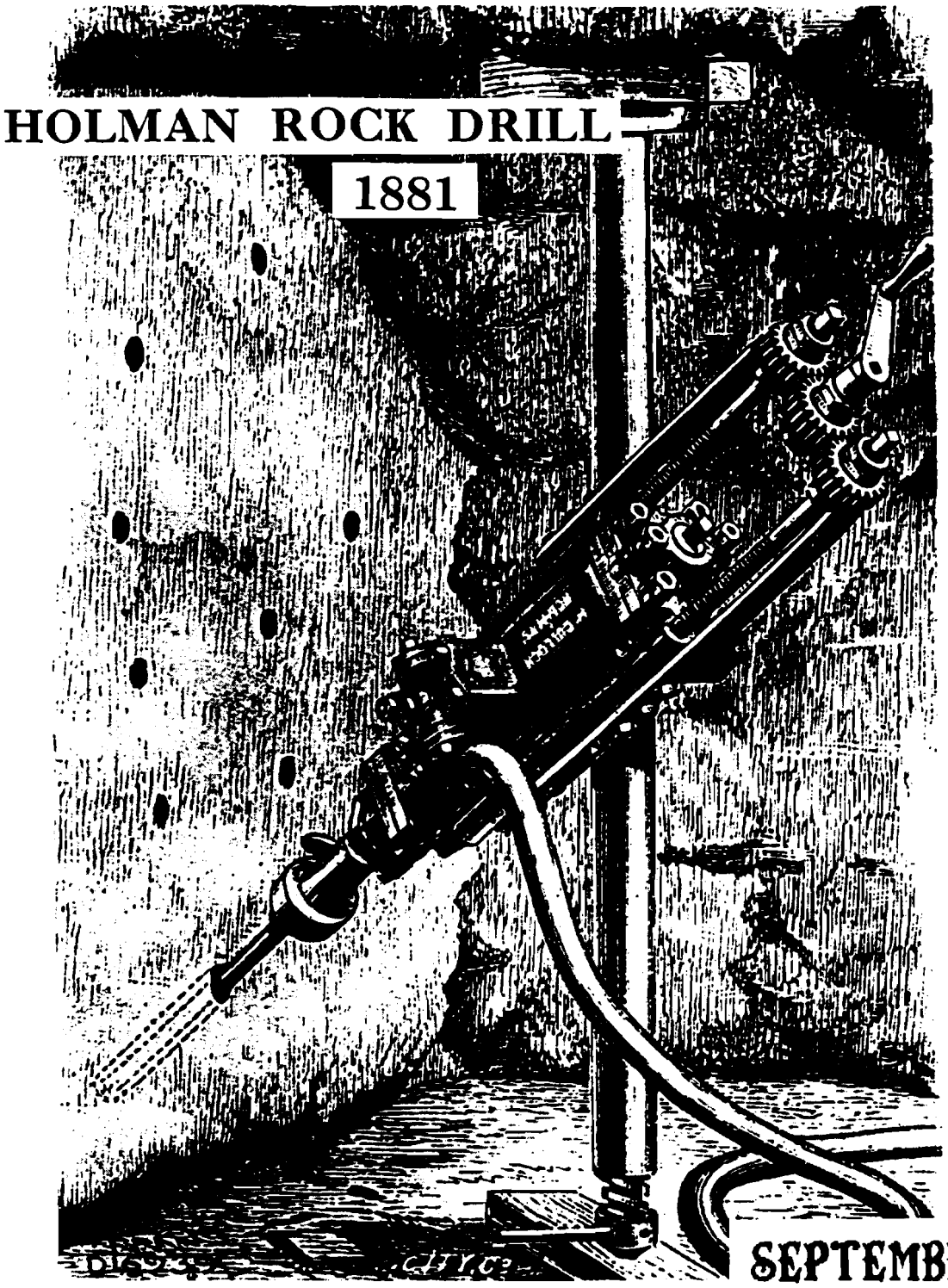
CUMBRIA AMENITY TRUST



NEWSLETTER NO. 27

SEPTEMBER 1990

MINING HISTORY SOCIETY

The cover illustration and this foreward were taken from an undated Holman catalogue (mid 1920's?)

FOREWORD

SINCE the first Holman Rock Drill Patent was taken out in 1881, advances made in mechanical and metallurgical science have been tremendous and have affected every branch of the engineering industry. By following the trend of progress, by adopting and adapting new methods of production, heat-treatment, etc., and by continuous research work in the firm's Laboratories, Works and Quarries, Holman Drills have gained and maintained a reputation second to none.

Innumerable types have been developed, many becoming world famous. The models of to-day bear little resemblance to those of half-a-century and more ago, but they have this in common with the early machines—nothing is spared to make them the very best of their kind.

Record after record has been set up with the aid of Holman Drills. More important, however, is the fact that in ever-increasing numbers they are being employed in mining, quarrying, civil engineering, and wherever holes have to be drilled in rock.

C O N T E N T S

APOLOGIES to those people who contributed articles which do not appear in this edition, some have been held for publication in the next Club Journal. The rest should be included in the next Newsletter.

********** THANKS TO MARGARET FLEMING FOR PHOTOCOPYING **********

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Wendy Battersby

Peter Fleming

Lindsay Harrison

Maureen Stone

MEMBERS PLEASE NOTE.

NEW VENUE FOR THE MONTHLY SOCIAL MEETS,

THE WHITE HART INN AT BOUTH, FROM WEDNESDAY 10th OCTOBER 1990

GRID REF. 328856 O.S. sheet 96

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A DATE FOR THE DIARY SATURDAY 8th DECEMBER 1990

C.A.T.M.H.S 11th ANNUAL GENERAL MEETING AND DINNER

THIS YEAR WE HAVE DECIDED TO SPREAD THE EVENT OVER A DAY. THE PROGRAMME WILL BE AS FOLLOWS.

11.30 AM WALK AROUND P.FLEMINGS "COPPERMINES TRAIL". MEET AT THE FELL GATE, CONISTON COPPERMINES TRACK. SD 299 979

4.00PM AGM AT THE YEWDALE HOTEL,CONISTON (CHANGING FACILITIES AVAILABLE)

8.00PM THE ANNUAL DINNER (MENU AND PRICE LATER) FOLLOWED BY AFTER DINNER ENTERTAINMENT. A PHOTOGRAPHIC COMPETITION OR PHOTOGRAPHIC QUIZ. ****** PLUS A SPECIAL PRESENTATION FORM THE PETE FLEMING PORNOGRAPHIC ARCHIVE *********

PLUS ** A SPECIAL PRESENTATION FROM THE PETE FLEMING PHOTOGRAPHIC ARCHIVE.********

STOP PRESS: Please see separate dinner menu and booking form

HAIG COLLIERY ENGINE HOUSE AND WINDING GEAR SCHEDULED

A trust is to be formed to bring together all interested parties to ensure the future preservation and development of the site.
British Coal representatives are to meet trust members at a meeting on the 5th September. It is hoped B.C will provide some finance for the project as Copeland Borough Council are reluctant to provide funds.

If any members would like to contribute ideas etc,to this project or just for an update contact Mike Mitchell.

REVIEW

FORCE CRAG THE HISTORY OF A LAKELAND MINE by IAN TYLER

RED EARTH PUBLICATIONS 1990 120 pp PRICE 6.99 plus £1.00 postage.

This book is the latest of Red Earth Publications mining histories and the first published work of Ian Tyler. He has researched the history thoroughly but does not bore the reader with lists of tedious facts. The text is well interspersed with anecdote which gives an insight into some of the hardships endured to win ore from this remote mine. The financing and leasing terms make interesting reading in the light of present day mining costs, again these are presented in a readable style.

The detailed pen drawings by Jean Tyler stimulate the readers imagination and the photographs have reproduced well to give an authentic atmosphere of mining.

The brief geology might be lacking for the professional geologist but is adequate for the layman and certainly does not diminish the overall achievement of this excellent publication.

PETER BLEZARD.

Copies available from: CALDBECK MINING MUSEUM,PRIESTS MILL,CALDBECK.

RED EARTH PUBLICATIONS, 7 SILVER ST, MARTON, ULVERSTON, CUMBRIA LA12 ONQ. or any good book shop.

NEW BOOK

MINERALS OF THE ENGLISH LAKE DISTRICT - CALDBECK FELLS -

CHRIS STANLEY & MIKE COOPER 160pp. Paperback 0 565 01102 2

Long awaited publication from the Natural History Museum is now available price £14.95

NAMHO NEWS

NEW PUBLICATIONS

A regular feature in this Newsheet has been a list of new publications on mining history and related subjects. It is now intended to extend this facility by using the database currently used by the British Cave Research Group to prepare their publication "Current Titles in Speleology". The latter covers mines as well as caves and it is particularly valuable in that many articles in obscure caving publications are included, as well as ones covering mines abroad. Roy Paulson will be responsible for collating the information and it will be issued as a separate enclosure with each issue.

