BELOW!

Quarterly Journal of the Shropshire Caving & Mining Club Spring Issue No: 2024.1

Club Meeting Venue

Members may be aware that the Social Club at Allscott where we currently hold our monthly meetings has been replaced by a new venue on the other side of the road. The new site, known as the Allscott Sports Club, will be used by the bowling club,and several cricket and football teams, plus the SCMC on the first Friday of the month. The February meeting was the first one we held in the new venue, which is very nice (as is the beer!). We were able to make use of one of their large TVs for the presentation and Zoom.

The new Allcott Sports Club, prior to the February meeting.

It looks good in daylight too!

Electronic BCA Membership Cards

The BCA are intending to introduce electronic membership cards for 2024, although there are some 'teething' problems with the roll-out. The electronic cards can be saved to your mobile device or printed as a hard copy. Individual BCA members will receive their electronic cards directly from the BCA, if you get your card via the club then the membership secretary may email it to you.

Some Club members who are 'Direct' members of BCA have been sent plastic cards this year. While stocks of the old plastic cards still exist, you can, if you want, request a physical plastic card. Although the BCA were sending out over 7,000 of them annually, so stocks may not last!

Petzl Harness Buckle Problems

The BCA received multiple reports regarding the harness buckles on the newest models of Petzl caving harnesses that have orange coloured webbing, ie both the Super Avanti and Aven. It seems that buckles on harnesses that are either new, or in relatively new condition, tend to work loose to the extent that they come undone.

Petzl has designed an anti-slip buckle cover, specifically for leg loops on these harness that has proved to be highly effective.

These anti-slip devices can be ordered free of charge via the Petzl UK contact page **www.petzl.com/GB/en/Sport/Contact** choose the 'After-sales Service' option. Mention 'anti-slip device for Superavanti (or Aven) harness' when completing the form.

The buckle covers are intended to be put on the leg loop - you will need to undo it first. Then slide the cover on to the webbing, and remake the leg loop. After folding the 'tail' of the leg loop back through the buckle and under the cover, the cover is slid back over the buckle and it's 'tongue' slid into the buckle (*see the images below*).

By pushing the end of the cover into the buckle you are effectively increasing the thickness of the material in it and so preventing the webbing from slipping (hopefully!).

The Anti-slip buckle cover is designed to sit on the leg loop, then have it's 'tongue' pushed through the buckle.

Petzl: GRILLON INSPECTION REQUEST
SAFETY WARNING 4th January 2024

While there are few Club members who use a Petzl Grillon you should be aware of the following safety announcement from Petzl. They are requesting the inspection of certain GRILLON products following the detection of ropes mounted incorrectly in the rope adjuster of products manufactured between October and December 2023. In such a case, the product does not perform its blocking function, which can result in a risk of injury. Please immediately stop using GRILLON products manufactured between October and December 2023.

How do you know if your Grillon needs to be inspected?

If your Grillon has a "plastic sleeve marking" *(see image right)*, check the manufacturing date. This is indicated on the product below the little drawing of a factory:

MM : month
YY : year

If the manufactured date is before October 2023 or after December 2023 then it is out of the scope of this request for inspection. However, if it was manufactured in October, November or December 2023 then you need to visit the Petzl recalls web page for details of how to correct the problem and the list of batches to be inspected.

www.petzl.com/INT/en/Professional/recalls/2024-1-4/GRILLON-safety-alert--request-for-inspection

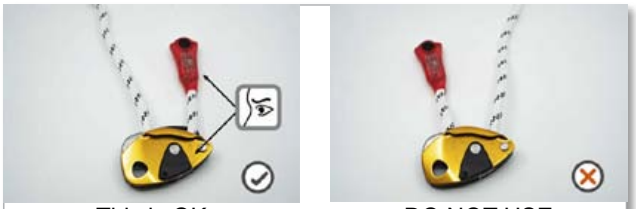
Visual inspection

You can also check the Grillion to see if the rope is installed correctly. The rope installation direction is indicated by the markings on the moving side plate.

DO NOT use the Grillon if it fails the visual inspection.

Re-install the rope using the guidance on the Petzl website (*link above*).

NOTE: If your Grillon has a "label marking" on the rope then it is not affected - but check it anyway!


This is OK | DO NOT USE

Memorial plaque unveiled in memory of Staffordshire miners

In October last year a memorial plaque was unveiled by Kevin Johnson, deputy mayor of Kidsgrove at Talke Pits Village Hall, near Kidsgrove, Stoke-on-Trent, to honour the men and boys who died while working in three local north Staffordshire collieries: Talke o' th' Hill, Bunkers Hill and Jamage (a complex comprising Jamage, Rookery and Bignall Hill pits situated to the south of Talke Pits).

The memorial plaque is on the front of Talke Pits Village Hall, High Street, Talke Pits. *(Kelvin Lake)*

Over 300 miners were killed in these pits due to roof collapses, gas explosions and other accidents between the 1840s and 1930s.

Explosions caused the worst accidents. The largest loss of life was at Talke o' th' Hill pit on 13th December 1866 when an explosion killed 91 miners during a period of low atmospheric pressure. (This disaster was overshadowed at the time by the explosions at the Oaks Colliery, Yorkshire (12th-13th December) which killed 361, including 27 rescuers.)

On 18th February 1873, 18 were killed at Talke o' th' Hill. Seventeen were killed at Bignall Hill (Jamage) on 24th December 1874. Another large explosion killed 43 miners on 30 April 1875 at Bunker's Hill. This explosion was followed by one at Jamage on 6th July 1875 which killed 5. An explosion at Talke o' th' Hill killed 4 miners on 27th May 1901. The last recorded accident with multiple deaths in this area appears to have been that on 25th November 1911 when 6 were killed at Bignall Hill/Jamage.

SCMC Trips

SRT Training and Rigging

A number of SRT* training and 'Refresher' sessions took place during December 2023 and January 2024. If you feel that your skills are a little 'rusty' and need improving then let Andy Wood or Steve Holding know so that something can be arranged. (*** Note**: SRT = Single Rope Technique *NOT* Swiftwater Rescue Training as some might think!)

Thursday December 7th 2023 - Snailbeach, Perkins Level. Neal Rushton did some SRT practice with Andy Wood and Steve Holding.

Saturday December 9th - Snailbeach, Perkins Level. Nikki Paton, Ben Morris, James Hobson and David Reeves, with Steve Holding covered some SRT rigging, SRT practice and 'self-rescue'.

Saturday December 16th - Snailbeach, Perkins Level. Emily Martin and Dan Williams had a basic SRT training session with Ben Morris and Steve Holding.

Thursday January 11th 2024 - Snailbeach, Perkins Level. Emma Clarke did some SRT rigging and SRT practice with Steve Holding and Andy Wood.

Saturday January 27th - Snailbeach, Perkins Level. Nikki Paton and Vicky Robinson did some SRT rigging and SRT practice, with Steve Holding. Alan Robinson also carried out a check on the bolts and hangers in the Baryte Stope. He found some issues with loose bolts on the high level traverse which need rectifying.

Saturday 2nd December 2023 - Henley Hall Culvert

Following a request to the Club from the landowner for help with a clogged culvert, Andy Wood and Steve Holding undertook a recce of the site on an exceptionally cold day. They meet Sebastian (current owner of Henley Hall) and Nick who lives in one of the properties on the site and seems to look after the land maintenance.

The culvert in question is fed from a large pool in front of the hall and the pool is fed from a stream (*see 1 below*). There is a sluice 'gate' (*photo 2*) which allows the feed to the pool to be stopped and hence the flow into the culvert.

1. The dam and stream feed. *(Steve Holding)*

2. Looking down at the gate to the pool. *(Steve Holding)*

3. First culvert entrance. *(Steve Holding)*

4. View from the gate in the first culvert. *(Steve Holding)*

SCMC Trips - Henley Hall Culvert, 2nd December 2023
Continued . . .

Water from the pool is in an open trench and enters an initial culvert, which seems to flow freely. Photo 3 shows the entrance to this first culvert and photo 4 (which is poor quality) is a view looking along the start of this culvert.

This initial culvert joins a 'main' culvert and at this point it is wider and much lower. This 'main' culvert can be accessed at two points - the first is close to where the two culverts join. This is a long, open trench, covered with mesh fencing for safety and with a (non-functional) sluice gate at its outlet. There is another (dry) branch access at the same point.

On the day of the visit the water feed was not stopped early enough to give comfortable access to the downstream part of the main culvert. However, we could see a long way downstream with no apparent damage to the roof but with lots of debris on the floor. This debris was covered in leaves and it was difficult to judge what was under them.

About 80 to 100m downstream of the big open trench, there was a manhole which could easily be descended (*photo 5*). The water level was lower, and it was just about possible to crawl 'comfortably' a short distance upstream. Again we could see a significant distance with an apparently sound roof, but again a lot of debris on the floor (*photo 6*).

5. View below the manhole.

(Steve Holding)

6. Looking upstream from the manhole. *(Steve Holding)*

Downstream from the manhole, the culvert goes off at an angle and feeds into the nearby brook. There are not believed to be any problems in this section.

The Problem

During recent floods it was noted that the flow below the big open trench was poor, and the water was running on the surface at some depth. When viewed on 2nd December, water was running in both the open trench and at the manhole. When the water into the pool was stopped, the water at the manhole dropped much more quickly than at the open trench.

Possible Solution

It appears that the debris in the culvert and manhole needs clearing but the nature of the debris is not clear. Whilst the roof looks good from both directions, there are stones and bricks at the manhole which might reflect degradation of the roof - there was no daylight visible looking through, but there is possibly a small bend in the culvert between the access points.

Hopefully, if the water to the pool is stopped early enough, it should be reasonably dry* in the big trench and at the manhole. Debris could be removed from both ends but would be easier from the upstream 'big trench' – for both locations any buckets would need to be hauled to surface (about 3m) as well as being brought along the culvert.

* Unless very dry conditions, some water might still seep from the pool.

Report: Steve Holding

Thursday 21st December 2023 - Club Christmas social evening at the Stiperstones Inn. Twelve Club members made it to the Stiperstones for this annual event. This year rather than a mad "she/he who grabs last grabs least" scramble for the sausages, chips and bread, everything was brought out individually plated making it easier for those with different dietary requirements - and Gareth when he came to pay!

It was a good evening with chance to catch-up and chat with various Club members and a nice start to the festive season.

SCMC Trips - Dawdle or Dash, 26th December 2023

Tuesday 26th December - Stiperstones "Dawdle or Dash". Club members Ben Morris, Steve Holding, Graham Smith and Kelvin Lake (with their cave rescue hats or rather coats on) along with MCRO member Jonathan Wilkes were by the Devil's Chair on the top of Stiperstones on Boxing day supporting the organisers of the Annual "Dawdle or Dash" race by 'stamping' the runners as they arrived at the half-way point and providing refreshments (courtesy of the Stiperstones Inn and Shop) to runners and dawdlers.

After repairs to the route up Perkins Beach, following the flood damage a few months earlier it only took the first entrants about 12 minutes to cover the distance from the Stiperstones Inn to the Devil's Chair. Surprisingly this was not a record time!

This year there seemed to be fewer locals waiting at the Devil's Chair to greet the runners and dawdlers as they arrived. This initially caused some consternation, in that we had a lot of drink and mince pies to give out. However, once the bulk of the 'Dawdlers' arrived it ceased to be a problem.

The race half-way point set-up, with onlookers waiting for the runners. *(Graham Smith)*

Graham makes time for second breakfast *(Ben Morris)*

Left and below: It is a cold, tough job waiting. You need a strong spirit . . . . *(Graham Smith)*

Bottom left: The first runner arrives. *(Kelvin Lake)*

SCMC Trips - Cwmorthin, 28th December 2023
Gareth Rushton

Members present: Gareth Rushton, Steve Holding, Graham Smith, Sally Fowler, Ben Morris, Emily Rose, David Heavey and Daniel Williams.

Key Points/ Trip

Members met up above Tanygrisiau for around 10.15am. As typical for a trip to Cwmorthin, the weather was less than ideal and the liquid sunshine was abundant.

Once 'Kitted Up', we started making the slow walk up the steep side of the waste heaps that shape the landscape.

Dan, Emily and Ben by the lake. *(Gareth Rushton)*

Slate truck with double flanged wheels. *(Gareth Rushton)*

Upon entering the mine, we agreed to stick to the typical 'circulatory' route from Lake Level, down the 'Old Vein' incline, off a level or two down, through a crawl and towards 'Pointers Chamber'. Shortly after we reached the 'Hurdles' before continuing on, working our way down through the chambers. We passed through one of the many manways before reaching the air receivers.

The 'Hurdles'. *(Gareth Rushton)*

Emily on a 'bridge'. *(Gareth Rushton)*

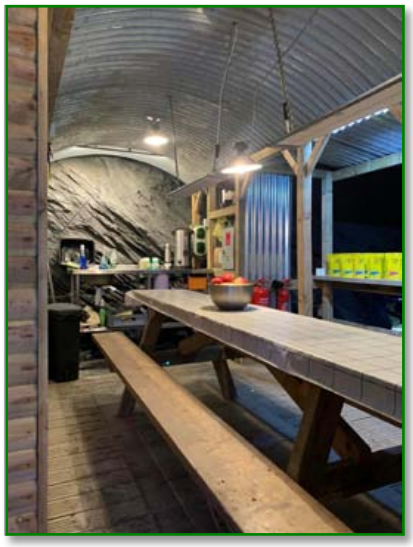
Graham's table. *(Gareth Rushton)*

Right: Ben about to enter 'Deep Sleep'! *(Graham Smith)*

After a short stop, we proceeded to Queen Anne's Café and had some lunch. Graham in particular was well prepared and provided a lovely candle lit dinner (including a 'table cloth') utilising his camera's protective tea towel.

The "Go Below" maintenance team were preparing the 'Deep Sleep' area for guests and we were invited in to see the cabins and grotto - certainly an interesting experience and it was great to see the setup. Graham was particularly smitten with a duvet in one of the cabins covered in images of sheep (it must be his "inner Welsh-ness" coming out!).

SCMC Trips - Cwmorthin, 28th December 2023
Continued . . .



Above: The 'Deep Sleep' area kitchen and cabins.
Left: The kitchen. *(Gareth Rushton)*

Right: The cabin with Graham's sheepish duvet + sheep dog pillow. *(Graham Smith)*

Continuing our trip, we climbed back up a level and wandered around the 'old incline' for a few moments, before making our way to 'E' level and the water. We shimmied/ balanced our way around the scaffold tubes in the water before reaching the rake of partially submerged wagons and the 'Back Vein' incline. Making our way up the incline for a couple of levels before breaking off, and circling back on ourselves to the remains of a timber bridge above the crane on 'E' level. Finally, we ascended the 'Stairway to Heaven' before making our way outbye.

The trucks in the water. *(Gareth Rushton)*

Dan on the 'stairway'.*(Graham Smith)*

Climbing an incline. *(Graham Smith)*

There's no end of them! *(Gareth)*

Drill rig set-up. *(Gareth Rushton)*

Back on the surface. *(Graham Smith)*

Summary

The trip was as enjoyable as ever and newer members were excited to experience the mine for the first time.

It was agreed on the day that a couple of future trips to the mine would be arranged where more adventurous routes would be taken, along with further exploration of areas 'off the beaten track'.

SCMC Trips - Cambrian, 30th December 2023
Gareth Rushton

Members present: Gareth Rushton, Steve Holding, Graham Smith, Ben Morris, Emily Rose, James Hobson, Alan Robinson, Vicky Robinson, Kelvin Lake, Andy Wood and Daniel Williams.

Key Points/ Trip

Members mustered at two locations (due to parking constraints) and made their way to the entrance chamber via the old incline, where the trip began 'officially'. There had been some concerns regarding a berm of material that had been created at the top of the open pit and the potential for it to prohibit access. We did install a short handline to make the climb over the berm and down onto the loose ground of the former incline easier. Descending into the entrance chamber, we encountered the large air receiver and a few artefacts including a hand brake, brake blocks and some winding cable.

Remains of the haulage base at the head of the incline into Cambrian Slate quarry. *(Gareth Rushton)*

Gareth beside the air receiver, lying at the foot of the entrance incline. *(Graham Smith)*

We made our way through the chambers above the flooded levels north-westerly towards the waterfalls located in an adjacent open pit.

