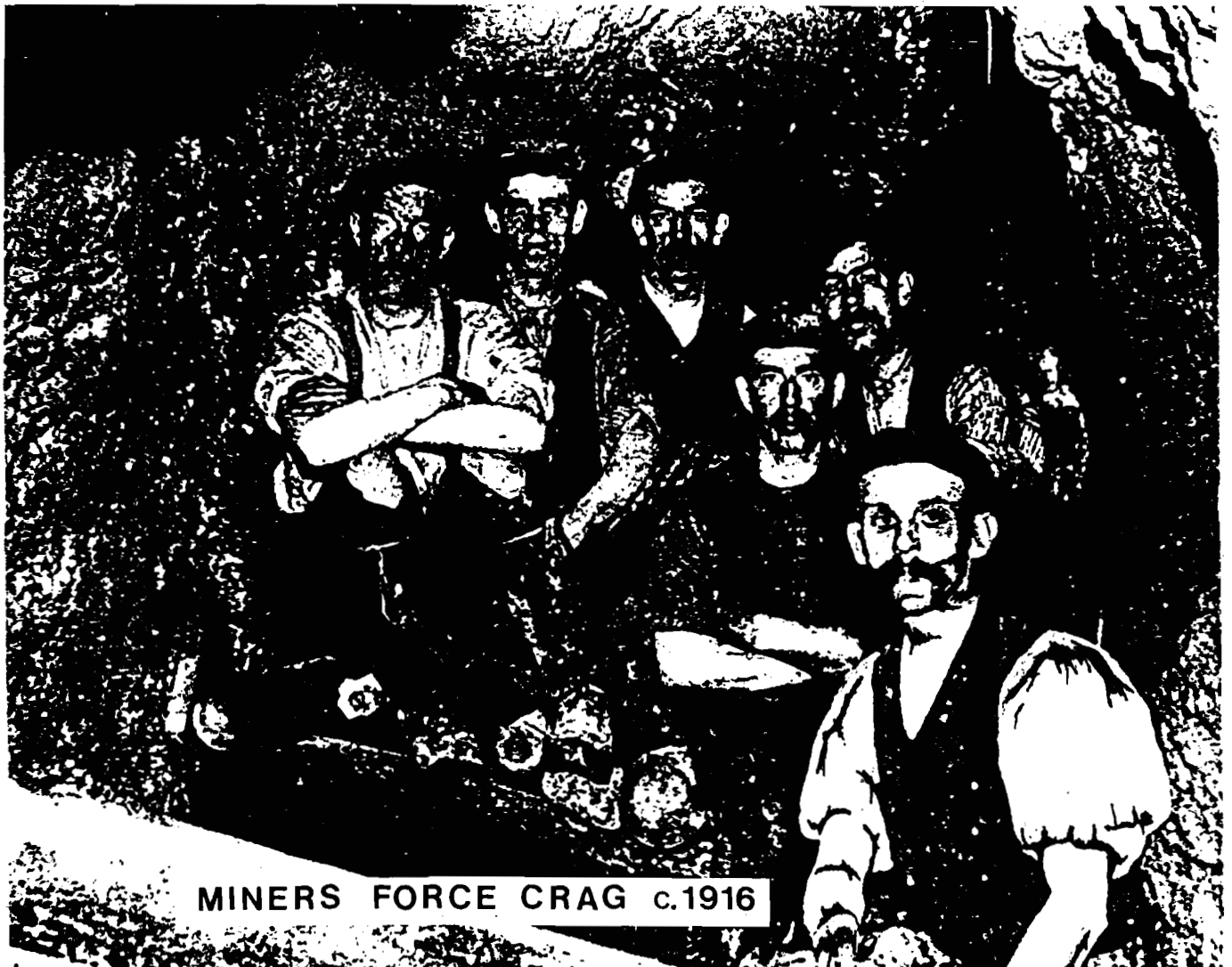


CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

NEWSLETTER NO. 28



DECEMBER 1990



MINERS FORCE CRAG c.1916

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MEET SECRETARY'S REPORT FOR 1990.

1990 has seen a varied program of eighteen meets, most of which have been reasonably well attended, though numbers do seem to have fallen a little. Early in the year there was a visit to the newly discovered section of Middle Level beyond the twin tunnels, with its spectacular blue ore hopper. In the summer Peter Fleming led a most enjoyable fell walk to visit Doves Nest Caves and the Stone Axe sites near the summit of Glaramara. Alistair Cameron instigated and led a photographic meet at Force Crag, and Roy Garner showed us the very wet workings at Brandlehow which were recently re-entered by the LMQT diggers. Ann Danson arranged for Rod Chiltern to give us an exciting winch trip down Wellhope Shaft at Nenthead, and there was a fascinating visit to the face, four and a half miles out under the North Sea, of the Potash mine at Boulby in Cleveland, which is the deepest working mine in Europe. Chris Jones led a meet at Tilberthwaite mine, and Mike Mitchell organised meets at Greenside and at Nenthead. Ian Tyler led a mammoth through trip of Force Crag Mine from No 5 down to Zero Level which is unlikely ever to be repeated because of subsequent collapses at Force Crag. I owe Ian an apology for arranging a meet at Roughton Gill to coincide with a COMRU practice, and which was consequently very poorly attended. I have made the same mistake regarding the Coniston Meet next January 13th. Please note that this meet has now been brought forward a week to January 6th.

In addition to our regular programme there have been two meets on behalf of other societies. In June we were host to members of the Cleveland Industrial Archeology Society who spent a weekend visiting Coniston Coppermine and the quarries at Honister Pass. In September a meet for the Cumbria Geological Society at Honister was attended by twenty five of their members. Thanks are due to Alistair Cameron who guided both groups. The Cumbria Geological Society have asked for another visit to Yew Crag Quarry, and this will take place next April.

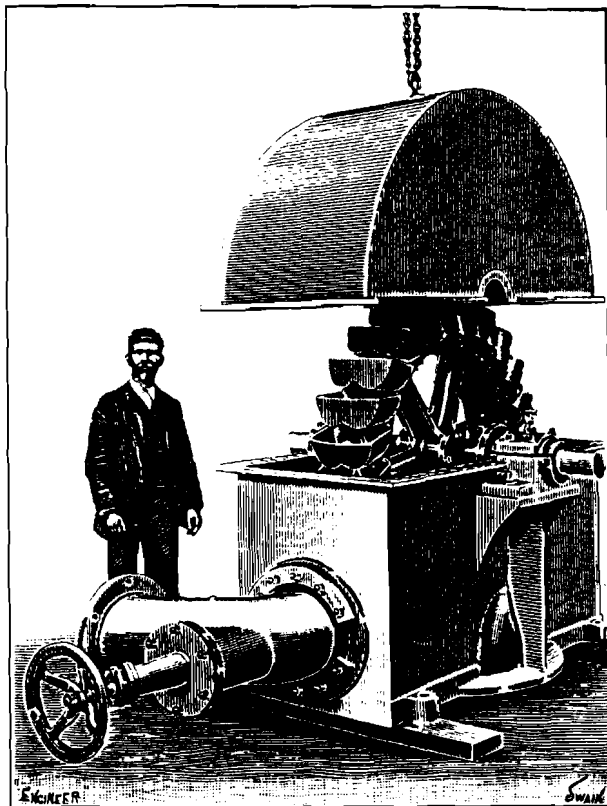
The main conservation project this year has been the saving of Newland Furnace, which was in danger of collapse. A lot of work was done by CATMHS under the leadership of John Helme and in conjunction with Dr John Marshall and the Cumbria Industrial History Society, to secure access, excavate the blowing chamber, and support the blowing chamber arch. Work is continuing to remove the ivy which threatens the main structure. On a more modest scale a meet was arranged in May to tidy and stabilise the interesting Brake House at Moss head Quarry at Coniston. CATMHS has obtained the lease to Mandells Slate Office on the old Coniston Station site. Some initial work has already been done to make the building secure and more will be needed to make it habitable. A forthcoming project will be to secure the Victorian winding gear and pump rods in the Old Engine Shaft.

