has built up layers of different rock types; Ulster White Limestone, Red Bay Sandstone, Basalt, etc. which have been tilted, twisted and warped to form the landscapes we see today.

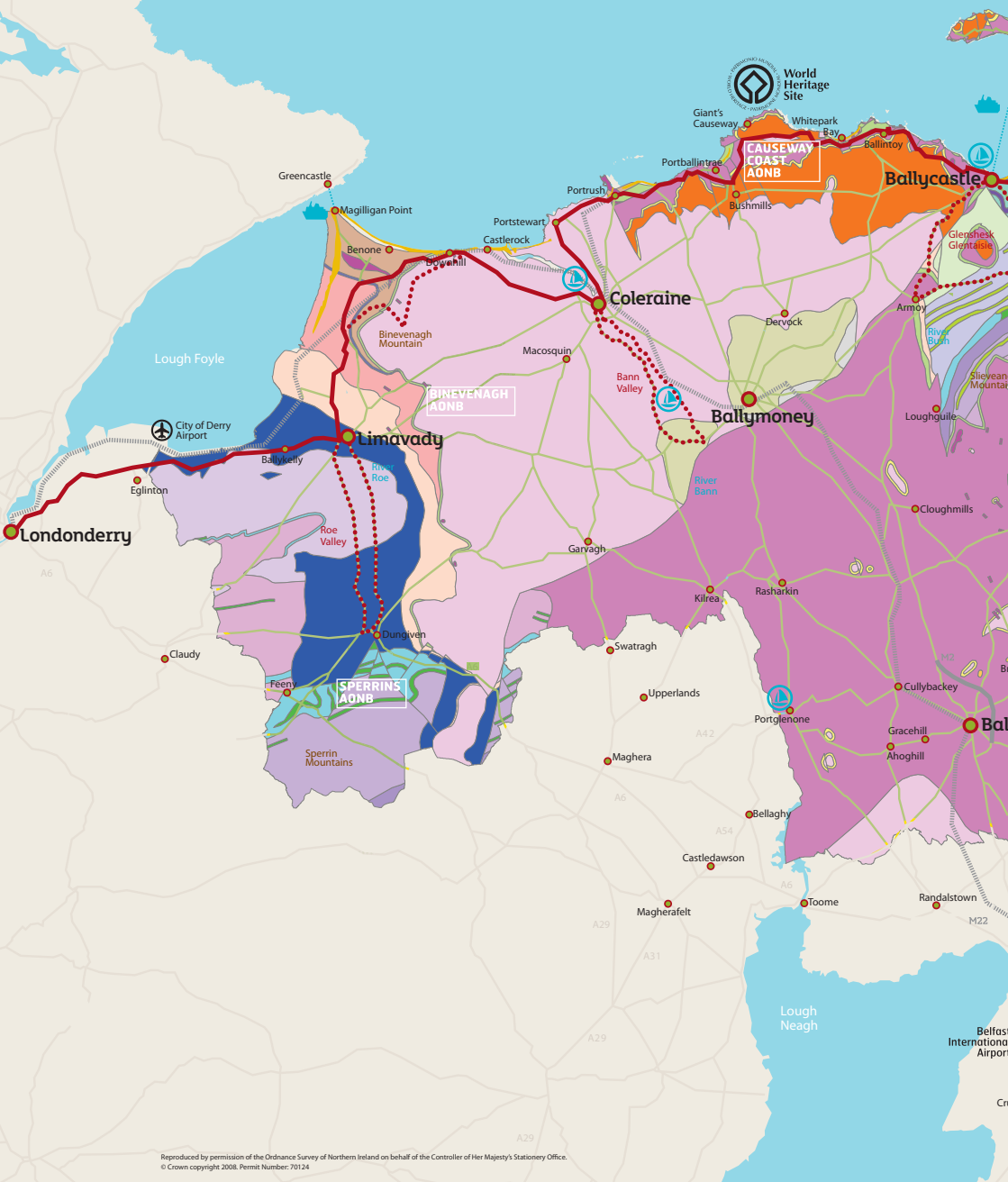
The following map, shows the underlying geology of Northern Ireland.