The group split up for a brief time, one group heading directly into the open pit, the others looping around to the drainage/ tramway level.

View down the overgrown incline. *(Graham Smith)*

Graham on top of the haulage drum base at the foot of the incline. *(Gareth Rushton)*

Graham on the tramway in chambers off to the north-west of the incline foot. *(Kelvin Lake)*

Steve at the blockage in the by-pass channel from the open pit into the main drainage level. *(Kelvin Lake)*

SCMC Trips - Cambrian, 30th December 2023
Continued . . .

One of the waterfalls over the other chamber entrance. *(Gareth Rushton)*

Graham in the main drainage level (view downstream). *(Kelvin Lake)*

Entrance to the drainage level from the open pit. *(Kelvin Lake)*

Valve in a dammed level to a quarry used for water. *(Kelvin Lake)*

Within the open pit, there had historically been an entrance to further chambers, but this appears to have collapsed. The area of the entrance was under a torrential waterfall, preventing any chance of locating the way in. There was a discussion regarding a potential return when water levels had dropped to further evaluate the possibility of removing the more recently collapsed material blocking the entrance area. The remnants of the gas engine still exist in the open pit area, but they are now getting covered in thick layers of moss.

Leaving the open pit, we followed the stream to the top of the drainage/tramway level (one member taking a rather wetter approach after stylishly falling into the water) and met up with the other group. We passed by the dam and water valve on the way along the level, before breaking out into another open pit.

We continued to the end of the drainage level through the approximately 1.5m diameter concrete pipe and out to surface for a quick look around, where the same member as above, also found that there was a steep drop off within the channel shortly after emerging from the pipe and found themselves in the water again.

Emily in the main drainage level just before it enters one of the open quarry pits. *(Graham Smith)*

The group passing through the open pit near the downstream end of the level. *(Graham Smith)*

Graham about to enter the concrete pipe at the end of the drainage level. *(Kelvin Lake)*

Alan looking at the large slate retaining wall. *(Kelvin Lake)*

Graham studying the circular saw blades on the slate wall.*(Kelvin Lake)*

Last candlelit picnic of 2023. *(Vicky Robinson)*

Left: Graham sitting on an air pipe above a flooded incline - with Ben looking out the 'window' on the right.

Right: Gareth beside a hand winch in a flooded chamber.

(Kelvin Lake)

Returning up the concrete pipe was like leg day at the gym with the flow of water gushing against you, one piece of memorable advice on the day happened to be 'spread your legs' to which there were a number of smirks and chuckles.

We retraced our steps up most of the drainage level before turning off to a larger chamber where there was a large slate retaining wall with saw discs for retaining plates. Adjacent to the wall were the foundations of an air compressor which was once powered by a Pelton wheel. The iron pipes and chamber for this were under the foundations. Water for the Pelton wheel came via a series of earthenware pipes laid in a channel/tunnel to one side.

At this point there was an opportunity for a spot of lunch and once again, Graham did not disappoint and whipped out the candles and tea cloth for the second time in three days.

The group split up again, one to head out to surface whilst a few of us hung around to get a few atmospheric pictures. Graham was captured having a quick breather sat on an air pipe above the flooded incline down to the lower levels, whilst Gareth was spotted having a paddle by an old hand winch in the next chamber over. We finally made our exit to the surface and headed back to the vehicles, unfortunately, it was still raining heavily, like it had been doing for the past week, but in fairness, we were all pretty wet already from the waterfalls and drainage level.

Graham looking up the overgrown entrance incline. *(Gareth Rushton)*

Summary

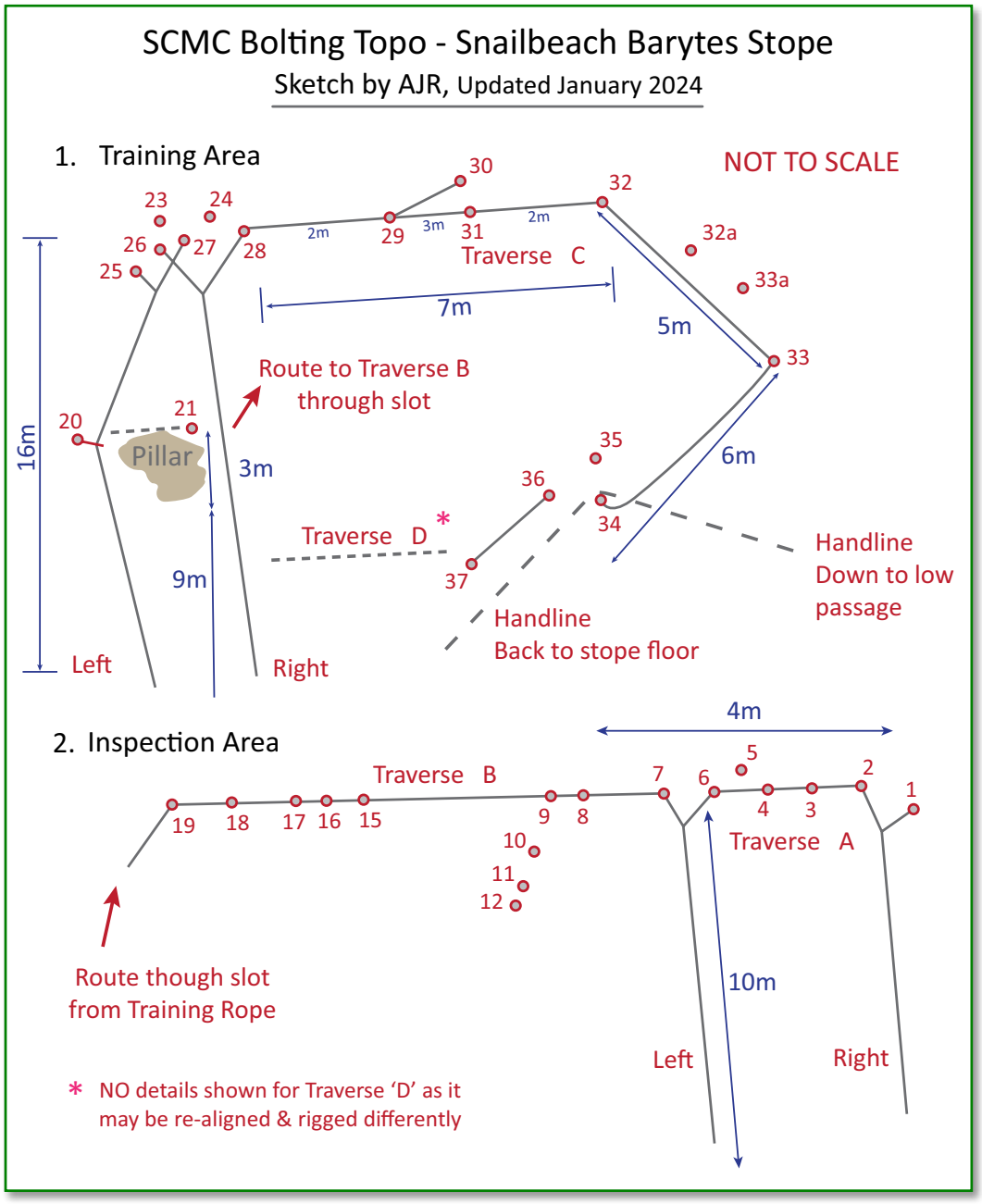
It was excellent to revisit the mine (some of us hadn't been in over 2 decades) but unfortunately there are limited artefacts remaining and the majority of levels require scuba gear to visit. It would be interesting to revisit the waterfall pit and attempt to regain access to these currently blocked chambers, but I think it will be a while before another club trip to the mine is organised.

SCMC Trips

Tuesday 2nd January - Arley incline walk. Members present: David Poyner, David Heavey, Kelvin Lake, Mike Moore, Beverley Cooper. Torrential overnight rain, along with strong winds and rain as we arrived, plus with the parking place resembling a river, it was decided to abandon the walk and 'retire' to the Kabin in Kinlet. A pleasant hour or so was spent chatting with hot beverages (and cake for some) in this little community-run cafe by the village hall - well worth a visit if you are in the area, although it closes at 2pm. It was decided to postpone the walk until Sunday 7th when the weather was expected to improve.

Thursday 4th January - Snailbeach Barytes stope. Steve Holding, Alan Robinson, Vicky Robinson had a trip into the Baryte stope to check bolt conditions on the traverses and pitches. This is part of a long term project by Alan to document all the bolts and rigging at the various locations that the Club use.

WARNING: This trip identified a severe problem with the traverse (Traverse B on the diagram below) that directly connects the training pitches to the inspection pitches. It should not be used until further notice as the result of a failed bolt (No. 9, *see below*) at a critical point. **NOTE:** If you find a loose or suspect bolt on any pitch report it to Alan. If you can, tighten it - don't leave it.



Friday 5th January - Burgam bat survey. Mike Worsfold, John Morgan, Vicky Robinson, Alan Robinson, plus members of the Bat Group.

SCMC Trips - Ironbridge Walk, 6th January 2024
Kelvin Lake

Members present: Neal Rushton, Julian Bromhead, Nick Southwick, David Poyner, Stephan Natynczuk Steve Holding, Alan Robinson, Vicky Robinson, Kelvin Lake, Mike Moore, Beverley Cooper, plus Beverley's sister and brother-in-law; Liz and Phil Chilver.

The group met at the Station car park on the south side of the river Severn at Ironbridge then walked a short distance west past the end of the bridge to reach an incline and overbridge now used as a footpath. This bridge was built by the Great Western Railway to carry a tramway that had been disrupted when the Severn Valley Railway was constructed. The tramway connected a series of coal and clay adits around the lower part of Benthall Edge to Benthall Brickworks, just upstream of the Iron Bridge. The works were in operation from about 1790 to the 1950s.

The remains of a ventilation furnace in the cutting by the entrance to one of the adits was examined before we retraced our steps down the incline and back to the car park.

A lump of coal on the footpath sign at the head of the tramway incline. *(Kelvin Lake)*


Remains of a ventilation furnace near one of the adit entrances along the tramway route. *(Kelvin Lake)*

Neal then lead us east along the old track bed of the Severn Valley Railway, pausing opposite Bedlam Furnaces to look at the outfall of the Ladywood Sough. Ocherous water still flows out of the entrance which is heavily silted and overgrown. Two of the three 'bowls' placed in the stream as an artwork some years ago survive on the river bank near the adit, but there is no sign of the smaller bowl.

Following the river downstream to the Boat Inn we were able to reach the Jackfield Memorial bridge as the flood waters had dropped. However, the Boat Inn was still afloat!


A GWR boundary marker on the site of the Jackfield slip.

The head is mounted on top of a former GWR broad gauge rail. *(Kelvin Lake)*

The Boat Inn under water - but not too deep! *(Kelvin Lake)*

From Coalport the walk then followed the north bank of the Severn, upstream. Diverting into the woods at the Lloyds the remains of the Lloyds pumping engine house were examined, along with nearby brick features by the dam of the adjacent pool.

At Lloyds Cottage there was chance for the first picnic of the year - Graham had not got his 'table cloth' with him this time! We then set-off up Wesley Road, passing old coal workings and cracks and 'slip' evidence in the road surface. Eventually we reached St. Luke's Road to pass the gated entrance to the Pennystone Ironstone adit.

Continuing along St. Luke's Road to the crossroads by the church a short trip was made down New Road to view the area of the Crawstone Ironstone workings. It was here where the walk effectively ended, although due to the flood barriers on the Wharfage we had to take a slightly convoluted route to reach our vehicles in the Station car park.

SCMC Trips - 6th & 7th January 2024

David Poyner

Alan Robinson explaining the layout at the Lloyds engine house site, on the Ironbridge walk. *(Kelvin Lake)*

The first Club picnic (on the Ironbridge walk) of 2024 - sadly no table cloth! *(Kelvin Lake)*

Arley and Seckley Wood

Members present: David Poyner, Kelvin Lake, Graham Smith, Steve Dewhirst, Mike Moore, Beverley Cooper, David Heavey, Lois Dennis, James Hobson plus Stacie Palmer-Young.

This walk was to have taken place on the 2nd January but rain stopped play and members retreated to The Kabin in Kinlet, which can be recommended for its refreshments. The party reassembled on the 7th alongside the road by Bower Hill and Cherry Orchard Farm, in Arley and walked through the Wyre Forest to examine the shallow mines ("bell pits") on the hill side above Seckley Cottage. These are probably 17th century in date; from 1613 coal mines here were leased by Sir Francis Lacon to John Slaney of Broseley and Sir Percival Willoughby of Nottingham.

David Poyner explaining the remains of "bell pits" in Seckley woods . *(Kelvin Lake)*

David Poyner (watched by David Heavey and Beverley Cooper) talking at the head of the incline. *(Kelvin Lake)*

An early railway was laid on Bower Hill to move the coal, presumably to a wharf on the Severn. A steep incline still exists running down the hillside from the pits to the Severn, immediately to the east of Seckley Cottage. It is not clear if this is the 1613 railway but it is probably 17th century in date. This makes it one of the earliest railways in the country where the track can still be traced on the ground. A report on the incline was published in Below in 2012 (2012.2, pp. 16-18) and an update has just appeared as an occasional paper for the Railway and Canal Historical Society (OP271); contact me if you would like a copy.

The party then walked east along the Severn to the site of the Seckley Coal Works/Valentia Clay Works, noting the extensive landslips where the high ground of the Wyre Forest borders the river. There is a thin seam of coal at the base of the cliff, but the main attraction here seems to have been the clay. The Valentia Clay Works is mentioned in an advert of 1825, Seckley Coal works are marked on the 1st series OS 1 inch map (1828-30) and the tithe map for Arley (1838) shows a brick kiln besides the river. All that now remains by way of standing buildings is Clay Pit Cottage, but behind it is a stone retaining wall, a series of shafts and a possible adit. There has also been substantial quarrying of the sandstone escarpment behind the shafts. A series of tracks and possible inclines connect the various works with both the river and the plateau with roads to Bewdley and Kinlet.

David Poyner

David Heavey, Graham and James looking at a run-in adit near the clay works. *(Kelvin Lake)*

SCMC Trips - January & February 2024
Continued . . .

Sunday 7th January - Bat survey Potters Pit. Mike Worsfold, John Morgan, Alan Robinson, plus members of the Bat Group.

Sunday 14th January - Midlands Cave Rescue Organisation, training session. Fourteen Club members took part in the MCRO training at Arco Professional Services facility in Eccleshall. An interesting day with a complex rescue scenario involving a range of techniques.

Sunday 14th January - Hen Glodffa. Members present: Oliver Beard, David Heavey, plus two members from Peak Caving Club. This trip involved going in the level 6 adit and walking around all the chambers. We scrambled up to level 5 to look at a nice winch overhanging a chamber. But the real prize was a 40m abseil down to level 7 to see the electric winch. Hen Glodffa has many beautiful winches to admire!

Sunday 14th January - **Bat survey Snailbeach Perkins Main Stope**. Mike Worsfold, plus Bat Group members Simon Cope and Nicola Wheeler.

Sunday 21st January - **Bat survey Snailbeach 'smalls' (which include New Central and Chidleys)** . Mike Worsfold, plus members of the Bat Group. **Eastridge adit:** John Morgan and a Bat Group member.

Sunday 28th January - Bat survey Rhadley (Rabbit hole). Mike Worsfold, Vicky Robinson, Alan Robinson. **Rhadley Lower (wet) and Pheasant level:** John Morgan, plus members of the Bat Group.

Sunday 4th February - Bat survey Huglith, Badger Level and Westcott adit. Mike Worsfold, John Morgan. **Riddleswood:** Alan and Vicky Robinson. **Pipe Shaft:** Simon Cope and Nicola Wheeler (Bat Group members). **Hoover Level (Riddleswood):** Alan Robinson and Simon Cope (Bat Group).

Sunday 11th February - Bat survey Rorrington. Mike Worsfold, John Morgan, Alan Robinson, Vicky Robinson. All the upper adits and the northern stope were visited to count the bats. The upper shaft/stope was descended to the tight sections and a nice level with remains of a windlass.

