THE · FRIENDS · OF
KILLHOPE

NEWSLETTER NO 38 PRESIDENT - *Sir Kingsley Dunham F.R.S.* **September 1996**

As I write this in mid September all the dale's agricultural shows are over and there is a definite "back-end" feeling in the air. In fact Killhope's first snow of the winter is likely to fall within a month! Mercifully the weather was much kinder for our major events this summer. At the opening of the new Park Level mine on a gloriously sunny day in June, Tony Blair, Lead of the Opposition, Hilary Armstrong MP and many elected members of the County Council saw Killhope at its very best.

Tony Blair pictured outside Park Level mine after performing the opening ceremony with the help of two local school children. (Photograph Bryan Chambers)

A little later that month the weather was equally clement when Mr Charler Pooter visited on the occasion of the Pays! Charles who? do I hear you say? Hopefully you will be intrigued and will want to read on....

Subscriptions - a form is enclosed as a very early reminder that your subscriptions become due on lst January 1997! Festive seasonal greetings to you all!

Bryan Chambers, Newsletter Editor, 18 Cheveley Walk, Belmont, Durham DH1 2AU
Telephone 0191 3868491.

Remaining events at Killhope 1996

October 6th - Family history walk

October 13th - Fungi Hunt

October 26/27th - Halloween workshop

Friends events

October 12th - Day School at Killhope

November 13th - Talk at Stanhope Old Hall 7.30 pm

December 13th - Christmas social and members night, Stanhope Old Hall 7.30pm - as Leonard Sachs used to say, the December meeting is "chiefly yourselves" so please bring slides, artefacts, ephemera and be prepared to do a recitation or short talk to help the evening along. It's all very informal so come along for a relaxed time together.

Day School

At the eleventh hour, due to circumstance beyond our control it became necessary to rearrange completely the programme for the Day School. A new theme had to be chosen and speakers found and we are extremely grateful to those who stepped in at such short notice. We are pleased to give an airing to perhaps less well known but nevertheless highly significant industries of the northern Pennines. Once again we are confident we have an excellent day in store. Why not come and find out?

Two more new books

Geevor Mine Underground with pictures by David Wills and Paul Deakin and Wheal Jane Underground containing Pauls pictures are available from J. A. Buckley 25 Carn Brea Lane, Pool, Redruth, Cornwall, TR15 3DS. Priced £3.50 each with postage for up to three books free to Friends of Killhope.

Your Committee

Following the A.G.M. in June your Committee is as follows:

Mr M R Graham, Chairman; Mr T Bridges, Vice Chairman; Mrs D Chambers, Secretary; Mr W Grigg, Treasurer; Mr B Chambers, Newsletter Editor; Mr I Forbes, Project Officer; Mrs S Bridges; Mrs H Cannam; Mrs P Forbes; Mrs M Graham;Mr R Parkin; Mr R Turner; Mr D Tyerman.

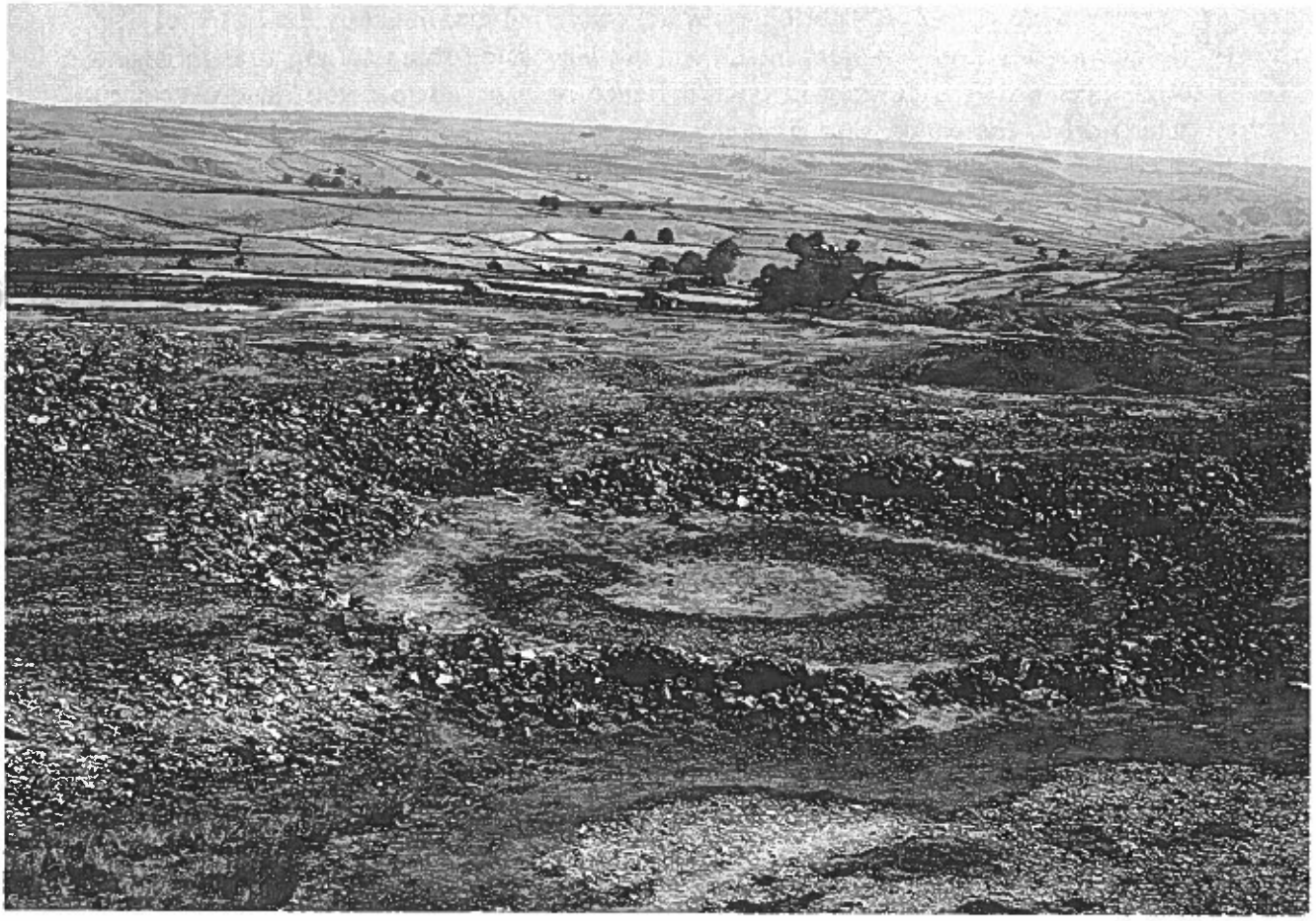
GIN WHIM OR WHIMSEY

Harold L. Beadle

Any of the above names appearing on a mine plan will indicate a shaft or a rise where the method of drawing the work (and on occasions the water) from the mine; was done by a winding gear operated either by men or more often by a horse or horses. It should be said that the latter two names appear to be those mainly used in connection with the mining of ore. Although a study of mine plans will prove that at one time it was a method which was very widely used it is now difficult to locate any remains. The reason being that later mining methods and the passage of time has removed the evidence with rare exceptions. I have had little success in attempts to identify remains at sites where it is known that there did at one time exist such an appliance in Teesdale, though I do know of the site of two which were man operated. One at Greenhurth and the other a short distance to the north of the site of Cowgreen Mineshop which was used to draw ore from the Teesdale vein.

However, by roaming over Hurst Moor in Swaledale where lead mining remains are widespread and, fortunately, in a few places fairly well preserved, there can be found the remains of several whims. But none more complete than the one on the right hand side of the track leading up from Hurst Hall. Here can be seen what in my opinion has been a well constructed large whim some fifteen metres in diameter which has been walled around and covered in, designed to draw a shaft (now collapsed) but easily seen on the east side. The remains of the wall are at present in the state where it would be possible to carry out some reconstruction in order to preserve the site from any further deterioration.

Editor's Note:
Harold's is a timely reminder that there are many remains in the Northern Pennines which will slowly be lost unless some action is taken. Perhaps we should be broadening our activities from time to time – though of course much remains to be done at Killhope.



Remains of a whim on Hurst Moor, Swaledale, photographed in 1976. *Photograph: Harold Beadle*

Roy Curry came across this fascinating description of Nenthead during the hey-day of the London Lead Company. The account of what presumably were the Brunton Buddles serves as a reminder that those at Killhope are still far from complete. I am grateful to Roy for bringing this item to our attention.

Editor

NENTHEAD

The village of Nenthead, which makes no secret of its vocation, for huge mounds of refuse, tramways, wagons, heaps of ore, implements scattered about, and a sturdy population proclaim that it lives by the mine. It belongs to the London Lead Company, who rebuilt it some years ago; hence it boasts a market-house crowned by a clock tower, a Methodist Chapel, and a good school-house; There are no signs of poverty, but abundant signs of work; men and boys washing, sorting, and crushing ore, amid the splashing of water, the thumping of machinery, and clattering as of falling stones when the wagons from the mines drop their burden. From the heaps of ore at one end of the premises, to the slime-pits on the other, resolute industry prevails. Higher up the hill stands the smelt-mill, where the ore is roasted and melted and cast into pigs of lead. The roasting is what a metallurgist calls a beautiful process; the ore is spread on the sole, or floor of the furnace, and is heated to a temperature at which it parts with its sulphur and takes up oxygen, but does not melt. In another furnace it is melted, and you see the molten stream flowing from the mouth into a pot. In another, the stubborn slag, or dross and refuse, is heated by a roaring blast, becomes docile, yields every particle of lead, while splendid blue and green flames leap and play in the impetuous current. You see how even the sweeping of the chimney are converted into metal by the action of fire; how silver is separated from the baser metal; and not least astonishing among stranger sights is the huge water-wheel, exceeding in circumference perhaps all that you have ever seen before, which drives the condensing apparatus. The village is built on a hill slope, and here and there you see the galleries, or entrances to the mines, which penetrate the hills for miles, ramifying and honeycombing to such a depth that they reach the diggings from the other side, and I was told, it is possible to go all through seven miles underground and come out in Weardale. One of the entrances pointed out to me was Rampgill Vein, from which seventy-two tons of ore have been dug every week for more than a hundred years. With such abundance as that to work 1,200 men and boys may well be busy. What a clattering of clogs there was when the school broke up, and the children swarmed out upon the street.