Conglomerate

Breccia

Sandstone

Geodiversity of the Causeway Coast



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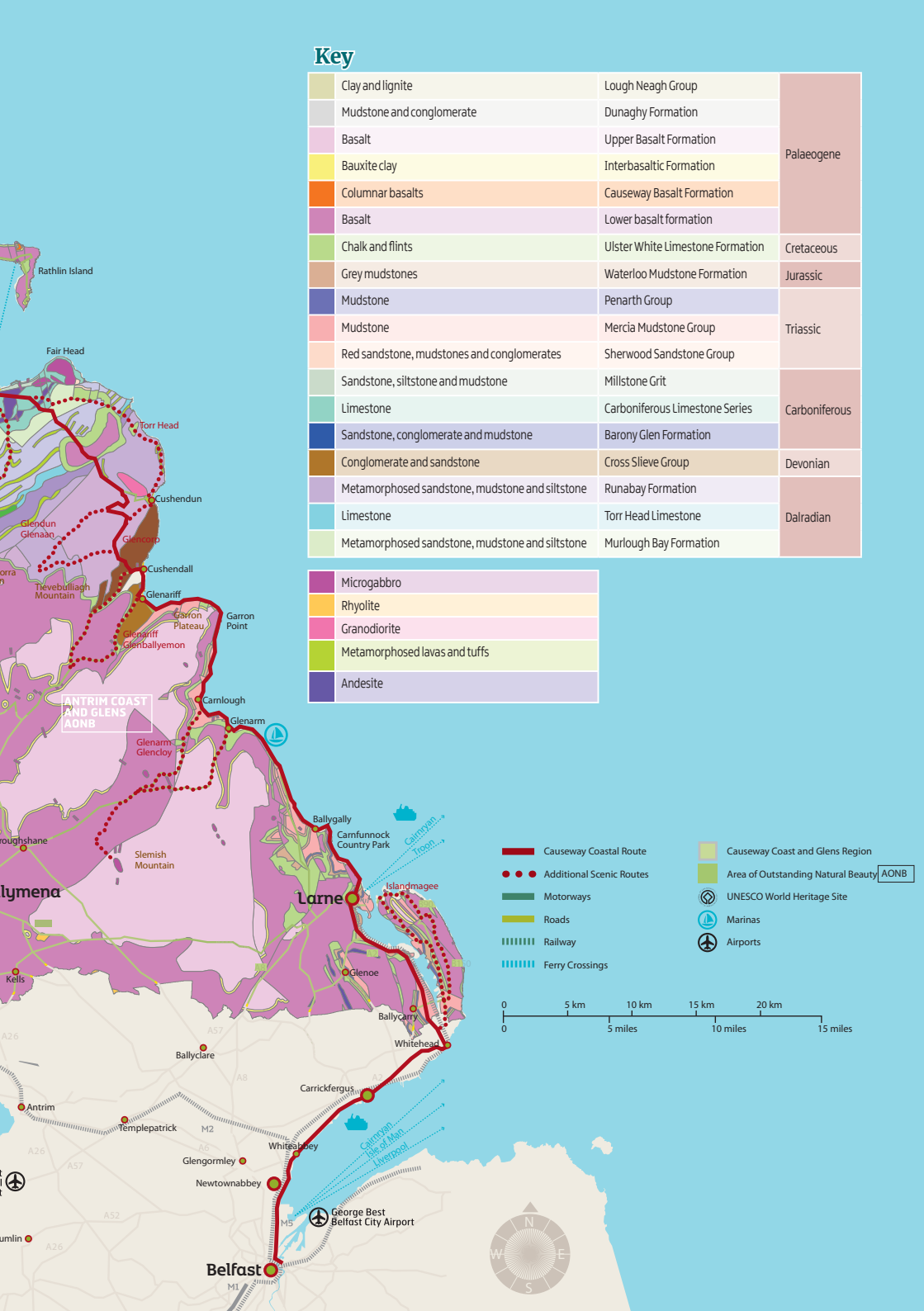
Key
Clay and lignite
Mudstone and conglomerate
Basalt
Bauxite clay
Columnar basalts
Basalt
Chalk and flints
Grey mudstones
Mudstone
Mudstone
Red sandstone, mudstones and conglomerates
Sandstone, siltstone and mudstone
Limestone
Sandstone, conglomerate and mudstone
Conglomerate and sandstone
Metamorphosed sandstone, mudstone and siltstone
Limestone
Metamorphosed sandstone, mudstone and siltstone
Lough Neagh Group
Dunaghy Formation
Upper Basalt Formation
Interbasaltic Formation
Causeway Basalt Formation
Lower basalt formation
Ulster White Limestone Formation
Waterloo Mudstone Formation
Penarth Group
Mercia Mudstone Group
Sherwood Sandstone Group
Millstone Grit
Carboniferous Limestone Series
Barony Glen Formation
Cross Slieve Group
Runabay Formation
Torr Head Limestone
Murlough Bay Formation
Palaeogene
Cretaceous
Jurassic
Triassic
Carboniferous
Devonian
Dalradian
Microgabbro
Rhyolite
Granodiorite
Metamorphosed lavas and tuffs
Andesite
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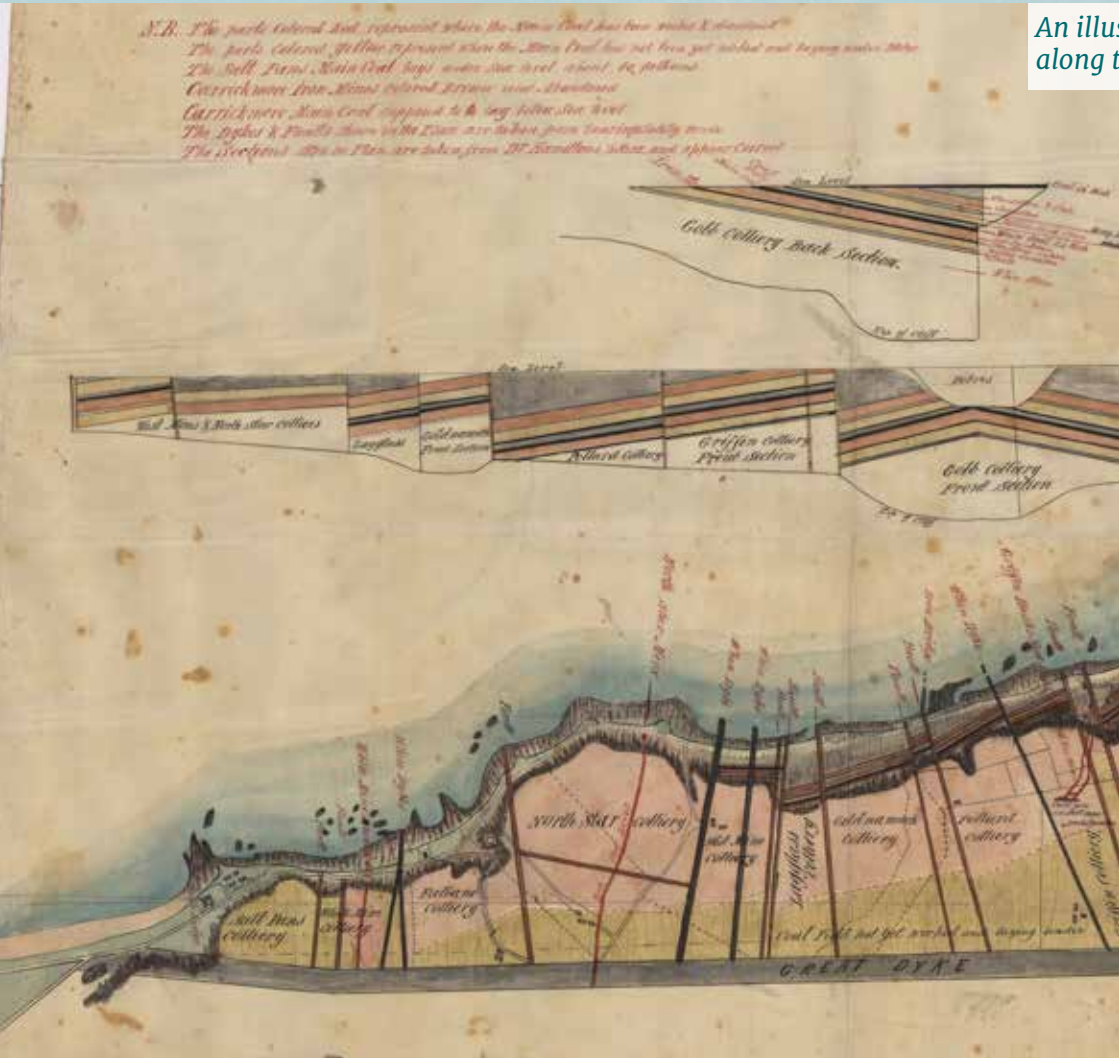
Rathlin Island
Fair Head
Torr Head
Cushendun
Glendun
Glenaan
Glencorp
Cushendall
Thevebulliagh Mountain
Glenariff
Garron Plateau
Garron Point
Glenariff Glenballyemon
ANTRIM COAST AND GLENS AONB
Carnlough
Glenarm
Glenarm Glencloy
Slemish Mountain
Ballygally
Carnfunnock Country Park
Larne
Islandmagee
Glenoe
Ballycarry
Whitehead
Kells
Ballyclare
Carrickfergus
Antrim
Templepatrick
Whiteabbey
Glengormley
Newtownabbey
George Best Belfast City Airport
Belfast
Cairnryan
Troon
Cairnryan
Isle of Man
Liverpool
N
E
S
W