The numbers of Lesser Horseshoe bats seen were broadly similar to previous years with no more Greater Horseshoes since Upper Burgam in December

Sunday 11th February - Rorrington Deep adit.
Members present: Julian Bromhead, Oliver Beard, and Ben Morris. Permission had been obtained from the landowner to access the Deep adit which was previously subject to some digging work by the club in 1993-94.

Ben assisted with removal of the rusted old lock which has been replaced with a new combination lock.

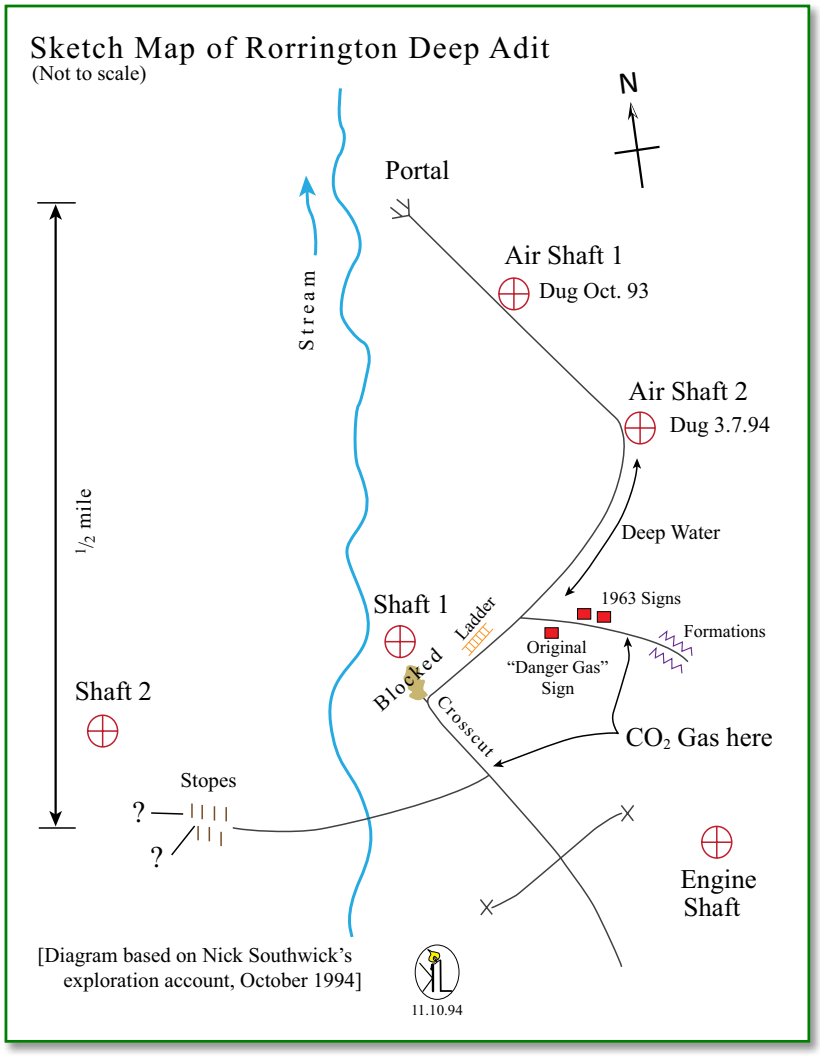
Julian and Oliver entered the level, expecting deep water and potentially bad air we were both in wet suits and carried gas meters.

The level has chest deep water beyond the dig/crawl at the site of 'Air Shaft 2' (*see sketch, right*).

We got as far as the 'formations' after the first branch and the ladders on the floor of the main drive when bad air limited any further progress.

The old 'poisonous gas' signs are still in place.

Report: Julian Bromhead



SCMC Trips - Rorrington Deep Adit
Continued . . .

Deep Adit entrance. *(Julian Bromhead)*

Second dig - chest deep water beyond. *(Julian Bromhead)*

Formations along the walls in the first branch. *(Julian Bromhead)*

Oliver by the 'poisonous gas' sign at the first branch. *(Julian Bromhead)*

New Laxey Wheel 'Hub'

Manx National Heritage (MNH) has applied to replace the current hub at the Laxey Wheel. *[I thought this meant the centre of the wheel, but it is modern speak for ticket office and shop! Ed.]*

In its application, MNH says the existing kiosk, built in 1986, "does not meet modern standards". It provides a "poor visitor welcome with no opportunity for shelter and limited retail opportunities".

The existing kiosk and turnstile will be demolished and replaced by a "lightweight" building, built from insulated panels, which would be divided into two areas.

Ladder on the floor of the main drive near the crosscut, Rorrington Deep Adit. *(Julian Bromhead)*

The customer-facing side would include an admissions point, where visitors could have a conversation with the customer services team and purchase merchandise, or shelter from the weather.

A smaller space would be dedicated to staff facilities, for welfare breaks and administration purposes.

MNH claim the current facilities fail to "provide a customer-focused interface between MNH site staff and visitors" *[a gift shop in other words]* and can not function "effectively or efficiently in support of income generation".

The Laxey Wheel, "Lady Isabella" was built in 1854 to pump water from the Laxey Mines. It reopened and began turning again in 2022 after a two-year stoppage for repairs and conservation work.

Various News Reports, December 2023

50 Years ago in the Club
From the Archives

The Club House

From 1964 to 1987 the Club had the use of No.38 Wellington Road, Newport, a thatched cottage dating from 1681 which the Club called "Snailbeach". It was rented from the owner who lived in Sutton Coldfield for 5 shillings (25p) per week - and the rent was never increased!

By the 1970s the roof was in a poor state and the then Club treasurer Ivor Brown managed to get a grant to allow the roof to be replaced. The re-thatching of the roof was featured in *The Advertiser* (one of the Shropshire Star group of local newspapers) after a photographer visited the cottage on 24th January 1974.

The re-thatching of the roof was featured again in *The Advertiser* on Friday 1st February 2013 suggesting that the roof would need re-doing. Unfortunately, by 2013 the Club no longer had the use of "Snailbeach", having left in 1987 following the death of the owner and the cottage being put up for sale.

When the Club left the old Snailbeach road sign which was fixed to the outside of the cottage was taken down and given to Snailbeach Village Hall, where it now hangs inside the hall.

Nick Southwick has sent in this old newspaper clipping from 2013 about the thatching work:


Rethatching due again for club

IT'S January 24, 1974, and the 17th century miner's cottage at Church Aston which was the headquarters of Shropshire Mining Club was being thatched, a job which had taken around three weeks. Club treasurer Ivor Brown of Shifnal, is pictured watching Ron Jones getting on with the work. Mr Jones estimated that the roof would not need re-thatching for about 40 years - which means that the rethatching job is due very shortly now. *(The Advertiser, 1st February 2013)*


The Club house (Snailbeach), Church Aston, Newport in 1965. *(SCMC Archive)*


The rear of the Club house in 1974 when the re-thatching was finished. *(SCMC - David Adams Collection)*

The Mamble Boot

James Hobson

On 22nd October last year, in the aftermath of Storm Babet, I embarked on a walk with the intention of viewing what's left of the aqueduct of the Leominster Canal which crosses the River Rea near Newnham Bridge. The first part of the walk was to visit the early Mamble collieries, taking the path following the old tramroad, past Footrid and back towards the A456. The path crosses the Marl Brook over a small footbridge. The Marl Brook itself is in part fed from a sough driven to drain the early pits, and the bridge is just downstream of this.

The storm had swelled the stream and scoured the banks, and so I decided to see if anything had been washed down and deposited on the banks. And lo, a find was indeed presented to me in the bank beside the bridge. A child's size hobnailed boot, upside down, surrounded by masses of pulverised brick and coal fragments. It's in remarkable condition, and clearly been preserved in mud or an oxygen free environment for some time. Its approximately 7 inches long, with noticeable wear to the toe area of the sole, and a split longitudinally to the upper toe of the shoe, right in the middle.

The boot on the bridge parapet near where it was found. *(James Hobson)*

I continued and completed the rest of the walk, and took in the poor state of the aqueduct, surprised it was still standing after the aforementioned storm floods. Upon returning home, and over the coming days I resolved to find out as much as I could about the boot. Discussions with David Poyner led us to agree that given its proximity to the collieries, and the relative lack of any other industry in that locality, that the boot was likely linked to the mines in some manner.

Through an acquaintance in Bewdley Civic Society, contact was made with the senior shoe curator at Northampton museums, who shed light on some of the boot's mysteries. The boot is circa 1860s, so slightly later than the collieries it was discovered near, yet not necessarily completely unconnected.

It is of a design called Balmoral, after Queen Victoria's residence that had been purchased and rebuilt a few years earlier. It has metal eyelets, which were patented in 1823, so cannot be earlier than this. Most intriguing is the split down the toe, which looks to be a deliberate cut as there is no seam there to split. Concealed shoes in houses have been found aplenty and some known to have been deliberately damaged, possibly to prevent any person from being tempted to retrieve and reuse it. It is thought that the practice was to ward off evil spirits and witchcraft, although any exact reasons have been lost over time, insofar as I can ascertain.

Many single shoes/boots are found in disused mines, was this practice taken underground for the same reasons?

Regardless, most agree that this boot find, given its location context, is a remarkable and interesting discovery, and throws up many questions, such as is the wear to the toe hobnails down to pushing mine carts?

Its currently residing at my home, pending thoughts of lending for a museum exhibit, if any were to be interested.

Above and below: Views of the Mamble boot. *(Kelvin Lake)*

Cockshutford Quarry and associated workings on the Brown Clee

David Poyner

Recently I wrote about the history of limestone working on Clee Liberty, that part the parish of Clee St Margaret on the Brown Clee[1]. However, I left out the largest limestone quarry, on the slopes of the hill above the settlement of Cockshutford, as this was a 20th century working on a much larger scale than anything that had gone before. This quarry, Cockshutford Quarry (centred on SO 580 848), is the subject of the present article.

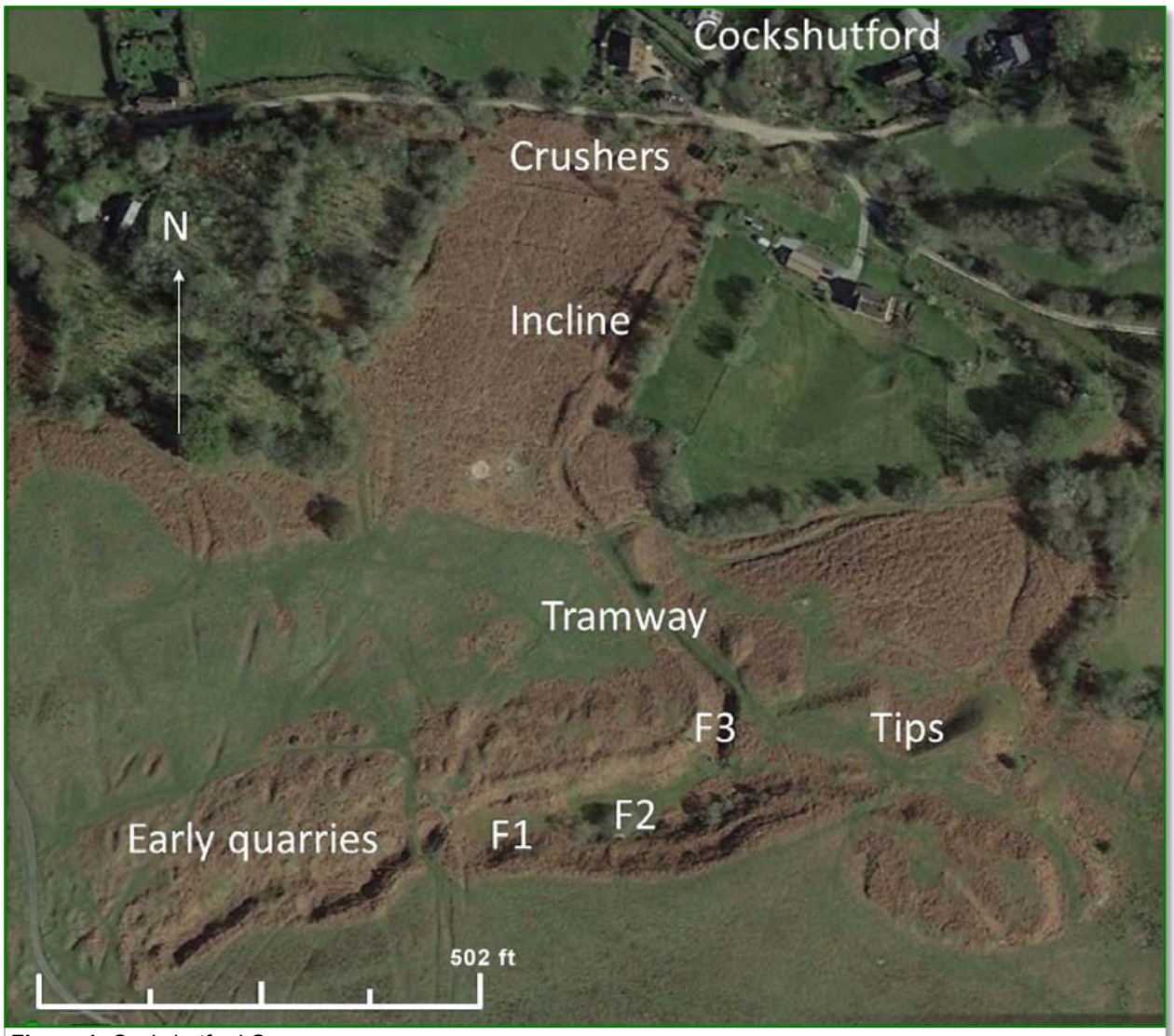


Figure 1: Cockshutford Quarry. *(Google Earth: Image 2022 CNES / Airbus)*

History

To understand the history of Cockshutford Quarry, it is necessary to briefly review the history of dhustone quarrying, the working of the basalt caps on the twin summits of the Brown Clee at Abdon Burf and Clee Burf. This began on a commercial scale around 1908 by the Abdon Stone Quarry Company on Abdon Burf [2]. By the mid-1930s, they had exhausted the dhustone on Abdon Burf and in 1936 obtained a lease for the dhustone on Clee Burf from James Pelham-Thursby, who owned Clee Liberty[3].

The history of Clee Burf quarry has also been recently described by myself in Below; suffice it to say that by the start of the Second World War, the Abdon Company had concluded there was little good stone left for them to extract[4]. It was at this point that the company turned to the limestone at Cockshutford. James Pelham-Thursby granted a lease dated 1st October 1940 to Arthur Francis Bott of the Abdon Stone Company of both limestone and freestone on his land of Clee Liberty. In March 1943, the lease was transferred to a new company, the Cockshutford Lime Co. Ltd. This had the same managing director as the Abdon Stone Company, Hamish Cross, but the "principal" of the company was Major Arthur William Foster, of Apley Park.

Bott died in December 1943 and possibly was already too unwell to continue in business by March of that year. In August 1943, Cross wrote to Pelham-Thursby to announce that he intended to abandon the dhustone quarry and, after moving any useful plant to the limestone quarry, to sell the rest. Pelham-Thursby who had hopes of reopening

the dhustone quarry with new lessors after the Second World War, objected to this, to little avail. He seems to have had a poor relationship with Cross, who he accused of trying to avoid paying royalties. Some machinery was moved, with Cross dismissing the rest as "out of date and only of scrap value". Just over a year later, in September 1944, Cross wrote to say that the quality of the limestone had now deteriorated and he was also abandoning the limestone quarry.[5] This brought an end to all quarrying on the Brown Clee.

Remains of the Quarry

Figure 1 is an aerial photograph of the quarry with Figure 2 showing its relationship to surrounding features. The quarry workings followed on from the pre-20th century extraction of the Upper Abdon Limestone, working to the east. However, whilst the earlier workings were little more than a trench in the hillside, the Abdon/Cockshutford company extracted on a larger scale, having the resources to remove more overburden to follow the limestone into the hill. That said, the limestone was no more than 20 feet thick, becoming sandy in its lowest levels.