Let us take a walk through the works, and see by what process lead is procured. The ore, as it comes from the mines, is in rough stony lumps, of all sizes, from the bigness of your head down to sand; some lumps are slatey in appearance, some like quartz; many are good specimens of the pale grey limestone from which they were torn, and the more they all sparkle with crystals of lead the better is their quality. Some look as if they were all lead, only brighter, so cunningly is the earth masked, and these which are singularly heavy, the miners lovingly call lazy lumps. The local term for ore is bouse; the wagons laden therewith run from the mines to the works, where each drops its burden into the bouse teams; that is into a range of open stalls, according to quality. Here the ore is ready to hand; the washing floors are close by on the same level, and the next operation is to break it up, wash it, and separate metal from stone. A barrow full of ore is thrown on an iron grating, upon which a stream of water is let to flow; the light earthy and gritty particles are thereby washed off, and carried into the trunk box, placed in connection with the grating. Meanwhile men and boys stand

with hammers, and pick the washed lumps. That which is only stone is at once thrown away; the metallic lumps are broken and sorted, and as much stone got rid of as possible, in readiness for the succeeding operation known on the spot as buddling and hotching which may be described as a kind of sifting with sieves suspended in water; an arrangement which facilitates the separation of the heavy from the light portions. You have only to agitate sieves and boxes with sufficient perseverance, and the ore will find its way to the bottom and lie there as a distinct stratum, by its own gravity, and then separation from the refuse is easy.

It is a pretty sight to see a heap of pure ore lying bright and glistening ready for the smelt-mill; such a mass of what metallurgists call galena, the sight is one to admire, for its own intrinsic quality, and for the successful results of mechanical operations. Who would think that those rough heaps of bouse could be brought into so clean a condition. Nothing is lost. The washings are not allowed to run away to waste, but are intercepted and made to surrender whatever they hold metalliferous. The trunk boxes are emptied from time to time, and the small lumps of ore are picked out; in fact, whatever cunning and skill can do to save lead is done. All the water of the washings, before its final exit from the premises, is made to flow into a slime pit where it remains almost stagnant, until it has thrown down the light particles held in suspension. These particles form thick beds of slime, in which is contained a considerable quantity of lead. The lead is separated with two rollers, and an endless web of canvas, they form an inclined plane; the web is set in motion, travelling, so to speak up-hill, and while it moves the slime drops upon it from a trough; water falls at the same time in a brisk shower, and the result is, that as the web moves, the particles of lead, by reason of their weight, fall into a trough, while the fine sand and mud is washed away; and then in a muddy stream the water is dismissed. From the smelt-mill a long range of masonry stretches away far up the hill-side, with low towers at intervals. You might guess it to be an aqueduct; but it is the chimney of the mill, and you see it terminates above in an upright smoking shaft. The chimney is a mile long; the smelters being wise in their generation, conduct the fumes from all their furnaces into one chimney, where, in their long course to the vent, the light particles have time to form a solid deposit on the walls, leaving only a small quantity of light vapour to escape. And this deposit, sometimes two feet thick, is dug out and scraped off once a year, and converted in the furnace into solid marketable lead

Source: William Whellan, *History and Topography of the Countys of Cumberland and Westmoreland*, (1865).

Book Review

Bryan Chambers

Durham County Council have recently brought out a new book intriguingly called 'Whar a candel will not burn... The story of Park Level Mine '. With text by Ian Forbes (albeit wearing his county council hat) and many of the fine photographs by Trevor Bridges the Friends may claim some influence on this excellent colour publication of almost 50 pages. The story of the old mine is told in Ian's own inimitable style and he contrives to explain many mining terms and practices along the way.

To be hyper-critical I found it slightly disappointing that a line of white plastic-covered cable staples which always upset me when in the old level just beyond the chamber, show up quite clearly in one otherwise evocative photograph!

While the book is primarily intended as a souvenir of your mine visit it manages to be far more and for just £3.50 is a worthy addition to any of our bookshelves.

THE BELDON AND REEDING LEAD MINES

Nigel A. Chapman

On December 15th 1859 Henry Charles Silvertop, lord of the manor of Bulbeck in Northumberland granted a lease of lead veins under 1700 acres of land to George Demaine and two others for a term of 49 years. The lead veins lay to the north of Blanchland for a rental of £100 per year plus a royalty on the lead ore produced of 1/15th. These mines had been worked for centuries, the mounds of waste from shallow shafts sunk on the veins can still be noted. In more recent times, the London Lead Co. had worked the Beldon Mines during the 18th century. By 1805 Messrs. Easterby, Hall and Co. had taken over the lease of the mine. They believed the veins would improve at depth so in 1805 erected the first Boulton and Watt steam pumping engine on a North Pennine lead mine. This 40 inch by 8 feet stroke engine pumped water from the mine, permitting sinking of the shafts to reach a depth of 60 fathoms.

The collapse of the price of lead following the end of the Wars with France plus the expense of several major projects undertaken by the company ended in their failure in 1811. The creditors of Easterby Hall, took over the mines in Arkendale, Yorkshire and Derwent, Northumberland, but the Beldon Mines appear to have been neglected until the lease of 1859. George Demaine and partners formed the North Derwent Lead Mining Co. and commenced operations by erecting a 60 foot diameter water wheel at Beldon to pump water from the 60 fathoms deep shaft. Crushing and lead ore dressing plant was also constructed at the mine driven by the same 60 foot wheel. Mining got off to a good start when the Beldon Shields vein yielded £3,000 worth of lead ore, making a profit of £500 when sold. This early success was not to be repeated, the company failed to find paying amounts of lead ore raising only 72 tons in 1863 and 70 tons the following year. About 1868 two of the major partners died, leaving George Demaine to find new partners and to clear the existing debts. At this date it was stated the company had spent over £10,000 to develop the mine. He decided to float a public limited company called the New Beldon Lead Mining Company in June 1868. It was to have a capital of £10,000 divided into shares of £1 each. He sold the Mining Lease to this company for £2250 cash plus 2,000 paid up shares. The cash was to clear debts of the previous company, while the 2,000 shares gave George Demaine a Director's seat on the new company's board.

The Directors were

Major Thomas Cooke, of Bayswater, London.
H. Grosvenor Clench, of Lavender Hill, Surrey. Gentleman.
Capt. Charles Borlase, of the Raleigh Club, London.
Wallace James Harding, Barrister of the Middle Temple, London.
George Demaine, of Bolton Abbey near Skipton Yorkshire. Farmer.

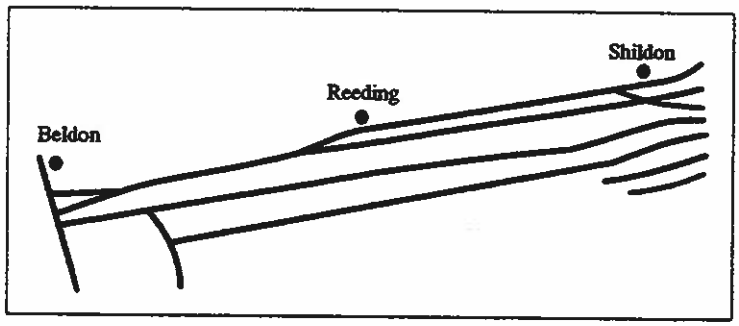
To help the share-owning public to risk more of their money in this mining company, John Dolphin, Mining Engineer of Delves House, Consett, Durham was commissioned to visit the mines and produce a report. He mentioned that the mines were on a productive series of veins over three miles in length with Beldon situated to the west and Shildon lead mines worked by the Derwent Mining Co. to the east. Four lead veins had been worked profitably in the Shildon Mines, Old Shildon, New Shildon, Fellgrove and the Standalone, all of these were found in the Sett taken by the company. Work had recently commenced at Reeding, driving a level into the Standalone vein with the intention of intercepting the Beldon Shields vein. The report closed by suggesting this was an opportunity for the profitable investment of capital in mining adventures seldom to be met with.

Mr. Joseph Barron, Mining Agent of Blanchland was also asked to write a report on the mines. He commenced by stating he had managed the mines from 1860 to 1863, noting his involvement in the sinking of shafts and construction of the water wheel at Beldon. The report continued by mentioning the other mines of the area, Allendales worked for more than 100 years on the most

productive veins in the north and the Derwent mines, both working veins on the boundaries of the present company. Work at the Reeding Mines was concentrated on the sinking of a shaft which had found lead ore at a depth of 7 fathoms. At the time, the company was busy constructing a steam engine at Reeding to wind and pump from the shaft. With two rosy reports the company was launched and shares allotted by the end of January 1869. A fifth of the shareholders were said to be miners resident in the North of England.

Following the floating of the new company, Joseph Barron returned to the management of the mines in 1869 and wrote the published reports which form the basis of this article. Operations at Beldon seem to have continued to extract small amounts of lead ore from workings on the Beldon Shields vein while at the Reeding Mines an opencut on the Shildon vein produced 160 tons of lead ore. Having reached a depth of 25 fathoms in the shaft sinking at Reeding a level was driven off east to intercept the Standalone vein. The level was soon cutting a number of strings from the vein and producing lead ore but only in small quantities not worth saving.

At Beldon a level was driven to cut the old Shildon vein of about 2 feet wide near the shafts. It was hoped to get below the existing workings from the level and find unworked ore. Because of the hardness of the rock explosives were introduced to speed operations. The level was driven out to the surface, being renamed the Beldon adit. When during 1871 quantities of lead ore worth working were discovered, a surface tramway was laid from the adit to the dressing floors to ease the transportation. The adit was said to have been driven nearly 1,000 feet by August 1871. Joseph Barron suggested to the Directors the construction of a 10 feet diameter water wheel to drive chat mill rollers at the bouse teams to break up the ore from the mine.



