## Mining in the District of Braithwaite

Mining of metallic ores in the hills around Braithwaite was carried out for centuries, beginning possibly in the Roman era and continuing, somewhat sporadically almost to the end of the 20th century. No records exist for pre Elizabethan times, but the remains of the bronze-age open-hearth smelters have been identified.

Mining commenced seriously when Queen Elizabeth I established the Company of Mines Royal, and brought miners from Germany in the 16th century. Copper and lead were the principle ores extracted and a large smelter was established in Keswick.

The sites of twelve mines can be visited in the Newlands valley and Coledale. Some were quite large enterprises and were worked for long periods, whilst others had short lives until their veins petered out, or working conditions became impossible.

Prior to the invention of dynamite, all excavation was done manually by hammer and chisel, so that extraction was a very slow process. Thus, the access tunnels are very low and narrow, allowing just sufficient space for a man to pass - they were known as "coffin levels". Illumination was minimal, just a tallow candle stuck on a ledge with a lump of damp clay. The extracted material was barrowed to the mine entrance and tipped onto "dressing floors" where the ore was broken into small pieces and the ore body separated from the base rock. This waste was tipped to the side to form the waste heaps which now mark the location of the mines. The cleaned ore was loaded onto pack-horses and dispatched to the smelter.

The working conditions were extremely arduous. After dynamite was introduced, the drilling and blasting of the rock greatly increased production but the fumes and dust from the blasting made for a poisonous atmosphere. This, together with the physical exertions meant that miners lived very short lives, on average only 42 years.

The miners' homes were mainly in Braithwaite but during the week men working in the more remote mines lived in "bothies" close to the mine, returning at weekends to an overcrowded cottage with no electricity, no sanitation and no public transport.

Brief details of the mines follows:

Because in general the ore veins are formed vertically, the location of an ore vein is found where it outcrops at the surface and all the earliest mines were

worked by digging down along the line of the vein. Subsequently, access was gained by driving a tunnel into the side of the ridge until the vein was struck. These horizontal access tunnels are known as "levels". Levels driven low down in the hillside greatly assist the drainage of the mine.

1. **Dale Head,** C16th to 1850, is a small remote mine at the head of Newlands Valley, and high up under Dale Head crag which is difficult to access. It was a copper mine worked by small groups of men in about 1570 for only a few years, which was abandoned for 100 years. No records exist for another 100 years or so until in 1805 it started up again and produced outputs of about 150 tons per year until 1833, when the venture ran out of money! Further ventures were undertaken but the difficulties of working for poor returns were too great and the mine closed finally in 1848.

2. Long Work, C13th. to 1922, a deep open cut across the floor of Newlands Valley at the foot of Dale Head. This was a copper mine with the vein averaging 5 ft thick. According to available records, it was worked intermittently from 1569 to 1733, then very briefly in 1922. The ore was hand dressed on site, and processed at a smelt mill lower down the valley, possibly at Goldscope. 15 to 20 men were employed here at times, and they lodged at the various farms in the valley.

3. **Castle Nook**, C17th. to 1918, a lead mine in a bluff projecting into upper Newlands, on the West side of High Spy. The working was established before 1698, but not much is known until 1835. This mine worked for brief spells only. In 1859 a water wheel was erected, dressing floors were put down and 18 men employed, but it closed in 1864, to reopen briefly in 1917, and close again one year later, never to open again!

4. **Goldscope,** the most well-known; C12th to 1923, located at the end of the ridge running North from Hindscarth. It is famous because the Company of Mines Royal brought expert German miners from Augsburg to develop the workings in 1564. Copper and lead was mined here until 1650. It was closed during the Civil War, and remained closed until 1847. It reopened but worked only sporadically, finally closing in 1923.

5. **Yewthwaite**, C16th to 1893, a copper and lead mine, situated on the West side of Catbells and close to the hamlet of Littletown in the Newlands Valley. The early work was surface only; no records exist for underground working before the latter part of the C18th. Determined development commenced in 1819, but Yewthwaite was always the poor relation of Goldscope, so that work

was intermittent, the ore was difficult to win, and the mine closed in 1869 in serious financial difficulties.