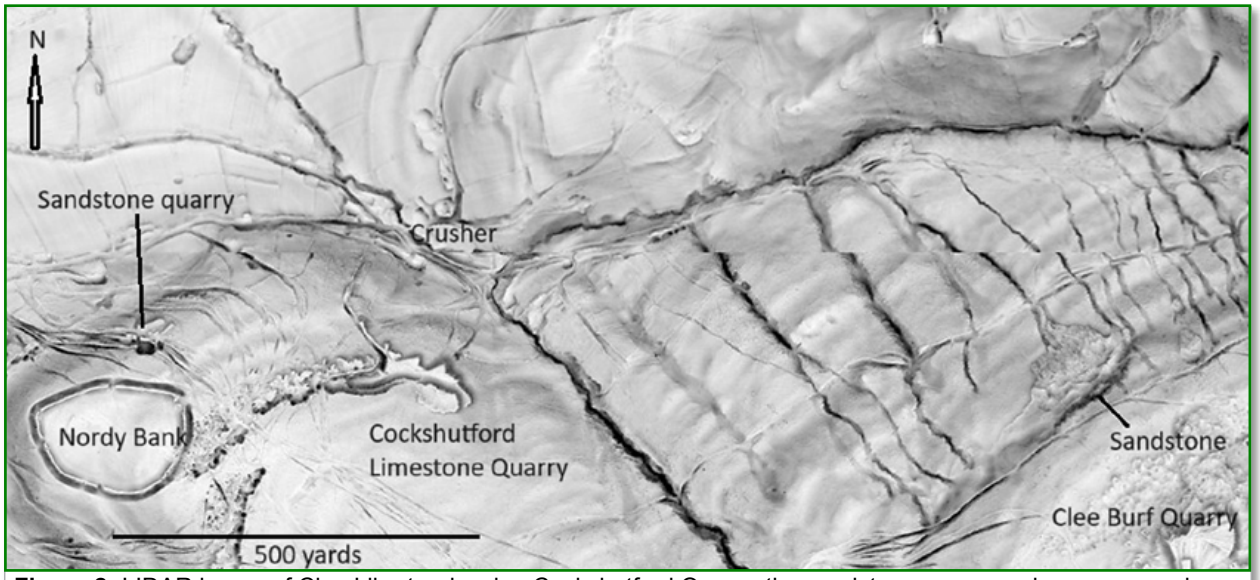


Figure 2: LIDAR image of Clee Liberty, showing Cockshutford Quarry, the sandstone quarry and exposure and Clee Burf Dhustone Quarry.

Three distinct quarry floors can be identified (Figure 3). Floor 1 (F1) has a face around 15 feet high and forms the western part of the quarry. There is then a distinct drop of around 10 feet to floor 2 (F2), with a 25 foot high face.

Floor 3 forms a pit working at the north-east angle of floor 2. In principle floor 2 may have been the earliest working with floor 1 a westward extension, but I suspect that floor 1 was created first, with floor 2 an extension to take a lower level. Floor 3 probably was an attempt to test the quality of the lowest levels of the limestone at the end of the quarry's life.

Figure 3: Cockshutford Quarry, looking west to floors F1 and F2. *(David Poyner)*

The spoil tips are at the eastern end of the site and exploit the contours of the hill to allow more material to be dumped progressively to the north. They would seem to have made any further extension of the quarry to the east challenging.

To the west of the quarry is a low brick building with a flat, concrete slab roof (SO 5788 8485). It may have been a powder magazine for the quarry.

Tramway

From the base of floor 2 and flat area at the start of the tips, it is possible to trace a tramway around 800 feet in length leading to the crushers at the roadside at Cockshutford (Figures 1, 2). It is joined by a branch from floor 3.

The first half of the tramway falls gently through about 30 feet but the final 400 feet descends sharply around 100 feet, presumably working as a gravity incline. The gauge is not known, but something in the order of 3 feet would be consistent with the width of the track bed. The incline section is hidden beneath bracken, but towards the top there seems to be a prominent mound on the course of the track bed. It is not known how the tramway worked; the two issues would have been controlling the speed of loaded, descending trucks and returning empty trucks to the quarry face. Movement along the incline was probably by a wire rope. Outside this, the tubs may have been trammed by hand or using horses, but a Motor Rail petrol locomotive was said to have been transferred from Abdon to Clee Burf and this may have been moved to Cockshutford[6].

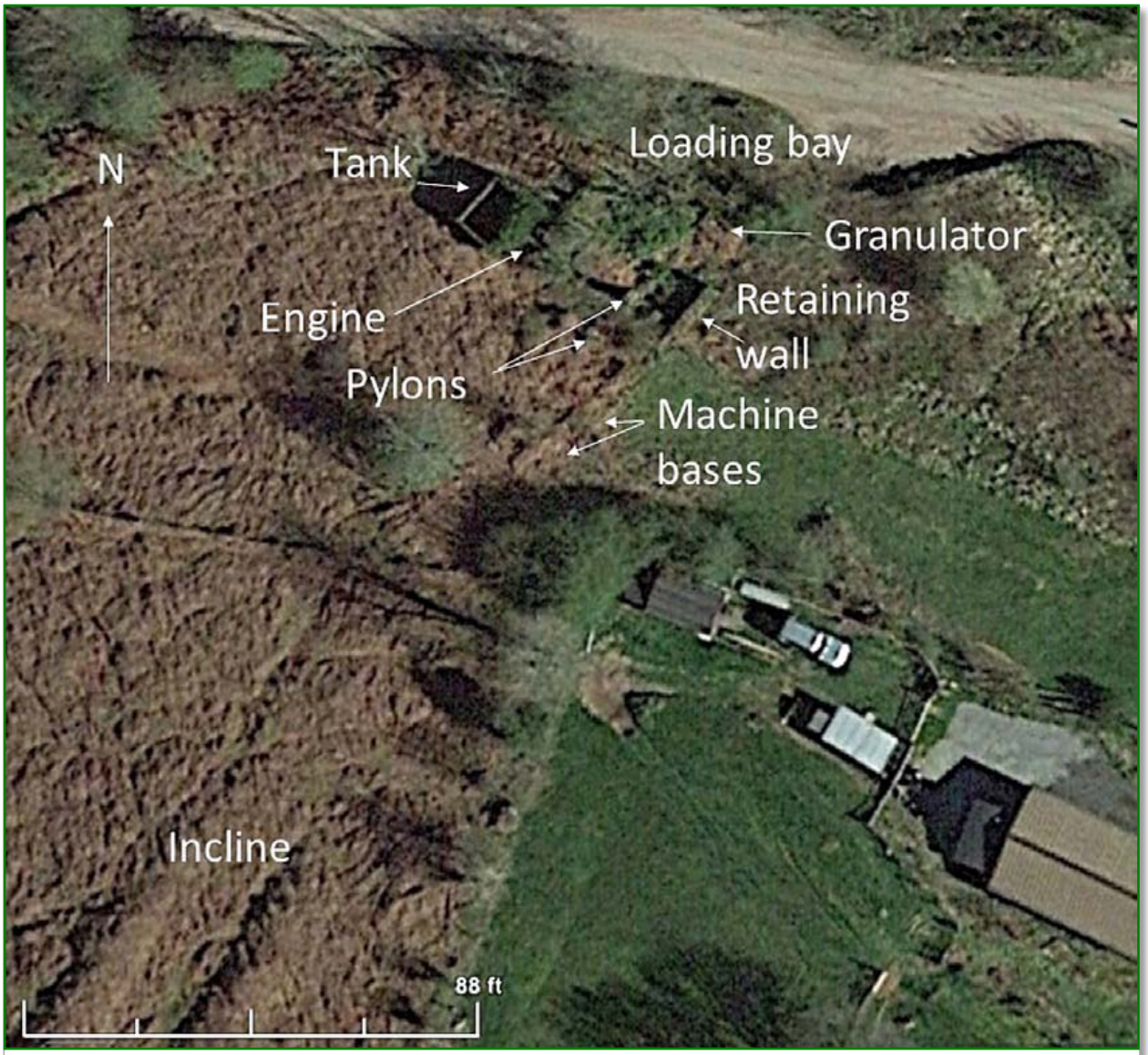


Figure 4: Detail of tramway and crusher plant. *(Google Earth: Image 2022 CNES / Airbus)*

Crushing and screening plant.

At the base of the incline is the crusher plant. This is currently obscured by vegetation but the general layout is clear (Figures 4, 5, 6). Several main elements can be seen. Starting from the west, there is a large concrete water tank (Figure 7). This would have provided cooling for the engine, but may also have fed a stone washer. Next to the tank is a substantial base for an engine. This was probably a diesel engine; there is no trace of any gas plant. It is said that a Crossley diesel was used at Clee Burf; this seems unlikely given the obvious remains of a gas plant, but it would be consistent with the engine base at Cockshutford[7]. The detailed arrangement of the engine is not clear, at least to me, but I suspect it was a single cylinder model. Beyond the engine are the remains of the stone processing

plant; a series of linear concrete bases and pylons with holding-down bolts (Figure 8). These are not easy to read. The incline is on a slightly different alignment to the bases and a 1948 RAF aerial photograph[8] suggests there were foundations to carry it alongside the first part of the crusher bases, as far as the engine base. These bases are now largely invisible beneath bracken but probably supported a gantry and tippler with a storage bunker for the stone.

The logical sequence would be for a primary crusher perhaps with a bar screen and then for secondary crushers and screens. The plant exploits a natural fall of around 20 feet so that stone could move through it by gravity. The length of the bases suggest a rotating trommel screen may have been used to size stone. Possibly at the end of this was a "granulator"; a tertiary crusher to produce fine gravel and/or a grinding mill, to produce dust for the concrete works, although it is said that the limestone was too soft to be of much use for this and was instead marketed as roadstone[9]. At the extreme south end there seems to have been a hopper to receive whatever was the finest aggregate that was actually produced. There was a substantial platform between this and the road to allow easy loading of lorries (Figure 8). Along the east side of the crushing/screening plant is a substantial concrete wall; this may have supported a conveyor to return oversized stones back to the crushers.

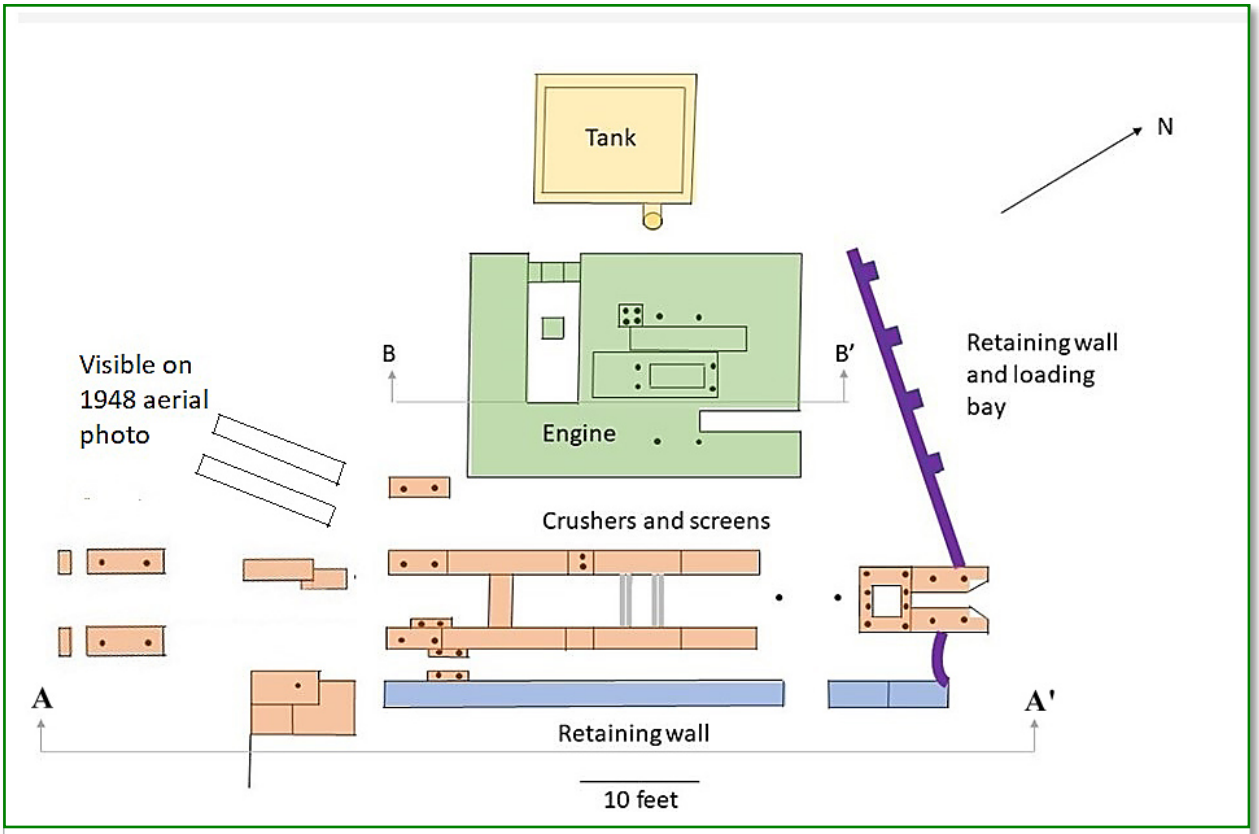


Figure 5: Plan of crusher plant; individual elements are colour-coded.

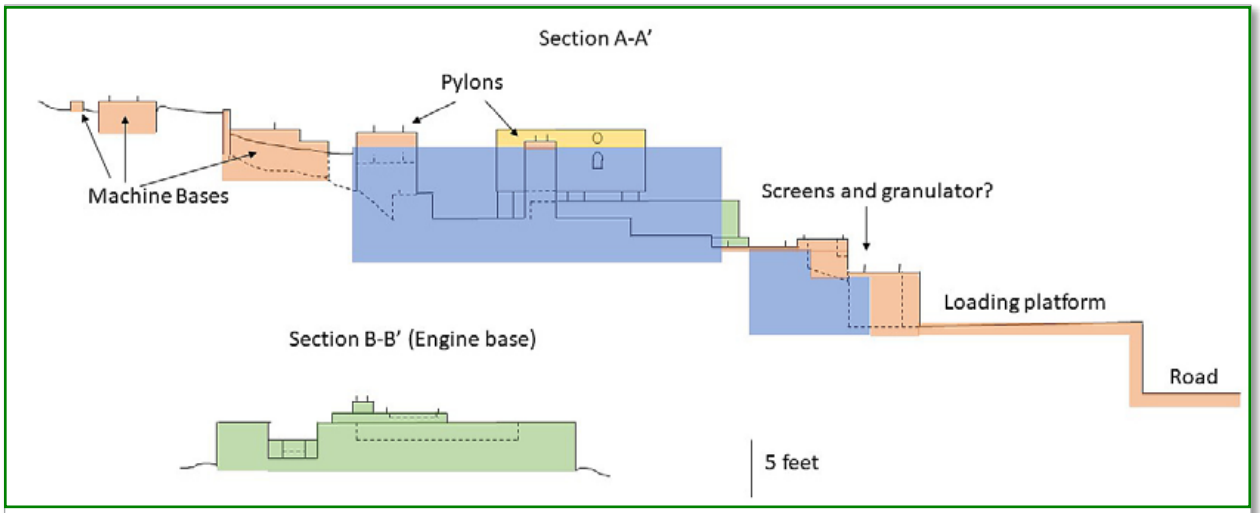


Figure 6: Elevations of crusher plant.

Figure 7: Crusher plant, looking north. In the foreground are machine bases (1), behind are the tops of the pylons (2) and to the left is the tank (3).
(David Poyner)

Figure 8: Central section of the crusher foundations, looking east from the engine base and showing the pylons, with the retaining wall in the background.
(David Poyner)

Figure 9: Loading platform (1), looking south with crusher remains in the background; retaining wall (2), granulator (3) pylons (4) and tank (5).
(David Poyner)

Sandstone working and prospecting

Pelham-Thursby granted to the Abdon company the rights to quarry both limestone and freestone; in this context, the latter would be sandstone. There is one obvious sandstone quarry, just beneath the northern ramparts of Nordy Bank (SO 576849), working between the Upper and Lower Abdon limestones (Figure 2).

The quarry is small, although its southern face is some 20 feet high. Interestingly, there are two spoil tips to the north, both of which are “finger tips”, probably formed by waste being trammed out on rail-mounted tubs. The quarry is not marked on the 1881 or 1901 1:2500 OS map. Thus it would seem to be a 20th century quarry, worked either by the Abdon company or their predecessors on Clee Burf, Edwin Gwilt and Edwin Millichap[10]. A number of

1 inch diameter holes have been drilled in the rock face; when Club members recently visited this quarry, it was thought most likely that they had been to extract rock cores for analysis.

