

## **Broad Character: Industry**

### **Character Type: Extractive Industry (Minerals)**

#### **Irish Sea Regional Perspective**

##### **Introduction: Defining/Distinguishing Attributes**

Mineral extraction for various materials is a major industrial character type which has left its imprints on England's Irish Sea region. Readily available mineral resources were key to the process of industrialisation, including extensive coalfields in Cheshire, Lancashire and west Cumbria, iron ore deposits in Furness and West Cumbria, and plentiful supplies of stone and aggregate (McNeil and Newman 2006, 183-4). Mineral extraction was carried out throughout the north-west of England, but its main impact on coastal character, both in the mining and quarrying features and buildings, and in the associated infrastructure of road and rail transport and the settlements which housed the workforces, was in Cumbria.



*Haig Pit, the last deep coal mine to be sunk in Cumbria, and part of a series of coal mines on the coast of Cumbria at Whitehaven. Now a mining museum*

Around the west Cumbrian coast, from Whitehaven to Maryport, coal was mined extensively, and iron was mined further inland around the town of Egremont (Cumbria Historic Landscape Characterisation). These all had an impact on the development of settlements and ports on the coast, but it is only those mining and quarrying areas which had a direct impact on maritime character that have been included under HSC. As well as iron and coal mining, there was a large alabaster and gypsum mining complex on the cliffs at Barrowmouth, south of Whitehaven. Iron mining and processing shaped the settlements of

Millom and Barrow-in-Furness, whilst stone and aggregate quarrying dominated the Arnside Silverdale area on the Lancashire Cumbria border. Extractive industries played an important role further south in the region, but had less of a direct impact on maritime character. Even so, it was the need to transport coal from the Lancashire coal mines, for example, that led to the development of the earliest canals from Manchester to Liverpool.

There are three areas of aggregate dredging offshore in England's share of the Irish Sea. The largest single area is off the coast of Cumbria, around 35km west of the mouth of the Duddon Estuary. There is small area on the southern boundary of the survey area, straddling the boundary between the English and Welsh sectors of the Irish Sea. The third area lies at the mouth of the River Mersey, close to the Wirral coastline at Perch Rock, and also lies within the navigation channel on the approach to the River Mersey.

##### **Historical Processes; Components, Features And Variability**

Today, most of the coastally related extractive industries have gone, leaving few direct expressions in the character of the current landscape. Most surviving physical evidence for mineral extraction relates to quarrying, including a small aggregates quarry at The Howe south of Workington, removing material from the slag banks of the adjacent former iron and steel works. In Arnside Silverdale, Sandside Quarry is the only remaining working quarry within the AONB. The quarrying of limestone in this area, and associated lime-burning was

exported along the coast from small quays and wharves, until the railway was built in the mid-19<sup>th</sup> century.

The West Cumberland coalfield played an important role in the development of coastal industries and towns. The coalfield runs in a strip around 8km wide along the coast from just south of Whitehaven north to Maryport. Coal mining on a significant scale took place here from the late 17<sup>th</sup> century onwards. It supplies local industries, including salt pans scattered along the coast, but it was mainly exploited for export (Wood 1988, 1). Some coal was exported from Workington to Ireland, Scotland and elsewhere in England, in the early 17<sup>th</sup> century, but it was the development of Whitehaven in the late 17<sup>th</sup> century which saw a substantial increase in coal exports (Wood 1988, 2-4). Coal remained the principal export from west Cumberland until the mid-19<sup>th</sup> century, and the towns of Whitehaven, Harrington, Workington and Maryport all owed their early prosperity to colliery development and the coal trade to Ireland (Wood 1988, 4). The village of Parton, just north of Whitehaven, was also developed as a small coal-exporting port, with the construction of a pier to take seven or eight ships in the early 18<sup>th</sup> century. For a short while, Parton was a serious rival to Whitehaven (Wood 1988, 8-11).

The development of the west Cumberland coal industry and the port of Whitehaven was the result mostly of investment by the Lowther family. In the first half of the 18<sup>th</sup> century, coal output from their mines and coal exports from Whitehaven trebled (Wood 1988, 22). On the coast, south of Whitehaven, they developed the Whitehaven Colliery, sinking Saltom Pit in 1730. The first shaft was close to the high water mark and worked not only land coal, but was also one of the first mines to raise undersea coal (Wood 1988, 23). At first coal was exported from a small coal staith and quay at Saltom, but eventually it was transported by a waggonway and a gin to the top of the cliff, and then by waggonway to the coal staith at Whitehaven. Dozens of other pits were sunk all around the town as part of the Whitehaven Colliery, and between Saltom and Whitehaven the entire coast was occupied by coal mines in the 19<sup>th</sup> century. North of Whitehaven and Parton was Harrington Colliery, owned and worked by the Curwen family of Workington, which was first opened in the 18<sup>th</sup> century. Early attempts to work undersea coal in 1825 were unsuccessful (Wood 1988 123), but by 1878, coal was being raised from below sea level. Coal was made into coke on site, for use in the blast furnaces of the iron and steel industry in Workington (Wood 1988, 163).

The collieries along the coast have now all gone out of use, the last being Haig Pit, part of the Whitehaven Colliery, which closed in 1986. The pithead complex is still extant and it is now a mining museum. The only other physical remains of the once-extensive coal industry along the coast are a few upstanding buildings, such as the engine house at Saltom Pit. In Whitehaven, the waggonway incline, the Duke Pit fan house and the 'candlestick' ventilation chimney and lodge of Wellington Pit are the main survivals. The Harrington Colliery was been completely swept away and the land restored. Land once occupied by Whitehaven Colliery has largely been reclaimed and is used for recreational public open space.

