

Summer 1989

The Quarterly Journal of the Shropshire Caving and Mining Club

As an active Club we quite rightly concern ourselves with safety and spend a lot of time on rescue practices, learning techniques to cope with all those unexpected accidents that can so easily occur. In recent months various real rescues have taken place, some with tragic results (see the last issue of Below). In some cases the rescuers have not-necessarily been as efficient as they should have been, in particular in the Forest of Dean over the May Bank holiday, when the fire brigade were on the scene some 2 hours before the rescue team (so the story goes).

The prospect of firemen wandering around underground in their normal waterproofs clutching torches does not instill confidence. However, as amateurs, we must appreciate that the fire brigade can ALWAYS get to the scene of an accident before us after all most of us work some distance from home, are likely to be off underground in Wales when an accident happens in Shropshire etc. Thus I would suggest that there is a very strong case for closer co-ordination with the fire brigade, to the point where they can prepare a scene for the rescue team, or at least be able to reach the victim and start some form of medical care. At the end of the day the fire brigade can bring more "brawn" to bear on a problem, supplementing our "brain".

On the subject of accidents, I saw the most irresponsible article I have seen in any magazine for a long time, in the April 15th issue of Amateur Photographer. It concerned an Idiot who rides his mountain bike down abandoned Cornish Tin Mines (in this instance Cligga)!

The article was well illustrated with photographs and showed him to be ill equipped for underground (but OK for cycling). While he wears a hard hat, with cap lamp (his only light), if he was to hit something and injure himself, he was likely to die of hypothermia before anyone found him?

In one of the pictures, he was whizzing past a collection of old gear including compressor pipes sticking out of the wall!!

The cyclist claims he researches the old mine plans before setting off (we all know how reliable they are), but did admit that suddenly coming across an Incline or winze (he called it an adit) was a problem! He has also been prone to sudden roof falls - one of the tunnels they took photographs in collapsed (allegedly between sessions!

Despite the odd warning at the end of the article, I really think this sort of thing will only encourage others to try it out and in all probability with more fatal results.

Ogof Ffynon Ddu, South Wales

5th February 1989

Members Present: S.Holding, V.Gamblin, A.Robinson and M.J.Moore.

A somewhat tired group set off at 7:30am suffering the ravages of a hard weekend, the 106 mile journey took about two and a half hours. The purpose of the visit was to investigate the amount of cave rescue equipment available at Penwylt in case of major rescue in Shropshire.

Unfortunalty the rescue officer was away in France, we therefore took the opportunity to obtain a key for O.F.D.2.

M.J.Moore acted as trip leader and proved that his memory had faded somewhat, doubts were made about his ability to find the cave entrance, however after questioning the odd passing sheep and four year old the cave was located and entered.

Moore having proved to the others that he knew where the cave was, then proceeded into it via the brickyard, taking due notice of another party going through to the Big Chamber by the entrance. After scrambling over boulders and proceeding about 150 metres we met the other party coming from the direction Moore had considered going initially. Moore admitted that he was uncertain of the continued route, so we followed the other group through the cave to Gnome Passage, then continued on to Salubrious Passage.

The descent was via a boulder slope which was easily descended until it became necessary to

climb under a boulder this entailed the thin members simply hanging over a boulder and sliding underneath. Holding and Moore found it necessary to swing out over what appeared to be a "Black Abyss", and slide their feet into a mouse hole. After several attempts (plus various comments), Moore feeling the effects of the previous nights curry, finally made it.

Salubrious Passage had about 6 inches of water in the stream. After passing a small traverse Moore proved that his memory had not totally deserted him and located the Trident and Judge formations,,

The route was reversed with a look further upstream and a tour of Gnome Passage. A nuclear debate ensued regards the best exit, another lost soul then appeared and assured us of his route finding abilities (perhaps the fabled lost: Gnome?). In the best possible traditions he promptly lost his way, Steve Holding then took matters In hand and selected the way out after locating the boulder that had caused unmentionable damage to his manhood. The exit was soon located and after a wander around the entrance series we returned to Powell Street for a superb hot shower,,

The trip took about 3 hours and is ideal for a novice trip. Please take note KELVIN you are expected to join us on the retun visit (bring your camera its worth it!!).

M.J.Moore

Snailbeach Study

Phase 3 of the Snailbeach Mine Study has been started by Shropshire County Council. Wardell Armstrong are the leading consultants but others are involved. All shafts and stopes are being explored by TL Mining of Derbyshire. It is reported that some fascinating workings have been entered in the Lords Hill area. Scott Level has been explored to its extremities beyond Renting Shaft. Drilling for cavities is also taking place around the main shaft area.

The climbing shaft associated with George's Shaft has been located and descended.

Granville Country Park

The Ironbridge Gorge Museum Trust have completed a report on the Granville (Colliery) Country Park, Telford. Some preservation work, has been carried out on Muxton Bridge Engine House, (in early 1988) other sites have been recorded. (IGMT Research Papers Nos: 24 & 32).

I.A. Recordings also made a video record of the site during various stages of 'preservation' including shaft capping. See 'Muxton Bridge One Year On' on pages 5 and 6.

Hawkstone Park

Consultants have recently completed a report on Hawkstone Park, described as "rescue of a Masterpiece".