The Ballycastle Coal Fields

Mining in and around Ballycastle was a large local industry developed mainly by the Hugh Boyd family from 1736 onwards. The main material mined was coal a Carboniferous strata or layer of carbon-rich material that exists in the rock layers here and contains several layers of coal. This strata is best accessed between Ballycastle and Murlough Bay and reaches inland towards the Carey and Shesk Rivers, covering 20km^2. However a large fault known as the Great Gaw runs through this area meaning only the section of coal seams nearest the shore (7km^2) are workable as they are tilted upwards.

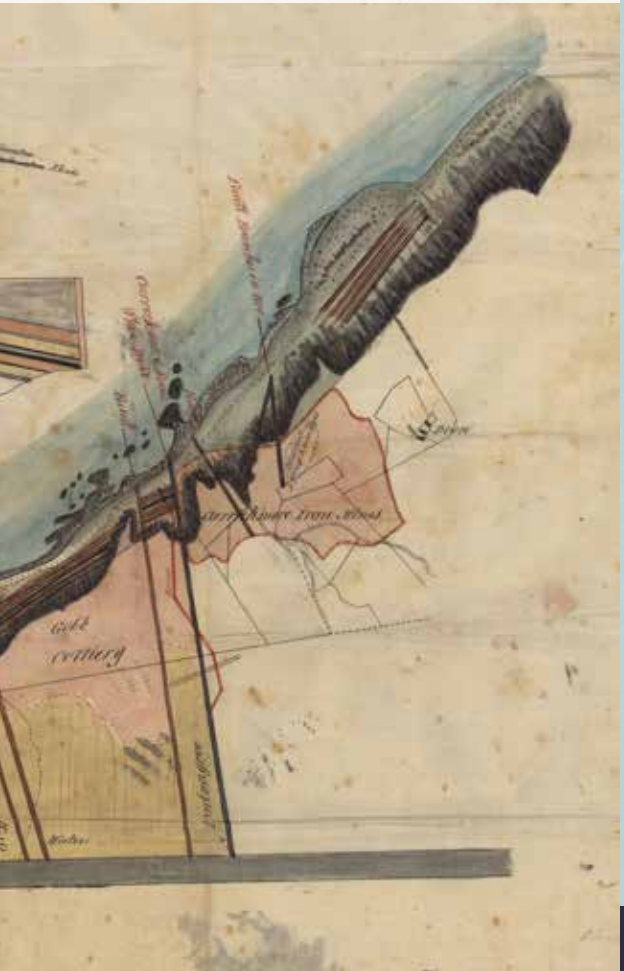


An illus
along t

The coal seams outcrop on the sea cliffs to the East of Ballycastle Bay, between Pans Rock and Carrickmore. This coastal strip is naturally divided into sections by small, almost north-south, faults which means the layers of rock and coal seams sit at different levels in the various sections. These segmented blocks have become known as collieries. An individual colliery may have more than one mine driven into it.

Collieries established at Ballycastle West to East:

stration of the mines and rock layers
the Ballycastle shore dating from 1885



- Salt Pans Colliery
- White Mine Colliery
  So called because of the white sandstone the adit was driven through
- Falbane Colliery
- North Star Colliery
  named after the massive and noticeable North Star Dyke which points near the Pole Star
- West Mine Colliery
- Lagglass Colliery
- Goldnamuck Colliery
- Pollard Colliery
- Griffin Colliery
- Gobb Colliery
- Portnagree Colliery

Ballycastle Coalfields

Mines not only comprise of mine tunnels, galleries and adits, (or entrances), once coal is extracted it must be processed, transported and often shipped to Dublin and Belfast.

The Ballycastle Coalfields had the advantage of being beside the sea, so transporting the coal was more straight forward than it was for inland coalfields as jettys and hourbours could be built with local stone.

