

## Working Conditions

A miner's typical working pattern was six hour shifts over 6 days. 'Pickmen' were the men who extracted the ore and they worked in partnerships, they struck 'bargains' which were agreed prices for each bing (64 stone) of dressed ore. The agreed price was dependant on the market price and estimated difficulty of gaining the ore, and so could fluctuate from 5 shillings to 60 shillings per bing. A partnership could suffer loss and hardship if the quality of a vein had been overestimated, but could also benefit if a vein proved richer than expected. The bargain agreements were always to the advantage of the mine owners and were renegotiated on a regular basis.

All other work (driving levels and lining them with stone arching, sinking shafts etc) was termed 'dead work' and was completed by 'deadmen'. They would be paid per fathom when driving levels and this would be dependent on how difficult it was to drive through and so could vary from £1 to £15 per fathom.

In the 18<sup>th</sup> century an average shift rate was a shilling or six to seven shillings per week. The bargain system resulted in miners not being paid for long periods, and so they would run up debts to the mining company, local shops or at the mine shop which was then deducted on pay day. All workers had to pay for the tools and materials they used, including candles, picks and shovels and the sharpening of these at the blacksmiths.

The infrequent three and six month pay days were criticised for forcing miners to spend long periods in debt and encouraging them to have lengthy drinking sessions when they did eventually get paid, resulting in men 'not striking a bat' for a week to a fortnight afterwards.

Due to the remote location of the mines, many men had to walk over 3 miles to work, over wild fells and moors in harsh climates. Many would knit as they walked, for some the distance was too great so they would lodge at a nearby farm or at the mine's lodging shop although many of these lodgings were considered to be more detrimental to health than working in the mines.



In the 1842 Children's Employment Commission William Eddy stated in his evidence:

*"Our lodging rooms were such as not fit for a swine to live in. In one house there were 16 bedsteads in the room upstairs and 50 occupied those beds at the same time. Often three at a time in the bed and one at the foot. I have several times had to get out of bed and sit up all night, to make room for my little brothers, who were there as washers. There was not a single*

*flag or board on the lower floor, and there were pools of water 12 inches deep. You might have taken a colrake and raked off the dirt and potato peelings six inches deep. At one time we had not a single coal. The breathing at night when all were in bed was dreadful. The workmen received more harm from the sleeping places than from the work"*

## Health

Life expectancy for lead miners was around 45 – 50 years, and for the smelters often less.

Working conditions did not support good health; poor air quality often made worse by dust from explosives, miners on piece-rate could not afford to wait for the air to clear before getting back to work. Ventilation was poor, levels in hillsides or drifts from shafts did not allow any fresh air to flow through. Although mechanical methods were used to circulate air through the main levels, many ore face workings held stagnant dead air which combined with the miner's heavy breathing, burning of candles and explosive fumes had a devastating effect on health.



Lung damage caused by working in dust laden confined spaces included emphysema and silicosis and resulted in miners being susceptible to tuberculosis which was a common cause of death for miners in Swaledale.

Water was the constant nemesis. Often miners had long treks to reach the remote mines, often arriving in rain sodden clothes. Not all mines had 'mine shops' which allowed miners to change and dry their clothes, so they would have to work in their wet clothes, or walk home in them after their shift. Many mines had water constantly dripping from the roof and running along the level floors, deeper level workings were constantly prone to flooding. In mines which did not have the capital to install pumps, miners could spend six hours out of eight removing water from shafts in buckets so the mine was workable for the remaining two hours.

Many miners suffered from the effects of lead poisoning – violent headaches, feeling faint, excessive tiredness, violent vomiting, poor appetite and bowel problems. Added to this, the wet working conditions, foul air and the long walk to and from work it is not surprising that miners died at an early age.

### Woman and Children

Dressing the ore to prepare it for smelting was often carried out by women and children; this included washing the ore, crushing it with *buckers* and separating ore from the waste rock *gangue*. Boys would leave school at ten years of age, as they did not have the strength or experience to work at the ore face they would take on menial and repetitive tasks. These could include blowing air into poor ventilated areas by using a Windy King machine, loading hoppers with mined ore and then taking them out of the mines to the dressing floor. Early mining practices included children as young as ten years dragging ore along in buckets strapped to them via a harness. Children would work on dressing the ore, using buckers and hammers to crush the ore, operating the hotching tubs and buddles. They would work long shifts and have no protection from the outside elements.

(Source: Mills, A (2011) *Mining & Miners in Swaledale & Arkengarthdale*. Turnbull, L (1975) *History of Lead Mining in NE of England*, Morrison, J (1998) *Lead Mining in the Yorkshire Dales*. Images copyright 2016 Beamish, The Living Museum)