There have been evening meets at the Low Wood Gunpowder Works, at Kirkby Quarry, the iron mines around Newton in Furness, Heron Corn Mill and the Old Engine Shaft at Coniston. Field meets during the dark evenings are difficult to organise and are have not always been well attended, so I intend to restrict them to the months of May to August next year, unless the membership demands otherwise. Social evenings take place on the second Wednesday of each month, and the venue has been changed from the Haverthwaite Railway to the White Lion at Bouth.

In reviewing the meets for 1990, whilst the programme was intended to be as interesting and varied as possible and to appeal to as broad a spectrum of the membership as possible, it does seem to me that it has lacked excitement. I hope to remedy this in the coming year by including more SRT meets, and by repeating some of the major routes at Coniston which may not yet have been done by newer members.

Mine exploration is one of the main reasons for the existence of our society, and it is through the programme of organised meets that most members do this. It is important that new people come forward with suggestions, requests, and offers to lead meets, and that there is an input of fresh ideas. In order to maintain interest and enthusiasm there needs to be a fresh approach from time to time. For that reason, whilst I am prepared to stand for re-election for the coming year, I feel that it would be beneficial to the Society if there was a new candidate at the end of that time.

Ian Matheson.



Hett's Pelton Wheel

The engraving above illustrates a very compact motor of the Pelton or impact wheel type. 150 cm. diameter, recently constructed by Mr. Hett, of the Turbine Foundry, Brigg, for driving a blowing engine at a mine in the Lake District to work under a head of 76 metres, and to give 150-horse power.

The power is transmitted direct from the shaft of the wheel to a lay shaft carrying two pinions which gear into large spur wheels on the blowing engine crank shaft. The speed of the motor is 240 revolutions per minute. It is fitted with Hett's patent regulating nozzle, as shown in section.

The water is conveyed to the

motor by 750ft. of 16in. steel piping. The wheel is quite self-contained, and is the largest ever made with a cast iron case.

Until recently the only means of efficient regulation of Pelton wheels was by changing the nozzle for one of a different size. This involved stopping the wheel to make the change, and had a limited range of variation.

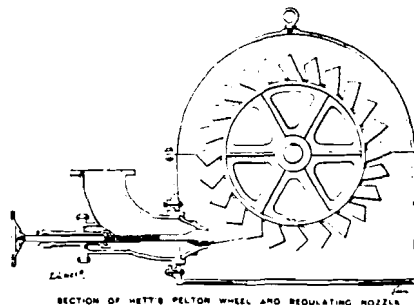
To obviate this serious defect Mr. Hett brought out and patented a regulating nozzle, by means of which the water may be used at full bore of jet or reduced to a fine point without stopping the wheel.

The arrangement consists of a nozzle having an internal spear, which is drawn for full jet, and advanced to reduce to any point desired until quite closed.

In some cases this adjustable nozzle is combined with a hydraulic cylinder, controlled by a centrifugal governor, by means of which the supply of water is

automatically regulated to suit the load. This arrangement is intended for electric lighting where very uniform turning is required.

The efficiency of the wheel is equal to that of the best turbines made, and it can be used under very high heads with small quantity of water.



SECTION OF HETT'S PELTON WHEEL AND REGULATING NOZZLE

'The Engineer' 27/4/1894

reprinted 24/5/90

AS USED AT CONISTON?

CHANGE OF DATE! CHANGE OF DATE!

The meet at Coniston scheduled for Jan 13th 1991 clashes with a COMRU practice. The NEW ENGINE SHAFT THROUGH TRIP will now be on JAN 6TH. If the weather is unsuitable we shall descend BONSOR EAST SHAFT instead.

NEW PROJECT

The evening descent of the Old Engine Shaft on November 14th did not take place as there was too much water falling down the shaft. We did however visit the shaft head and go and look at the pump rods via the cross cut linking Bonsor and Old Engine shafts. These are rather special as, apart from the balance bob in Triddle Shaft, they are the only substantial in situ remains of the many water powered pumping and winding systems at Coniston which were initiated by John Taylor. At both sites there has been recent deterioration.

There is about 200 feet of wooden pump rod hanging down the shaft suspended from the timber catch wings in the Bonsor Cross Cut. The timbers are decomposing and are only half their original thickness. When they break the rods, weighing several tons will crash down to Deep Level. Not only would this be a sad loss, but there would be danger to the life of anyone visiting Deep Level at the time.

At the top of the shaft the original winding wheel is still in place, but again the timbers are deteriorating. Part of the framework has dropped out and the wheel has developed a list of about 30°. If this structure collapses it will plunge down the shaft, taking out the pump rods and ladder stagings below.

I propose that we try to preserve and stabilise both these structures. It will be a demanding but interesting and worthwhile project.

Ian Matheson

Current Titles in Speleology

Number Twenty One The Literature of 1988

Current Titles in Speleology (CTS) is published annually by the British Cave Research Association (BCRA) and is now in its 22nd year. In the course of producing each edition Ray Mansfield (CTS Editor) single handedly scans and records some 4000 items from the worlds speleo literature. BCRA and Ray Mansfield have kindly made available to NAMHO the "Mines & Mining" section of Great Britain. Most of the original papers are in either the BCRA or PDMHS libraries at Matlock where they can be examined. Photocopies can be made available at cost by contacting:- Roy Paulson, Holt House, Lea, Matlock, Derbyshire DE4 5GQ (Tel. 0629.534775). The section coverage could be extended if member organisations would ensure that their own publications reached the NAMHO library collection (via Adrian Pearce).