Roy also acts as librarian for NAMHO as well as BCRA, the various collections all being centralised at Matlock Local Studies Library. He is willing to send photocopies of material in the collections to any member of a NAMHO organisation at cost. If there is a particular publication that is required, the member should contact Roy. Please publicise this service to your members. See overpage →

PERSONAL INSURANCE

Although there is indemnity insurance available to members of NAMHO organisations, this does not cover personal death or accident. Most members nowadays will have some form of life insurance but, unfortunately, cave and mine exploration is regarded as a 'hazardous pursuit' and is excluded in the small print of most policies. Those companies that do actually extend cover usually place silly restrictions on it such as "no more than 12 trips per year and not below 150ft". Considering the large premiums that can be paid out for life insurance, it can be catastrophic to find out that the cover is completely void if an accident happens whilst underground. This is something that most members of NAMHO organisations should consider carefully, especially if they have dependants.

There is now an insurance broking firm that is offering life insurance to suit members' personal requirements AND to include cover for underground exploration at no excess premium. It is well worth obtaining a quote and they may be able to offer all the variations on the market as well as other insurances as well. Please notify your members since it is something they should consider carefully. The firm is

Pentre-Vere Ltd, Riverside House, 31,Cathedral Rd, Cardiff
T. 0222-231133 CF1 9HB

1991 MINING CONFERENCE

3-6th May 1991. Venue: Blaenau Ffestiniog, Wales

Can you notify your members so they can reserve the dates. It will take place over the May Day Bank Holiday weekend and will be sited at Llechwedd Slate Caverns, Blaenau Ffestiniog. A programme of lectures and trips will run concurrently over the weekend and there will be the traditional social event on the Saturday night. More comprehensive details will be available later but any queries in the meantime should be directed to the conference coordinator: Mrs Margaret Vernon, 78,Oakenshaw Lane, Walton, Wakefield, W.Yorks WF2 6NH. T.0924-257017.

GEEVOR MINE

It was reported in Newsheet No.14 that underground tours were being offered here and some more information is now available. The cost is £12 per head with a minimum age of 14 and the tour explores the deeper part of the mine, lasting 2-3 hours. You descend Victory Shaft to the 1500ft level where the pumping machinery is sited (fresh and saline water being handled separately). A short walk comes to the head of the 1 in 4 decline which goes underneath the old workings of Levant Mine to the 2200ft level. The tour leaves at the 1900ft level which is about 100 yards beyond the sea cliffs. Here there is the grizzly together with the winding gear for the disused lower workings. The guide is a miner who gives a good talk on the history, development of the mine and its future. There are two tours per day (morning and afternoon) and it is advisable to book since the party size is limited to the number that can be carried in the cage.

ISRAEL COPPER MINE

Two PDMHS members recently surveyed some extensive Roman copper mines in Israel and there is a brief description in PDMHS Newsletter No.53. Doubtless a full report will appear later in their Bulletin.

TRUST GOES PROFESSIONAL

The North Pennines Heritage Trust has received grants from the Countryside Commission and local government to employ a full-time Trust Manager. The new manager is Raymond Forrester who took up duties in February. Together with a part-time assistant, they will promote the Trust's objectives and raise funds.

AROUND THE REGIONS

Derbyshire

Members of PDMHS recently rescued a crushing circle from the Slitherstones Mine in Derbyshire which was in danger of being quarried away. It was reconstructed at Dirtlow Rake where it will form an unattended site open to the public. (PDMHS N/L)

There will be no access to either Oxlow or Maskhill Mines in Derbyshire until July 1990.

Durham

Beamish Museum has constructed a pit heap next to its coal mine display to add an authentic touch. The material was provided by British Coal who seem to have a surfeit. (PDMHS N/L)

Forest of Dean

Members of R.F.D.C.C. have been excavating a fall in Westbury Brook Mine and have applied to the Gaveller to obtain the rights to the mine (the 'Gale') under the old mining laws. (RFDCC N/L)

Nottinghamshire

Nottingham County Council have built an artificial cave at their adventure centre in Lady Bay Bridge, Nottingham. It has been made out of a mixture of limestone and concrete pipes with 120ft of passages, 2 mine shafts and an adit. The idea is to encourage caving without putting pressure on classic sites in the area. (SCMC N/L)

Shropshire

There is now a trail at Granville Country Park around the remains of Barnyard, Muxton and Freehold Collieries. There is also a mining scuplture outside the Miners Arms, Madeley but only an iron truck and horse have been built so far. (SCMC N/L)

A recent trip by WMS to the Grits area found that the 3 engine houses are deteriorating rapidly. They have asked SCMC to assist them in restoration work at Ladywell Mine. (SCMC N/L)

Lancaster University Archaeology Unit has won the contract to survey the remains of Snailbeach Mine whilst Ivor Brown is to survey the mine water supply arrangements. (SCMC N/L)

Ove Arup is to carry out research into the Pennystone Ironstone Mines at Oakengates and the limestone workings near Steeraways Farm. (SCMC N/L)

Wales

The mill at Cymystwyth Mine has now been completely demolished and there are rumours that the barracks and other buildings are to be levelled. (WMS N/L)

The new mine at Parys Mountain is progressing and the headframe and winding gear is in place. The shaft has reached 499m with crosscuts driven to the vein. Waymarked paths have been laid out around the old mining remains and a guide is shortly to be published by Gwynedd County Council. (WMS N/L)

Visitors to Parys Mountain will no doubt have seen the modern troughs used to precipitate copper out of water issuing from the old mine workings. It seems that they were predated by at least 100 years and possibly in Roman times. "Land of my Fathers" by Alexander Cordell describes how shafts were left to flood for 9 months and then drained. The water was mixed with scrap iron in troughs and copper precipitated out as a sludge. (PDMHS N/L)

DESULPHURISATION

The government has abandoned a scheme to fit £2 billion worth of sulphur dioxide filters to coal-fired power stations, mainly due to fears that the high costs will affect electricity privatisation. It is believed that this will lead to closure of some UK coal mines with cheap low sulphur coal being imported from abroad. It will, however, reprieve large areas of limestone earmarked for this scheme and may save several disused mines that were in danger of being excavated away. Two sites at Drax and Ratcliffe on Soar will, however, go ahead with the filters and their limestone supply will come from Derbyshire. (SCMC N/L)

TOUR OF S.W. IRELAND

David Bick is hoping to arrange a tour of mines in S.W. Ireland, staying at Youth Hostels,for September 1991. Anyone interested should contact him at Pound House,Newent,Gloucester.

SCHEDULING CRITERIA

Mike Gill was recently asked to prepare a report for English Heritage on criteria for scheduling underground sites of metalliferous mines. Although this was a step in the right direction, some concern was felt that the subject was too narrow and it excluded a vast number of sites of coal, iron, stone, etc. mining. As a result, the last Council Meeting decided to commission two supplementary reports on

a) Coal, Iron & Fireclay.
b) Stone, Slate & other miscellaneous material.

These reports will be prepared over the next few months and will contain criteria for the scheduling of underground sites and surface features. They will also include a list of such sites which are felt worthy of scheduling.

The opportunity now exists for members of all NAMHO organisations to contribute to these reports - can you notify your membership.

The reports will adopt a similar format to Mike's one and under various headings will describe the types of feature or in situ artefact that would be regarded as important enough to warrant preservation by scheduling. Other criteria could also be mentioned, such as a mine which is a rare example of an accessible type. Mike's headings were

Mining methods
Haulage/Access
Ventilation
Drainage
Underground services
Miscellaneous.

Basically, we have to state why a particular site is more important than others (or a good example of its type) and why it should be preserved. To do this, we have to agree a set of nationally relevant criteria and then consider individual sites in this context.

All suggestions and lists of specific sites (with reasons for inclusion) should be sent as soon as possible to

a) Coal, etc. : Nigel Chapman, 14,Dorset Rd, Edgbaston, Birmingham B17 8EN. T. 021-429-3930.

b) Stone, etc. : Adrian Pearce, 162,Kingston Cres, Chatham, Kent ME5 8YZ. T. 0634-686523.

NO ACTION TAKEN BY CATMHS AS REPORTS ALREADY SENT ON IRON, STONE ETC.

MEMBERS MAY SEND INDIVIDUAL REPORTS IF THEY WISH.

U.K.

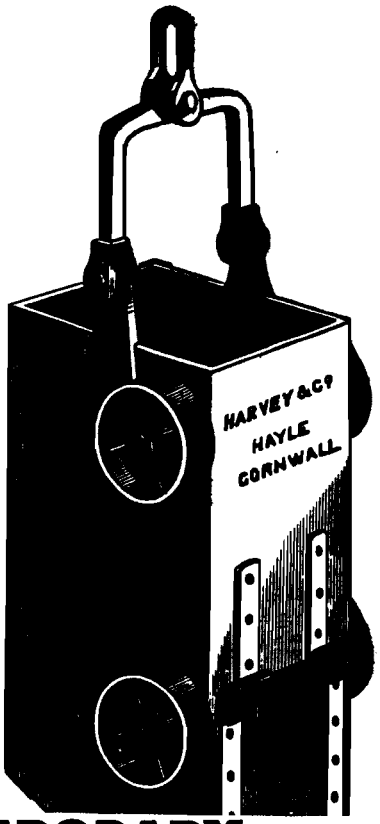
Cornish tin: mines close, tourist trail to open

In mid-March Carnon Consolidated announced the closure of one of Cornwall's last two working tin mines, Wheal Jane at Baldhu near Truro, with the loss of 150 jobs. This follows the closure the previous month of Geevor plc's Geevor mine at Pendeen with the loss of 122 jobs. A few personnel are being retained at both mines to keep the pumps running for the time being: operations at Wheal Jane are to be run down over a period of nine months. Cornish mines need a price of about £5,000/t for tin for their operations to be viable, compared to recent price levels in the region of £3,900.

