



Our mining culture
shaped your world

Delve Deeper

Portreath: Once the most important industrial port in Cornwall

**Camborne
& Redruth
with
Portreath**

If you wish to delve deeper into the history of Portreath's links with Cornish Mining then this short guide will provide you with more information.

Portreath and Cornish Mining

In its heyday, Portreath was perhaps the busiest and most important mining port in Cornwall. It served the copper mines of Redruth, exporting ore to south Wales, and importing Welsh coal and timber for the mines.

For this reason, Portreath is in one of the ten areas of the Cornish Mining World Heritage Site. This puts it on a par with international treasures such as Stonehenge, the Taj Mahal and the Great Wall of China.

When the export of copper ores died down, coal imports remained as the life blood of Portreath. Commercial operations in the harbour only ceased around 1960. Today Portreath is regionally important for its walking and cycling routes along the old mineral tramroads, and for swimming, surfing and body boarding. It hosts popular family events such as its Harbour Fun Day and Bonfire Night fireworks.

Early industry - tin streaming and fishing



Portreath beach tin streams

Before the copper ore shipping boom, Portreath was a tiny settlement with people making a living from fishing, agriculture and tin streaming. The latter was like 'panning for gold' – loose tin ore that had washed from the mines was extracted from the gravels of stream beds or on the beaches. You can still see tin streaming and smelting at the Blue Hills Tin Streams near St Agnes.

Pilchard fishing was once a major industry in Cornwall, and there was a fish cellar in Portreath called the Fish Palace. In 1800, a fleet of small vessels called seine boats was established here, catching vast numbers of pilchards. When landed, the fish were salted and stacked in cellars to be drained of their oil. They were then shipped, mainly to Italy.

THE HARBOUR – A SAFE HAVEN FROM CRASHING SEAS

The problem with Cornish ports

Port outlets were vital for the transportation of copper ores and coal between Cornwall and South Wales. Harbours on the south Cornish coast were sheltered, but the ships had to navigate the difficult waters around Land's End and the Lizard. Ports on the north coast like Portreath had the problem of a lee shore (winds blowing towards the coast), making it extremely dangerous for ships to manoeuvre in rough weather.



Storm reveals lost harbour

A harbour breakwater was built in Portreath around 1713, on the far side of the cove from the existing harbour. Little was known about it until September 1983, when a ferocious storm lifted the sand from the beach revealing the foundations of the original harbour. It had probably been destroyed during similar storms.



Waves crashing over the harbour wall



New harbour – and Portreath’s rise to glory

Portreath became a major port after the construction of the breakwater pier in 1760. This gave ships a sheltered place to land. The pier was extended to its current length in 1824.

The harbour was owned by the Bassets, but in 1769, they leased it to the Fox family of Falmouth and the Williams family of Scorrier. They built up a fleet of courageous sailing vessels known as the Welsh Fleet. As copper ore export soared, more coal was needed to power the steam engines which pumped the mines of water and raised the ore. It was a lucrative reciprocal trade with vessels laden each way. The harbour was enlarged by adding the Outer Basin in 1801 and the Inner Basin in 1846, giving capacity for 40 ships at a time.

By 1840, the harbour was handling up to 700 ships per year and exporting around 100,000 tons of copper ore. When the copper industry crashed in the late 1860s, ships sailed out under ballast instead and came back laden with coal. Related industries had sprung up around Portreath – a shipbuilding yard, lime kilns, a stamping mill for crushing tin ore, a coal yard and a tin smelting house. The harbour continued to be used for commercial shipping until 1960.

Stockpiling coal and ore

Portreath was a seasonal port – it was far too dangerous to enter or leave the harbour in winter and cross to Wales. Hence there was a huge coal yard by the harbour (where the modern housing estate is). Coal was stockpiled throughout the sailing season to feed the mines over winter. Swansea had huge copper ore yards for the same reason. If coal or ore stocks ran low in winter, ships’ captains would be offered extra money to make the crossing – and many ships sank as a result.