Suggested plan of the lead vein system

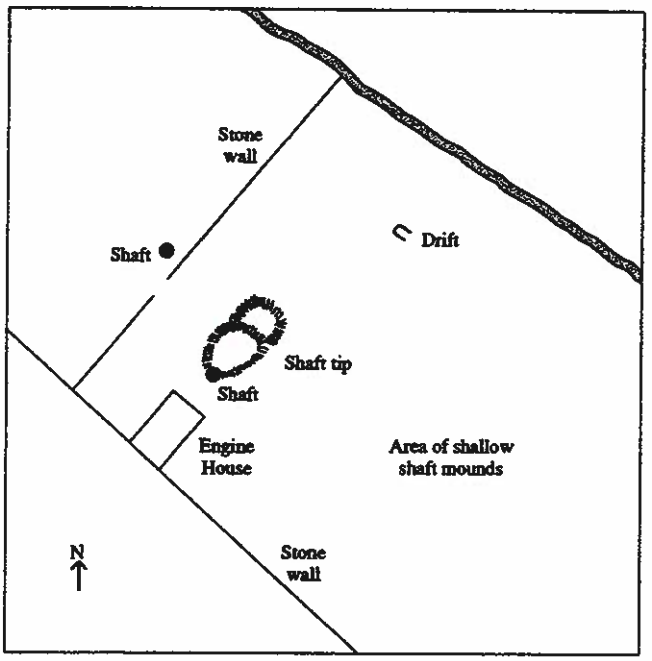
An interesting aside mentioned early in 1872 was Joseph Barron found himself a job cleaning the steam engine at the Reeding shaft, probably because operations at the mine were running down and the miners were moved to more productive work at Beldon. Underground stopes were developed in the Beldon Shield vein to the west of the shafts and were worth about half a ton per fathom. On the surface a carpenter and a blacksmith were busy during the summer of 1872 making tubs for the dressing floors. They later in the month moved to making sludge buddles and refitting and repairing the floors. October saw the delivery of four cartloads of stone flags to floor the bingstead and for flooring round the smidden and sludge buddles recently erected.

Early in March 1873 Joseph Barron noted the winding of lead ore from the workings by hand-operated "Jack Rowl" which was very slow and expensive. He suggested the purchase and construction of a horse whim as quickly as possible. Mining in the Beldon Shields vein was producing ore to cover the costs of mining, dressing and transport, so the mine was able to pay the bills. By the end of May Joseph Barron was able to report the horse whim built and working. Lead ore was being raised and dressed by two boys.

According to the *Mineral Statistics* the mine produced 6 tons of lead ore in 1872, then disappears from the records in 1873. The above is the last report the author has found, leaving the mine working and producing ore. One is left to suspect that the best ore had been mined before 1800 by the London Lead Co. leaving little for later companies to find. The Reeding Mine according to the records never produced a single ton of ore!

Surface remains, Reeding Mine, NY 944506

Built into a dry stone field wall is the rear wall of the engine house with foundations of the building to the north east. Further to the north east is an open stone-lined shaft with a cut out towards the engine house. This suggested that the engine operated pumps in the shaft, as well as winding the debris and lead ore. Down the slope from the shaft is a small, but prominent tip of shale and sandstone mixed with pieces of white quartz. At the bottom of the slope near the beck, is a collapsed drift which still drains water from the mine. In the next field to the north west is a second stone-lined open shaft, without any sign of a tip. Over to the south east are a number of shaft mounds sunk on lead veins. These are all grass covered and appear to be several hundred years old. 16th to 17th Century?

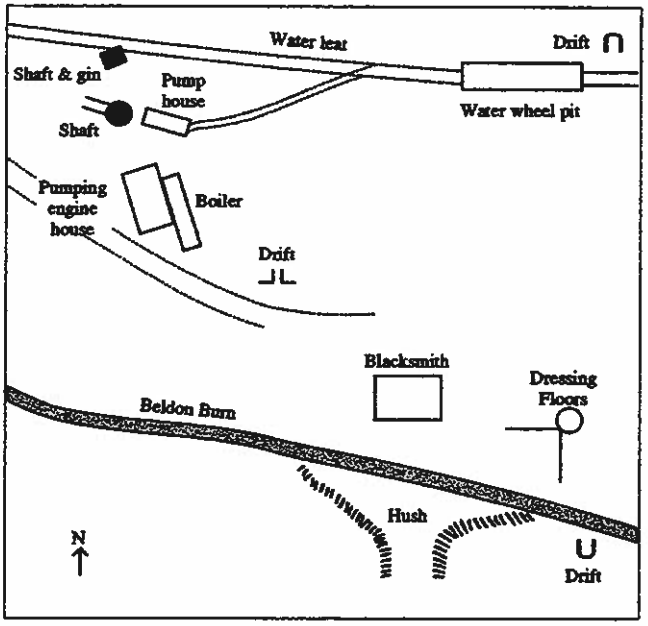


Sketch plan of the Reeding lead mine

The mine appears under three names, Reeding, Reading and Readon, Joseph Barron called the mine Reeding so I have followed his usage.

Surface remains. Beldon Mine. NY 928496

Cut into the hillside above the Beldon burn is a levelled platform with the foundations of the 1805 pumping engine house on the south side. To the east are the remains of the boiler plant. To the north are the two open shafts, the round pumping shaft is at the foot of the pump house and has some large wooden beams associated with it. To the north is a square shaft with a round flat area for the horse to operate the winding gin. A stone-lined water leat can be traced east to the large water wheel pit constructed by the North Derwent Co. to pump from the shaft and operate the crushing plant. On the valley floor are some walls of a Blacksmith's shop with an area of foundations nearby probably the remains of the dressing floors. About the mine are several drifts driven into promising lodes in the search for lead ore. Across the Beldon Burn to the south of the mine is a shallow rough-cut valley, suggesting an earlier hush working on a vein.



Sketch plan of the Beldon lead mine

References:
Reports in the *Mining Journal* for 1868 to 1873.
Mineral Statistics 1869 to 1873.

EMIGRANTS' CORNER

Kevin Watson

My father recently acquired a ludicrously complex genealogy computer programme by which he is attempting to assemble the definitive Watson family tree. The programme allows the user to input not just the usual dry family tree information but photographs, anecdotes and any other information that might be considered relevant. In theory, it is a great idea but before hitting the print button it is probably as well to build an extension on your house. My father printed our family tree and then had to use three rooms to spread the information. Our family history began many generations ago next to the grandfather clock in the living room I didn't turn up until a box of oily rags and some shoe polish in the box room under the stairs. Such is my place in history.

I have to confess that I find genealogy rather dull when it is reduced to lists of names and places of birth. Have I really learned anything when I discover that I had a great great grandfather who, by mad coincidence, was also called Watson? Working at Killhope, I was painfully aware that Americans in particular seem obsessed with brushing the cobwebs off their dead ancestors in the hope of finding some greater sense of themselves. I never quite understood why they would want to do it.

Now, however, I have ridden the emigrants' trail in the United States with a man brave enough to adopt me as his English cousin and the experience has altered my opinion. Loren Farrey is a social genealogist. By that, I mean his kind of genealogy does not stop at compiling lists. He follows other strands of his family as they have developed parallel to his own. He then seeks out the strand of that parallel family that is closest to his own generation (and, preferably, still alive) and says, "Hi, I'm Loren Farrey and my great, great, great grandfather was born in the same house as your great, great grandmother's aunt so that makes us cousins." He is, of course, using the term "cousin" in the traditional, looser sense but before you, dear reader, dismiss Loren's activities as an example of Americans being a little silly, let us consider the cultural value of what he is doing.

Between 1834 and the end of the nineteenth century, a significant amount of people from Wensleydale, Swaledale, Teesdale, Weardale and Allendale decided to leave behind their native land and seek their fortunes in the United States. They took with them what I have previously referred to as "cultural baggage" i.e. objects, traditions, and beliefs which might be said to be uniquely of their area of origin. This "cultural baggage" did not disappear just because these dalesfolk had moved a few thousand miles around the globe. In some ways it intensified as emigrants desperately tried to cling to their traditional identity whilst living in a new country.

When the first generation died, their children continued to revere what they understood to be Dales' tradition in honour of their parents and so that they too might fulfil their need for individual identity in a country made up of so many different ethnic traditions. Generations have passed but the Dales' influence lives on. It is undoubtedly romanticised and in clinging rigidly to certain traditions it might be described as distorted but a study of the American Dales' way of life is useful in several ways. Most obviously, it tells us of the emigrant experience on the lead mining frontier of the last century. Beyond that, however, it offers opportunities to understand our own heritage better. What aspects of Dales' culture survive in modem America? Why are these aspects valued? Should we value them more than we do?

I do not propose to answer any of the above questions. Instead, I would like to offer you the opportunity of finding out for yourself. From Saturday June 29 to Saturday July 6, 20 ordinary Dalesfolk from the midwest of America will be in Weardale exploring our shared heritage and making new friends. For 17 of them, this will be their first visit to England. On Sunday July 7, they will be at Killhope and all Friends are very welcome to join the group in what will be a rewarding exchange of ideas, history and inevitably dubious anecdotes. In addition, if anyone feels that they would like to act as tour guide, meal host or general facilitator in the course of the week I would love to hear from you. Who knows? You might discover a cousin you never knew you had...

Editor's note:

This item should have appeared in the last newsletter but unfortunately it arrived just too late for publication. The visit was a great success thanks to the efforts of Kevin and a few Friends. 'Our' Americans visited Killhope, were entertained in the town hall by the Mayor or Durham, held a camp meeting and their own Independence Day celebration.

