## The Odin Mine

Odin (or Oden) mine is the oldest documented lead mine in Derbyshire and is thought to be one of the oldest mines in England. Its origins are unclear but many sources say that the mine was first worked by the Romans (who mined extensively for lead for their plumbing systems during their occupation of Britain) and later by the Saxons and the Danes, whose chief god was Oden. The first mention of the mine in official records was in 1280 when a poacher, John of Bellhag, was put on trial for hunting "at the entrance to Oden's Mouth". The next reference is in 1663 when there was a dispute over mining rights. In April 1706, when a rich vein of lead was struck, 41 men and 8 women are recorded as working at the site.

What remains of the mine is situated approximately one mile west of Castleton, beside the old Mam Tor road. Now owned by the National Trust, the site consists of a limestone gorge or "fault" which was the original early workings before tunnelling followed the veins of ore underground. To the left of the gorge is the 2 metre wide and 10 metre deep Odin Cave (called Gank Hole by the miners). A gritstone crushing wheel, with its iron tyre and circular iron track, used to crush the ore, can still be seen at the site. The crusher was built in 1823 at a cost of £40. The old spoil heaps (the waste from the crushing circle), now a protected archaeological site, support a wide variety of plants. Some of this spoil was used by the Manchester and Sheffield Turnpike Company in the construction of the new road in 1802. Later, the spoil heaps, which contained fluorspar, calcite and barite were reworked when the value of these minerals became known.

In its heyday, the mine was a complex system of levels and shafts that extended at least 2.4 kilometres underground. It was worked on three levels: from high up in the Odin Gorge; from a second level known as the Cart Gate (now covered by the road); and from a third level at the bottom of the 74 metre deep Knowle Shaft. In a line and moving upwards from Knowle Shaft were Tinker, Engine, Castleton and Forest Shafts. These last two shafts were just below Mam Nick. Simple winding gear called "stows" were erected over each of the smaller shafts. This was a way of demonstrating ownership of the mine below. "Engine" Shaft would have been a larger shaft with more sophisticated winding gear.

From the early 1600s the mine suffered from high water levels and poor ventilation. Around 1663, the owners eventually reached an agreement to finance a new "sough" or drain. In 1674, however, the mine was abandoned (probably because of renewed

legal disputes about ownership and the responsibility for paying for essential drainage) and not reopened until 1704. Extensive drainage work was carried out between 1711 and 1869 when the mine closed. Knowlegates Sough was created in 1711, extending from the mine down to near Knowlegates Farm and lowering the water table by 30 metres. In 1772 proposals were put forward to build a low level sough. This was not completed, however, until the 1820s when what is known both as Odin Sough and Trickett Sough was driven down from the mine and into the Hollowford Brook near Trickett Bridge in Castleton. This lowered the water table by a further 40 metres.

The mine was worked continuously throughout the 18th century with annual ore extraction varying between 100 and 800 tonnes per annum. The total **recorded** amount of lead ore produced in the working life of the Odin mine was 40,000 tonnes. There is, however, evidence to suggest that not all the ore that was mined was declared, as required, to the Barmaster!

At times the mine employed over 150 people. From the latter half of the 18th century it was also visited regularly by tourists, with the Cart Gate being a particular attraction. Samuel Needham, a miner, was also a guide there from 1790 and into the early years of the 19th century. Other well known Castleton families were associated with Odin: in the early 1700s Richard Bagshawe, later High Sheriff of Derbyshire, had a considerable stake in the mine and the family retained an interest until the 1850s. In September1827 Robert How Ashton (see INFOdoc 5) went to Sheffield "trying (i.e testing) ore as it was reported that it contained a large proportion of silver". Unfortunately, there is no record of the outcome of the testing or of any future sale of silver-bearing ore.

Local tradition has it that Odin Mine was a very dangerous place to work. This was largely due to the presence of "slickensides", a mineral that explodes when struck with a pick-axe or crowbar. The story goes that when slickensides was discovered, convicts were brought in to work the mine until the danger had passed. But, as is so often the case, there is no written evidence to support this story.