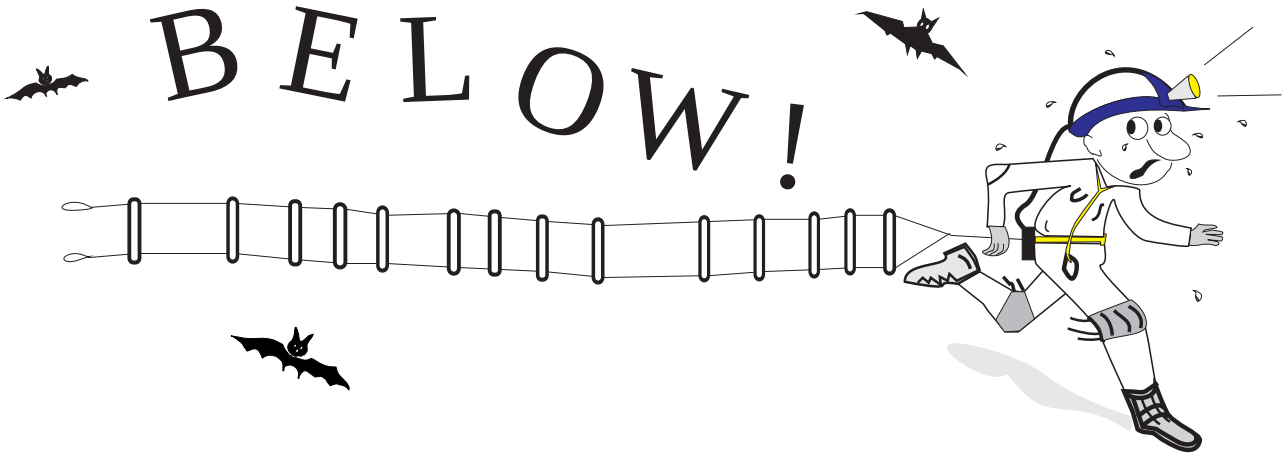


Quarterly Journal of the Shropshire Caving & Mining Club Spring Issue No: 2011.1

NAMHO 2011

As the final(ish) preparations are made for the 2011 NAMHO Conference, we have got off to a good start with over 80 Conference bookings so far.

This means that some of the half-day trips are already fully booked, so we are planning to run additional half-day trips. To do this, more trip leaders are required particularly for Burgam, Scott Level and Westcott - the latter is a surface trip round parts of Huglith and Westcott, with a simple underground visit at Westcott. If you fancy leading one of these then please let Steve Holding know.

Club members visited Preston Montford Study Centre on the 19th February to get a better idea of where the various conference activities could take place. A lot hinges on good weather, but expecting the 'worst' (!), depending upon cost it may be necessary to hire an extra marquee to provide a large social space for the Saturday and Sunday evenings, not to mention the beer!.

Name the Beer

As part of the Club's 50th Anniversary celebrations it is planned to have a special beer brewed for the Conference ... the big question ... what to call it? Black Tom? Longwall? Any other suggestions? (You might get a free pint out of it!)

Finally, don't forget to book your place, meals, accommodation!

Snailbeach Toilets Threatened

Shropshire Council have announced their intention of closing and demolishing the toilets by Snailbeach Village Hall car park, to save money.

A campaign has been organised to try to prevent this closure and your help is requested. These facilities are invaluable to visitors to the Snailbeach area, not just mining enthusiasts. You can do your part by writing to:

Kim Ryley (Chief Executive),
Shropshire Council, Shirehall,
Shrewsbury, SY2 6ND

or emailing Martin Taylor-Smith (who sanctioned the closure of the toilets) martin.taylorsmith@shropshire.gov.uk

Pete Postlethwaite

Members will have heard that Pete Postlethwaite the actor died on 2nd January 2011. Pete was the speaker at the Club's annual dinner at Tern Hill (9th October, 1999), after he had recently taken the leading role in the film "Brassed Off" - based on a doomed colliery brass band in the Yorkshire Coalfield. He spoke of his non-mining background, although from the North of England - but felt he had become an 'adopted' miner!

About 76 members and guests attended, only a few more than usual at that time, mainly the writer believes because there had been a policy of keeping the visit quiet . Pete lived at Bishops Castle in Shropshire. He will long be remembered .

During the evening he launched the writer's book "East Shropshire Coalfields", he wrote in a copy *"Well done Ivor, all the best! Pete Postlethwaite"* and in return asked for the author's signature in the copy that he had been given.

Nine copies of the book were sold that night and four given away (including 2 for the Club Rescue Fund Raffle - royalties from this book were also given to this fund).

Ivor Brown

News Round-Up 1

Ivor Brown

Old Papers

Some papers of the late Jim Smart, former training instructor at Madeley and Granville Collieries, have recently been passed to members to sort out. Some will have to be returned to his family, others may be donated to a museum or archives. Some of the interesting items could be used in later additions of Below in some way (none are of reference value for the Club Library). Among the items were:

1. 60 page manuscript copy, memoirs of George Whitehead, Checkweighman at Kemberton Pit for 26 years (also NUM Lodge Secretary).
2. Script for a musical play on Jack Smart's life as a miner in Madeley, put on by the local school over 3 nights in 1990.
3. Abandonment plans showing workings for coal and ironstone under the town of Madeley.
4. The "signing on" books for workers at Madeley Wood Colliery 1930 to 1960s, including a record of I.J.Brown's enrolment (name incorrectly spelt! - Training officers were not the most educated breed!)

Letter of Thanks

The following letter has been received from the Chief Executive, IGMT. The thanks of course must extend to Alan Taylor, Kelvin Lake, Peter Eggleston and the other members of the Club who helped to make this "Memorial" event such a success.

Dear Ivor,

On behalf of the Ironbridge Gorge Museum Trust, I would like to thank you for your extremely interesting and moving talk which you gave last Wednesday on the Madeley Mining Disasters. It was wonderful to have such an excellent turnout for what I felt was one of the best talks I have heard in a very long time.

Thank you too for your generous donation of the mock-up of the miner's pit cage and also for allowing us to distribute copies of your informative booklet, raising £76.04 which will be used to support the work of the Museum.

I understand that you will be visiting us again next year and I look forward to working with you again in the future. Thank you again for your continuing support.

Yours sincerely

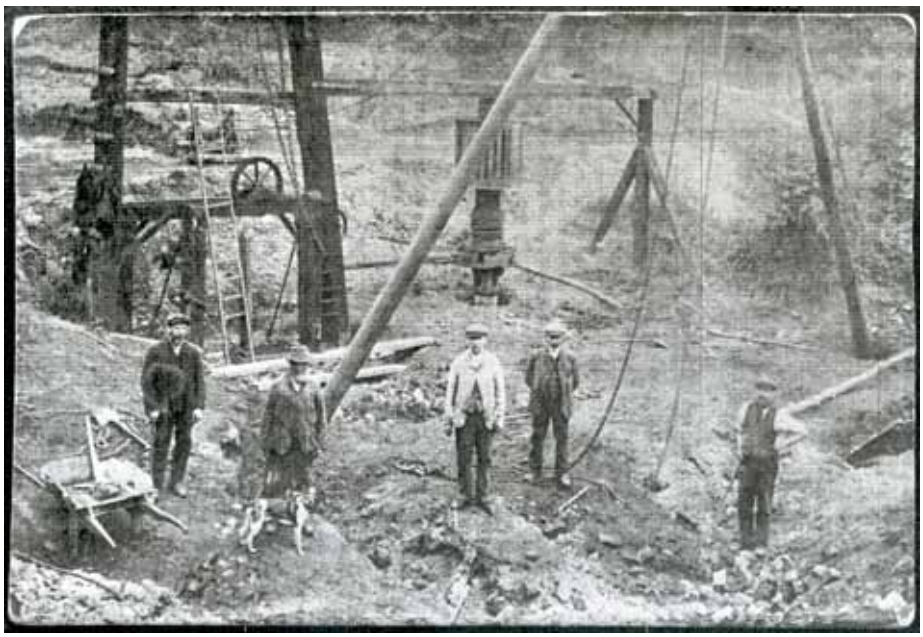
Steve Miller
Chief Executive

The talk referred to for 'next year' will be "Digging for Telford in the 60s and 70s" (on Wednesday September 15th, 2011) and will also mark the Club's 50th Anniversary. It is hoped to include photographs of the Club's contribution to the development of the New Town's museum in those early years as well as stability works involved and the findings in the opencast sites and pitheaps during earth moving operations.

Early Mine Headframe

The photograph (right) by "Bartlam of Madeley" is believed to show an early Coalbrookdale Coalfield area limestone mine, but does it?

a) It looks like a demolition site - see heap of bricks in foreground.
b) The horsegin drum shaft has been converted to a capstan spindle.
c) The pulley is not in line with the gin or headframe (is it one?).
d) There is a mans coat hanging on the headframe - unlikely, very dangerous with an unfenced shaft - is it a shaft filling job?
e) The use of barrows is unusual at a shaft top.
f) Note the ladder - if it is coming out of the shaft, it must be shallow!



Has anyone any idea?
Is it a Church Aston or Lincoln Hill limestone mine?

Mina Haiti, Murcia, Spain

Andy Wood

Near Beal on the north side of the Cabezo de San Gines, an outlier of the Sierra Minera of Cartagena/La Union, lies Mina Haiti, a manganese mine. It is known to be very complex and I had been warned that it was very easy to get lost. However, the bigger problem was finding the way in!

Following the club trip to the area in 2008, I had spent some time with Bob Barnes, a Welsh Mines Society member who lives locally, prospecting the site. The remains of the engine house, winding gear and main haulage shaft are obvious and easily accessible but abseiling down the shaft would not be simple. The head frame for this mine has been removed to the nearby village of Llano del Beal where it forms the centrepiece of a mining memorial. Both the head frame and the winding gear are clearly designed for round section rope, which is unusual for the mining field as flat rope is almost ubiquitous.

The whole surrounding area has been extensively fly tipped at some time in the past so the land surface is mostly covered in rubbish. Also, there are a large number of shafts, surmounted by cement block walls in the standard local manner. We wandered around for ages peering down shafts but failed to find a means of ingress. At a later date, I found some photos on the internet by local mineral collectors which showed the access and Bob continued to quarter the area until he located the entrance.

During a week's holiday in November, and having negotiated a mining day with my SWMBO, Bob Barnes collected me for the expedition. We parked in as inconspicuous a spot as possible, got changed and set off up the hill. Half way there, I realised I still had my dark glasses on! This is an error I have made before and the group photo of the 2008 SCMC visitors in the show mine, Mina Agrupa Vicenta, clearly demonstrates this! There was thus a short delay while I remedied the error.

The adit is an easy climb down into a vein working but there are a multiplicity of chambers and side passages at every level – although there are very few of these that are the obviously cut levels one would expect. That the site is popular with mineral collectors is evidenced by the accumulated rubbish, dead batteries and fragmented crystalline samples liberally scattered everywhere. The good news is that they have had the foresight to unroll a very long piece of string to mark the way on. As we continued on down, we were struck by the interesting rock formations, almost as if some had been formed by water or igneous gases and there were mineral crystals of many types visible everywhere.

Part way down, there was a nicely cut window into a shaft and, when looking down, there was a similar

Above: The Mina Haiti head frame at Llano del Beal, now re-erected as a memorial to all the miners who lost their lives in the local mines.

Above: A line of mine trucks by the headframe of the miners memorial.

