

A visit to Gillfield Mine

4th March 2020

The Lead and Coal Mining Survey Group of the Upper Wharfedale Heritage Group had spent two seasons working on the surface, surveying and recording a range of features that identify the remains of this major industry in the Dales, but had never been underground to see what the serious end of the work involved. It would not be fair to say that we had been ignoring this aspect of the lead and coal mines, as all of our work had been involved in recording the tops of shafts, often as they appear in lines of large doughnut shapes across the landscape indicating the direction and size of the veins that had been discovered in the eighteenth century and before. All around them are the remains of the underground process – the huge piles of “deads”, stone that had to be removed before the vein was reached, all spookily the same size indicating that they were, each and every one of the hundreds of thousands we have seen, carried by hand and bucket from beneath the earth to these immense new hills created by the miners. In other places are the dressing floors where the ore was broken, again by hand in the earlier periods, into smaller and smaller pieces ready for smelting. A fine sand is often evident at these sites revealing the effort of winning the lead ore. At some of the sites we saw smelting mills, but for others we could only imagine the labour of hauling, probably on pack horses, the stony results of days of hard work away to another smelt mill from some remote spots high on the exposed tops of the hills.

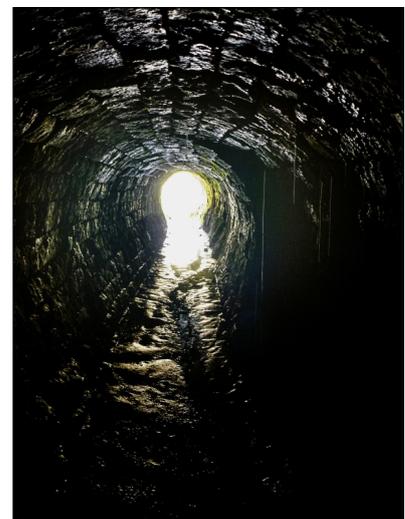
It's not as if we were unsympathetic. On our surveys we often speculate on the lives of the people – men, women, and children - who would not have been able to choose whether or not to make often arduous walks to the mine site, regardless of the weather. We have been caught out in some fairly tough weather, but we are well aware of the choices we are free to make.



It was in this spirit that we arranged to visit Gillfield Mine at Greenhow, as guests of the Greenhow Local History Club. Gillfield is the only mine that is open to be visited in Greenhow, and must be one of very few in the country where it is possible to see the workings deep in the hillside. The Greenhow Local History Group keep the place safe and have marked safe routes through to the veins, or what's left of them. Our guide was Shirley Everett, a member of both the Greenhow club and the UWHG mine survey group.

Mines are wet places and after weeks of rain and floods, and more recent snow, there was no chance of getting into and out of the place dry or without some splattering of mud. All this we knew and were prepared with waterproofs that we knew could take it. We were provided with hard helmets and we all from time to time felt the benefit as we cracked and scraped our heads through some of the low places.

The entrance to the mine is a long straight passage with a stone-built arched tunnel at first. There was a stream of water deep enough to make us appreciate the benefit of wellingtons all the way along the route until we got to the workings, but of course this was the tunnel doing what it was designed to do – drain the mine.



We came to one or two places where water from the surface had passed through the rock and emerged in strong flows – little waterfalls really - but drained away and out of the tunnel easily. In this way mines are different from caves.

We got used to the dark quickly, as our headlamps gave enough light, when there was nothing else, to light up quite a distance. Far into the tunnel we looked back and saw the entrance and the sunshine as a little homely speck quite far away. We marvelled at the way in which the miners had kept their tunnel so straight, but of course they had used the line of sight to the entrance as their reference. They would quickly know they were off the line if they couldn't see behind them the place they had started at.

The only sound for our first few minutes of walking in was the swishing of water from our feet in the drainage stream, but we noticed the change in the finish of the tunnel from the stone built horse-shoe shaped tunnel to one cut out of the rock. Further in the river stopped its urgent flow, but the mine was never dry.



Shirley showed us where two changes occurred. One was a doughnut shape 'witch stone' about 15 centimetres wide cut out of the rock wall as a talisman to keep the evil spirits out of the mine, and beside the initials of, presumably, early miners there. We felt confident during our visit, but it was easy to understand why the miners would have indulged such superstitions when they were going to move large lumps of rock around in something much nearer to darkness than we were experiencing.