This image, which was taken between 1865 and 1914 shows a bridge built near a Mine which allowed the extracted coal to be pushed along in tubs and loaded onto waiting boats. You can clearly see the raised base of the bridge which was made out of sandstone from the cliff–face just out of view. The bridge was built to allow for high tides and different sizes of transport boat.

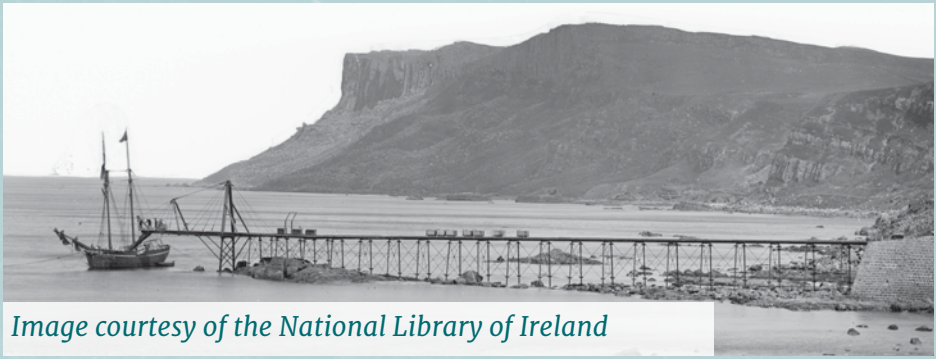


Image courtesy of the National Library of Ireland

Records show the most productive seams worked in this area were known as the Main Coal (1m-1.3m thick) and the Hawk's Nest Coal (0.9m –1.2. thick).

These would have originally been worked at from the face of the cliff directly inwards but as mines deepened the gentle downward dip of the coal seams away from the coast meant drainage became a problem. To overcome this drainage tunnels were driven into the cliff face just above the high water mark. These new tunnels, below the galleries, gently rose-up as they went into the cliff face and 'chutes' or 'shoots' were driven upwards to the working tunnels. Water could then flow out of the upper tunnels allowing miners to get at new coal. The tunnels had other benefits; coal was dropped into tubs and the gentle slope of the drainage tunnel was used to help push them out.

Two of these lower level drainage tunnels can still be seen still carrying a flow of water at the North Star Colliery and Portnagree Colliery.

This photograph shows what remains of the bridge seen on the previous page

The Ballycastle coal fields were some of the most notable in the area and records show that development of mines to extract coal began as far back as 1736. In fact up until 1865 the amount of coal exported from Ballycastle was between ten and fifteen thousand tonnes per year. After 1865 the local mining industry went into decline and fifty years later in 1914 only four mines were still operational, exporting between five hundred and two thousand tonnes per year.

The decline continued and in 1961 the Black Park Mine closed shortly followed by the last operational mine in the area, Craigfad Mine, in 1967.

Although mines are by nature unseen, under the ground, their adits and transport infrastructure is often still seen long after they are abandoned. This is the case near the Ballycastle Coalfields. On the shore remnants of the bridge used to load coal onto boats can be seen. Much of the metal work, often used for tracks to move the coal have been taken but some fixtures in the rocks are still visible.

Murlough colliery adits entrance

Adits of the mines are clearly visible, although vegetation has grown around them and some have collapsed.

Ironstone, at Carrickmore which was once molten

Ironstone Quarry Carrickmore

In and around the 1850's a thick outcrop of Ironstone was identified at Carrickmore, near Fairhead, County Antrim. This is a mix of mud and iron carbonate, which at Carrickmore had mixed so much it became very dark in colour and was known as Blackband Ironstone. Ironstone is a poorer source of Iron than Iron Ore.

Records show that the Ironstone was first worked by a man named Robert Latta in 1854. He built a jetty on the rocky shore at Carrickmore and shipped the Ironstone to Glasgow. Ironstone quarrying almost ceased at this site when Latta fell into bankruptcy. It is known that in 1865 a Scottish firm called Merry and Cunningham leased the works from the Boyd estate and worked it intensively until 1871. It is thought that they gave up their lease at this time due to rising costs of rent and labour making the venture no longer economically viable.

Although unclear who took on the works at Carrickmore records show that production continued until 1880, with 30,000 tonnes recorded for 1872, falling to little over 1,000 tonnes by 1880.

The Ironstone was quarried directly out of the cliff face, falling downwards onto the gentler slope towards the sea below. This material was burned on open hearths along the coast to remove the coaly material and convert the iron carbonate into iron oxide. This concentrated the iron content of the material making it more valuable.

It was then sorted, with the heavier, more iron rich lumps loaded onto ships using the small jetty built by Latta.

The open furnaces of burning Ironstone would have made for a strange site, burning day and night on the coast.

Today there is still much to see at Carrickmore. The clearly worked cliff face and heaps of tumbled Ironstone are still noticeable, as are the flat terraces where the remains of the burning process lay. A few rusting bollards which once supported the jetty can be spotted, although this has long since disappeared.

Lumps of heavy Ironstone can be spotted easily on the rocky beach at Carrickmore. This piece was never shipped and has lay for almost one hundred years. The orange colour is a result of iron in the stone rusting.