Right: A compressed air rock drill fitted to the bottom of one of the headframe legs.

Pictures: Andy Wood

Mina Haiti, Murcia, Spain
continued ...

window on the other side of the shaft some metres lower. But, which of the many shafts visible on the surface was the one we were at? We were unable to find a length of timber or anything to place across the shaft but, in the end, we secured an abandoned water bottle in an overhanging position that we hoped we might be able to view from surface later. No chance, as it transpired. However, Bob has a plan for solving this. He has acquired some out of date flares, so on a future occasion he will set one off in the shaft while a spotter on the surface determines which shaft is the one issuing smoke.

The descent continued, sometimes through slots and sometimes over proper steps and there were some spectacular and substantial crystals seen in areas where holes had been made into large geodes. Then came a moment of concern – the string ran out! Fortunately, a little further on, a new string took us to the deepest accessible location. On the way back up, we kept exploring side caverns and passages, which usually came to a dead end sooner or later. Now we cannot have covered it all in the three hours we were underground, but why did we not find a connection to any other workings when there are so many shafts in the area? And how come we never even came across the working that fed back into the other side of the shaft we had seen? There has to be much more to it.

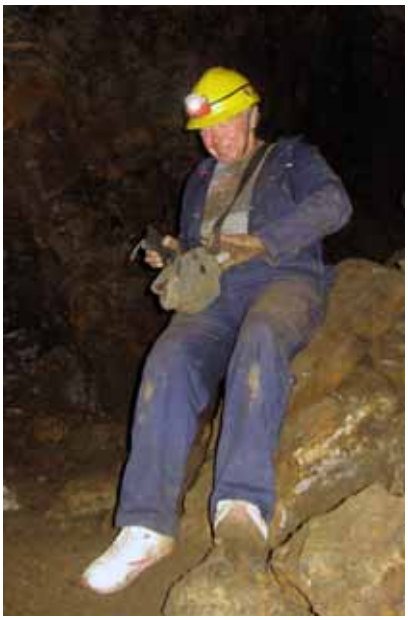
Bob is continuing to search for other entrances and has a couple yet to explore but this remains unfinished business to me.

Postscript: I hadn't realised quite how unfit I was until the next day when my quadriceps were so stiff I could hardly manage stairs! Memo to self, get fit.

Useful Web Sites

www.gmalicante.org/Salidas2009/Salida190/SALIDA190.htm

mti-minas-murcia.blogspot.com/2008/05/mina-hait.html



Above: Bob Barnes underground in Mina Haiti.

Pictures: Andy Wood and Bob Barnes.

Above: Close-up of crystals.

Below: Your correspondent in Mina Haiti. (Picture: Bob Barnes)

Left: The engine house and winding gear, note for round rope.

Below: Bob Barnes in the adit entrance. (Picture: Bob Barnes)

Right: An interesting use for old mine truck bogies, beside the Miners Memorial in Llano del Beal.

Is that a can of frozen ginger beer on the table?

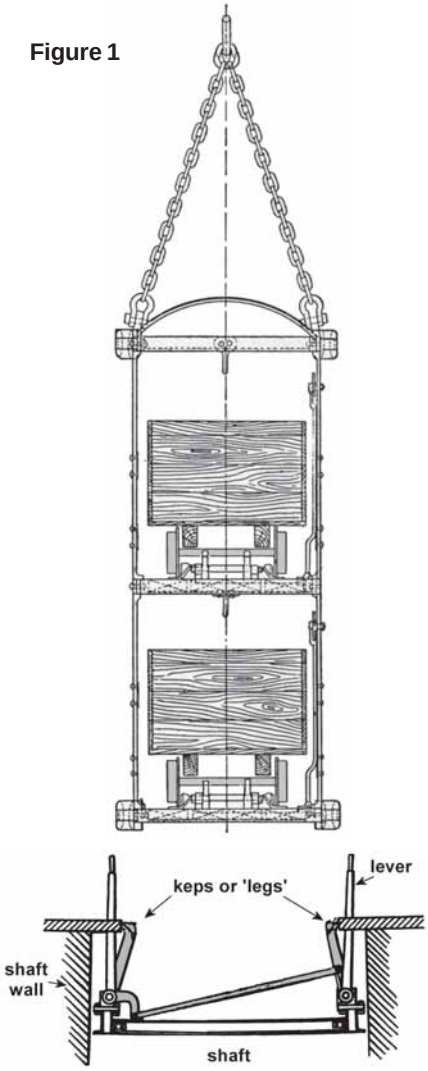
Tubs and Cages at Kemberton Pit Shropshire

Ivor Brown

It seems the general view that miners travelled to work in 'lifts' like those in departmental stores, a group standing reasonably comfortably and preparing to leave the lift in an orderly manner. This was not the case at Kemberton Pit even in 1967. Six miners on three decks had to scramble into an awkward position and even had to reverse out backwards by crawling, if one of the two unfortunate ones last in!

It has, for years, been the writer's aim to get a full scale model of this 'rabbit hutch cage' (as described by a mines' inspector) into a position where present day residents can see it. This has now been done.

Figure 1



Sketch of the double-deck cage shaft arrangements, as described at Kemberton Pit c1910. When carrying tubs at the time of the 1910 incident the miners were on the top deck. *(based on Practical Coal Mining, W.S.Boulton, 1908)*

In bringing the above about the first problem was that no one seemed to remember the actual size, not even the old fitters and blacksmith at the pit (Jack Smart, Tom Price and Danny Clemson. Together with the memory of having travelled in the cage for over ten years the first concrete information was found when reading the newspaper report of the 1910 disaster at the pit. In this, one witness stated that the cage held six persons and was 4 ft wide in an 8 ft diameter shaft. (There was also a higher upper deck in which 8 persons could more or less stand upright, see Fig.1).

It was necessary to start from basic principles to find the dimensions of the mine tub that was usually carried. At that time no surviving tub could be found. The height of the deck and number of decks is dependent on the height of the head frame and this also dictates the height of the tub (tub height is also dependent on roadway heights underground). The designers at Kemberton Pit had, in the mid 19th Century, decided that to maximise output in a small diameter shaft there should be a two deck cage, top deck capable of taking a 6 ft or so item diagonally (such as a stretcher), with a lower deck just sufficient for a tub. Single length beams of timber were easily available and a single head frame was placed on each shaft. In the early 20th Century the pit production was increased, a four deck cage was necessary but still using the original surface decking arrangements, that is a higher surface run round arrangement and a lower bottom run round arrangement. A head frame originally of massive timbers, later of steel, was built over the wooden frames and about twice their height in a tandem formation (See photos). To minimise height requirements and permit continuity of work the three lower decks were made of less height than the top deck of the cage (see drawing).

This design required a 'double banking' system to be used.

In operation when the cage came up to the surface the upper pair of decks were landed first, both unloaded simultaneously, then the lower decks were landed and unloaded. An empty tub was pushed on which pushed the full tub off. The cage could then be lowered down the shaft.

When carrying men it was slightly different. Men were never taken up higher than the first landing levels. The cage was emptied of men on arrival of the first two decks as described above then the lower two decks were raised and unloaded. Men were then allowed on the lower two decks, the cage lowered and the men allowed on the upper two decks.

Photograph 1: Kemberton Pit c1900 with separate wooden headframes over each shaft. (Frank Turner)

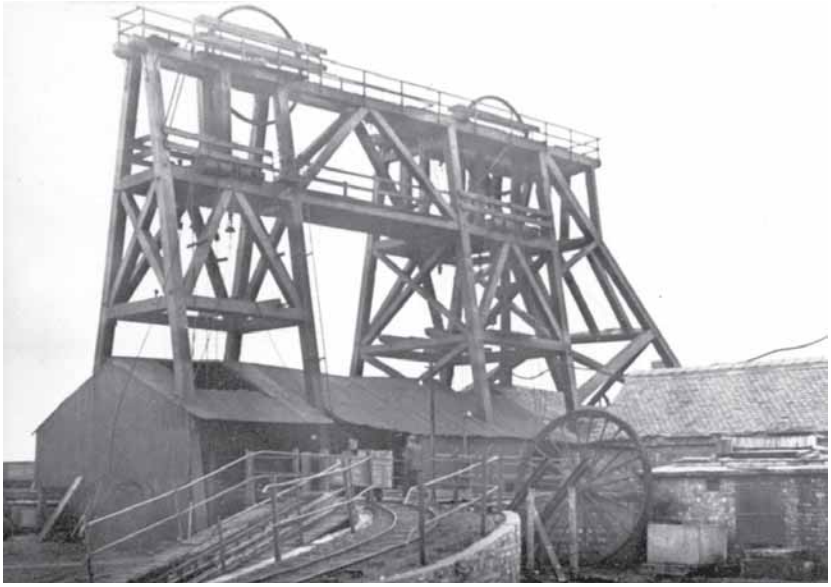
Tubs and Cages at Kemberton Pit Shropshire
continued ...

There was a single winding drum working from two shafts, as one rope was wound up the other rope was wound down. As one cage reached the top the other reached the bottom where the loading and unloading operation was similar to the above.

At the bottom the lower two decks were unloaded first, in the case of mineral a full tub would push off an empty. If men were carried the men on the lower two decks would get off but the decks would then be dropped into the sump empty (men were never dropped into the sump because it could be full of water). The men on the upper two decks would then be able to get off and then the loading process would be repeated.

To determine the probable dimensions of the cage - since these seem to be unknown, the available information has to be considered:

1. The shaft was 8 feet diameter.
2. The rails were of 2 foot gauge.
3. Eight men could get on the top most deck standing nearly upright, usually bending of the knees was all that was necessary.
4. Six men could get onto the other three decks, two bending over from each side and two crawling under as shown in the sketches. (Figs 2 and 3)
5. There was only about six inch clearance down the side of the tubs and at the top (lumps standing proud of the tub had to be broken and if hands were left on the rims of the tubs the fingers would often be broken).
6. The 1910 inquest report says the cage was four foot wide, another report says the decks were about five feet high but does not say which of the decks this refers to.
7. A photo showing a person and a tub (see front cover of East Shropshire Coalfield published by Tempus) indicates that the tubs including wheels were about four foot high. The person pictured (Brian Williams), is about five foot eight inches tall excluding helmet.



Photograph 2: Kemberton Pit c1945 showing the substantial timber tandem headframe built after the 1912 expansion. (Ivor Brown)

Below: Photograph 3: Kemberton in 1965 with its steel headframe.

Using all the above it would appear that the tub body was about 3 feet by 3 feet by 3 feet. This would give a volume of 27 cubic feet.

It is known that the tub capacity was 13 cwt. of broken coal, also that broken coal has a density of about 42 cwt to one ton. So a 13 cwt tub would have a capacity of:

$$\frac{13}{20} \times 42 = 27 \text{ cu. feet of broken coal}$$

The dimensions about 3 foot by 3 foot by 3 foot mentioned above is therefore correct.

Allowing for the height of the wheels and axle supports which would be about one foot and a clearance of six inches at the top, the height of the deck must have been at least four foot six inches and the width of the cage would be four feet, the gauge was two feet, overhang on each side

Tubs and Cages at Kemberton Pit Shropshire
continued ...

six inches and gap on each side six inches. This four foot width of cage is same as given in the 1910 accident report.