Interestingly, much higher on the hill immediately below the coal measures there is a prominent ridge due to a sandstone outcrop; here too the same diameter holes are present at SO 5931 8486 (Figures 10, 11).

It is difficult to work out if this sandstone has ever been quarried or simply shattered by geological processes, but it does look as if whoever was testing the stone below Nordy Bank also looked here. The Abdon Stone Company are the best candidates for this activity, perhaps connected with the clause in their lease of 1940 which allowed them to work freestone.

Figure 10: 1" drill holes in the face of the sandstone quarry. The one on the left appears to retain the core. *(David Poyner)*

Figure 11: Sandstone ridge close to the summit of the hill, with rocks showing drill holes. *(David Poyner)*

References

1 David Poyner, Limestone quarrying on Clee Burf, Below, 2023.3, pp 19-23.
2 The history of the Abdon Burf is best documented by W. Smith and K. Beddoes, The Cleobury Mortimer and Ditton Priors Light Railway (Oxford Publishing, 1980), pp 75-84.
3 Bernard O'Connor, Basalt Quarrying on the Clee Hills, Shropshire (Privately published, 2023), pg 342, quoting Shropshire Archives 5236/B/62.
4 David Poyner, Clee Burf Quarry, Below, 2023.4, in press.
5 O' Connor, pp 343-7.
6 Smith and Beddoes, pg 83.
7 Smith and Beddoes, pg 83; the presence of an oil engine seems to be confirmed by Val Price of Cockshutford, interviewed by O'Connor, who thought the engine had a 7 ton flywheel (O'Connor pg 353). *A 2-ton flywheel would seem more likely. DP*
8 Historic England Archive, RAF/541/40, frame 4350
9 Smith and Beddoes, pg 84, although Val Price remembered bags of crushed limestone being taken away by the lorries of Brisbanes, hauliers of Knighton (O'Connor pg 353).
10 David Poyner, Early Dhustone Quarrying on Clee Burf, Below, 2021.4, pp 14-16.

Note: There is no consensus on how 'Cockshutford' should be spelt. Some spell it 'Cockshuttford', it is a good example of local idiosyncrasies!

Mining History Information Files

Until last year the Mining History Information files were hosted on a server at the University of Exeter. Unfortunately, that server has been closed down.

I have therefore set up a new domain and website to host those files:

mining-history.info

It is now up and running, although there is some work yet to be done to sort out redundant links.

If you have problems, please contact me at:

peter.claughton@mining-history.info

Dr Peter Claughton MCIfA

Club member CJ Atkinson and a team of four others have recently launched a new online platform for mine exploration aficionados: **BuddlePit.co.uk**

Several members of the club have already joined the forum and Roy Fellows has given the venture his full support. It would be great to see Shropshire mines represented on the site, as you will see, one of the display cases is an icon on the forum! They are running a banner for Mike Moore and have already listed SCMC and SMT in their list of resources, and are happy to include whatever would benefit the club/trust/the local mining heritage.

In addition to the forum, they are hard at work developing other services, such as; a mine database, mine mapping, document hosting etc. These will gradually become available under the Mine-Explorer name which has been kindly made available for this project. Any offers of help in this activity will be gratefully received.

While these services were effectively covered by *Adit Now* (which is currently in 'limbo') they hope that this new forum can reignite the community pending Adit Now's return.

It does seem a shame that mine databases, mapping etc. are constantly being re-invented. Groups such as the Northern Mines Research Society have made a lot of information available via their website; while others are adding documents to traditional services such as the library and archive of *The Common Room*, home of the North of England Institute of Mining and Mechanical Engineers (*see the next page*).

I have signed up to the Buddle Pit forum. I found the registration process quite tricky, but got there in the end.

Kelvin

NAMHO Conference 2024

Thursday, 27th June to Wednesday, 3rd July

(These dates include field trips outside the weekend.)

The theme for Conference is "The Mineral Wealth of Europe", Covering minerals ranging from Tin, Copper and Gold to China Clay and Lithium.

It is being held in Cornwall at the *Kernow Resilience Hub*, Redruth, TR15 3BU (**kernowrh.com**) - one of the largest martial arts centres in the West Country. Should keep Roy Fellows happy!

NOTE: It had to be moved here due to the nearby *Heartlands* (the Council run centre) going into administration and cancelling the NAMHO booking.

Camping is being arranged about 1 mile from the venue.

In a break from tradition the host for the Conference is NAMHO itself.

At the time of writing (14th February) the conference website is under development and they are not yet ready to take bookings. Keep an eye on the **NAMHO website** and specifically the **NAMHO Conference Website** for updates.

UK's Last Opencast Mine Closed

Ffos-y-Fran mine at Merthyr Tydfil has finally been closed following legal wrangles, particularly over the restoration costs of the site.

The Welsh government allowed the controversial project to happen close to homes and businesses because it is a "land reclamation scheme" that requires the operator to return it to green hillside, with most of that work due to happen after mining had stopped.

The operation has left behind a giant pit - which is about 200m (656ft) deep and visible from parts of Merthyr Tydfil and the A465 Heads of the Valley road. There are fears that the site won't be restored after the estimated clean-up costs have grown to between £120m to £175m.

Ffos-y-Fran has produced nearly 11.25m tonnes of coal since opening in 2008, and was responsible for 86% of the UK's total coal output.

Since it started, £1 for every tonne of coal produced has been paid into a community fund, managed by the council, which offers grants to projects in the area.

The company has admitted that "insufficient funds" have been set aside to carry out the agreed restoration work. They may seek administration, unless they can access a £15m escrow bank account held by the council. This was set up as a fall-back fund should the company go bust - the restoration itself is meant to be paid for out of the company's own finances. In December 2021 company accounts suggest £71.4m was budgeted for this.

Various reports + BBC News Reports, Nov-Dec. 2023

Mine of Information added to National Collections
Paul Sowan's Library Donations, Martin Dixon (Sub. Brit.)

A rich seam detailing what lies beneath the surface of the UK has been donated to two major libraries for researchers to dig into. The collection of over 500 books about mining, minerals and underground infrastructure is the legacy of polymath and enthusiast Paul Sowan, who died in June 2021. Paul left this valuable resource to the charity Subterranea Britannica ('Sub Brit') a society he led as Chair for 20 years. In order to preserve public access, most of the collection has been donated to the Historic England Archive and Library and the Library and Archive of The Common Room, home of the North of England Institute of Mining and Mechanical Engineers.

Known to many Club members, Croydon-born Paul, who trained as a geologist, had a particular interest in mineral and metal mining across the UK; canal and railway tunnels and the many other hidden gems that lie under England's towns and cities. These interests are reflected in his book collection which will be accessioned and made available over the coming weeks. Many of the books show the importance of underground resources to periods in history, from the Stone Age through to the Industrial Revolution and beyond. Other titles record the work of local researchers, such as *Sewers! The Drainage of Acton 1866-1965*.

To prepare for the transfer, Sub Brit volunteer Peter Burgess spent 18 months meticulously cataloguing the collection. This involved physically identifying, extracting, sorting, indexing and packaging this information treasure trove. It was a process akin to an archaeological dig combined with library management, with the constant risk of being buried in collapsing piles of literature.

Nicola Cryer, Historic England Librarian, said 'We are grateful to Subterranea Britannica for thinking of Historic England; Paul's collection includes some rare volumes that will help extend our industrial archaeology collection in particular.'

Jennifer Hillyard, Library and Archive Manager at The Common Room said 'Subterranea Britannica's generosity has helped fill some important gaps in our collection and Paul's passion for geology will live on through this donation.'

Martin Dixon of Subterranea Britannica added 'Throughout his life, Paul built up his extensive knowledge and pursued research interests with the help of many libraries and archives. It is particularly fitting that the fruits of his assiduous collecting will live on in such renowned national collections.'

The Organisations

Subterranea Britannica is a UK Charity which studies our underground heritage. It has around a thousand members who work to research, explore, document and preserve man-made underground sites. Their website records 3,000 underground sites and a regular magazine *Subterranea* is produced. Areas of interest range from Neolithic flint mines to nuclear bunkers, and from catacombs to canal tunnels. Sub Brit will celebrate its 50th anniversary in April 2024 with underground visits followed by a celebratory meal. **www.subbrit.org.uk**

Historic England is the public body that helps people care for, enjoy and celebrate England's spectacular historic environment. Their library in Swindon holds over 60,000 books and journals and covers topics including archaeology, architecture, history and aerial photography. The collection, including current journals as well as archive material, is open to the public for reference purposes. Arrangements for booking a visit can be seen here:

historicengland.org.uk/images-books/photos/archive-services/visiting/

Contact: Nicola Cryer, at library@HistoricEngland.org.uk

The Common Room is a registered charity established in 2017 to lead the redevelopment of and manage the assets of the **North of England Institute of Mining and Mechanical Engineers**. The Institute was founded in Newcastle-upon-Tyne in 1852 and granted its Royal Charter in 1876. The library holds more than 35,000 volumes in the fields of mining, geology, mechanical engineering and related fields with the earliest book dating from 1556. More details of what is in the collection and how to access it are at:

thecommonroom.org.uk/collections/visiting-the-collections/

Contact: Jennifer Hillyard on:
jennifer.hillyard@thecommonroom.org.uk

Part of the interior of The Common Room library. *(Neal Rushton)*

MCRO – Dog Rescue Request, Old Grit, Shelve 12th December 2023

Midlands Cave Rescue Organisation was contacted to say that a dog had fallen down a mine shaft somewhere behind Old Grit Farm House.

A Google map pin of the location was provided which put the 'shaft' in the region of Ryder Shaft (~40m deep) and the Ryder Vein Stope believed to be ~10m deep, (subsequently found to be ~25m).

A call-out like this typically requires 5 or 6 team members to successfully deal with it. Four team members rendezvoused at the MCRO stores to collect kit, in the meantime 2 other team members headed for Old Grit Farm, Shelve. While en-route a message came in to say a local farmer had an All Terrain Vehicle with a trailer which would ferry us to the site, so to go to his farm. Despite the torrential rain, rush hour traffic, and roadworks the team finally arrived at 18:12 (and met up with the advanced party).

Graham Smith bringing the dog out of the stope. *(Kelvin Lake)*

The team arrived at the mine location on top of the hill at 18:38. It turned out the dog was down the stope and not the deep shaft (luckily!). After checking the debris around the top of the stope a safe route was found where 2 ropes could be rigged using large trees for belays. Two team members descended, found that the dog was uninjured, very placid and walking. She was placed in a large dog harness and hauled, with a team member prussiking alongside acting as a jockey/barrow-boy to guide it.

The rescue was completed by 19:34. De-rigging had been slightly delayed (despite the horizontal rain) when the dog's owner offered us tankards of a very nice Port. It was definitely a case of "Any port in a storm"!

Land Search Call-Out - Search Assist, January 19th, 2024

MCRO were asked to support colleagues in Severn Area Rescue Association (SARA) and other voluntary search & rescue teams to look for a person who had been missing for 8 days in the Grear Barr area. West Mercia Search & Rescue (WMSAR), Warwickshire Search & Rescue and Leicestershire Search & Rescue were also involved.

Shortly after deploying into their initial search area, the mixed SARA and MCRO search team received new information and quickly redeployed and successfully managed to locate the missing young man alongside a colleague from WMSAR, reuniting him with his family. This was a multi-day search effort with Cheshire Search & Rescue and Staffordshire Search & Rescue also in attendance on previous days.

Cave Rescue Organisation (CRO) - County Pot Call Out, 10th February

CRO were called out by Cumbria Police at 23.50 on Saturday 10th February for an overdue party of nine cavers in County Pot, a popular entrance into the Ease Gill system.

Initially, snow drifts made accessing Bull Pot Farm, the base for exploring the system, difficult with CRO4 the team's Honda Pioneer the only vehicle able to get there.

Two underground teams were deployed to carry out a hasty search of the route that had been given whilst surface personnel set up a control room and communication relay.

Due to the large number in the group, and potential for a long drawn out search of the wider system, additional support was requested from colleagues in Swaledale Mountain Rescue Team (SMRT) and Upper Wharfedale Fell Rescue (UWFRA) teams. Cumbria Highways also responded, clearing the snow drifts and enabling easier access to Bull Pot Farm.

Search teams located the overdue group who were cold and tired. With support and encouragement from the team, the overdue party were able to make their way out of the cave and, after a quick assessment by surface members, made the long walk to Bull Pot Farm, where hot food and drinks were provided.

The party were well equipped and had an effective call out arrangement which ensured the alarm was raised promptly. As always, thanks to *Red Rose Cave & Pothole Club* for use of Bull Pot Farm. Thanks also to the members of UWFRA and SMRT who, in the end, were not required underground but gave up warm beds in the early hours to make the journey across the dales, helped carry equipment and assisted the weary cavers in making their way safely back across the fell. A long night for everyone involved, then the process of cleaning kit (and cavers!) and restocking vehicles began…

CRO Incident Report, 10th February, 2024

Devon Cave Rescue Organisation (DevCRO) - Phoenix Mine, Minions

At 19:40 on 3rd February DevCRO were alerted to reports of 2 people trapped in an abandoned mine in East Cornwall and were mobilised to support colleagues in East Cornwall Search & Rescue Team alongside Paramedics from South Western Ambulance Service NHS Foundation Trust Hazardous Area Response Team (HART) and officers from Devon & Cornwall Police.

Initial reports suggested that 2 people were trapped in the mine with one trapped by being stuck in suspension on the ropes after going into the mine at 11:00 that morning.

A friend who raised the alarm when the party failed to return from underground had managed to lower the injured party down to the safety of a ledge and the other person made their way to the surface. This left one patient and one member of public around 14m down the mine shaft on the edge of a ledge with a significant drop to the side of him. The patient was exhausted and suffering from injuries due to being held in suspension for a significant amount of time.

The stretcher and 'jockey' heading to the surface. *(Devon CRO)*

A HART Paramedic and a DevCRO team member were lowered down the shaft to the patient where they administered drugs and stabilised the patient before packaging them into a specialist cave stretcher, then hauling them to the surface shortly before 01:00 on the 4th February.

The patient was then stretchered down to the waiting ambulance before being taken to hospital for further checks by the ambulance crew. A long cold wet night for DevCRO volunteers but one with a good outcome.

Find out more about cave rescue on the website of the **British Cave Rescue Council (BCRC)** - the Representative body for voluntary underground rescue in the British Isles. The locations and details of the sixteen volunteer underground rescue organisations that are members of BCRC can be found on the **Rescue Teams pages**.

South African Platinum Mine Disaster

A winding accident on 27th November, 2023, at an Impala Platinum mine in Rustenburg, about 100km (60 miles) north-west of Johannesburg South Africa, killed 11 workers and injured 75 when the cage-style lift went into an uncontrolled fall and hit the bottom of the shaft.

A malfunction was picked up during an earlier servicing of the lift but an investigation said it was in good condition.

South Africa is a leading producer of platinum, gold and other raw materials and has some of the world's deepest mines.

BBC News Report, 28th November 2023

Landslide kills 22 Tanzanian Miners

The incident occurred at Ng'alita mine in Bariadi district, Simiyu region, Tanzania on Saturday 13th January, 2024.

It occurred after a group of people started working an illegal mine in the mineral-rich area where activity was restricted due to heavy rains, which have caused flash floods.

Unregulated and illegal mining is common in Tanzania, which is one of the largest gold producers in the world.

BBC News Report, 14th January 2024

Turkey Mine Landslide

Hundreds of rescuers were involved in searching for nine gold field workers who went missing following a landslide in eastern Turkey. Roughly 10 million cubic metres of earth fell suddenly from a gulley onto the Copler mine site on Tuesday 13th February.

The mine, one of Turkey's largest, is located in Erzincan province - around 90km (55 miles) from the provincial capital Erzincan, and more than 600km east of Ankara.

Five of the trapped workers are thought to be in a container, three in a vehicle and one in his truck in a different part of the site.

There are also concerns that cyanide and dozens of other chemicals used in gold extraction could spread from the site into the nearby Euphrates River, which flows into Syria and Iraq before emptying into the Persian Gulf.

