C A T

The Newsletter of the Cumbria Amenity Trust Mining History Society

No. 92 August 2008

Cover Picture

What, you might ask, has a narrow gauge steam railway to do with mining? Well, there are some connections. The railway is in the grounds of Holywath, at Coniston, and belongs to Major Hext. I had long known of its existence but had never seen it in action so I recently telephone Major Hext and asked if I could visit. He was very welcoming, as always, and told me that it was operated once a month during the summer by a group of railway enthusiasts who travel from all over the country. Some of them are ex railway employees, and they invited me to take as many rides as I wanted.

Now … in 1824 John Barrratt came to Coniston to develop the mines for John Taylor, becoming his Agent and later the principal shareholder. In 1842 he bought Holywath, then just a cottage, for £265. John Barratt had six children, but none survived the year of his death and there were no grandchildren, In 1866 his wealth passed to the families of his two brothers, Isaac and Francis. Isaac's grandson James married Francis' granddaughter Margaret, thus re-uniting much of the family fortunes, which by this time included the very successful Hodbarrow Mine as well as the Coniston mines. James and Margaret had a daughter named Emily and she married a Cornishman named Hext. Their only son is JWB Hext, the present owner of Holywath.

In the early days mining materials were carted to the Lake and then either rowed or sailed down Coniston Water, but in the 1859 the Coniston Mining Company built the railway from Coniston to Foxfield. For the first two years of its existence it was purely a mineral line but then began to take passengers, and it was taken over by the Furness Railway Company. The railway lasted nearly one hundred years until the Beeching railway closures and it closed in 1958, the line was taken up and the fine station was demolished. A group of enthusiasts had built the Holywath Narrow Gauge Railway in the 1950's and when the Furness Railway closed some of the signalling equipment was incorporated into the layout.

Over the years the Coniston Station site has been re-developed, but in order to preserve it CATMHS took a lease on the last of the original buildings, Mandell's Slate Office which it currently maintains and uses as a store.

IM

Cumbria Amenity Trust Mining History Society
Newsletter No 92, August 2008.

Contents:

Obituaries
CAT has recently lost two respected and long serving members:

Dave Sewart
On 9th May I received an e-mail from Ian Matheson. Nothing particularly unusual about this as we often e-mail, but when I opened it the contents were startling and sad: *"Dave Sewart passed away yesterday while mowing his lawn. I will certainly miss him"*.

Dave lived with Elizabeth at Bourn in a remote part of Cambridgeshire. His career was in engineering. He had developed considerable skills in control systems and had connections with engineering companies and colleges in his local area and beyond.

Dave was also well known in literary circles, especially as a member of TARS (The Arthur Ransome Society). He had a keen interest and love of the main locations of these books (the Furness Fells) and it was through this interest that he became a member of CAT. Through TARS and other publications he had become expert at the production of books. He always alleged that, on seeing a copy of the 1st Edition of *Slate From Coniston* in a shop window in Coniston, he had purchased the book and subsequently joined CAT. At that time the Trust was considering the publication of Slate From Honister and on hearing of this Dave made contact with me and offered to help with the production of the book. This was the start of a long and very friendly association with Dave and Elizabeth. The production stage of subsequent books that included *Lakeland's Mining Heritage*, *The Story of Coniston*, *Mine Explorer No 5* and the latest edition of *Slate From Coniston* was entirely down to them.

For each of the titles Dave would receive copy and check the manuscript ready for the 'assembly day' when the book would be put together. On the appointed day I would leave home well before dawn, grab a quick breakfast at the Little Chef near Huntingdon and arrive at his remote cottage in Cambridgeshire around 9am. For the next 8 hours we would stare at the screen of his Apple Mac until the brain became num and eyes glazed over. The highlight of the day was when he handed me a CD containing months of hard work, all neatly put together ready for our printer in Worcester.

Dave will always be remembered fondly by Coniston quarryman George Tarr. George first met Dave when he was working in his closehead at Horse Crag Mine early in 1992. The closehead had a significant importance to Dave as it featured in one of the Arthur Ransome books. The two 'hit it off' immediately. More recently Dave helped George when he was commissioning his hydroelectric plant in Coppermines Beck, Coniston. Delicate settings for switchgear and plc's was Dave's forte and the complicated auto-dialler system was set up and commissioned by Dave in no time.

Dave's funeral at Therfield Chapel, Royston, was on 20th May and was attended by some 200 friends. It was with a great deal of sadness that three of his friends from Coniston; Ibby Brown, George Tarr and myself were unable to attend. However, as Ibby put it, "I can imagine Dave now, in heaven, persuading God to change to an Apple Mac". ADC.

I only met Dave face to face on two or three occasions; once when we arranged an evening meet at Tilberthwaite to coincide with one of his visits, once when he was involved with the Coniston water turbine project and once when he was visiting Major Hext to digitise his one hundred years of weather records. I knew him better as a friendly voice on the phone dealing confidently with problems to do with publication of CATMHS Journals. His expertise was impressive, and if he didn't have a solution he would know someone who did. He was meticulous in his attention to detail and nothing was too much trouble. Most of our correspondence was by email and he always returned corrected scripts within hours. He was a smashing bloke, a pleasure to work with, and I feel privileged to have known him. Our sympathies go to his wife, Elizabeth, who had promised to complete his work on our Journal.

Ian Matheson.

Dr John Duncan Marshall, 1919 - 2008.
Educationalist, Enthusiast and Encourager.

John was raised in Ilkeston where his father was the manager of the local labour exchange. In his teens he developed an interest in left wing politics, made friends among the Quakers and became involved in the peace movement. In 1939, when war broke out, he registered as a conscientious objector and was sent to work in the Lake District for the Forestry Commission. While there he made friends in the Barrow area and developed a life long passion for local history. Later in the war, as the evils of fascism became more apparent, he volunteered for the army and became a sergeant in the Royal Signal Corps.

When the war ended John returned to civilian life and enrolled at Nottingham University. In 1949 he married Audrey, a fellow student, and over the next few years they had three children. The family moved to Ruddington, near Nottingham, and John cycled daily to Mansfield and his first teaching position. In 1953 they moved to Arnold where John's new job was in a further education institution in Hucknall, teaching local studies. While there John was writing his thesis based on the history and character of the Furness area, and was awarded a doctorate in 1956.

During these times, and after a move to Bolton in the late 50's, he was an active member of the Labour party involved in the peace movement and racial equality and integration and for a short period joined the Communist party. Family outings were usually to rallies, demonstrations and protest marches.

In 1966 John successfully applied to Lancaster University where he continued with his research and writings. At Lancaster he "master minded" the formation of the "North West Centre for Regional Studies".

In 1974 his marriage to Audrey broke down and he suffered a period of ill health.

In 1976 he married Frances who had a love of literature, poetry and the arts and John developed an interest in poetry. Together they published some poetry booklets and

established the Cumbria Poetry Centre at Ambleside. In 1983 they moved to Grange-over-Sands and in retirement John continued writing and supporting many local societies and organisations.

In 1992 Frances died, a severe blow for John, and the next few years were very difficult for him. In 1998 a volume of academic articles was published dedicated to John and his contribution to the study of regional history. Around that time he also received an honorary degree from Wolverhampton University. Though in latter years his mental alertness and sight declined he never lost his interest and enthusiasm for events and activities locally.

In 2008 he suffered several falls and died of a heart attack at the age of 89.

John's cremation service took the form of a eulogy conducted by his son and daughters, each one speaking of about 30 years of his life and I have compiled the above paragraphs from a transcript of these memories. However John's association with CAT, and in particular Newland Furnace, is worthy of special mention here. John was CAT's first Honorary Member, he joined the Society in November 1979, only a few months after its inaugural meeting and was made an Honorary Member in April 1980.

In the 1980's John became increasingly concerned about the condition of Newland Furnace, which he often visited with his students. He contacted local authorities along with local and national archaeology groups who, though generally sympathetic, offered little practical help. Despite these setbacks John, with the agreement of the owners, contacted CWAAS, CIHS, and CAT, and invited them to a site meeting . The CAT committee delegated Mike Mitchell, Dave Blundell and myself to attend and offer help and support. So the voluntary work at the furnace started in November 1989.

Although the early work meets included members from all three societies support gradually dwindled and for much of the succeeding 19 years most of the support has come from CATMHS and in particular local FMA members. John was always aware and appreciative of this support.

In the early days he joined in the practical work but, as Secretary, he spent many hours publicising the work at the furnace in articles to the local press and national organisations. He also was very involved in the considerable negotiations with the listing and scheduling of the site, the setting up of the Trust in 1998 and the 999 year lease in 2001.