Carnon's South Crofty mine, employing 370 workers, is to be kept running. Brian Calver, Carnon's managing director, is quoted as saying that South Crofty is in a comparatively stronger position because of lower costs.

Meanwhile, a scheme has been announced to improve the tourist potential of Cornwall where, a century ago, there were around 200 mines in production and nearly 100 groups of stone engine houses and other mining and tin processing buildings are still standing, most of them designated as listed buildings by English Heritage. The scheme involves creating what will be the largest historical and recreation trail in Europe. Under the scheme, known as The Mineral Tramways Project, a 40 mile (64 km) path will be developed across the peninsula from coast to coast, linking old mine workings and engine houses. Disused tramways will be converted for walking and cycling, and the route, part of which will be along the Red River valley, will link existing museums and old mine sites. The latter will be landscaped and engine houses preserved. Much has already been achieved by the National Trust, the local authorities and the Trevithick Society in restoring some buildings and, in a few cases, the engines which occupied them.

Six organisations — Cornwall County Council, The Countryside Commission, Kerrier District Council, the National Trust, Kerrier Groundwork Trust and English Heritage are taking part in the scheme and they have recently appointed London-based Roger Tym and Partners (RTP), a leading firm of development economists and planners, to prepare an environmental and improvement strategy. The study by RTP will recommend a course of action which brings together the principal public agencies, landowners, mining and new business interests to promote an agreed programme of action.



CARNON'S TEMPORARY REPRIEVE FOR WHEAL JANE

Carnon Consolidated, which changed hands in a management buy-out from RTZ Corp. in 1988, has delayed closing one of only two operating tin mines in the U.K. Following an announcement in March that the loss-making Wheal Jane mine in Cornwall was due to close permanently at the end of this year (*MJ*, March 16, p.213), the operation has been granted a temporary stay of execution until next June.

The decision will spare the loss of 100 jobs for the time being but the longer-term outlook remains less promising and proposals for the future use of Wheal Jane's 110-ha site are still being considered.

The operation requires a tin price of around £6,500/t to break even compared with £3,200/t for cash metal on the London Metal Exchange this week. However, the orebody contains significant amounts of zinc, a metal which has been relatively buoyant in recent weeks. Mr Brian Calver, managing director of Carnon Consolidated, said that by "raping the mine for the past six months" it has been possible to extract ore at grades of between 5% and 7% Zn. Approximately 6,000 t of the metal will be produced in concentrates this year compared with a more usual level of just over 5,000 t. The operation will also produce around 1,000 t of tin in concentrates in addition to small quantities of copper, tungsten and silver.

Beyond next year, a scheme is being formulated to develop the site into a tourist attraction utilizing the workings and associated industrial operations as the principal focus. Planning permission will be sought in October and it is hoped that the project will help reduce annual pumping costs from around £1.5 million to the £600,000 mark. Water is extracted at a rate of 6,000 gallons per minute and shutting down the pumps would almost certainly preclude reopening of the operation should tin prices rise to economic levels in the future.

In 1988 Carnon employed 2,000 people but when Wheal Jane finally closes down, numbers will fall to 370, chiefly engaged at the company's principal operation nearby. The South Crofty mine, which will continue to send ore to the Wheal Jane mill, produced 2,450 t of tin in concentrates last year and is said to be economically viable at tin prices above £3,600/t.

Carnon has a £25 million interest-free loan from the U.K. Government and similar borrowings of £10 million from RTZ. Income from other sources must be used to support tin mining activities as part of the condition of the government's financing arrangements — the company presently has £4.2 million of loans and cash available.

The U.K.'s third tin mine, Geevor, at Pendeen in Cornwall finally shut down in February with the loss of 122 jobs and some 700 t/y of tin. □

APRIL 90
Mining Magazine
Vol 162, No 4.

WORLD HIGHLIGHTS

EUROPE

Anglesey Mining at Parys Mountain

Anglesey Mining has taken the first underground bulk sample from its Parys Mountain mine, U.K. In late December 1989, 200 t of ore grade material were removed from the White Rock zone on the 280 m level. Grinding and material separation tests are now being conducted at the company's 1 t/h pilot plant at the North Wales property. This plant was purchased and assembled by the company to facilitate more rapid and comprehensive on-site metallurgical testing than would be available elsewhere.

Underground tunnelling and drilling programmes are in progress at the property; so far eleven underground diamond drill holes have been completed, six for structural information and five for orebody evaluation.

Prior drill-indicated ore reserves were computed from surface drilling to average 1.5% Cu, 2.8% Pb, 5.6% Zn, 94 g/t Ag and 0.9 g/t Au across an average width of 3.8m. The new results from hole PM008 are 3.57% Cu, 7.26% Pb, 11.3% Zn, 196 g/t Ag and 0.37 g/t Au over 6.6m, while hole CZ2, a surface hole, assayed 2.91% Cu, 6.89% Pb, 12.7% Zn 217 g/t Ag and 1.92 g/t Au over 3.78m. Hole PM11, now in progress, has intersected 6m of massive sulphides for which assay results are awaited.

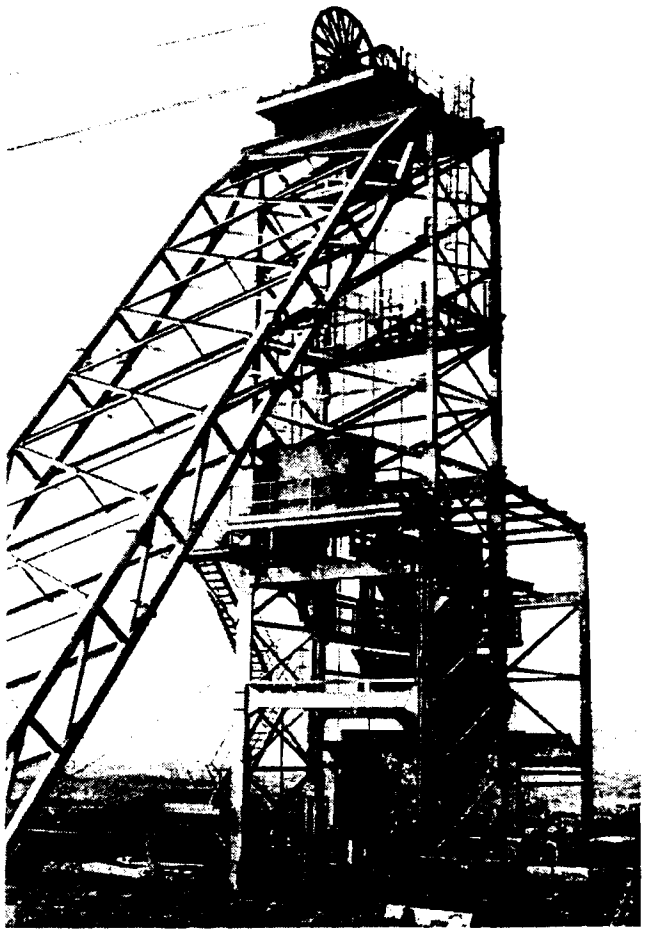
Over 400m of development are now complete on the 280m level: half the total planned.

A target date for the completion of feasibility studies has been set for July 1990. If given the go-ahead, construction would start immediately, with commercial production being achieved early in 1992.

Czech gold

A new deposit in Czechoslovakia, situated near Mokrsko in Central Bohemia, south of Prague, has been verified with reserves estimated at 100 t of gold. Negotiations have begun concerning the potential for mining at Mokrsko through contacts with the Australian partners of Barrack Mines, the Gwalia group and the Pennant company, which have put forward projects for opencast mining. BHP-Utah has also shown interest.

An environmental impact study is currently being carried out by the Czechoslovakian Institute of Landscape Ecology. The project is also conditional on the consent of the local residents.



The Morris shaft headframe at Anglesey Mining's polymetallic Parys Mountain development in North Wales. The company is raising ore-grade material from the 280m level for on-site pilot trials.

GDR's coal problems

Serious environmental problems linked to extensive opencast lignite mining in the Cottbus area of East Germany (GDR) have now led to calls for a new energy policy in the GDR to avoid further destruction of villages and disruption to local communities. For example, it has been estimated that between 1986 and end-1990, approximately 37 villages will have been removed to make way for opencast mining operations; houses and flats for about 7,000 people will have to be replaced and in the first six months of this year the transfer of 31 settlements with 3,900 inhabitants has been scheduled.

Some 200Mt of raw lignite of the total of 310 Mt produced in the GDR, comes from the Cottbus area. However, these opencast operations are currently excavating around 6 ha/d, while reclaimation occurs at a much slower rate, 2 ha/d. Dust pollution is another problem, in spite of the use of modern dust-control equipment, emissions of about 470,000 t/y have been recorded at even the newer production enterprizes.

According to Wolfgang Jung, the deputy-general manager of the Senftenberg lignite combine, even an immediate change to the current energy programme, would take effect only in eight-ten years at the earliest.

ASIA

Chinese coal export problems

Reportedly, China is set to increase its coal exports to Japan, following a meeting between representatives from the two countries in Beijing. Wei Guofu, general manager of the China Coal Import and Export Corporation, has apparently stated that Chinese coal exports to Japan could increase by 2-3 Mt/y over the current export level of 3.7-4.1 Mt/y.