Many contacts were made, friendships begun, roots pursued and internets surfed. Our weather did its worst but our visitors are keen to make firmer links between our two areas. Kevin will no doubt be our main contact and we will report on future developments.

THOMAS EMERSON

Ian Forbes

Every year at Killhope we get a number of visitors from the United States, Canada, and New Zealand who are returning to Weardale to see where their ancestors came from. One such recently was a Mr George Emerson from New Zealand. His great-grandfather was Thomas Emerson. Thomas was born at Slitfoot around 1845. Slitfoot is a smallholding half a mile east of the Lead Mining Centre. In 1871 the census records Thomas Emerson as an unmarried young man living at home with his widowed mother. However by 1874 he was in Otago, New Zealand where he was working on the railways. Four years later, at a time of massive unemployment and deep insecurity in upper Weardale – the lead mining industry was entering its final crisis – 53 men women and children left their homes at the top of the dale for a new life. Their destination was Otago, New Zealand. It is tempting to speculate that Thomas Emerson – who would have been known to all the 1879 emigrants – wrote home enthusiastically about the prospects and opportunities in the southern hemisphere. Was the fact that Thomas was in Otago already one of the factors which led many of his friends and relatives to choose that area as a destination when they took the gamble of leaving Weardale for good?

Errata

In Newsletter No. 37 page 10 in Harold Beadle's article on "Dubby Sike Lead Mining Company" reference 4, the date of the report should be 1874.

PIG LEAD AND ITS USES

Harold L. Beadle

Many thousands of tons of pig lead must have been produced in the smelt mills located in the Northern Pennines in times past and it would add greatly to our knowledge, and be of considerable interest, to know where and by whom the product was manufactured or cast into sheets, water piping, troughs, pumps, shot for weapons of war etc. Some of the Friends of Killhope must have information that will provide an answer to my query and I shall look forward to this being produced in a future newsletter. Lead troughs, pumps and water piping were fairly common in Upper Teesdale. But what has happened to many other things which have fallen into disuse over the last sixty or seventy years, they too seem to have very largely disappeared. Though I should expect that there will be some hundreds of yards of water piping still buried here and there or even to be seen in some of the houses.

Lead pump & iron trough in a farmyard in upper Teesdale photographed in 1950.
Photograph: Harold Beadle

It is fortunate that one of the lead pumps was photographed when it was in working order and being regularly used to fill the cast iron trough in the farm yard. For the benefit of those not already informed, a large part of Upper Teesdale belongs to the Raby Estates now in the possession of Lord Barnard. However, in 1891 the owner was the Duke of Cleveland and in the centre letter of D O C is a crest. Many of the cast iron troughs which the pumps served are very often identified with the estate by having cast into the front the words TEESDALE ESTATE and in some cases there is included the crest too.

Editor's Note: As always I would be glad to print any reply to Harold's query.

THE KILLHOPE SPAR BOX

Bryan Chambers

If you have been a Friend for a very long time and have a remarkable memory you may recall that an early newsletter reported that we had been given a spar box. This report, I have only recently discovered was not quite accurate but I will explain this later.

Perhaps you are wondering just what is a "spar box"? Members from the northern Pennines will know that probably from Victorian times collections of "bonny" minerals were often displayed in a glass fronted cabinet. Some were made up to depict some kind of scene and mirrors and sometimes lights were used to show off the specimens to their best advantage. Occasionally collections were displayed in the domed glass cases usually associated with stuffed birds or waxed fruit and which could be bought freely in the second half of the 19th century. Other displays seem to have been mounted uncovered and must have added to the dusting chores of the collectors' wives.

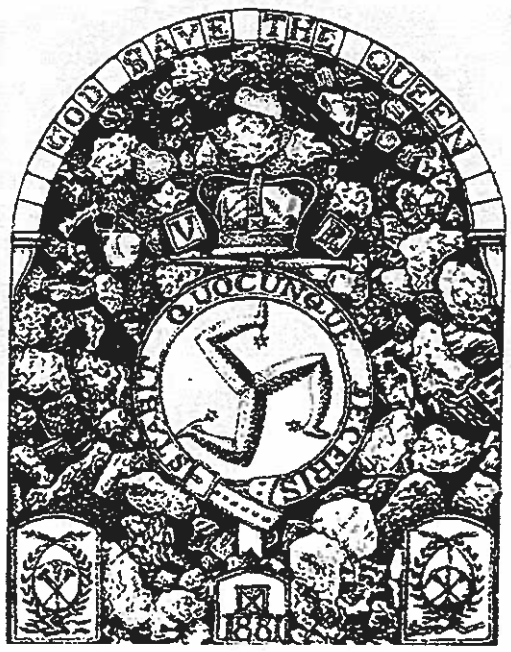
Many of the boxes were purpose built and such was the quality of the workmanship, justified being called cabinets. Some had peepholes in the sides so the interior could be viewed from different angles. Whereas most boxes seemed to have been plain rectangular shapes, other had quite elaborate decorations such as spire-like fretwork or carvings on the top. The boxes commonly were from about a foot square to perhaps two or three times that size but the Hermitage Farm near St John's Chapel had one built into the corner of a room and was probably about seven feet tall as it filled the space from floor to ceiling.

One of the spar boxes in the Weardale Museum at High House Chapel obviously started life as a sewing machine cabinet which nicely illustrates the dalesman tradition of adapting whatever is to hand to suit their purposes. As well as its impressive mineral display the museum also has a number of boxes both ancient and modern. There is also a number of photographs on the subject including one of the famous street scene incorporating interior electric lighting in the form of street lamps and the ingenious use of several mirrors to give the illusion of extra depth. It is of "double decker" construction with a grotto above. I understand this particular fine example may have been built by John Phillipson of Huntshieldford and was lately in the possession of the Egglestone family of St John's Chapel. Another photograph shows a box flanked by a pair of fine brass oil lamps which must have been a more usual form of illumination in Victorian times.

Some years ago I visited the Weardale museum to inspect its spar boxes and talked to Mr Bill Proud who has a fine mineral collection and to whom I am indebted for much of the information in this article. Bill presumed that local miners would naturally have collected mineral specimens from their work places and the boxes would have evolved from the simple storage containers in which the samples were kept.

There were certainly mineral collections by the 1850s and a society is known to have been formed in Weardale. Doubtless there were others in the northern Pennines. The Manx Museum confirmed they have a good collection of spar boxes. A particularly fine one, made at Laxey commemorates Queen Victoria's 1887 Jubilee and incorporates the crown and sceptre, loyal inscription and the arms of Man. That area, west Cumbria and the northern Pennines seem to be the only areas where spar boxes were to be found.

It would be an easy step to competitions and Les Blackett's article in Newsletter No 17 of February 1990 tells of a Grand Mineral and Geological Exhibition held at the Town Hall, St John's Chapel in 1887. Here there were eight boxes in a variety of sizes on show. There were excellent cash prizes and the exhibition ran for thirteen days. Exhibitions were still taking



Spar box made at Laxy, Isle of Man to celebrate Queen Victoria's Jubilee in 1887

place in the first years of this century but apparently they declined with the lead industry. Of course mineral collecting continues today perhaps with a greater commercial element than in the hey-day of the spar box. Our own Friends of Killhope Mineralogical Exhibition, now in its fifth year, is the only regular revival of this Victorian tradition that I know of.

It is easy to imagine domestic pressures in a changing world gradually relegating the bulky, dust-collecting spar box to outhouses and gardens and in fact one of the exhibits at the Weardale Museum was rescued from such a fate to be restored by Bill Proud.

"Our" spar box seemed to have had a similar history because it came to us in a very sorry state. The purpose built, softwood cabinet was damaged and dirty and some of its small, turned feet were detached. Many of the specimens had become unstuck, some were damaged, some had been crudely repaired and all were dirty and generally uninspiring at least to the uninformed casual observer. Amongst the wreckage was a tiny (about 1" long) wooden bird, quite finely carved in the sitting position with wings folded as though sitting on a branch. One delicate wing was missing but was discovered in the bottom of the box. This was a stroke of luck as the wing is no more than $\frac{1}{2}$" long and about $\frac{1}{8}$" at its widest, tapering to a fine point. The bird is grey/black and is covered with the finest speckling of silver/grey (perhaps crushed galena) giving a starling-like sheen. The general shape is that of a blackbird, or crow.

Also found in the wreckage was a figure of a marksman in the kneeling position complete with a tiny rifle $1\frac{1}{4}$" long, carved in wood. The figure is about 2" high and in contrast to his intended victim is crudely executed in what appears to be crushed coal cinders with the addition of some adhesive and moulded. Those familiar with the Brer Rabbit stories will be able to visualise the effect if you recall his Tar Baby! - except that our man has a sort of flat, matt finish. Figure and gun were detached as were one leg and part of an arm. This last seems lost for ever but the other defects were easily made good. He seems rather incongruous amidst the perfection of many beautifully formed crystals. I never saw the box in its original condition but I understand the bird sat in a coral "tree" with the marksman hidden in the "rocks" below.

The cabinet is 12"x12"x9" deep with dovetail joints. A pinewood log split lengthways is mounted centrally and vertically on the back wall with mirrors each 4"x 12" mounted diagonally across the back corners. At some stage a hole of about $\frac{1}{8}$" diameter had been drilled in the base, presumably to allow the fitting of an electric point, but this had been filled in with adhesive. There was no sign of any lighting in the wreckage but there was a roughly made semi-circular handle in brass, possibly made from a curtain rod. However, there was no sign of screwholes where it may have been attached so perhaps someone had intended to add

it but never got round to it..

I had little knowledge and no previous experience of restoration of spar boxes and my involvement was purely accidental. Apparently a Friend had volunteered to undertake the restoration and seemed to have begun the dismantling of the box when he had to go to the Far East at short notice and expected to be away for a number of years. His house was for sale or rent and because I lived quite near I offered to try to retrieve our box. The new occupant of the house spoke little English so how I managed to establish my credentials and collect the remains - now in cardboard boxes - was a minor miracle. Perhaps he was just pleased to get rid of some of the junk in his garage. The box was at least safe again and I think partly because no one else seemed to be better qualified to restore the box and perhaps having "rescued" the thing I was beginning to feel a little protective of it, I found myself offering to try to "fettle it up"! Ian Forbes, our Projects Officer, agreed - no doubt in the absence of any other offer. He felt it most appropriate to attempt to restore the box to its original condition, i.e. as a hunting scene but without lighting. All this was in the late 1980s.