BBC News Report, 14th February 2024

Amazon Mines Destroyed

Colombia and Brazil have destroyed 19 illegal gold mining sites and equipment in the Amazon rainforest. They were responsible for producing six million pesos ($1.5m) of the metal a month.

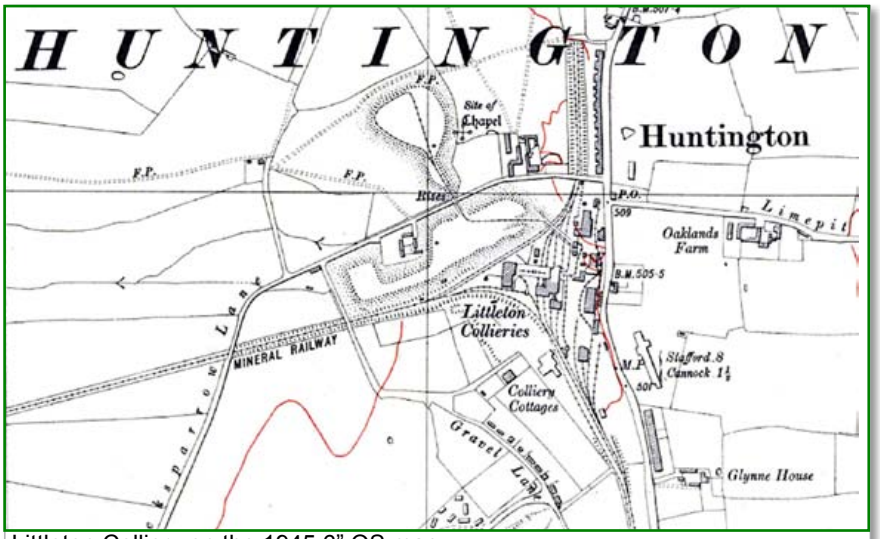
The sites were also polluting local rivers, with around 100,000 grams of mercury per month entering them.

BBC News Report, 6th December 2023

Littleton Colliery, Huntington, Cannock, 1872 - 1993
A Brief History

Littleton Colliery at Huntington (north of Cannock) was the last deep mine in the Cannock Chase Coalfield. When it ceased production on 10th December 1993 an era of 121 years coal mining was brought to an end. The shafts were filled in with limestone and concrete, and the surface buildings demolished in 1994/95. In 1997 Huntington Parish Council purchased the former coal spoil mound in Cocksparrow Lane for £10 and developed it, with grants, into Littleton Leisure Park. One of the original sheave wheels was erected by the entrance to the car park.

The Parish Council also obtained one and half hectares of land on the former colliery site for a Village Green and Memorial Garden. The garden opened in 2019 was created to honour the hard work and courage of local residents. The names of former Littleton Colliery workers are engraved in bricks around the concrete base with an original sheave wheel (weighing 8½ tons) mounted on top.



Littleton Colliery on the 1945 6" OS map.
(Reproduced with the permission of the National Library of Scotland)

Geology

The area of Littleton is overlain by water-bearing Triassic rocks and glacial deposits. The strata at the base of the Trias is either highly permeable "Littleworth" Beds" or "Bunter Pebble Beds" with variable permeability.

The workings lie on the western edge of a syncline (bowl shape) with steep gradients of 1 in 1 in the east, gradually decreasing to 1 in 15 to the west. Consequently Littleton had the steepest faces and deepest workings in the Cannock Chase Coalfield.

History

In 1872, Edward Littleton (Lord Hatherton of Teddesley Hall) granted a 90 year mining lease to the Cannock and Huntington Colliery Company. Shaft sinking didn't start until 1877, but they soon hit problems with water filling the shafts. The Directors of the company had toured Europe to study techniques of sinking through wet ground and opted to use the Kind-Chaudron method of shaft sinking. This process uses a very heavy inverted 'T' shaped auger (which could weigh as much as 12 tons) that is dropped into the excavation, pulverising the strata. The auger is then raised into a purpose designed headframe, turned slightly with a wooden bar through the top and dropped again. The operation is repeated, with the resulting spoil being small enough to be pumped out. Alternatively a metal cylinder with self-closing doors would be dropped into the spoil, then brought to the surface and emptied out. As sinking progresses the shaft is lined with cast iron tubbing backed with concrete.

At Littleton the operations in No.1 shaft failed in June 1879 when water broke in at the bottom of the tubbing causing the 'Moss Box' (a means of sealing the gap between the lowest part of the iron tubbing and the rock sides)

Entrance to the main site in 1994. No.3 shaft on left and No.2 on the right. *(Peter Eggleston - I.A.Recordings)*

View of Littttleton shafts No.3 and No.2 across the Stafford Road, from the baths car park. *(Peter Eggleston)*

The Littleton Mine Rescue Room. The sign by the door says “Bottles: Oxygen 6, Entonox 0”. *(Peter Eggleston)*


The railway sidings behind the screens. *(Peter Eggleston - I.A.Recordings)*

to fall into the shaft and the lining to sink. Everything was re-aligned by April 1881, but water broke in again in July 1881 and the shaft abandoned. In No.2 shaft they used the same technique, but a similar incident when securing the Moss Box after 87 rings of tubbing had been installed in February 1881, caused the workmen to flee the shaft, abandoning their tools. The company decided to abandon the mine, it was wound up in 1885 and the assets sold off.

In 1897 the landowner, Lord Hatherton funded the recovery of the colliery (it became known as Littleton Colliery). He opted to use traditional shaft sinking methods with brick lining and initially concentrated on the No.2 shaft (2’s). Littleton Colliery utilised Horizon mining which is suited to steeply inclined seams, where headings are driven at predetermined levels (‘Horizons’) to intersect the seams.

The Shafts: No.1

No.1 shaft was sunk to a depth of 420ft (128m) at a diameter of 15ft (4.5m). Flooded in 1879, it was abandoned as a working shaft on 3rd May 1900. The water from No.1 was then used to supply water to the colliery coal preparation plant, fire hydrants, boilers and later to supply the pit head baths.

No.2 Shaft Upcast (Return Air)

The sinking of 2’s shaft started in 1877 and it was sunk to a depth of 483ft (147m) with a diameter of 15ft (4.5m).

In 1881 water broke in, flooding the shaft and it was abandoned for 16 years until sinking re-commenced in 1897. It reached it’s final depth of 1,662ft (507m) on the 14th February 1899. As they sank 2’s they also developed several horizons in preparation for connection to No.3 shaft. The main horizon depths were: No.1 (200’s Inset) at 711ft (216.7m), No.2 (2’s pit bottom) at 1,026ft (313m).

A roadway was driven at a depth of 1,296ft (395m) for the air return from 3’s shaft. No.2 shaft was re-developed in the 1980s for skipwinding.

No.3 Shaft Downcast (Air Intake)

In June 1900 sinking of No.3 shaft (3’s) started with a diameter of 18ft.(5.5m). It was designed at this diameter so that larger pumps could be installed. The water in this shaft never exceeded 1,000 gallons (4,546 litres) per minute.


View across the heapstead from the screens of both shafts and the fan evasé just visible. *(Peter Eggleston)*


The conveyors, screens area, and mine yard looking north-east. *(Peter Eggleston - I.A.Recordings)*

Littleton Colliery, Huntington, Cannock, 1872 - 1993
Continued . . .

It reached a final depth of 1,650ft (503m) on November 5th 1902. The steel headframe erected at this time was used until the colliery closed. The main horizon depths in 3's were: No.2 (8ft) Intake at 1,026ft (312.7m), No.3 (800's Inset) at 1,296ft (395m), and No.4 (3's pit bottom) at 1,629ft (497m). By the 1980s 3's shaft was used mainly for men and materials.

Club members Stuart Tomlins and Andy Yapp walking with miners to the No.3 shaft top. *(Peter Eggleston)*

No.4 Shaft

Shaft, No.4, was sunk at a diameter of 8ft (2.44m) and to a depth of 105.9ft (32m). The location of this shaft was 52.5ft (16m) North of 3's and assisted in de-watering of 3's shaft. It was filled once 3's reached it's final depth.

Production

By 1906 the colliery employed 1,102 men and shortly afterwards began producing between 350,000 and 400,000 tons of coal per year. During the First World War, with many miners leaving to fight overseas, the number of young boys employed from the age of 14 increased plus a small number of women. By the 1920s it was producing 500,000 tons per year.

In 1969 Littleton Colliery produced a million tons of coal in one calendar year with 1,800 men, the first colliery to do so in the Coalfield. It produced a million tons in 1986/87, 1990 and again in 1992 but with only 600 men. In 1988-89 it produced 1.25 million tons - a commemorative tie was produced to mark this event.

Detail of 2 Littleton Colliery ties.

The one on the right marks 1.25m tonnes produced in 1988-89. *(Kelvin Lake)*

Club Visits

The club has had several visits to Littleton, the last one was in 1994 shortly after the mine closed. During that visit they were carrying out a shaft inspection in 3's and the inspectors agreed to take the I.A.Recordings video camera and record the trip down the shaft as they travelled on top of the cage. You can see a short video of this trip (Snippet 29: Littleton Shaft Descent) on the I.A.Recordings website Snippets page:

iarecordings.org/snippets/snippets.php#LS29

The Site Today

The only visible sign of the mine today is the Littleton Leisure Park (on the pit mound north of the mine site in Cocksparrow Lane with a large sheave wheel by the car park) the Huntington Memorial Garden and pit wheel and a number of 'markers' and mining theme benches around Colliers Way and the primary school.

Some of the details for this article are taken from the shaft markers around the Littleton area.

Club members Stuart Tomlins (left) and Andy Yapp (right) at the No.3 shaft top. *(Peter Eggleston)*

The shaft inspectors loading the I.A.Recordings camera and recorder on top of the cage. *(Peter Eggleston)*

Littleton Colliery, Huntington, Cannock, 1872 - 1993
Continued . . .

The Littleton Colliery area in 2022 with the Leisure Park on the pit mound to the north and west. The shaft sites are on the site of the Primary school and playing field. The memorial garden is on the opposite side of the Stafford road to the former baths site (now a Co-op supermarket). *(Google Earth, Image data: 14/3/2022)*

The pit wheel at the Littleton Leisure Park car park entrance, on the former pit mound site. *(Kelvin Lake)*

The shaft marker for No.3 shaft beside Colliers Way. No.2 shaft marker is by the school. *(Kelvin Lake)*

Panel for Alan Bowker a member of the 'Shaft Marker' committee responsible for the various memorials.

The Littleton Memorial Garden and Pit Wheel between Stafford Road and Colliers Way. *(Kelvin Lake)*

Club Trip - Murcia, Spain, 25th April to 4th May 2023, Part 4

Andy Wood and Kelvin Lake

Day 6 - 30th April

Today the group divided up with 3 members (Andy Wood, Steve Holding and Peter Eggleston) going to visit the large processing plants and washery *Lavadero Roberto 2* north of Portmán, about 40km south-east of our digs at Casa Perez.

The others, Gareth Rushton, Graham Smith, Andy Harris, Oliver Beard, Julian Bromhead, and Kelvin Lake headed 25km west to visit the large mining site at Mazarrón, before (after lunch) doubling back east to La Unión and the mines on and around Cabezo Rajado (the 'riven hill').

Lavadero Roberto 2

Parking the car by Lavadero Roberto the group walked up the rough track opposite, known as *Subida al Sancti Spiritu*, heading up the Sierra towards Lavadero Roberto 2. On the way up, several mine and washery remains were passed on both sides of the track.

The sites visited north of Portmán on the day 6 walk to Lavadero Roberto 2.

The interactive map used for this article was developed by Peter Eggleston for the Spanish trip.

You can access the map at **https://www.iarecordings.org/maps/Spain_2023_v03.html**
Username: **SCMC**, Password: **s8z75qu8t7**

Club Trip - Murcia, Spain, 25th April to 4th May 2023, Part 4

Andy Wood and Kelvin Lake, continued ...

Remains of Lavadero Santi Spiritu or Lavadero San Lazaro on the Subida al Sancti Spiritu. *(Andy Wood)*

Remains of Lavadero Estrella 1 and 2 on the way to Lavadero Roberto 2. *(Andy Wood)*

Possible remains of Mina Laura on the hillside above the Subida al Sancti Spiritu. *(Andy Wood)*

The lower section of the Semi-autogenous mill. *(Andy Wood)*

Well up the hill, on a sharp hairpin bend, we reached the Semi-autogenous mill and were able to access the machinery inside. The feed came from the primary crushing plant above via a tall conveyor. We found what appeared to be a return conveyor, perhaps for oversize material, and clambered up the belt to reach the primary crusher.

Following a close examination of the remaining equipment, Peter descended, while Steve and Andy continued on to Lavadero Roberto 2. The processing plant is situated close to the Corta Tomasa quarry which was used to hold it's tailings (remaining opencast pits are going to be used to hold tailings/silt removed from Portmán Bay). Behind the lavadero, there was a large, open and completely empty building of no discernible purpose.

The lavadero itself had badly deteriorated since my first visit with parts of the roof missing but much of the machinery still intact. The locals had broken through the dividing wall into the flotation plant so it was possible to get some photographs before we returned to sea level. *Andy Wood*

Andy and Peter inside the lower (grinding plant) section of the Semi-autogenous mill. *(Steve Holding)*

The feed to a ball mill in the Semi-autogenous mill. *(Steve Holding)*

Club Trip - Murcia, Spain, 25th April to 4th May 2023, Part 4

Andy Wood and Kelvin Lake, continued ...

Ball mill in the Semi-autogenous mill section of Lavadero Roberto 2. *(Andy Wood)*

Logo and makers name 'MORGÅRDSHAMMAR' on the ball mill. *(Andy Wood)*

Andy Wood climbing beside the return conveyor to the primary crusher. *(Steve Holding)*

Peter Eggleston on the conveyor belt to the primary crusher. *(SteveHolding)*

The flotation cells in Lavadero Roberto 2. *(Andy Wood)*

Detail of the flotation cells. *(Andy Wood)*

Filter press near the flotation cells, Lavadero Roberto 2. *(Andy Wood)*

A 'thickener' in Lavadero Roberto 2 used for slime concentration by removing water. *(Andy Wood)*

Club Trip - Murcia, Spain, 25th April to 4th May 2023, Part 4

Rob Vernon and Kelvin Lake

Mazarrón Area - 30th April

Six club members travelled west to the town of Mazarrón and the large area of mining remains to the west of that town. The zinc-lead silver deposit here is one of the most important deposits in southeastern Spain.

It has been an important area for the mining of copper, iron, silver and lead since ancient times, but was particularly significant in the bronze age. In the neighbouring coastal area, many remains have been found, proving firstly the extraction of copper, and later, lead. Punic artefacts with Phoenician typology have been dated to the 3rd century BC. The Romans referred to the area as *Coto Fortuna* and it was apparently one of their richest mining areas. By 1840 there were more than 200 shafts and galleries at Mazarrón. Production peaked between 1860 to 1940 with more than 2,000 people employed. Exploitation was largely by selectively mining individual high-grade lead and silver veins down to depths of 600 metres.

The zinc rich ore in the uppermost part of the vein system (25 to 100 metres depth) was left largely untouched. Partial mining of this ore type was undertaken from large open stopes in near surface stockwork zones from 1950 to 1966 when flotation techniques became available to separate the lead and zinc sulphides. Mining ceased in 1966 due to deteriorating mine conditions and declining metal prices.

The area is now a barren multi-coloured landscape due to the minerals in the subsoil (limonite, haematite and manganese oxides). A full range of mining activity can be seen virtually everywhere on the hill: deep wide open shafts, headgears, magazines, spoil tips, ore dressing plants, tailing lagoons, offices and workshops. The whole hillside is crisscrossed by tracks allowing easy access across the whole area. The north west side of the mining area has been disturbed by the construction of the AP-7 Autopista del Mediterraneo (Cartagena to Vera), although this appears to have had minimal impact on the mining remains in the area.

In 2005, the whole of the mining area was defined by the Murcian Regional government as being of cultural interest and has been designated as a historical site.