Some emphasis is given to the need to preserve the subterranean features, the grotto and the "old mines".

Tar Tunnel

A description of the Tar Tunnel, Coalport at the time of its construction has been found in Harrisburg, Penn, USA.

In 1796 Joshua Gilpin found that the tunnel had been constructed 1100 yards long and was oval-shaped, 9ft. high, 7ft. wide, part bricked and part unlined. Originally it was to have been an underground canal but "since the improvement of rail-roads and waggons made into a dry tunnel".

The bottom 2ft or so was filled to form a platform except for "a gutter on the side for the tar to run down" and "for the water to drain off".

It sounds very much as it is today, even the rails are shown on the section accompanying the description, at about 2ft. 6" gauge. The uses made of the Tar are also described.

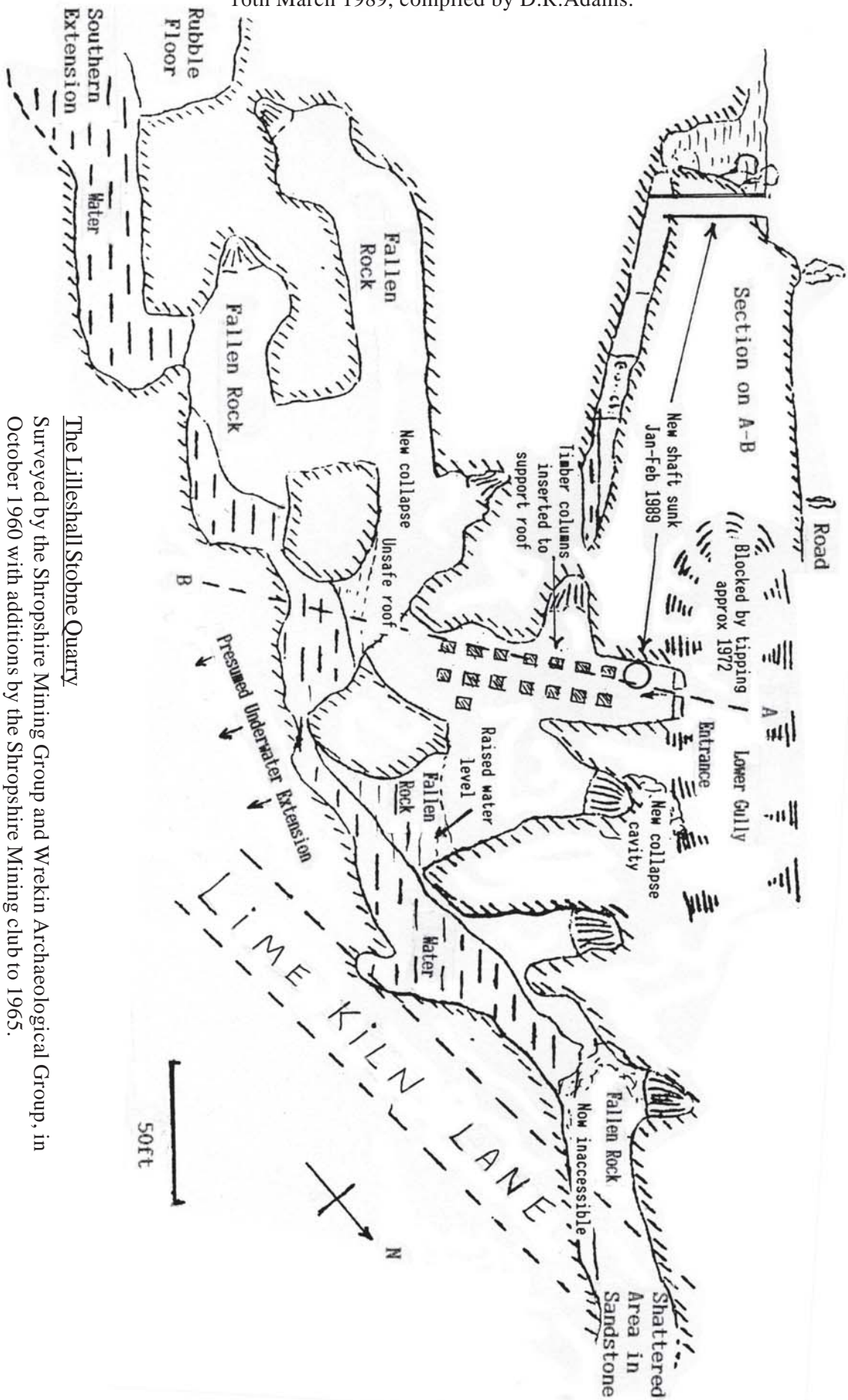
Jackie Parr's Hole

Ove Arup Consultants have recently re-opened the Lilleshall Limestone Mine (Jackie Parr's Hole) by sinking a 40ft. deep concrete lined shaft. The mine was found much as it was in the 1960's except that the two extremities were gradually falling in and had become unsafe.

The mine was visited by IJB, John Mason, D.R. Adams and Mike Moore (See pages 4 & 5 for Dave's plan and Mike's detailed report).

