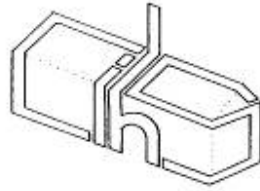


Cumbria Industrial History Society



BULLETIN

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DECEMBER 2015



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EDITORIAL

Another successful year for the Society has passed and you will see from this edition of the Bulletin that the committee has started to arrange a wide ranging programme for the coming year. However the committee is starting to find it more and more difficult to find both suitable places for visits and also topics, locations and speakers for conferences. If you have any ideas for an event speaker etc. please let one of the committee members know.

As I sit here we are experiencing another very wet Saturday and although at present the chance of significant flooding does not look likely, at least in the north of the county around Carlisle, there has been significant flooding the previous weekend. This flooding will have had significant damage on some industrial sites. The well publicised damage of the loss of the bridge at Pooley Bridge and one of the bridges on the Penrith to Keswick railway between Threlkeld and Keswick are known about. But if you know of any other sites that are damaged please let the editor know.

I must apologise for the poor printing in some of the last Bulletin, this was due to a combination of a fault on my printer and a failure on the part of the printers to try and correct these problems.

Finally I would like to wish you a Merry Christmas and a Happy New Year.

Front Cover Photograph. Runner from a 42 inch Francis Turbine made by Gilkes and Gordon, Kendal in 1957 for Cuaich Powers Station near Dalwhinnie, Scotland. Now on show at Pitlochry fish ladder. Production number 5,544, output 3440bhp, rated head 27m. rated flow 12,470 l/min, rated speed 278 rpm.

SOCIETY EVENTS 2016

SPRING CONFERENCE & AGM. SATURDAY 16TH APRIL. 9.30AM. SHAP WELLS HOTEL.

FOREIGN INFLUENCES ON INDUSTRY IN CUMBRIA.

This year we are looking at people who are not native to Great Britain and the effect they have had on Cumbria industry or industries they have started. Booking form is enclosed.

ALSTON TOWN SUNDAY 8TH MAY 11.00 AM STATION CAR PARK.

This is a walk around the town of Alston to look at the remains of the industry within the town lead by Alastair Robertson a renowned local historian.

OLD HALL FARM BOUTH 8TH JUNE 6.30PM.

This will be a private visit to this farm which is run using horses etc. and has a collection of old agricultural implements and machinery.

LOWCA AND PARTON SUNDAY 31ST JULY OLD HARRINGTON NO.10 COLLIERY PIT YARD. (NX 985 218) 11.00AM

A walk around the villages and the foreshore of Lowca and Parton to look at the remains of the industry in the area. Lead by Dai Powell.

CLAUGHTON BRICKWORKS.

We are trying to arrange a revisit to these works which have now reopened after closing during the financial depression. Details later.

AUTUMN CONFERENCE INDUSTRIES IF MILNTHORPE.

Details to be announced.

NOVEMBER EVENING MEETING

To be arranged. Any ideas willingly accepted!!!!

A joint visit to Dyfi Iron Furnace, Wales with NFT, and CATMHS is also possibly being arranged. This will involve an overnight stay. Further details later.

BOOK REVIEW

Barrow Steelworks – an Illustrated History of the Haematite Steel Company

By Stan Henderson and Ken Royall. Published by The History Press.

This book covers the history of the Hindpool site in some detail, especially in the post-war years when Ken Royall was working there. From 1957 he was the firm's official photographer, so the book is copiously illustrated with high quality black and white photographs.

Starting with Schneider and Hannay's lease of the site from the Furness Railway in 1857 and the building of 14 blast furnaces, the book takes one through the ages of the Bessemer converters to electric arc furnaces and continuous casting. An excellent glossary explains the many technical terms. Barrow's peak production of steel was in the latter part of the 19th century when three to four thousand men were employed on the site and many thousands of tons of rails were exported to the USA and India. At one time it was the largest steelworks in the world.