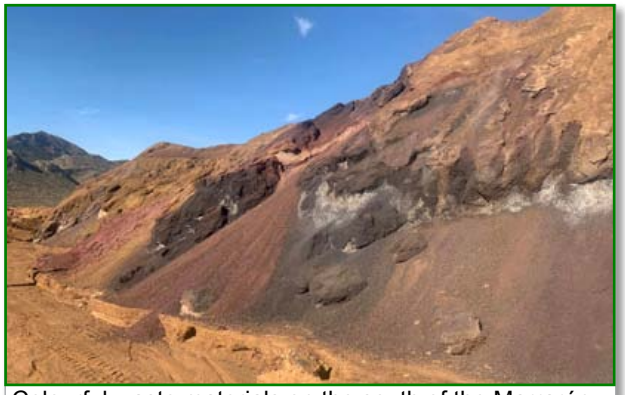
One of the main problems encountered in the workings was the presence of Carbonic Acid. Not only was it corrosive, it could make working conditions very unpleasant and even fatal. In February 1893 for example, in the Impensada mine 27 miners were suffocated by the accumulation of poisonous gases. The accumulation of gases was such that it was sometime before the bodies could be recovered.

The main features of the historic mining area to the west of the town of Mazarrón.

Club Trip - Murcia, Spain, 25th April to 4th May 2023, Part 4

Rob Vernon and Kelvin Lake, continued . . .

The Remains Today



Colourful waste materials on the south of the Marrarón mining area. *(Gareth Rushton)*

Remains of the ancient Lavadero de El Roble ("The Oak"). *(Kelvin Lake)*

Headgear at Mina No Te Escapara. Two of the sheaves have been converted to use round rope. *(Kelvin Lake)*

Base of one of the tailing lagoons from the Mina San José stepped flotation mill c1950. *(Kelvin Lake)*

The Santa Ana and San Juan mill, c1800s. *(Kelvin Lake)*

Large mine workshop in the "Village". *(Gareth Rushton)*

Gareth Rushton by the Mina San Simón winder.

Oliver and Gareth by the Mina San Simón headframe.

Club Trip - Murcia, Spain, 25th April to 4th May 2023, Part 4
Rob Vernon and Kelvin Lake, continued . . .

Seventy-six structures in the area were listed as historic in 2005. Some of the main ones that are easily visited are:

The Santa Ana and San Juan mill, which contains numerous features including calciners, an incline and settling tanks. It was probably constructed by the Compania d'Águilas in the late 1800s *(see picture on previous page)*.

Mina San Simón (on the Concession Ledua) has a wooden headgear and the remains of a flat-rope steam winder complete with reels (on the last Club visit in 2008 it still had the flat rope in place). The winding engine was housed in a wooden 'shed' that has now collapsed and largely disappeared. There is a long masonry building next to the shaft which may have been the offices for the mine.

Mina San José (on the Concession San José) is a large stepped mill with a major winding shaft at the top of the structure. A short blocked adit is presumed to connect with the shaft. This is probably the most recent structure on the site and was probably constructed by the Empresa Minerales No Ferricos SA in the 1950s to house their flotation plant. Three major tailing lagoons lie to the south and west of this structure. East of the San José Mill there is a series of mine offices and workshops. Some of these buildings may have been constructed by the Compania d'Águilas in the late 1800s and reused or modified by later mining companies.

The Mina San José (Concession San Jose) stepped flotation mill c1950s. *(Kelvin Lake)*

The offices and workshops east of the San José Mill, some possible c1800s. *(Gareth Rushton)*

Masonry headframe and ore bins at Mina San Federico. *(Kelvin Lake)*

Julian by the headframe of Mina San Antonio de Padua with 2 cages

Graham, Gareth and Andy Harris climbing the San José Mill steps.

At the northern end of the mining area is Concession San Antonio and Mina Talía/Federico with a masonry headframe and ore bins along side. On the gable end of the ore bins is the monogram 'M'.

Adjoining this mine is Mina San Antonio de Padua and it's open shaft Pozo San Federico. The metal headframe over the shaft has lost it's sheave wheels but still retains two cages. These cages have coil springs at the top.

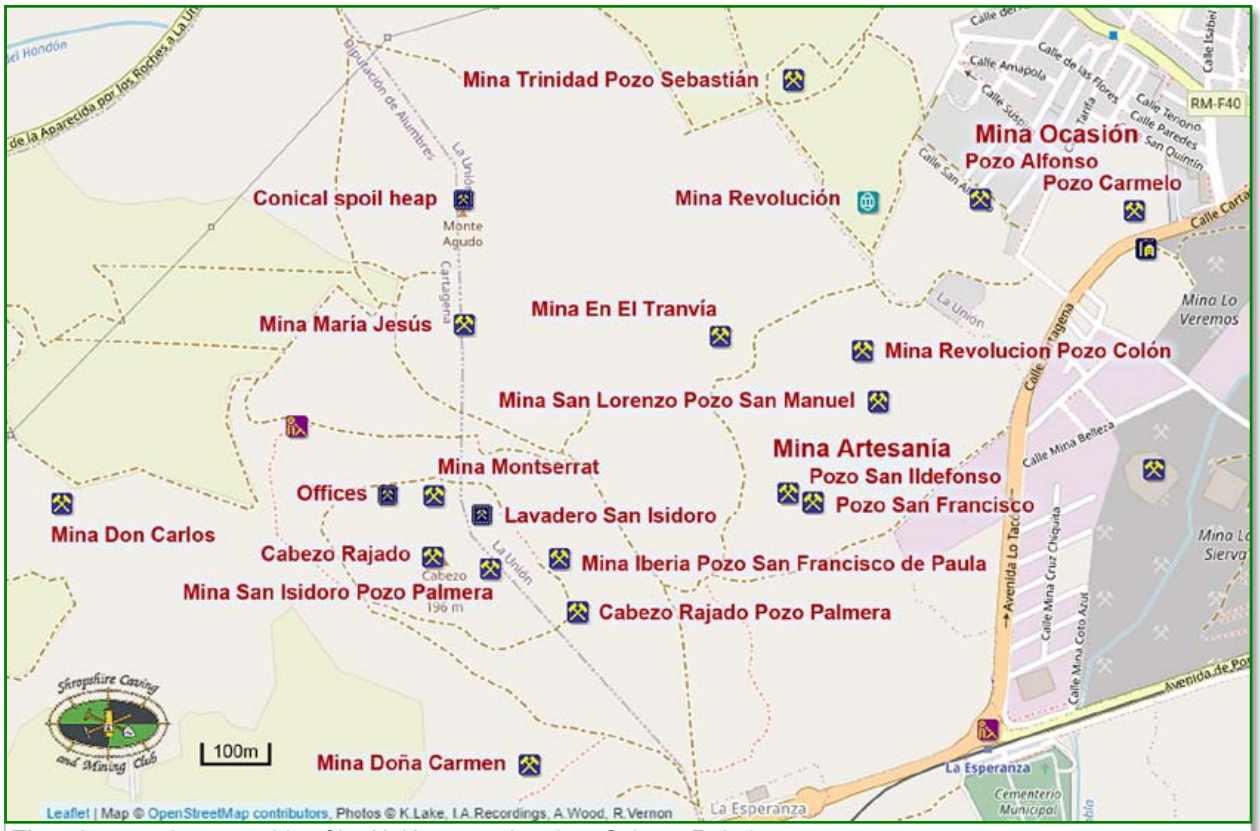
Near to these workings are a series of Roman mining trenches and just round the hillside in Concession Vista Alegre are two calciners.

Cage coil springs, Mina San Antonio de Padua (Pozo San Federico). *(Gareth Rushton)*

Club Trip - Murcia, Spain, 25th April to 4th May 2023, Part 4
Rob Vernon and Kelvin Lake, continued . . .

Cabezo Rajado Area - 30th April

After lunch in Mazarrón the group travelled east to La Unión and parked at the foot of Cabezo Rajado a 196m high hill that rises from the surrounding plain on the outskirts of the town. Not only are there substantial mining remains on top of the hill, but the area between it and La Unión has also seen extensive mining activity. In fact there are so many mines in the area (each one in it's own Concession) that it is hard to believe that they didn't end up 'nicking' each others ore!



The mines on the west side of La Unión around and on Cabezo Rajado.

Following the badly eroded track up the hill we eventually reached the mine offices (*See Plan 1, G*) and a shaft surrounded by a rectangular wall on the very edge of the hillside, reputed to be Pozo Palmera.

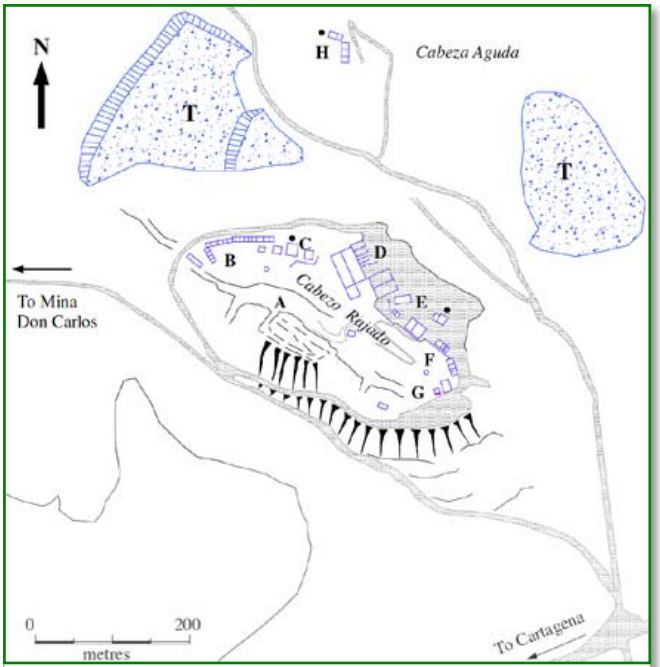
It was then a case of dashing round the site, with cameras clicking frantically, there was so much to see!

The complex of buildings near the offices included the remains of an early processing mill (*Plan 1, F*) with the chimney of Mina La Palmera above. One of the buildings was obviously a changing room with the remains of lockers still visible.

Further round the hillside is Mina San Isidoro (*E*) the nearby shaft has a wooden headframe with 2 cages wedged at the top. The guide wires are still in place but the winding ropes have been removed.

This shaft was worked by a flat-rope winder, the flywheel, drive cog and rope spools for which survive in the engine house (vandalised since our 2008 visit).

To the north of this complex is the remains of the large crushing and flotation mill of Lavadero San Isidoro (*D*) dating from the last phases of mining.



Plan 1: The mining remains on Cabezo Rajado. The name translates as "Split/Riven/Cracked Hill" There is an opencut (A) that follows the 'La Raja' lead and zinc vein. It may have had the historic name of "Mina Romana". *(Rob Vernon)*

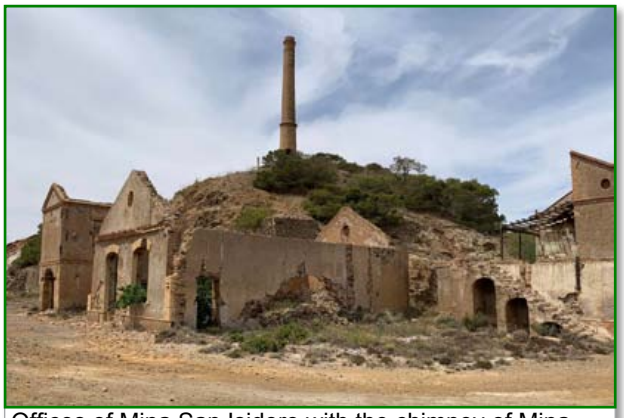
Club Trip - Murcia, Spain, 25th April to 4th May 2023, Part 4
Rob Vernon and Kelvin Lake, continued . . .

Below and outside the mill are the remains of a number of wooden jigs and other structures. Inside, there are two rows of 20 wooden flotation cells on the lower level and on the upper level an empty ball mill with a multi-belt drive and screw classifier.

On the northern side of the hill is the impressive Mina Montserrat (*C*). The shaft is 3m in diameter and 455m deep with 15 levels. Over the shaft is an Eiffel-school lattice headframe with a high level landing deck and 2 cages still in place. The engine house on the south side of the shaft has gothic arched windows with Art Nouveau keystones.

The track from Mina Montserrat continues round the hill past several rows of compartmented buildings (*B*). Some of these looked like they may have been housing for miners, while others seemed more like stores. To the west of these buildings is a gateway which looks like it has been the original entrance to the complex. Outside the gateway, running southward is the large opencut (*A*) in the 'La Raja' lode.

After exploring the top of the hill the group descended it's northern side into the valley where there were several tailings heaps (*T*) from the flotation process and climbed up to Mina María Jesús (*H*).



Offices of Mina San Isidoro with the chimney of Mina Palmera on the hill. *(Gareth Rushton)*

The Mina San Isidoro locker room near the Mina Iberia winding engine house. *(Kelvin Lake)*

Winding engine house and wooden headframe for Mina Iberia, Pozo San Francisco de Paula. *(Kelvin Lake)*

Remains of the electric flat rope winder for Mina Iberia, Pozo San Francisco de Paula. *(Kelvin Lake)*

The 2 cages wedged at the top of Pozo San Francisco de Paula. *(Gareth Rushton)*

The crushing and flotation complex of Lavadero San Isidoro (aka Lavadero Mina Monserrat). *(Gareth Rushton)*

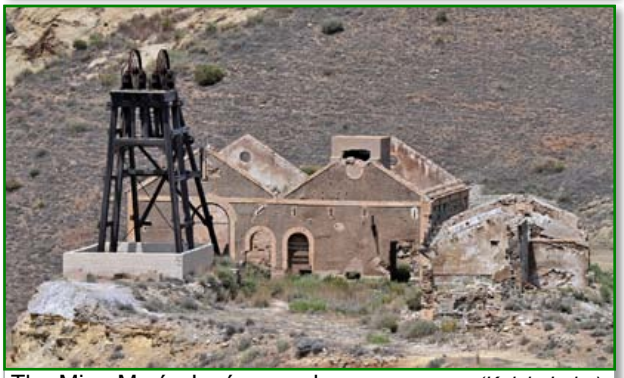
Club Trip - Murcia, Spain, 25th April to 4th May 2023, Part 4
Rob Vernon and Kelvin Lake, continued . . .

This is an interesting little mine with a wooden headframe, complete with 2 flat-rope sheaves over an open shaft. Only a broken drive cog and shattered rope spools remain of the winding engine, although some lengths of hemp (esparto grass?) flat rope, probably from the band brake attracted a lot of attention! Near the engine house are the remains of bearing supports for line shafting along a wall of a building, probably an engineering workshop.

From here, the group split up, with various parties going off to visit the numerous mine sites on the plain to the east between Cabezo Rajado and the town of La Unión, rounding off the day quite nicely.

The ball mill with a multi-belt drive on the upper level of Lavadero San Isidoro. *(Kelvin Lake)*

The group by the shaft and lattice headframe of Mina Montserrat. *(Gareth Rushton)*



The Mina María Jesús complex. *(Kelvin Lake)*

Mina Ocasión, Pozo Alfonso, flat rope winder remains.

Oliver by the remains of the Mina María Jesús winder.

Possible smelter or ore hearth at the walled complex of Mina San Lorenzo, Pozo San Manuel.

Mina Artesanía, Pozo San Ildefonso.

What the Papers Said
Submitted by Steve Dewhirst

THE LONDON GAZETTE.

WHITEHALL, JUNE 11, 1913.

His Majesty the KING has been graciously pleased to award the Edward Medal of the Second Class to **Albert Henry Cooper**, **Arthur Bernard Hewitt**, and **George Thompson**, in the following circumstances:

On the 8th January last a steel girder fell from a roof in the Markham No. 2 Colliery, Staveley, Derbyshire, causing a fall of the roof. Mr. Cooper, the under manager of the mine, who at once went to the place, took steps to repair the damage, and, while the debris was being removed in tubs, a second fall occurred without warning and buried three men engaged in the work of removal. Though fragments of the roof were still falling, Mr. Cooper dashed over the heap of debris and, being joined later on by Mr. Hewitt, the manager, he succeeded in rescuing two of the men. They then proceeded to search for the third man and discovered him completely buried. George Thompson, a workman employed at the mine, came to help, and the three worked for about fifty minutes in order to extricate the unfortunate man. They had all but succeeded, when a further heavy fall took place killing him outright. Notwithstanding the risk of further falls, the work of rescue was continued for four hours, till the dead body was reached. The three men incurred prolonged and serious risk in their efforts to save life.

