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THE
CWMYSTWYTH
MINES



Simon J. S. Hughes.

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by

SIMON J. S. HUGHES

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AUTHOR'S PREFACE

My first introduction to the Cwmystwyth Mines was on a cold blustery day in 1967. Since then I have collected all the available material on the mines, been into every accessible passage, stope and sump, surveyed the area more times than I care to remember and suffered bodily damage more times than on any other mine site.

To me the Cwmystwyth Mines are the most fascinating group in the British Isles and in this volume I will try to give as accurate a portrayal as is possible, though I must emphasise that my research will never be complete. This) volume therefore only represents an up-to-date account.

None of the field work on the site would have been possible without the valued assistance of the North Cardiganshire Mining Club and in particular John Ashton, Robin Hill, Dai Roberts, Bob Prichard, Davy Ely, Steve Colley, Harry Hughes, Jon Timberlake, Arthur Beechy, John Donovan, Anthony Williams, Steve Evans, Phil Nuttall, Howell Stubbs, Tony Jarrat and last, but far from least, Paul Bird, who caused more 'held breath' than anyone else. Thanks are also extended to the South Cardiganshire Mining Club, the D.C.W. Caving Club and the Cwmystwyth Mining Co. of Solihull for their support. The practical work of Peter Watkin, Peter Harvey and my brother Nick in finally re-opening Level Fawr in 1970 has probably been the most valuable exercise to date but is only appreciated by those who remember the previous method of entry.

Most of the archival research has been carried out in the National Library of Wales at Aberystwyth. I thank the staff for their unending patience. Archival credits are also due to the Mining Records Office, The Institute of Geological Sciences, Consolidated Goldfields, The Royal Institution of South Wales, H.M. Inspectorate of Mines at Cardiff, The College of Librarianship of Wales, Messrs. Holman Bros, The Rev. D.H. Williams, Mr. J.D. Wilson, The Royal School of Mines and The Cambrian News.

Oral information and personal reminiscences have been supplied by the following: Glyn Burrell, W.D. Hopkins, Thomas Morgan, Alfred Edwards, Morgan Morgan, Alfred Jenkins, David Evans, Thomas Jones, Jack Edwards, James Raw, David Roberts, Mrs. A. Sidebotham, the late Mrs. D. Rees, the late Miss Mari Evans and the late Albert Williams.

Photographs reproduced in this volume are by courtesy of the following: National Library of Wales Pls. V; Russell Bayles Pls. III, IV, VI; Beamish North of England Open Air Museum Pls. VII, VIII, IX, X, XI and XII; the remainder are from the author's own collection.

Research is at present being carried out at Cwmystwyth and other sites, to try to establish some dates for the earliest workings. It is hoped that supplementary papers on the antiquity of the mine will be produced over the next four years in order to inform readers of new information so that they may update the volume by means of the blank pages left at the end of the text.

SIMON J.S. HUGHES,
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Talybont, 1980