Alongside the story of innovation in steelmaking runs the account of changing company ownership culminating in nationalisation in 1967. The 1970s brought the ignominy of being made an annexe of Workington under a works manager from Moss Bay – where steel was rolled but no longer made. Steelmaking in Barrow came to an end in 1983.

Helen Caldwell.

BELOW LAKELAND FELLS.

WATER

Whenever a mine was sunk water became a hazard. Greenside mine had a number of pumps to keep the mine dry. It was a fairly dry mine to work in but that was because pumping machinery kept on top of the water, though in wet times that was different. There was a pump on the 200 fathom level, a ram pump which pumped water to the 217 level, from there it was pumped to the 90 fathom sump and there the pump sent up 500 gallons a minute, 90 fathoms to the Lucy level, where the pump water joined the drainage water from the upper levels of Lucy North Level. Water was used to work the turbines, from Red Tarn and this water was led to Rattle Beck Power Station on a conduit that ran along the fellside and down a pipe to the power station. A good deal of water was used for the washing of lead ore and Glenridding Beck was often white with the fine particles of sludge from the washings.

NICKNAMES

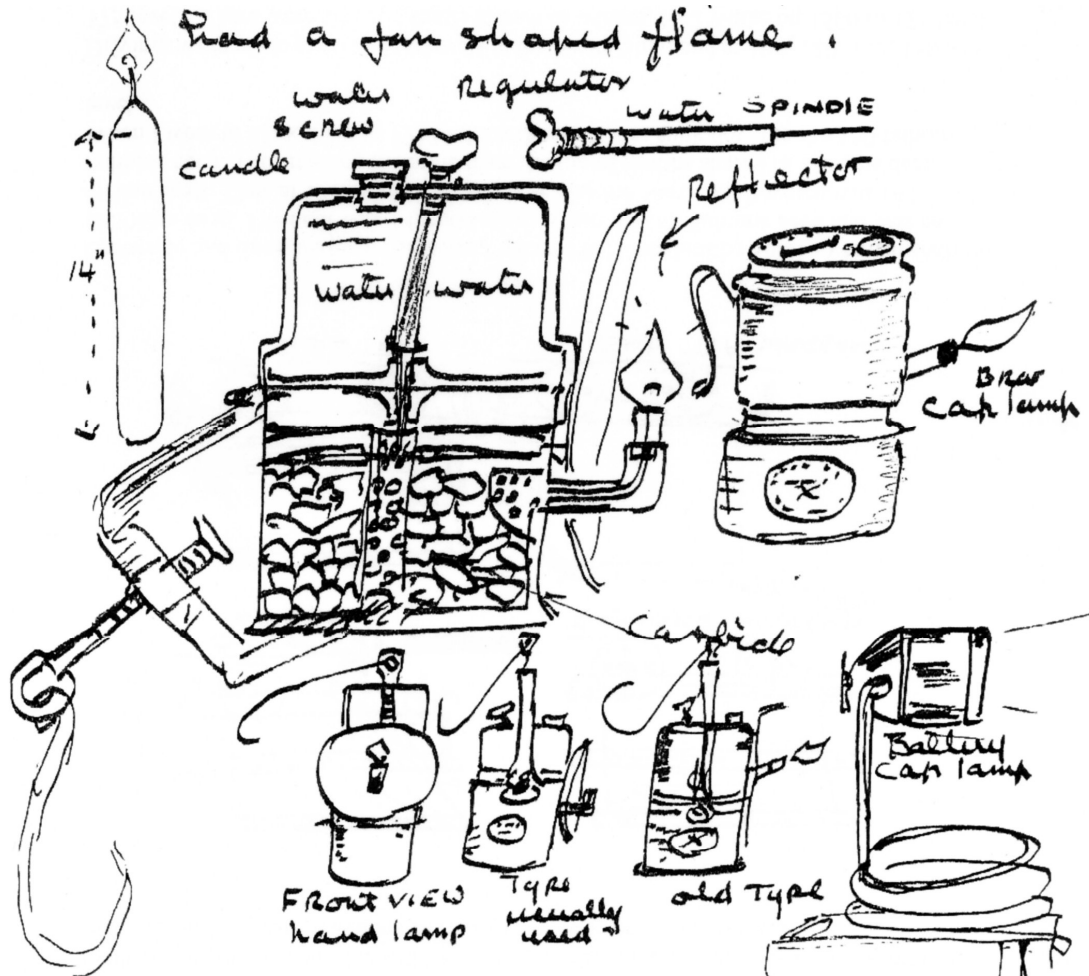
Most miners had nicknames and I will try to put some of them here.