The top deck was high enough for a person to stand almost upright so was about five feet nine inches high. On the lower decks the miners had to get into the cage in a particular manner. Two would get in on the left and bend inwards and two would get in on the right and bend inwards, (see figure). The remaining two would then crawl underneath the bending miners astride the axle catcher box which would be lying along the centre of the cage. The tub rails and sleepers would also cause difficulties in standing. Usually when leaving, the miners would have to come out of the cage the same side as they entered. This involved a reverse crawl for the two miners in the bottom of the cage. On each lift the cage could carry 8 on top deck and 6 on each other deck (total 26 men).

The Club was asked if a full scale model cage could be made to give to Ironbridge Gorge Museum in memory of the miners who died in the pit disaster one hundred years ago. Former president, Alan Taylor offered to make one. The dimensions were checked out using gardening canes and a blanket in the writer's garden and the model was completed by Alan.

A demonstration of its use was given by club members at the hundredth anniversary lecture at the Museum, 24th November 2010. The model was excellent but the actors obviously lacked training for man-riding, there were two many human parts protruding through the bars and this would not have been allowed for safety reasons!

The actual dimensions of the model cage were 4 ft wide, 4 ft 6 ins high, and 4 ft 6 ins long, but in fact the real cage may only have been 4 ft long. It has since been discovered that the tub bumpers did not project as far out as was thought. The dimensions of the tub determined above was assumed to be 3 ft wide, 3 ft 6 ins long, and 4 ft high, including wheels and rail. As work proceeded with the construction of the cage two findings confirmed that the measurements are not likely to be far out.

In the first a tub was found at the Caphouse Colliery National Coal Mining Museum, which looked and felt the same as the Kemberton tub (see Below 2010.3 p2), although the rail gauge was different. The actual overall dimensions were; width 2ft. 9ins., length 3ft. 6ins., height 3ft. 7ins. including wheels.

In the second the Ironbridge Gorge Museum reported that they had found a Kemberton tub in their collection. On inspection this seemed to be the right size but it had two strengthening corrugations around it. The writer does not remember these, and they are not shown on the photograph on the cover of "East Shropshire Coalfields" (Tempus book).

It is possible that these tubs were supplied new after 1962 and before 1967 when the pit closed. This view is supported by the undamaged nature of the tub which still has some of the makers black paint on it!

The actual dimensions of this tub are: width 3ft. 1in., length 3ft. 10ins., height 3ft. 7ins. including wheels.

Both tubs had a capacity of about 27 cu. ft. the volume required to take about 13 cwt of broken coal as used at Kemberton Pit. They would have fitted nicely into the cage mock-up (allowing for safety bars, gates and necessary clearances, although gates were not normally in use when only minerals were being raised).

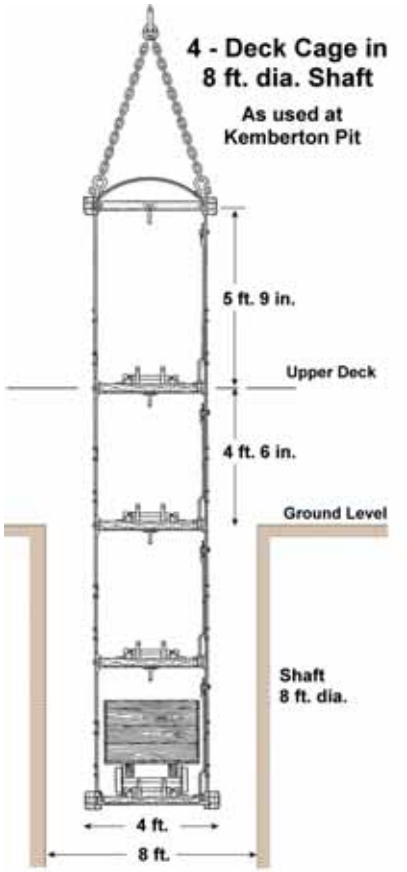
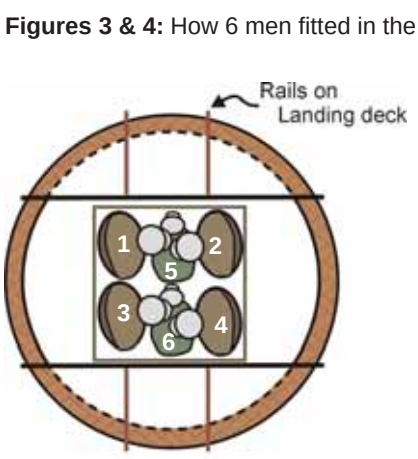
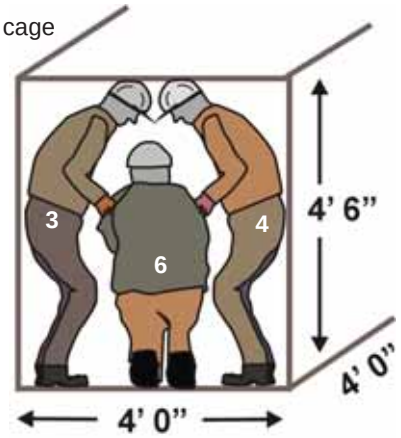


Figure 2: Sketch of the four-deck cage arrangement at Kemberton following the 1912 pit expansion.

Figures 3 & 4: How 6 men fitted in the cage



PLAN VIEW
Kemberton Cage
when carrying men



SIDE VIEW
(Slightly enlarged)
(Tub rails and axle catchers not shown)

Billingsley and Alveley Weighbridges

David Poyner

Mines need to be able to weigh the material they produce. All mechanical weighing machines are essentially based on the principle of the lever. In the simplest case, if a lever is pivoted so that the fulcrum is nearer one end than the other, a small weight attached at the long end of the lever can be used to balance a heavy load at the other end. Unfortunately, the heavier the item to be weighed, the longer the lever needs to be to allow the use of reasonable weights as balances. This is bad enough when it is simply a cart containing a ton of coal; however, a railway wagon is likely to contain ten or more tons.

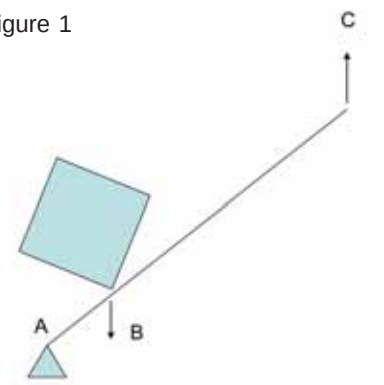
To overcome this problem, the weighbridge was developed, using a combination of levers. Technically, the weighbridge uses 2nd order levers where the load and the balancing force are both on the same side of the fulcrum but work in opposite directions (Figure 1); this is the same principle as using a lever to move a heavy object.

In a weighbridge, the weight of the object is supported on a plate and girder frame (the weigh-table) which contacts a pair of Y-shaped frames at their top ends, close to the fulcrums which rest on heavy girders. The Y-frames act on a transfer beam in the centre of the machine which is at right angles to them (Figure 2). This is attached to the scales (steelyard) where light weights can be hung to balance the object.

The principle of the weighbridge was first described in the 1740s by a Birmingham engineer, John Wyatt, although his invention does not seem to have flourished as it was re-introduced by an American in the 1830s. By the 1850s, such machines were common-place and the design of the mechanical weighbridge has changed little since that time.

Most collieries of any size would have needed a weighbridge. Whilst the basic machinery inside a weighbridge changed very little, there was variety in the design of the office where the scales were housed and where the clerk worked to record the tonnage of coal being dispatched. Recently it has been possible to record two examples of these.

Figure 1



Principle of the 2nd order lever. The fulcrum is at A; a heavy weight bearing down at B can be supported by a small upwards force acting at C

Billingsley Colliery

Billingsley Colliery sent its coal away by railway to the Severn Valley line. The railway weighbridge was located close to the colliery end of this line, by the engine shed (SO 718834). The brick and tile building was erected in March-April 1913; the accounts of the carpenter who fitted the woodwork, John Derricutt, are preserved by a relative.

Billingsley closed in 1921, although the line remained open after being connected to Kinlet Colliery, to allow landsale of coal at a wharf at Priors Moor, its terminus. The weighbridge may have occasionally been used in connection with this, but it was certainly abandoned in 1937 when Kinlet closed and the entire line was lifted.

In 1942 the Bridgnorth Journal noted how a local man had been prosecuted for stealing timber from the roof, so it rapidly became derelict. Today an end wall and a side wall have both collapsed (Figure 3), but the position of the debris allows their form to be reconstructed (Figure 4).

Inside the building there is the remains of a concrete floor that seems to have been covered by quarry tiles. There was a fireplace. A large, probable triple arched window allowed the clerk a good view of the wagons he was weighing. Whilst nothing remains of the machinery, the pit holding the Y-frames and balance beam appear to survive (as they lie under a public bridleway, it has not been possible to confirm their full extent). At the point where the transfer beam entered the office, the wall is supported by a pair of rails which act as lintels. Interestingly there is a hole drilled through the one end of these, about 1 inch in diameter (Figure 5). It seems as though a rod passed through this from the office back to the weigh machinery. It is possible this was connected to a

Figure 2

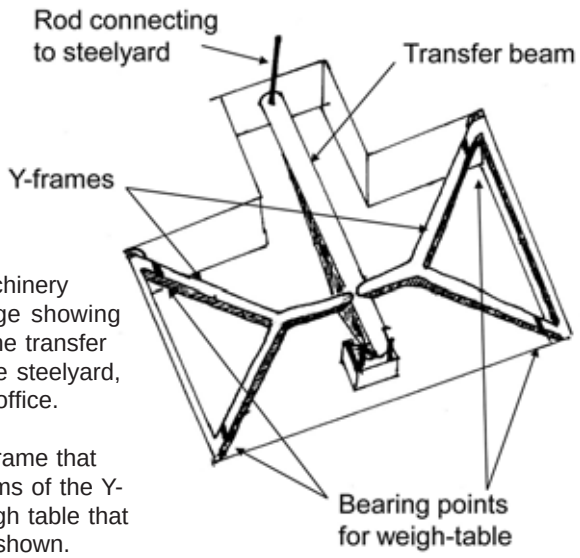


Diagram of the Machinery inside a weighbridge showing the Y-frames and the transfer beam leading to the steelyard, housed inside the office.

Neither the girder frame that supports the fulcrums of the Y-frames nor the weigh table that rests on them are shown.

mechanism to allow the machinery to be locked when the railway locomotive passed over the weighbridge; this would be much heavier than the capacity of the weighbridge and could damage it.

Figure 3: Billingsley weighbridge.

Figure 4: Plan and elevations of the reconstructed Billingsley weighbridge.

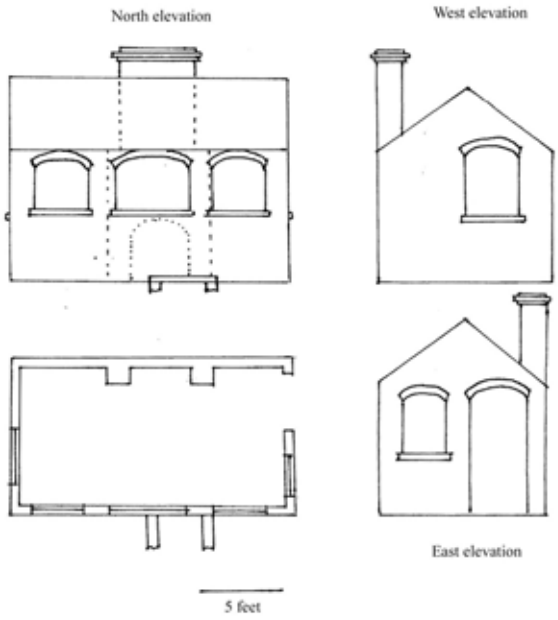


Figure 5, above: Hole in the lintel above the balance beam pit at Billingsley

Alveley Colliery

One other weighbridge is intact in the Highley area; this is the landsale weighbridge at Alveley Colliery (SO 755844, Figures 6, 7, 8). It was built around 1938, at the same time as the rest of the colliery. This retains its machinery although I understand the current 20 ton weighbridge, built by Parsons, is a replacement installed after the colliery closed, to serve the industrial estate that was developed on the site of the mine. Unfortunately the building is now derelict and vandalised.