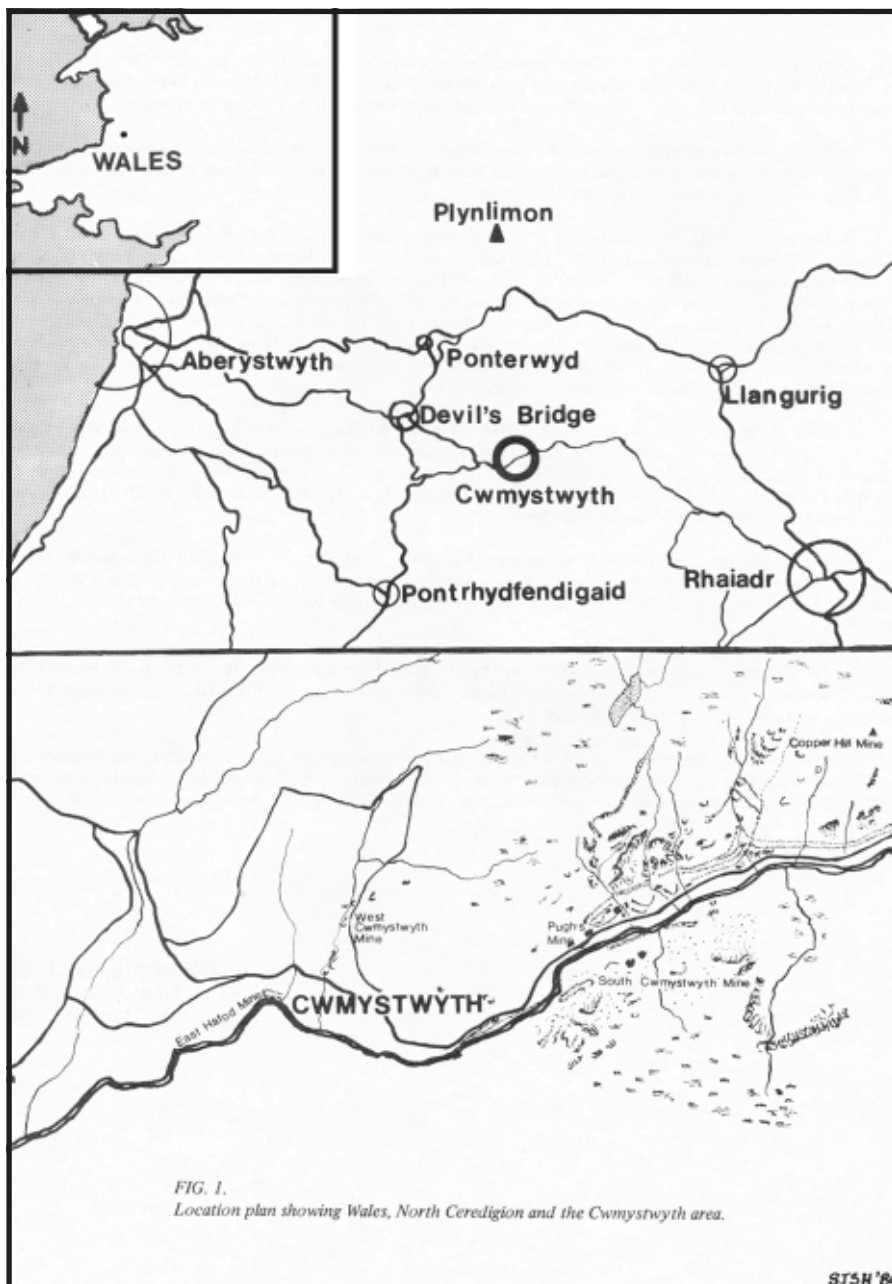


FIG. 1.
Location plan showing Wales, North Ceredigion and the Cwmystwyth area.

CHAPTER I

History of the mine up to A.D. 1500

This is a period of great speculation on very little information. The first traces of man in Ceredigion, formerly Cardiganshire, appear during the Neolithic or New Stone Age and there has been a total absence of remains of this era in the vicinity of the upper Ystwyth Valley. This is hardly surprising as the environment is hostile but the lack of remains should not be interpreted as proof that early man was absent from the valley.

Traces of the Roman occupation of the county are however more common. Four miles to the N.N.E. lies the fortlet of Cae Gaer, whilst eight miles downstream, alongside the River Ystwyth, lies the fortlet of Trawscoed and the main north-south Roman Road of Wales known as Sarn Helen. To the west of Cwmystwyth, seven miles distant lies the fortlet of Esgairperfedd. The Ordnance Survey map of Roman Britain shows a site of a Roman find on Copper Hill but this is incorrect. The extent of the Roman evidence for mining at Cwmystwyth is far from being conclusive; some bits of lead pipe and trivia from Trawscoed and a quartz cobbled floor at Cae Gaer.

Thirty miles to the south lies the Dolaucothi Mine which has been established as having been worked by the Romans, but this only proves that the technology of organised mining and complex ore dressing existed in the area before A.D. 100.

On the mine site itself, particularly on Copper Hill, one can find bruised stone hammers and quern stones. These are undatable and may be as late as 18th Century. Very small adits cut without the use of powder and opencast workings wrought by fire setting can also be seen. These are unlikely to be later than the 17th Century but no *terminus post quem* can be ascribed. On the south western slopes of Copper Hill, over 60 acres of topsoil have been moved by hushing, a practice used greatly by the Romans at their Spanish gold mines and also on a smaller scale at Dolaucothi, but again this provides no *terminus ante quem* and written records show that this type of hydraulic mining was being used on the site as late as 1785.

