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THE COPPER MINES OF SNOWDON

JOHN AND RUTH NEILL

Editor's note: My wife has again done most of the work in the preparation of this article. It concerns the mines in the central part of the Snowdon district. Little has been published as a connected account of these mines in the past, but our researches have shown that a good deal of information can be unearthed. The present article records what we have found so far, though there is little doubt that much more can yet be uncovered.

One side-thought concerns the name “Pig Track”, as it appears on one of the diagrams illustrating the article. This name has long been the subject of controversy, some spelling it “Pyg Track” (as on the Ordnance Survey) meaning the track to Y Wyddfa from Pen-y-Gwryd, while others render it “Pig Track” (as in the recent official guide to the Snowdonia National Park), saying that the name is derived from Bwlch-y-Moch, where the track crosses the ridge between the Grey Cliffs and Crib Goch.

The present P...T... was created in the 1880s, as a more direct route to Y Wyddfa from Pen-y-Gwryd via Pen-y-Pass than the two existing routes, the mines road and the pony track, by habitues of Pen-y-Gwryd of whom a leading light was Halliday (the “Tom” of Pont Tom — see diagram). But only the section between Pen-y-Pass and Bwlch-y-Moch was new, as the part beyond Bwlch-y-Moch utilised the old pony track (probably first a miners’ track) and on the zigzags the miners’ track from Glaslyn to Bwlch Glas; the zigzags have the Welsh name Llwybr-y-Mul, i.e. mule path.

It is uncertain how old the name Bwlch-y-Moch is, and some maintain that it is a modern offspring of “Pig Track”, which is therefore a corruption of “Pyg Track”. But Dr. Elfyn Hughes has pointed out to me the relics of transhumance to the east and north of the lower end of Llyn Llydaw; the site of a hafod, in the midst of relatively rich pasture, is marked on the diagram in this article, while there are remains of an old wall near Bwlch-y-Moch which may have been intended to prevent livestock straying onto more dangerous ground further west. So Bwlch-y-Moch may well be an old name, and be derived from pigs kept by the dwellers in the hafod, the bwlch representing the furthest limits of the wanderings of these beasts.

I thus propose the hypothesis (which does not seem to have been suggested before) that both “Pyg Track” and “Pig Track” are correct; that when the habitues of Pen-y-Gwryd coined the name they intended it to refer both to the quickest route from Pen-y-Gwryd to Snowdon and to the route over Bwlch-y-Moch. This innocuous double-entendre was just the sort of rather feeble pun in which the later Victorians delighted.
MOST OF THE COPPER MINES of the Snowdon area were associated with small veins of low-grade ore and the workings, with the exception of those at Drws-y-Coed and Llanberis, had no great success. As with many other mining ventures in this country and elsewhere a great deal of money was lost through speculation in optimistic companies, particularly during the nineteenth century.

Although the copper mines of Caernarvonshire had all ceased to work by the Second World War their traces are still evident in ruined buildings and yellow spoil heaps. Many of the paths which the present-day walker and climber use were originally made by the miners, such as that over the Glyders from Pen-y-Gwryd to the Holyhead road. The path which climbers take to reach Clogwyn-du'r-Arddu, branching off the Llanberis route up Snowdon above the Halfway House, was the way to the Clogwyn Coch mine: a constructed path, built up where soil slip was likely to occur and contoured so as to provide the easiest way for man or pony. The men working at the mines were incredibly tough by modern standards, walking great distances from their lodgings in all weather, winter and summer, often carrying sacks of dressed ore on their backs to the nearest road. Some mines in remote cwms provided barracks for the workers, who were then able to go home for weekends and holidays.

The ordinary miners and labourers employed by the various companies were usually local men, while the captains and managers seem mostly to have been Cornish, and therefore of great experience. And Captain Thomas Julian, who had been manager of Great Wheal Vor and Sithney Wheal Metal in Cornwall, was called in to confirm the opinions of the directors of the Great Snowdon Mountain Copper Mine in 1872 about the future prospects of their enterprise.