I have mentioned my talks with Bill Proud and I also showed the remains of the box to Sir Kingsley Dunham and Dr Tony Johnson of Durham University. They confirmed that the specimens were from the northern Pennines and suggested that many of them could have come from Boltsburn at Rookhope.

The next step was to carefully remove the remainder of the specimens from the box noting as far as possible the position of the larger ones. We had no idea whether we had the full complement but it seemed the collection war largely complete. The Hon, Secretary then spent some hours washing the crystals in warm water – several times – thus transforming a collection of dull uninspiring 'stones' into a sparkling array all laid out in trays on kitchen roll and kept shaded from the light. Some time was spent deciding on the adhesive to be used. The original seemed to be part animal glue – a vile-looking dark brown deposit – and a white material similar to Plaster of Paris. Eventually a modern, water-resistant, tile cement was selected, which is a light grey/white colour like the original – I didn't fancy the animal glue. The tile cement works well especially with the heavier pieces but I found it very difficult to keep it off the faces of small specimens – not that it seemed to have bothered my predecessor as much of the work was quite crude. It was only when the work was three-quarters complete and I was able to consult Jim Raine who is responsible for many of those magnificent modern boxes shown at our Grand Mineralogical Exhibition, that I began to use a colourless wood glue for the small specimens. This went somewhat against my original brief of restoring as far as possible to the original but I decided a better result was worth this small compromise. At least I was using another wood adhesive.

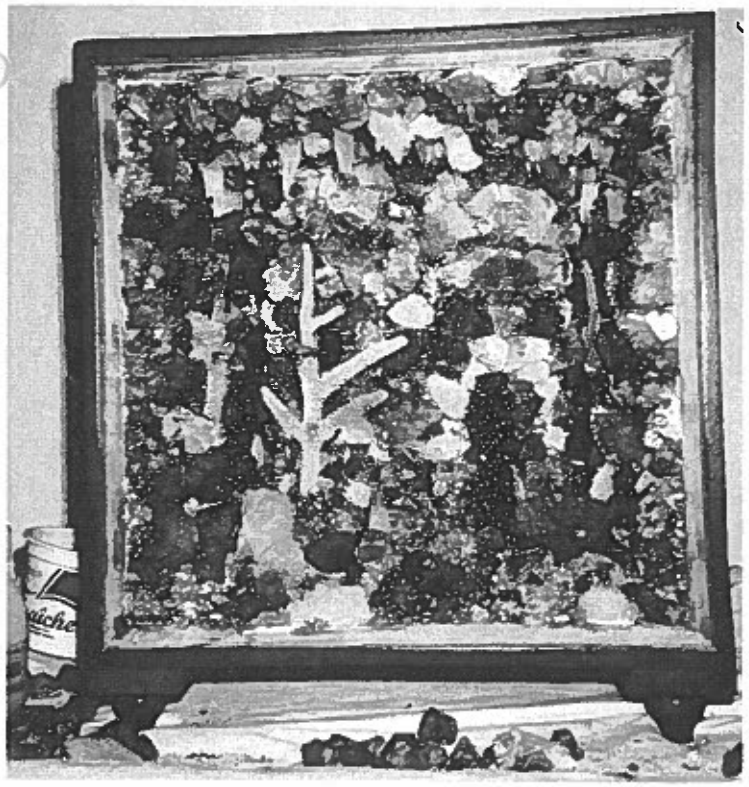
Another Friend, Bill Parker kindly repaired and rebuilt the cabinet which was then stripped and repainted in a near original brown/mahogany. New mirrors and front glass were bought and the long and laborious rebuild begun. The first task was to fit the mirrors using, I'm afraid, modern adhesive pads. Marks on the woodwork showed the position of the originals. I decided that I would replace the specimens in the roof first, then the back and sides. The floor, which had the heaviest specimens as well as some of the most memorable, would be left to last. As it was impossible to be certain where smaller pieces had been located I tried simply to create a pleasing appearance with a variety of types, colours, sizes and shapes fitted together without gaps so far as possible. A great deal of time was spent trying different combinations, and sometimes without a single specimen being stuck down during a session. Pieces with straight flat faces were reserved for front edges and the general principle was to work from back to front. After a while it became increasingly difficult to fill gaps as the

choice of pieces grew less. It was a bit like trying to do a jig-saw when you are not sure whether you have all the pieces. This soaked up more and more time and eventually I had to bring in outside material and I am grateful to people like Trevor Bridges and Killhope staff who kindly donated pieces to enable me to complete the work. Probably 95 per cent of the area of the box is covered with the original crystals but the 5 per cent of 'foreigners', which were all small sizes, were chosen so as not to alter the original character of the box.

The many, many hours spent on this restoration illustrated the size of the task of the old miners building the huge masterpieces of the last century. Remember 'our' box is only 12 inches square! I used modern tools such as a pair of long tweezers, a fine, long, electricians's screwdriver, a pair of long-nosed pliers, various kitchen knives, and, above all, an Anglepoise lamp with a 60 watt bulb. This was an invaluable aid and must have given me a great advantage over the 19th-century builders who must have struggled with candles and oil lamps on dark winter evenings.

The Anglepoise proved a mixed blessing in that it literally highlighted how much an internal light can enhance a spar box. This eventually prompted me to query with Ian our original plan to rebuild without a light. It was agreed that I would allow for a light (or possibly two) by leaving a space around the existing hole so that work could continue while Russ Parkin and Doug Tyerman conducted experiments to see what could be provided. I consulted modern spar box expert, Jim Raine, who recommended a strip light. Unfortunately there was no room for even a small version of these in such a small box and initial trials with a small 12 volt bulb were unsuccessful. This simply not powerful enough and it was feared a bigger bulb would create heat problems in such a small unventilated space.

Incidentally these experiments highlighted another 'hazard' of spar box building. I had attempted to hide the bulb in between the specimens and certainly it wasn't visible from the front. However by moving one's head and looking in the mirrors one realizes there is almost no hiding place in such a structure! What is apparently an unbroken mass of specimens with no spaces between them when viewed from one angle can be seen to be less than perfect



Spar box complete before the fitting of the front glass.

The bird can be seen in the coral tree and the marksman

can just be made out bottom right.

Photo Bryan Chambers

when using the mirrors. Thus remedial work is necessary throughout the building process.
As this task of five or six winters finally seemed to be coming to an end I thought I ought to follow up that initial mention from the early days of the Friends with a final report on the fate of 'our' spar box. When I contacted Ian Forbes to fill in the background initially all he could remember was that 'it came from Beamish'. Even this was to prove less than accurate! I then wrote to John Gall, the Deputy Director who, I knew, had been there from earliest days. The reality was that John had given the box to Ian personally and that it had been a gift from Mr Chester Armstrong of Keenly Thorn Farm above Allendale. Mr Armstrong had assisted John with recording projects and had presented the box to him in the late 1960s or early 1970s. During the course of this work in Allendale they had seen a number of very fine spar boxes. John added that the 'received wisdom' was that the early examples have the finest clean crystals coming from the days before 'hard explosives'.

When I wrote to John early this year I indicated our plan to exhibit the box at Killhope and he replied that if Ian was agreeable he'd love to think the box could be passed to Killhope from Chester Armstrong. By pure chance, soon after this exchange I visited Jim and Yvonne Raine at St. John's Chapel. They knew of the Armstrong family and were able to give me some addresses. Unfortunately Chester had died but his wife was thought to be still at the farm. After some delay I had a phone call from a Mrs Mitchell who was Chester's daughter. She explained that her mother was unwell but she remembered the spar box from her childhood. It always stood on a chest of drawers on a landing on the stairs. She confirmed that it had a light inside added at some time but was sure it was in the top of the box. This remains a mystery since most lights are indeed in this position but the only hole for a wire was definitely in the middle of the bottom. Since some of the feet were still attached when I got the box there can be no question which was up it should go. Mrs Mitchell also thought it had a handle on top but again I could find no screw holes to confirm this. So far as she knew the box was always in the family but she didn't know who built it, nor who carried out the repair and added the electric light.

By early summer this year the box was finally complete with a 4.5 volt Xenon bulb wired to a 6 volt lantern battery. Doug Tyerman found a period brass bell push in a shop in Barnard Castle and he and Russell Parkin installed the box in the glass-doored cabinet in the mine shop office. The 'switch' is hidden round the side of the cabinet so that the box can be lit up as required by the staff – but the arrangement prevents the light being left on inadvertently.

Later this summer I met Mrs Mitchell at Killhope and thankfully the box was much as she remembered it although she thought the marksman originally was in a more central position with the light shining down upon him. Nevertheless Mrs Mitchell was delighted with our efforts and pleased that their old box was safely preserved and on public view. So 'our' spar box has become a 'working' exhibit in the best Killhope tradition – a fitting outcome to the whole saga. Look out for it next time you visit Killhope.

Footnote:

During the preparation of this article it gradually became apparent that there is probably surprisingly little recorded research about spar boxes although there is a fair amount of anecdotal 'fact' in circulation. It is yet another area worthy of some serious research and of course I would be pleased to publish the results in due course.

Mrs Mitchell, daughter of the original owner of 'our' spar box, pictured in the mine shop office at Killhope.
Photo Bryan Chambers

I am indebted to the following for information and helpful personal comments during the course of this project: Bill Proud, Ian Forbes, John Gall, John Picken, Jim Raine and The Manx Museum.

References:
North Country Folk Art, Peter Brears John Donald Edinburgh 1989

READERS LETTER

A request was made for information about Sir Bevis Bulmer.