These facts were presented before a select committee of the British Association for the Advancement of Science in 1935 under the auspices of Professor Oliver Davies. After some minor excavation a report was produced and published in *Archaeologia Cambrensis*. (1947 pp. 57-63). Concluding his evidence Professor Davies states:-

“We cannot do more at present than guess at the date of the Comet Lode opencast. I am inclined to think that the hammer querns are old Celtic, approximately contemporary with the Roman period, though surviving after it;”

It would seem unlikely that any exploitation of the mines took place immediately after the withdrawal of the Romans from Wales and none of the contemporary writings before the 11th Century suggest otherwise. Wales during this period was usually in turmoil and the inhabitants resumed the roles of hunters and peasant farmers. Gold and silver are frequently mentioned in the *Brut y Tywysogion* but the context applies to the spoils of war rather than to their fabrication from ores.

There can be little doubt that the next miners – or possibly even the first – were the Cistercian Monks from the Abbey of Strata Florida or else persons appointed by them as miners.

The first monks to arrive in the area settled about eight miles to the south west of the mine at an Abbey known as Hen Fynachlog. The generally accepted date for the completion of this first Abbey is 1164 with a monk named David being appointed the First abbot. Due to philanthropy and, possibly, a natural disaster, a second Abbey was built and completed in 1201. This Abbey was one of, if not the grandest in Wales. It retained the name of Strata Florida and, had as its first abbot Sissilus, who was the abbot of Hen Fynachlog when it was visited by Giraldus Cambrensis and Archbishop Baldwin in the year 1188. Alas, Gerald in his *Itinerary through Wales* did not pass down the valley of the Ystwyth, nor did he dedicate many paragraphs to the area.

It is in the remains of the new Abbey that the links with mining become evident. The monks were obviously capable engineers, in that they built a leat system for their corn mill and used part of the tail race to flush their underground sewers. Their fresh water was brought to the Abbey by means of a 4" diameter lead pipe. Stephen Williams, in his account of the Abbey, relates how part of a smelting furnace was found close by, and since smelting slag was strewn about the grounds, and on the strength of an assay done on one of the finds from the 1887 excavation concluded that the monks practised cupellation due to the low silver content of the metallic lead.

[5]

During the 13th and 14th Centuries the boundaries of the mine fall within three divisions: (i) the Parish or Lordship of Uanbadarn Fawr; (ii) the Grange of Cwmystwyth; (iii) the Tenement of Briwnant. Categories (ii) and (iii) at this date can make reference to no site other than Cwmystwyth, the Lordship of Llanbadarn Fawr however covers the northern half of Ceredigion and references to mines at Llanbadarn could refer to anyone of a dozen or more sites. Bearing this fact in mind, reference can be made to a report of circa 1282 in which it is stated that from a single, but important, lead mine at Llanbadarn the King's royalty was 1/9th of the produce with the option of the remaining 8/9ths at the current market price of 1s.4d. per fotmell which was the weight unit for lead ore equal to 69 lbs. (24 fotmells make 1 cartload of 1660 lbs.)

A similar description comes from the Minister's Accounts for West Wales in 1301. The correspondent in this case refers to the tithe as every ninth foot and calls the tithe a formel. Thirty-nine feet had been sold that year plus the 1/9th formel or formell making the output for A.D. 1300 just under 3,000 lbs. of ore. The commentator also notes that there was plenty of ore at the mine and yet only four miners could be found to work it.

Further reference may be made to mining by the presence of two Inspectors of Silver at Cardigan in the year 1340.

The 14th Century is poorly recorded and only a single reference can be found that would encompass the Cwmystwyth Mines as well as the other north Ceredigion mines. Henry VII granted to Jasper Tudor, the Duke of Bedford (and others) by letters-patent, the privilege of becoming governor and commissioners to his Welsh mines. This post was to be held from February 2nd 1485 for a period of 20 years. They were to pay as royalty 1/50th part of all pure silver and gold and to the "lord of the soil 1/11th part as it grows". They were also given the liberty to dig wherever they wished except under the houses and castles of the King and his subjects.