Tradition has it (as with most metalliferous mining districts in this country) that the Romans mined copper on Snowdon. No evidence has been found to substantiate this claim, although the Romans did have mines on the Orme’s Head and at Parys Mountain in Anglesey. The Anglesey mine was considered so important, according to Professor Richmond, that the Roman garrison at Segontium was maintained to protect it for some years after that at Chester had been withdrawn. The copper of Anglesey was then neglected after the final Roman withdrawal and forgotten until the eighteenth century.

The mines in the Nantlle valley were being worked during the thirteenth century and Edward I is said to have visited them. The Tudor Company of Mines Royal was not interested in Welsh copper,
and concentrated on the silver and lead deposits in Cardiganshire which during the Civil War provided silver for the Royal Mint at Aberystwyth. Only in the mid-eighteenth century did a new demand for copper arise, especially when the metal began to be used for covering the bottoms of warships to prevent worms boring into the wood.

A group of Cornish adventurers was working at Drws-y-Coed in 1761, and a Macclesfield company, Messrs. Roe, taking a lease of Penrhyn Du in Lleyn, were required by the landowner, Sir Nicholas Bayley, to prospect also on Parys Mountain. In 1768, after some years of fruitless exploration, the company made the strike of what proved to be the richest copper mine in the world for the next thirty years. The Macclesfield company had several other mineral interests on the mainland upon which they were obliged to concentrate when their Anglesey lease expired in 1785. One of these, known as the Llanberis Copper Mine, was at the head of Llyn Peris, on the slopes of Snowdon, and they may well have worked the Clogwyn Coch mine at this time. It was a miner from Clogwyn Coch who opened the first refreshment hut at the top of Snowdon.

The Llanberis Mine was active in 1762 and continued until some time after 1838. The vein runs from quite near the lake up the hillside for 250 feet, and it has been mined away vertically for about 100 feet, with numerous shafts, levels and open gunnises. The dressing floors are the subject of a painting by Warwick Smith, dated 1792, in the Lady Lever Art Gallery. Before the road through the Llanberis Pass was built in the early 1800s the dressed ore was taken to the foot of Llyn Padarn by boat, and taken on by road to the port at Caernarvon. Most of the Welsh ore went to Swansea for smelting, although there were furnaces built to take low-grade copper at Amlwch.

The Rev. W. Bingley, visiting the district in 1797, mentions one Margaret Evans who built and worked her own boats on the Llanberis lakes while under contract to carry ore.

The last lease taken of this mine, with all the others in the parishes of Llanberis and Betws Garmon, was that granted to E. H. Hartmont in 1889. No work seems to have been carried out there, for Hartmont was bankrupted as a result of his mining activities.

Other mines were started during the boom in copper in the Nantgwynant and Aberglaslyn areas. Two are situated in Cwm-y-Llan, Braich-yr-Oen and another near Plas Cwm Llan which may be one of the two Lliwedd mines mentioned in various books on the
district. The Lliwedd Bach mine, at the extreme head of Cwm Merch, has a good cart road leading up to it from Hafod-y-Llan. The ruins of a large office, dressing plant and cast iron water-wheel may still be seen. This mine looks as if it was still being worked early in this century.

Below Llyn Dinas there are various mineral veins around Beudy Bedd Owen, and old workings here are indicated in the prospectus of the Great Aran and Snowdon Mine, dated 1872. This company proposed to investigate the older workings 1,000 feet up on the slopes of Yr Aran, where numerous hypothetical lodes are shown on their plans. Here the miners carried the sacks of dressed ore to the road below, a mile and a half away, though a road was constructed in later days which probably took carts. The plan of this mine, like that of the company at Cwm Dyli, indicates the line of the narrow-gauge railway which was proposed at that time to run up Nantgwynant and go to Betws-y-Coed by way of Capel Curig. This was, of course, never built in the end, but it would have been advantageous to the various mines.