A book exists entitled *Life of Bulmer* by H M Robertson, from which a number of people have quoted

Brian G Collinson

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REPORT FROM DURHAM COUNTY COUNCIL

The opening of Park Level Mine has made a major difference to life at Killhope. Not only have we appointed a number of new staff to help with the demand for mine parties but also the pattern in which visitors move round the site has changed, as I am sure many of you will have noticed. I was delighted with the official opening of the mine by Tony Blair which reflected well on Killhope and all who are associated with it. I think that the spectacular pyrotechnics which 'unveiled' the plaque will certainly stay in Tony Blair's mind and I am pleased that a number of the Friends could be with us for the celebrations.

Visitors going down the mine are universally positive about the experience. Comments include 'The mine was brilliant' and 'you must go down the mine. This is fantastic. I did not believe they could do it'.

Visitor figures at Bowes Museum, DLI Museum and Durham Art Gallery, and Binchester are all up on last season, bucking national trends. This is due to the level of activity which as taken place at these sites - major programmes for Visual Arts Year at Bowes and Durham Art Gallery and new access for disabled visitors at Binchester. Visitor figures at Killhope have similarly risen on last year although have not reached the high level of 5 years ago. Extra marketing materials have been produced, with full colour fliers promoting the mine sent out with all County Council post, and full colour posters distributed to all libraries and tourist information centres in the north.

To celebrate the opening of the mine there has been an excellent programme of events and as ever I am grateful to the Friends for the hard work and dedication you have put in to organising your events at Killhope and into helping with many other events and I was delighted with the success of the Pays event, to which I know many friends contributed, although I understand that a small, local event, Euro 96, interfered with visitor numbers on the Saturday.

I was pleased to have the opportunity to attend your AGM and to be able to say a few words about the County Council's vision for Killhope, and to talk with some of you about your ideas. I look forward to continuing close co-operation between the Arts, Libraries and Museums Department and the Friends.

At this time of year local authorities are all beginning the process which will lead to the setting of their budgets. This year, in County Durham, the process is dependent not only on the Standard Spending Assessment to be announced by the government but also on the conclusion of the local government review process by which the present Darlington Borough will become a new unitary authority. Unfortunately there is even less detailed guidance than normal on possible revenue grant settlements coming from Central Government. Therefore attempting to develop coherent business planning is fraught with problems. The only certainty is that public services of all descriptions will continue to have basic revenue provision reduced. Against what is, as ever, an uncertain future this department continues to provide and maintain a quality service to agreed standards, from the resources available.

Patrick Conway

THE GRAND MINERALOGICAL EXHIBITION - 1996

This event took place on the 7th and 8th September this year. Looking back on previous reports, I can see they are somewhat stereotyped, so I am going to try a slightly different format this year.

Firstly, the Exhibition continues to go from strength to strength. Each year is better than the last. This year entries were up by 20%, despite a new rule restricting the entries in most classes to 2 per person. The Northern Pennine classes alone covered 48 feet of table space and there were 36 feet of other entries on top. The quality was probably better than last year as well, but this is more difficult to judge. One thing for sure - it was a fabulous display of Northern Pennine specimens and I doubt if you could find a better one anywhere in the world. If you want to see a really fine display of Northern Pennine specimens at the present time, you have to go to Killhope on the first weekend in September to do so.

Continuing the statistics, in all about 20 people entered material and I think at least 15 of them got an award of some sort. This is nice, because it means a small number of people are not dominating the competition. In fact only about 5 points separated the top 4 or 5 places. Winning, as Brian Young will tell you, is to a large extent a matter of luck on the day. He has told me that if he had to judge the same competition on two different weekends he would probably end up with two different results. It is impossible to objectively decide between some of the specimens in each class. It is a matter of how the judge feels on the day. This gives me the opportunity to thank Brian once again for doing a very difficult and unenviable job, though he says the Exhibition is one of the high spots of his year. The Friends and exhibitors are very grateful that he continues to support us.

So who won? Well after 5 years of trying, I finally did it! So far a different person has won each year, which is a very good thing. I have to say that the nicest thing about winning was the way so many of the other competitors took the trouble to come and congratulate me and to say how pleased they were for me. Thank you all very much indeed. Second was Dave Barker and third was Dave Hacker, but Jimmy Craggs and Roland Thomas were so close behind that anyone could have won on a different day. Anyway, our thanks go to everyone who entered any class. The exhibition would have been poorer without any of you. Please all come back next year.

The cup this year was presented by Dr. Eric Dâk, the Blue Circle quarry manager in Weardale. It was kind of him to give up his Saturday afternoon to come along, but he did enjoy looking at the display. Blue Circle have sponsored the Exhibition since it first started and the Friends are very grateful for this.

This point seems a good place to thank all the other people who helped make the weekend a success. The tables and lighting have to be sorted out. The entries have to be collected and entered up. The certificates have to be written out and the points added up. Perhaps most important is the time taken to guard the specimens at all times and to

answer visitors' questions and there are plenty of them! Thank you one and all. Dave Barker and I stayed in the Centre overnight. The ghost just rattled the pipework a bit and refused to talk. The site cockerel started crowing at 5am!. We tried to persuade the Killhope Kitchen to serve 'coq au vin' for lunch, but they seem fond of the beast!

And so to the specimens. The fluorite was fabulous and has two classes devoted to it. The result was 65 individual pieces of fluorite in sizes from about 40cms down to 1cm. The range in colours is incredible. Colourless to very dark purple bordering on black. Vivid greens, beautiful mauve/pink, amber to bright yellow. Most of the specimens had cubic crystals, the smaller pieces often being the more perfect, but one small specimen from Barbary Mine has a stepped edged blade of fluorite that is most unusual. Belonging to Maurice Wall, I look forward to seeing it each year. As usual, size is no indicator of Brian's preference, small specimens getting awards just as often as the bigger pieces. Fluorite is so ubiquitous over much of our area, that many specimens in other classes had fluorite as an accessory mineral. Many of these were very beautiful as well.

I was a little disappointed with the galena this year. We could have done with one or two more specimens, even though there were three more than last year. I seem to remember better specimens being on show last time. People do not bring the same specimens each year, so maybe the luck of the draw went against us. The same is not true of the 'Any sulphide' class. There were fabulous pyrrhotines, sphalerites and pyrite. Some of the sphalerite was botryoidal, a most unusual habit for the mineral.

The calcite and quartz were side by side and complemented each other to give a very attractive display, contrasting nicely with the sulphides next door. The quartz in particular hits you in the eye with the brilliance of its lustre. There were magnificent specimens in both categories but the calcite scored on variety of shape. In particular, one old time specimen took the form of elongated hexagonal crystals and, at a distance, looking a bit like a stalactite.

Round the next corner was the 'Any other mineral' class. There were at least 5 different species here, so you get more variety than with the earlier classes. Barium minerals predominated, but there were one or two fine aragonites as well. I should have pointed out earlier in this report, that all the main bulk minerals found in the Northern Pennines were on show, with one exception. This year there was no specimen of barytocalcite, which should have been in this class. I shall make sure there is next year. At least its close relative (dimorph) - alstonite - was present and actually won the class. There was also a fine baryte, consisting of stacked transparent blades from Hilton Mine and excellent witherite, coated with white to grey baryte from Nentsberry Hagg's Mine.

Adjacent was the 'Secondary mineral' class, though to be strictly accurate they should be called supergene minerals. These are formed when the ore minerals are affected by weathering usually a little below ground level. For the technically minded the process is called oxidation. The minerals are usually crusts on the surface of other minerals, so the crystal form is often not as easy to see as with minerals like fluorite. What many of them

have is brilliant colour. Earlier I extolled the virtues of the colour of fluorite. You see this colour by looking into the glassy crystals. In the case of many of the supergene minerals, the colour is from the surface so it stands out and hits you in the eye. There was the bright moss green of pyromorphite, the bright deep and pale pink of erythrite, the pale grass green of annabergite and the beautiful turquoise of serpierite and rosasite. All these are relatively rare in the Northern Pennines but they can be found if you look for them. The most common supergene mineral in our area, excluding goethite, was cerussite - lead carbonate - which like goethite was actually worked as an ore. On show were beautiful relatively large specimens of clusters of white cerussite needles in the form called 'jackstraw' crystals. From Redburn Mine, one of these won the class.

The Northern Pennines was always noted for the wide variety of minerals you were likely to find on one specimen, so we have a class for these. There were some excellent and attractive specimens and again fluorite was very evident. There were coatings of glistening golden pyrite on quartz, fluorite and calcite. Clusters of small quartz, chalcopyrite and siderite crystals on other minerals. The winner had fluorite of a most unusual pink colour with galena and another mineral I cannot remember. It was the fluorite which once again stood out.

The fossil class got a lot of entries, but some of them were not strictly from the Northern Pennines. This class causes us a lot of difficulty. Mineralogists tend not to know a lot about fossils, but they are of immense interest to many of the visitors, so we tend to get asked questions we cannot answer! There were some nice brachiopod casts and specimens of Frosterley marble with its large solitary corals.

The spar boxes were out in force, with some modern creations and a few antiques. They were all very interesting and pretty to look at. It is very good to see this ancient craft being revived. Children seem to be getting interested as well and there were two boxes in their class, although the winner was a nice collection of minerals from home and abroad entered by Daniel Wall.

The class for 'A collection of minerals from anywhere' covered the most space running out to 15 feet. We shall probably have to reduce the size of these a bit next year. They are always fabulous to look at. One fine display was a large number of small specimens of fluorite from around the world including the UK. It served to show how foreign specimens compare with ours and you do get colours we do not have. I think my favourite collection was a group of supergene minerals from the Caldbeck Fells in the Lake District. They were lovely shades of green, orange and blue and of great technical interest to me. Next door were more Lake District minerals from the iron mines and many of these glisten as they reflect light from tiny mirror bright crusts of specular hematite crystals. The baryte from the same area is also fabulous. Elsewhere, I noticed that a bright blue specimen of azurite in one collection attracted a great deal of public interest as did a cube of golden yellow pyrite, growing inside solid rock. The cube was so perfect people had difficulty believing it was not man made.