Summing up the evidence for mining before 1500, it is seen that there are no contemporary reports or accounts of mining at Cwmystwyth alone. However, an impression of the state of the mining industry may be gained and from later evidence it can be safely concluded that considerable work had been done on the Copper Hill site prior to this date.

Whatever work - if any - was done between the year 1300 and 1500, amounted to very little. Probably less than 200 tons of ore as a maximum were raised between these dates. It would certainly have been advantageous for the first Cistercians to work the mines if only to supply some of the lead used in roofing the abbey and the fabrication of pipes and the latticework around the windows. As the dimensions of the abbey are known, it can be reasoned that the weight of lead needed to roof the structure with 3/16ths of an inch sheet gives a figure of seventy tons.

Prior to 1164 it is accepted that S. W. Williams's statement that:- "..., the Welsh princes having no coinage of their own, and English gold and silver being a scarce commodity in Wales at that period" is more or less accurate.

As the early Welsh are most unlikely to have worked the mine, the only other option for pre-monastic mining is for Roman mining. Of the estimated 250,000 tons of development rock and gangue on Copper Hill, 25,000 tons are attributable to Bonsall circa 1790, slightly more from Herbert's workings of 1680; Waller between 1700 and 1708 drove 1214 yards of levels which must have produced about 2,500 cubic yards of rock or about 3,000 tons, monastic workings probably account for 750 tons of ore and allowing a 1:1 ratio of sterile rock to ore a further 750 tons can be accounted

for. This then leaves two periods, 1536 to 1660 and the pre monastic period, to account for the remaining 180,000 tons of development material.

The writer is not of the opinion that even half this amount could have been dumped in the latter period.

CHAPTER II

The recorded history; 1500 to 1900

There is enough information available by this date to confirm that the Abbey of Strata Florida controlled the tenancy of the Cwmystwyth Mines. For the origin of this control we must return to the 9th Century and the Welsh Prince known as “Rhodri the Great, King of all Wales”. To his son Cadell ab Rhodri he gave the Kingdom of Ceredigion, (later, Cardiganshire) and by direct lineage 254 years later the Lord Rhys ab Gruffudd gave to “all the sons of our holy Mother the Church, present and to come” many thousands of acres of land. This was further increased by a charter of 1184 and another of 1426 which included “possessions under the land” and “the fatness of the earth below”. This tract covered the Cwmystwyth Mines.

The first information on the mine after the turn of the century is a lease for Cwmystwyth Mine to Rhys and David ab Ieuan ab Hywel from the Abbot Richard Talley of Strata Florida. There is doubt cast upon the date of the execution of the lease. It is almost certainly 1535 but due to a complex legal situation, a forgery appears to have been made and post dated to 1505. Of associated metallurgical interest are some letters of the same period relating to a monk caught counterfeiting groats (4d pieces) in his monastic cell.

The suppression and dissolution of the monasteries was brought about by Henry VIII between 1536 and 1538, which is contemporary with the visit of Leyland prior to the publication of his *Itinerary*. Several versions of this *Itinerary* are available and all are similar in content. Here Leyland is quoted as he approaches Copper Hill on the old monastic road from Rhaiadr:-

“About the middle of this Wstwith valley that I ride in, being as I guess three miles in length, I saw on the right hand of the hill side Cloth Moyne (Anglice: Cloth or Clodd = Mine. Moyne or Mwyn = Lead Ore), where hath been a great digging for Leade, the smelting whereof hath destroyed the woodes that sometimes grew plentifully thereabout.

I heard a marvelous tale of a crow fed by a digger there that took away his feeder’s purse and while the digger followed the crow for his purse the residue of his fellows were oppressed in the pit with a ruin.”

This must be one of the earliest references to pollution from smelting and to a disaster in a metalliferous mine. It also confirms that there was a sizeable mine here and that smelting had taken place prior to his visit.

Henry VIII died in 1547 and was followed by four monarchs over a period of 11 years, the last being Elizabeth 1st who reigned from 1558 until 1603.