However, no agreement has yet been signed by the two countries owing to a failure by the Chinese side to meet its present commitments. Under existing contracts, Japan was supposed to have imported 1.46 Mt of coal between April and October of 1989. China, however, could only supply 1.03 Mt; by the beginning of November 1989, only 78% of China's contracted coal exports had been delivered to Japan and as a result Japanese customers had complained about the disruption in coal supplies. According to Wei Guofu, China will take effective action in order to improve delivery times and the quality of coal for export. Cuts in export quotas of coalfields might occur if standards are not met.

Yanzhou coalfield completed

According to the Yanzhou Coal Mining Administration, the Dongtan coal mine, in China's Shandong province, has started operations. The coalfield, covering 475 km^2 with proven reserves of 3,880 Mt, is designed to produce 12.85 Mt/y of coal. The coal produced will supply the needs of the Shanghai Baoshan Iron and Steel Company and will also be exported to Japan and Southeast Asian countries.

MINWORTH TRANSFORMATION

U.K.-based Minworth, a major supplier of fluorspar, has changed its name to Minworth Group plc and has completed a major placing of equity which will be used to fund production expansions. Accompanying the transformation to a public company, Lord Marshall of Goring, former chairman of the Central Electricity Generating Board, has joined the board as chairman. Lord Variey, a former Cabinet Minister as Secretary of State for Energy and, until recently, chairman of the Coalite group, and Dr Gordon Richards, previously executive vice president at Billiton International Metals, have been appointed non-executive directors.

However, the company's founder, Mr Peter Mason, who was instrumental in securing the new appointments, has resigned from the board in concert with a reduced family holding in the business. Mr Mason, chief executive and managing director since Minworth was formed in 1979, is responsible for establishing the company as a world-ranking producer of fluorspar in addition to developing its range of interests in barytes, lead and zinc concentrates and anthracite production.

A replacement is yet to be found but Mr Mason, who will pursue other business interests, said he would maintain his ties with the company as an adviser to the chairman.

Minworth first came to the public attention in the U.K. with the development of the barytes mine and plant at Strontian in Scotland in 1983. The company had earlier taken over Swiss Aluminium Mining's fluorspar operations in Weardale, northern England, and the project has been transformed into one of only two profitable fluorspar producers in the U.K.

Company activities were expanded into Canada in the early 1980s where development of a highly sophisticated new processing plant at St Lawrence in Newfoundland has transformed Minworth into the major producer of the mineral in North America.

The 85,000 t/y capacity operation is based on the Burin Peninsula deposits and is currently the country's sole domestic source of fluorspar. Production figures are kept a closely guarded secret but shipments from Canada last year amounted to 52,000 t. □

SCOTLAND

Lowther Hills lead mining heritage trail

The villages of Leadhills and Wanlockhead, in the Lowther Hills on the borders of the counties of Strathclyde and Dumfries-and-Galloway, are some 60km south-southeast of Glasgow. Situated at an elevation of around 460m, they are amongst the highest villages in Britain. The area was a busy lead mining centre in years gone by, the peak period of production having been the 18th century. Mining activity carried on well into the present century and some former lead miners still live locally.

Approaching the villages along the B797 road, branching off the main A74 road at Abingdon, one comes to Watersmeet, one mile before Leadhills, where there is the site of a smelter. Above the site, the line of flues can still be seen. Closer to Leadhills, on a hill to the north, are the remains of the Susanna mine, which is reputed to have produced more specimen mineral samples than any other in Britain. In the main street of Leadhills itself is the Miner's Library, the first lending library in Britain (and still in use), established by the poet Allan Ramsey in 1741. Amongst its exhibits are some bargain books which record contracts between mine managers and miners.

The Glengonner mine complex lies to the east of the road between Leadhills and Wanlockhead. The ore hoppers are set back from the road, beyond the line of an old tramway. Looking back towards Leadhills from the hoppers, along the tramway track, a tunnel can be seen. This carried the track across a stretch of ground liable to heavy snow drifting: the line was laid on the surface, and the tunnel built over it.

A right turn through the centre of Wanlockhead, followed by a sharp left at the foot of the hill, brings you to the Lead Mining Museum car park. The museum is housed in a building that was a smelt mill for fifty years but, around the middle of the 18th century, became the mine engineer's workshop. Museum Trust booklets are available and a video gives background information. There are two working models of water pumps in the museum — the original of one is still underground, the second is of a water powered beam engine further down the valley.

Flue timbers, "pickled" by lead and arsenic.

From the museum it is a short walk to the Lochnell mine, where visitors have access to some of the underground workings: enough to get an idea of what conditions were like when they were in production. Past the church, also in the care of the Museum Trust, are two miners' cottages demonstrating the conditions under which the workers lived. Beyond these, a well-marked trail leads visitors to Bay mine, where local man William Symington installed his improved version of Newcomen's engine.

Further down the road there was a dressing plant, and where the Sowen Water and Wanlock Water meet are the remains of the Duntercleuch smelter. The ruins of this are the largest group of buildings remaining from the Lowther Hills mines. It can be seen how hearth flues discharged into a cooling chamber before the fumes were led zig-zag fashion up the hillside to a chimney. The flues were built of timber covered with mine waste. The flues have been destroyed, but appear as shallow trenches sweeping across the barren hillside. Most of the timbers remain, split and foliated along the annual rings by freezing moisture but unaffected by bacteria as they are well pickled in lead and arsenic. □

The beam engine and miners' cottages at Wanlockhead.

The Isle of Skye.

Spring Bank Holiday Week

Underground and Extractive.

Present:-

Mike Mitchell,	Barbara Mitchell,
Sheila Barker,	Peter Blezard,
Margaret Fleming	Peter Fleming,
Mark Scott,	Don Borthwick.

There is quite a degree of dual membership between CATMHS and Barrow Mountaineering & Ski Club (BMSC). Eight of the thirteen BMSC members holidaying at Sligachan Bridge falling into this category. Several of the activities enjoyed during the week may be of interest to the general membership so are commented on briefly below.

Raasay Ironstone Mine

The bookshops in Portree were selling a recently published book entitled:- The Raasay Iron Mine - Where enemies became friends, see below for a review. Two members bought copies and decided to spend a day on Raasay and investigate to further.

One of the two, Mike Mitchell had visited the mine before, and knew his way around most of the surface remains. The book filling in on the gaps, in his knowledge. We had brought some underground gear to Skye with us in order to visit the Spar Caves (see below), hence an underground trip was also to be possible.

A party of six (Mike, Barbara, Sheila, Peter, Larry Toomey {BMSC} & Don) visited the Island on the Thursday. The major part of the surface remains are at East Suisnish, where the ferry lands. The landing pier is itself was built by the mine owners, and was initially equipped with conveyer system for the loading of ore. After an inspection of the remains of the ore hopper and calcining kilns etc, we followed the track-bed inland. There were three ore extraction sites, mines numbers 1 & 2 and an area of opencast working. The latter was not visited, mine 1 was the main source of production it was to this that we headed first.

The portal and the mine buildings stand near the South Fearns road at NG565365 (there is little picnic area complete with midges). Entry to the mine can be gained here though it is a little wet (OK in wellies), a dry entry can be made by walking to the nearby fan house, and proceeding down a ventilation incline. The fan house is worth the visit in any case (Mike Mitchell can explain the arrangement of doors for re-directing the air flow).

The mine is dry and quite spacious, the roof is a little 'tender' in places but the air was O.K. (on the day we visited). What appeared to be the main haulage-way was explored, Peter following this to the forehead. The mine was worked by board and pillar, cross ways having been bricked-up (leaving a small access hole) after use. A pleasant hour or so was spent here, not so good for Furness folk, no clinging red mud.

Next we went in search of number 2 mine NG558364. This site is not easy to find as it is now in a wood and very much overgrown, the main mine access is now lost. A narrow muddy entrance to a to what was probably a trial was investigated a ***short way to a collapse*** by Peter. This site had not proved to be a successful venture, though there had been quite a of capital had been expended on exploration, buildings and transport. The rail connection had been completed including the building of a viaduct. An interesting day, well rec

ommended if you can tear yourself away from the Cuillins.

Spa cave.

Present:- Everyone just about.

Peter Fleming had been doing some general reading about Skye and found some references to some sea caves. Spa cave near Elgol appeared to particularly warrant a visit, being a sea cave access was possible only at low tide, on the chosen day about mid afternoon. The main party set of walking from Elgol to investigate some other caves (e.g. Prince Charle's Cave) along the coast line. The cave is at NG538127, there is an official and easy footpath down the cliff to the beach (not the way most of us got down), the way then is then NW a short way then up a narrow inlet.

The cave is attractively decorated throughout, there is a climb up a steepish flowstone incline of about 50 feet to a chamber with a pool. Curtaineous stalagtites may be seen in a roof which in places reaches a height of 40 feet. The pool forms a barrier to further exploration to those who wish to stay reasonably dry, what is beyond is Peter Blezard's story. Worth a visit!

Skye Marble - Quarries.

On the hillside to the west of the Broadford to Elgol road, there is a group of now abandoned quarries NG620203 that were once worked for the very attractive Skye Marble. Makes an interesting diversion to try and interpret the site, seems to be popular place with rock tapping geologists.

Diatomite.