Harbour sold

Portreath had always been a private harbour, but in 1886, following the decline of the local copper industry, the Bassets made it a Freeport. David Wise Bain managed the harbour for them, developing a lucrative fleet of coastal colliers that transported coal. The Bassets finally sold the harbour to A.C.Reynolds and Sons between the wars. It was later sold to the Benyon Shipping Co, then in the 1960s, the port was divided up. The local authority acquired the harbour and quays, and the coal yards and ore hutches were sold to residential developers.

The harbour today

The harbour is still used for fishing and leisure boats on a seasonal basis. In autumn, the boats are craned out of the water and stored on the harbour, to be put back around Easter time. These operations have become events in themselves, attracting many spectators. Occasionally a hardy boat will remain in the harbour all winter, but in big storms, anchors drag and hulls can get staved in.

PORTREATH GETS ON TRACK



Transport problems costly mule trains

When the harbour first opened, ore and coal were transported by mule trains. Wheeled transport wasn't possible due to the poor roads, impassable in wet weather.

Each mule carried two canvas sacks of 1.5 cwt each. It took 1,000 mule loads to fill a 150 ton schooner – and could be up to 40 schooners in Portreath Harbour. Imagine the mess this made of the steep narrow tracks descending to the harbour.

In 1800, it was estimated that 15,000 mules were used in the copper trade in west Cornwall, requiring a regular supply of fodder. When the cost of fodder increased during the Napoleonic War, it caused difficulties for the mining industry. A cheaper solution needed to be found.

The answer – Cornwall's first tramroad

Portreath's transport problems were solved by a joint venture between three leading families – the Bassets of Tehidy, the Foxes of Falmouth and the Williams of Scorrier. They built a private

'plateway' between Poldice and Portreath for horse drawn wagons. The wagon wheels ran along L shaped cast iron tracks called plates. In contrast, railways had simple rails, but the wheels were flanged (they had an 'L shaped' lip to prevent them from running off the track).

The tramroad opened in 1812, the first of its kind in Cornwall. Without competition, it led Portreath to become the region's most important port.

You'll see a replica wagon and plateway as you follow the audio trail. If you cycle or walk along the Mineral Tramways Mining Trails, look out for the remains of sections of the plateway.



Tram on L-shaped rails

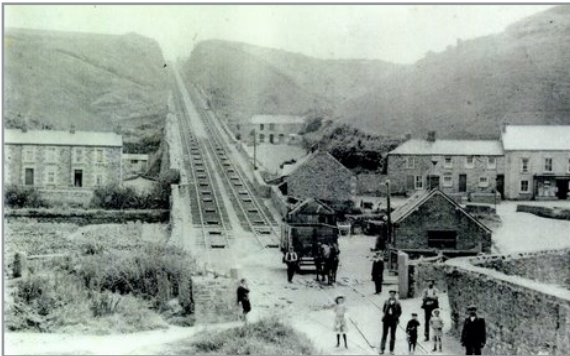
Tramroad knocked back by competition

It wasn't long before competition arose in the form of the Redruth & Chasewater Railway. Opened in 1824, it linked Poldice with Devoran, a year round port. Initially the wagons were horse drawn but later they were converted to steam – unlike cast iron, the wrought iron rails could take the extra weight.

Devoran rapidly became one of the largest copper exporting ports in the world. Portreath's trade fell...but not for long.

Portreath's comeback – the Portreath Branch of the Hayle Railway

Portreath's fortunes were revitalised in 1837 when a branch line of the Hayle Railway connected the port to mines in Camborne and Redruth. In order to transport wagons from the top of the cliff to the harbour, the Inclined Plane was built – a massive 1:10 slope cut through solid rock. A stationary steam engine at the top hauled a laden coal wagon up with a cable, whilst an empty wagon was lowered at the same time as a partial counter balance.