There was 'Primer', 'Jackets', 'Captain', 'Endboard', 'Thobbut', 'Biggles', 'Fearless Fred', 'Chargestick', some were given the names of their girlfriend or wife. So we got 'Sally' and 'Dolly' 'Prym' and 'Clarry', 'Twig', 'Tomato' and many others. Sometimes a name was bestowed because of some action in boyhood, or some physical disability – 'Chargestick', was a tall thin lad. 'Fearless', after fearless Freddie a cartoon character. Some people were better known by their nicknames than their proper names. I never knew 'Primer', was Bill Richards for a long time after I commenced work at the mine.

LIGHTS AND CLOTHING

In the Honister quarries we used candles but at Greenside when I commenced work every man used an acetylene lamp, and every man was responsible for the cleaning and charging the lamp entrusted to him. There were two standard patterns of hand lamp. Though the winding engine men carried a small brass cap lamp. The ordinary carbide lamp lasted eight hours and some times longer if the miners watched his light and not flooded it with water. Most miners carried a reserve of carbide in case of flooding the lamp or having to stay underground longer than the normal shift which was eight hours. I have come across old candles and a "smokie", these looked like an Alladins lamp, had a thick cotton wick and I believe were not a very good source of illumination and smoky. The carbide or acetylene lamp gave a good all round light and miners liked them better than the electric cap lamp which were brought into use after 1952. The electric cap lamp had two light bulbs, one bright one dim. The glass was unbreakable to a point – if a stone hit the glass it would crack into a thousand pieces but not fall out of its frame until it was taken to pieces in the lampcabin, where it would then break up like so much crushed washing soda crystals.

To go back to the carbide lamps these had principally two sections a reservoir with water on top. The water percolated down a hole and was regulated with a pin which could be loosened or tightened at will with a thumb screw on the top of the lamp. The water dripped down a perforated column which ran down the centre of the bottom part of the lamp and this tube was surrounded by small pieces of carbide calcium. The effect of water on this was to make an highly inflammable gas which was led to a burner on the outer part of the lamp. Some burners were a single flame, others had a fan shaped flame.



When the electric cap lamp was introduced they were not popular because of the weight. Both of the lamp on the miners helmet (and helmets were not popular for their weight when first introduced). There was the weight of the battery which was fastened to the belt. If you bent down and your flex was a bit to short it would pull on your safety helmet. Also it gave a long narrow beam, not an all round light like the old carbide lamp and if two workers met face to face suddenly they could be badly dazzled by each others

lamps. Electric lights were used in the mine in the compressor house, at the shaft tops and shaft bottoms, and at intervals along the main 175 fathoms level. But I have at times either lost or got my matches wet and my light put out and had to feel my way in the dark to the shaft. On one occasion I walked up the Murrays shaft when my light had been put out and I had no dry matches, and no one was with me from whom I could get a light. It was an experience I would not care to repeat, especially walking round the narrow catwalk at 104 level, one slip and I would have fallen hundreds of feet to the bottom. I used to keep a few matches in a waterproof box after that emergency.