Kentmere is well known for its slate workings, much less so for a few small lead workings. The other extractive industry in the valley was that for diatomaceous earth the remains of single cell marine life now principally used for filters.

The legend 'dismantled railway' on the North Skye OS map for a track bed starting at NG517606, suggested something extractive and the need to investigate. There is a limited evidence of a railway, a 'farm' road built by a famine relief committee in 1846 provides the best access. Nothing much to see, Lock Cuithir NG475595 which looks rather like Kentmere Tarn and there are ruins of what were probably a hauler house and drag-line pylon foundations, scenic position.

The RAASAY IRON MINE.

Where enemies became friends.

by:- Lawrence and Pamela Draper.

The Inner Hebrides are perhaps not the sort of place that you would expect an Ironstone mine. But at least for a period this was a strategically important source to the WW1 war effort. Even more remarkable is that many of those working the Raasay mine German POW's. The prologue commences:- A human & technical story of First World War International friendship under trying circumstances. The largest section of the book concerns the political and social aspects of the use of the POW work-force.

The history presented is very detailed, sources are rigourously referenced, be they cabinet papers, drawings of plant or where from an ex-engineers notebook. The photographs and figures in the text are excellent, as is the overall presentation. It is privately published though assistance in the production was given by Highlands & Islands Development Board

Very well researched with a good balance to the various aspects of the story, except, virtually nothing on underground working. Whether such information does not exist, or there was a definite policy not to encourage the unwary to explore is not known. An unfortunate omission but with this one reservation well recommended.

The recent past there has been a reduced interest in the Northern Pennine mines, consequently less news. The following is intended to bring the meet reports up to date and (perhaps) kindle a little more interest.

Weekend 22nd - 23rd July 1989

Saturday

Garrigill

Present:-

Mike Mitchell,	Sheila Barker,
Clive Barrow,	Dave Bridge,
Anne Danson,	Damian McCurdy,
Simon McCurdy,	Alistair Lings,
Bruce Deane,	Don Borthwick.

Lets go somewhere other than Nenthead itself for a change! but where? a consensus emerged to have a look at the other (Garrigill) side of the hill.

Firstly we went to Bentyfield Mine NY752425 as a number of people had not visited this site before. There are several levels here, Bentyfield mine, Grassfield mine and Browngill mine. Apparently they were tried on the day of the Longholehead Whimsey trip (Newsletter 15 p11) and none are know open. Perhaps a bit more investigation and a short spell digging could prove worthwhile. Quite an interesting site, a lot of broken ground & spoil heaps reaching a long way up the burn.

Further to the comments in newsletter 15, Dunham on page 179 (D179) shows Longholehead Whimsey terminating approximately 100 ft above Caplecleugh Horse Level. Caplecleugh is shown to connect with Whitesike Level (working Browngill Vein) by two short sumps. It is thought that Browngill mine lies above Whitesike, the entrance for which is understood to be in a lower section of Garrigill Burn.

Next we went to Ashgill Bridge where we knew there was a level (Ashgill Field mine D157) and some bouse teams. While parking we met an instructor from a local outdoor pursuit centre, he commented upon some of the mines in the area. Informing us that there was another level on the other side of Ashgill to the one we intended to visit and another quite a bit further upstream. Further he commented that they took parties into a system near a small church at the NW end of Garrigill.

The location of the level further upstream is known (Wellhopeknot mine NY780414 D182), indeed there at least two levels and a shaft in that area worth investigating by a small party (anyone else interested?) The possibility of something of interest NW of Garrigill had been noted previously. We had seen people clad in underground gear in that vicinity on a previous occasion.

Unfortunately the Ashgill Field mine was blocked a short way in, subjecting the writer to a few little comments. A curiosity was found here, a small side place with several tea plates set out as on a Welsh Dresser? The opposite level was duly searched for and found to be badly silted up, the intrepid [illegible]e & Alistair braving the wet slip[illegible]o investigate, what turned out to be just a [illegible]rt trial. Afterward we had generally po[illegible]d around the site, looked at the bouse te[illegible]ns, admired the bridge and waterfall had some food.

It was then decided to go to Garrigill to what turned out to be Tyne Bottom Mine D177 NY739418. Rather an interesting little place, there are two entrances, we found the upper one first, rather overgrown but its position was given away by a small stream appearing from the greenery. Our exit was by the lower (by about 10 feet) riverside level at about 50 yds from our entrance. Dunham notes the probability of Cobalt mineral in the ore, oxidation of which has lead to the deposition of Erythrite, a small area of this pink deposit being found.

Looking across the river there was what appeared to be a sizable spoil heap. We ventured across and entered a substantial level. A map kindly supplied by Dave Bridge identifies this as Cowper Dyke Head Mine D155 NY736423. The level is about 2000 feet long with a shaft going up (Dunham says to the surface) a little way before the forehead. A bit wet and muddy (over wellie depth). Neither Tyne Bottom or Cowper Dyke Head mines are marked on new 25_000 series maps ?

This completed there was still some of the afternoon left, so the party was induced to take a look at a potential future underground trip near Tynehead. We got changed and drove through Garrigill to the end of the metalled road and set off walking. The instigators memory of just how far it was proved to be well, 'not completely accurate' and it took a couple of "just around the next corner"s to get a by now dissenting party to the portal (2 1/2 km). The potential was

though accepted (see Calvert Mine below) but no one could be induced to walk just a little further to the source of the South Tyne.

Sunday

Ashgill Head

Present:-

Mike Mitchell,	Sheila Barker,
Clive Barrow,	Dave Bridge,
Anne Danson,	Angela Wilson,
Don Borthwick.	

Mike & Barbara had done some walking around Ashgill Head one day and noted a number of shafts high on the fell to the NW. Dave & Angela also had spent a little time exploring a level up the sike from the road side mine entrance (Ashgill Head Low Shop NY808355). Hence our third stop on the B6277 of the weekend.

Shafts

It was decided to have a look at the shafts first and work our way back to the level. As these shafts are in County Durham, capping is somewhat more haphazard than the concrete railway sleepers of Cumbria Fells. Protection to the walkers and sheep is not as good, also good belays are more of a problem. Nevertheless adequate material was found near to the two shafts descended to provide 'exploration' belays.

The first shaft had a nicely made stone ginging for the first 10 ft , then had been driven in good sound rock. The decent was made to a flooded bottom, no sign of a level here and no side passages off the shaft. A photograph for the record, then prussick back out.

This shaft was open but for a beam across the top. A bit dangerous but there was no material in the area for us to improve the situation

The second shaft was to prove more interesting but no more fruitful. At about 80 ft passages went of at either side and the shaft continued down. A steady stream of water issued from one passage and a trickle from the other. The wetter of the two passages ('left') appeared to go on quite a way, the other to terminate after about 5 yards.

Several attempts were made to pendulum into the left passage (the writer not being a Coniston veteran has yet master the subtleties of how much lower than the target to abseil and how to best judge the swing). Eventually wellies were made to grip on a short slope of sticky yellow mud, the passage had seemed a little low and explanation proved to be about a foot or more depth of this vile stuff. An attempt was made to make progress, but abandoned when the 'goo' showed no signs of shallowing.

The 'right' hand branch was then entered, this was clean underfoot and lead to some timbering. A possible climb here though no real hint of ore bearing ground. The shaft was returned to and an attempt made to carry on down. This to was abandoned after about 20 ft as the volume of water coming down from the disturbed passage made further decent hazardous.

There are some possibilities here though it would be worthwhile to consult a mine plan (if one is available) before any second visit is made. The 'gooey' level could go quite a long way but may well be being fed from bad ground. The shaft appeared to carry on was straight and in good rock, it may lead to something of interest. If this is ever to be attempted then this should be before entry to the left hand level and the descender will need support from the right hand sub level. In retrospect I can think of quite a lot of other places I would like to visit before returning here.

This shaft top was secured, in a somewhat better state than we had found it. The fell top was followed for over 2 km a lot of broken ground but only one more shaft. This has a secure cairn like capping, the re-building of which may have proved difficult, so it was left as it was and un-explored.

South Langty Head High Level

Much of the entry section to this level is not driven in the best of ground, so Sheila, Mike, & Don decided to 'guard the entrance' and let the others explore. A mistake, as it turned out, the level went quite a long way. A short rise was climbed and a small working area entered, Dave confidently feels that this was untouched since the miners left. Probably quite old the walls being hand picked and there are still clog marks in the floor.

Perhaps not the most exciting of days for the party as a whole but, the greater majority of the basic exploration is like this. Nice to get a day in these fells, it is probably by shaft

access that places of interest will be found. A bit of a graduation day for Don; these being the first occasions since becoming an active member of CATMHS, that he had been trusted to be 'the first one down' in new ground.

Easter Weekend

13th - 16th April 1990

Saturday

Nenthead

Present:-

Mike Mitchell,	Sheila Barker,
Ian Bretherton,	Alistair Lings,
Brian Marshall,	Ian Matheson,
Mark Simpson,	Don Borthwick.

As with the July 1989 Nenthead meet half of the members who congregated in the Nenthead car park had not made the pilgrimage to Mecca (visited Smallcleugh). As there was a general mood of 'lets not have too demanding a day', we set off for our annual visit to the Ballroom.