Fig.1: 'JACKIE PARR'S HOLE' Lilleshall Limestone Mine surveyed by the Shropshire Mining Group November 1960.
 Re-opened by Shropshire County Council February 1989.

Plan ex S.M.C. Account No 7, showing changes noted during S.C.M.C. descent 16th March 1989, compiled by D.R.Adams.



The Lilleshall Stobne Quarry

Surveyed by the Shropshire Mining Group and Wrekin Archaeological Group, in October 1960 with additions by the Shropshire Mining club to 1965.

Lilleshall Limestone Mine

Thursday 16th February 1989

Members Present: M.Moore, D.R.Adams, former member J.Mason, plus I.J.Brown (discovered underground).

Dave Adams had received requests for help from Ove Arup to help find the entrance chamber to the Lilleshall Limestone Mine, often referred to as "Jackie Parr's Hole". In return Dave had negotiated access down the newly sunk shaft that dropped within 1 metre of the now filled quarry entrance,

The last official club visit was in 1972 when Messrs Moore and Clough were teenage novices. At that time the quarry had almost been filled and the rubbish was within a metre of the entrance.

The entrance series has not changed a great deal in the last 17 years (!), timber supports have been placed by the current contractors in areas where the

roof is likely to collapse. The water level has also risen by about 2 metres. A large area of the mine has been fenced off as the possibility of a collapse was imminent. There were signs of other collapses and had the quarry not been filled it is fairly obvious the mine would have been a serious hazard.

Before we could actually enter the mine we had to wait for it to be ventilated. It appears the rubbish used to fill the quarry is decomposing/burning or burnt causing the mine to fill with gas. Much to our surprise when we got underground we found I.J.Brown already there.

Radio Shropshire also attended the trip and interviewed Dave Adams and J.Mason.

See Figure 1, page 4 for a detailed sketch of the mine.

Mike Moore.

Muxton Bridge One Year On

It is now over a year since work on the Granville Country Park started. Involving safety work to be undertaken at Muxton and Waxhill (Fig.2 p6).

All the shafts at Muxton Bridge, Waxhill & Barnyard Collieries have been capped.

Unfortunately traces of an early engine house at Muxton Bridge were landscaped (Fig,3) before it was investigated. Although the remains of a later engine house (G: for a large horizontal winder) have been preserved, along with the bob wall or balance beam pillar of an early

pumping engine on a nearby shaft (A,E).

The beds of the canal and the Lilleshall Company's private railway linking its various collieries can be followed more easily.

Visiting the Muxton Bridge site today reveals little of the site's history, other than two (D,C) re-constructed shaft collars, and the remains mentioned above. The site is reverting back to nature, and becoming largely overgrown again, so it won't be long before little is visible.