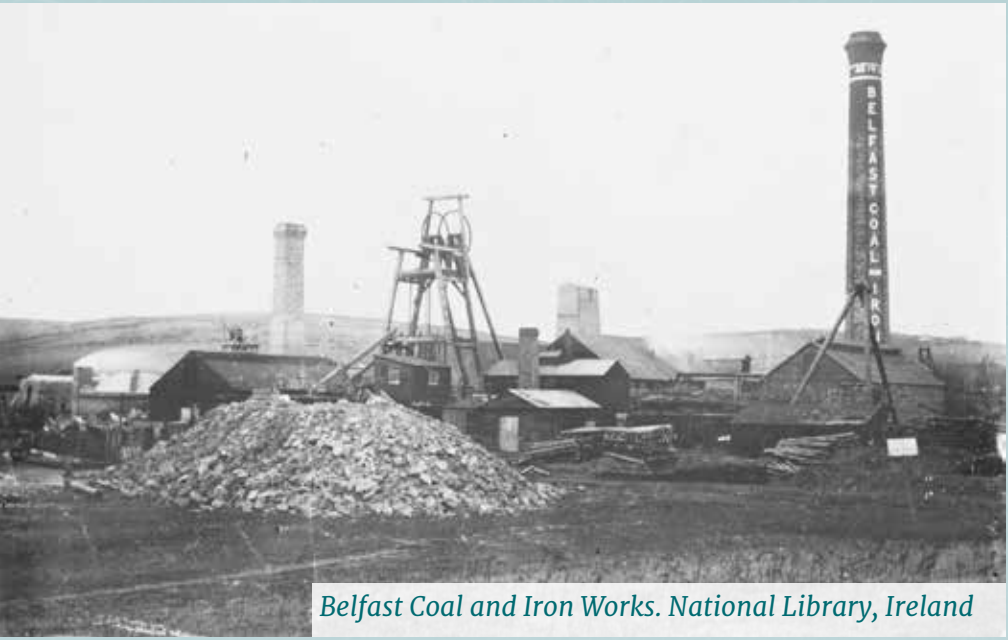
Belfast Coal and Iron Limited

In the Spring of 1905 a group called The North Antrim Mining Syndicate drilled bore holes south of the Great Gaw dyke, near Ballyvoy in Country Antrim. The man leading this investigation was a Mr. Braude, known locally as Brodie.

Details of what these drillings found is unknown but a wave of optimistic reports about the site were published drawing enough interest and funds to sink two shafts to the Ballyvoy Coal below. Mining of the coal began in July 1906 and the company's name changed to The Belfast Coal and Mining Syndicate. Coal was extracted at a rate of 5,000 tonnes per year for two years.

The photograph below shows the extensive machinery and buildings which were once on this site in Ballyvoy. A 150 foot chimney looked over the outbuildings and shafts, which were driven by a 300 horsepower steam plant.

The title given to the photo was a common misunderstanding. The site is close to the town of Ballycastle so locals assumed it featured in the title. It was actually Belfast Coal and Iron Works.



Belfast Coal and Iron Works. National Library, Ireland

Sadly for Mr. Braude the quality and quantity of the coal at Ballyvoy was neither good nor plentiful and in 1908 the enterprise failed and the site and machinery were sold. This was a blow to the local people who had expected the initiative to bring wealth and jobs to the area. Today there is no sign of this once promising business, near the main road in Ballyvoy. The land blends into the landscape seamlessly and is used for agriculture.

As a side business to coal mining fireclay was extracted and fired on site to make bricks and floor tiles. These bricks were used to build almost all of the buildings shown in the photograph on the opposing page, including the tall chimney.

Some of the bricks can be seen in the walls of farm sheds and out buildings belonging to a farm on the site. The stamp 'BC&ILD' can be seen in each brick, referring to Belfast Coast and Iron Works Limited, the common name for the works.

Floor tiles from the earthworks in a nearby farmhouse

Quarries In The Area

Larrybane Quarry between the village of Ballintoy and the Carrick-a-rede rope bridge is now used as a car park by the National Trust but during the 19th and 20th century these chalk cliffs perched on the coast were quarried on a fairly large scale. Similar limestone quarries were set up near the Harbour in Ballintoy, at Ballymagarry near Whiterocks in Portrush and in Glenarm. Limestone is still quarried in Glenarm.

The limestone extracted was burnt in lime kilns and often used for limewash and in agriculture. You can still spot limekilns along the coast.

Ulster White Limestone can be seen all along the Causeway Coast and formed when marine sediment built up on the sea bed, compressing over years to for hard rock.

Image shows a lime kiln

Moving North West towards Portrush there is Craigahulliar Quarry, sometimes spelt as Craignahulliar. This quarry was worked by Portrush Columnar Basalt Company Ltd until the 1980s.

As suggested by the name basalt columns, like the those seen at the Giant's Causeway and Causeway Coast World Heritage Site, were found here. The columns formed from the same lava flows 60 million years ago, which cooled slowly forming the unusual shapes.

All in all there were three flows of lava now known as the Upper Basalt, Middle Basalt and the Lower Basalt. In between these three layers of lava there are clear layers of red clay, which formed in the time between the hot lava flows. These red layers are know as inter basaltic beds; between the basalt. The hot lava flows and years of weathering of each layer has resulted in many different minerals forming including Bauxite and Lignite.

Giant's Causeway Basalt Columns

Around 1940 there was much interest in Bauxite, which is an aluminium ore, as the Second World War meant France could no longer supply this key material for aluminium, much needed by the aircraft industry at this time. Mr. Eyles of the Geological Survey was sent to Northern Ireland in 1940 to investigate known Bauxite reserves at Elginny near Broughshane, Skerry West near Newtown Crommelin and Lyles Hill. Following Mr. Eyles' investigations the output of Bauxite in the area increased from 1,300 tons in 1941 to 108,000 tons in 1943, falling again to 36,000 in 1945, which seems to be the last year of production.

This photo, taken around sixty years ago, shows the scale of quarrying at Craigahulliar, one of a number of similar quarries inland of Portrush.

Now it is a landfill site owned and maintained by the local Council.