Just south of Whitehaven, and north of St Bees, is the Barrowmouth gypsum mine, established in the early 18<sup>th</sup> century, originally for alabaster, as a monumental stone (Cranstone 2006/7). The major field remains, which are a Scheduled Monument, date from mid-19<sup>th</sup> century. Remains include an impressive railway incline, pump and powder houses, and associated housing (<http://www.whitehavencoast.co.uk/history/mining>). As well as mines, stone was also removed from quarries, some of which were only accessible from the sea. The site is now managed by the National Trust and the surface remains are used for recreational public open space.

The mining of metals was an important industry in north-west England, particularly in Cumbria. Iron mining was a significant for the development of maritime coastal character in Furness and west Cumbria. Iron was transported to the iron and steel works of Workington from mines further inland, and in Furness, extensive iron mines served the development of Barrow, with ore transported to both towns by a network of mineral lines. The only iron mine on the coast was at Millom, where ore was mined from marine deposits and protected from sea inundation by massive sea defences. The site of the mines is now a large sea water lagoon and a nature reserve, still protected by the sea defences, and used as recreation public open space.

### **Values And Perceptions**

There are many tangible and non-tangible reminders of the once extensive mining and quarrying industries in the coastal character of England's Irish Sea coast, expressed particularly in Cumbria in iron mining, coal mining and stone quarrying. The remains of these industrial processes on the present landscape/seascape can engender complex feelings, and in some areas there is a desire to move away from the image of a dirty, dangerous, industrial past. At the same time, there is a great deal of pride in the mining history of areas such as west Cumbria, where post industrial communities have been left with no obvious economic base after the mines closed. Pride and interest in the industrial past manifests itself in the few surviving mining remains, many of which are now scheduled monuments. Haig Pit, the last deep coal mine to close in Cumbria, is now a museum, and large areas of this stretch of coastline, once covered with buildings, tramways and spoilheaps, are now open and accessible for public recreation. At the south end this includes the site of Saltom Pit, to Whitehaven at the north end, where the Duke Pit fan house and the Wellington Pit ventilation chimney form significant landmarks above the harbour.

Whilst operating quarries are often viewed negatively, abandoned quarries may form important recreational areas. The extensive remains of the gypsum and alabaster mines at Barrowmouth, for example, which include cliff top quarries, are now managed for their wildlife and recreational values. Of the five former stone quarries in the Arnside Silverdale AONB, only the Sandside Quarry is still operating. The remainder now have recreational uses, one as a caravan park, the rest are managed for their historic remains, nature conservation and climbing. The extensive area of iron mining at Millom, too, is now managed for recreational purposes, particularly for its nature conservation values. The area of mining is now a sea water lagoon within the protective sea defence wall, and is an RSPB reserve, and the site of the ironworks is now a local nature reserve. The reserves are important for breeding Natterjack toads, a wide range of waders and waterfowl, as well as a range of orchids and butterflies (<http://www.millom.org.uk>).

### **Research, Amenity And Education**

Extensive research has been undertaken with regard to coal mining in England. In Cumbria, particularly, there is a close relationship to the maritime environment, both through trade and the physical exploitation of undersea resources. There is the potential to explore these links further, providing a deeper understanding of the industry as a whole nationally and internationally. Further research would be beneficial for public access to, and appreciation and enjoyment of, the historic environment for present and future generations.

There is widespread public access to coastally located former mining in quarrying sites in the region, mainly for general recreation and for nature conservation purposes. The former coal mining sites at Whitehaven are interpreted through on site information and a range of local information websites, as well as through the mining museum at Haig Colliery. Likewise, the

former limestone quarry at Trowbarrow, in the Arnside Silverdale AONB, has a good range of interpretative material on site, on the history of the quarry and on nature conservation.

### **Condition And Forces For Change**

The condition of this Character Type is variable since some features related to this industry have been almost entirely destroyed whilst others are very well preserved. Where industrial features survive, generally they have some form of statutory protection, such as Saltom Pit and Haig Pit which are scheduled monuments. Even so, the coastal remains of Saltom Coal Pit are considered to be at risk from both coastal erosion and potential cliff falls from the rock wall on its landward side. Quarry remains such as Trowbarrow, which include many original quarrying features, and the former iron mines and ironworks at Millom, are protected as nature reserves, and are managed sympathetically.

Coastal remains from these industries are prime targets for public awareness initiatives in the context of the forthcoming coastal access requirements. Access will need to be carefully routed to avoid increased visitor erosion of surviving features.

### **Rarity And Vulnerability**

The surviving elements of the coal mining industry on the west Cumbrian coast play a key role in understanding the development of the industry, in particular the early development at Saltom of an undersea mine. The industry was the earliest to have a major effect on the economy and landscape of west Cumbria and was significant for the role it played in the development of the maritime economy of the west coast and its links to Ireland and America (Davies-Shiel and Marshall 1969, 105). It was the development of the coalfield that led directly to the establishment of Whitehaven as a port and classically planned town in the 17<sup>th</sup> century. Likewise, the iron industry in the Furness peninsula and at Millom, was responsible for the development and growth of Barrow-in-Furness. As such, both the iron and coal industries have a clear regional distinctiveness and, although once widespread and common, the end of mining and widespread clearance of features mean that surviving and recognisable remains are now rare.

The main surviving remains are largely protected and managed beneficially for nature conservation and public access. Raising awareness of industrial remains in England will make them more sustainable as a resource and accessible to present and future generations. It is other assets, such as smaller mines and pits, and the associated tramways and minerals railway lines which are under pressure from dereliction and redevelopment.

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