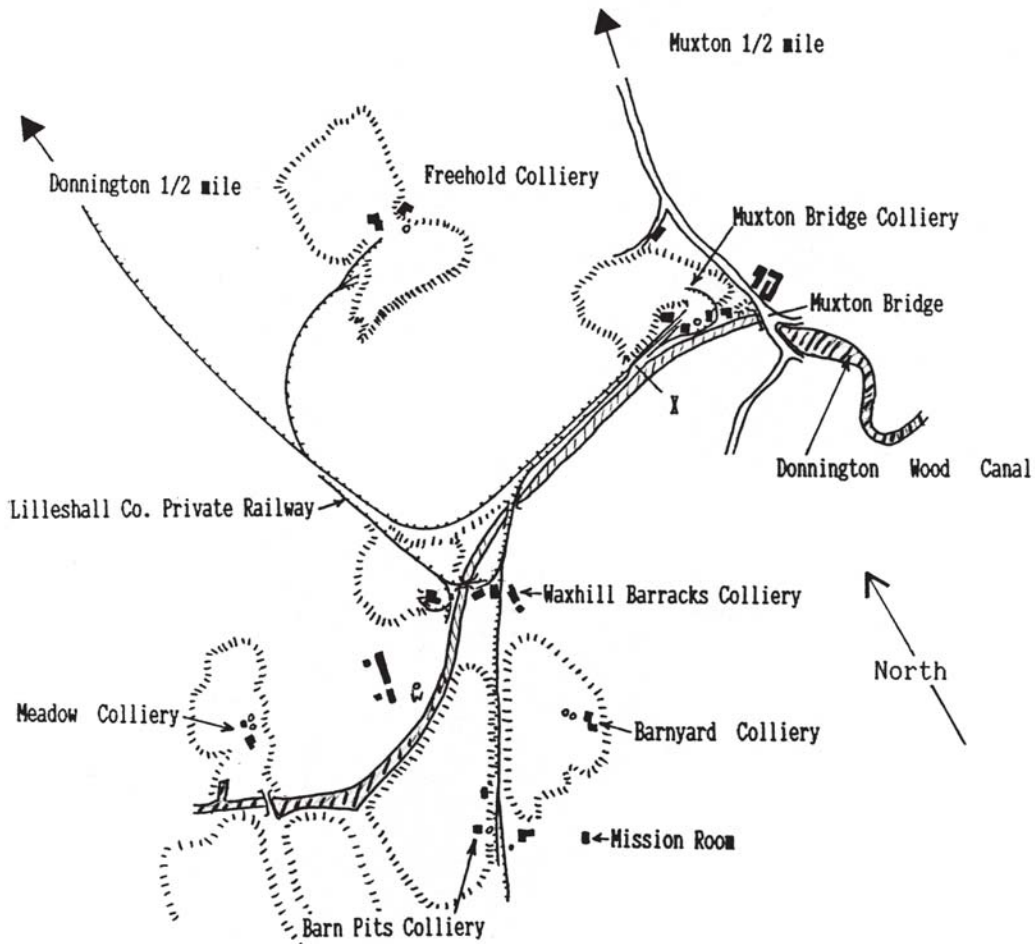
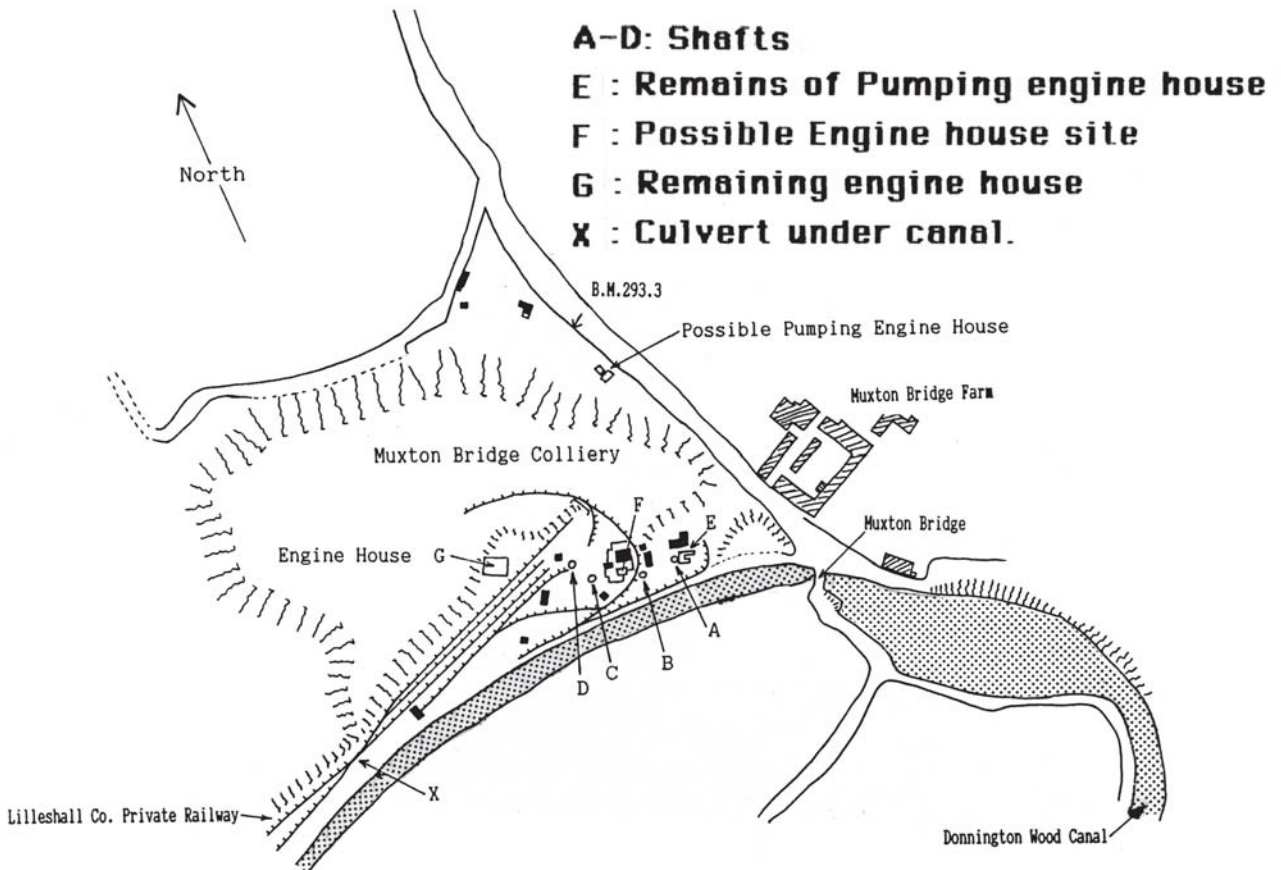


Fig.2: Muxton Bridge Colliery and surrounding mines
 (Based on the First Edition 6" Ordnance Survey - 1880)