Later our attention was drawn to the change in the geology to the limestone in which the lead vein would be found. The miners would have been pleased to reach that point too, back in 1784.

We became aware of dark passages off to the left and right. These were not our route and were full of rocky rubble. The miners had filled empty and useless or worked-out parts of the mine with "deads" – worthless stone that held no economic advantage so not worth the effort of taking out if you didn't have to. Further in we saw lots of other places where the miners had back-filled spaces, some of them very large, with rock, including places where it was built up to provide a platform from which to work at a higher level.

The large spaces we saw in the depths of the mine were shaped by the vein of lead, and narrow, since there was no point in removing rock for no gain. We were shown a piece of galena about the size of two fists and weighed maybe four or five kilograms. It was quite remarkable to hold it but wasn't a missed piece from this mine. It had been brought from somewhere else to illustrate what the miners were looking for. Miners at Gillfield were thorough and had removed everything of value to them. The miners had worked with explosives and there were lots of drill-marks on the walls. While we talked of this, it was difficult to imagine how anyone could work with the degree of danger, dust and noise that removing the rock in that way would have involved. Small controlled explosions, we presumed, but even so it was quite a tight space for that sort of thing. But still, it was probably a great improvement on having to get everything out with chisel and pick.

The mine, or at least the vein it followed, had been mined from medieval times. From time to time we saw evidence of older workings. One place where the older, lower tunnel roof could be seen with pick-marks still obvious, and other places where later miners, still two hundred and more years ago, had broken into the older tunnels. Underground in that area appeared to be a network of tunnels, some of them are very small, from all sorts of periods. There were the ones we were in and there were others not very far away through the rock, where other miners had been chasing the next vein.

On the surface, later, we walked over the hill and we could see the various lines of the veins marked out by the upcast circles from the very early miners all across the area. It had clearly been a very busy place.

There was a bit of scrabbling around during our trip. We saw some of the side-workings where the Greenhow Local History Club are still working to explore further by clearing rubble that has been washed in by water over the years. Shirley showed us, at the top of a waterfall, a splendid example of fluorspar crystals embedded in the rock. Fluorspar accompanies lead ore and, while ignored by the lead miners, it found a new market as a flux in the steel-making industry and was exploited at Gillfield in the 1930s and 40s. This meant that some of the chambers were larger than they would have been left by the lead miners as the fluorspar miners removed everything they could use. To see this good example of the cubic shape of the crystals, we had to wriggle up the short but steep slope that the water had worn, and then turn around to come down forwards.



In order to reach the furthest point on our trip into the mine we had to climb up ladders. These had been fixed to the rock, so we felt quite secure climbing up into the darkness and manoeuvring ourselves onto the platform at the top. We could see how the miners worked the higher levels by building these levels on wooden logs jammed against both sides of the narrow gap they had created by digging out the lead ore. From the top of the first ladder we went on to another which we hadn't seen from below and up even further into the dark. This one was higher and included passing through a tight gap, but we managed. At the top, on this next level we saw a wagon which probably dated from the 1840s which had been used for moving the ore and dead rock around. It had a pivoting flap at one end so it could be tipped, as this was the way rock was moved around in the mine – it was dropped from level to level until it reached the adit level and was pulled out by horses.

Just to complete the experience, when we descended from the first ladder, we took a moment to switch off our lights and give ourselves a moment of complete dark. No-one moved, as there were potential hazards all around, and we all saw flashes of light generated in our brains. Then after a minute or so, it was light on and the next descent before we walked out along the adit. We had been underground for about two hours, and it certainly didn't feel like that, and had gone maybe a kilometre into the hillside, and again we had no idea, as being underground is quite a remarkably disorienting experience until you become used to it.

We did get a sense of the nature of the work involved in mining lead and the conditions in which the work was done. It certainly made us respect the people who had spent their lives working in this way in this place.



We knew it wasn't the full experience, as we didn't have to commit our lives and fortunes to this, nor did we experience anything like the hazards the miners would have faced every day. We emerged a bit wet and a bit muddy, but having learned a great deal.

Maurice White