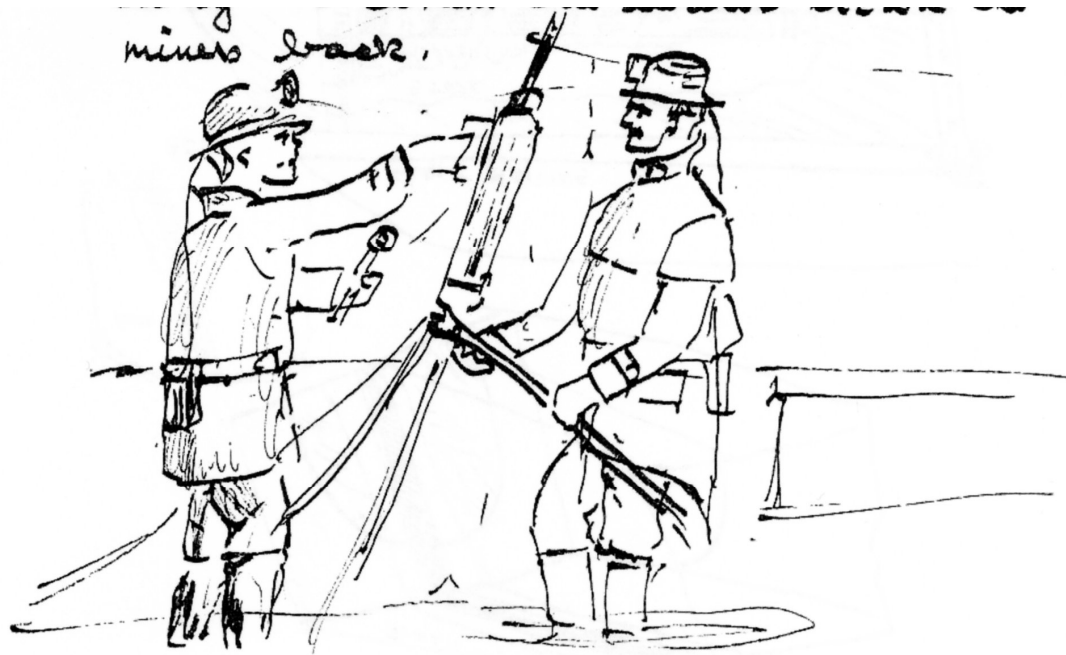
CLOTHING.

Miners usually wore an old suit of clothes to work in, some flannel shirt and vests. Trousers were often corduroy, I only occasionally saw moleskin trousers. Clogs were worn as boots soon got heavy with water, wellingtons only rarely. They were not safe when climbing, especially when the tread on the sole was worn a bit. Often a miner would use wellington tops as a kind of legging above his clogs. Clogs were warm and gave more protection to the foot, and they were much dryer than boots. Sinkers used to wear thigh boots if there was excessive water in the sump or sinking when they were employed.

Ordinary tweed flat caps were worn when I first went to Greenside, later safety helmets were introduced made of compressed paper and called "Cromwell Safety Helmets". Many would not wear them at first preferring the light tweed cap. It was the same when lockers and showers were first introduced, some miners never would use them, preferring to go home in often wet and dirty clothes and change and wash there. Cornish men made their own safety helmets, one or two had them at Greenside, these were made from a linen skull cap over this a wire mesh was placed and a linen cover which was soaked in resin and allowed to go hard. The results was a good serviceable safety helmet which was much better than the compressed paper helmets we used.