The office is a brick structure with a flat, reinforced concrete roof, concrete lintels and a tiled floor. As such, it would have been in keeping with the style of the other buildings at Alveley. Like Billingsley, it was heated by a fireplace and also has a prominent window at the front to allow the clerk to observe vehicles on the weighbridge. Ironically, one clerk worked with a local coal haulier to defraud the National Coal Board by deliberately not booking out loads; any system is only as good as the people that operate it!

Recently a local group has formed to conserve and interpret the Billingsley weighbridge. My guess is that at some point Alveley weighbridge will be demolished, although it would be nice if the steelyard inside the building could be preserved.

Figure 7: Plan and elevations of Alveley weighbridge.

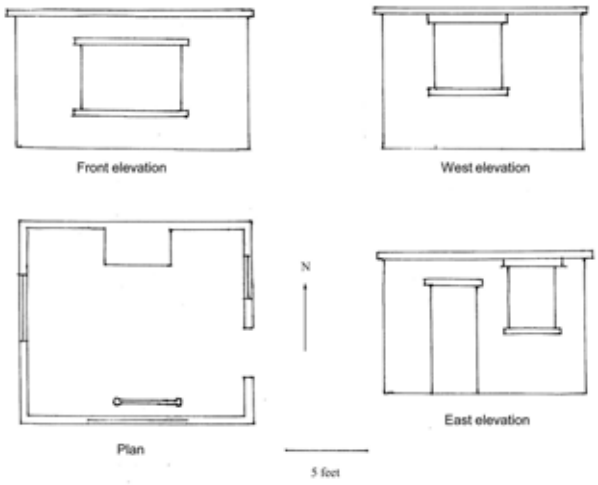


Figure 6, below: Alveley weighbridge

Figure 8: Steelyard inside the Alveley weighbridge; this has been pushed over and is now lying on the floor.

Pitchcroft Mine Dig, Update - 16th January 2011

David Adams

A somewhat drizzly day, the party consisted of David Adams, David Poyner, Peter Eggleston, Steve Holding, Alan Taylor, Nathan Sheppard, and John Hendy on his digger.

Work commenced by removing the remains of the small tree felled last time and John began to excavate the ground adjacent to the round drain chamber in a search for further foundations. Just as some apparently laid bricks came into view a field drain was found at a higher level leading towards the eastern side of the drain chamber. Two plus one broken pipes were revealed. 23 to 15cm tapered pipes similar to those found earlier on the opposite side of the engine house. These were rodded for about 2.7 metres to a blockage, probably the roots of a nearby large tree.

David Poyner continued his investigations into the mysterious brick floors between the engine house and the boiler foundation only to find signs of a further brick floor deeper still. Meanwhile it was decided to calculate fresh levels across the site levelling being undertaken by David Adams and Peter Eggleston. However at around 2pm the drizzle turned into heavier rain and work had to be abandoned for the day.

So far the dig had been generally straightforward but the work was obviously getting more complicated. The finds of the succession of brick floors and gutters below the engine house and boiler foundations had complicated matters and could only now be further investigated by destroying what lay on top, which would not be good practise.

The foundations of the expected winding mechanism did not yet seem to have been revealed, the site of the necessary boiler chimney foundation had not been absolutely proven, and the site of a small square building marked on the railway proposal map to the south had not yet been investigated. All these sites lie at depth below very large amounts of original and excavation spoil, and much time could be spent moving soil without worthwhile advantage.

There seemed a number of options: -

a) to continue on these parts of the site in the hope of worthwhile discoveries.
b) to attempt to find the outer part and blocking wall of the day level.
c) to commence excavations on the known area of the pumping engine house to retain members interest in the site.

One advantage of the latter is that excavations here might provide evidence which would assist the theories on the present site.

Although it was still believed that the foundations were of an early winding engine house, most likely for a Heslop engine, comparison with engine house foundations elsewhere had failed so far to reveal a match.

The haystack boiler in use in the eighteenth century was still in use on some sites into the early 20th century, vis at the Lloyds site near Coalport. Thus the presence of earlier coal floors beneath the boiler foundations indicated an earlier arrangement which had been built over and may indicate that the foundations as originally excavated may be later than for the 1796 engine as originally thought.

The 'mysterious' over-lapping brick floors between the engine house (to the right) and boiler footings (area on left). The brick floor in the middle is heavily coal stained (see A on plan, opposite). An inclined coal stained wall is just being exposed in the boiler base on the left (see B on plan). (Picture: Kelvin Lake - I.A.Recordings)

Pitchcroft Mine Dig, Update - 16th January 2011
continued ...

Coal dust covered inclined wall in the bottom of the boiler foundation, see B on plan, below.
(Kelvin Lake - I.A.Recordings)

SHROPSHIRE CAVING & MINING CLUB

PITCHCROFT DIG

PITCHCROFT LIMESTONE MINE SITE
At SJ/7397.1719
As at 16th January 2011

Tree
Rodded to Blockage by Tree.
Theoretical position of winding mechanism
Spoil levelled to enable further digging
BOLT 'C'
8" (20cms) originally exposed. Excavated to 38½" (0.98M) above brickwork
End of wall – or doorway
Loose bolt 11"x1½" (280 x 32mm) with iron plate 5½" x 3" x ⅜" (140 x 75 x 14mm)
Land drains heading for drain chamber
Slot for heavy beam? possibly angled
21" (53cm) Wall
Poorly built drain chamber or soakaway
12" (30cm) Wall
Clay pipe bowls and iron artefacts mainly found here.
Clean sand
Section of Curr rail; acting as lintel
3 - 4" x 2" (120mm x 60cm) cast iron pipe sections
Wall 21" (53cms)
Wall 28" (71cms)
Pipe ends within brickwork?
Heavy stone revetment wall
Drain?
Brick floored passage
3ft (0.91M)
3'6" (1.07M)
Wall or soakway 3'3" (1m) to water
Wall 21"
4' x 3' (1.22 x 0.92M) platform
Drain outlet
Entrance
Chamber
Brick floor
Gutter
Much of this area appears to have been completely robbed out
3ft to 3'6" (0.91 Firing apert
Safety valve weight found here
Friedland pipe stem found here
Gutter brickwork underlying building
Broken 4" (100mm) land drain
Brick floors & gutters at different levels
Old coal floor extends beneath boiler foundation
Coal dust covered inclined wall
Chamber excavated 8ft (2.44M) below the level of the adjoining field. Floor haphazardly laid with bricks
Numerous iron artefacts found
4" (100mm) Cast iron pipe
Coal dust covered brick floor
B
A
Revetment wall
Iron pipe extends for 30 ft (9.14m)plus rodding connects with horseshoe land drains exit away?

Some Notes on the Mines of the Lilleshall Company, No.6
Pits in the Priorslee Field (Colliery), Ivor Brown

Nearly all the recently worked pits were south of the old Watling Street (see map 2009.3 p18). In 1870 the Priorslee Field had 10 pairs of pits or shafts, but amalgamation with the Snedshill and Wrockwardine Fields increased this number considerably.

However, by 1889 the Priorslee Field had only 8 working pits (each of two shafts or more), but other pits were maintained for pumping or intermittent use.

There were two very large units; the Stafford Pits and Woodhouse Pits which each had 2 pairs of shafts and these were worked as two independent units or double mines, No.1 Pit (shafts No.1 and 2) and No.2 Pit (shafts No.3 and 4).

The Report of 1870 states that the 10 pairs of shafts were producing coal, ironstone and clay. Half of the pits were producing ironstone and about 500 tons of clay were being produced separately. The company's quarries were however producing very much more clay than this.

By the late 1880s a Fireclay Pit is listed alongside the coal and ironstone pits; Dark Lane, Lawn, Rickyard, Stafford and Woodhouse. This Fireclay Pit was likely to have been near the Company's Snedshill Brickworks site, where there was also a substantial brick-clay quarry.

Another Fireclay Pit seems to have been replaced by the Hydraulic Pit about 1900. This was then joined by the Ketley Fireclay Pit, which gradually replaced it.

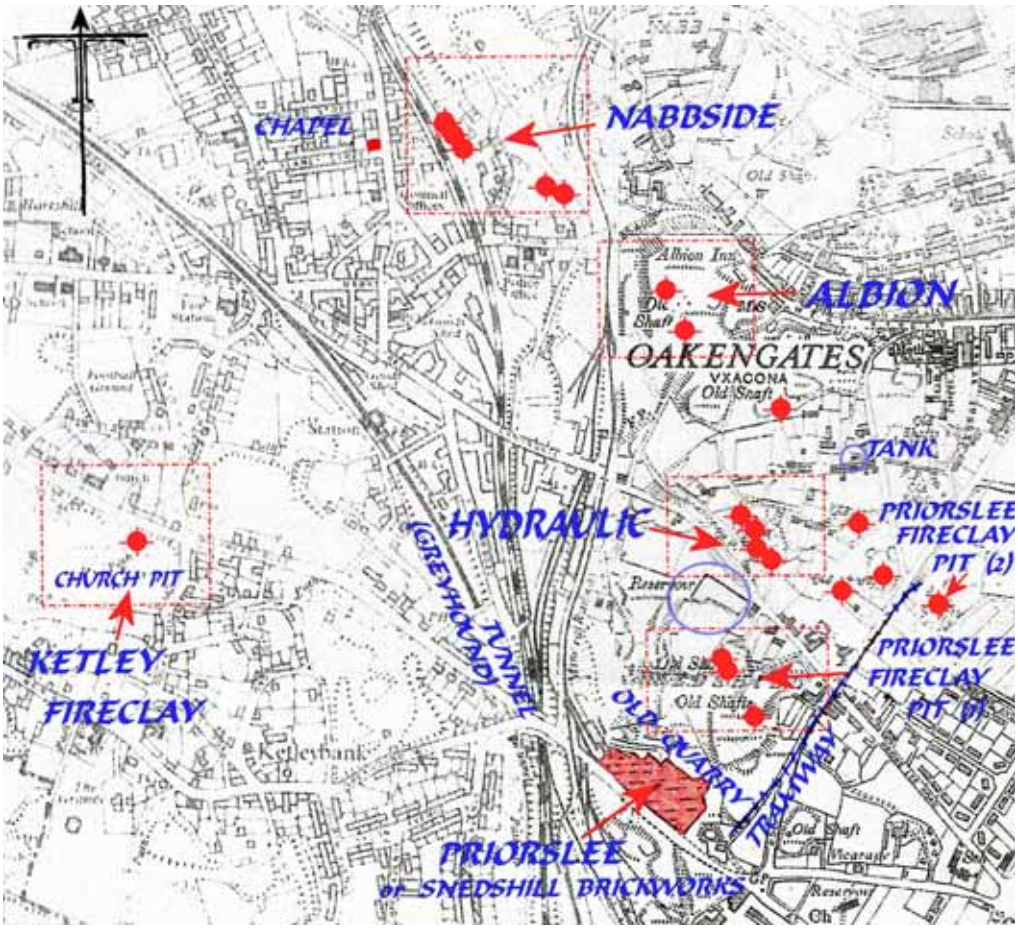
In 1914 Priorslee Colliery consisted of 2 large coal and ironstone pits (Stafford 223 workers, Woodhouse 544 workers) and 2 small fireclay pits (Hydraulic 11 workers and Ketley 5 workers). All underground working of clay seems to have ceased by 1921, however.