The Incline

Despite some nasty accidents, the system worked well until the line was closed in 1936. During the Second World War, a wall was built at the bottom of the Incline. Some say it was following an accident with a runaway cart, others that it was to deter Hitler's invading forces from using it.

PORTREATH'S FAMOUS FAMILIES

The Bassets of Tehidy

The Bassets were one of the most prominent landowning families in Cornwall, holding the



Sir Francis Basset

Tehidy estate (near Portreath) since Norman times. Mining brought them great wealth in the early 18th century. The family owned the harbour at Portreath and often stayed in Smuggler's Cottage above the west corner of the beach. In fact, Portreath was once known as Basset's Cove.

Francis Basset (1757-1835), Baron Basset and Lord de Dunstanville after 1797, fortified Portreath in 1782. He placed four 12lb cannons above the beach (where Battery House now stands) and two above the harbour to protect the cove from French invading fleets or privateers (private sailors authorized by their government to attack foreign ships during wartime).

The Basset family lived in unimaginable opulence, while the miners who provided them with their wealth lived a hand to mouth existence, often in great hardship. The Bassets erected public buildings, funded charity schools and gave food to their tenants at Christmas. In the festive season, they also remembered the miners who'd been lost in their mines, giving food and clothing to their widows.

The Fox family

The Fox family of Falmouth was involved in many industries including shipping, fishing, and mining. They developed the Welsh Fleet and had interest in south Wales' copper smelters. In partnership with the Williams family, they developed the port at Portreath, and the tramroad which connected it to the mines at North Downs and Poldice.

The Williams family

Several generations of the Williams family were dominant in the Cornish Industrial Revolution. John Williams the Second initiated the construction of the Great County Adit in 1748. This 40 mile system of interconnected tunnels drained water from over 60 mines in the Gwennap area.

John Williams the Third was involved in copper mines in the Portreath area – at Treskerby,

Scorrier, Wheal Chance and Poldice. He also had extensive interests in ironworks and copper smelting in south Wales. He developed the harbour at Portreath, and the tramroad which linked to his mine at Poldice. Williams was also Director of the Cornish Bank.

The Bain family

Until 1886, Portreath harbour was owned by the Bassets and leased to the Fox Williams partnership, which later became Williams & Co. Donald Bain worked for John Williams, and was promoted to Chief Cashier in Portreath. He took over as manager of the harbour, a responsibility which was later passed on to his son David.

David Wise Bain built up the well known Bain's fleet of coastal colliers, and became one of the most successful merchants and ship owners in the West Country. The family lived at Glenfeadon House, Portreath.

HEAR IT, SEE IT!

The following information and images will help with your enjoyment and understanding of the Portreath audio trail.



Track 2 Ore hutches

The eastern quay was once lined with hutches where copper ore was stored awaiting shipment. Most were demolished when the eastern cliff was cut back around the end of the 19th century, but some survived until recently.

Track 3 Fixed steam crane

The crane was used to lift the timber baulks which formed a storm barrier across the Inner Basin. The crane lifted the baulks, then swivelled round and slotted them into metal grooves in the harbour walls.



Fixed steam crane



Pilot's Look out. Photo: Audio Trails

Track 4 Pilot's Look out

The violent seas at Portreath made it very difficult for the sailing ships. Men were stationed in look out stations to signal to ships whether it was safe for them to pass. This is how the system worked:

The Lower Pilot's Look-out flew a red (yes) or white (no) flag during the day and shone a standby white light followed by a red light (yes) or a green light (no) at night to indicate whether it was safe to enter the harbour or not. A man changed the flags but did not stay there. The Pepperpot (daymark) probably had a man on duty permanently looking out for ships, with a similar signalling system. The little round hut at the end of the pier (popularly known as the Monkey House now but not then) was principally for shelter but when a ship was sighted from the Pepperpot heading for Portreath harbour a man was sent out to it. When he could see the ship, he ran off and alerted all the dock hands to be ready to rope her in.