Image courtesy of British Geological Society

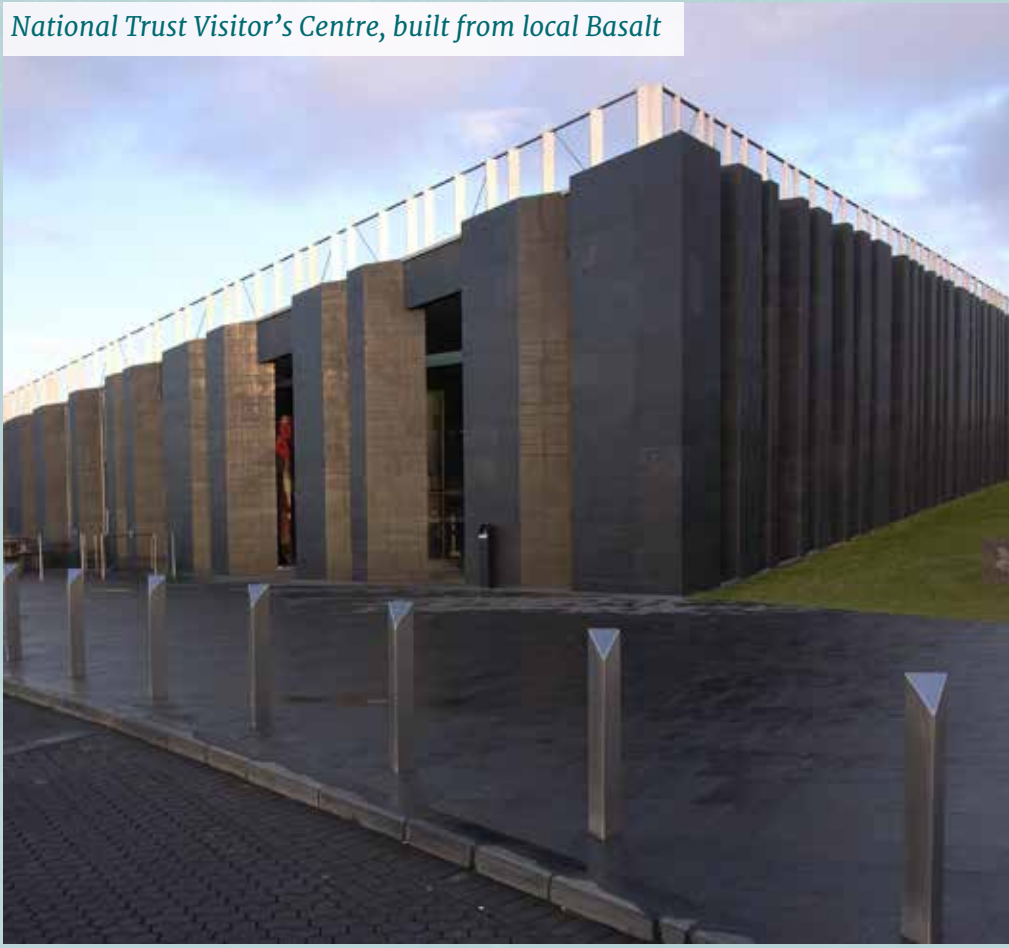
Carnanee (Portstewart)

This was a small basalt quarry on the Portstewart side of the River Bann. The stone worked here was used to build the moles nearby Castlerock and Portstewart. A mole is a protective wall or barrier which extends from the shore into the sea and helps to stop the beach from washing away. Many small quarries were used to supply stone for local building works.

Ballyboyland (Ballymoney)

The basalt quarry at Ballyboyland, near Ballymoney, was for many years the main source of ballast for the Northern Counties railway. Ballast is a major use of crushed stone. It provides a sturdy bed for the tracks providing stability and drainage.

National Trust Visitor's Centre, built from local Basalt



Bradley's Quarry (Kilrea)

This basalt quarry is one of the largest working quarries in the area. Basalt from this quarry was used in the construction of the National Trust's new visitor centre at the Giant's Causeway. Which is fitting as the stone quarried here is sixty million year old basalt, from lavas flows like those seen at the Giant's Causeway.

Gortin Quarry (Carnlough)

This was once a productive limestone quarry behind the village of Carnlough. Limestone was exported from here on small schooner boats to Scotland, similar to the journey coal from Ballycastle made. Many of the local buildings were constructed using the local limestone, including a bridge which runs over the main road. This carried the narrow gauge railway which moved the quarried stone from the quarry to the harbour. Now defunct the route of the railway is a popular path called the mineral path which leads up to Cranny Falls.

Mines In The Area

Black Park Mine is just North of Ballyvoy. Coal was mined here to run lime kilns owed by a man by the name of Delargy. This photo taken in the 1950s shows the entrance to the small mine.

Image courtesy of British Geological Society

Glenravel was an important centre for iron ore mining for many years with the first mines opening on the slopes of Slievenanee in 1866. By the 1870's records show some 700 men were employed working these mines, using horses to draw carts full or iron ore. A narrow gauge railway was built to serve these mines which ran from Ballymena, doing away with the need for working horses. Some traces of this old railway, which closed in 1937, can still be seen, including Parkmore stop on the edge of Glenariff Forest Park.

This image shows spoil heaps in Glenravel, now almost totally overgrown but still showing signs of the bright red, iron-rich, clay once mined here.

What It Is Like Inside A Mine

Although mines along the Causeway Coast were small scale it took a lot of work to establish them and even more to keep them dry, ventilated and supported. There are two main types of mine, those driven into the side of a cliff or mountain and those on flat open ground.

The main difference in the construction of these types of mines is the entrance and transport of workers and material. A mine built into a cliff face or hill normally has a horizontal entrance called an adit which follows the seam being worked and material is brought out on hutches or tubs, often on a narrow gauge railway. While a mine built on flat land normally has vertical shafts driven down into the ground and material and workers are transported on winches up and down.

Here you can see the inside of the North Star Mine. The tunnel is well carved out and the support was clearly built by skilled workmen.

This image shows a more basic mine tunnel compared to the North Star Mine. You can clearly see the different layers of earth and how dark the tunnel is, imagine spending your working day here with only the light of a naked flame to see by.

Many mines in the Causeway Coast area were worked as room-and-pillar operations, with main tunnels about 2metres high and 1.5. metres wide and smaller tunnels off to the side, often supported by wooden posts and stone blasted inside the mine. This excess stone was often used to pack in abandoned paths within mines and were known as a ‘goaf’, this appears in many old mine plans.