Priorslee Fireclay Pit (1)
SJ 701 103 (approx.)

The precise location is not known. It is likely to have been near the Snedshill Brickworks.

The Brickworks appears to have been opened in the 1830s using surface marls and underground fireclay to produce building bricks, tiles and firebricks and there is a shaft geological section entitled "Snedshill" in Prestwich, 1830 p 478. This shows the two coal seams usually associated with the fireclay at Priorslee, Fungous and Clunch at 55 yards and 144 yards deep respectively. There was much evidence of both underground and surface mining around the site.

The geological section is shown artistically and with much licence in a large tiled mural nearby. (This was inspired by the section produced by the present writer when he had the



Location Sketch of Clay and Other Pits, Clay Quarry, Old Tank and Reservoir, based on the OS Map (enlarged), by Ray Rushton

Some Notes on the Mines of the Lilleshall Company, No.6
Pits in the Priorslee Field (Colliery), continued ...

job of determining ground stability by drilling along the old "Dodger" railway line for the construction of the New Town's North-East Primary Road, now called Queensway. See photographs and maps in Below 2006.2, p.7 & 8, also p. 20 this issue).

The Brickworks was extended into the old quarries in 1903 and 1933 and became a major operation. In 1896 statistics show that 6 were employed in the quarry and 35 in the works, in 1911 there were still 6 in the quarry, but 'nil' by 1918.

In 1910 the Company's clay operations were said to employ over 150 persons. Snedshill Works closed in 1977 having used clay "brought in" since 1920.

Little is known about the underground workings at Snedshill, but they had certainly moved to No.2 Pit by the 1880s.

Priorslee Fireclay Pit (2)
SJ 701 103

Located in what was recently known as Worralls Yard. This appears to be the pit given in 1891 as two shafts, each 7½ ft. diameter and 198 ft. deep with 398 yards of ventilated roadway. In 1894 it employed 10 persons (6 underground), but seems to have been replaced shortly afterwards by the Hydraulic Pit.

Ray Rushton has pointed out that this Pit is shown on the 1885 OS Map 1:2500 scale, connected to the Snedshill Brickworks by a tramroad running along Stafford Street for about 400 yards. He can remember being told that a Johnny Roscoe pushed the wagons by hand along this track. Roscoe was bent double and the toes of his shoes pointed upwards as a result of constantly walking and pushing in this manner.

3. Hydraulic (Snedshill)
SJ 702 105

First recorded about 1900, worked fireclay from above the Fungous Coal seam, one of the seams highest in the productive sequence in the Coalfield.

The Geological Survey Memoir in 1928 give the section as Top, Common Clay 3ft., Black Clay (no good) 9in. and Bottom Clay (best) 3ft. 9ins.

The Special Report on Mineral Resources Vol. XIV in 1920, says that the mine was "now abandoned" but that the "dumps are large" (16,000 tons) and "still being drawn upon". The mine had then, the only known aerial ropeway (bucket conveyor) in the District. It seems to have operated from about 1910 to 1925.

The mine employed 19 (15 underground) in 1905, 20 (15) in 1916 and 10 (8) in 1916.

A miner, Frank Ferriday, age 24, was killed in 1911 when a piece of rock "4ft. long by 2ft. 4in. by 14in. thick" fell on him. He was opening up an old airway.

4. Ketley Fireclay Pit
SJ 692 105

First leased by the Company about 1910 in an old mining area on the "South side of Shrewsbury Road, opposite Oakengates Holy Trinity Church" (Lat. 52° 41' 30", Long 2° 27' 30") according to the Special Report referred to above.

The report adds that the shafts are about 150ft. to the Clunch seam. Water was a problem and "pumping machinery" was in use in 1920. The clay was worked by the Longwall Method. It was a very "high-grade" clay found beneath the New Mine or Clunch Coal seam. Here the coal was 2ft. thick and clay 6ft. thick.

The mine employed 5 workers (2 underground) in 1914, 12 (4) in 1915, 6 (4) in 1916, 16 (14) in 1917 when Hydraulic Pit closed., and none by 1920. There was evidence of surface buildings on site in the 1960s.

Snedshill Works

By 1920 the works was concentrating on glazed bricks and tiles, and sanitary ware. It always had difficulties in obtaining high grade fireclays and had to buy in from other companies, particularly Wrekin Coal Company and other small mines around Ketley. They also began to buy in opencast-mined clays and to stock them at Snedshill.

After a while however, this did not prove successful.

Footnote

The Lilleshall Company operated several other clay quarries in the area, mostly working the red marls.

In 1850 they were listing White Brickworks, Woodfield Brickworks and Rookery Brickworks. The latter became their principal Brickworks at Donnington Wood. Later in the 19th Century only Donnington and Snedshill were at work.

Donnington Brickworks was notable because it had an 1876-built, 100ft. diameter Hoffman "Umbrella" kiln and about 400 yards of chain powered narrow gauge railway. (see "East Shropshire Coalfields", published by Tempus, page 85.)

It operated until 1971, but the quarry was re-opened for a time in the 1980s. Official statistics show that 31 were employed in 1896, 6 men were employed in the quarry only in 1911, 6 in 1918, 9 in 1928, and 8 in 1937.

Further Reading

W.K.V.Gale & C.R.Nicholls, "Lilleshall Company History 1764 - 1964".

Bob Yate, "The Lilleshall Company", Irwell Press 2008.

I.J.Brown, "East Shropshire Coalfields", Tempus 1999.

N.M.Dawes, "History of Brick & Tile Production in Coalbrookdale Coalfield", MS IGMT.

Geological Survey, "Special Reports on Mineral Resources, Vol. XIV", 1920.

Geological Survey, "Wolverhampton & Oakengates District", 1929.

Appendix: Where did the name for the area "The Hydraulics" come from?
Ivor Brown

The pit named 'Hydraulic' has been mentioned and has raised discussion as to where this name came from. The writer's personal theory is that it could be associated with the Day Level Sough, which must pass close by. This sough could date back in parts to the early 1700s, it outfalls near the Globe Theatre/Public Toilets close to the C.O.D. Donnington.

The section of the sough between Pudley Hill Pit and the Nabb Pits passes under Mumpton Hill (now known apparently as the Albion Pit) and the Hydraulic. The writer's theory is that there could have been an Hydraulic Lift here, using the weight of water in a barrel going down to pull a box or some other arrangement with contents up from a shaft.

There are a number of water 'tanks' and 'reservoirs' shown on the OS Maps of this area which could have supplied the water. One large buried tank survived at least until the 1970s, when the writer saw it.

An incident was reported to the Telford Corporation when the writer was there, in that a child had "nearly fallen down a shaft", but it was found that part of the cover of the 'tank' had fallen in. The problem was therefore passed to someone else to solve.

Other suggestions for the source of the name 'Hydraulics' for this area would be welcomed.

Mr. J.Cooper of Oakengates has suggested that the Geological Survey mentions that the clay from this area is suitable for use in hydraulic (sets under water) cement. This could have given rise to the name. It is known that it was used for lining the very wet Greyhound Railway Tunnel nearby and local hydraulic minerals from Lilleshall mines were used in building Liverpool Docks.

The writer would like to thank Ray Rushton and Jim Cooper for their help with this article.

Pozos de Nieve in the Sierra Espuña - A Spanish take on Ice Houses, Andy Wood

About an hour's drive inland from the mining area of Cartagena/La Union in the Spanish province of Murcia, or about 45 minutes now a new dual carriageway has been completed, lies the Sierra Espuña mountain range, peaking at over 1,500m. Now a Regional Natural Park, much used for recreation especially in the hot summer months, it was denuded of trees - cut down for shipbuilding in the 18th century but has been re-forested largely due to the efforts of one 19th century man, Ricardo Cordorniu.

On the higher slopes lie the remains of around 25 Pozos de Nieve, or snow pits – very similar in principle to an ice house. These date back as far as the sixteenth century and were for storing large quantities of the snow that fell during winter; it is estimated that these pozos could hold up to 25,000 tonnes of ice! Although known to the romans, it is thought that the Moors may have imported the idea of using ice for preservation and cooling drinks but, until the development of refrigeration in the 20th century, there was the small problem of storage and distribution.

The ice business became a major industry, so much so, that it became a source of tax revenue to the landowners. It employed hundreds of workers, some who lived in the mountains and others responsible for distribution by mule or cart. Although travel was preferably at night, on the way to delivery points on the coast, it was usual to lose more than a third of the cargo as it melted.

Each pozo was a cylindrical stone building sunk deep into the ground with a couple of opposing openings at ground level for access and a domed roof of stone or tile. They tended to be located on the north face of the mountain, to avoid direct sunlight and in a position that made gathering the snow as straightforward as possible. Dimensions ranged from 6-12m diameter and up to 20m high.

The walls and floor might be lined with straw for insulation, then snow was tipped into the pit and trampled to compact it into layers, separated by straw. Provision was made for drainage of any meltwater at the base and the pozo gradually filled with snow and ice. When ice was required, blocks would be cut out, wrapped in insulation and delivered.

There is a cluster of 7 pozos at about 1,400m, two of which have been restored to give a better impression of what the originals were like. There are also the remains of some of the workers' houses.

Above: A pozo complete with domed roof.

Above: Restoration in progress on another pozo.

Above: spiral staircase inside. The original would probably have been made of wood. (Pictures: Andy Wood)

Still a Cave, Treshnish, Mull

Andy Wood

There is an excellent and invigorating walk around the Treshnish coast on the northwest corner of Mull. The coastline is spectacular with cliffs falling down to a rocky shoreline and stunning views out to sea and the Treshnish Isles. The seaward part of the circular walk is mostly across a grassy 'raised beach' with cliffs soaring high above. This, aeons ago, really was a beach when sea levels were considerably higher and the feature is quite common around the western Mull coast.

Left: Typical 'raised beach', on the Treshnish coast.

Below: The cave entrance.

Below: View out of the cave - good for spotting marauding customs and excise officers!

At a particularly isolated spot, there is a narrow defile in the cliffs leading down to a small shingle beach, an apparently unremarkable cove. However, it is the site of a well-sheltered cave. At the back of the beach, half hidden behind a grassed over rockfall, there is this unassuming cave which contains the stone foundation of an illicit whisky still. Allegedly, it produced the 'best whisky in Scotland' - whether or not this was the case it would certainly have been among the cheapest if it was tax free! Owing to its isolation and largely hidden from view from the sea, it must have been an ideal location for this business.

Above: Remains of the Still base inside the cave.

A little further down the coast, there is a small waterfall cascading down the cliffs from above and a steep, narrow path leads up to the remains of two small highland villages, Crackaig and Glac Gugairidh. Although typical of so many abandoned during the clearances, Crackaig is unusual in that it was a typhoid epidemic that was its downfall; obviously copious amounts of cheap whisky were inadequate protection against the disease!