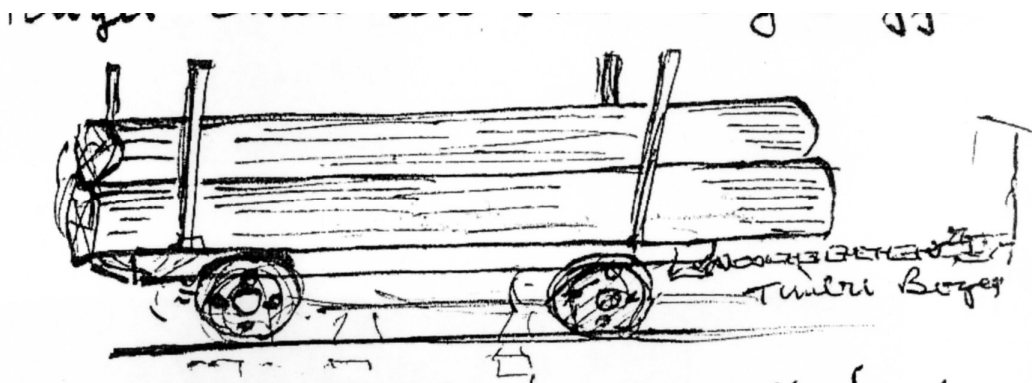


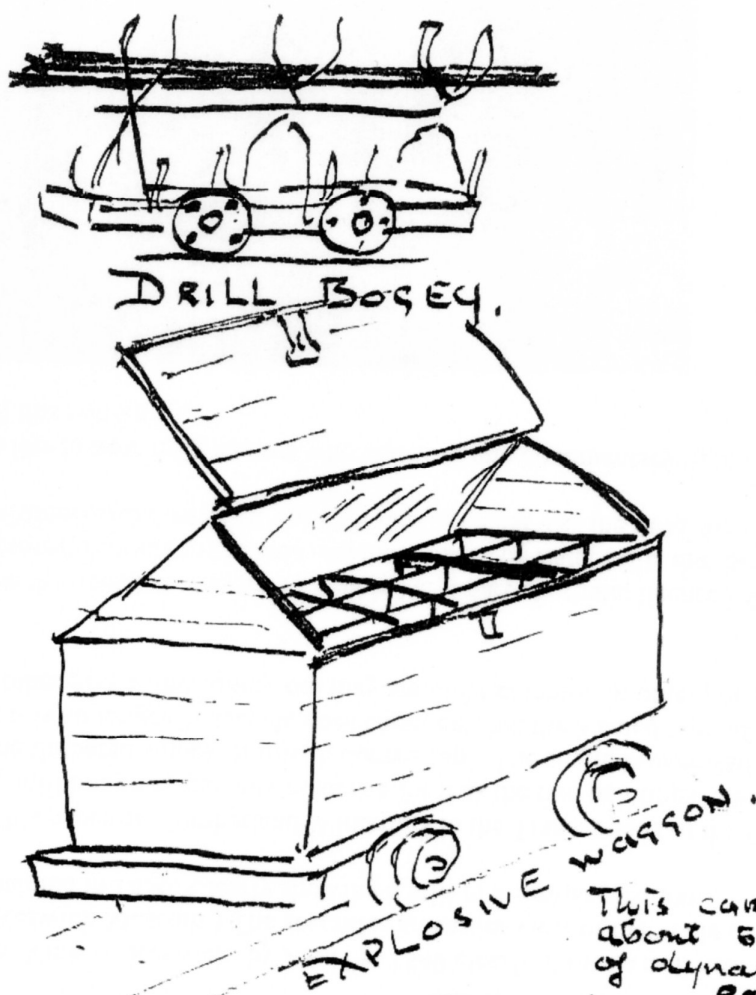
Protective clothing in wet parts of the mine or for dirty wet jobs such as stoping was sometimes provided. Waterproof canvas or oilskins were worn. The canvas types could become very heavy when saturated with water. Some were cut in a way to drain water down miners back.