Although more recently no longer able to participate in the same way, as President he never lost his support, interest and enthusiasm for the project. John was a remarkable and unique person and it is a privilege to have known him.

There will be a Commemoration Service for John Marshall on Friday August 8th 2008 at Cartmel Quaker Meeting House at 2.30 pm. A contact number is 015395 36721.

John Helme

CATMHS News

Membership
We would like to welcome:
Joint members Lesley Smirke and Paul Wilson. They are interested in all our activities and both are Advanced P.A.D.I .divers.
Hossein A Gharib, a mature Geology student who lives in Hertfordshire. Dave Bridge has been assisting him in his investigation of Radon gas in Coniston copper mine
Christopher Morgan, from Cheshire, who has a BSc in Exploration Geology.

Journal 6
Following the sad loss of Dave Sewart there will be a delay in publication of Journal 6. Dave was indispensable in setting out the material and preparing it for the printer. This work was nearing completion when he died and his wife Elizabeth has promised to complete it when she has dealt with the more pressing matters. I hope that we shall be able to publish it in the Autumn

Carrock Fell Mine
Extract from the official minutes of the Mines Forum meeting held on 12th May:

Following further discussions with the Environment Agency and Natural England and the re-writing of the project documentation we now seem to have a proposal that all the Agencies are happy with.

The Dalemain Estate, as landowners, has legitimate concerns over the re-opening of the level. Before agreeing to any work they would like to ensure that they would not be liable for the site following the installation of a gate. We are currently pursuing this with our Legal Team.

Vandalism and anti-social behaviour is also a general problem in the valley and there are concerns about how the site will be maintained in the future and if any damage occurs, how this will be managed and financed. It was suggested that a management agreement between a mining society and the Estate could be drawn up to address the monitoring and maintenance of the site. Could the mining groups have a think about this, what they could commit to and whether they would be interested in pursuing this idea?

Following this Mark Simpson had a telephone conversation with Eleanor Kingston of the LDNPA. He reported that she had had a meeting with the landowner, Dalemain Estates. The gist of this meeting was that there is an issue about access by people to the mine. The owner is now aware of the various ways in to the place. He is keen to reduce his liability in this direction to the effect of stopping up as many entrances as possible and not allowing any other works to the mine site.

This set off some alarm bells, and Peter Fleming, John Brown and Tony Holland emailed to express opinions that we should not support any suggestions to try to seal the mine and that CATMHS should be cautious about entering into any management agreements. John Aird had a telephone conversation with Eleanor Kingston and noted:

Subject to possible adjustments to the locking mechanism of the proposed gate, the National Park is satisfied with the proposals covered in the documentation submitted by John Brown.
While the approval of English Heritage, Natural England and the Environment Agency will be required there is no reason to believe these approvals will be refused.
The land owner, Dalemain Estates, have been on site with EK and have two concerns:

1.Their liabilities shall be in no way increased from those that exist at present i.e. before any work commences
2. They shall incur no costs

Dalemain Estates are minded to obstruct the adit entrance with stone and take unspecified steps to deal with the other entrances For this they would probably have to seek approval before commencing operations. EK is aware that obstructing the adit in the manner described would leave the silt problem unresolved, possibly exacerbated. Obviously if they undertake this action it conflicts with their concern not to incur costs. Dalemain would be happy to meet with all involved parties in early August, facilitated by EK.

John said 'While we (and Moles) clearly could not undertake to control access I can see no reason why we should not carry out the same role at Carrock as we do at Leverswater and Hudgill, even going so far as to being prepared to inspect the gate at 3 monthly intervals. I am in full agreement with both P Fleming and Tony Holland; we cannot agree to all entrances being obstructed and any gate should preferably have a bolt closure or if a lock is needed it should be a combination one with combination displayed inside the gate.'

On 21st July John had a telephone conversation with Mr Hassell-McCosh, owner of Dalemain Estate:

Mr H-McC confirmed the conditions that there should be no change in the Estates liability as a result of any work and that there should be no cost to the Estates; additionally a formal and binding management agreement would have to be drawn up and agreed by all parties, prior to any work commencing. He is happy to meet with all parties to discuss the issues.

John Aird advised him that CATMHS has been involved in the re-opening of three mines (Hudgill, Leverswater and Kernal level) where formal permission had been sought from the relevant authorities and suggested it would be advantageous if Dalemain could be provided with copies of the relevant documentation for study before a joint meeting.

This seems a very positive approach and the matter will be discussed further by the Committee when it meets on July 28th

IM.

"Life on a Line"
Dr Dave Merchant
ISBN 978-1-84753-281-7
eBook http://www.lifeonaline.com/

In Newsletter 75, I reviewed "Alpine Caving Techniques" in glowing terms. Time has not dimmed my enthusiasm for that work and now Dr Merchant has published the second edition of this "magnum opus", with a copy of each we have the complete body of knowledge needed to cope with any scenario we may meet underground and, more importantly, to ensure that we avoid those we most certainly do not want to encounter.

Strictly this publication (it is available in print form and electronically) is "The Underground Rope Rescue Manual". Indeed it is and when/if I have to be rescued then I want it to be done by a team trained and operating to these standards! But this book has a far wider applicability than the title would suggest and includes a vast amount of information of value to anyone using ropes above and below ground. There are two areas which are of vital interest.

Firstly, ropes and knots, about which this is the definitive treatise. Most of us have a pretty clear idea of the knots we are going to use and where we are going to use them. Read the three chapters "Rope and Cord", "Introduction to Knots" and "Essential Knots". If what you do is in accordance with Dr Merchant's prescription, then congratulations, if it is not then you'll end up with a completely clear view of what you should change and why. For those who've always used the traditional cowstails find out how to make them both safer and much more useful.
Secondly, medical matters, if you don't know what "Suspension Trauma" is and its effects on the body (I certainly didn't) then for your own sake and that of everyone underground with you, read "Casualty Care". To quote "*Everyone is at risk – it's a small risk, but it's there. Deal with it or die with it*"

This is an informative and authoritative book, the illustrations are excellent and the author has a wonderful sense of humour.

Buy both books and make sure this doesn't happen to you or your friends!

William Bickford

Bardsea, 20 May 2008
Present: D Robson, P Timewell, I Matheson, M Mitchell, ACP Thomas, A Westall, T Holland, A Tomlinson. P Sandbach and dog.

The first artefacts to be seen were two piers on either side of the car park. One has a carefully worked stone with the inscription TRGB 1833, but the stone lies on it's side, as if dumped there. Below these piers, the beach is rocky and barely covered by the highest tides, so they may have served no other purpose than to mark the boundary of Conishead Priory.

A short walk brought us to the foot of a lane. Most of the red stains have been removed by the storms of 2004, but the lane runs directly to Lindal, and those paintings of schooners loading ore at Conishead Bank were painted from here. The clay bank was the scene of at least two shipwrecks. The *Flower of May* (see below) was destroyed in the same way as the *Delight* in 1858. This was not a safe place to lie in a southerly gale, the force of the weather can be seen in the present state of the sea defences. From this point you can still see two perches, last maintained in 1932, to guide steamers to Ainslie pier.

The next field contains a railway bridge, the last gasp of the Bardsea branch, The branch might have been built through to Stank, providing a bypass to the congestion at Lindal, but the embankments to the bridge were never completed and the track never reached the bridge.

Track was laid to the next bridge, in the grounds of Conishead Priory, and the remains of a pier can be seen. There is only a double row of posts leading down to the channel and a short length of wall to be seen. Gunpowder was loaded at Priory Pier from 1884 until 1914, but only occasionally. Questions were raised about why the powder was sent by sea, having been loaded into railway vans, why some powder was loaded here when most was loaded in the canal and was the wall a blast wall. The only answer was "Don't know"

Part of 1890 OS map showing the brickworks, wireworks and chemical works. The clay pits are no larger now, so there was not much work done after 1890.

The next field contains a modern mansion. The building is on the site of Priory station, used when the priory was a rest home for miners.

At Priory Crossing we turned onto the tarmac and a short walk brought us to a chimney in an otherwise empty field. This is all that is left of the Ulverston wire works, and the chimney was left standing as a sea mark. The clay pits were next door to the wire works. It is possible to walk round them but we took the narrow path between two clay pits. Some of the party complained about the persistence of willow down on clothing, others were pleased that there was deep water between us and the cows.