GREAT BRITAIN
XII. Mines and mining

- 88.2375. Exeter's historic underground passages, Devon.
Devon. Anon. 1988.(Jan). *Subterranea Britannica Bull.*,(24),2-5. map.illus.
- 88.2376. Wheal Jenkin.
Neill,Alasdair,1988(Dec). *P.C.G.J.*,(104),5-9. map.fig.survey.
- 88.2377. Wheal Benny.
Neill,Alasdair. 1988.(Apr). *Ibid.*,(103),11-15. map.surveys.
- 88.2378. Banwell Hill Mines.
Som. Anon. 1988. *A.C.G.Nl.*,24-25(Winter). surveys.
- 88.2379. Tracebridge Quarry. Wellington, Somerset.
Hillier,Andrew. 1988. *Ibid.*,(19),12-13. maps.
- 88.2380. Oatfield Farm Mine Shaft (ST 50376642).
Mullan,Graham. 1988.(Jan). *U.B.S.S.Nl.*,4,(1),7-9. survey.
- 88.2381. Underground city yields secret. Nottingham.
S.Pen. Anon. 1988. *Times*,5(13th December). illus.
- 88.2382. Neptune Mine, Cressbrook Dale.
Beck,John. 1988. *T.S.G.J.*,(13),24-25. survey.
- 88.2383. The mines west of Silly Dale, Great Hucklow.
Beck,John. 1988. *Ibid.*,(13),37-39. survey.
- 88.2384. Wakebridge Mine - Derbyshire.
Bowen,C. 1988.(Jan). *R.F.D.C.C.Nl.*,(100),15-16.
- 88.2385. Exploration and extraction of structurally and lithostratigraphically controlled fluorite deposits in the Castleton-Bradwell area of the South Pennine Orefield.
Butcher,N.J.D.,Hedges,J.D. 1987. *Trans.Inst.Mining & Metallurgy*,B96,B149-B155.
- 88.2386. Clatterway Level and Sough, Bonsall.
Chandler,P. 1988.(Oct). *D.C.A.Nl.*,(68),6-8.
- 88.2387. A personal memoir of Milliclose Mine in 1939.
Foster-Smith,J. 1987. *Bull.P.D.M.H.S.*,10,(1),24-45. map.illus.figs.
- 88.2388. Caves and mines of Hawkstone Park, Salop.
Middleton,Terry. 1987.(Dec). *Cave Science*,14,(3),125-130. map.illus.surveys.
- 88.2389. Hawkstone Grotto, Salop.
Middleton,Terry. 1988.(July). *Stafford S.S.J.*,3,18-19. survey.
- 88.2390. Freezeland Mine - Fern Dale.
Milner,M. 1988.(Oct). *D.C.A.Nl.*,(68),15.
- 88.2391. Hopping Mine, Upperwood, Matlock Bath.
Naylor,Peter J. 1987. *Bull.P.D.M.H.S.*,10,(1),1-3. illus.
- 88.2392. John Burton of Bonsall, Derbyshire, and Iowa, U.S.A. 1795-1854.
Naylor,Peter J. 1987. *Ibid.*,10,(1),4-12. illus.
- 88.2393. Ringing Rake, Old Jant Mine and Gentlewomen's Pipes and the genesis of the Masson deposits, Matlock Bath, Derbyshire.
Quirk,David G. 1987. *Ibid.*,10,(1),46-66. map.figs.survey.
- 88.2394. History and gazetteer of the lead mine soughs of Derbyshire.
Rieuwerts,J.H. 1987. Sheffield, J.H.Rieuwerts. xiii + 143pp.
- 88.2395. History of the laws and customs of the Derbyshire lead miners.
Rieuwerts,J.H. 1988. Matlock Bath, Derbyshire, Peak District Mines Historical Society. 38pp.
- 88.2396. Limestone to Leisure: Dudley's Singing Cavern.
Scott,Peter. 1987.(Nov). *Land & Minerals Surveying*,5,582-587. survey.
- 88.2397. Great Rake Mine, Brassington, in the 1920s: recalled by Joe Gould.
Slack,Ronald. 1987. *Bull.P.D.M.H.S.*,10,(1),13-16. illus.survey. 4.

- 88.2398. In the footsteps of Elizabethan miners. Lake District.
N.Pen. Erlam, Peter. 1988. Cumberland News, 12(30th September). illus.
- 88.2399. Coniston copper mines rediscovered.
Fleming, P. 1988. Fell & Rock J., 24, (3), 432-451.
- 88.2400. Further comments about the Great Laxey winding engine.
Hollis, David. 1987. Bull. P.D.M.H.S., 10, (1), 17-23. illus. figs.
- 88.2401. "Parcevall's 'Glory Hole' ". Glory Level, Wharfedale.
Joy, D. 1988. Dalesman, 50, (4), 303.
- 88.2402. Down amongst the black stuff. The graphite mines of Borrowdale.
Marshall, Des. 1988. (June/July). Descent, (82), 26-27. fig.
- 88.2403. Woodends enigma. Coniston.
Matheson, Ian. 1987. CAT Nl., (17), 14-16. survey.
- 88.2404. My version of a Christmas holiday at Nenthead, or:- frolicks in the flats.
Murray, Tony. 1988. Grosvenor C.C.Nl., (25), 5-14. map. illus.
- 88.2405. In memory of old men who toiled underground. reprint of CTS 87.2576.
Renouf, Jane. 1987. Lakeland Mines & Quarries Trust Nl., 26(Spring).
- 88.2406. History ... in the cold, dark dampness.
Siddall, David. 1988. Whitehaven News, 1, 14(13th March). illus.
- 88.2407. Coniston Copper Mines. (east of horse level) "Deep Level regained". / illus. surveys.
Withers, Mike et al. 1987. Ambleside, Cumbria, Lakeland Mines & Quarries Trust. i + 8pp.
- 88.2408. Account of an Excursion to Brightling Gypsum Mine, East Sussex.
Misc. Burgess, Peter. 1988. Unit Two Nl., (3), 9-11.
- 88.2409. Underground at Cobham Hall, Kent.
Caiger, Nesta. 1988. (Jan). Subterranea Britannica Bull., (24), 31-32. illus.
- 88.2410. Making the Bank Secure. No 3 - The New Bedlams Bank Entrance, Merstham - A Joint
Unit Two/Croydon Caving Club Project.
Clark, Matthew. 1988. Unit Two Nl., (3), 5-6.
- 88.2411. The Archer Wood project.
Pearce, A.J. 1987. Ibid., (3), 5-7.
- 88.2412. Surrey mines news.
Pearman, Harry. 1988. (Feb/March). C.S.S.Nl., 30, (5), 63-64. survey.
- 88.2413. Caves and Tunnels in South East England. Part Eight.
Pearman, Harry. 1988. C.S.S.Records, 16, ii + 54pp. illus. surveys.
- 88.2414. Golden reunion for last miners of Dolaucothi.
Wales. Anon. 1988. Western Mail, 7(16th April). illus.
- 88.2415. Mawddach meanderings.
Anon. 1987. (May). Grosvenor C.C.Nl., (21), 6.
- 88.2416. Eglwys Eagle Mine, Worlds End.
Ebbs, Crispin. 1987. (May). Ibid., (21), 5.
- 88.2417. Two Holywell shafts pay off.
Ebbs, Crispin. 1988. (Aug). Ibid., (29), 9-11. map.
- 88.2418. St. Winefride's Well - Holywell.
Wales. George, John. 1988. (Aug/Sept). N.Wales C.C.Nl., (170), 1-2.
- 88.2419. The Prestatyn - Dyserth area.
Hawkins, A.H. 1988. (Aug/Sept). Ibid., (170), 3-6. survey.
- 88.2420. The Cwmystwyth Mines; a caver's guide.
Horsley, Gus. 1988. Teifi Valley C.C.J., (1), 4-9. survey.
- 88.2421. Metal mines of west Wales.
Horsley, Gus. 1988. Ibid., (1), 10-13.
- 88.2422. Recent discoveries on the Great Orme.
Lewis, C.A. 1988. (Apr/May). N.Wales C.C.Nl., (167), 7-9.
- 88.2423. The lead mines of Minera.
Lewis, Jason. 1988. (Aug). Grosvenor C.C.Nl., (29), 4-5.
- 88.2424. Bala's mystery caves.
Lloyd, Huw. 1988. (March). Country Quest, 28, (10), 30. illus.
- 88.2425. Ogofau Gold Mines, Dolaucothi, South Wales.
Neill, Alasdair. 1988. (Dec). P.C.G.J., (104), 12-14. fig. survey.
- 88.2426. Nantymwyn Mine, South Wales.
Neill, Alasdair. 1988. (Dec). Ibid., (104), 14-17. map. survey.
- 88.2427. Dinas Silica Quarries.
Smith, Ron., Ford, Mark. 1988. (Jan). Pelobates, (52), 24-26.
- 88.2428. The lead mines of the Alyn Valley.
Williams, C.J. 1987. Clwyd, Flintshire Historical Society. 40pp. maps. illus.
- 88.2429. Old Ham Iron Mine, Forest of Dean.
Wills, Kevin R. 1988. A.C.G.Nl., (19), 16-17. illus.
- 88.2430. Tyndrum Lead Mines.
Scot. Cuthill, Geoff. 1988. (March). Grosvenor C.C.Nl., (26), 3-4.