Concerned that these visits can degenerate into a mindless procession through the flats. Mike thought it was about time that we re-visited some of the places that generally get missed out. (Perhaps he had in mind a COMRU search planned for latter in the year {some additional comments relating to that may be found at the end of this report}). The branch to the left at the end of the Hard Cross-cut was explored to the sump down to Rampgill. As was the right hand branch up to the collapse in the horse level (just how long is this collapse? is it worth a dig?). After a little mooch around the flats above the junction, the party set off on the tortuous route through the flats to regain the horse level.

A few short detours (intentional ones) were made along the way, for example half the party climbed a 30 foot timbered rise on the approach to the Gullyback Cross-cut. A short passage to the left, leads to the rise, the first ten feet are laddered, the remainder is a free climb giving access to an U shaped flat.

Lunch was taken at Wheel Flats and after the usual search for the start of the crawl through Hetherington's Cross-cut, we progressed to Gypsum Corner and on to the Ballroom.

After the photographs and complaints about the graffiti and rubbish, it was then off to Longcleugh. We all made the slithery crawl past the iron pipe and up into the flats. No one particularly fancied the climb down the shaft or wet legs in the level to gain Longcleugh proper, this then was to be our furthest point from daylight. A lot more shale than usual appears to have come down from the rise up to Middlecleugh (at the slithery crawl), safety considerations demand that you bring something to dig with when coming here.

Back up the level, but in keeping with the chairmans edict, the Hydraulic Shaft on Elliots string was visited. A running belay was fixed up and most of the party crossed the shaft top to see the calcite straws and sphalerite, the mineral collectors have not succeeded in exhausting this spot yet (not a challenge!). Mike then took a look at the Main Horse Level, declaring that it was no worse than normal as far as Sugden's sump, so we made our exit this way & via the Flat Cross-cut and then reversed our inward route.

The day was very much enjoyed by those seeing Smallcleugh for the first time, but even if visits for some are getting to be just a bit too regular is still a bit of a special place.

COMRU search exercise June

A very thorough rolling search was mounted to find a lone lost or injured explorer (Peter Fleming). The result of this type of exercise is in effect a quite detailed exploration. Not surprisingly no new ground was discovered, but there was some activity beyond Gypsum Corner for a change. Searches on the Middlecleugh vein suggest the PDMHS plan in Critchley is not reliable here. This writer has been telling members about a coal seam that he was shown by messrs Gilchrist & Moore some years ago and has not been able to find since. Fortunately this embarrassing state of affairs is now past, it is in the Middlecleugh vein.

The search on the 2nd Sun Vein extended as far as the Cowhill Cross Vein, by which time the victim would have been making his own way out if he had not been found (he had). A CATMHS visit to Smallcleugh should visit the workings beyond this point, 'one of these fine days'? On our return along the 2nd Sun, we met three fellow troglodytes, they had been exploring off here somewhere, where? are we missing something new?

It was discovered that an important cross passage between the flats and the main horse level has been lost. This is the Gullyback Cross-cut. That low intimidating crawl dug through by CAT some years back has collapsed. Access to the flats below and perhaps the best stone work in the mine will now have to be made from the Main Horse Level. The collapse must have been in relatively recent times, since mid last year was the best estimate we could make.

While waiting for the search parties to re-group, some time (20 minutes) was spent in attempting a dig (no headway made). Clearing this important route could be a CATMHS project if enough people were interested. A party of a minimum of 6, to work from both sides and above would be required.

Sunday

Wellhope & Teesdale

(Greenhurth & Dubby Sike)

Present:-
Sheila Barker, Alistair Lings,
Don Borthwick.
Anton & Sheila C-P Thomas.

At 10.30 there was Sheila, Alistair & Don at the car park, at way past 11.00 still no one else had turned up. A day of surface exploration was planned, Sheila and Alistair had not visited the Wellhope shaft so that became the morning activity. Alistair had read about some good surface remains in an area of mutual interest with Don in Teesdale, that then was to become the afternoons excursion. Just as we prepared to leave, Anton, Sheila & Imogen arrived. Not wishing to miss their planned day underground, A. & S. elected to have a trip on their own into Brownley Hill.

A bit bleak at the Wellhope shaft, a short potter around the tips and buildings, and a look at the shaft top. There seems to be a lot more nails securing the wooden covers than on my last visit. After an inspection of the now prone aerial ropeway pylons, back to the shelter of the car for lunch.

Greenhurth

The afternoon started at the side of the B6277 NY784353 where a good track leads off south to Cow Green. It is about 2 km to the first of the sites, Greenhurth mine NY780328. The 25_000 series map shows six levels for this site, we did not count, there are some largish tips and an incline for a tramway leading up to what was a 'shop'.

The remains of a pit for a large water wheel that drove pumps through a flat rod system may be seen, (there is a rather nice photograph of this wheel in Raistrick & Roberts[1] and in Sedman[2]). Also of significant interest on this site is the dressing floor, this still has remains of circular buddles and launders.

The mine was worked for lead and was unusual in having the silver content of the ore increase with depth. The assay of the shallow workings is quoted as 5.3, increasing to 10.3 & then 12.1 oz/ton of lead at depth. A silver content of 12.1 is quite rich in this orefield, Nenthead averaged 7.0, Brownley Hill 5.0 and Teesdale generally 3.0 to 5.0.

The mine was mainly shaft worked, the New shaft having a depth of over 400 ft. The main working period was 1864 until closure in 1902, the total output of lead concentrates produced during its life is quoted as 18_240 tons.

Dubby Sike

From Greenhurth we carried on a further 1 1/2 km down, what is quite a good road to Dubby Sike mine NY795320. Here there are some ruined mine buildings and a bothy. Initially this too was a lead mine, Dunham considers that little was got as the filling of the vein was mainly Baryte. It was for this material that the mine was more extensively worked.

The site was given a rather cursory exploration at his time, it is understood that it was worked from a now capped shaft beside the ruined buildings. The line of workings shown on the map has yet to be walked, Beadle[3] says there is an open shaft and a water wheel pit on Borderomere Sike this near to the reservoir. Dressing of ore was carried out at the Cow Green mine, this was a working mine when Dunham V1 was written in 1949.

The walk down to Dubby Sike was with the wind on our backs, was a bit more pleasant than the driving sleet that opposed our returning steps. An interesting afternoon, worthy of another visit. I am

[1]Life & Work of the Northern Lead Miner.
[2]the Mines & Minerals of Teesdale & Weardale.
[3]Mining & Smelting in Teesdale.

considering a surface meet in this area for sometime next year, is anyone interested?

Monday

Eggleshope & Sharnberry

Present:-

Mike Mitchell,	Barbara Mitchell,
Sheila Barker,	Don Borthwick.

No one had given any prior indication that they would be coming to Nenthead for Easter Monday. So a slightly out of area surface exploration was planned, this to follow on from bits of exploration done recently by those present. Alistair opted be anchor man, and to check the Nenthead meeting place, just in case any one should turn up. No one did and he went exploring in the Tynehead / Cashwell area.

Great Eggleshope

On previous occasions the area around Coldberry, Lodge Sike, & Manor Gill have been walked and a couple of short underground excursions made. This trip was to explore more of the surface remains along the line of the Lodgesike - Manorgill & Little Eggleshope Veins. The day started at Great Eggleshope Bridge, from which the beck was followed up to first, East Rake then Wire Gill & Great Eggleshope mines. There are the remains of two large dressing floors , the lower one has been virtually cleared, the upper for Gt Eggleshope still has the mine 'shop' and a brick building ('built soon after the last war when there was an attempt to revive the mine', Beadle). The large spoil tips ('partially removed', Beadle) give a clue to the size of the working that was here.

Between 1852 & 1885 the London Lead Company is recorded as extracting nearly 57_000 tons of concentrates from Wiregill mine (Little Eggleshope Vein). Dunham quotes this as "One of the largest oreshoots in the Pennine fields was worked for a distance of 8_000 ft..... The western half is continuously mineralized, reaching a maximum height of 300 ft and maintaining an average of over 200. In a stretch 1_600 ft long to the east values were more patchy and stoping was intermittent; but the succeeding 2_100 ft worked from Little Eggleshope was again rich and stoped consistently to a height of 300 ft".

Only one level was be identified, this is still open with a healthy make of water. There are areas of broken ground alongside the track leading to Manor Gill. Mining remains and some fluorspar also feature along the sides of Wiregill. The spoil heap on the fell side near the road was not investigated, evidence of some dressing along the stream was noted for another time.

Little Eggleshope.

This site lies about 1 km down a track leading from the B6278 road at NY995305. We found it quite a difficult site to interpret, the position of the main level can be inferred by the position of a shaft on the fell above that is known to connect. The shaft capping is remarkably secure, closely spaced rails cast into a concrete collar. My current understanding is that this is the Main Engine Shaft of a total of 330 ft deep, connecting not only with the level coming to day here but with Wiregill Middle Level 120 ft below that. A couple of hundred yards away is virtually unfenced hole with crumbling edges, altogether in a rather dangerous state. At present it appears that what Beadle calls Little Eggleshope is Dunham's California mine (Sedman's map seems to contradict this), 46_000 tons of lead concentrates are quoted as being extracted from the Little Eggleshope Vein by this mine.

Sharnberry

Sharnberry mine lies about $1\frac{1}{2}$ miles to the west of Eggleshope, on the Sharnberry Gill NZ013308. The level looks quite inviting, there is the remains of a dressing floor close to the portal Beyond this there are some extensive tips, evidence of perhaps earlier mining may be seen further down the valley. A track was followed from the mine up to Sharnberry High Level which is no longer open. The mines were worked for lead in the period 1833-1881, 13_800 tons of concentrates were produced.