The intention was to visit Sadler's chemical works and Ainslie pier, but that was too ambitious for an evening meet. With daylight running out, we returned the way we came. Of the chemical works, there is only the boundary fence left. John Helme showed us some traces of brick lined pitch beds a few years ago, but I could find nothing visible this week. Ainslie pier will have to wait until next year.

Wireworks chimney. Photo P Sandbach.

From Soulby's Ulverston Advertiser, Thursday, 3rd November 1887
A SEVERE GALE

During Monday night a severe gale of wind, from the South, blew over the district, and continued all day on Tuesday.....Slates and chimney pots were displaced, trees were uprooted, most farm buildings suffered more or less and in some instances the roofs of Dutch barns were bodily removed. The South wind brought an unusually high tide into Morecambe Bay and the sight would have been a grand one had it not been for the danger it brought with it. Messrs. Sadler's works suffered somewhat, as did most of the buildings near the shore. Two vessels were lying at anchor between the Beaconsfield Pier and Conishead Point. Such was the force of the sea that the *Flower of May* was swamped and sank, Captain Robinson and a seaman named Hesketh took to the rigging where they had to remain exposed for upwards of three hours. An attempt was made to take them off by means of a boat, but the latter was thrown back by the force of the waves onto the railway embankment, and Robert Wilson, one of her voluntary crew of three men was severely injured. When the tide had run out somewhat and the fury of the waves abated, Captain Roskell of the *Alice and Eliza* and a seaman named Brough went to the wrecked vessel and took off the two men who were clinging to her masts. They are both elderly men, and as will be imagined, were both greatly exhausted by the exposure. In the afternoon the rain fell and towards evening the wind abated. "

Xyzcbs Mine
Saturday 21st June 2008

Only Dr Descender and a select group attended this affair in the inner reaches of Xxxxdale

John; "Mark at the bottom of this ladder take particular care because the hinges on the trapdoor have rusted away"
"OK no problem"
Mark; "Chris at the bottom of this ladder take particular care because the hinges on the trapdoor have rusted away"
"OK no problem"
Chris; "----- at the bottom of this ladder take particular care because the hinges on the trapdoor have rusted away"
"Oh F----"
Crash, Bang Tinkle-Tinkle
Dr D; "Doh"

Wanlockhead Hydraulic Engines

Friday 20th June 2008

John Aird (ML), John Ashby, Chris Cowdery, Karli Fearn (COMRU), Ian Hebson(last and only CATMHS meet Whiteheaps in 1997), Tony Holland, Mike Hrybyk (Retro2), Jon Knowles, Mark Waite.

The weeks leading up to this meet had been nerve wracking for the Leader. The Met Office rainfall data for the 30 days preceding the Leader's previous two visits indicated that exactly the same amount of rain had fallen in both periods although access had been easy on one and impossible on the other. When the same data was obtained a week before the due date it did look good, less rain had fallen and it was spread very evenly over the period. On the 18th following assurances that there would be little or no rain over the next couple of days everyone was told the meet was "on". Just prior to leaving for Scotland on Thursday morning the Leader checked the situation and found there had been a deluge the previous day, a total of 11mm of rain!

Friday was a pleasant day and everyone was on time, the Leader's pessimism being dismissed with remarks like "been no rain up here for ages" etc. His suggestion that there was no water in the beck because it was all in the adit was treated as mere persiflage. Determined to avert the "evil eye" at all costs he then donned an under suit, a half wetsuit and an over suit. Those who had met him before mumbled shamefacedly that "he always feels the cold" while newcomers muttered sotto voce about paranoia and the like. His subsequent distribution of several cold chisels, a club hammer and a small pry bar for others to carry did not improve the situation.

The Squeeze.

A 10 minute walk gets you to the entrance, 10 more minutes and you confront the beautifully engineered door (a built in catch holds the locking bar out of the way when the door is open). A short tunnel leads to the top of the first 40 metre pitch, boarded and with a scaffolding frame for rigging. This adit and the shafts you are about to descend were cut to accommodate the water feed pipe for the engines. Presumably the scrap man removed the pipe from most of the adit but now at the top of the shaft one can admire the high quality Victorian engineering as the pipe plunges downwards. The pipe was an inverted siphon to cross the beck, the wooden structure 5 metres down the shaft is the remains of the cistern where the water supply control valve was situated. Apart from the need to pass this without disturbing loose planks, there are no difficulties on either pitch, the lower one being of 30 metres, separated from the upper by 6-7 metres of horizontal tunnel. It is assumed that the shaft is divided up in this way because the engineer was reluctant to have a single vertical pipe run of c 70 metres.

Dropping the rope down the lower pitch with feigned "sang-froid" the Leader was buoyed up by the absence of any splashing noise. A quite rapid descent ("better get it over with and we can all go home") led to the discovery that the adit was completely dry. "Oh Joy! Oh

John Hastie's Engine

Rapture! The hammer and chisels had been a prescient thought, a certain amount of rock removal was necessary. On reaching the engines, it was simply a matter of turning the photographers loose and letting them do their worst. A certain edge was evident between the two schools of illumination, flashguns and light painting but no one seemed to go short of subject matter.

The smaller of the engines used as the shaft winder was manufactured by "John Hastie of Greenock" and has three cylinders set at 120 degrees within the triangular frame. Refer to www.dself.dsl.pipex.com/MUSEUM/POWER/waterengine/waterengine3.htm#hast for a description/method of operation.

The winding drum and all gearing are in position; the winding head gear has collapsed from the recess above the similarly collapsed shaft, with the sheave wheel moved along the adit outbye still leaning against the wall.

The main engine is of considerable size, certainly unique and was built in the 1830's. A single cylinder is horizontally mounted; within this is a piston fixed in the middle of a long single piston rod which protrudes from both ends of the cylinder.

As can be seen here, the main frame actually consists of two very large baulks of timber held in place by crosswise iron frames. Shown below is the connection to the pumps;

The Engine

(duplicated at the other end), the chain ran from the piston rod (out of view) between the two wooden guides and down over the wheel to the pumps. The pipe on the RHS is the main water feed.

View from above piston rod end

Sources suggest that the engine was moved to this position in the late 1840's and ran from then until sometime in the 1920's, generating between 6 and 7 hp and running at a stately 6 strokes per minute. Despite the fact that the sources emphasise the low water make of the mine, this low power output combined with the fact that the adit outbye from the engines has been arranged so that the water supply pipe runs beneath the rails reducing the head room strongly suggests that the Hastie winding engine was in fact used to wind water and not ore. The low headroom would render ponies out of the question; even men would have great difficulty tramming tubs. Supporting evidence is the presence under the inbye end of the main engine of a large bailing bucket complete with internal release valve, along with the absence of any type of cage or skip.

Following these deliberations Ian Hebson led a select group on an exploration of the adit network outbye towards what had been the entrance portal. Others routed inbye to explore and managed to find an ore tub and the blind end of the level. The Hebson party found ample evidence (in the form of graffiti) that in the 1970's and 80's entrance to the main adit had been on foot rather than by our route. Even the famous "Heb" declined to go deeper than armpit level on the basis the level would sump out anyway.

After forgathering at the shaft bottom, the party climbed out having just visited one of the very finest underground sites in the UK. Many thanks go to Ian Hebson and Roger Ramsden for vital information and Jeremy Landless for his leadership in the rediscovery of the engines in 1983.

John Aird.

Explorations In Tilberthwaite Mine

Introduction

Apart from the digging project to open the Waterfall Level back in the early eighties and the subsequent exploration (detailed in CATMHS Journal No.1), little seems to have been done at the Tilberthwaite Mine. I had never visited this seemingly permanent resident of my personal 'to do list' and I felt that it warranted an exploration without further delay. I thought it probable that the whole mine would require re-bolting and this proved to be the case.

Exploration

25th April 2008 Friday afternoon initial visit to the Tilberthwaite Waterfall level. After the initial easy section, the way on required crawling though the former dig site which eventually leads to good solid passage but standing in about 4ft of water. Apart from minor clearance work the level was found to be clear and open along its length. Arriving at the head of the first pitch, the compressed air pipe descending down into darkness revealed the way forward, but following its course was not an option on this visit as the old 'spit' type anchors there were found to be badly corroded and very unusable. Nearby artefacts included the barrel of a jackroll.