PEAK DISTRICT MINING MUSEUM
Matlock Bath, Derbyshire. DE4 3NR. England.
Tel. (0629) 583834

Museum Sales - booklist

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| Mineral Statistics, Derbyshire. Burt et al | £3.95 | Donald Wagner. | £6.00 |
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| Durham and Northumberland | £3.95 | Percy. (Published by Historical Metallurgical Society & De | |
| Cardiganshire | £4.50 | Archaeologische Pers) | |
| Cornwall | £12.00 | Vol 1 Fuel, Fireclays, Copper, Zinc, Brass. | £22.00 |
| Five Northern Volumes in one | £25.00 | Vol 2 Iron & Steel. | £30.00 |
| A Bibliography of the History of British Metal Mining. | | Vol 3 Lead, including extraction of Silver. | £29.95 |
| Burt & Waite | £8.95 | Vol 4 Silver, Gold, Part I Silver. To be published soon | |
| The British Lead Mining Industry. R. Burt. | £10.95 | Race Against Time. (Rescue) Eyre & Frankland | £9.95 |
| The Geological Map (Britain). BGS. | £1.50 | The Pick and the Pen. (Journalism) A. Wilson | £13.00 |
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| Usages, Localities and Statistics 1871. J.R. Pike. | £5.00 | Tudor Tin Bounds (West Penwith). J.A. Buckley. | £3.95 |
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| 124 Ashbourne and Cheadle. | £13.50 | Mines of the Gwydyr Forest: Bennet & Vernon | |
| BGS Spec. Rept. No. 144: Limestones of the Peak Pennines and Adjacent Areas: Brit Regional Geol | £2.50 | Pt.1. Llanwrst & its Neighbours. | £4.95 |
| The Twelve Parts of Derbyshire. E.B. Thomas. | £9.95 | Pt.2. The Hafna Mine, Llanwrst and some Early Ventures in Gwydyr. | £6.25 |
| The Nature of Derbyshire. Elkington. | £15.00 | Dolaucothi. | £3.25 |
| Laws and Customs of the Derbyshire Lead Mines. J.H. Rieuwerts. | £1.60 | Mines of Cardiganshire, Montgomery and Shropshire. Liscombe and Co. (1869 reprint) | £2.25 |
| Limestone and Caves of the Peak District. Ed. T.D. Ford | | The Abandoned Mines of West Carberry. Coman & Reilly. | £7.00 |
| Paperback | £13.50 | | |
| Water Power on Sheffield Rivers. Ed. D.W. Crossley | £6.50 | Northern Mines Research Society Bulletins | |
| Milliclose - The Mine that Drowned. Lynn Willies, Keith Gregory, and Harry Parker. | £5.95 | No.23 British Mining Memoirs. | £3.50 |
| History of Lead Mining in the Pennines. Raistrick and Jennings. | £18.00 | No.27 Rheidol United Mines. | £3.50 |
| Lead Miners of the North Pennines. C.J. Hunt. | £15.00 | No.28 British Mining Memoirs. | £3.50 |
| Pennine Lead Miner. Eric Richardson of Nenthead. | £2.50 | No.32 The Basset Mines. | £6.00 |
| Account of Mining District of Alston, Weardale, and Teesdale. Sopwith. | £12.50 | No.33 Yorkshire and Lancashire Lead Mines. | £6.00 |
| Treatise on the Strata from Newcastle to Cross Fell. Westgarth Forster. | £15.00 | No.34 British Mining Memoirs. | £6.00 |
| Alston Moor. William Wallace. | £15.00 | No.35 Goginan Mines. | £6.00 |
| Two Centuries of Industrial Welfare. A. Raistrick. | £16.00 | No.37 Memoirs. | £6.00 |
| BGS Northern Pennine Orefield. Vol. 2, Stainmore to Craven. K.C. Dunham. | £15.00 | No.38 Marrick and Swaledale. | £6.00 |
| Mines and Miners of Malham Moor. A. Raistrick. | £1.95 | No.39 Memoirs | £6.00 |
| Lead Mining in Swaledale. Fawcett. | £2.50 | | |
| Coniston Copper. E. Holland. | £14.95 | Peak District Mines Historical Society Bulletins | Please Enquire (Reduced cost for members) |
| Coniston Copper Mines. E. Holland. | £2.10 | | |
| Glossary of the Minerals of the Lake District and adjoining areas. | £8.50 | Journals of the Trevithick Society, | Volume 10 : £1.95; |
| | | 11 : £2.50; 12 : £3.00; 13-15 : £4.50; 16 : £5.00 | |
| | | All Journals of the Historical Metallurgy Society, and indexes. Please Enquire. | |
| | | Peak District Mining Museum is operated by the Peak District Mines Historical Society Ltd. | |
| | | The Museum is open every day except Christmas Day | |
| | | Registered Charity No. 504662. Company No. 1227931 (Reg. in England) | |
| | | Regd. Office: Peak District Mining Museum, Matlock Bath, Derbyshire. | |

I am indebted to Mrs. Jennifer Snell for details of some of the accidents which occurred at the Low Wood Works. These details have been extracted by her from accounts in local newspapers and describe some of the effects of the frequent explosions in these works during the manufacture of gunpowder.

Details have been found of accidents occurring in:-

1903 with 2 people killed
1887 with 2 people killed
1871 with 4 people killed
1868 with 5 people killed
1863 with 4 people killed

No mention has yet been found for accidents before 1863 although from the above figures the frequency of accidents and the number killed would seem to increase the further back one goes towards the opening of the works in 1799.

February 7th 1863

"The village of Low-wood was, on Thursday afternoon, thrown into a state of confusion by a terrific explosion at the works of Messrs. D. Barker & Co. At about 3 o'clock a loud noise was heard as if besieged by large artillery..... One of the deceased named Mathew Whitham was, at the time, cleaning the rollers in the glazing house, and it is supposed that it was caused by the friction of the rollers during the cleaning process. His head was completely blown off, and on finding the other portion of his body, could only be identified by his clothing, so mutilated were his remains. Another of the victims, William Postlethwaite, had a portion of his face and one arm blown off, he was immediately conveyed home but before medical assistance arrived he breathed his last. The explosion was heard at a distance of seven miles away, and the whole of the neighbourhood was in a state of consternation. Some conjectured it was an earthquake, others who were living witnesses of the last conflagration had truly depicted in their countenances the cause of this vibration. There was a window broken in the Cark station house, a distance of six miles away, by the shock. We hope some provision will be made for the widows and orphans thus so suddenly bereft of their earthly support and, though not so extensive in its calamitous results as the Hartley Colliery accident, each individually are as destitute and have equal claims on a generous public."

March 11th 1871

"The accident occurred in a building known as the Corning House, the highest of the buildings, situate almost opposite the Haverthwaite railway station. On going to the place a sad scene was presented. The building was of considerable size with a stone foundation, wood sides and a slate roof. With the exception of the foundation and the more solid pieces of machinery everything was blown away. The most melancholy result of the explosion disclosed the dead bodies of the workmen. One was found in the mill-race connected with the Corning House, another had been blown into the river, and after floating some distance was stopped at an island..... The cause of the accident is a mystery. Every precaution is taken by the Company. Before entering the works, the men change their clothes and are dressed in flannel suits provided for them, as also caps and shoes. In order to prevent anything of a dangerous nature being in the works the suits are made without pockets. The bodies are very little mutilated which is attributed to the wearing of the flannel clothing."