Elizabeth was quick to realise the potential revenue available from mining and also that the country could benefit from having its own sources of calamine for the manufacture of brass cannon, particularly during times of war. Silver was becoming a scarce commodity and if copper could be found this would also assist the treasury as well as the brass makers.

Calamine was available in the Mendip Hills around Charterhouse in Somerset. Copper ore had recently been found near Keswick in Cumberland, and Cardiganshire had lead ore which was argentiferous and cried out for exploitation. This resulted in the formation of The Society of Mines Royal in the May of 1568 shortly after founders of the society had shown interest in Cardiganshire.

The foundation and workings of the society are well recorded and best studied in Industry before the Industrial Revolution by William Rees. Basically the Society acted as an agency for the Crown and claimed all economically extracted copper, tin, silver and gold. Lead was not totally exempted from the Act as it fell into a double division: (i) Plumbum Fertile which was galena that had sufficient silver contained within it to cover the cost of cupellation; (ii) Plumbum Sterile which was of poorer quality and did not merit cupellation to extract the silver. Plumbum Fertile was the variety that occurred at the Cwmystwyth Mine and it was therefore taken under the wing of the Society. The first fifteen years of the Society were a total and utter failure as far as the Cardiganshire mines were concerned and it was only in 1583 that a lease was issued to Thomas Smythe by the president, the Earl of Pembroke. Smythe was no stranger to mining and held considerable shares in various Cornish ventures. As his manager he appointed Charles Evans who in turn engaged 40 miners. Evans reported that the mines were:-

“So wet, so win die and so ruinous that no workman was able to contynue at his worke three howrse in the daie for the abundance of water that sett upon them: ffor the great winde that wasted their light. And ffor the ymynent dannger of lowse rocks near the workes that were readie to fall upon them. And they had upon other befoer.”

[7]

Evans became so disillusioned with his miners that he followed the contemporary trend of engaging two German miners from the Harz region of Saxony: Mathias Ryley and Mathias Shillymstener, whom he described as a “conninge workmane”. Smythe’s venture first bore fruit at the Cwmsymlog Mine and he appeared to lose interest in the potential of the other mines. Although Smythe took the credit it was in fact Evans who boosted the lead output of the British mines from 300 tons per annum in 1575 to 800 tons per annum from the Welsh mines alone in 1590. Evans took the option on the Cwmystwyth lease in 1588, with John Hopwood as his partner, for a term of 21 years, but became so discontented that he surrendered his half to Hopwood in 1595.

Fortunately for the historian the validity of the lease was questioned in the light of that issued to Rhys and David ab Ieuan ab Hywel. This resulted in an inquisition and

the preserved records shed more light on the mine in the 16th Century. The inquisition was held at Tregaron on the 26th of September 1592 and mentions lead mines at Craig y Mwyn “between great rocks of stone” demised to Charles Evans in 1588, also that the mine was leased to the two ab Ieuan brothers on the 22nd of May 1505. A later reference to the inquisition, in 1595, states that the mine was then granted to Hopwood for £4 per annum with liberty of “digging and making pits and shafts” and that he had “wayleave & stayleave” for carts entering in the same way as did the abbot and that he was to “fill up all graves, pits and wells made”.

Hopwood in turn sub-let the Cwmystwyth Mines to Sir Gelly Meyrick and Gregory Price but the validity of the transaction was questioned and in 1601 the courts decided to transfer the Meyrick lease to Sir John Morley. Under Morley the mine was first let to John Callender and then to Sir Richard Lewknor who, some years previously, in anticipation had purchased the claims held on the mine by Gregory Price. Lewknor now had absolute control of the leases and in turn sold out to Sir Richard Callender, who died a bankrupt shortly after the transaction with the result that the Court of the Exchequer granted it to the widow of Sir Anthony Ashley, one of Callender’s main creditors. However Lewknor still held the main leases and had not received any rental during the case. Widow Ashley surrendered the lease rather than pay.