The workings on Moel Sygun are visible from the road. Various levels and heaps of spoil mark the courses of the respective veins, and the dressing floors near Cae'r Moch were used for the foundations of a "Chinese" building when the film unit was here in 1958. This mine was working in the sixteenth century, according to Jenkins; it was certainly active during the wars with Napoleon and later until at least 1843, as an account book for this year is preserved in the library at Bangor. The lodes seem to run straight through the mountain to outcrop in Cwm Bychan on the east side, where a small mine was working about 1720 and then later in 1872. This little valley was the scene of the last active copper mining in Caernarvonshire, when a company started in the 1920s reopened some of the old levels, building a dressing plant beside the railway track near Nanmor village and a telfer to bring the ore down from the workings. The company went bankrupt in the Hatry crash, and the equipment was sold for scrap, possibly to the late W. O. Williams of Harlech — "Will Scraps". The dismantling was never completed, for in the upper part of the cwm about 500 yards of telferage still stand, complete with cables and buckets.

In Aberglaslyn there are old levels on both sides of the river. Ore from the Bryn-y-Felin Mine was dressed beside the river at the "Hen Stamps", the wheel pit of which can still be seen. Most of the
Aberglaslyn mine has been swallowed up in the undergrowth in the grounds of Aberglaslyn Hall. The stamps for it was farther down river, and has since been converted into the stables of the Hall. The ore from here was formerly shipped direct from Pont Aberglaslyn, before the embankment was built at Portmadoc.

The mine most familiar to walkers and climbers must be that in Cwm Dyli, with its ruined crushing mill on the shore of Llyn Llydaw. This was known at various times as Cwm Dyli Mine, the Great Snowdon Mountain Copper Mine, and, more recently, as the Britannia Mine. The five main copper lodes were worked by levels all over the rocky slopes between Glaslyn and the Snowdon Gullies; these lodes were thought to join beneath the centre of Glaslyn. One silver lead lode crossed the copper lodes roughly at right angles.

The mine was working in 1810, and probably earlier. Jenkins remarks that very ancient copper smelting refuse had been discovered at Gwastad Annas about 1850, and that although some thought it to be of Roman origin it could not have come from the mine on Snowdon as this was a fairly recent discovery. In the early days of the mine there were no carriage roads nearer than Beddgelert, so the labourers carried sacks of dressed ore up the zigzag path to the summit of Snowdon, and then took it by sledge to the road between Caernarvon and Beddgelert. When the road up the Llanberis Pass was built in the early 1800s it was obviously less trouble to take the ore to Caernarvon by this route. The path which is today known as the Pig Track is in all likelihood the way which the miners built to reach Pen-y-Pass, where there was a storehouse for the dressed ore, but they almost certainly followed the line of the pony track to the south and east of Bwlch-y-Moch to avoid the more difficult ground. The level of Llyn Llydaw was lowered in 1856 in order to construct a proper cart road to the mine around the shores of the lake. The miners’ barracks by Llyn Teyrn was probably built at the same time in what must have been a very damp position; and the building was soon abandoned. There was no causeway across Llydaw originally, but a raft was used to take horses and carts across. One day the raft capsized, the horse was drowned, and a valuable load of ore went to the bottom of the lake. As a result of this it was determined to build a causeway across the lake, and this was carried out for the mine company by David Jones of the Prince Llewellyn Hotel, Beddgelert.

The Great Snowdon Mountain Copper Mine Co. was active in 1872. Between 1858 and 1865 £4,297 worth of ore had been sold, and
THE MINES ON SNOWDON

B = unidentified building, miscellaneous building
C = crushing mill, dressing floors
L = level
M = manager's house
MC = miners' cottages (barracks)
O = office
P = magazine, powder house
S = shaft
SH = storehouse
Sm = smithy
St = stables
T = trial level
W = miscellaneous workings, quarries et

The Roman numerals indicate probable periods of use:
I = before 1858 (e.g. ca. 1810)
II = 1858-65
III = 1872-4
IV = 1898-1916

ISED UPON THE ORDNANCE SURVEY MAP WITH THE SANCTION OF THE CONTROLLER OF M. STATIONERY OFFICE, CROWN COPYRIGHT RESERVED
the company thought they could do better than this. Indeed, with glowing testimonials from various mining experts, their estimated annual profits were inflated to no less than £112,548. In their prospectus of 1872 they stated: “An extraordinary discovery . . . is confidently expected at the great junction of lodes and courses in the bottom of the Green Lake.” The rich ore which they expected to lie there was to be reached by the draining of Glaslyn, but a Government geologist was brought in to advise and he thought it wiser to concentrate on the lodes above the lake. The drainage scheme would obviously prove costly, and in any case the lake was an excellent source of water power for the crushing plant.

