

EXTRACT FROM ENGLISH HERITAGE'S RECORD OF SCHEDULED MONUMENTS

MONUMENT: Lathkill and Mandale mines, Lathkilldale

PARISH: OVER HADDON
YOULGREAVE

DISTRICT: DERBYSHIRE DALES

COUNTY: DERBYSHIRE

NATIONAL MONUMENT NO: 30944

NATIONAL GRID REFERENCE(S): SK18526576 - SK19726612

DESCRIPTION OF THE MONUMENT

The monument includes the ruins, earthworks and buried remains of the Mandale mine and Lathkill mine, both of which are well documented and made use of both water power and later engines for drainage.

Lead mining took place in the dale from at least the 13th century, when Mandale mine was first recorded and Mandale Rake was mentioned in 1585 as containing 'the beste orre in the peke'. By the 1720s, shafts were sufficiently deep to necessitate two 'lead mill engines' or waterwheels to power drainage mechanisms. Drainage was a constant difficulty and caused the failure of several early ventures. During the 19th century two main mining companies emerged in Lathkill Dale. The Mandale Mine Company was based in the eastern part of the dale, where it built a sough or drainage tunnel after 1800. In the 1830s and 1840s new management tackled drainage with the construction of a large waterwheel supplied by a leat or water channel and aqueduct. The mine's efficiency fell off within ten years. An engine of the Cornish beam type was then installed to supplement the pumping system, but the mine was forced to close in 1851. Small scale independent mining took place on the site thereafter.

The western part of the dale was exploited by the Lathkill mine. About 1832 an elementary water turbine was installed in a shaft under a building known as Bateman's House, on the south bank of the river. It has been suggested that this unusual arrangement was an extreme reaction to industrial espionage. Large waterwheels supplied by a leat from the north side of the Lathkill were also used to power drainage, but the company failed in the 1840s. The site was worked on a small scale until the 1860s. The remains of the mines are clearly evident throughout the Lathkill valley.

In the east of the site is the stone lintelled portal or outlet of Mandale Sough. To its north a wheelpit, built to house a waterwheel in the 1840s, is visible at the foot of a steep drop; above it a well constructed arched leat is the outlet for its water supply. South of the wheelpit the Mandale mine engine house survives to 6m in height, the northern bob wall on which the beam of the engine was supported being the best preserved. At least two mine entrances are visible: a shaft immediately north of the engine house and an adit (a horizontal entrance cut into the hillside) 20m further north. This area thus includes evidence of a number of attempts to solve drainage problems with developing technology, and an unusual example of water powered pumping in the Derbyshire orefield.

The leat continues east from its arched outlet and is thought to be preserved in its entirety, with associated structures. Visible as an earthwork until a steep drop interrupts it, it is thought to have been carried across this drop by wooden launders (supported water channels) to its meeting with an aqueduct whose ruined stone piers survive in good condition by a bend in the river at NGR SK 195 660. Crossing to the south of the river, the leat is visible as an earthwork for 1km, until its meeting with the large pool or reservoir which fed it. This is a rare survival of a near complete water management system, an aspect of technology central to 19th century lead mining. Both riverbanks show much evidence of shaft mounds and spoilheaps, demonstrating the intensive exploitation which characterized the valley's lead workings. In at least one of these shafts well preserved stemples (timber inserted like rungs at the side of a shaft for access) are visible, and it is thought that other shafts will also contain features which illustrate underground technology. Structures including two powder houses, small sturdy buildings for the storage of blasting gunpowder, and a further wheelpit are visible on the northern bank of the river. A stone bridge survives by the wheelpit.

The aqueduct marks the boundaries to the Mandale and Lathkill mine complexes. The ruined building known as Bateman's House, included in the scheduling, is known to belong to the latter, standing 200m south west of the aqueduct on the southern riverbank. Erected over a shaft whose patented pump it may have been built to conceal the structure survives in good condition. Further shafts and a coe (small storage building) are visible in the vicinity. This unusual arrangement is closely associated with technological progress in Lathkill Dale.

Modern fences and track surfaces are excluded from the scheduling, although the ground beneath them is included.

ASSESSMENT OF IMPORTANCE

Approximately 10,000 lead industry sites are estimated to survive in England, spanning nearly three millennia of mining history from the later Bronze Age (c.1000 BC) until the present day, though before the Roman period it is likely to have been on a small scale. Two hundred and fifty one lead industry sites, representing approximately 2.5% of the estimated national archaeological resource for the industry, have been identified as being of national importance. This selection of nationally important monuments, compiled and assessed through a comprehensive survey of the lead industry, is designed to represent the industry's chronological depth, technological breadth and regional diversity.

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 flat rod systems, transport systems such as railways and inclines, and water power and water supply features such as wheel pits, dams and leats. The majority of nucleated lead mines also included ore works where the ore, once extracted, was processed.

The majority of nucleated lead mines are of 18th to 20th century date, earlier mining being normally by rake or hush (a gully or ravine partly excavated by use of a controlled torrent of water to reveal or exploit a vein of mineral ore). They 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 upland landscapes. It is estimated that at least 10,000 sites, exist the majority being small mines of limited importance, although the important early remains

at many larger mines have been greatly modified or destroyed by continued working or modern reworking. A sample of the better preserved sites, illustrating the regional, chronological and technological range of the class, is considered to merit protection.

The mining remains of Lathkill Dale constitute a wide range of features associated with the lead mining industry in Derbyshire. They retain much evidence of the technology of lead mining, particularly of developing responses to problems of drainage.

The monument includes well preserved features typical of nucleated lead mining. Evidence of especially large water wheels, water management systems and unusual pumping arrangements offer further information on the management of power and drainage. These features, including the Mandale Sough, are thought particularly illustrative of the industry in Derbyshire. Shaft mounds and other earthworks contain well preserved evidence of extraction technology. The monument will thus contribute to an understanding of the local and national development of the lead mining industry in the 18th and 19th centuries. As a monument located within a National Park and a National Nature Reserve it serves as both an educational and an amenity resource.

SCHEDULING HISTORY

Scheduling included on 24th February 1998 as:
COUNTY/NUMBER: Derbyshire 30944
NAME: Lathkill and Mandale mines, Lathkilldale

The reference of this monument is now:
NATIONAL MONUMENT NUMBER: 30944
NAME: Lathkill and Mandale mines, Lathkilldale

SCHEDULING AFFIRMED ON 16th April 1999