Weekend 15th & 16th July 1990

Nentsberry Haggs Level

Present:-

Peter Blezard,	Anne Danson,
Sheila Barker,	Clive Barrow,
Mark Simpson,	Sue Thompson,
Richard .....,	Don Borthwick.

Good to have Pete Blezard out and leading meets again. The plan was to visit one of the less accessible regions of the mine,

do a bit of general exploring and possibly exit via Brownley hill.

Firstly to Bowman's rise where Peter showed his daring and climbing ability. The rise is about 60 or 70 feet, with fixed ladders for part of the way, and a couple of inch diameter pipe for the rest. The ladders are in the lower portion of the shaft, starting ten or so feet up. Being of the 'old school', Pete favours electron ladders, so most of the party did the ascent using this ancient form of torture. Being a kindly fellow he re-rigged the pitch for SRT to allow Sheila and Don an easy way up. It must though be admitted that electrons are appropriate to that type of ascent, and allowed two in the party without prusiking gear to make the climb. The rise leads at one side to an interesting series of flats called the Admiralty Flats. Still quite a bit of mineral (Sphalerite and Witherite) left here, though a moderate climbing ability is required to see it all. To the other side a short level is terminated in a choked sump and an unclimbable rise.

Having abseiled back down, the party set off to a right hand branch in the level we had seen on the way in. As with all well laid plans we did something else. To get to Bowman's rise we had left the main level at a point where a collapse had significantly raised the water level. This water looked a bit deep and was very ocherous, but had two very substantial pipes running along it.

Mark set off to explore, some of the others waiting for him to report back. Don arrived and set off to follow Mark, who he found coming back; the level and the pipes carried on but it gets boring to wading alone through such places. The level then was followed for several more hundreds of yards up to a timbered section and a small collapse. At the side of the timbering a rise went off to the left, this was followed up, and obviously went much further, but we were by then quite a way from the rest of the party. The timbered section was inspected and found to be in good condition but beyond there was another collapse and a substantial rise in water level (currently an unmentionable depth) so further progress was abandoned.

Meanwhile Pete had arrived and started to climb the rise, continuing beyond where Mark and Don had stopped, to a cross level with another rise. To one side the level went into some bad ground, the rise perhaps could have been climbed but not easily, the other way on the level proved to be interesting.

Stone lined and of quite small dimensions, possibly very much older than the main level below (Raistrick quotes workings in Haggs from before 1735). The explored section of this level had substantial floor level stemples? abutting onto short wooden boards. Nothing like this has been seen by Pete or Don before, there is no evidence of passage crush at this point. A little further on a diminutive ore shoot was found, Peter carried on for a couple of hundred yards further, the level carried on beyond this.

It was getting into early evening by now so it was decided to call a halt to exploration for the day. During the latter period in the small passage the rest of the group arrived and had a brief look around then we all headed out. An interesting day, our thanks to the members from Ravenstonedale. Nice also to see some new faces on meets, particularly when the are able to handle they conditions so well.

For the record Anton C-P. Thomas, Andrew Sibbald & Ian Bretherton went exploring in Brownley Hill. John Helme & ? made a visit to Smallcleugh & Guy Jones made a short trip into Haggs then did his own thing,

Calvert End and Calvert Mines.

(Near Tynehead, Garrigill)

Present:-

Anne Danson,	Sheila Barker,
Clive Barrow,	Dave Blundell,
Ian Bretherton,	Andrew Sibbald,
Mark Simpson,	Anton C-P Thomas,
Don Borthwick.	

Previous research by Anne Danson showed this area to be worthy of a further visit. WCMRG had also opened up Calvert Low level see review no 6.

Anne obtained permission for us to drive beyond the end of the metalled road to the mine site. In outline, the day was to be a climb up to the fell top at Calvert End, investigate a shaft there (NY740355) then work our way down and along the valley to Calvert Fold and Calvert Low (NY740355) & High Levels (NY752360). Three shafts were descended, all of them by Anton, (fine fellow), none were productive, they did not lead to levels, or have levels leading off them. The first was the deepest, about 50 feet, short explorations at the bottom having been abandoned.

Next a level was investigated, a couple of hundred feet, but nothing to be seen an unsuccessful trial, and a gate guarding

nothing very much. The next two shafts were shorter than the first, the second having the appearance of being partially back-filled. So far the day was a bit disappointing, a lot of sitting around apart from Anton. Good practice at moving railway sleepers (Mark is really rather good with a crowbar!) and rigging this type of pitch head.

The third shaft was a little above Calvert Low Level, our next visit and the high point of the day. This level must not have been open in the 'days of gates and sleepers', though its unplanned entry by sheep etc is barred by some carefully placed rocks and rails. Unfortunately only half the party were prepared to brave the very cold 'mid-person' depth water. Pity as it was well worth the discomfort, the amount of mans disturbance to the ground around the entrance is trivial to the length of the level.

The mine is very nicely 'decorated' in many places, to quote Anton "like a cave with rails". After several hundred yards we got out of the deep water, the level carrying on for quite some way till a timbered section was reached. Roof conditions then steadily deteriorated to such an extent that it was decided not to go on further. There was no sign of an end to the level at this point, also little evidence of productive workings, these to must have lain ahead.

A rather pretty rise was climbed on the way out, (a shame to put muddy wellies on the formations) and a sub level entered. In one spot a patch of light blue was found on the wall, to contrast with the predominance of reds,browns and greys. Exit was made to the warmth, the midges and the start of the rain after about 3/4 hours interesting and scenic exploration.

The day ended with a trip into Calvert High Level, this is the one with the prominent tip and some buildings. The 'gaters' must have some difficulty in putting this one in position. It would have been a bit of a squirm before it was fitted, now it is really rather difficult to negotiate without a helping hand. Not as extensive or interesting as the Low Level but worth the visit. A nice show of Fluorite was noted by the first party in a side passage but missed by the second. The rain again hindered me persuading members to take the short walk to the source of the South Tyne.

Overall the most interesting and best attended Nenthead meet for a couple of years. Things may be looking up for CATMHS and the Northern Pennines. Our thanks to Anne for all her efforts.

Nenthead Prospect

Nenthead meets have tended to be organised with a very open format. In the 'Cherry Tree Cottage' days, when a lot of people stayed over the weekend, there was potential for several trips to suit all abilities and interests. Now that average numbers are much lower, having more than one activity is not always possible. Also with no pre-booking, it is not possible for organisers to have much of an idea who is coming and plan something suitable. It is hoped therefore to have one planned and pre - publicised activity for each future Nenthead weekend, probably taking place on the Sunday. Feedback / opinions / requests will be welcomed. Some possibilities are considered below

Proud's Sump / Carr's Level through trip.

A number of members were involved in the setting up of this trip. Firstly in the Carr's level exploration (Newsletter number 18 p31-37), then in descents of Proud's sump, that discovered a system of flats and an exit to the Hanginshaw branch of Rampgill. The connection between Carr's and Proud's was pushed, latter, still more extensive flats were found off Proud's sump. The result of the foregoing is an interesting, varied trip of several hours in duration extendible to fit the time available. Technically it is not very demanding, two nice clean free hanging abseils, a 50 foot prussick (if you do not SRT see the note at the end of the section), a 40 foot electron ladder, then a mostly fixed laddered timbered shaft down. There are a couple of 'black' crawls in the last section but this is the only grotty bit. ***Not to be missed.***

NOTE It is not easy to electron ladder this pitch, but given some notice for us to plan and check, then an alternative route should be possible. It could though be a little damp as it involves a descent into Rampgill, knee depth perhaps nothing too grim)

Brownley Hill / Haggs Level through trip.

Not much to say about this, it does not appear that many members have done the trip. It sounds quite interesting, I would like to do it. Comments, offers to lead....

Caplecleugh / Rampgill through trip.

Peter Fleming lead a Caplecleugh / Smallcleugh trip in 1987 (Newsletter 18), which was much enjoyed by the four in the party. A number of members have expressed an interest in doing the trip and some gentle lobbying has been going on with Peter for a repeat. He is offering to lead this, either as an official CAT meet or possibly as 'an extension to programme'. This time a rope will be put down from Smallcleugh to Rampgill to allow the day to start and end at virtually the same spot.

This is a superb trip, there is a lot to see in areas that are none to frequently visited. The only problem is that it is very wet, waist and sometimes chest deep water, so a wet suit is essential. All the climbing is on fixed ladders, the only technical bit would be the descent to Rampgill and this can easily be avoided by an exit from Smallcleugh.

It is a long trip, starting opposite the Chicken Farm, going under south under Flinty Fell up to the head of the valley at Perry's Dam (Bog Shaft), up and along into Smallcleugh, then out to day within about 100 metres of the entrance. Quite tiring pushing through deep water and exploring some of the rises but a classic trip, not to be missed.

Brewery Shaft Research

A recent article in a Friends of Killhope newsletter took my interest a couple of months back. First impressions were that their was a lot of new material, then after re-reading Alison (Chris) Jones article in Journal number one I realised that this was not the case. More a case of a failing memory (this also makes writing meet reports a year late difficult) but nevertheless a nicely written piece, which hammered home that I did not know how the compressor at the bottom of the shaft worked. A colleague at work helped here with an old hydraulics text book, this explained the compressor OK, but raised more questions about the pipe-work in the shaft and the supply to the pelton wheels and water wheel. Informal discussions with the CAT members that have been down the shaft has not lead to a resolution of these problems.