29th April 2008 First bolting trip to attempt a descent of the 'Pipe Pitch'. This was accomplished and the shaft descended to the 'Bucket Hole' where Chris Jones & the crew had to excavate their way forwards, back in the early eighties. The route on was a scramble up and down piles of fallen deads. The walls of the stope in the area are covered in yellow sulphurous clay. Disappearing into the darkness above could be seen many tiers of neatly stacked deads. Next was a section of false floor that had collapsed but left its stemples behind, across which a plank provided the means to traverse the void below. A small section of solid looking ground lay ahead, but on closer inspection was found to be badly cracked and appeared to be in the process of slowly collapsing. From this point onwards, the floor consisted of timbers lying across stemples and holes in between revealed a glimpse of the very big drop below. The whole area was unnerving and appeared dangerous and unstable even though subsequent discussions with Roger Ramsden, seemed to indicate that little had changed since he had been there during 2006.

14th May 2008 A Wednesday evening visit to put in a safety line along the unstable horizontal area leading to the head of the route down through the stopes and manways

below. Drilling holes beneath the horrible looking ceilings of stacked deads was unpleasant but very necessary and after installation of the line, moving along that section was a fairly routine process, both safer and less of a toll on the nerves.

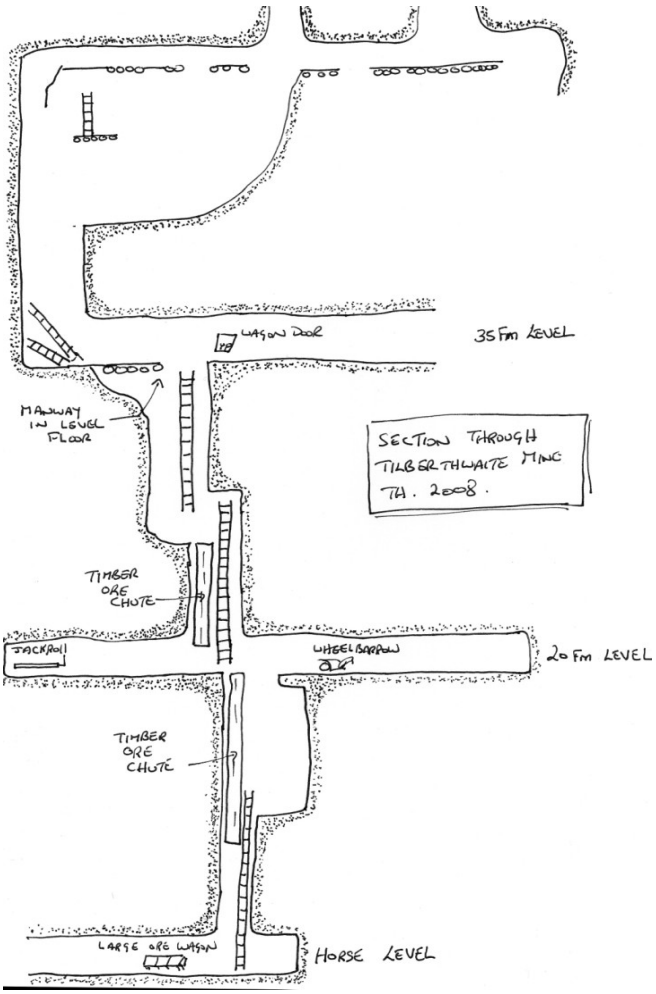
23rd May 2008 At the far end of the horizontal section is a 'safe area' with solid rock floor & roof. Here can be found the top of a very large timber ore chute. Adjacent to this, a hole in the false floor provides a route down into the stope below. This was descended to its base, but the route on from that point was not obvious and there were no clues in the form of old anchors to be seen. Part way down the stope it is possible to swing off onto a platform which gives a good view down the ore chute. This was a possible way on, but as it turned out, not the correct one. Not a very productive visit, only managing to get down as far as the base of the stope, just over half way down to the 35fm level.

25th May 2008 This visit was attended by Chris Jones, one of the original exploration team and author of the Tilberthwaite article in Journal No.1. Chris set a fine example and showed his mettle in forgoing a wetsuit in favour of a furry suit. We descended down the 'yellow' stope to its base, the point reached on the previous visit. One extremity of the stope is composed of stacked and collapsed deads, the other side is the ore chute. From the base of the stope down to the 35fm level the ore chute is partitioned for a man way. We entered this and descended to land on a pile of collapsed deads and ladder remnants. A hole was crawled through to land us on the 35fm level. Artefacts here included a wheelbarrow wheel of timber with a band of metal around its circumference (identical to the one in Taylors Level at Coniston) and the metal swing door of an end tipping ore wagon. We located the manhole in the floor of the level and looking down we could see the remains of manway ladders descending down to the 20fm level. Part way down, what appears to be a ledge is actually the top of a very substantial enclosed timber ore chute of about 2½ ft square, which continues nearly down to the Horse Level. This was the limit of progress as the time was getting late and we had run out of rigging gear.

30th May 2008 Continuing on down from the point reached on the previous visit, eventually arriving on the 20fm level. Artefacts on this level include a pile of rusting chain ladders, a jackroll barrel and a complete wheelbarrow. The 20fm level is partially false and a hole spanning the width of the level revealed a glimpse down the final pitch to the Horse Level somewhere below. The only way across the hole was to trust some very tired looking timbers whilst bracing against the passage walls. This situation was improved with a safety line. With only the final drop left to rig, the drill

bit frustratingly blunted. Not quite a CATastrophe, but annoying. The only option was to leave everything on site and return the following morning with another drill bit. This was the sixth visit and still the Horse Level was proving elusive, despite a large investment in time and rigging gear. The mine appeared to be very reluctant to reveal its secrets and indeed almost had an air of malevolence at times.

31st May 2008 The following morning a new drill bit made short work of drilling anchor holes for the last stage of the descent. The timbers breaching the hole were rearranged and a rope lowered. Passing many ladder remnants on the way down, the Horse Level was finally reached.



A large capacity ore wagon lay on its side, abandoned, its wheels removed.

The area in the vicinity was covered in slimy brown mud, evidence of occasional flooding during wet period when water in the Horse Level backs up. Progressing along the level, the water began to deepen. A second ore wagon identical to the first lay on its side, half submerged. The water level continued to rise to chin depth at the point the level opened out into the slate closehead. This was explored before a return was made to the base of Woodends Rise and the long climb out commenced.

Tony Holland

A Visit to Burtersett Stone Mines, 26th April 2008
Tony Holland & Wendy Brown

Burtersett Stone Mines consist of two quarries; 'Seavy'(SD89578871) and 'Old'(SD89798874), situated on the south side of Wensleydale a couple of miles east of Hawes. The quarries produced stone from the 1870s until their closure in 1931. Most of the stone was used for walling but the better quality material was split for use as roof cladding or paving slabs.

Walking up the approach track, we passed the spoil heap of the first of the two quarries, Seavy Quarry and continued on to Old Quarry; the eastern most of the two. At the rear of the dressing floor are the twin portals, the one to the right being collapsed and blocked. Straight ahead the entrance to the Redgate Level is open, though partially bricked up. We were soon inside and proceeding along the very sizeable main passage. We passed many areas of extraction, most of which had been wholly backfilled to their ceilings with waste rock. A notable feature of the mine is the extensive use of pack walling for roof support. Artefacts were scarce but included: An Iron Wedge, Wooden implement handles and a metal canister.

We later walked down to Seavy Quarry where the remains of the blacksmiths shop and other buildings can be seen. To the rear of the surface remains we found a very fine arched portal and we followed the level for a short distance to a large collapse. We managed to squeeze through a gap into a large and impressive arched level that appeared to be a left branch from the main level but this too was blocked after a couple of hundred meters by another large collapse.

We returned to the surface and followed the line of the left hand branch; its course marked by depressions indicating collapses in the level below us. Eventually we arrived at a large 'shake hole' depression and at its base we found the portal of the left hand branch.

At the eastern end of Seavy Quarry we found another portal, but on entering this progress was soon halted by a badly collapsed area. We found one further portal; another very fine arched example, but here also we were thwarted by a terminal collapse.

In conclusion, Burtersett Stone Mines is an easily accessible site, well worth visiting, with ‘Old Quarry’ having the larger underground areas still open and ‘Seavy Quarry’ having more surface features, but its underground workings are all badly shattered and collapsed.

Return to Hudgill Burn

One of CAT's finest hours occurred on January 11th 1998. At 2:30 in the afternoon member Will Snaith picked up his shovel, took a mighty swing at the blockage within the level of the Hudgill Burn Mine and stood in amazement as a block of sandstone fell inwards and, in an instant, he was able to look right along the main Hudgill Burn level as far as his light would show.