The 'Biggest crystal' class is obviously just a bit of fun. A huge crystal of quartz won, followed very closely by a fine large calcite. There were also big crystals of fluorite and galena, the latter being easily good enough to go in the main galena class.

The photographs and ephemera covered two tables, but were a bit down from last year. There were some marvellous miners lamps and other mining tools and some interesting receipts for equipment bought for the mines last century. There was also a candle from the leats outside Park Level, that was probably original. I always study the photographs and usually learn something about mining from them. This year was no exception, particularly interesting for me being a photo of the sinking of the main shaft at Boltsburn Mine. One of the figures on this was the great great grandfather of the Wall brothers. What a fabulous family heirloom to have!

So that was the Exhibition for 1996 and a very enjoyable occasion it was too. There seemed to be a general consensus that we should have a repeat in 1997 and if the Friends Committee agree, it will be on the weekend of 6th and 7th September 1997.

Trevor Bridges.

AN ACCOUNT OF THE DISCOVERY OF SUCCESS IN THE LEAD BEARING HILLS OF WEARDALE AS OBSERVED BY TWO TRAVELLING GENTLEMEN OF YORK WHO RECENTLY HAD CAUSE TO PASS THROUGH THE AREA KNOWN AS KILLHOPE AT THE TIME KNOWN AS "THE PAYS"

BY

MR CHARLES POOTER

How might one define success? Were it available in glass bottles, how many gentlemen of leisure would invest their entire fortunes in a lifelong supply? Can success rest in the vault of a city bank or must it elude us until the Day of Judgement when we long for our Lord to say, "With thee I am well pleased"?

It was in June of this year that I, Charles Pooter, accompanied my good friend, Mr Pitt, on an excursion from the Vale of York to the lead-bearing hills of Upper Weardale. My maidservant, Miss Mutlar, also accompanied us so that our more basic needs might easily be met on the long and tiresome journey.

As our carriage conveyed us to Park Level Mine I was afforded the opportunity of surveying something of the local scenery. Weardale has a beauty which seems based on its very bleakness, a natural charm dependent on the scars of men's work. I was able to take all this in because our carriage moved slowly behind another, larger carriage decorated in gaudy yellow with occasional blue circles that my fellow passengers found quite offensive.

I was just tucking into one of Miss Mutlar's excellent trotters when Park Level came into view. From the vantage point of the road, I could see that this was a place of industry. I had heard it said that the mining folk who work around this area known as Killhope, are sturdy, serious people who base their lives not on the pursuit of earthly pleasures but on hard work and the rewards that heaven will provide. Experience prompts me to disagree.

As we were dismounting from the carriage, Miss Mutlar was alarmed by a rustle in the trees. However, Russell revealed himself to be a kindly local gentleman who had been heavily involved in the organisation of the Pays, an occasion on which the miners were to receive their pay for the work they had done and the entire community was to be involved in a celebration of the mine's success.

Russell introduced us to the mine manager who Mr Pitt and I were shocked to discover thinks nothing of employing women to do the work of men! Indeed, he seemed to take a shameless pleasure in introducing us to women who spend some of their time working underground! I resolved to write a strong letter to the mine

(From the left) Mr Pitt, Miss Mutlar (maidservant), Mr Charles Pooter, (all from the County of Yorkshire) Mistress Brown (of the County of Cumberland) and Mr Sopwith, His Lordship's Chief Agent pictured at the Killhope Pays in June last. (We are undebted to Mr Pooter for his most valued account of the event.)
(Photograph by Professor K.O. Dak using the latest photographic equipment supplied by the Acme Camera Co Ltd)

'Some quite delightful ladies from Alston presented pleasant, gentle harmonies.....'
Here they partake of a little cold colation during a short interval.

company upon my return to York and would have advised Mr Pitt to do the same thing but he was somewhat distracted. All the workers at the mine were dressed in a wide array of fashions and Mr Pitt, a lifelong bachelor lacking the moral fibre of a Pooter, was engaged in a dialogue with two women who were dressed quite scantily. One of the women was dressed for the seaside. I could only assume that she lost her way when the tide was out. Mr Pitt was making quite a fool of himself with his chin dragging through the dust of crushed mineral. Indeed, I had to knock his top hat off with my cane and drag him away in order to bring him to his senses.

No doubt Killhope can be a bleak and harsh place but on the June day of our arrival the mood was positively buoyant. In the blacksmith's shop, the smithy was singing merrily as he hammered although I could not understand the words for his accent seemed foreign.

"Am I to understand that the smithy has immigrated here from another land?" I asked Mr Blackett, a local supporter of the mines.

"Yes sir," he replied, "He's from Nenthead." At this, several of the assembled throng laughed uproariously whilst others looked stern. The smithy, however, kept on singing. He was from the south.

A good number of people at the Pays referred to themselves as Friends. It was these people, along with their children and children stolen from other sources, who provided the innocent pursuits which transformed this place of hard work into a source of considerable amusement. There was a coconut shy and countless other enthralling games along with a ready supply of toffee apples and balloons. Indeed, it was a curiosity to see a small number of Lavender sellers - Catherine, Naomi, Lucy, Helen, Christina, Stella and Bridie - with the apparent ability to be in several places at the same time. There was juggling, fire-eating, face-painting and magic tricks comparable to anything I have seen elsewhere, alongside such healthy country pursuits as pony riding.

Whilst I was failing to win a coconut, Mr Pitt was engaged in a heated debate with a chap on a penny farthing who had travelled a good distance to demonstrate the preposterous notion that, one day, the bicycle will be a more common form of transport than the horse. It disturbs me that in our age people allow themselves to be so easily deluded by what the trained mind can recognise as poppycock at an instant. I would not be at all surprised if one day someone claims to have invented a horseless carriage and gullible people will believe that flight of fantasy too.

Some of the Killhope staff, many of whom are also Friends, outside the mineshop at the Pays. Not all of them seem to have had a good bargain while others have plainly imbibed a little too much cordial! (Photograph Miss Susan Forbes)

Frivolity was most certainly present at Park Level but this is not to say that frivolity reigned. Two ladies of Alston looked anything but frivolous as they demonstrated traditional clippy and hooky matmaking. A gentleman drew crowds of young and old folk with his fascinating insight into the world of beekeeping. Local people offered for sale artwork of the local area, along with plants, flowers, jewellery, fashionable wear and even strange potions and oils that are said to have the power to mysteriously change the mood and behaviour of the person who uses them. They might also be used to make bubbles in one's bath.

As Mr Pitt and I wandered around the music of the silver bands of Middleton and Stanhope filled the air. If this was not enough, some quite delightful ladies from Alston presented pleasant, gentle harmonies in interpretations of a number of popular songs. Miss Mutlar felt compelled to join in but I forbade her. The last time she sang the local constabulary received several complaints and for several weeks thereafter a number of serving girls did not dare to walk the streets at night for fear of being attacked.

I had heard the claim that the people of Weardale are morally opposed to the theatre and to dancing since the theatre encourages deceitful behaviour and dancing is the devil's open invitation to licentious behaviour. However, I myself can testify to the fact that the dramatic form is not only found acceptable among the people of Killhope but actively encouraged and in dancing I have seen men and women both jump around quite dreadfully, as if possessed by some evil spirit which holds them fast and will not let them go for hours on end. I witnessed the former through the theatrical endeavours of a young group of travelling players who called themselves Vision Factory Youth Theatre. Their interpretation of the locally famous Bonny Moor Hen story delighted the popular audiences who were drawn to the entertainment and I myself found myself quietly charmed by their humorous affection of different dialects and deeds. However, I cannot help but think that such performances are the result of illicit trips to the music hall by these young and impressionable folk. If this is the case, I am forced to conclude that the adult person responsible ought to be reprehended quite as much as he is commended. The dancing, which took place on a cool but friendly Saturday evening, was of the order commonly found in the more provincial corners of our nation where the joyous sounds of more respectable dances cannot be heard above the noise of clogs slapping against wooden dance floors. A great deal has been written about the dangers of this kind of popular entertainment but speaking for myself I only observed people enjoying dancing and fine music with nothing more licentious than generous

servings of pie and peas.

Throughout the Pays celebrations, which went on for two days, Mr Pitt and I saw people drinking beer, we saw playing cards being used, dice being thrown and even a woman reading people's palms. There may still be those in our society who would frown on such things but perhaps the greatest evil of the society we live in is its tendency to seek out the evil even where it does not exist. For many days after our trip to the mining country, the sound of banjo and fiddle, trumpet and accordion filled my mind. I remembered the many wonders I had seen - the latest advances in photographic equipment, the most remarkable mineral samples, the greatest food from northern England's finest pasty maker and so many other delights I have not room to mention - and these gave me cause to smile. I recalled the immense amount of work that so many people had invested in making the Pays celebrations so memorable - again, too many to mention individually - and I felt grateful. But what most gripped my imagination, what most filled me with wonder was the memory of my exploration into Park Level Mine itself. I stood in the silence of underground caverns, water dripping around me, ore bearing rock above my head and I contemplated the extremity of the human labours and personal commitment which resulted in the space I occupied. It occurred to me then that success begins with a good idea that people believe in. It is sustained by good faith and realised through hard work. The people of Killhope have good reason to celebrate. The Pays have been good this summer and the vein of success that is now being worked runs a long way into the future.

Editor's note: Just in case you are still puzzled I can reveal that Kevin Watson played the part of Mr Charles Pooter at this Pays and tells the story from the point of view of that character.

Project Officer's Report **Ian Forbes**

Every summer life at Killhope seems frenetic; you jump off the top of a vast cliff at the beginning of the season, improvise flying manoeuvres on the way down, and arrive at the bottom, more or less in one piece at the end of the season.

This summer has been no exception, passing by in a blur of activity. As a result I find it difficult, looking back to review for this report what we've done, to disentangle the threads.