It seems at present that there is an interesting project here, CATMHS are one of the few groups with mining and SRT skills to undertake it. Basically the proposition is to set out to understand hydraulic system in the shaft and engine rooms below. To survey and photograph the remains for future publication. This could either be source material for a Mine Explorer or if it turned out to be suitable, an industrial archaeology journal.

To collect all the data required in no more than two trips, will require some careful planning. There are some technical problems connected with surveying in the shaft, gaining access to a side passage and hauling gear. The project must be seen as essentially a team effort, where the work, data & photographs etc are shared.

A quite small team is to be preferred as decent and ascent times can be quite long. Some pitch-head support will also be required. Probably it would be advantageous to form a team from members who have done the shaft before. The basic trip is arduous, detailed investigation and surveying (some in deep water) will add significantly to the workload and time.

MEET REPORT NORTH PENNINE WINCH MEET SUNDAY 16th JULY 90

ALASTAIR LINGS 19/8/90

CAT members had been offered a trip down a deep shaft by winch, so eight people took up the invitation one windy and showery Sunday. Most of us drove up to the shaft collar high up on the fell. The winch was already in place. One by one we were lowered down 390' of this impressive 1920's shaft

As the journey took some time we assembled in teams of four at the bottom of the shaft and then went off exploring the maze of levels and stopes that resulted from four veins crossing another set of veins at right angles.

The veins had been discovered in the early 1920's and were largely worked out by the second world war. Underground exploration continued until the 1950's.

My particular interest in the shaft was that it might be possible to gain access to levels that linked adjacent valleys. On a previous CAT trip we had got into the northern end of one of the levels and followed it for about a mile. On that occassion time was short and as we were only a small isolated team we did not feel like "pushing it".

Originally the shaft would have led directly into the horse level. Unfortunately we could see the level about 20' below us and it was flooded to the roof. Undeterred we followed the workings to the NE to search for a high level route. Sadly there was no way on to the NE, so we turned our attention to the SW. We followed a winding level through various collapses to a small shaft which seemed to be supplying fresh air to the complex. This might possibly be an alternative route down to the horse level which could lead us to the next valley.

Time was running out so we made our way back to the shaft station for the journey back to surface.

The winching was a great experience and we are indebted to the winchman and his helper for a great day.

CAMERA TECHNIQUES TO TRY

**********FORTHCOMING MEETS **********

IMPROVE YOUR UNDERGROUND PHOTOGRAPHY

If you take your camera underground but are fed up with the dull, lifeless, foggy results then why not come on the CAT Photographic Meet on October 7th.

Bring your camera along (even if it is just a basic one - they often give the best results) and flash gun etc. The meet is being held at the Force Crag Mine and we will demonstrate a number of basic techniques including the "multiple flash" technique. For this we will probably venture into the stope in No.1 Level. If anyone has a tripod and a light-sensitive slave unit it would be most helpful if they could bring them.

As a matter of courtesy I will contact Peter Blezzard a few days beforehand and give him an idea of how many people are going to be there. Therefore please can you let me or the meets secretary know in good time if you think you may be coming.

A. D. Cameron.

******** NEW ********

LAMP CHARGING UNIT THAT OPERATES OFF A 12 VOLT BATTERY (CAR BATTERY)

COST £5.99 including pp

SAE for further details and an instruction sheet to:

JOHN ADAMS, Tel.(0228) 37238
63 ETTERBY LEA ROAD,
STANWIX,
CARLISLE, CA3 9JP.

*Please note the unit will not be available for 2-3 wks but details are available immediately.

News from the adit's mouth...

Well as most of you will have realised by now I edit the mining page in the popular (?) caving magazine "Descent" so if you have anything you want to bring to a wider audience please feel free to send it to me.

Please don't forget if you want to add your weight to the COMRU rescue team you are always welcome. Practices take place every month and even if you don't feel that you are capable of adding much to the team you may be surprised. The team is always on the lookout for new 'talent', especially at fundraising! Contact team leader Mike Mitchell for details.

Club member and cave diver T. Makin from Blackburn is pushing forward new horizons in the Coniston Copper Mines and anybody visiting these may have seen his lines in place. If you do see blue polyprop' rope disappearing into a sump please leave it in place as some kind soul has already been untying them. This does make it difficult for Tony (and also for budding cave divers such as myself) who want to push dives.

Tony has already been down the Old Engine Shaft about 30 metres to a level and also he has pushed the East Shaft through to an air space possibly under the false floor near Cobblers Hole. He has recently been active in the bottom of the open stopes and dives are progressing there. This has included a daring(?) rescue of LMQT's bow saw visible about 5m. down in the water at the end of their elegant platform. Tony had only got down about 7.7m. to a narrow part of the stope but reports that visibility was perfect and that his one man team of sherpa's had been able to see him at all times.

Over at Paddy End Tony has had a crack at the sump to the right in Courteney's Cross Cut but was forced back by poor visibility.

Special mention should be made of sherpa Bob Hartlebury who has helped Tony carry his gear, no easy task, I can assure you. Carry diving bottles through the crawl into the Deep Level extension would be pretty hard work.

Still on the subject of diving I recently dived Levers Water looking for the outside end of Woodend's Level and I can tell you that I could find no sign of it at all despite having dived to some 15m. The whole area consists of little more than a smooth underwater scree slope. Disappointment there I'm afraid, the area was probably landscaped by the water board when they raised the lake level. Sherpa for this trip was Phil Merrin.

By the time you read this I hope to have dived the stope in Logan Beck Copper Mine, more news next time.

LEAVE DIVING LINES IN SITU!

All the training carried out by COMRU personnel paid off recently in a freak accident up at the copper mines. A member of an exploratory group was about 30m. down a pitch when a small (fist-sized) stone dislodged itself from the bottom of the false floor above and struck him a glancing blow on his head and shoulder. Thank's to his Petzl Stop he didn't fall, imagine if it was a figure of eight. Other members of his group, all of whom were COMRU members, were able to put in a series of 'Z' rigs to pull him out and from there he was taken to hospital for a check up. Thank heavens, nothing more serious than mild concussion and a few scratches and bruises. I think this just illustrates how potentially serious this kind of accident could be and also the importance of knowing some self-rescue techniques. I know that many of you go on two and three person trips. Could you pull someone out who was a dead weight? Learn the technique!

At risk, at present in Furness, is the area around Orgrave and Tytup which has been scheduled for tipping of rubbish. While it is unlikely that the Orgrave site will be used it is almost certain that Tytup will. This area contains the railway tunnel, already blocked at one end by an existing rubbish dump, and also the locally nammed 'figure of eight ponds', an area of mining subsisdence which also contains a pump rod sticking up out of a run-in shaft. Local members are monitoring the situation and have also attended public meetings to voice their opposition.

Still in Furness a band of local enthusiasts have been

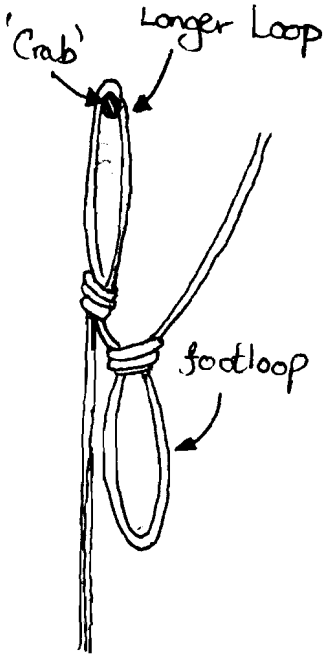
making an attempt to open the Day Level at the back of B30 pit in Marton. Work is progressing apace and a small mineral line has been put in to take the spoil away (in case you think this is really something it's about 15m long). Help is always required for this project, contact Anton Thomas.

Following on from the already sucessful history of Force Crag Mine by Ian Tyler, Alen McFadzean's Red Earth Publications has approached CATMHS with a view to producing a picture book along the lines of D.Bird's "Yesterday's Golcondas". This would be a picture archive of mining remains in Cumbria and would be predominantly black and white although the idea of a few colour plates is being actively pursued. There would also be short texts about each of the fields of mining activity covered. Anyone who has striking photographs of Cumbrian mines, both above and below ground that they feel might be used in such a publication should contact me or Mike Mitchell as soon as possible.

Anyone thinking of visiting Greenside Lead mine in the near future should be very careful on the last set of ladders as there is a large (couple of tonnes?) boulder perched above the last 35m pitch. Were it to descend it would strip out the ladders and anyone on them at the time.

Still on Greenside and moves are afoot to put in a lifeline on the first set of ladders down to the Low Horse Level as well as securing some of the rather more dodgy ladders lower down.

A warning by the NCA equipment committee follows a recent accident where an 8mm spit failed on a rebelay causing serious back injuries to a caver in Yorkshire. They recommend phasing out of 8mm spits altogether and also the tying of shock absorbtion knots at rebelays. A recent article in 'Descent' magazine however shows a rather better way of tying rebelays which would avoid shock loading on failure.



Chris Jones

Is the Health Service safe in Phil Merrin's hands? (COMRU Doctor).