The prospectus mentions that Henry Owen of Pen-y-Gwryd was at one time in the 1860s the local agent for the mine.

The first report by the manager, Edmund Spargo, was made in April, 1874, and was not very hopeful. Before this there had been some trouble between two of the captains, and in December, 1873 the company secretary had written to one of the directors saying that he had no belief in any “large body of ore” above the lake. There had been considerable capital expenditure: the tramway to the crusher at the outlet of Glaslyn had been relaid, a new barracks was being built for 100 men beside the lake, and a new cart road built between the barracks and the crusher. Only about 13 tons of ore had been gained from underground work (about a third of the copper produced from this mine came from “halvans” — rock debris from old spoil heaps and screes). Transport difficulties had been encountered, as the company owned only two carts and for some reason were unable to hire more locally. Apparently the shareholders were concerned about the large expenses incurred by the London office of the company, and about the salary which the secretary was being paid, for in a draft scheme dated a few days later it is suggested that the costs be drastically reduced. In the same month, however, the manager was stating that he feared the company faced liquidation: “All operations at the mines are suspended and most of the workmen paid off . . . the London management has been very bad although I fear the directors have been a party to it.”

Spargo’s fears were shortly realised, and the company was liquidated. In 1889 a London merchant, E. H. Hartmont, took up the lease together with leases of mines on the Vaynol properties. He spent £38,000 in eight years and then went bankrupt. Another London man, George Charles Howard, tried to make the mine pay, but also
lost money before he handed over to the Britannia Copper Mine Co. in 1898.

Most of the buildings which stand today were built at about this time by these various concerns. The most obvious is the crushing mill beside Llyn Llydaw, which was worked by a waterwheel supplied by a leat running from Glaslyn. The manager’s house, a substantial building, stood beside it. A telfer cableway brought the ore in buckets across Glaslyn and down to the crusher, and the road up to Glaslyn was good enough in those days for Arthur Lockwood to drive a car there.

The manager, C. Vercoe, was a Cornishman who had worked in mines all over the world, and he remained until the mine finally closed in 1916. In 1910 and 1913 assayists reported unfavourably on the ores being raised, and it must have been quite obvious that these were continuing to be of poor quality.

The North Wales Power Co.’s power station below Cwm Dyli was built about 1905, and the company constructed sluice gates at the outlet of Llydaw to raise the water level, also being obliged to raise the causeway for the mine company. A retired naval rating living at Pen-y-Pass used to act as postman for the mine, and on a night of exceptionally strong gales was apparently blown off the causeway and drowned.

In 1915 the mine company installed a quantity of new plant, but as costs rose and the copper failed to improve the Britannia Company was wound up in 1916. All the plant that could be taken away was sold for scrap, but two of the heavy crushers fell off the lorry removing them when it got stuck in a ditch, and are still there where they fell.

The buildings, road and causeway have all deteriorated owing to the heavy rainfall and frost action. The timbering in the levels is rotten and they are unsafe to enter. Part of the zigzag path used by hundreds of walkers each year passes over an old open gunnis just above Glaslyn, supported on timber of doubtful strength.

Included on the mine plan of 1872 are two other workings whose histories are unknown: two levels in “the Great Sulphur Lode” (this may mean copper pyrites) ½ mile south of Pen-y-Pass beside the mine road, and a honestone quarry in the Gwastadnant Grits on the south-east slopes of Moel Berfedd. Buildings and a small cottage stood below the quarry, where the pill-box is now.

There were a few small mines in the Nant Ffrancon dating from
the late eighteenth century, but little is known of them. The mines of the Llanrwst lead district were active a hundred years ago, and one, the Parc Mine, which stopped production in 1958, was recently reopened for a short period for experimental work on ore treatment. An attempt was made in the 1930s to mine gold and platinum on Moel Siabod, where some of the strata do in fact bear a trace of gold, but this failed.

Documents relating to many of the various enterprises are rare, having been destroyed either accidentally or deliberately, and because in many cases records were never kept. The fragmentary evidence available can be put together to gain some idea of the nature and activity of the companies, and there is always the possibility that more may come to light.

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