It should be explained at this point that a very complex legal situation was initiated by the introduction of Gregory Price and in fact the case is still not resolved! Price, somehow, had managed to acquire parts of the monastic grange of Cwmystwyth after the suppression of Strata Florida as Henry VIII had thought the land to the west of Copper Hill was not valuable, whereas he claimed Copper Hill for the Crown. The position was ratified to a certain extent by the Society of Mines Royal as they reclaimed the western part of the mine, i.e. the parts now known as Kingside and Pugh’s. There was however still the bugbear that the Crown effectively issued leases for the Copper Hill surface and minerals and, during this period, the Pugh’s and Kingside minerals – but not the land. Therefore, effectively, at the start of the 17th century we are dealing with two mines which were normally, though not necessarily, worked together by sub lessees.

In fact some of the lessees did not work the mine at all but only tried to amalgamate several leases so that they could be sold together, thus guaranteeing the working of the mines without hindrance.

After the death of Elizabeth 1st in 1603, options on parts of the granges formerly owned by Strata Florida (i.e. now the Gregory Price estate) were issued by James 1st to a party referred to as Shepherd & Gerrard, in 1605. Although the original grant was for 40 years, the deed was relinquished soon after its execution due to an objection which was raised by Sir Richard Lewknor. There was probably some bloody mindedness behind this complaint as there was a longstanding family feud between the Gerrards and the Lewknors.

By 1615 Lewknor was back at the Cwmystwyth Mines but once again his right was contested, this time by John and Richard Meyrick, the sons of Sir Gelly, who alleged that they had been issued a lease by their father and that it was their entitlement to work the mine and not Lewknor's. However, the courts found this allegation to be untrue and established that Lewknor was the valid holder of the lease. After this case he was able to work the mine for a year without disturbance until his lease expired. Very shortly before the date by which Lewknor was to vacate the mine, the Meyricks instigated a raid on the property and carried off £400 worth of ore and materials, probably at the same time looting the Grogwynion Mine five miles to the west which was on a sub lease to Thomas Best Esq. of Bristol. This carefully planned campaign resulted in almost bankrupting Lewknor and he was unable to pay his debts, or his rent and royalties to the Society of Mines Royal.

Having had so many problems with this Knight, and not having been paid when his lease expired, there was no consideration on behalf of the Society as to the renewal of the lease.

As many other leases had been returned to the Society of Mines Royal a slight re-organisation took place and the governorship of the interests fell more to agents for the Prince of Wales, the Lord Mayor of London and the Trustees of the City of London instead of just the Earls of Essex. Robert the Earl of Essex had originally been closely connected with Cardiganshire since his lease to Owen Shephard and Henry Gerrard in 1605 and in his official role as [8] one of the trustees of the Cardiganshire Mines Royal. The Earl was also given Trawscoed Mansion by Elizabeth 1st and evidently struck up a friendship with the Stedmans of Cilcennyn who had, by marriage, inherited the Gregory Price Estate of the late Granges of Strata Florida. He later sold Trawscoed Mansion to the Vaughns circa 1600.

In 1617 leases were issued to Hugh Myddleton and Sir Francis Bacon, the Shephard and Gerrard lease was declared still valid, and one that had been issued to Sir Henry Hobart and five partners was transferred to William Winkfield and Mathew de Questr, although the lease was re-executed ten years later to exclude Winkfield and include de Questr's brother Josse and to reduce the rent from £100 per annum to £25. The de Questr lease then ran for four years and in 1631 was transferred to William Collins and Edward Fenn by a royal decree. Little work appears to have been carried out under this lease and it was probably bought out by John Vaughn of Trawscoed circa 1632.

The lease to Sir Francis Bacon and three other Knights was drawn up on the 10th of January 1617. Bacon, however, died in 1626 and his quarter share was split amongst his associates by the Trustees of the City of London on behalf of the Society of Mines Royal. A year after Bacon's death Sir James Fullerton's name was added to their number but the situation was far from satisfactory and the trustees transferred the lease to Humfrey Coles and Walter Bonnell on the 6th of December 1630. However, from the 14th-16th of February 1631 the leases were totally reshuffled. Coles's half of the lease passed to William Wingfield (possibly the person called William Winkfield in the 1617 lease and 1627 exclusion) and William Fryth. Walter Bonnell's half passed into the hands of William Williams, Robert Michell, Walter Marke and Robert Marsh who only acted as trustees and sublet their lease back to Wingfield & Fryth.