6. **Stoneycroft,** C17th to 1854, the site of this old mine is to be found in the deep gorge of Stoneycroft Ghyl, about a 100 yards up from the Newlands road bridge. The oldest records date from 1680, when it was noted "we found ore a foot thick and we sunk right down 7 fathoms, but ye water was too strong for our pumps, so we left off, having got a good quantity of ore". The next records are dated 1847, when the shaft was sunk a further 20 fathoms but the ore was of poor quality. In 1853 the shaft was sunk another 6 fathoms, but in 1854 all work ceased due to mounting financial loses.

7. **Uzzicar**, 1833 to 1896; lead and zinc ores were worked here. The mine is on the opposite side of the Newlands valley road from Barrow mine, overlooking Uzzicar farm. A 60ft waterwheel was erected to deal with the influx of water into the workings, which was the largest waterwheel in the North of England. Traces of this wheel and of the ore dressing floors can still be seen on site. By 1887 the company was in liquidation and a lease was taken by the Braithwaite Mining Company. The shaft was deepened to 72 fathoms (152ft) but by 1889 it too was in liquidation, and in 1896, all plant and machinery was sold.

8. **Barrow**, very prominent workings clearly visible on both flanks of the North ridge of Barrow. A very old mine, possibly Roman in origin, little information is available until 1830 when it was prospected, and serious work started in 1847. From 1854 to 1857, 300 tons of lead ore were taken, and from this 1700 ounces of silver were extracted. By 1858, all worthwhile ore had been taken and the mine closed.

9. Scar Craggs, 1822 to 1850, has the distinction of being the only cobalt mine in Cumbria. It opened very briefly in 1822, then again from 1845 to 1850, the veins soon petered out. Considerable expense was incurred in development work, not only in constructing a long access road up the valley from Stoneycroft Bridge to high up on Scar Craggs, but in building a blacksmiths shop, a smelter, and a wagon way. It proved to be the biggest financial flop in the area. Only 100 tons of ore was won!

10. **Force Crag,** pre-C16th to 1992, at the head of Coledale, was the largest of all the mines in the district, with a longer working life. It was a lead and zinc mine in its early years, and was possibly worked by the Romans. From 1900 it was principally mined for Baryte (Barium Sulphide). Thousands of tons of this mineral were taken, by up to 80 men employed during the two World Wars, when baryte was used in the manufacture of munitions. There are seven

entrances (levels) to the ore vein which extends from below the valley floor to high up the side of Grisedale Pike. Only small groups of men on short leases worked the mine intermittently after World War 2 until 1992 when the mine closed following a heavy rock fall which blocked the lower levels, and the subsequent flooding was too costly to overcome.

The site of this mine has been designated a site of special scientific interest (SSSI) as the ore crushing mill remains complete. The National Trust now owns the site and holds Open Days with guided tours, several times during the Spring and Summer holiday season.

11. **Rachel Wood**, 1872 to 1919, a branch development of Thornthwaite mine, situated in the woods, about 80ft above it, It was very productive in the early C20th, but suffered the same fate as the other mines due to the slump in prices after the Great War.

12. **Thornthwaite**, 1842 to 1921, is situated at the North end of the village, right by the road side where the original mine buildings are occupied by a commercial garage. Lead and zinc ores were mined here. In its early years the working conditions were very difficult due to the hard rock. Four ventures tried to make a success of the mine but all ran into financial difficulties until 1890, then for the next 4 years 700 tons of blende and 400 tons of lead were produced, then in 1894, under new management and using up to date technology, the mine prospered. However, following the general slump in markets after the First World War, there was a severe fall in the price of lead and zinc, leading to closure of the mine in 1921.

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## **Recommended reading**

Mines of the Lake District Fells by John Adams Mines and Mining in the Lake District by John Postlethwaite Mining in the Lake Counties by W T Shaw Books on individual mines by Ian Taylor