March 14th 1903

"On Thursday morning Low wood gunpowder works was the scene of a terrific explosion, which resulted in the destruction of one of the press houses and shocking injuries to two brothers who were working therein at the time. The injured men were conveyed in the Ulverston horse ambulance to Ulverston Cottage Hospital, of the two the condition of Roger Hartley was regarded as the most serious. Some of the fire had gone down his throat and he was very badly burnt about the head, face and arms.

Immediately after the explosion several of the men in the vicinity quickly ran to the spot and found both men struggling in the river in deep water and in danger of drowning. On being brought out of the river the skin peeled off their arms.

The press house contained about half a ton of powder which we understand, is about 5cwt under the maximum allowed.

We are informed that Major Cooper Key, one of H.M. Inspectors of explosives, has been directed by the Home Office to conduct an enquiry into the cause of the explosion. It may be added that Colonel I.W. Weston, managing director of Messrs. W.H. Wakefield and Co., the owners of the works, was also communicated with immediately after the accident and cycled over to investigate matters.

The painful conclusion, however, has been arrived that notwithstanding the great care observed and the stringency with which the government regulations are apparently carried out, occasional explosions of this kind are almost inseparable from the carrying on of such a highly dangerous and risky business as the manufacture of gunpowder."

These three newspaper extracts indicate some of the risks involved in the manufacture of gunpowder locally.

They also give an insight into the social conditions prevailing in rural industry at these times.

CORRIS

A.D. Cameron

A million miles from Cumbria, deep in the heart of Central Wales, lies the village of Corris. To an ex. pat. Cumbrian, brought up on hound trails and Hartleys, the one saving grace of having to move away was finding myself quite close to this remote area and sooner or later I was bound to end up at the village that must be the El Dorado for all mine explorers.

Corris is situated in the Dulas valley. Beyond the village the narrow valley road goes on for a few miles then ends. The valley is a dead end, there is no exit other than by the steep hill tracks. Corris itself is a dying village which, in its day, was the centre of some of the most productive slate mining in Wales. Today only one mine is still working operated by the Wincilate Group, employing just a handful of people.

Two miles above the village are the Aberllefenni Slate Workings. The valley is narrow at this point and the external remains lie steeply up the hillsides on either side. Old records suggest that slate was worked in the 1500's by open quarries. Mining started in the early 1800's. In 1859 the Corris, Machynlleth and River Dovey Tramroad was opened to carry slate down to the coast. This was converted from horse to steam power in 1879. The line closed to passengers in 1931 and completely in 1948.

At Aberllefenni the workings on the west side of the valley are all derelict. Several of the levels have been blocked but a bit of digging should open them (heard that one before!).

A series of self activating incline tramways run up the hillside linking the levels - all very much like Yew Crag. The bottom tramway, although derelict and without its rails, is still intact. The trolley, the counterbalance and the drum in the drum-house at the top are all still there. The counterbalance is interesting. It consists of a tank on wheels which could be filled with water thus allowing the exact weight to be obtained for its operation.

On the east side of the valley, inclines also exist linking the various levels up the hillside. The bottom level, beside the road, is still working. Near the top of the hillside an enormous cave-like opening dominates the workings below. It must be about 100ft high by 100ft wide and is an extraordinary sight from a distance. It is even more amazing when one climbs up to it. The floor of the cave ends after about 30 yards in a huge open chimney about 120ft in diameter and 500ft deep. Looking over the edge is enough to send even a seasoned mountaineer reeling back in horror.

But there are even more impressive things to be found. The second level up from the road can be followed right through the hill into the next valley. On the way, the huge chimney mentioned above is traversed on a ledge round its side.

On a recent visit we were able to bypass the locked barrier and get into the bottom level. This runs for well over a mile and possibly opens out to day at the end. But most impressive of all was the working area. From the end of the branch tunnel off the main drive, we looked down into the biggest underground cavern that I have ever seen. Fortunately we had a powerful light with us which runs off a 6v bike battery. It was just able to reach the roof but not the far wall of the cavern. A stone took over 5 seconds to hit the bottom which is a hell of a long way down, probably below sea level.

We plan to go back to Corris from time to time and if anyone is interested in joining us, please make contact.

ACCIDENT - Coniston Copper Mines - 10.11.90

A serious accident occurred at Coniston on Saturday 10th November at around 13.30 on the through-trip from Levers Water to Hospital Level, a trade route used by large numbers of people (some NAMHO members may remember it from a field meet some years ago). The warden of the Coppermines Youth Hostel was in a party of six about to descend the 80' pitch onto middle level when he fell. At the bottom he rolled down another 70' to a small sub-level. 3 of the party stayed put while 2 went for help by abseiling on through the system. Both the Cumbria Mines Rescue Team and Coniston Mountain Rescue Team were called out and they arrived on scene by 15.30. The man was found to be suffering from various suspected fractures including a certain fractured skull although he was still coherent and able to answer questions. The rescue was an extremely long and difficult one as it was decided that he had to be taken up through the system instead of down because of the extremely loose boulder slopes. This meant a great deal of complex rigging and hauling in the confined spaces. He was finally brought to surface and taken down to Coniston at about 01.00 on the 11th where a helicopter took him to Newcastle neurological unit. At the time of writing (13.11.90) his condition was described as 'poorly but stable'.

The cause of the accident would seem to be clipping onto the wrong side of a doubled rope. This method of completing through trips has become very popular with the advent of the Petzl 'Stop' descender and its inability to function on a double rope.

Several important safety points came out of the incident:-

1. Recognising which side of the rope to clip into on a through trip where the rope is to be pulled through.
2. A good caving helmet. This undoubtedly contributed to the casualties survival and it would seem unlikely that a 'construction' type helmet would have taken that sort of punishment. Coupled with that is the importance of a 'Y' shaped chin strap.
3. A proper first aid pack. The colleagues of the victim in this incident were undoubtedly able to stabilise his condition and await rescue due to their carrying one.
4. Spare clothing - again the victim was prevented from becoming exposed while awaiting rescue by extra clothes, a balaclava and a 'bivi' bag.

Mine Leaders Certificate

A mine leadership certificate, supported by NAMHO is to be piloted by the NCA Northern training panel shortly. This will initially be offered to outdoor pursuits centres in Cumbria from where the initial request came for such a scheme. The training course closely mirrors that of the already existing

Local Cave Leaders Certificate and is therefore quite exacting. This has come about because of the M&Q Inspectorates worries about the use of man-made underground environments being used by outdoor pursuits centres. Many organisations have requested that their centres do not use mines and quarries until some system has been sorted out. If the leadership scheme is a success it is likely that it may be adapted for use in other regions. Derbyshire already include mines in their Cave Leaders course.

Bolt Failure

There have been an increasing number of problems experienced with 8mm self drilling anchors ('spits') in the northern caving region and one complete failure has resulted in an accident. A caver had a rebelay strip out causing him to fall a short distance. This resulted in a crushed vertebrae.

It is vital that all such bolts are checked carefully before use and care taken especially with worn threads, mud, etc.

Companies such as Rawl were horrified to find that their products were used for this kind of activity and so the NCA has been seeking a safer alternative 'standard' although it is recognised that 8mm anchors will always be used in pushing new routes. Cavers are to some extent worried that this latest scare will result in an outbreak of 'bolt rash' at pitch heads where perfectly good bolts are backed up by others.