The ventilation of a mine is always a major concern, especially the longer and deeper a mine becomes. Often shafts were driven down vertically into mine tunnels to help bring fresh air to workers.

Here you can see a wooden post supporting the mine roof.

Water was a frequent problem for mines. Some of the larger mines had special drainage levels. At Islandmore, near Portrush, the mine entrance is 2.5metres high. About one metre above floor level a shelf is carved into the tunnel sides. This supported wooden planks for mezzanine floor. With the lower level acting as a drainage conduit meaning work could carryon despite the constant water. Other, smaller, mines used water pumps to keep the tunnels dry. Often these had to be constantly running and so were manned all the time.

Life Underground

Many local people found employment in the quarries and mines in Northern Ireland and still do today, although modern machinery means the job is very different to what it used to be. Local census records from early 20th Century show ‘iron ore miner’ and bauxick miner’ (bauxite) as occupations.

Jimmy Mc Veigh from Carey, outside Ballycastle, worked as a miner on and off for more than fifteen years. He trained in England for six weeks in 1951 and took up a job there at Rossington Mine. He recalls that English coal mines were much bigger, busier and better equipped compared to the mines he came home to work in, in Ballycastle 1958.

Jimmy worked at Craigfad coal mine which was owned by Lord Antrim. The photograph below shows Jimmy and a few of his workmates with a local man, who owned the camera.

In total eight men worked the mine with a full time manager called Mr. Bill Main, who was Scottish. This was typical of the small scale mining operations in the area, normally a dozen or less men would work one mine, often cramped.

Jimmy remembers Craigfad mine was constantly dripping from the roof and down the carved walls and that some parts of the workings were not full height. Although the air supply was fresher and the mine not as deep as he worked in England. The mine itself was gloomy with light supplied by naked flame.

A section of a 1966 mine report for Craigfad Mine

GOVERNMENT OF NORTHERN IRELAND

MINES INSPECTORATE

1st November, 1966.
Dayshift.

Report by I. Lloyd Davies

CRAIGFAD MINE Ballycastle Co. ANTRIM

COAL - Main Seam

Naked Light Mine

Owners: Ballycastle Mines Ltd., Belfast Bank Chambers, Antrim.

Accompanied by: Mr. Main, Manager.

A typical day seen the men enter the mine early in the morning, working the exposed coal seams and loading both coal and rocks into the tubs (or hutches), which were normally on rail tracks. These were then pulled, pushed and winched out of the mine where it was sorted, the unneeded stone discarded and coal loaded and transported.

The afternoon would sometimes be spent mixing an explosive called gelignite and putting these charges into the coal seam face and then, from outside, setting it off, or firing shots as it often called. This was always done near the end of the day, when all the men came outside so the rocks and dust could fall and settle meaning the men could enter safely the next morning and begin to load the coal into the hutches.

Jimmy recalls that he and his workmates never felt particularly unsafe in the mine although he did break his leg in a hutch accident. The pain was too much when his workmates and friends tried to lift him out so he hobbled out himself to meet the ambulance. This didn't deter Jimmy and he returned to the mines after he recovered.

Jimmy remembers his mining days with fondness and said that although it was hard work it was a good job and was local, as it was for many of the men who worked there.

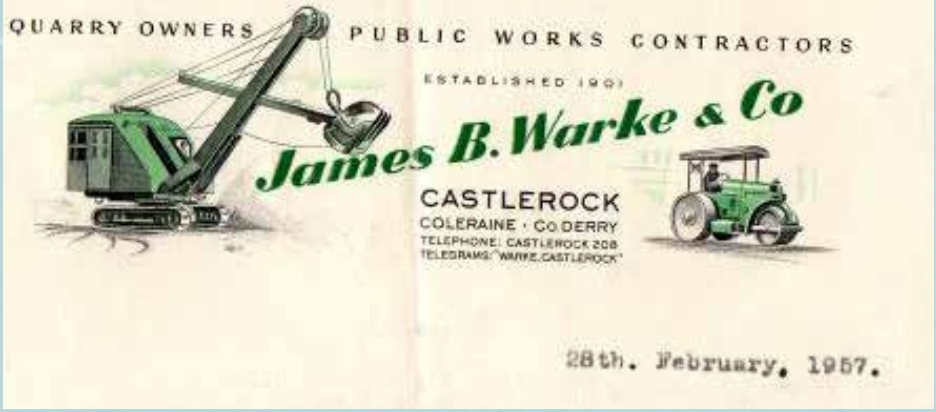
This picture was published in the Belfast Telegraph showing Jimmy McVeigh, Jim Butler, Archie Mc Cormick and Mr Murphy leaving Craigfad mine for the last time in 1967, as it shut down

Warke's Quarry Castlerock

As with many of the small villages in the Causeway Coast quarrying provided employment for locals as well as a ready supply of building material. Castlerock, with its mainline railway connection was no different. Warke's Quarry was established just behind the village, and the basalt here was worked for many years. This Basalt was often used for railway balast.

This old photograph shows some of the quarry workings and the road leading to the village of Castlerock.

Castlerock



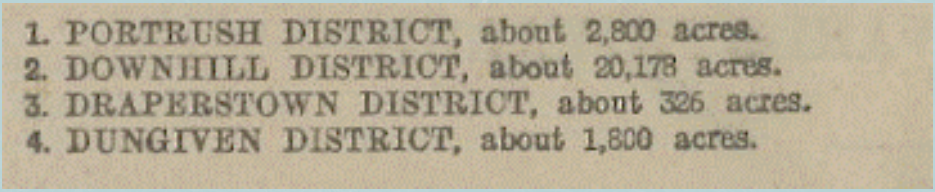
Headed paper used by the quarry

How Different The Land Could Have Looked

Although there are many mines and quarries through out the area there were plans and hopes for many more, as well as plans to expand established sites.