Will's powerful swing marked the end of the first phase of the project, which had already taken four years, to open and explore this renowned and extensive lead mine. Over the next couple of weekends the team secured the entrance to the mine to deter unauthorised visitors. Just over a month later they began the second phase of the project which was to try to gain access to the fabled Cavern, a natural 300 metre limestone void, deep within Middle Fell, discovered by the miners in 1815. After two further months this had also been achieved and the Cavern had been fully explored. There was no halting the team now. They then turned their attention to gaining access firstly to the workings on the Sun Vein and then the Second Sun Vein, two of the most productive areas in the mine. This work was well advanced when the foot and mouth outbreak called a halt to any further exploration and, subsequently, indications of high levels of radon prevented a return to the digging sites once the all-clear was given. However for those who had spent many hours helping the digging team the memories of the Hudgill Burn Mine are still very clear even though the passage of time has taken its usual toll in other ways.

On Saturday 26th April 2008 Nils Wilkes and Alastair Cameron decided it was time to pay a return visit to the mine to revive these old memories. They reminisced about the old days as they drove at a sedate pace over Hartside, with a line of traffic following behind. At the appointed time they arrived at the site followed shortly afterwards by Sheila and Don. Then with wallets, pension cards and bus-passes safely locked in the glove-box they struggled into underground gear which had clearly shrunk in the intervening years.

Once inside it appeared that little had changed. Between the two locked doors the tally board was still attached to the wall – and all the tallies seemed to be in place. The two launched themselves off along the main Wagon Level passing, on the right, the North Wagon Way which runs for about 600 yards to the east but is now blocked after a few feet by a roof fall. A few minutes later they passed the 'by-pass Level' on the left, a tunnel driven in 1824 to provide a shorter route 'to day' from the extensive workings on the Hudgill Burn and Sun Veins. Up ahead the sound of falling water grew louder and the pair paused at the top of the waterfall down the shaft into the Four Fathom Limestone, constructed to allow water to drain away from the Hudgill Burn Mine. They watched the water pouring over the edge and recalled the day in February 1998 when John Brown descended to the bottom of the shaft on a rope…….

Continuing on along the main Wagon Way they noticed the many survey markers attached to the walls of the level. These had helped with the survey carried out in 1999 and were also used to mark significant features such as veins and rises. Exactly 500 yards from the portal the level took a significant bend to the left. This was the point at which the original lease holders had abandoned the drive in about 1808, feeling that nothing of any value lay beyond. How wrong they were!! Four years later the lease was taken up by the Wilson brothers and within 100 yards they had hit the Old Vein, one of the richest and most productive veins ever worked at that time on Alston Moor.

Soon the pair arrived at the 'Three Way Junction', and it was decided to explore the left hand branch first. They were pleased to see that the wooden railway track was still in place and in

remarkably good condition. Nils had measured and surveyed this feature most carefully many years earlier and there had been talk of getting a fragment analysed to find the species of wood used. A short distance further on the pair peered down into a second shaft sunk into the limestone below. The shaft is circular but the shaft head square, probably to accommodate the legs of the hoist used while the shaft was being sunk, nearly 200 years ago. Soon the first of the Trust's digs on the Hudgill Burn vein was reached. The plan to dig through the blockage on the Wagon Level that follows the vein was abandoned in July 1998 because of the very poor condition of the area.

They continued along the crosscut towards the Sun vein. This was the site of the most recent dig which was abandoned in June 2000 because of Foot and Mouth concerns. The site was exactly as it had been left. It looked for all the world as if the digging team had been there the day before. The constructional work carried out by the team at this site is phenomenal and very professional. Who knows, a few more feet and they may have broken into the Sun Vein itself…….

They retraced their way back to the 'Three Way Junction' and decided, this time, to take the tunnel straight ahead along the main level towards the base of the Thomas Shield's Rise. It was while constructing the rise in 1815 that the miners broke, quite unexpectedly, into the Cavern. This must have startled them considerably and word of this discovery quickly spread round the area. Within a short space of time the Cavern became a significant tourist attraction with 'gentlemen' from Cumberland and Northumberland being carried by horse-drawn mine wagons to the base of Thomas Shield's Rise and allowed to climb up into the open chamber. Evidence of their visits is still clear today. Many of them left their names and the dates of their visit written on the walls of the Cavern.

The two climbed back down into the mine and returned to the three way junction. The right hand branch was then explored for part of its length. This is a remarkably beautiful section. Much of the way is through deep water and in the very still conditions in this part of the mine the water is perfectly clear and shows up the different coloured rock, minerals and sediment quite startlingly. Alastair and Nils decided not to disturb the sediment by wading through the water. They stood at the edge and reminisced about the day in February 2000 when Alastair and Angus Baillie dragged a heavy 3-sectioned ladder along the level and set it up in a stope at the far end. Angus then climber it, secured two bolts and fixed a rope. The two then dragged the ladder up to enable them to climb higher into the stope which, by now, was well into the Great Limestone. Eventually they could get no further so retreated, extremely pleased with their achievements, only to discover later in the day that John Brown had free-climbed the stope by himself several weeks earlier!

Nils and Alastair had now completed their planned itinerary for the day and had been underground for several hours. The thought of a pint in the George and Dragon at Garrigill was becoming more tempting by the minute. They waded back down the main Wagon Level, securely locked the mine and departed. Hopefully the next visit won't be too far away. Many of the features – rises and veins – have still to be marked with survey markers. Several of these features are named after the miners themselves and, if this can be recorded, it will be a fitting memento to this hardy breed of men. And then what? The Hudgill Burn Mine will still be there long after we have all gone. Perhaps future generations of industrial archaeologists will take an interest or maybe the doors will rust into their frames, the level portal collapse and eventually, in several hundred years time, another group of explorers will embark on a project to dig open a remarkable Northern Pennines lead mine.

Alastair Cameron

The Story of Brossen Stone
(Based on a copy of an article in the Coniston Magazine, May 2008)

Twice Brossen's thunder startles
the Furness fells
Even in snow the quarrymen
nag the mountain with dynamite and drill
Slate, sharp hewn, tumbles
at their touch.
Suddenly exposed stone
spews the quarry floor,
And where that appears
is more.

From 'The Lakeland Pedlar' by Irvine Hunt, 1974

The story of Brossen Stone starts way back in the late 1600's, when a team of local quarrymen paid Lady le Fleming a tidy sum to start working slate high on the front-face of Coniston Old Man. They promised her that they would "… work ye stone at Brossene Stayne in a sound way and always to employ no less than four good men…". You may wonder why they chose such a remote place. The answer is simple. Even four hundred years ago skilled Coniston quarrymen knew exactly where high quality slate was to be found. Despite the fact that they would be working high up on a steep mountainside, often in strong winds and driving rain, they felt it was worth having a go.

The first step was to construct a track for horses and carts from Tewitt Tarn (Boo Tarn) on the Bannishead Road up to their proposed quarry; a major task in itself! Over the decades, as the tiny working developed, made-slates were brought down to the head of Coniston Lake to join stocks from many other quarries in the parish for the journey down the Lake to Nibthwaite and onward to the port of Greenodd. But eventually the tiny working was closed. The difficulty of operating in such an exposed location was clearly a key factor and for over 100 years Brossen Stone remained quiet.

The next stage in its story occurred in 1959. At that time the Lakeland Green Slate and Stone Co were working the Old Man Quarries and were extremely keen to find a source of light green coloured slate. Doug Birkett remembers a day in March of that year very well. *"I was working up at the Old Man Quarries when 'Bouncer' (George Brownlee) asked me to go across with him to a place called Bursting Stone. Well, I'd never heard of it, but we took a sack and some tools and walked across the front of the Old Man. When we got there we went inside and picked up a stone that had dropped in from the roof. When we got back we realised it was green stone, and it all started from there"*.

Brossen Stone developed steadily from then. With the Old Man Quarries closing down the Company could now concentrate of developing a very successful market for light green slate to clad prestigious building round the world. Initially there was very little equipment there and the only shelter consisted of a wooden shed covered in black felt to keep the weather out. As the quarry developed several noted quarrymen joined the workforce including Jack Tarr and Charlie Kelly. Harry Wilkinson operated the ancient saw, belt driven from a diesel engine. Eventually, as the numbers increased, the Land Rover had to make two trips up the mountain every morning to bring all the men to work, and two trips back at the end of the day.