Fig.3: Muxton Bridge Colliery Site



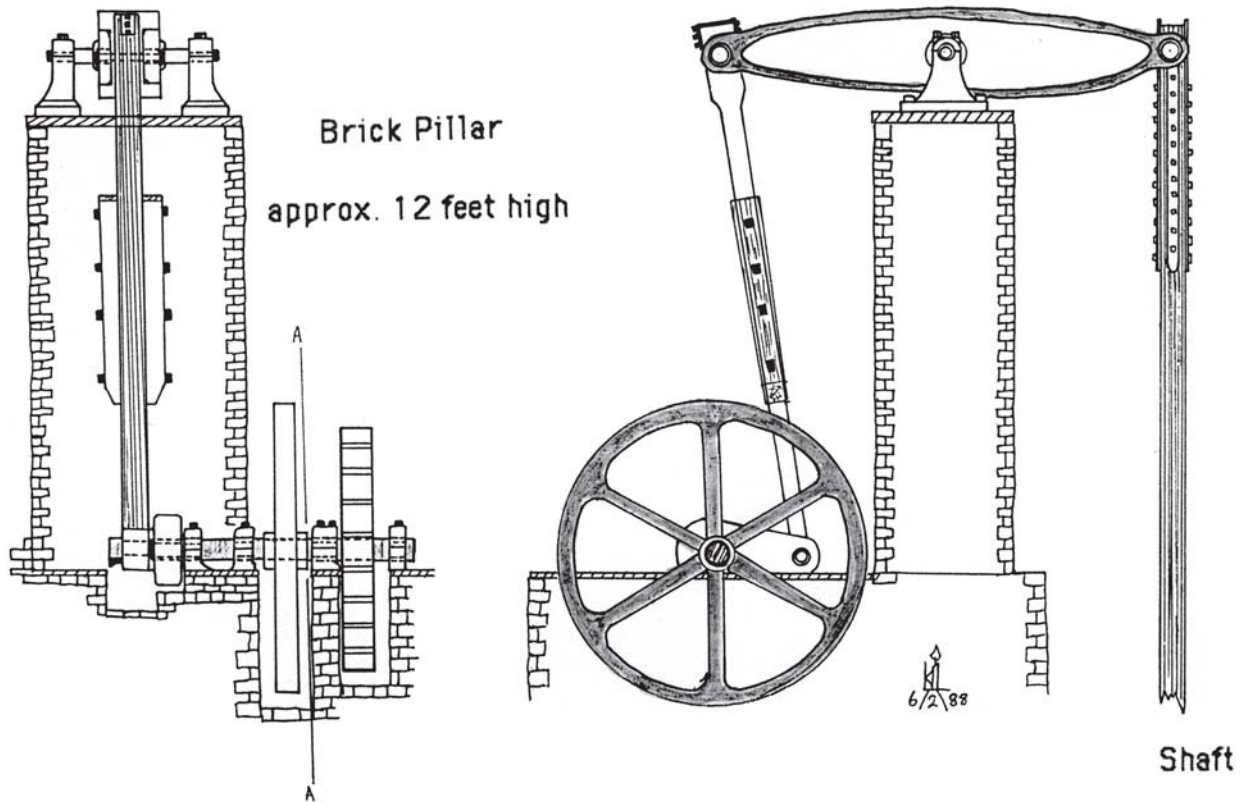


Fig.4: Suggested Design of Muxton Beam Pump

Fig.5: Plan of existing and new canal tunnels at Dudley

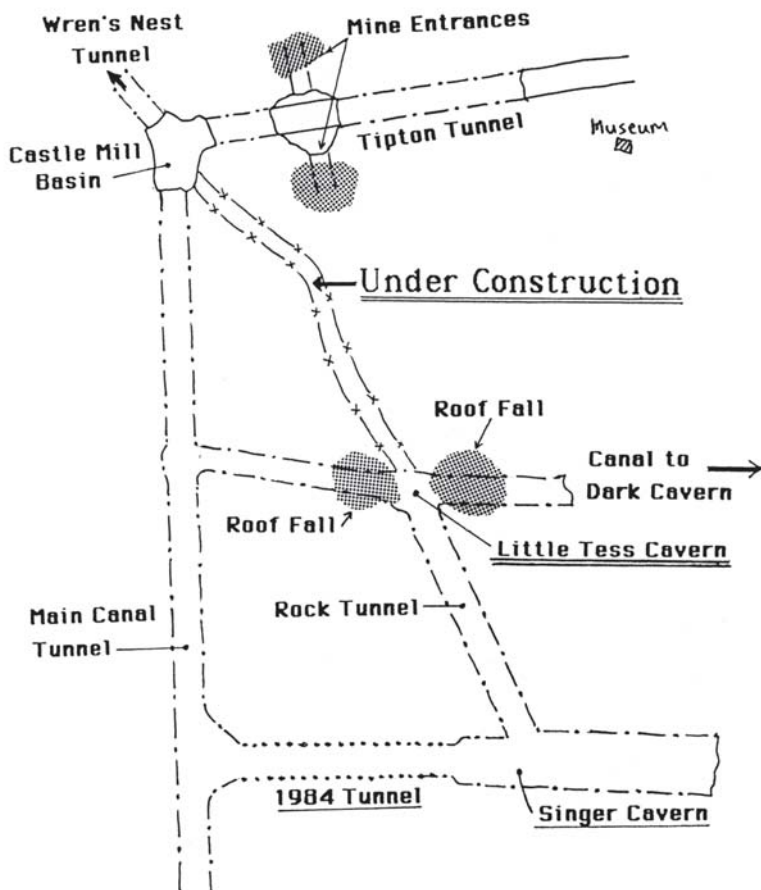
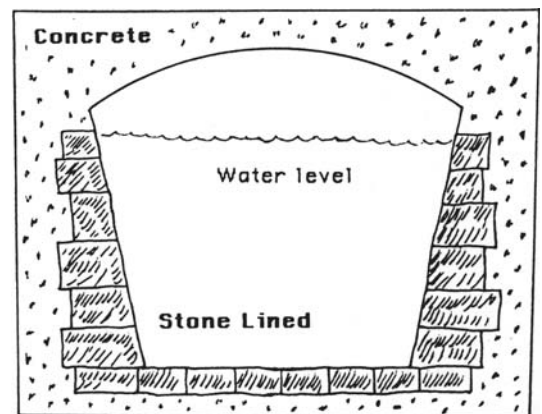


Fig.6: Sketch of typical Elan Valley Aqueduct cross-section



Dudley Developments

Work on construction of the mining exhibit at the Black Country Museum is drawing to a close. The concrete "containment" building is complete, although currently suffering from water leaking into it just like a real mine!

