



**National  
Trust**

---

# The Elizabethan Miners

A history by Andy Warner

The Lake District today is one of the most cherished landscapes in the world, but it was not always this way. Five hundred years ago Cumbria was a land that was at best despised, and at worst positively feared. Compared to more southern parts of the country, it was generally regarded as worthless. But some of its fells held something that was coveted by the noblest in the land... precious metals.

Mining these ores was something that had gone on for centuries, but by the time Elizabeth I succeeded to the throne, the need was becoming urgent. The threat of war loomed, the books weren't balancing and she needed extra money – fast. So she would use copper to debase the currency, and take the silver that was saved as her own. Good plan, now where was the copper? And how on earth was the ore to be processed to make the pure copper that she needed? Bringing in some experts would be a start.

## Mining on an industrial scale

In 1564 the Company of Mines Royal was set up to “search, dig, roast and melt all manner of ores of gold, silver, copper and quicksilver in the counties of York, Lancaster, Cumberland, Westmorland, Cornwall, Devon, Gloucester, Worcester and Wales”. The Company would employ the expertise of German miners brought over from Augsburg, under the leadership of Daniel Hechstetter. The directors of the company included William Cecil, Lord Burghley; Robert Dudley, Earl of Leicester, and William Herbert, Earl of Pembroke.



General view of Goldscope East

It is not clear why Keswick should be chosen as the first destination for the miners, but a preliminary workforce were soon prospecting in Newlands, where large veins of copper were outcropping at Scope End and further up the valley at the Longworks. These obvious veins would have already been partly exploited, so their worth was easily determined and mining began in earnest in 1566. So rich was the vein at Scope End, that the Germans

re-named it Gottsgabt – Gods Gift. Between August and December it produced 223 tons of good copper ore. Today we know it as Goldscope, and during the course of its 300 year history, it proved to be one of Lakeland's most prolific mines.

## Trouble with the locals

Somehow the ore that was won had to be converted to pure, workable copper, and to this end a massive smelting works was built at Brigham on the outskirts of Keswick. It was the town's first major factory, jobs were plentiful and everybody prospered for, as with all big industries, the mines required a network of smaller supply businesses to support them. Not everything was rosy however, the “offcomer” Germans were settling down with the local lassies (between 1565 and 1567 there were 27 inter-race marriages) and this caused resentment. There were also drink fuelled disputes that culminated in the murder of one of the Germans, Leonard Stoulz. Small, quiet Keswick had become a Klondyke.

This, together with other disputes, may have led to the miners taking up temporary quarters on Derwent Island known then as Vicar's Isle. They certainly developed it as a smallholding with a piggery, an orchard and even a brewery. The valuable ore was shipped across the lake from a loading point on the Lingholm shore on the East side of Derwentwater. Legend has it that a boat full of copper sank here, so on the modern map we find “Copperheap Bay”.

The engineering required for the ore extraction was impressive, and for its time was regarded as state of the art. It produced a slick and efficient output that fully realised the copper potential of the mine...and it made Thomas Percy, Earl of Northumberland very covetous. To be fair he had a point. He had been given the land together with the mineral rights by Queen Mary in 1557. Surely he should get the royalties? Not if Elizabeth had anything to do with it! The case went to court. Unsurprisingly Percy lost. It was one of many disputes between Northumberland and the Crown that, following the Rising of the North, led to Percy losing his head!

## The deforestation of Borrowdale

Whilst the output of the mine was impressive, the smelting operations were fraught with problems. The process was long and needed accuracy at every stage. Whilst the scale of the works were impressive, the actual results were not. The smelting temperature for chalcopyrite (the copper ore) is 1,200 degs. C. It took 112lbs of charcoal to produce just 2 lbs of copper, so the demands on the remaining natural woodlands of Borrowdale and Newlands

were huge. It resulted in massive deforestation of the oak and birch that so characterise the valleys today. Eventually the problem became acute, and resulted in compartmentalisation and increased management of the woodland. Some areas such as Langstrath never recovered, and have remained unwooded ever since.

The Keswick smelts were, allegedly, destroyed by Parliamentary forces during the Civil War. It marked the end of the first great mining boom in Cumbria. Nowadays we can see the more obvious features of the mines, the odd cutting, the old spoil tips and milling areas, but little else that would suggest such a productive industry. The woodlands have recovered within their excluding walls and need less management than in the past. But our rivers and streams are still paying a price with the leaching of polluting minerals from the old workings.