Left: The abandoned village of Crackaig.

Pictures: Andy Wood

New Zealand Coal Mine Disaster

Roger Gosling

The success, at the end of 2010, of the rescue of the 33 miners from the San Jose copper mine in Chile, has been tempered by the fate of the 29 miners in the Pike River coal mine, near Greymouth, on the west coast of South Island, New Zealand.

On Friday 19 November there was an explosion in the mine and shortly afterwards two survivors emerged from the adit entrance. At that time there was hope that the other 29 miners (who ranged in age from 62 down to a 17 year old on his first shift underground) may have somehow survived. We now know that was not the case. Two of the miners killed were from Scotland, Peter Rodger, 40, from Perth, and Malcolm Campbell, 25, from St Andrews.

Daniel Rockhouse, one of only two survivors, was blown off a loader when hit by the blast. It is believed that he was working in a side tunnel off the main access route and this shielded him from the full force of the blast. Russell Smith, a coal cutter, had been late for work and was driving into the mine, he was found semi conscious about 15 m from his vehicle by Daniel and the two then took at least an hour to make their way out of the mine along the dust-choked tunnel. No contact could be made with the 29 miners still inside.

The fact that the mine had 'gas problems' was well known before the blast (there was a report of 'gas' from the shift before the explosion), modern ventilation systems had been installed in the mine to control this.

However for some reason, yet to be ascertained by a Coroner's Inquiry, a Department of Labour Inquiry and an NZ government Royal Commission of Inquiry, a considerable quantity of flammable gas exploded.

A further blast five days later on Wednesday 24 November, followed within the next 6 days by 2 more explosions, effectively ended any hopes of rescuing the men.

The fourth explosion was more violent than the second and third, and at the end of November a "pillar of flame shot out of a mine ventilation shaft. The change in the smoke indicating that it was no longer a gas fire, and had become a coal fire. Initial attempts to seal the mine and starve it of oxygen by the use of expanding foam were unsuccessful as the foam had also caught light !

Initially it seems that immediate rescue attempts were inadequate, due to extreme caution about poisonous and flammable gasses. Control of the rescue attempts were in the hands of the NZ Police and other Government agencies, a completely different strategy from the more normal "Mines Rescue" services around the world.

The mining company has stressed that the safety of the people involved in the recovery remains a priority and this will continue to be a priority through the entire operation. The recovery phase will continue to involve a team of specialists with a wide range of expertise.

The current plan to control the fire(s) is to use a machine known as the Gorniczy Agregat Gasniczy (GAG) unit. This has been flown into the mine from Queensland, Australia and is to be used to pump inert gasses into the mine.

Where were the Miners?

The miners were assigned to an area at the far end of the workings.

A hole drilled into the area near where the miners were working on 23 November encountered potentially deadly gases. Hot air and gas rushed through the hole when the chamber roof was punctured and initial tests showed it was "extremely high in carbon monoxide, very high in methane and fairly low in oxygen". It was very likely that the initial explosion was caused by ignition of a high concentration of methane.

The mine is a relatively new venture, production of coal only starting as recently as 2008. It is New Zealand's largest coal mine and employs some 150 people (NZ has four currently working coal mines employing a total of about 450).

The mine accesses the Brunner coal seam 7m thick about 150 m below the surface and the Paparoa coal seams below. The access tunnel to the main workings is 2.5km long under the Paparoa (mountain) Ranges; the Hawera fault, through which methane

New Zealand Mine Disasters

1879: Probable gas explosion kills 34 men and boys at Kaitangata mine.
1896: Suspected gas explosion kills 65 men at Brunner mine, near Greymouth.
1914: Gas explosion kills 43 men at Ralph's mine in Huntly.
1926: Explosion kills nine men at Dobson mine, near Greymouth.
1939: Carbon monoxide asphyxiates 11 men at Glen Afton mine in Huntly.
1967: Gas explosion kills 19 miners at Strongman mine, near Greymouth.
2010: Explosions at Pike River mine, near Greymouth, are believed to have killed 29 miners.

Note: previous accidents at other Greymouth mines.

New Zealand Coal Mine Disaster
continued ...

What is a Gorniczy Agregat Gasniczy Unit?

The GAG is a "jet engine inertisation unit" developed for use in mines, controlling and suppressing coal seam fires and neutralizing firedamp.

The unit was designed in Poland in the 1970s, and roughly translates as "Mining Apparatus Extinguisher".

A GAG 3A unit was developed by the Queensland Mines Rescue Service, in association with the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

The GAG unit emits carbon dioxide, nitrogen and water vapour. The gases lower the oxygen levels, suppressing fires, and forcing methane out of the mine. A unit is capable of pumping a volume of 25 m3/s, creating levels of less than 1%

gas is known to escape, is between the entrance and the working area.

Pike River is just 20km from the Brunner mine, where 65 died in 1896, and had the same gas issues.
New Zealand Mines Minister Gerry Brownlee has promised action over how the industry was regulated following the explosions at Pike River. The government and Pike River Coal have come under criticism with concerns being expressed about the known high levels of methane generated by the rich coal seams in the mine.

There have also been criticisms that the range of survival equipment within the mine - it had no security cages and no stores of food, fresh water, long-acting self-breathers or emergency lighting and-was below the standards of Australian coalmines. There is only one entrance to the mine

Some local and Australian observers have criticised the fact that, unlike in Australia, where mining companies were in primary charge of dealing with a mine crisis, in New Zealand, the rescue operation was put in the hands of the top police officers in the region.

Follow-up

Since initially writing this article (in early December) there have been some developments.

The main highlights are that the fire was eventually put out by using the GAG unit on loan from Australia.

However several hot-spots were thought to remain in the mine and the atmosphere inside was not safe for people to enter.

The Mining company has gone into receivership. Greymouth District Mayor Tony Kokshoorn has written to the Pike River receivers asking them to consider raising money from shareholders for a rescue operation to recover the lost miners' bodies. He said it was common knowledge that the atmosphere in the mine was now inert and, while there were concerns about its structure, he believed the real problem was who would pay for the recovery.

There have been several attempts at sending in robots to check the condition of the bodies in there, but as yet none of the robots have made it far enough in. There is considerable pressure from relatives of the dead miners on the mine company to recover the bodies.

On 18th February, New Zealand's Prime Minister John Key said the Pike River coal mine where 29 men died in November will be sealed. Key defended a decision by the police to abandoned efforts to recover the bodies of the men. According to News Core, Key said it was a very tragic end for the families but recovering the bodies is just not possible. He said the mine would be sealed and there was no chance of recovering the remains of the miners.

However it seems that recovery attempts will continue; the most recent attempt was to have been in last few days (25th February), but as a result of the recent earthquake in Christchurch, the robot has been sent to help in the rescue efforts there instead.

References

This report has been compiled from various sources on the internet. I have resisted the temptation to write my own opinions and the information is based on the writings of experts and newspaper reporters.

Prime sources of information were:

www.pike.co.nz

www.nzherald.co.nz

www.miningaustralia.com.au

www.theaustralian.com.au

www.dailytelegraph.com.au

www.telegraph.co.uk

www.bbc.co.uk

PIKE RIVER COAL

THE SHELVE AND MINSTERLEY DISTRICT, SHROPSHIRE.

BY MR. JASPER MORE, M.P.

MISS LAWRENCE'S MATERIALS.

As An honourable exception to those who have not preserved memorials of the district must be named Miss Lawrence, of Shelton Villa, Pontesbury, the descendant of a family who worked the whole of the district including the coal, beyond Pontesbury for 250 years before 1830. She wrote the letter to me, which was published in The Mining Journal of March 26, the day of the Oxford and Cambridge Boat Race. On the same day I received a letter from Mr. Barratt of Greenbank House, Liverpool-road, Plattbridge, Wigan, whose father lived at the mine then called the Batholes, and afterwards was known as the Wood Mine, or East Roman Gravels, and is now the Hope Valley Mining Company, saying he remembered Miss Lawrence's father as a grand old gentleman, which character is fully confirmed by his interesting reports on the Bog and South Bog Mines, the latter since called the Rock Mine, from which, after it had been worked by Mr. Gledhill, who accompanied me to Turkey in 1876, the engine put in by a Leeds company was so foolishly removed. Mr. Gledhill afterwards managed the Tolima Mine, in South America, which has since been a paying silver mine, though hampered by the difficulty of transit for the metal. In Mr. Lawrence's report, when he was retiring, will be noticed that spirit of loyalty to his old landlord, Mr. Lyster, which was conspicuous in its absence. When London speculators tried to put on the royalty the blame which should more properly have attached to those who neglected to try new ground, whilst Sir Roderick Murchison says there were 30 proved veins in Shelve, which he calls the most highly veined district in the world. The want of keeping mining records has been remedied by the Government preserving plans of mines which have stopped working. The underground plans of the workings of the Bog and South Roman Gravels are thus to be had at the Home Office, the top storey of which is devoted to the preservation of mining records. They can be copied and published.

Mr. Wilkins, who was the first secretary of the Geological Society, and afterwards secretary of the Society of Arts, contemplated publishing a history of the mines of Shropshire, as well as a mineralogical survey of the county in 1819. He required subscriptions for the purpose, but they were not forthcoming. He placed his material at the service of Sir Roderick Murchison, who first became acquainted with the neighbourhood about the time the Lawrences's retired. He continued the history of the district to 1839, and in the appendix to the Silurian system he gives a report of the mines after the time of the Lawrence's, when Mr. Walker (afterwards Sir Edward) and Mr. Crop, of Chester, bought and worked out their leases of the Bog Mine. It is remarkable how little their history has been used in the district, chiefly no doubt because the work is an expensive one, and behind which is concisive account, and does not go so fully into the details of the district. Mr. Hunt, of the School of Mines continues it in his well known work (pages 27, 252, 255, 256), and Philips and Lewis give a fuller account (pages 263 to 265). There if no descriptive account of Shropshire yet in connection with the Ordnance Survey, which in approaching it both from the north downwards and the south upwards.

The following is the report of Mr. Lawrence, after an experience of his family in the district since the days of Queen Elizabeth. He gave up as was stated, through lawsuits between his family and the 32 Shropshire men who drove the Leigh Level to un-water the whole district, 2000 yards.

THE REPORT OF MR. J. LAWRENCE TO THE PROPRIETORS OF THE SOUTH BOG MINES.