By this time the work force had attracted even more skilled men included Ernie Major, George Birkett, Stormer Walker, Norman Woolcock and George Tarr. George 'served his time' as a rock-hand at Brossen Stone. He remembers very clearly a mishap one day when a box of gunpowder was accidentally dropped as it was being carried down from the quarry-rim. It fell over the edge and disgorged its contents onto the quarry floor far below. George managed to scrape up most of the powder but had to leave the rest as it was late in the day and time to return home. George didn't sleep much that night, imagining late evening walkers on the Old Man being badly injured with a carelessly discarded lighted match. Next morning he decided to clear the rest of the powder by igniting it with a length of fuse. But the fuse sparked and ignited the powder prematurely and George was caught in the flash, sustaining burns to his face and legs.

The road down from Brossen has always created problems and there are a number of well-recorded incidents of near-misses. Donald Kelly is unlikely to forget one particular trip. *"Doug and I were coming down with about 7 ton of walling stone on the back. Half way down the half-shaft went on the wagon. We went the rest of the way down to Tewitt Tarn with the doors open and our feet on the running boards ready to jump out. We got down OK so decided we might as well try to get all the way down to the village. Half way down The Gill, Doug said 'I hope there's no one coming up because I can't stop'"*. Needless to say they got down to the wharf at the station in one piece.

In more recent times the transport of slate has been carried out using the large and robust four-wheel drive trucks that have become a familiar sight on the Coniston fells. For many years Dickie Walker and John Robinson were responsible for this part of Burlington Slate's operation. Both have now retired but were extremely skilled drivers in their time. However Dickie's mishap in 2003 will certainly go down in the history of the village. Shortly after leaving Brossen Stone the braking system on the truck developed a fault. The vehicle started to slide on the steep loose surface and gather speed. It took all of Dickie's skill to keep the truck on the road, fighting with the wheel and running up the bank above the road several times to try to slow the truck down. He fought all the way down to the Bannishead Road at the bottom where he was able to stop. He got out and checked everything over. The wagon was hardly damaged and the 13 ton block was still on the back, the chains having held. But the worst damage was to Dickie himself. His badly sprained shoulder took a long time to mend.

How the name Brossen Stone ever got corrupted to 'Bursting Stone' will always be a mystery. But recently careful research may have given us the answer. It seems the name change happened over a short period of time during the 1850's. Before then, quarry leases and grazing permissions (The 'Stints') have always referred to this part of the mountain by its proper name. The 1850's was a time when the chaps from the Ordnance Survey were wandering over the Coniston Fells, preparing the 1st Edition of their maps for publication. They no doubt had lots of willing local help to carry equipment etc. for the odd shilling. The surveyors must have found these helpers very useful for providing local names – "what's this place called?" – "Brossen Stayne" – "How do you spell it?" – "can't spell". So the surveyors noted down what they thought it sounded like and (in official circles at least) it has been Bursting Stone ever since.

A Cameron

A Final Exploration of the Waiotahi Valley Gold Mine Workings.

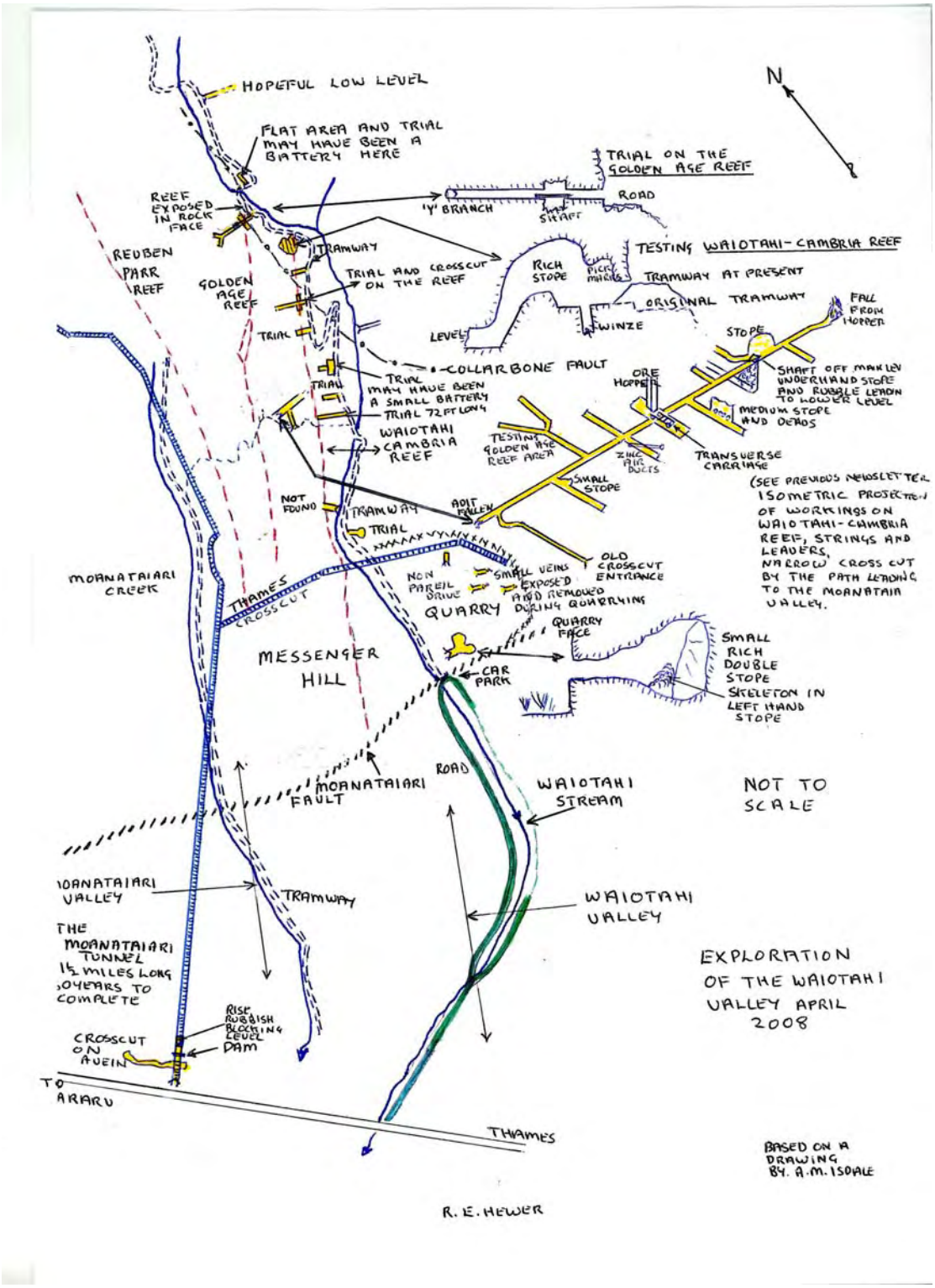
By R. E. Hewer.

It was Anzac week end; Eileen had to attend a meeting in Auckland (New Zealand) so we decided to spend a couple of extra days back in Thames and the Coromandel Peninsula. This was an ideal time to complete my exploration of the levels I missed the last time I was there and to prove or disprove talk of on going clandestine operations. After Eileen's meeting we drove up to Thames ready for an early start. The next morning we were rather rudely awakened by a group of cyclists who started cheering during a photo shoot at 7.30am in the morning. I groaned as I clambered out of bed, then realised; it was….mining day!! Eileen groaned, I don't know why.

By 9.15am we had parked on the corner of the road above Thames by a large raised rock banking that swept along parallel to the road. We were actually on the infamous Moanataiari Fault line which dipped at 45 degrees slipping away under our car; well there's a nice thought! In 1895 a company took over the Queen of Beauty shaft at the far end of the town and started pumping the shaft, they then sank to 1,000 feet and drove a level cutting through the intermediate reefs and grounds towards the Moanataiari Fault, geologists advised the company to keep away from the fault, however one of the adventurers adjusted the plans so that the drive would pass under his property, probe the ground and drain the workings. Unfortunately when a probe punctured the soft clay, lining the fault, water gushed out under a pressure of 600 lbs. A further attempt two years later to cut through resulted in water flying up through the floor of the drive. Eventually the area was sealed and the drive was diverted away from the porous area, only to be closed down the following year when the Government grant was withdrawn. There was also a problem with the release of Carbon Dioxide which often resulted in miners having to quickly leave their place of work, the gas often being released and bubbling through the water.

We togged up, crossing the fault and set off up the old tramway; after about thirty yards I could see a large eight by six foot adit in the rock face, set up about ten feet above the track and guarded by brambles, ferocious gorse and serrated leaved bushes. As I pushed my way into the unknown, Eileen said. "I'll carry on because you'll soon catch me up." and with that comment she disappeared, whether she was still remembering when the large flying black beetle embedded itself in her chest (see previous newsletters) or not I don't know but off she went, with my best camera to boot!