Descent

Many of you may be aware of the mining page in Descent magazine and I hope that you enjoy reading it. I would ask you to send me any material you would like published even if its only a short note regarding your latest find, access problems or just some club publicity. My address is 3 Bell Hill,

 Marton,
 Lindal in Furness,
 Ulverston,
 Cumbria LA12 0NF
 Tel. (0229) 63892

Petzl Croll

A problem has occurred with Petzl 'Croll' chest jammers and thinner (sub 9mm) ropes. Where the rope has become jammed between the cam and the body of the ascender. This resulted in the rope being impossible to remove, eventually having to be cut out.

Chris Jones (NAMHO Equipment Officer)

NAMHO NEWS

A POLICY FOR INDUSTRIAL ARCHAEOLOGY

This 3 page document is a policy statement drawn up by the Association for Industrial Archaeology. The first section lists general priorities and discusses the need for preservation of industrial sites. The second section outlines recommendations for provision of adequate resources, funding and education. Photocopies of this document are available from the editor (60p) incl post.

MINERAL STATISTICS

The latest in the series of books on the non-ferrous mineral statistics of the UK has been published by Exeter University. It is called "The Mines of Shropshire & Montgomeryshire with Cheshire & Staffordshire" and it is ISBN 0 85989 343 X. The price is £7.95 (including p & p) and orders should be sent to Dr R.Burt, Dept of Economic History, Amory Building, University of Exeter, Exeter EX4 4QR. Cheques should be made payable to Dr R.Burt.

FUTURE STRUCTURE OF NAMHO — TAKEN FROM NAMHO NEWSLETTER NO 18, NOV 90.

10am Saturday 9th March 1991.
Peak District Mining Museum, Matlock Bath.

*** IMPORTANT - CIRCULATE YOUR MEMBERS ***

A meeting will be held as above that will be open to all UK mining historians. From the discussions, a set of proposals will be drawn up on the structure and future of NAMHO and these will be presented at a subsequent Extraordinary General Meeting. The latter will take place at the 1991 Mining Conference where any necessary constitutional changes will be voted on.

Members will be aware of the discussions that have taken place on the setting up of a special interest group for research and publication. This group, provisionally known as the Institute of Mining History, had originally planned to become a separate organisation that would join NAMHO. Subsequent views were that such a course would be divisive and that there might not be enough members to make it a viable proposition. It would therefore be preferable if some way could be found to incorporate it into the NAMHO structure.

Following on from this, other suggestions have been made on how the structure of NAMHO itself needs to be changed with the possibility of introducing some form of individual participation rather than representation at organisation level. The last NAMHO Council Meeting therefore agreed to organise a general meeting to discuss all these proposals and to take the opportunity to review its whole structure and activities. A resume of several possibilities appears below. ~~over~~ →

- 1) Make no change to NAMHO and allow any special interest group to set up independantly. This could cause division and confusion amongst outside bodies who are now aware of NAMHO.
- 2) Introduce some form of individual membership of NAMHO. This leads to the problem of representation and the size of decision-making meetings. Would we have to elect an executive committee at an AGM? Would this weaken NAMHO's standing as an association of organisations? Would member organisations have more votes than individuals? Would such a structure threaten the existence of smaller societies?
- 3) Introduce 'special interest groups' within the present NAMHO structure. This happens with the National Caving Association and British Cave Research Association. Each group could elect its own sub-committee and be semi-autonomous, leaving the NAMHO Council to oversee national problems. NAMHO Council Meetings could consist of meetings of the special interest groups in the morning and the Council proper in the afternoon. This could save time in discussing specialist topics at the Council meeting, with only a resume given of the morning's deliberations. Would there be enough interest to make sub-groups viable? Would a representative from each sub-group be elected to the NAMHO Council? What types of special interest group could there be? How would they be financed?
- 4) If the IMH became a special interest group, could it form an 'Institute' structure on the lines of its original idea? Would NAMHO allow what could amount to an elitist position of Members or Fellows? Who would choose them? How would it feel about the possible commercial nature of some of its activities? Who would have an 'audit' function in controlling the operation of criteria for membership?
- 5) Should NAMHO consider a national publication for individual mining historians rather than the Newsletter presently aimed at member organisations? Would it be in the format of the present Newsletter, an annual Bulletin, or both? Could it join forces with the larger publishing societies to produce a joint Bulletin?

These are several possibilities and there are pros and cons for them all. There must be other suggestions and it is hoped that the meeting will act as a forum to decide on a compromise solution.

Would representatives please advertise the meeting to their membership and discuss at their own committee meetings. It would be useful to have feedback from individuals as well as organisations, even if you cannot attend the meeting itself. If the latter applies, you can send your comments, etc. to Adrian Pearce before the meeting.

NEXT ISSUE

The next Newsletter will be issued in April 1991 to accompany the minutes of the AGM. Contributions by mid-March please to Adrian Pearce: 72, Hopkins Heath, Shawbirch, Telford TF5 0LZ.
T. 0952-53310.

HSE LEGISLATION

The Health & Safety Executive has recently issued consultation documents in respect of two proposed sets of Regulations for mines. For the first time, these include activities in abandoned mines and may impact on the activities of mining historians. The first, "Shafts & Winding in Mines", includes criteria for the construction of winches. The second, "Management of Mines", includes first aid and surveying practice.

The closing date for comments was 31/10/90 but NAMHO has written to ask for an extension and for a copy of the consultation documents to be issued to each member organisation. Any queries should be directed to Ivor Brown, to whom comments should be sent for assimilation into a combined response.

BOOK REVIEWS

"Exploration for Metalliferous & Related Minerals in Britain"
T.B.Colman, 1990, £15.00. Published by British Geological
Survey, Keyworth, Nottingham.

This is a glossy A4 paperback with 52 pages. Although expensive at first glance, it gathers together a significant amount of widely dispersed material, viz. colour maps, tables of exploration programme reports, project data and minerals sought under the Government Grant Scheme. It deals only with recent history but the sites are often in old mining fields. The main chapters gloss over their subject, e.g. geology, recent exploration, public sector role, future prospects, exploration techniques and legislation. The chapters on mineralisation and sources of information, however, are of great value. It might be a money saver if you live some distance from a library and it would certainly be of use to a professional or specialist historian in minerals history or exploration. (I.J.Brown)

Walking up the Maria Theresa Strasse in Innsbruck (Austria) one evening this September we paused to look in the illuminated window of a bookshop could it be true ?.....yes, there it was.....

CONISTON COPPER - A HISTORY - ERIC G.HOLLAND

The price, if anyone is interested, was 350 AS.

THERE'S NO ESCAPE !

SOCIAL MEETINGS - WHITE HART BOUTH.

MEMBERS PLEASE NOTE, LAST ORDERS FOR BAR MEALS WILL BE 8.30pm

HAIG COLLIERY. SHARE HOLDERS NEEDED.

A limited company is to be formed to take over management of the project. Anyone interested? contact Mike Mitchell (0539) 821 569 for further details.

BOOK NEWS.

The Second Edition of Sir Kingsley Dunham's Northern Pennine Orefield Memoirs will be published January 1991.

HONISTER HISTORY

An A3 size booklet outlining the history of Honister Slate Mine written by Alistair Cameron will be available January 1991 price £1.50. Proceeds from sales will go into club funds. Copies from Peter Fleming (02298) 24103

N.A.M.H.O. CONFERENCE 1991

The 1991 N.A.M.H.O. Conference will be hosted by the Welsh Mines Society in Association with Llechwedd Slate Caverns on the 3rd to 6th May 1991 (the May Day Holiday Weekend).