No date has been given yet as to when the exhibit will be finished and open to visitors.

Dudley Canal Tunnel 2

Work on construction of the latest tunnel at Dudley is continuing. As 'Below' goes to press a phone call is expected any moment/day to announce that D.C.Thompson (the contractors) have broken through into the limestone cavern known as Little Tess. This should have happened before the bank holiday but seems to have been delayed.

For the technical bods amongst you, considerable use has been made of the new Austrian "shotcrete" method, where concrete is sprayed by pneumatic means (water being added at the nozzle of the spraying system), onto the tunnel walls.

It is ideally suited to this new tunnel as the rock is very fractured and a few metres of tunnel can be excavated then immediately supported. The support can be applied to various thicknesses, as little as 50mm thick where the rock is good, where the rocks are broken as is the case at Dudley, rockbolts and mesh are used as reinforcing material for the concrete.

For approximately the first 30 metres of the tunnel 'Halcrow'

concrete sections have been used. For most of the remaining section of the 120 metre tunnel, it will be unlined (shotcrete). Although it is envisaged that a section near the Junction with the cavern, where the rock is badly shattered will need additional support in the form of steel or lattice ribs with upto 150mm thickness of shotcrete between each rib.

In Little Tess the roof has been rock bolted and shotcreted to a thickness of 50mm. The original canal tunnel (known as the rock tunnel) from Little Tess to Singer Cavern - currently accessed by boats through the 1984 canal tunnel, has also been shotcreted, with extra "lumpy" concrete to make it look like real rock!!!

One or two gaps have been left in the shotcrete in this tunnel to preserve calcite formations,

From Little Tess a route to surface has also been driven to provide a separate means of escape- for visitors.

The whole project is aimed at providing a round trip for the Dudley Canal Trust's electric boats, thus increasing the number of tourists they can take round the system.

To increase the suspense for tourists the new tunnel has been built with a bend in it - so you can't see the end!

The effect will be enhanced by a complex audio-visual display that will be triggered by the boats as they move through the tunnels.

The New Studley Tunnel

No you're not suffering a case of Deja vu, and should not confuse yourself between Dudley and Studley.

Severn Trent Water Authority are currently building a new tunnel through the southern part of the Clee Hill to bypass an existing tunnel on the Elan Valley aqueduct.

The Elan valley aqueduct is an amazing piece of Victorian engineering conveying water 118km from the Elan Valley reservoirs to treatment works at Frankley. The system is gravity fed and free flowing. Where it crosses valleys it passes through inverted syphons, while tunnels take the water through hills.

The aqueduct has a cross-section abit like a "D" shaped loaf of bread, it is largely concrete lined with a layer of bricks lining the water channel (See Figure 69 page 7).

The 1500m tunnel at Studley has suffered over the years due to movement in surrounding strata. Repair work has generally acted to restrict the flow of water in the aqueduct. Thus Severn Trent have been forced to find a permanent solution.

Due to problems with maintaining the flow down the aqueduct, it was decided to construct a new 1,330m long tunnel, with an internal diameter of 3.15m (reduced to 2.65m when lined), parallel to the existing one, with a special "Y" shaped junction at each end to connect the new tunnel in with the existing one. Unlike the existing tunnel the new one would be circular in section.

Work started on the tunnel in the autumn of 1987. Initially Faircloughs (the contractors) were able to excavate the first 150m through soft marl without blasting. Beyond this point Devonian sandstones were encountered, so drilling and blasting was resorted to.

The rock through this part of the Clee hill is extremely varied. An added complexity is a V-shaped syncline, with shattered rock down the middle. Surrounding rocks are mixtures of limestones, shales, marls and sandstones. The marl is particularly nasty stuff, containing about 60 to 70% silt and a high proportion of the clay mineral smectite which is a 'swelling' clay material.

Like the tunnel at Dudley, the shotcrete method was used to support, the tunnel as it was driven through the poorer areas. Shotcreting is ideal in this type of ground as the tunnel sides are supported before the ground has chance to relax. Where the tunnel passes through the swelling clay the whole tunnel section has been ringed with closely spaced steel ribs and 150mm thick coating of concrete between them.

Convergence checks are regularly made on this system of support by placing three studs in the tunnel. Accurate measurements are then made to see if there is any movement between them over a period of time, if movement exceeds 5mm then more support is applied to prevent possible collapse.

At the moment just over one third of the tunnel has been built.

Great Orme Mines

For those members who have not been to the Great Ormes Head, it is a prominent headland that juts out from the North Wales coast into the Irish Sea (just visible over the top of the Space Invader machines in Llandudno).