I turned my attention to the level; I fought my way through the razor sharp bushes and climbed up the face and into the level. This drive continued a few yards before branching like a horizontal 'Y'. The right hand branch led to a bulbous stope that had picked out a rich pocket in the vein, the left hand branch took me straight to a large skeleton! Wow!! I cautiously moved forward, just in case it jumped up at me. Yes, it was dead. It was big, a huge rib case and spine, a head buried under rotten fur and four hooves! Phew, not human! It was very old with a little fur lying on the floor. I honestly don't know what it was, it could have been a mule, donkey or deer but it was big. How did it get there? Someone must have hauled it up the rock face, along the level and for what reason? The level ended just beyond the skeleton, once again in a bulbous shape, these were two little 'blows' of rich gold deposits.



Plan of Waiotahi Valley, RH

Shakily, I made my way out and set off up the tramway to find Eileen at the old quarry. Where was Eileen? Gone; and I needed my best camera! Previously I had seen a few levels high up on the sloping quarry face. Grumbling loudly I climbed up to them, quarrying had removed several yards of the old workings; the narrow stopes followed the vein for about twenty feet before collapsing. There was a nice stemple and chock, this I leant over to film and my glasses shot forward into the stope, filming

turned into a rescue job. It was a tight squeeze getting down the stope and even harder reversing out. Nearby the there was another short level. This area was named as ‘Nonpareil Drive’.

I clambered my way back down to the tramway and continued up to where the side track crosses over to the Moanataiari valley and where I discovered the transverse rail unit. (Although visited again on this trip, the still valid details can be found in previous newsletters.) Eileen was reading a book at the mouth of a level, unconcerned. I burrowed into the five foot by two and a half foot level that went straight for seventy two feet to a forehead testing the Waiotah–Cambria reef. The reefs in the Thames area were not particularly productive, these reefs were the original faults in the volcanic area that allowed hydrothermal fluids to rise and cool. Various minerals were deposited in the reefs but the richest areas were found in the veins and leaders running off the reef. The ground was often very disturbed through earth movement and gold was found in loose boulders and in pipes, one at Waiotahi Mine was 107 feet long by 32 feet high and 5 feet wide. So it was with no surprise that we found so many trials and minor rich pickings. Recent inspections and tests have revealed that the whole of Messenger Hill could be removed and milled at a profit, the report did not go down well with the locals, especially for those with homes on the flank. Now together, we continued up the steep track passing a couple of weak trials and a flattened area which I think was the site of a small battery, it matched up with one of my old maps. After winding our way around a couple of hair pin bends we came upon a long drive that followed the strong Waiotah-Cambria reef for a considerable distance without stoping. A couple of cross cuts determined the width of the reef at about ten feet. At the next hair pin bend I saw the roof of a level just sticking out above the tramway surface. Laying flat out I peered through the opening and it looked to go.

“I’m going to have a look at this level.” I said with enthusiasm, having purchased a 1 million candlepower lamp the previous week, I was determined to use it.
“Ok.” Replied Eileen.” I’ll carry on up the track.”
“What if I get stuck, or die?”
“Then I’ll come back and find you. I know where you are and how tall you are.” She replied flippantly and disappeared!
“Huh! What about my width?”
“Oh I’ll squeeze you in the box!”

Grumbling again, I sat down and put on my anti-weta suit. Oh yes, I still carry it with me. I grabbed the camera, slave unit, tripods and torches; thrusting them ahead I wormed my way through the tight opening and slithered headfirst down a dry slope into a large hour glass stope. I was still in the Waiotah-Cambria Reef workings. The walls all showed dense pick marks, the roof, about ten feet above me showed signs of fresh bursting and may have been the result of the numerous earth tremors we have been receiving recently. Several pieces of ore lay on the floor. To the left a short narrow winze dropped down following a rich portion of vein, it either stopped or ran in after six feet or so. Forward led to a sloping pitch that followed a vein in to a small stope and a short level to a forehead. It was quite an impressive little area completely in character with the workings operated by a small group, pair or single miners. There was a complete absence of shot holes and the workings were old. The reef could clearly be seen.

Having taken my photographs I emerged tired and bedraggled. It was very humid, dry and hot though not sunny. I realised I hadn't taken any self portraits whilst underground, well you know, you just have to get into the limelight; so I crawled back, it was at this time that one or two of the wetas woke up and were watching me. I could see them licking their lips and swinging the antennas about. I immediately took out my powerful lamp and flashed it backwards and forwards across their little beady eyes. I could hear them saying.

Rich Stoping by the Waiotahi tramway winze.

"Cor, blimey. What was that? I can't see. Bright light! I wish he would b***** off I'm trying to read my 'Weta News.'" There was one fella' I kept my eyes on. It was huge, about nine inches long with antennas about twelve inches long and he was ratcheting up. I set my camera timer, shot off to be in the frame and held my slave unit up, missed my footing and fell into the winze. The camera flashed and I wasn't in the photo. I climbed out with a cut leg and broken toe nails (now gone black). I filmed again and got some good photos. The weta jumped but missed me, I flashed my torch and he beat a retreat up the side of the stope into the roof and stayed put, glaring at me. I detackled and slithered out. Sat down and opened my note book to record the workings; my glasses had gone, again. So I had to slither back, cut my leg again in more places. I found the glasses and finally got out. Goodbye Mr. Weta!
I continued up the track to Eileen.

"You were a long time?" She queried.
"Well you know, it takes time falling down shafts, fighting wetas and filming."
"Ah. Right." she replied and returned to her book.

I shook my head and set off to the next level which cut back onto the Golden Age Reef. The Reef is fully exposed in the cutting face, around the corner the level cut into the reef, a couple of cross cuts and a sump tested it and the level continued forward for about a hundred feet to a 'Y' junction and stopped. The dry sump obvious went down a fair way but is now blocked.

The track crossed the creek, a small level to the left went nowhere but another flattened area, by the creek, again the site of a small battery and shortly afterwards I came across the Hopeful Low Level that was oozing tons of red ochre and there was no way on Gods earth I was going to enter that level. I mean Eileen would kill me, she's already measured me up! As regards covert operations in the upper reaches of the valley, I found no evidence of any extraction operations. Having said that, it would not surprise me if some of the cottages in the lower valley don't have an odd

Waiotahi Valley Gold vein in level by track

adit or two in their back gardens, and if I lived there I would certainly be doing a bit of probing and carrying ore to my garden hut!

We returned to the car and made our way on to the main road, to the point where the Moanataiari Tunnel emerged from the base of Messenger Hill. I wanted to have a closer look. It was a hit and run job because the tunnel is sited about forty feet above the main road and right in front of a series of elderly peoples bungalows, so the curtains were twitching. I belted across the road with the gear, up the slope. I know the guy with the lawnmower stopped and pointed but I was gone, his brain was three minutes out of sync. I ran up to the rock face and slithered down the slope into the tunnel, which was thankfully dry.

This tunnel, started in the 1870s took thirty years to complete the length of 1.5 miles; it pushed forward, serving all the mining areas up the Moanataiari valley and with a cross cut into the Waiotahi valley ending beyond the northern part of the quarry I had visited. Part of its drive was concentrated along the line of the reef until the Moanataiari fault cut the reef off. Many neighbouring mines connected into the tunnel using it as an access from one mine to another and as a drainage outlet and for moving the tubs of ore. Tests about 3,000 feet in the tunnel revealed that the country rock contained 1.5 gr of gold and 3 gr of silver per ton.

The tunnel retained the odour of horses that were used for tramming. Mine workings and winzes were sunk from it following the various reefs and leaders, when abandoned numerous ladders could be seen emerging through the level. A very soft area was encountered at the Moanataiari fault, one of the last miners to explore the tunnel said that the forest timbers had given way and the height of the tunnel had reduced to three feet in the vicinity of the fault.

The Moanataiari tunnel was huge. It was ten feet wide and over six feet high and rectangular in shape. Just a few yards in bye, a cross cut followed a reef containing quartz and minerals, some copper and Epsom Salts (I think) were hanging from areas, white and silky, soft to touch, slightly salty. The cross cut ran for about sixty feet. On the opposite there was a cut out. Ahead a large brick dam blocked the way forward; it was built to within a foot of the roof. I climbed up and the way forward was dry but tons of soft earth had been tipped or had fallen through a wide shaft rising to the surface and had completely blocked the level and that was that. I would have dearly loved to have cut through to find out what lay ahead, the tunnel is forty feet above sea level. The dig could be discreet but then is it full of water?