TIMBERING

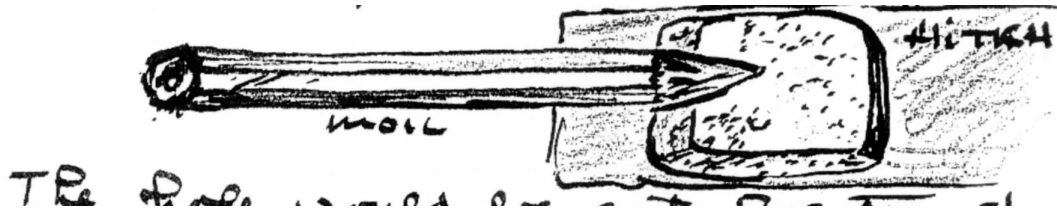
There was very little timber used for propping up the roof. Timber was used for making hoppers, gateways, that is ladderways up rises or to the stopes. For Bunyans, here strong timbers were placed at the bottom of stopes to take the weight of ore or rock fired from above. It was used as pillars in wide stopes. To line shafts and winzes. The rock at Greenside was firm enough in most parts to support itself, whenever that mine drifts or tunnels made. Timber was brought in by a special bogey, rather longer than an ordinary waggon.





This carried
about 500 packets
of dynamite
Each ^{packet} was put into
Tins - Detonators
came in tins of
Perhaps 500, etc.
→ were carried separate
from dynamite for
safety reasons.

Timber men sawed the logs usually Larch and if they had to put a log which they called "sticks" from one side of a drift to another holes sometimes circular but more often square were cut out with a moil and hammer.



Moils were chisels made from old drills and were pointed at one end. The hole would be cut big enough to take the timber and perhaps two or slightly more inches deep. One end of the timber was placed in one hole with the other end resting above the other hole, it was then knocked in with a big hammer.



In some parts of the mine in what were called the high and low arches were stone, dry stone arches, and very strong. These were made by the old miners when Lucy level was driven in the middle of the last century. Whether there was any other stone arches in the old mine I never knew for I never saw any.



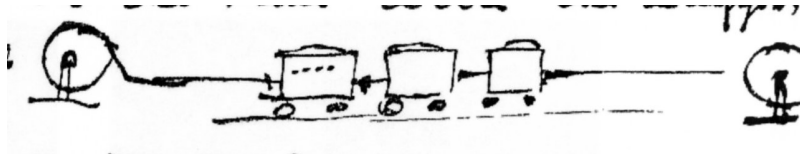
DURING THE WAR 1949 – 1945.

There was a number of miners joined the fighting forces, some like myself were called to the colours in due course. I was away two years when I sent home again on W.T. Reserve as were a number of others, to work in the mine. We had to join the Home Guard and at Patterdale there was a good platoon of men, mostly miners in the local Home Guard.

Often having to do drills after a hard shift in the mine or do guards at certain points or on the fells. Many were crack shots and at first practised at Home Farm, Patterdale. Also they went to Troutbeck to fire their weapons. I think most of the men were disappointed when in 1944 the Home Guard was stood down. We had some good times and had become an efficient and well trained section of the 8th Battalion Cumberland Home Guard. Some men belonged to the civil defence as rescue or demolition squads. The war over men were demobilised and the mine and village began to adjust to normal life.

In 1947 the year when there was a long bitter winter, there were a number of miners who decided to leave. Some went to the Silver Band Mines and worked there for about a year, I was one. We travelled daily by bus returning each evening. The Silver Band Mine was

high on the Pennines, about 2,500 feet above sea level. An old lead mine which was now a Barytes mine, it was very wet, and a different type of ground than Greenside. Every yard of ground was propped and shored up, Transport in the mine was by end and tail rope. That is well two drums and a long rope into the mine with the waggons on the rope.



We stayed about a year and some went to drive a tunnel in a coal mine in County Durham. I returned to Greenside where I stayed until 1961.

SAFTEY AND RESCUE.