The hayday for copper mining in this area was during the 18th and 19th century. At that time copper production provided one of the foundations for the local economy.

The earliest documentary evidence for mining in the area dates from the 1690's. However in the 19th century miners broke into workings which suggested an even earlier date. Like all early mine workings they were attributed to the Romans, who were there about 2,000 years ago.

Unfortunately there has been no physical evidence to prove this theory and recent work, including past finds of stone hammers and deer bone chisels suggests an even earlier period of mining activity, some 1,000 years before the Romans.

Workings at depths from 20-100m at Bryniau Poethion seem to be of that antiquity, indicated by finds of large microdirorite stones (collected from the seashore, with wear marks consistent with their use as hammers or anvils for ore dressing), bones and charcoal (derived from Oak and Alder suggesting fire-setting methods were in use), in the deads which has been carbon dated to 990 B.C.

This date ties in with findings at Cymystyth and suggests a widespread copper mining industry in the Early to Middle Bronze age.

The most amazing thing about these extensive underground workings is that they are up to 100m down and built using fire-setting techniques! Never before have indications been found that this part of Europe may have been a major ore production and trading centre at that time.

The implications of these finds is likely to cause a radical reshaping of the commercial history of the bronze age period in Europe as a whole.

The area has now been recognised as a valuable archaeological site and research is being carried out by the Great Orme Exploration Society, Early Mines Research Group and Gwynedd Archaeological Trust.

Bronze Age sites have also been found at Parys Mountain and Nantyreira.

Those members who went on the recent trip to Great Orme came back with some fascinating descriptions of the workings.

The effects of fire-setting are quite noticeable in several places. They also saw numerous remnants of fossilised charcoal.

It is hoped that Andy Lewis of the Great Orme Exploration Group will be the speaker at this years annual dinner.

Dim Speleo

N.M.R.S. are reminding all Cavers/Miners that they should keep out of mines on Forestry Commission land in North Wales until further notice. The main sites in question are:- Pare, Hafna, Pandora Adit, Cyffty, Aberllyn, Llanwrst, Coedmawr Pool, Klondyke, Gorlan, Tyn Twll, Bryn Eisteddfod, Alltwen, Fuchslas, Ffrith, Ffrith Sian and Coed Coch. This also includes the slate mines at Fedw, Hafodlas and Rhiw Bach.

Western Relief Road

The long awaited "Western Primary" is currently under construction. This entails making a road from the existing M54 junction 6 (Wellington) - by the Newdale Opencast site, round Dawley towards Horsehay to link with the new Ironbridge Bypass.

At the time of writing, 3 mine shafts have been opened (prior to capping) within 10 metres of the Wellington to Dawley Road near to Heath Hill.

A study of early edition Ordnance Survey maps, indicates dozens of small ironstone, coal and clay shafts in the area - most of which it is hoped the current opencast mining will remove so the road and 2,000 houses can be built.

Cwr Dwr Pot & Pant Canol

Cwr Dwr Pot has been filled and Pant Canol entrance is to be blocked to allow the passage of bats.

OFD I

As the Club has made several visits to OFD ('Orrible Fetrid & Damp) lately, members should avoid taking short cuts to reach the cave.

The owner has complained to the Cambrian Caving Council that cavers have been crossing the road fence to drop down to the cave, also using the long meadow in front of the house (The Grithig) to get to the lane.

The correct routes are either down the dry valley to the gate at the bottom and up the lane to the house, through the large farm gate in front of the house, then the small metal gate to the path leading to the cave entrance, or straight down the road, on foot or by vehicle to the layby at the bottom of the hill and proceed along the lane to the turning up to The Grithig, then by the above route.

Parking of vehicles and/or changing is not permitted in the grounds of the house.

Kemberton Enginehouse

The Engine house of Kemberton Colliery, Halesfield, Telford has finally succumbed to the demolition men. It has been used by the Council as a store for a number of years and looks like it has been cleared for new factory "units".

The pithead baths over the road still survive as a toilet block and concrete testing laboratory (amongst other things) although they are looking a bit dilapidated.

South Wales Weekend

12th - 14th May 1989

Members Present: S.Holding, P.Etchells, C.Lucas, A.Robinson, V.Gamblin and M.Moore, plus N.Rushton and A.Harris on Saturday.

Six people stayed at Penwylt as guests of the South Wales Caving Club (SWCC), and were welcomed with open arms. The facilities are certainly on a par with most Youth Hostels and the Copper Beech pub provided excellent beer and food.

The South Wales club members spent the weekend on surface visits in the hope that the geology of the area may produce even more caves they are keen to encourage digs and exploration. A party of three that weekend found over 200 metres of cave passage in OFD2 !

We were invited to look around the rescue stores which are extremely comprehensive and are somewhat reassuring as they are only two hours drive away from Shropshire.

Sat. 13th May

The party were split into two groups and were joined by Neal Rushon and Andy Harris.

OFD 2

SH, CL, AH and MM after the experience of the last trip took a part of the OFD survey with them as a guide!

The previous trip was retraced, visiting the Trident (which has been subjected to vandalism and stuck together with araldite) and the Judge.

