EXTRACT FROM ENGLISH HERITAGE’S RECORD OF SCHEDULED MONUMENTS

MONUMENT: Odin Mine nucleated lead mine and ore works, 350m WNW of Knowlegates Farm

PARISH: CASTLETON

DISTRICT: HIGH PEAK

COUNTY: DERBYSHIRE

NATIONAL MONUMENT NO: 27223

NATIONAL GRID REFERENCE(S): SK13408347

DESCRIPTION OF THE MONUMENT

Odin Mine is located below Mam Tor on the interface between the sandstone and shales to the north and west and the limestone plateau to the south. The monument includes the area of the mine located on the limestone south east of Mam Tor together with its associated ore works. Further workings of the Odin Mine survive west of the core area but have not been included in the scheduling due to their isolation. A group of mineworkings associated with Engine Sough is the subject of a separate scheduling.

This part of Odin Mine is divided by the modern road from Castleton to Mam Tor. The ore works lie to the east of the road and include dressing floors and areas of dressing waste and a crushing circle used in the breaking down of lead ore. The crushing circle comprises a gravel-bedded circular iron track with a diameter of c.5.5m. The track itself is composed of eight segments, each measuring c.5cm thick and c.37cm wide. The process of crushing was carried out by a gritstone wheel which now lies to one side of the track. The wheel measures c.1.8m in diameter and is c.30cm thick. It includes a 30cm square pivot hole at the centre which retains part of a wooden shaft. The wheel was shod round the edge with a 5cm thick iron tyre.

The mineworkings lie predominantly west of the road. However, a range of tips and hollow ways also occur south and east of the ore works. These remains are enclosed by a collapsed drystone wall which, on the north side, is paralleled by a second wall. East of the dressing area, there are two shafts which share a large shaft mound with platforms for winding gear. The winding platform for the southernmost shaft retains parts of its circular stone track. The shaft itself has a well preserved stone lining.

West of the road, the mineworkings include an impressive opencut (an open working along a lead vein) which partly utilised a natural feature known as Odin Gorge. Heaps of spoil from these workings occur north of the opencut. A particular feature of this part of Odin Mine is its water management works which include a lead or water channel running parallel to the opencut on its north side. This was dug in order to divert the stream flowing west of Odin Gorge round the head of the opencut which would otherwise have formed a natural watercourse. The leat has a U-shaped profile and measures c.1m deep by 3m wide. It ends to the east on a dam and is believed to have been used to direct water for the washing of lead ore. This is suggested by the occurrence, above the dam, of a 0.75m wide rockcut channel feeding off it towards the ore works. The channel is reveted by a wall on its south side.
Other rockcut channels traverse the mine in the vicinity of the opencut and all appear to have directed water towards the ore works. In addition, north of the leat and this network of channels, there are two large ponds divided by a substantial dam measuring c.20m wide by c.3m high. The first pond lies west of the dam where it was created by backing up water from several converging natural and rockcut watercourses. It filled the second pond via a sluice at the southern end of the dam. A channel leading south from the first pond above the sluice was probably an overflow.

The second pond is still partly waterfilled and was enclosed to the east by a second dam currently overlain by the modern road. East of the road, north of the ore works, there are at least two further ponds divided from the ore works by another dam. The scale of this water collection operation indicates that full-scale washing and dressing of the lead ore was being carried out on site at Odin.

Odin Mine is a multi-period mine of considerable longevity. Even if claims that lead was mined during the tenth century are discounted, there remains good documentary evidence for the use of the mine, under its present name by 1260. Limestone was certainly being worked by 1600 and at least part of the opencut can be proven to be in existence by 1660. The mine was in continuous production from 1704 to 1867 and may have been worked continuously from at least as early as 1660. In 1663 a drainage sough was driven westward from the mine and was completed by 1670.

All modern fences, gates and stiles are excluded from the scheduling together with the surface of the road and the modern drain beneath the road, although the ground beneath these features is included.

ASSESSMENT OF IMPORTANCE

Nucleated lead mines are a prominent type of field monument produced by lead mining. They consist of a range of features grouped around the adits and/or shafts of a mine. The simplest examples contain merely a shaft or adit with associated spoil tip, but more complex and (in general) later examples may include remains of engine houses for pumping and/or winding from shafts, housing, lodging shops and offices, powder houses for storing gunpowder, power transmission features such as wheel pits, dams and leats. The majority of nucleated lead mines also included ore works, where the mixture of ore and waste rock extracted from the ground was separated ("dressed") to form a smeltable concentrate. The range of processes used can be summarised as: picking out of clean lumps of ore and waste; breaking down of lumps to smaller sizes (either by manual hammering or mechanical crushing); sorting of broken material by size; separation of gravel-sized material by shaking on a sieve in a tub of water ("jigging"); and separation of finer material by washing away the lighter waste in a current of water ("buddling"). The field remains of ore works vary widely and include the remains of crushing devices, separating structures and tanks, tips of distinctive waste from the various processes, together with associated water supply and power installations, such as wheel pits and, more rarely, steam engine houses.

The majority of nucleated lead mines with ore works are of 18th to 20th century date, earlier mining being normally by rake or hush and including scattered ore dressing features (a 'hush' is a gully or ravine partly excavated by use of a controlled torrent of water to reveal or exploit a vein of mineral ore). Nucleated lead mines often illustrate the great advances in industrial technology associated with the period known as the Industrial Revolution and, sometimes, also inform an understanding of the great changes in social conditions which accompanied it. Because of the greatly increased scale of working associated with nucleated mining such features can be a major component of many upland landscapes. It is estimated that several thousand sites exist, the majority being small mines of limited importance, although the important early remains of many larger mines have often been greatly modified or destroyed by continued working or by modern reworking. A sample of
the better preserved sites, illustrating the regional, chronological and technological range of the class, is considered to merit protection.

Odin mine is a well preserved and well documented lead working site with a wide variety of mining and ore processing remains which include complex water management works and an extant crushing circle. Its importance is enhanced by its being a multi-period site and its unusually long period of continuous operation.

SCHEDULING HISTORY

Monument included in the Schedule on 30th May 1979 as:
COUNTY/NUMBER: Derbyshire 258
NAME: Odin Mine Crushing circle

The reference of this monument is now:
NATIONAL MONUMENT NUMBER: 27223
NAME: Odin Mine nucleated lead mine and ore works, 350m WNW of Knowlegates Farm

SCHEDULING REVISED ON 13th June 1996