Track 5 – The Escurial

The anchor outside the Portreath Arms Hotel belonged to the Escurial, a steamer which ran aground off Portreath beach during a ferocious storm in 1895. Of the 19 crew, only eight survived.



Bathing Pool. Photo: Audio Trails

Track 10 (not accessible at high tide)

The levels (tunnels) in the cliff are where miners dug copper ore out of the near vertical mineral lode or vein that ran through the rock (at an angle of around 85 degrees). Miners started on the cave floor, chipping the ore out by hand, then building wooden platforms to stand on as they worked their way up. This process is known as stoping. You can see the tunnels in the large cave at the far side of the beach.

Please do not try to access the cave at high tide.

Track 11 (not accessible at high or turning tide)

In the late 1700s, Francis Basset had bathing pools cut into the rock for his daughter, Frances. Like other Georgians, they believed in the health giving properties of salt water and cold bathing. You can still see all six of the baths at low tide.



PLACES TO VISIT

Wheal Peevor

This is a well preserved 19th century tin mine with remains of all mining operations, from pumping out water to raising, crushing and treating ore. Free access. Near Radnor, Redruth.
www.cornwall.gov.uk

Mineral Tramways

The Mineral Tramways offers over 37 miles of accessible cycling and walking trails around Portreath, Camborne and Redruth, including the famous coast to coast trail.
www.cornwall.gov.uk

Bike Barn and the Mineral Tramways Exhibition

Discover Cornwall's tramroad history by browsing the exhibition at the Bike Barn at Cambrose, where you can also join a guided bicycle tour or hire your own bike.
www.cornwallcycletrails.com

East Pool Mine

Run by the National Trust, the mine has one of the largest surviving Cornish beam engines anywhere in the world. Visit the new exhibitions to find out more about Cornwall's days as a centre of industry.
www.nationaltrust.org.uk/east-pool-mine



Carn Brea. Photo: Kirstin Prisk

Carn Brea – the De Dunstanville Memorial

Constructed in 1836, this 90ft granite column at the summit of Carn Brea near Redruth was erected with money donated by the public in memory of Francis Basset, Lord de Dunstanville. The Bassets were one of the most important and influential Cornish mining families, and Baron Basset's funeral was probably one of the largest ever witnessed in Cornwall. The local mines were closed for the occasion and around 20,000 people gathered at Tehidy Park, his ancestral home, for a procession to Illogan Church where he was buried. Find out more about the Bassets on the Portreath audio trail.

King Edward Mine Museum

In Troon, near Camborne, the museum specialises in the history of Cornish mining and tells the remarkable story of how the mine, probably the oldest complete mine site in Cornwall, has survived for 100 years. The carefully restored machinery in the tin processing mill can be seen in action just as it would have operated in the early 1900s.
www.kingedwardmine.co.uk

Blue Hills Tin Streams

Blue Hills is owned and run by a Cornish family who has been involved with mining for generations and has been producing tin in the Trevellas Valley, near St Agnes, for 35 years. You can still see traditional tin streaming and smelting in operation at this fascinating site.
www.bluehillstin.com



Tolgus Tin

Tolgus Mill near Redruth is one of a very few sites in Cornwall which retains authentic machinery used in tin ore dressing (processing). After full commercial production ceased, the mill was preserved as a visitor attraction.

www.tolgus-tin.org

Cornish Studies Library

Explore your family history and find out about your mining ancestors at the Cornish Studies Library in Redruth.

www.cornwall.gov.uk/default.aspx?page=3743

FURTHER READING

'Portreath' by Michael Tangye (to be published soon, this is a much enlarged and fully illustrated version of his earlier book on Portreath)

'Exploring Cornwall's Tramway Trails, Volume 2' by Bob Acton

'Landfall Walks Books No16, Around Perranporth, St Agnes & Portreath' by Bob Acton.

For more information on Cornish Mining visit www.cornishmining.org.uk

With thanks

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Much of the information was taken from Michael Tangye's original book on Portreath, and the Bob Acton books listed above.