The Conference will be held at Blaenau Ffestiniog, Gwynedd, at the heart of the British Slate Industry, and surrounded by the picturesque scenery of the Snowdonia National Park. As well as slate, Blaenau Ffestiniog is central to the other mining activities in Snowdonia, notably gold, copper and lead. Both surface and underground field trips are planned to examine further this diversification of mining.

It is intended that the Conference will also cater for family needs. With this in mind, reduced rates for delegates and their families have been negotiated on the world-famous Ffestiniog Railway, and to the unique, architect-designed village of Portmeirion, and for the attractions at Llechwedd itself; and free entry to Sygun Copper Mine.

As is the custom, a full lecture programme has been arranged for Saturday and Sunday. This will cover topics ranging from Bronze Age Mining, to modern mining ventures in North Wales; and from Wales to Shropshire, Ireland, and further afield. There are still three gaps in the Lecture Programme, so anyone with a potential lecture contact Boo at the address below.

For delegates who arrive on the Friday, a short welcoming talk introducing the area will be held at the 'Plas' at the entrance to Llechwedd Slate Caverns. Coffee and bar facilities will be available until 10.30 p.m.

The Plas will also form the focal point for registration, information and Conference Displays. If your Society needs a display space, please let Boo know. The lectures will be held about a mile away in the W.I. Hall at Blaenau Ffestiniog. The town offers a variety of pubs, cafes and restaurants for lunch.

The Saturday night social promises to be unusual. You will ride down the incline into the slate workings, where bread and soup will be served, accompanied by music from a local folk group. After returning to the surface, a buffet can be enjoyed at the Plas, with further entertainment.

The cost of what promises to be a full and enjoyable conference will be approximately £7.00 per head. The Saturday evening social event is likely to be £8.00 (£6.00 for children). A small discount will be available on bookings made before March 31st. If you wish to receive a booking form, please contact:

Mrs M. (Bob) Vernon
78 Oakenshaw Lane
Walton
Wakefield (tel: 0924 257017)
W. Yorks.
WF2 6NH

A package containing registration form, accommodation lists and trip and lecture timetables will be sent out to you from February 1991.

MEETS

Force Crag Mine.

Finding that the Cumbria Amenity Trust had a trip down Force Crag Mine, one that entered at the top and enabled one to walk out of the bottom, it seemed a good idea to take ones enthusiasm in hand and venture underground. So, having convinced a friend, Gary, of the joys of exploring decayed mines, we arrived in Braithwaite, Borrowdale, early one Sunday morning in March. We found the mine without trouble, driving up to its lower entrance: here we found a couple of souls all ready for the off. In fact they were so keen that they set off while we were still changing, saying that somebody else would soon turn up and that they would know the route.

And so they did over the next hour or so, turn up that is. Eventually a few of us began to make our way up the fellside, nobody knew where the entrance was, we were nearly at the top of the fell when an entrance came into view, plus a couple of shake holes. We pushed Gary into the entrance, he must have left his eyes behind, as he was soon out saying that it didn't go. Next we examined the shakeholes with no better success, then rested on the fellside admiring the view, and awaiting for the laggards, and hopefully some information. The later was not forthcoming. After a further considerable wait irate shouts drifted up the hillside, and a body was seen toiling up towards us. Exchanges of pleasantries took place as the body was seen to be the meets leader; "What the hell are you doing?"; "Well it would bloody well help if somebody knew where the hell we were going.", and so on and so forth.

We were led to the entrance that Gary had entered and we were on our way. A body disappeared down the first pitch, then it was my turn, I could see a slope with a string of mud hanging down it; one bolt; no belay loop. Gingerly I attached myself to the mud and was off down, soon I was entangled with ancient wooden ladders as the pitch meandered to its foot. At the bottom a worked out area showed its black depths as the way on went up and down a smooth rock pile. The way on seemed to be that obligatory crutch deep cold water passage. Soon a light was seen and our guide directed us up a slope. An item of interest to be seen here was a massive timbered ore shoot and ladderway climbing upwards. On the floor a piece of timber proved to be as sound as any bathroom sponge.

Onwards down another slope into

Some more passage with a vague instruction as to directions. I approached a short pitch with wooden ladders, there was no sign of the person in front of me, so, a carefull descent, then a short slide to a passage below. Others arrived and there was a short interlude of; "its that way"; "no its over here." We moved off, it was pleasant to have somebody that seemed to know where we were going.

We continued along a passage, good solid looking rock, then; "We're coming to the thousand foot incline"; we were informed. This hill within a hill ended at a wooden platform, thankfully in good condition, capping a 200ft shaft. Giving this a miss we continued down an incline, eventually reaching level passage. A short rope drop, or tarzan swing down a pipe, as the mood took you, and we were led out into daylight for a short smoke break.

Back in and down more wooden ladders, heading for the area of the mine that is still being worked in a small way. Being down one ladder and starting on the next I was called back up, a change of plan. Cursing I re-climbed the ladder, fighting the airline that was sharing the shaft. Sliding down again we came to the nearest thing that we had met to a squeeze, that passed, we soon exited through the level 0 portal.

The minerals mined at this site were barytes, lead, and zinc. Although all the areas that we passed through had been previously explored, this had been the first through trip, from the possibly 200 year old level 5, to the bottom level 0. An enjoyable day out that allowed me to say at least that I have been underground this year.

My apologies for the lack of names in this account, and my thanks to the meet leader.

Dick Wade.

DOVES NEST CAVES GLARAMARA NEOLITHIC AXE FACTORY.
OLD MINING SITE IN GRAINS GILL - 17TH JUNE 1990

This meet started on a warm, sunny morning from Seatoller. Seventeen members walked up Coomb Gill to Doves Nest Crag. This crag has, in the distant past, slipped a few metres down the hillside, leaving an interesting system of open cracks, chimneys and crevices leading into the dark inner reaches, where it is possible to climb up to the attic cave. There are a number of variations depending on (a) how bold you are, or (b) how thin you are. For a fuller description of Doves Nest Caves, refer to the book "Fell Days" by Graham Sutton, 1948.

After lunch we ascended, steeply at first, towards the summit of Glaramara. At 2500 ft is a small Neolithic (circa 3000 BC) stone axe factory site. On a sloping grassy shelf is an area of man-made flakes and chippings which are noticeably different from other rocks nearby. No rough-outs were found on this occasion, but I did find a large one here some years previously.

Most of the party carried on over the summit and along the ridge to Allen Crag where a right turn was made down Grains Gill. Some distance down here, well to the right of the path, is a small ruined building and a spoil heap with a run in level behind it. The level appears to be driven into a moraine. A deep ravine just to the east of this point contains a tunnel driven in solid rock. Just about everyone scrambled down to enter it. When the river is in spate it would be impossible to reach. Crossing the ravine nearby, is a strong 10" wide white vein. On discussing this later, we could not agree whether it was quartz, calcite or barytes. The tunnel itself was only ten yards long and gave no clue as to what the miners of old were seeking. The day was rounded off by a pleasant walk down to Seathwaite, past the graphite mines and on to our waiting cars parked at Seatoller.

PETER FLEMING.

A bank holiday Monday provided the chance to visit this area on the Army's Warcop gun range when they were having a day off.

The party of 16 split into two groups. The larger headed for Hilton Mine, a big and complex lead mine which has yielded many fine specimens of yellow fluorite crystals and calcites over the years. The group explored mainly the more easily accessible areas from the Dow Scar High Level. No new ground to the Society was entered on this visit.

The smaller group of 7 set off up to Long Fell in the firing "danger area". The object was to examine the workings of barytes in the Melmerby Scar limestone at 1900 ft.