Accidents happened at Greenside but perhaps not as frequently as in the coal mines. We had a few fatal accidents, the worst happening on July 7th 1952 of which more later. First aid teams were trained and first aid boxes were placed at strategic places in the mine. An ambulance room was provided on 175 fathom level. There was a stretcher used, like a coffin lid, made of strong wood and with retaining straps. It had rollers on the back so the stretcher could be hauled up winzes or stopes easier. One accident case I remember, a man fell 80 feet and fractured his spine, the man was rolled on and strapped to the stretcher and taken down ladders, along the levels up shafts and finally to Carlisle Infirmary without further injury. He recovered sufficiently to work with a strong corset and though he did not go down the mine he did work on a farm.

Another man fell down a hopper and was buried in fine debris. The rescuers had to get him out by emptying the hopper bucket by bucket until they got a rope around him and later hauled him to Safety after about six hours work.

One man was killed by leaning out of the cage to ring himself down to a lower level, he had already done so and receiving no reply on the bell, he leaned out to ring as the cage dropped and broke his neck.

Another was killed by a drill that fell down a pipe from a higher level as he was removing other drills from the bottom of the pipe, which had been used to drop drills to a lower level and save the drill men climbing 80 feet of ladder.

ULVERSTON – MILLTOWN

This year and next, the Environment Agency are carrying out a ‘flood alleviation scheme’ in Ulverston, a major aim of which is to ensure that the town can continue to cope with the volume of water flowing through it down the Town Beck. This gathers water in the hills to the north of Ulverston before losing height rapidly – over 100ft in less than a mile - on its way to the Leven estuary at Sandside.

The Town Beck (under various names) has long been of great importance to the town – not only supplying water for domestic and commercial use and taking away the waste from such premises, but also acting as a source of power for a variety of industries. These industries were the focus of a walk that we led for the CIHS in July 2015.

These notes are largely based on a handout called ‘Ulverston – Milltown’ which was given out by Mike Davis-Shiel at the Society’s conference in Ulverston in 2006. As usual Mike’s A4 handout was the result of years of research using sources such as directories, newspaper adverts, maps and old photos. He took photos of much of this material and this is now available for all to see and make use of in his now-digitised slide collection, along with many original photos that he himself took in the 1960s onwards, and the notes that he made about them. As part of our walk we went to see what was where and what remains of the water-powered mills and other industrial premises in three areas – along the mill race to the Town Mill; through the town centre; and around The Ellers.

Along the mill race to the Town Mill. The mill race is taken off the Beck in a field on the northern outskirts of the town and runs for over half a mile some distance to the east of the Beck itself before rejoining it in the town centre. We saw

High Ure Mill (now called Candlewyck). This was referred to in 1796 as a “candlewick factory” and in 1825 as a “candlewick mill” before appearing as a “candle factory” on the 1st edition OS map. It’s still not clear what was made there - candlewick bedspreads from cotton, wicks for candles, or candles themselves?

Low Ure Mill (now a builder’s workshop and store). A corn mill most of the time (and confusingly referred to as the High Mill when in the same ownership as the Town Mill – the other corn mill lower down the race). Also recorded as a brush mill from the 1850s to 1870s, and as a foundry making shutter parts for a workshop in another part of town. The datestone on the side of the building just inside the gate probably shows 1719 but could be 1679 or 1779. The mill pond was in what is now the garden of Candlewyck above.

Mill Dam. (Still called that but now filled in and a children’s playground and sheltered accommodation). Water was held here to give a constant supply to the

Town Mill, but was then available for other works around the water's edge, including a bleach factory and tripe works. Don't think too deeply about where the waste products went!

Town Mill (now The Millers public house, with a wheel and some machinery visible inside). First mentioned in 1678 but may be centuries older than that. The mill race reached the rear of the mill at a height sufficient enough to power an overshot waterwheel before rejoining the Beck in the street below.