GENTLEMEN,- having heard of your taking the above grant, I beg as an old miner, and feeling anxious for your welfare, to offer a few remarks on the mine and district; which said mine I commenced myself about 30 years ago, and succeeded in getting up-wards of 100 tons of lead ore of an excellent quality, though only partially worked by me, owing chiefly to my then having a considerable extent of different lead mines on the same estate — namely all the Old Bog Mine, the Bog Rock, and the Ritten Castle, &c., Mines, as well as the present Bat Holes, Wood, and the Shelve-field, &c.; Mines, in Lord Tankerville and Mr. J. A. Lloyds' pro-partier, which most assuredly in a great measure prevented my perseverance at that time in making researches that I fully intended doing in this identical district you have so wisely selected, and I assure you that about the time I was working there intended disposing of the greatest part of my shares in the Old Bog Mines, having the fullest wish possible to be enabled to work the most worthy landlord's (Rock) South Bog Mine more effectually, as his late father, and now himself is most deserving of any exertion by any company for

their benefit in every respect. But I then made a full determination of retaining for myself the entire district you have now taken, having then and still continue having the highest opinion of that portion of the said hill, having the most and best appearances to contain a number of strong veins, and I have no doubt or hesitation in saying they are exceedingly likely to produce large deposits of lead ore, &c., and my intention then was to drive as deep a level as I could get at the western boundary. Eastward toward the said Rock Mine (South Bog Mine), and also a few shallow ones to cross them between the said mine, as all the lead mines that have been worked in the county of Salop, as well as most others, are chiefly observed and proved to bear, or have their greatest deposits of ore on the north-western side of every hill, let the course or direction of the vein be either east, west, north, or south (or either being nearly to). And a great portion of your land is entirely on the north-western side and end of the long range or chain of the Stiperstone Hill, which extends for about 6 miles in a direction nearly from north-east towards south-west, and all the strong veins about south-eastward to the said range of rock ; and traverse over on the other side of the same, still south-eastward, which land is in your grant, and I have not the least doubt but large deposits of mineral will be found there also, and prove by being explored a most valuable property ; also in that direction an entire change of measures takes place, more in appearance of copper, and these veins continue strong across that country. But all lead veins yet found that do abut to and against the said range, for it seems to act as the great whale's back bone for them, from whence proceed, or their bearings for lead ore strengthen a great number of veins taking their course and direction, some from east to westward, and others south to northward across the country. But hitherto in depth all pipes or grand deposits of lead ore have been found to throw down and bear far best on the north-western side in all our hills, I have always found it so in my own experience, and assisted by the experience and judgment of my forefathers for many ages past, for four or five at least, whatever more ; and still there has been, and is now, and will be yet to come, ore for all ages, but not for all men to find, though trying and seeking hard for it as I have done. But, perhaps, few families like mine for centuries to come will remain in the same profession as master miners, as we have done, and contribute so largely to such numerous mine works, in driving so many deep and long levels, in sinking many deep shafts, and raising the immense large quantities of lead ore we have. Still, leaving plenty of space and likely ground for others to follow us, and although our family have done a deal of work in the following different mines, some have proved of great use and benefit to our-selves, and some greatly to other adventurers, most grandly, which I feel great pleasure in living now to see at my old age. But it has been chiefly proved that the many puts we made few can be said to be done with bad judgment, being then in much darkness, as considered now, as to where the treasure lay. I beg to say still I sincerely hope and trust my humble judgment and opinions may prove to you of some little service, taken with due consideration from the long experience I have had in this country, as my intention by these remarks is not to deceive you, but to endeavour to serve you justly and faithfully in a kindly, sincerely, and well-disposed manner, and with such a capability as my time of life affords me, as it would be to me great pleasure to see your company successful in this undertaking for your own interest and for the good of the country, and even more especially for the welfare and benefit of your most worthy and good landlord, Henry Lyster, Esq., whose family always met and grant their leases of mines on much better and cheaper terms of royalty than any other family in this country.

I must say in conclusion, that taking the district altogether and comparing one with the other, having the great Stiperstone Range, which may be termed the back of the lead measures of this part of the country, all the lead mines that have been opened under and westward of the Stiperstone Range, as yours is, has been found very rich with lead ore, and the whole, I may say, without exception, made large deposits of lead ore at or near the surface, commencing at Snailbeach, from thence to the new venture in the joint leadership and onward to Burgam and the Oven Pipe, Potter's Gin Pit, Pennerley and Bog, and the Rock South Bog being in the same run and only a little or nothing done there, any more than a small opening on one of the several veins in the district ; I should say it is more than probable that large deposits of lead ore will be found at a shallow depth within the South Bog Mine Grant.

I conclude with my best wishes of success to you in this new undertaking, sufficient to make you all rich and happy.- Gentleman, I am, your obedient, humble servant, most sincerely.

JOHN LAWRENCE.

Pontesbury, Salop, January 10. 1853.

Geological Section Mural
Queensway, Oakengates

On page 12 of this issue Ivor Brown mentions the stylised geological section of the Oakengates area on the Queensway, at Oakengates.

While it has been seen by thousands as they speed past, it is well worth taking a diversion into Oakengates and looking at it from the road bridge leading to Wrockwardine Wood, over the Queensway.

It's probably the largest piece of 'geological' art in Britain (unless you know of somewhere else?).

Above: View of the mural looking West from the New Road/Station Road bridge, Oakengates.

Left: View of the mural looking East from the same bridge.

Below: Detail of part of the mural, it does have a 3d quality !

It's very impressive, although I wonder how many passers-by realise what it represents? It must, however, strike a chord with people, as a few years ago when some of the tiles were falling off and there was talk of removing it, there was an outcry and the council ended up repairing it.

"Round house kiln and Cinder Hills" (the Round house was a glass cone, later converted to a dwelling, both it and the large cinder hills near it, were removed long ago).

Dawley Bandstand

As part of the regeneration of Dawley, Telford a new bandstand has been built in High Street.

Around the bandstand are a number of large panels featuring historical Dawley events. These include the "Pig on the Wall", one commemorating Captain Webb - the Channel swimmer, another the

On the side of the bandstand facing the High Street is a panel commemorating the Springwell Pit Disaster, listing the names and ages of the miners killed when the rope broke. The men are buried in a communal grave in Dawley Churchyard.

Left: The Springwell Disaster panel.
Top: The new bandstand.
Pictures: Kelvin Lake - I.A.Recordings

News Round-Up 2 and Library

Coal Production Up

In January the UK's largest coal mining firm says it has increased production over the past year despite disruption caused by a gas explosion at one of its mines.

The firm reported on Monday that it had extracted 7.2 million tonnes in 2010, a 3% increase on the previous year.

The Doncaster-based company originally aimed to produce 7.3 million tonnes of coal in 2010. But it suffered a set-back in November when it had to shut its Kellingley pit for 3 weeks, after a methane gas explosion in 23rd November. (More than 200 miners were brought safely out of the pit).

Employees at Kellingley and the company's other two deep mines, at Daw Mill near Coventry and Thorsesby in Nottinghamshire, worked extra hours over the Christmas period to try to make up for the shortfall.

Total production from deep mine operations in the final quarter of 2010 nearly doubled to 1.8 million tonnes, compared with one million tonnes in the same period in 2009.

The 5.8 million tonnes produced from deep mines in the year was slightly down on the six million tonnes the company said it had aimed to achieve earlier in the year.

UK Coal's surface mines - at locations including Steadsburn in Northumberland, Cutacre in Bolton, Lodge House in Derbyshire and Long Moor in Leicestershire - experienced a slight increase in production in the quarter, from 400,000 tonnes to 500,000 tonnes.

UK Coal bought the English assets of British Coal for £815m in 1994, when the state-owned business was privatised. It owns around 30,000 acres of agricultural land and is in the process of selling 8,000 acres of this to property developers.

News Reports, Jan. 2011

Shaft to be Grilled

A metal grill is to be installed over a mine shaft at Droskyn Point, near Perranporth, Cornwall, where an 11-year-old girl fell to her death in August last.

Eleanor Clarke, from Hampshire, fell about 30ft (9m) down shaft near an adit entrance, suffering fatal injuries.

Engineers will abseil from the top and drill holes in adit where they will install the metal grill.

The local council say they did not want to "close everything off", adding: "The beauty of this place is it is wild, but this was one of these cases which I think was exceptional enough that we decided to act upon it."

Exchange Merger

In February, the London Stock Exchange (LSE) has agreed a merger with TMX Group, which operates the Toronto Stock Exchange.

The merged group will keep headquarters in both London and Toronto and become the world's largest exchange for mining companies.

More than 6,700 companies will be listed on the combined exchanges, with a market capitalisation of about £3.7 trillion ($5.9tn).

Peruvian Protest

Police in Panama have clashed with dozens of indigenous protesters trying to prevent copper mining on their ancestral lands, which would spoil pristine rainforest areas..

Members of the Ngobe-Bugle group occupied a bridge on a main highway on the outskirts of Panama City.

Lawmakers last week approved a law which opens up the western Ngobe-Bugle reservation to foreign mining projects. The government has already opened for tenders a copper deposit in Cerro Colorado, in Ngobe-Bugle territory.

News Reports, 19th Feb. 2011

Opencast Rejected

Plans to develop an opencast mine in County Durham have been rejected by councillors following an "overwhelming" campaign of opposition.

Planners had recommended approval of the UK Coal proposal for a site between Dipton and Leadgate. But at a meeting on Tuesday 15th February opponents presented Durham county councillors with a petition signed by 3,000 people.

A representative from UK Coal said the firm would "consider the decision". It still has the right to appeal.

It is the third time since 1986 that the site has been subject to similar applications.

Library Additions

Stone Chat, Vol. 31 No.2. Winter 2010-11

Cave and Karst Science, Volume 37, No.1 2010. Contains 3 articles: on cave spiders in Lesser Garth Cave, Cardiff; Derbyshire pipe veins, and BCRA Cave Science Symposium.

Speleology - The Bulletin of British Caving, Issue 15, July 2010. Contains a number of reports on caving trips around the world, plus conservation activity in Derbyshire.

Mendip Caving Group News: Number 361, March 2010. Number 362, May 2010. Number 363, August 2010. Number 364, November 2010.

Subterranea Britannica, Subterranea, Issue 25: December 2010 - articles on Sub Brit's Cornwall weekend, a trip to RAF Laabruch, Ewell House Tunnels, and Underground in Arizona, New Mexico & Texas. Thames Tunnels, trips to bunkers in Sweden, Maastricht and West Germany, plus a short item on long canal tunnels and Scottish oil.

Madeley Mining Disasters

The talk given by the writer to the Ironbridge Gorge Museum Friends Group on 24th November 2010 seemed to go very well. It was primarily to mark the 200th Anniversary of the Meadow Pit Disaster (January 10th 1810, four killed by "burning") and the 100th Anniversary of the Kemberton Pit Disaster (December 4th 1910, seven killed when the cage fell down the shaft).

Nearly 90 persons attended including a contingent from the Shropshire Caving and Mining Club. All five known Madeley disasters were described but with the emphasis on the Kemberton incident, the last mining "disaster" (three or over killed) in Shropshire.

Club member Kelvin Lake had produced an excellent power-point presentation with moving images and Alan Taylor had constructed a full-size cage for demonstration purposes. At the end of the talk six Club members attempted to show how the miners travelled but failed to get all arms and legs into place (see photo).

A point was made during the talk of the use made of memorial cards and 'ballads' after a disaster to raise money for the dependants Three verses were read of the Meadow Pits 'ballad' (11 verses long) and Iris Brown sang the Kemberton Pit 'ballad' (4 verses of the 9). Ballads were made long so that as much time as possible could be given to bringing the audience to tears and extending the collection time.

The Kemberton ballad was sung to the hymn tune 'Hyfrydol' by R.H.Pritchard (1811 -87), the tune for "Alleluia, sing to Jesus" and other hymns. This was researched some years ago by former Club member, Boo Vernon.

The Madeley Local History Project Group, Madeley Parish Council had printed copies of the writer's talk as a booklet (12 pages, well illustrated). Additional copies were also prepared by the Museum and these were available after the talk. Copies are still available by application to either organisation.

In addition to all the above the Museum had put on display the Miners' Union (Shropshire Branch) banner and distributed copies of the original Kemberton Pit Disaster Ballad.

The speaker is indebted to all the individuals and organisations mentioned above, and to all others who attended for helping to mark this important anniversary in the life of Madeley.

Ivor Brown

IJB too late to catch the 'bond'. The cage is more than full with 6 SCMC members, 24th November 2011.