The four principal veins were worked during the First World War, and again during the Second, by the Long Fell Mining Co. The workings are quite extensive but were stoped out to surface in many places from adit levels driven in under the summit escarpment. These had all collapsed at the portals, but access could be gained to short sections by abseiling down the surface stopes. Two or three ruined buildings still remain on the summit of Long Fell. Scores of large shells lie about the area. It is recorded that 28,000 tons of barytes were produced from these mines.

The group then walked across Swindale Edge to Amber Hill but little trace of mining could be found here but minerals were noticed in the rocks. Everyone then returned to Hilton Village and rounded the day off with a bar meal near Appleby.

PETER FLEMING.

C.A.T. PHOTOGRAPHIC TRIP, FORCE CRAG MINE. 7/10/90

It was decided to hold a photographic trip somewhere in Cumbria and Force Crag seemed to be the ideal venue. There were several reasons for this. First of all, being the last working ore mine in the Lakes it would provide unique material to put onto film. Secondly, the proprietors of Force Crag, being by nature a very friendly bunch, are always very welcoming. Most important of all, the fact that the distance from the car to the entrance to No 1 Level is no more than 80 yards had a strong appeal.

Unfortunately the trip suffered from the fact that the newsletter that advertised it came out late (after the trip took place). Nevertheless, about 9 people gathered at Force Crag and, laden down with very expensive equipment, disappeared into No.1 Level.

It was planned to demonstrate basic techniques for taking reasonable pictures underground. The meet leader explained the need to have a wide angled lens on the camera and the advantage of more than one light source to produce shadow and give depth. The dangers of producing body condensation, of humidity, wet, mud and mechanical damage were all emphasised.

Having taken pictures of a number of subjects in No1 Level, the group went up to the La Porte Incline and attempted some multiple flash shots with the cameras fitted to tripods.

Meanwhile, down in Zero Level, our friends from the New Coledale Mining Company were attempting to clear the infamous blockage that had occurred some weeks earlier. It seemed unfair to be enjoying ourselves taking pictures while they were working hard, so one by one we abandoned the trip and went to help them.

It is planned to repeat the trip again next year at a venue where multiple flash pictures in large caverns can be attempted such as Honister or Saddle Stone at Coniston.

A. D. Cameron

BRANDLEHOWE SALT LEVEL 28TH OCTOBER 1990.
MEET LEADER ROY GARNER.

The Salt Level was the Adit Level of Brandlehowe Lead Mine. According to Postlethwaite it was commenced around 1819, and was a cross cut driven north from the margin of Derwentwater for 100 fathoms. The water which springs in the northern end of the mine was impregnated with salt, hence the name. It has recently been dug by the LMQT tunneling team, and Roy Garner offered to show us around. He warned us that wet suits were advisable. What he didn't say was that it was also low, and whilst the water was not much above waist level the roof was at shoulder level. After crawling backwards into the two feet high entrance the floor drops a little and one proceeds for about a hundred meters at a stoop with ones helmet scraping the roof and ones chin in the water. This part of the adit is coffin shaped, and is narrow as well as low. The LMQT team had to clear two blockages in this section. Dig one, about 50 meters in took two days work, whilst dig two involved about seven days. The roof was timbered in both places to prevent it running in again. The water level was even higher than at present, and the diggers were immersed in water the whole time. The spoil had to be dragged back along the adit, causing the floor to rise so that now one has to crawl over it on the approach to each dig.

The mine is dry after dig two and one is soon able to stand upright. A wooden kibble was found on a ledge nearby and has been removed for exhibition at Threlkeld when the museum opens. A hundred meters further on there is a flooded sump on the left from which a ladder protrudes. Looking down through the clear blue water one can see a staging below with another ladder rising through it. The hole in the top staging has its sides cut away in a curve, making it roughly circular in shape to give clearance for a kibble or perhaps just for a mans shoulders. After passing wooden launder and a flooded sump the end of the main drive is reached, and this seems to correspond with Postlethwaites remark that the Salt Level was driven along the vein for a hundred fathoms.

At this point however the roof is stoped upwards for about ten meters, and the level branches to the left and now continues for another two hundred meters to a forehead 470 meters from the entrance. This second part is much more spacious than the first, and feels much more modern, and was presumably driven not long before the mine closed in 1891. There was speculation that it might be even more recent. A small piece of rubber coated detonator fuse was found on the floor which may confirm this if it can be dated. There are several candle stubs on the walls and clog prints on the floor.

After a thorough exploration of the adit and some photographs the party returned to day, where it was found to be raining heavily, and many difficult and complex contortions were performed in the back of steamed up cars whilst members tried to change out of their sodden clothing in relative comfort. It would have been interesting to walk around the surface remains and to interpret them and locate the sites of the 34 foot water wheel ,the 30 h.p. steam engine and the 350 h.p. beam engine which once worked there, but the weather was not nice so we all went home.

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|--------------------------|----------------|---------------|
| Roy Garner (Meet Leader) | Sheila Barker | Angela Wilson |
| Ian Matheson | Sally Smith | Andy Porter |
| Mark Simpson | Dave Blundell | Peter Fleming |
| Don Borthwick | Paul Timewell. | |

IAN MATHESON.

C.A.T. TRIP TO YEW CRAG MINE 18/11/90. A. D. Cameron

Yew Crag must be one of the very last extensive mine systems in Lakeland which has not been properly explored and interpreted and it was inevitable that a CAT trip would be arranged there sooner or later.

Preparation for the trip started in early autumn and quite a bit of work was done on the history of the site. The sequence of installations and operation of the external incline and overhead ropeways was determined - but little information could be obtained on what was underground.

Both joint meet leaders (Cameron and Matheson) had explored inside in their youth, but that was many years ago, and age has a funny effect on the memory. Chairman Mitchell also recollected that he had explored part of the system with a colleague. But again that was a long time ago although he remembered a number of specific points including a 'spiral shaft'. There had even been a CAT trip to Yew Crag in the distant past, but no one seemed to remember anything about it and no notes were available. It was quite clear from the start that this was to be an exploratory trip into new ground.

A strong, experienced group of mine explorers gathered at Honister car park on the morning of the trip. Honister's weather was being true to form with every conceivable type of precipitation coming out of the sky. It was also very dark, blowing a gale and bloody cold. Having got as much warm gear on as we could we ascended the access road towards the workings and the external incline. The access road meets the external incline about a third of the way up and the incline was then ascended to the top with brief halts while the meet leaders explained how everything used to work.

The open cast workings at the top were explored. From one of the high open quarries a level was discovered which was accessible. This proved to be the highest level of the internal system which descends down through chambers and passages for many hundreds of feet to the lowest workings in the mine.

It was a relief to get underground out of the weather and the party started to descend through the system. In all seven levels were accessed and each proved to be fairly complex. The descent from one to the next was usually by inclined shafts or ladder-way one of which proved to be Mike's spiral shaft! Each level and corresponding closeheads was explored and a number of interesting artifacts were found. From time to time a member was despatched off to see whether a particular level connected with the outside world or whether it was blocked by a roof-fall. Eventually the party arrived at the lowest level connected to the system (although not the lowest of all the Yew Crag levels).

At 5pm the party ascended one level and then came out to day (or rather, dusk) and made their way back to the car park at the Hause. It had been a very satisfying trip.

As soon as possible we must carry out a full survey of the system. A number of members of the party made notes and Dave Blundell recorded details of the route we took on tape while the trip was in progress. It is hoped to return to Yew Crag in the near future.