Through the town centre. Before the Town Beck (now culverted) is rejoined by the mill race it had already supplied water to a tannery in The Gill (hence the name Leather Lane) and probably also for some purposes to the New Brewery of 1832 (site of the Factory Shop). After crossing under King Street (the main road through the town until the late 1960s) it reached what is now the Buxton Place car park but which was then a jumble of houses and commercial premises. Industrial users here included a soap works, and a tannery dating from the 1700s. From here the Beck (of which an open section can still be seen at the east end of the car park) crossed under Union Street to reach the Brewery Dam which occupied the part of the current car park across from the Old Brewery (which famously became Hartley's but is now awaiting demolition).

Around The Ellers. Two streams exited the Dam to flow across what is now the A590 to serve both sides of The Ellers which was the route of the turnpike in and out of Ulverston. (At the town centre end stands Rachel's Court – now flats but once a water-powered cotton spinning mill then steam-powered weaving shed). Nothing remains of the mills that stood to the north of the road (known as High Ellers), including the large paper mill of 1835 to 1882 which was variously powered by water wheels, steam engine and water turbines. However, on the south side (known as Low Ellers) – behind which you can see the open Beck at a couple of points – there still remains what is now Ellers Mill but was originally Low Ellers Low Mill. A fulling mill, leather works and hoe-grinding mill at various dates in the 1700s, this then became a 5-storey cotton mill from 1774 with (in 1806) 4 double carding engines, 4 billies, 2 pickers and 27 spinning jennies. By 1874 it had been converted to a corn mill with 4 pairs of stones driven by an iron wheel and when needed by a 10hp steam engine. Although this burnt down in 1885 it was rebuilt as a 3-storey mill that continued to operate until the 1960s. We did visit other sites of industrial interest on the walk – the old and new railway stations, the turnpike toll house, a laundry, a stone works, various warehouses, and of course the gas works (with the best set of buildings remaining in Cumbria, but earmarked for demolition and housing development). And what a beautiful day it was!

Roger Baker & Dan Elsworth



Members on the field trip outside Rachel's Court.



Ellers Mill, Low Ellers Mill.



Part of remains of gasworks.

QUESTIONS AND ANSWERS

Each year more people find our website and write to us, usually via email, with queries. I pass these on to all our members who have opted to share their email addresses with us and so we are sometimes able to come up with an answer. The following examples have come in during the last year:

A number of members suggested good examples of corn drying kilns – Heron Mill, Boot Mill, Gleaston etc , and offered advice in response to a query from the National Trust who were wanting to restore the kiln at Acorn Bank.

A gentleman creating a list of all the airfields in the UK, used and disused, was interested in Walney airfield and its relationship to the airship base. Seven members replied including photos of the ill-fated airship and personal reminiscences of playing on the disused airfield.

A query about the fate of the remains of a windmill in Cockermouth led to the conclusion that it had disappeared following the floods there.

A request for help with the interpretation of the copper smelting remains at Jenny Brown's Point, Silverdale was received. I was able to send some photos from the Mike Davies-Shiel collection.

A lady was researching World War II air raid shelters built for industrial use. Dai Powell was able to provide some information about Workington and send a copy of the United Steel Company's Civil Defence Handbook.

A family researcher wanted information about Thrang Quarry in Langdale and members suggested relevant books and resources. Another is particularly interested in the Eskmeals gun range and wanted to track down a copy of a publication mentioned on our website.

There were requests from members for identification of photos of a mansion (no location given); a Percy Kelly sketch (identified as Maryport iron furnace); an iron artefact found on a bloomery site and various mills in or near Skipton which members were able to name.

A request for information regarding Windermere and Grasmere during the Great War included several specific questions about rail travel which we hope will be picked up by members who also belong to the CRA.

Recently, Jeronime Palmer has been trying to enlist our support for the preservation of the Keswick Pencil Factory building. Gavin Watson offered advice.

The majority of our members are being kept in touch with these requests and information about other related organisations' meetings etc. If you are not on the circulation list but would like to be added please contact Helen Caldwell : lowludderburn@btinternet.com

Helen Caldwell.

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