I.J.Brown collection

The Lead, Copper & Barytes Mines of Shropshire

By Michael Shaw, Logaston press.

While SCMC publications have often carried articles about the various mines covered by this book, there has long been a need to try and pull everything together into a coherent publication. In this aim Mike Shaw has been very successful.

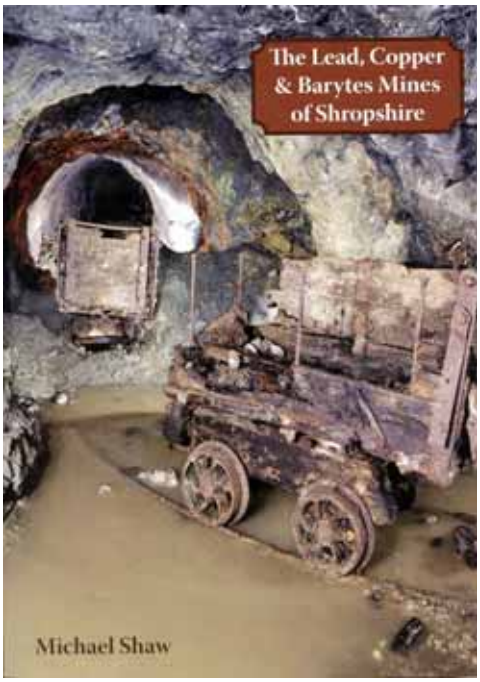
He has spent years researching records and books, talking to surviving miners, members of their families, SCMC members and tracking down original documents and the sites of numerous mines - many of which only lasted a year or two!

The first few chapters cover the early mining history of Shropshire, the products and processes, before delving off into the different mining areas and covering the mines in more detail, so it will have general appeal.

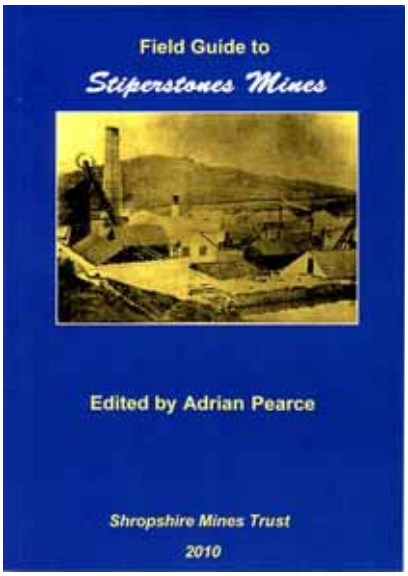
There are plenty of interesting snippets and facts to keep 'enthusiasts' engaged. This excellent publication is a must for anyone interested in Shropshire's mining history.

ISBN: 978-906663-09-4
Softback, 320 pages, over 200 b&w photographs, drawings and plans.
Price £12.95.

Available from Mike Moore



Books and Videos



Field Guide to Stiperstones Mines, Shropshire

Edited by Adrian Pearce, A5, 60pp
Price: £6.00 inc P&P

Published on behalf of the Shropshire Mines Trust, This pocket-sized (A5) book provides an introductory field guide to the mines of the Stiperstones area.

Snailbeach is world famous however other mines in the area are also worthy of a visit. This guide describes 12 of the 'main' mines in the area, giving the NGR of each, along with advice on any access restrictions the visitor may face.

There is also a potted history of each site, with photographs and notes about the surviving remains. There are a number of mistakes which should have been corrected before going to print, such as technical descriptions ending in mid-sentence.

The book is designed for a non-technical visitor to the area to be able to spend a day driving around to see each site and in that respect it will achieve it's aim.

Price: £6.00 inc P&P

Available from the Miners Dry Visitor Centre, Snailbeach or Mike Moore at Club meetings, or online at **www.moorebooks.co.uk**

Ratgoed- A Study in Slate, The Quarries, the Tramway and the Social Life of a Merionethshire Valley

By Sara Eade, SB, A4, 132pp full colour photos - cost £15.00 + P&P

This is one of the best books I have seen for a while, it is well researched, contains excellent photography and is everything it says on the tin. This is not just a run of the mill photographic volume, it has a clear logical text throughout.

The photos are mainly in colour with some archive black and white archive pictures. A very well produced book, easy to read, and a bargin at £15.

Mike Moore

Glengowla

A tour of Ireland's first show mine

Glengowla lead mine near Oughterard, County Galway in Ireland started in 1851 and mining was suspended in 1865. During that short 14 year period, 545 square metres was stoped to produce 390 tonnes of lead containing 28 kilograms of silver.

Today the mine is rich in what was left behind by the miners.

Underground, many artefacts can be seen, including ladders, pump rods and pipes, pulleys, windlasses, guide chutes and timbers.

There is also a scintillating variety of minerals: Marble, dolomite, quartz, calcite, barite, sphalerite, chalcopyrite and very rare blue/green octahedral fluorite. Vugs large and small are lined with gleaming crystals.

On the surface, the powder magazine, blacksmith's workshop and the agent's cottage have been restored and the stables is a museum featuring mining history, minerals from this mine and all over the world and items rescued from the mine.

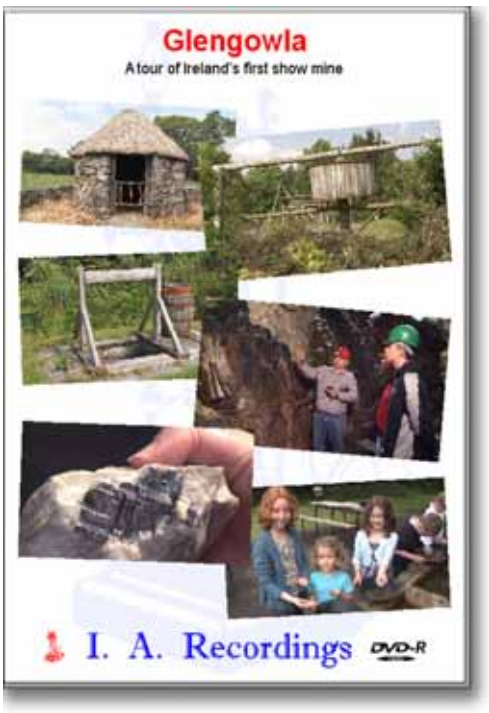
A hand windlass and a horse-gin have been constructed over the shafts where they had originally been used.

The mine is owned by the Geoghegan family who have done an astonishing amount of work to stabilise the surface, pump-out the mine, build steps to give access to the upper workings, and repair the buildings.

This DVD shows highlights of the underground tour, then goes even deeper to show what might be seen in the future!

Extra chapters feature Dr. Matthew Parkes telling us what is special about Glengowla Mine, Dr. Martin Feely describing the fascinating geology of the area, and a tour of the mine museum with Paddy Geoghegan.

£12.95 DVD
(£10 to Club Members at meetings)



for details of availability visit: **www.iarecordings.org**

Club Officers

President: David Adams

Chair: Neal Rushton

Vice-Chair: Tony Wilson

Secretary: Andrew Wood
scmc.secretary@factree.org.uk

Treasurer: Marian Boston

Training Officer: Ian Davies

Conservation & NAMHO Rep: Steve Holding

Membership, Insurance & BCA Rep: Mike Davies

Tackle: Andy Harris

First Aid Officer:

Bat Officer: Mike Worsfold

Rescue Officer: Neal Rushton

'Below' Editor, Publications: Kelvin Lake
e-mail: scmc@factree.org.uk

Diary Dates 2011

4th - 5th April: Conference on Geological Collectors & Collecting, organised by the History of Geology Group, affiliated with the Geological Society. At the Flett Theatre, Natural History Museum, London. For more information contact: Nina Morgan **ninamorgan@lineone.net**

8th - 15th May: 12th International Cave Rescue Conference, Bulgaria.

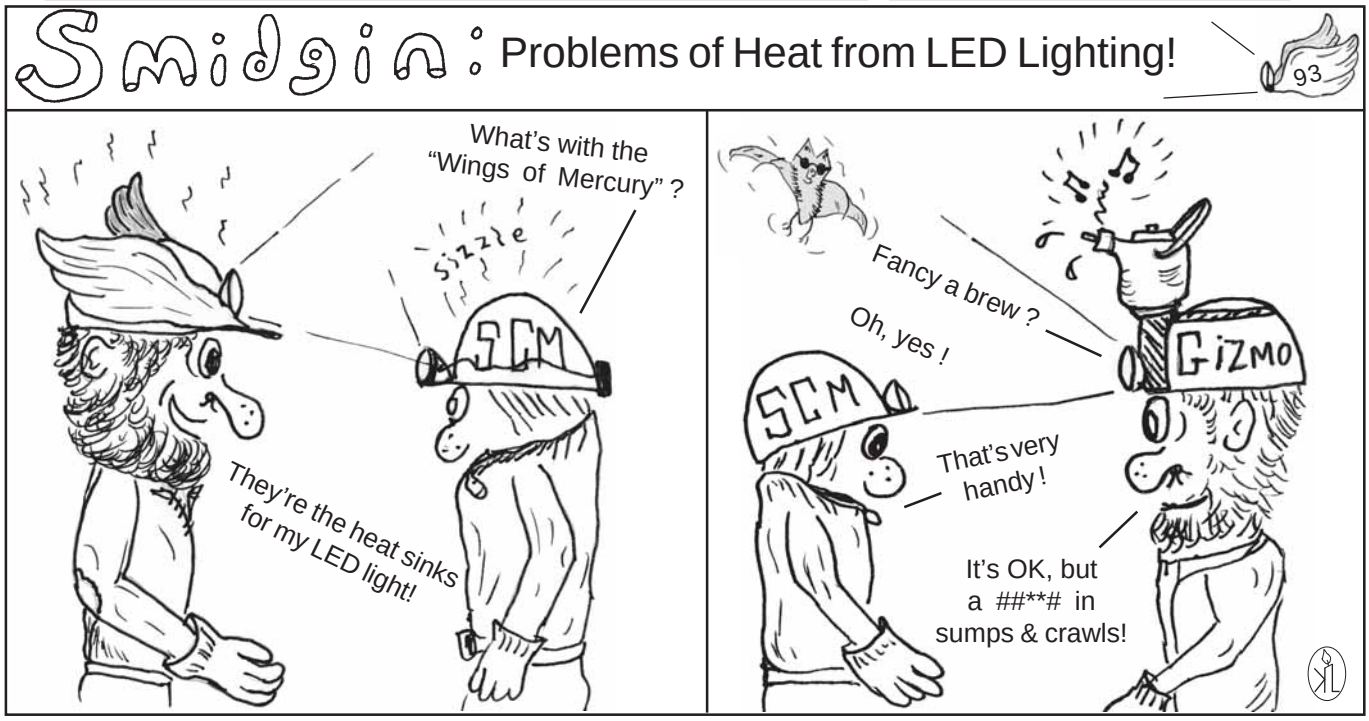
18th - 22nd July: NSS Convention, Glenwood Springs, Colorado, USA.

29th July - 1st August: NAHMO Conference, Preston Montford Field Study Centre. Plus events in the following week.

15th Sept.: "Digging for Telford in the 60s and 70s", talk by Ivor Brown ot the Friends of the IGMT and will also mark the Club's 50th Anniversary.

Sept. 2011: 50th Anniversary of the Club.

Sept. (End): "Hidden Earth", the UK's National Caving Conference and exhibition. Date and venue to be announced - probably in South Wales.



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