Some images stand out. The dramatic fireworks display triggered by Tony Blair to signal the official opening of Park Level Mine, which filled the level so full of smoke that when I took the Labour leader into the mine I could hardly see where I was going. The clarity, purity and colour of some of the fluorite crystals at the mineral exhibition, breathtaking in their perfection.. The flies swarming over the workparty at the "Dirty Weekend", driving everyone to distraction. The wonderful spirit (and not just the liquid sort) of the "Pays" weekend.

The Friends have had a good summer, playing a full and active part in the life of Killhope. June was our busiest month. You will all know that Tony Blair came to open the mine; a hot and sunny day was a perfect backdrop to a wonderful occasion, as leading Councillors, our M.P. Hilary Armstrong and Tony Blair himself all spoke enthusiastically about Killhope. The occasion was relaxed and informal, and the site thronged with local schoolchildren. Many thanks should go to the numerous Friends present who played a full part in creating that special "Killhope" atmosphere.

The following day we held our AGM at Killhope. Your new committee is detailed elsewhere in this newsletter. After the formal business we had a thoroughly enjoyable ramble round Allenheads, a village full of the legacy of the reign of Thomas Sopwith. The day after that saw us again at Killhope for the Friends Annual Quoits competition. Yet another sunny day saw, as always, a high standard of play in a competitive but friendly series of matches. This year saw a new face and a new winner among the competitors - congratulations to John Armstrong of Whitfield, and thanks to Peter Nattrass for once again organising and running the day with his usual calm efficiency.

The following weekend was the "Pays". This event, Killhope's own celebration of the mine restoration project, saw staff and Friends working together to recreate a Victorian miners' pay weekend. Many Friends and all the staff paraded in Victorian-style clothes - and big thanks are due to Judith Watson for organising much of this costume. The whole weekend flowed along magically on a tide of good feeling; you can read more about "The Pays" elsewhere in this newsletter. I will just say here that this event would not have been possible without the contribution of the Friends, and the enthusiastic commitment of the whole community of Killhope.

In July we had another stimulating visit to the core-shed at Rookhope. Here Dr. Tony Johnson talked us through the history of the Rookhope borehole project, demonstrating what a successful piece of pure scientific research this was. We then had the opportunity to examine all the bore-hole cores, including of course the Weardale granite itself; the proving of which had been the starting point of the project.

In August Durham County Councillors paid another visit to Killhope to experience Park Level Mine, and once again Friends were present to help out and fly the Killhope flag. These occasions are important to a project such as ours, and this day too went well.

September saw what is now the biggest single event of our year - the Grand Mineralogical Exhibition and Competition. The weekend, the fifth annual competition, was an outstanding success in every way. Many visitors made the journey to Killhope specifically to see the minerals; the quality was outstanding, and the "buzz" and enthusiasm round the room all day long on both days was remarkable. There is no doubt that this is now a major mineral exhibition of national interest, and there is no reason why it shouldn't go from strength to strength. A phenomenal amount of work went on behind the scenes before and during the weekend to ensure everything ran smoothly and that security for the minerals was maintained at all times. My thanks to the whole team who saw this through - the organisers, the stewards, the secretaries - but particular thanks again to Brian Young for putting his neck on the block by undertaking the judging (in his words "an impossible task"!), to Blue Circle for their sponsorship, and to Dave Barker and Trevor Bridges for staying at Killhope overnight to guard the specimens. I have a feeling it will take both of them a long time to forgive the cockerel who loudly and persistently summoned them from sleep in the early morning. I'm sure I speak for all Friends when I say how delighted we were when Trevor Bridges, who, with Shelagh, has put so much into this event over the years, emerged as winner of the Blue Circle cup.

Later in September we provided stewards for the check point at Killhope which was part of the Beamish vintage motor cycle Trophy Trial. This was in part our "thank-you" to the Friends of Beamish for turning out to our "Pays" with their collection of superb vintage bicycles.

On site we have concentrated our efforts on two main areas. In the jigger house the wooden office we built has been primed and painted, largely by Bryan and Dorothy Chambers and Roy Curry. The great advantage to Killhope of having Friends working in the jigger house is that they can talk to visitors- for the County Council can no longer afford to staff that end of the site. The jobs therefore progress very slowly - there tends to be more talking than working. I think this is great, and thoroughly approve of the additional interpretation provided by Friends.

Ian Jowett has been heroically and single-handedly finishing off the reconstruction of the wooden water box and its stone piers on the north bank of the river. This box runs into a stone water course lined and topped with stone. If water is again to run along here, this too must be repaired, for it is in a bad way. Our "Dirty Weekend" kick-started this new Friends project, with a group of volunteers clearing vegetation and shifting the massive capstones. Since then Friends have continued to work on the water race. Trevor and Shelagh Bridges in particular have put in a good few hours, as has the indefatigable Ian Jowett. The "Dirty Weekend" also saw work on the jigger house - with workparties painting and working on the jigs. My thanks to all who turned up for all or part of this weekend, and contributed their labours. I would particularly like to mention Peter Chatt, who camped at Westgate overnight so he could spend a full weekend with us.

At intervals over the summer Doug Tyerman, with help at times from Peter Andrews, has given smithying demonstrations in the forge. Doug, I know, particularly enjoyed working with a group of schoolchildren from Middleton-in-Teesdale on the Tony Blair day. Les Blackett took away a number of bearings for the jigs to cut down to the right size, and also moved the crushing rollers we have on site to a more appropriate location by the crusher frame. Lennie Willis came and donated a quantity of lead ore in limestone found locally. This was much appreciated by the Killhope staff who are always on the look-out for fresh ore to demonstrate with.

We have had a number of other donations. Les Blackett transcribed extracts from the Wearhead School log books, Peter Jackson gave us photos taken on the Tony Blair day, and George Pickin donated a copy of a very useful reference book "Britain's Old Metal Mines". This is a photographic record of the country's mining heritage. Ron Fawcett's help secured for us a number of items from the disbanded Teesside Lapidary Society. Principal among these were an unusual spar box in the form of a crystal pyramid or cone in a glass and metal case (this box now has pride of place in the mineshop mineral room), a stone tumbler and polisher, and a diamond saw. Bryan Chambers has completed the spar box he has been rebuilding and he has done a superb and painstaking job. What was a rather battered looking case with a jumble of mineral specimens lying forlornly in the bottom is once again a glorious grotto. The fully-restored box can be seen in the mineshop office; see if you can spot the little figure with his gun and the bird in the tree.

Spar boxes seem to be topical at Killhope at the moment. The Centre organised a spar box making workshop for children in the summer. This proved a big hit, and Tim Reed who ran it was grateful for the help of Bryan Chambers and Les and Luke Blackett. The Teesdale Heritage Society has given us two made-up leather tops for clogs. These came from the old Co-op in Middleton, and would have been nailed to the clog soles by a local clogmaker.

As summer slips into the "back-end" of the year we turn our attention indoors again. Our autumn programme of talks started with Nora Handcock telling us about the families from Allendale who sailed to America on the "Guy Mannering" after the 1849 strike, and how she traced them to the Galena area of Illinois. This was a fascinating tale, full of human interest, and well told.

I look forward to the rest of our winter programme, and to seeing many of you at our talks.

Editor's note: In the last newsletter and at the Annual General Meeting our long suffering Project Officer asked for someone to take over the job or perhaps help with it. So far there have been no offers. Should the propsect of writing reports such as the above be off-putting to a would-be candidate I'm sure we can easily find a way round this obstacle.

LEAD POISONING

Sarah Robinson

Lead has many uses in industry including the manufacture of pipes, sheet metal and foil. It has also been used in paints, enamels and glazes, although its use has been phased out in recent years. The car industry still utilizes a lot of lead in the manufacture of car batteries and as additives to petrol to prevent knocking. Hence anyone involved in these industries and in the mining and smelting of lead is at risk of the adverse effects when excessively exposed to it.

The symptoms of lead poisoning were first described by Hippocrates in 370 BC. However it was not until 1837 that Tanquerel de Planches first comprehensively documented the adverse effects of excessive lead exposure.

Inhalation is the main mode of entrance into the human body, but it can also be ingested and absorbed through the skin. Following absorption, lead becomes bound to red blood cells (RBC), which transport oxygen. The main depository is the skeleton. Lead displaces calcium and is found particularly in teeth. Lead poisons the bodies enzymes and affects the bodies structural compounds - proteins.

One of the main effects of excess lead is anaemia. This is because lead inhibits the synthesis of haemoglobin which carries oxygen within the RBC. It also decreases the life span of circulating RBC's. This results in pallor, tiredness, shortness of breath and occasionally palpitations.

The alimentary tract is invariably involved giving rise to a variety of symptoms. They consist of loss of appetite, often severe abdominal pain, nausea, vomiting and either diarrhoea or constipation. Another well known manifestation of lead exposure is a blueish line on the gums - the Burtonian line, due to lead deposition there.

Neurological (nervous system) involvement is another hazard. The main symptoms consist of subtle changes in mental attitude, weakening of memory, restlessness, depression, headache, dizziness, shakes and muscular pain. These features prompted the alternative name of "old man's disease". In severe cases this may progress to drowsiness, stupor and coma. Fits, blindness, insomnia and numbness are other complications. Also described is a metallic taste in the mouth particularly on smoking.

Occupational risk was not the only source of lead poisoning, a less well known but important cause was the consumption of "moonshine" whisky contaminated by improperly lead-glazed earthenware. The alcohol absorbed the lead from the glaze and the combination of the two had a disastrous effect on the nervous system.

The treatment of lead poisoning involves the use of so-called "chelating agents" which binds the lead together in clumps helping in its elimination from the tissues.

Although once common, the closure of most lead mines and smelters, the decline in popularity of lead figures and paints, the increased awareness of the problem and lead free petrol has resulted in lead poisoning becoming a rare occurrence.

Dr Sarah Robinson wrote this article as an undergraduate some time ago. (Editor)