Quarrying and mining were profitable industries but required large set up costs to investigate the land thoroughly, purchase machinery and build the entrances and railway tracks. To raise funds prospectus's were issued and published in national newspapers, outlining the site, the opportunity and predicted yield and profit. Often these figures were enhanced to make the investment scheme more appealing.

For instance, in May 1907 the Irish Times published a prospectus for the Derry and Antrim Ore Company Ltd. Detailing easily accessible and potentially highly profitable iron ore deposits around Portrush, Draperstown, Dungiven and Downhill. In fact it detailed that over twenty thousand acres of ground was waiting to be exploited at Downhill.


1. PORTRUSH DISTRICT, about 2,800 acres.
2. DOWNHILL DISTRICT, about 20,178 acres.
3. DRAPERSTOWN DISTRICT, about 326 acres.
4. DUNGIVEN DISTRICT, about 1,800 acres.

This scheme came to nothing and the land remained mainly unworked, which was the case for many published prospects' identified. Had this, and others, have been successful it is clear that many of the iconic landscapes we see today may have looked very different.

Portmoon

Many mine and quarry workings were expanded over the years to meet demand for coal, iron and other stone and minerals. There are documents showing plans to expand the mines at Portmoon which would have seen a pier large enough for three steam ships, a railway and various other bits of infrastructure built. This would have certainly changed quaint, remote, character of Portmoon today.

Expansions resulted in new mine tunnels which often went unmapped. Many of the mine maps held today do not show the full extent of mine workings as they were not documented by the company in charge.

Both industries have had a lasting impact on the landscape and the people of the Causeway Coast area, with some quarries still operating and exploiting the rich geological heritage of the area.

Associated Industries

Salt Pans

The coast is dotted with salt pans, although it does take a keen eye to spot them. This image shows a salt pan cut into the rocky shore near the town of Ballycastle. Its straight sides and shallow pool indicate that this was used in the salt making process which was once a very lucrative business.

It is thought that as imported salt was so highly taxed, small amounts of it were mixed with sea water to produce a very saline solution which would then be heated, evaporating off the water and leaving a higher quantity of salt. This was often poorer quality but still fetched a high price.

Fire was needed to heat the salty solution so a steady fuel source was a must to keep production going, therefore many are near coal sources. It is thought that six tonnes of fuel was needed to produce one tonne of salt.

Kelp Beds

Kelp, a seaweed which is plentiful off the shores of Ireland, can be burned to extract iodine. Iodine was highly priced and so the extraction of it was a lucrative business.

Kelp would be gathered and dried for a few days on the shore edges and then burned in the open air in Kelp ovens.

These took many shapes and forms but along the North Coast they were mainly rectangular pits. Coal or another fuel would be set on fire in the base of these pits and then the Kelp was laid on top. This was allowed to burn until all of the kelp had been reduced to ash.

This image shows a Kelp oven along the North Coast. It has long been abandoned and could easily be mistaken for a water trough.

Glass making

A by-product of Iodine extraction is Kelp ash. This is used in glass making and so it was used in Ballycastle at Hugh Boyd's' glasshouse (glass factory) thought to date from the early eighteenth century.

Safety & Legacy

Northern Ireland's natural resources have been exploited by the mining and quarrying industries for over two hundred years and this has left a legacy of dangerous quarry pits and surface instability above these now abandoned mines, posing a serious risk to public safety.

The Mineral Development Act (NI) 1969 gives the Department of Enterprise, Trade and Investment (DETI) responsibility for mineral licensing in Northern Ireland and for almost all of the resultant abandoned mines and quarries vested under this Act.

Islandmore Mine entrance sealed for public safety

The Geological Service of Northern Ireland (GSNI) carry out a programme of inspections of all know old mines in Northern Ireland on behalf of DETI. In fact the GSNI Abandoned Mines Database holds information on nearly 2,500 mine workings including abandoned shafts and adits and in some cases plans of the underground workings.

Entrances to old mines and quarries are closed off and it is not advised that any member of the public try to enter. Often these are on private land so entry is trespassing.

Safety And Legacy Of The Industries

There have been cases throughout Northern Ireland where land above old mine works have collapsed. In such cases an investigation is carried out and measures are taken to stabilise the land and fill in the collapsed area.

When old underlying mine workings, associated with Falbane Colliery, were identified during construction work at Corrymeela, near Ballycastle, works had to be halted. A site stability assessment by DETI/GSNI showed risk from these workings to be minimal and works were able to proceed.

In Northern Ireland there have been some occurrences, although rare, of land collapsing where old mine tunnels and galleries can no longer support the land above it. Often these workings have been extensions of mines and are often unmapped and too close to the surface.

Incident of land collapse in Northern Ireland

Some abandoned quarries have found new life as fishing lakes and more recently as filming locations. Ballylagan quarry was turned into a fishing lake in the late 1980's while Magheramourne quarry, near Larne, has been used by Game of Thrones as a set for filming.

Many old quarry sites have become home to a host of wildlife, with plants taking root in mineral rich stone beds, birds finding home in the steep cliff edges and other animals making use of the now quiet locations.

Outdoor Ethics:

Leave no Trace

1. Plan Ahead and Prepare
2. Be Considerate of Others
3. Respect Farm Animals and Wildlife
4. Travel and Camp on Durable Ground
5. Leave What You Find
6. Dispose of Waste Properly
7. Minimise the Effects of Fire

Practising a Leave No Trace ethic is very simple: Make it hard for others to see or hear you and LEAVE NO TRACE of your visit.

Remember we all have a part to play, whether walking your dog, fishing, hiking, biking or visiting your local park - please Leave No Trace and be an advocate for the message.

leavenotraceireland.org

IRELAND
leave no trace

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Whilst every effort has been made to ensure the accuracy of the information in this book, the Causeway Coast and Glens Heritage Trust wishes to emphasise that they cannot accept any liability for any errors which remain.

CAUSEWAY COAST & GLENS
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QUARRIES, MINES AND LIFE UNDERGROUND

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