June 11, 1913

WELLINGTON JOURNAL & SHREWSBURY NEWS

THE ST. GEORGE'S FATALITY - ADJOURNED INQUEST.

On Wednesday Mr. Coroner Lander reopened the inquest on the body of **George Woolley**, a collier employed by the Lilleshall Company, who was killed in the Freehold Pit on the 23rd. October by a fall of coal.— Mr. F. H. Wynne (assistant inspector of mines) attended. Mr. N. T. Beech and Mr. C. Jones appeared on behalf of the Lilleshall Company, and Mr. W. Latham represented the Miners' Federation.

Roland Guy, miner, Donnington Wood, employed by the Lilleshall Company, said that on the 23rd October he was working with deceased, and at the time of the accident was five or six yards away. Deceased was wedging down the coal in what was called the buttock when the roof fell, some five or six tons falling on him. Witness called for assistance and I helped to get deceased out, but he was then dead.— In reply to Mr. Wynne, witness said that the coal was about three feet from the last setting, of timber. Deceased would have to get about another yard or four feet of coal down before he could set another post. The posts were set about a yard apart. Witness could not say how many sprags were buried, but there was one that he knew of. There were four slips. One of these was visible before the accident, but three of them could not be seen until after.— Re-examined by the Coroner, witness said that the fireman was J. Haseley, and he had examined that particular place about a quarter past one the same afternoon as the accident, and at that time passed it as safe. The one slip that was visible was guarded against.— In reply to Mr. Latham, witness said that there was plenty of timber if it had been required.— Witness further added, in reply to a question by Mr. Beech, that the fireman, after making his examination, had told deceased to put another tree in this particular place, the one there having given way. This was done straight away.

Benjamin Lane, miner, employed by the Lilleshall Company, said that he was working alongside deceased on the day of the accident. Witness was filling a tub, and deceased was trying to drop some coal into the buttock, and was knocking a wedge in the face when witness heard the fall. The trees that were set were about 4ft. 6in. in length, and about a yard apart. It was in consequence of the three invisible slips that the fall occurred. When the place was examined by the fireman it appeared to be safe.

Joseph Haseley, the fireman, said that he was on duty at the Freehold Pit on the day of the accident. He had seen the place where Woolley was working, and had examined it that morning in the usual way, and passed it as safe. He (witness) made another examination of the place at a quarter past one the same afternoon. There was one tree cracked on the gob side, and this he pointed out to deceased. At that time there was only the front slip visible. Deceased at once set another tree, and it then seemed sufficient.— In reply to Mr. Wynne, witness said that he did not think it was possible to have prevented the accident.

Albert Taylor, Donnington Wood, underground manager at the Freehold Pit, also gave evidence.

The jury returned a verdict of "Accidental death."

4th November 1911

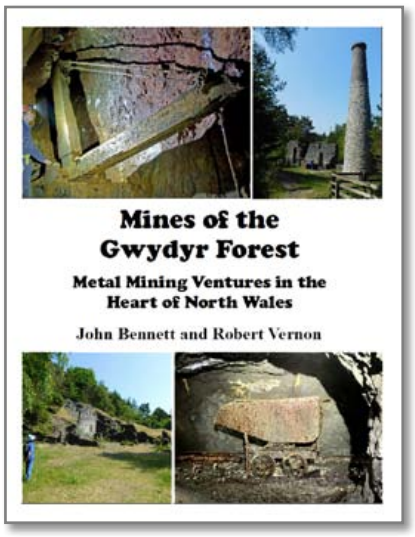
Books

Publications are available from Mike Moore at Club meetings, or online: **www.moorebooks.co.uk**

Mines of the Gwydyr Forest:

Metal Mining Ventures in the Heart of North Wales. (Revised 2nd Edition)

By John Bennett and Robert Vernon



Revised Second edition, published 4 December 2023.
Paperback: 562 pages. ISBN-13: 978-1838362129.
Price: £40 (Club members can get a discount from Moorebooks)

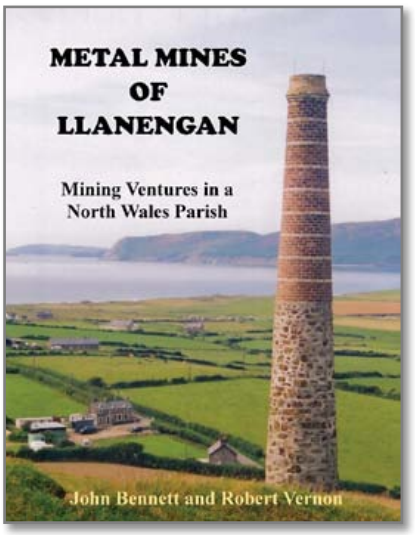
Mines of the Gwydyr Forest was originally published as a seven part series between 1989 and 1997. It was well received and was used by others to conduct their own mine explorations.

It was always intended 'one day' to publish the series as one complete volume. John sadly died in 2019, but most of his historical notes survived. Rob had fortunately kept all the illustrations, together with some of the mine plans and reports, and this has enabled 'Mines of the Gwydyr Forest' to finally be produced as one complete, revised and updated, volume.

The book starts with an Introduction followed by a section on the geology and mineralisation. This is followed with examples of early mining in Gwydyr. Much of the more detailed mining information comes from the latter-half of the 19th century, and the following sections follow a similar format to the original series. The central areas, south and north, deal with Llanrwst and Hafna mines, respectively, plus related mines; North-East Gwydyr is primarily Parc mine and the plateau area to the south; North-West Gwydyr includes Pandora and the Llyn Geirionydd area; South-West Gwydyr includes the Cyffty and Coed Mawr Pool area; Aberllyn and adjacent mines are discussed in the section on South-East Gwydyr. The penultimate chapter covers the mines on the northern edge of the Gwydyr Forest, Cae Coch and adjacent mines. The book concludes with an Epilogue.

Metal Mines of Llanengan: Mining Ventures in a North Wales Parish

By John Bennett and Robert Vernon



Second edition, published 5 December 2022.
Paperback: 172 pages. 18.9 x 1.19 x 24.61 cm. ISBN-13: 978-1838362119.
Price: £14 from Moorebooks. Other retailers are charging £18.00 to £25.00 - prices for second-hand copies of the First edition range from £15 to £45 !

The relatively unknown Llanengan metal mining field is found on the St. Tudwal's headland, on the tip of the Lleyn Peninsula, North Wales. Its isolated position meant that it never was given the same publicity as many of the major metal mining areas. Nevertheless it was a hive of activity in the latter half of the 19th century, and the mines were deepened with the aid of steam power pumping water out of the workings, and for winding. Everything, from mine engines to coal was brought into the area on ships.

The book details the history of mining in the area from the 17th century through to its eventual demise at the end of the 19th century. Initially mining was conducted by partnerships that were eventually superseded by London based companies that acquired capital to purchase the necessary machinery to deepen the mines. Now there is very little to show that this area was once a hive of industrial activity, although the final chapter does suggest a small heritage walk around the area.

For a number of years, John Bennett and Rob Vernon were involved with the historical study of Welsh metal mining. Their series of seven detailed books on the Gwydyr Forest mines was a substantial contribution to the recording of Welsh mining history. In addition, they were also involved with mine site conservation projects in the Gwydyr Forest and elsewhere in Wales. John sadly died in 2019, and Rob is now involved with other aspects of mining history.

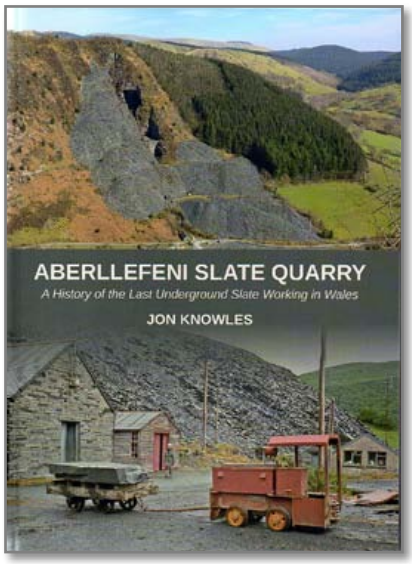
At the time of the publication of the first edition of Metal Mines of Llanengan in 2002, it did take their interests further and brought into the public domain a relatively unknown Welsh mining area. The publication of this second edition will hopefully make another generation of mining historians aware of this interesting mining field and is dedicated to John and his wife Elizabeth.

Books & Videos

Aberllefeni Slate Quarry

A history of the last underground slate working in Wales

By Jon Knowles



Hardback, 277 pages, colour plates throughout, A4. Price: £35.00

In Jon's own words "the book is a culmination of over 15 years exploration underground and archival research". It traces the history of Aberllefeni Slate Quarry from its inception to 2016. The quarry was one of the oldest, and certainly the last worked underground, in Wales.

Since 1985 Jon and a group of like minded colleagues have been systematically exploring the mines of the area in their spare time. After 30 years working in heavy engineering Jon relocated to Penrhyndeudraeth and is employed locally by J.W.Greaves and Sons Ltd of Blaenau, owners of the Llechwedd Mine (amongst others).

This book is a credit to Jon's expertise and determination, it is full of his own colour photographs, with black and white historical pictures. He has also provided a lot of detail of the industry itself, with the workshops and machinery supported diagrams and drawings, there are also plans of the mine. Plus a nice touch - an aerial photograph with a labelled photo on the opposite page so as not to detract from the original. I could easily go on raving about this volume but it is really an excellent piece of original work.

Mike Moore

Historic Mines of Spain Vol.4 Compilation No.57

Exploring more mines in Murcia and Andalucía

In April 2023 the Club re-visited south-east Spain to see more of the vast range of ancient and modern mines which survive so well in the country. Only highlights of the DVD are mentioned here - more details of the sites can be found in the series of reports that started in *Below! 2023.2*.


Underground in La Calera.

The isolated hill of Cabezo Gordo near San Javier is an important Neanderthal archaeological site and magnetite breccia has been mined there from several levels.

La Calera in the Barranco de la Mina valley was worked for iron and other minerals from 1884. A 2km long aerial ropeway was installed in 1915 and many trestles and some wire rope survive. Mining ended in 1962. Underground remains include masonry headframes and steel ore chutes.


Barranco del Chaperral winder.

After visiting the rebuilt mining museum in La Unión, the Maria Dolores and Calón mines of La Parajitos were explored both on the surface and underground.

A full day was spent in the Sierra Almagrera with Rob and Boo Vernon showing us Barranco Jarosa and the almost intact British stean winder high up at Barranco del Chaperral. They then took us to El Arteal where a large tunnel, miners' village and bath house remain to tell the story of intensive 20th century mining.


View along an Águilas rail tunnel.

Around Portmán we re-visited the wharf, the archaeological museum and the impressive Lavadero Roberto with its extensive railway infrastructure.

Corta Brunita's rusting ball mills were followed by many mines both small and large along the Rambla del Avenque, down to the tailings beach at El Gorguel. In the same day we saw the Peñarroya compressors and Túnel Lilliane at Mina Gloria; and re-visited La Parreta.

Águilas has impressive iron ore hoppers above railway tunnels and a long steel loading pier. That day was rounded off with Mina Amali and Lorca sulphur mines.

Price: **£ 14.40 (DVD)** Running Time: 1 hour 15 mins. ***Club discount available at meetings*** or visit: **iarecordings.org**

Club Officers

President: Neal Rushton

Chair: Gareth Rushton

Vice Chair (Temporary)**: Kelvin Lake**

Secretary: Andrew Wood
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Treasurer: Marian Boston

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NAMHO Rep: Peter Eggleston

Membership Secretary: Julian Bromhead
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Tackle: Steve Holding

Training Officer: Andrew Wood

First Aid Officer: Alan Moseley

Bat Officer: Mike Worsfold

'Below' Editor, Publications: Kelvin Lake
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Some Diary Dates 2024

Monthly Meetings - Normally held on the first Friday of the month at Allscott Social Club. **Please note:** The start time for Monthly Club meetings is 19:30 starting with a presentation or talk by a Club member (to be less than 60 minutes long), before the main meeting.

The secretary usually emails the meeting details a day or so beforehand. Please let him know if you don't receive them.

March 31st (Easter Sunday): Ogof Ffynnon Ddu: Columns Open Day. "The Columns" in OFD are only open for 5 days a year. Find out more at **swcc.org.uk**

May 5th: OFD: Columns Open Day.

May 25th to 31st: Gaping Gill winch meet, hosted by Bradford Pothole Club. For details visit GG Winch Meet page at: **www.bpc-cave.org.uk/wp/gaping-gill/**

May 26th: OFD: Columns Open Day.

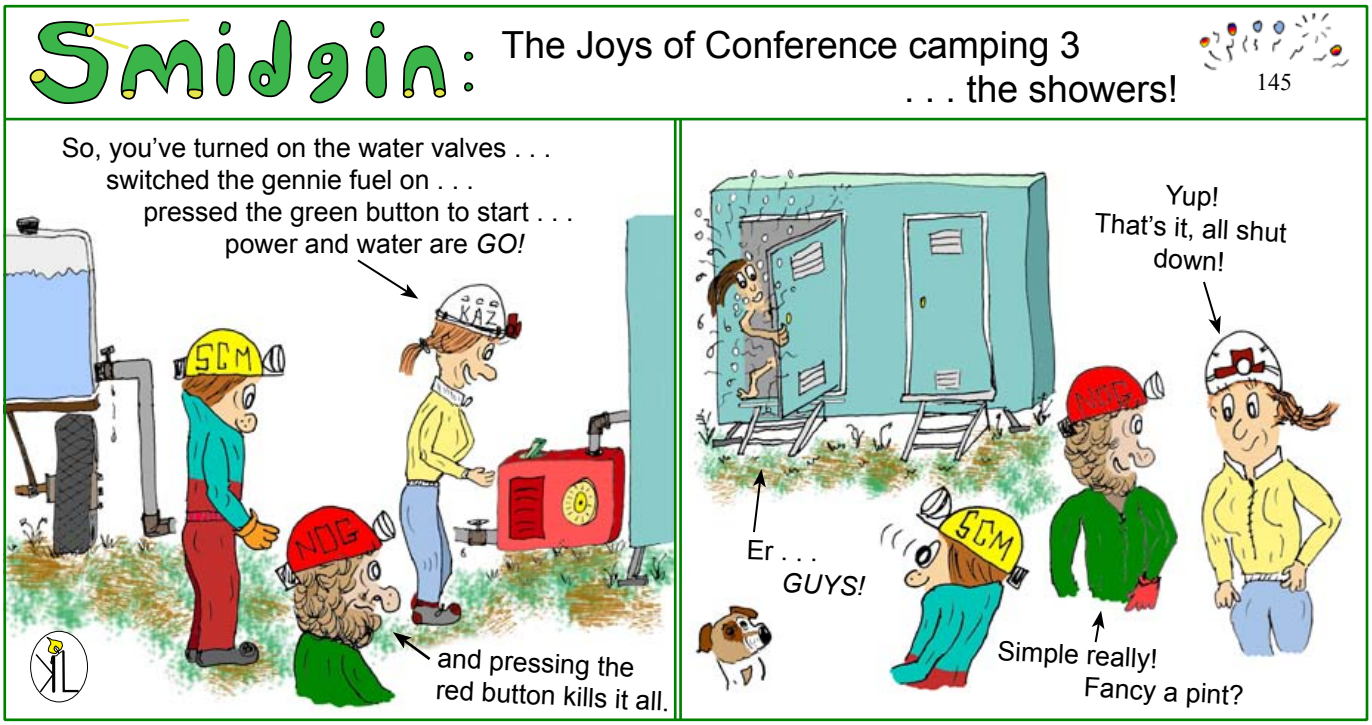
June 29th to 30th, 2024: National Association of Mining History Organisations (NAMHO) Conference. In Redruth, Cornwall. More details will appear on the NAMHO website when available. Several Club members are already planning to make a week of it with trips after the conference.

August 25th: OFD: Columns Open Day.

August: Gaping Gill winch meet, hosted by Craven Pothole Club. See **www.cravenpotholeclub.org** for dates etc.

September Date TBC: Hidden Earth, National caving conference.

Keep an eye on the **Hidden Earth website** for the location, date and booking details.



• Catch us on the World Wide Web. Club activities & the labyrinth: **www.shropshirecmc.org.uk**