Another group who were as lost as we had been on the previous trip joined us after an attempt was made to locate the main streamway, without a coloured plan and guide this proved to be difficult.

Selenite passage was located. Some of the traverses were a little worrying without a guide (human). The group returned to the entrance via a different route viewing the Arete and another small traverse into the Big Chamber by the entrance.

An attempt was made to climb upto the mini Columns but again without a guide this was abandoned.

Trip time: 4 hours.

Dan-yr-Ogof

NR, PE, AR and VG, plus Simon Amatt from SWCC as guide, toured Dan-yr-Ogof. The lakes were fairly low and the party were shown one of the new digs in the risings.

Sun. 14th May

SH, CL, PE, VG and AR were again given a guided trip by Simon Amatt, this time around OFD1 - see Pete Etchells "Alternative Trip Report" for more details.

Porth-yr-Ogof, 10th June 1989

Members Present: Mike Moore and Andy Harris

Mike Moore has found a sports shop in Stone near Stafford which rents one piece wetsuits at £4.00 per day, anyone wishing to rent one let Mike know, he will arrange to collect and return! (It's a good idea if you do rent one to wear a boiler suit over the top to reduce the risk of scuffing the suit on sharp rocks).

We arrived at 10.00am for the rescue practice and were presented with a list of objectives for the day, this included the use of signing in procedures, an equipment log, proper use of telephones and communications in general.

An experimental floating stretcher was used, the stretcher was essentially made of a PVC outer and filled with polystyrene granules. The air was then pumped out to form a vacuum causing the stretcher to mould itself to the casualty and become rigid. The stretcher was tested in

water and was taken right through the cave. Mike and Andy swam through the iccold water with it and achieved a sort of through trip!

They both assisted with a shaft haul and were shown the use of stemples, "Barrow Boy" techniques and the use of clog ascenders and figure 8's for hauling, although not perfect the philosophy is to keep everything simple and maintain speed.

The trip was particularly-useful, it is a great pity more members were not prepared to take advantage of this particular trip!!

[We might have if we could swim and had wetsuits! Ed.]

Andy had to get home, so we missed the pig roast and booze-up, we did however find time to visit and locate Little Neath River Cave, Bridge Cave and White Ladies Cave,

Llleshall Mines & Quarries

12th & 13th June 1989

As part of the Newport Festival week Dave Adams had been persuaded to offer a guided tour of the area.

Twenty five people had been expected however with the nice weather and a local newspaper report showing a picture of Mike Moore climbing out of the new shaft at Jackie Parr's Hole (see pages 4 and 5) at least 200, YES 200 !!! people arrived to listen to Dave (or was it the lure of Mike on a ladder?) and all had brought torches in eager anticipation!

The tour of the quarries, limekilns and canal systems was interesting and people climbed over one another hanging onto Dave's every word - a novelty indeed!

The obvious conclusion is that there is a ready market for this type of guided tour with an easy outlet for updated and well produced publications.

On the 13th June Mike Moore repeated Dave's walk for 9 more people, due to Dave's indisposition -lost his voice?

Annual Dinner

Elephant & Castle, Grinshill

£ 8.00 per head , 3 course roast meal including coffee
(Vegaterian alternative)

Speaker: Andy Lewis (Great Orme Exploration Group)

Saturday September 30th 7.30pm PROMPT !

Clive Video News

Several visits have been made during April and May to make a fairly complete video record of Clive Copper Mine. The idea is to produce a half hour video tape to show at the NAHMO Conference.

The problem with something like an abandoned mine is how do you make it into an interesting subject for a video?

The solution has been to get Edwin to act as a guide, taking Kelvin round the various parts of the mine. To help explain exactly where they are Peter Eggleston has produced some excellent computer graphics of the various mine sections.

The recording of the actual video material is a story on its own! The video crew (Edwin, Peter & Kelvin) plus their intrepid band of riggers (Goffer: Mike Moore, Best Boy: Chris Lucas, Grip: Neal Rushton, Bagman: Sean Bostock, Butties: Andy Harris, Lights: Sonny Luminaire) managed to cover the entire mine with just 4 visits.

To provide the lighting a cable was lowered down the Well Shaft, then taken along to the Maypole Winze and hauled up. A mere 300 metres of cable were needed to reach the Barytes level. Battery lights were used for the remaining bits in the tramming level.

The mine was recorded starting in the stope beyond the rock slope, then by working backwards, everyone and everything gradually retreated to the Rubbish Shaft.

The lower levels were recorded last as it took longer to get everyone down with all the equipment.

On the visit to the lower levels an experiment with CB radios was also tried. It was found that as we had a cable running down the shaft the radio could use the cable as a wave guide without having to be physically connected!

The radios certainly proved very useful in communicating while lowering equipment, all they need is mine proofing!!

S.C.M. Club Officers

President :	David Adams
Chairman :	Mike Moore
Secretary :	Steve Holding
Treasurer :	Bob Taylor
NAMHO Rep.:	Mike Moore
Tacklemaster & Rescue Officer :	Neal Rushton
Newsletter Editor:	Kelvin Lake

Future Trips

As trips are likely to be changed at short notice future trip details will not be printed in Below. For information about any trip contact Steve Holding.