Finally, I've been conned! When we continued up to Coromandel I found the Opitonui Battery site at Te Rerenga. I stormed across the main road and filmed away. There were the concrete bases for the battery mill, the concrete safe and two Berdan

Pans, gearing, a three head stamper battery complete with rods, cams, primary crusher and long cogs. I was over the moon, until I came back to the car.

Eileen looked at me. “Have you read your mining book then?”
Not to be put out, I answered cockily, ”Yes.”
“Well then; you’ll know that all the machinery has been transported to here from the Iris Battery at Matawai Stream in 1985?”
“No!” B*****.

For information relating to the exploration of the workings where the transverse carriage was found and exploration in the Moanataiari valley please see previous issues. The diagram in this article should have been included in an earlier issue too. Sorry!

I removed some samples from the mineral workings that had recently burst. I ground the soft quartz down on the meat chopping block with the aid of a jar of coffee! After panning the contents very carefully and drying. I passed a strong magnet over the fine powder to remove any iron particles. I carefully inspected the dust, there was plenty of iron pyrites and gangue. If gold was present then it would be with the iron pyrites. It was easy to understand why the early batteries lost up to 60% of the gold through the tailings until the system utilising cyanide was perfected and then the loss could be as little as 5%. During the 1980s core samples were taken from the estuary opposite the areas where the batteries were located. The samples produced impressive quantities of gold retained in the fine pug clay. Early dredging had already tried the clay but the perforated drums and riffles kept clogging up and the enterprise was a failure. So, I looked even more closely at my sample and from nowhere I sneezed…..and lost the lot!

References

Coromandel Gold. Phil Moore & Neville Ritchie
The History of the River Thames NZ A.M.Isdale
Department of Conservation notice boards
Geological Veins of the Hauraki Goldfields Tans NZ Vol 1 1897. Prof. Park.

Levels not found: Flame and Fortune Low Level.
Trafalgar Low Level

Richard E Hewer May 2008.

CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY

Committee Meeting held on the Monday 19th May 2008 at the BMSC Hut at Coniston, starting at 6.30pm.

Agenda.

1	Apologies for absence	2	Minutes of the last meeting
3	Matters arising	4	Secretary's Report
5	Treasurer's Report	6	Membership Sec. & Newsletter Reports
7	Meets	8	Publications
9	Library	10	Microfiche and plans to be copied
11	Coniston Coppermines & Quarries	12	GPS
13	Mines Forum meeting	14	CATMHS website
15	Any other business		Date and venue next meeting

Present: M. Simpson (MS), J. Aird (JA), I. Matheson (IM), D. Bridge (DGB), J. Brown (JB), P. Fleming (PF), T. Holland (TH), M. Mitchell (MM) & A. Wilson (AW). Wendy Brown also attended with the Chairman's approval. The meeting commenced at 6.30 pm.9 committee members attended.

1 Apologies for absence from: S. Barker (SB), D. Borthwick (DB) & M. Scott (MSc).

2 Minutes of the last meeting

The minutes of the committee meeting held on Monday 10th March had been previously circulated to members**.** PF asked for the following addition 'That the John Barratt letters previously held by P. Fleming are now held by M. Simpson'. After this amendment, it was **PROPOSED** by JB and **SECONDED** by JA that the minutes be signed by the chairman as a true and correct record of the proceedings. This was carried unanimously.

3 Matters arising

3.1 Item 3.2.2 (10/03/08) SB had contacted John Crompton (JC); his documents are now in the Carlisle record office. **Refused-See JC letter.**

3.2 Item 14.1 MM still to buy book.

4 Secretary's Report

Received since last meeting: No report.

5 Treasurer's Report

JA had circulated the balance sheet to committee members covering the period from 10th March, to 19th May. Income was from: subscriptions, donations and publications. Expenditure mostly on: newsletter/meets list p & p, leaflet printing & rent/rates Mandall's/Roan Head store. The current a/c stood at £1056.26 and the Scottish Widow a/c at £17000.00.

6 Membership Secretary's Report & Newsletter

IM reported that we have 2 new members, which makes our current membership at about 101 inclusive of libraries and honorary members.

IM was congratulated on another impressive newsletter, which came out at 42 pages. The cost is still covered by subscription, at about £600 p/a inclusive of p & p.

In line with the Society's policy of renewing the printer every year, I.M asked for authority to purchase another printer at about £100. This was approved.

7 Meets Report

The new meets list is now out and goes up to December. A new list will need to be constructed in September. The problem of special project meets came up and how to notify members of their existence. It was decided that they should be published in the CATMHS website in the members section. MS who led the Newlands Valley Meet on Sunday 18th May gave a brief report, a full version will appear in the next newsletter.

8 Publications

I.M informed the committee of the demise of Dave Sewart, a great friend of CATMHS who will be much missed. Condolence cards have been sent. Dave was in the final stages of putting the latest CAT Journal together, and it was within a month of completion. We are now awaiting events and it is hoped that Dave's wife will be able to complete the job, probably by the end of September. J.A proposed that a donation should be sent to a charity nominated by Dave's, wife Elizabeth. This was accepted.

T.H. said that CATMHS Journals 1,2,3 were now on CD as PDF's. The new Coniston Copper Mines Trail leaflet is selling well, the Old Man Slate Quarries is next , but depends on A. Cameron.

9 Library

Don Borthwick had sent a plan of the Ruskin Museum showing the location of the CAT Archive for users, as well as Archive users information. This was discussed and several amendments proposed. This is to be brought up at the next meeting.

10 Microfiche and plans to be copied

MM had tried to copy a microfiche of one of the mine plans, but had no success in reproducing its contents. No solution was found on subsequent discussion.

MM has copied the Lambton plans, satisfactorily, members of the committee are still to look out for means of copying the plans in their entirety.

11 Coniston Mines & Quarries

DB said that he had been contacted by an academic with a view to providing assistance for a student studying radon underground at Coniston, and comparing the results with those recorded at the Great Orme. CATMHS to provide help as long as student has PL insurance. J.B said that the report for Kernal Level was nearly ready. Providing this was a condition of English Heritage's SMC approval, and was the first report of this kind we have been required to produce.

12 GPS

The GPS device plus laptop (as required by the agreed conditions), was returned by MS and made available for use. As no requests for use were received at the time, MS retained the GPS device and laptop.

The MMCE (GPS device) was in use on Sunday 18th Newland meet and the results were found to be interesting (plans will be circulated). MS related several problems which occurred on the day:-

A) The battery did not last all day, it was in use from fully charged from 10.00 to 3.00, when it went flat. A spare battery was required.

B) Logging of features also had difficulties, The original idea was to use the MMCE on a pole for security of user and device, but it was found that you cannot use the pole and treking poles at the same time. There are times when you need both hands free to log the details The detail pole is a pain to carry over long distances.

C) Loss of satellite lock.

It was thought the solution was to use an external antennae mounted on a pole in the surveyors rucksac, this would improve reception, and leave both hands free. The MMCE could then be carried in a bag with sling. Safety in use was a very important consideration. Projected costs were approx £600 for the antennae and £60 for the battery. It was proposed and seconded that CATMHS should obtain these items.

13 Mines Forum meeting

The last Mines Forum meeting on the 12th May 2008 at Bowe Barn the NT Centre in Borrowdale. SB, MS IM and PF attended. Details will appear in the news letter. A mine site recording training day will be held on the 5th of June.

14 CAT website

The image on the front page has been changed. Jon Knowles emailed to say that the image was very good but maybe with the passage of time better photo's might be available. JA to investigate. Project meets to be put in members area.

15 Any Other Business

15.1 T.H suggested a plaque commemorating the life of Dave Blundell be placed alongside the Hudgillburn Mine plaque, all were in agreement. MM to get a price up for a brass plaque and report.

15.2 Carrock Fell mine, awaiting E. Kingston (LDNPA) to give the go ahead, J.B will contact E.K directly.

15.3 It was reported that the security of Mandall's had been compromised, by too many keys being in circulation. The lock is to be replaced by MM. and new keys supplied to committee members.

16 Date and venue of next Meeting

This to be held on Monday 28th July 2008, at the BMSC Hut Coniston at 6.30 pm.

There being no further business the meeting closed at 9.15 pm.

SB 14/06/08 Chairman

CUMBRIA AMENITY TRUST MINING HISTORY SOCIETY