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50 Years of Mining History



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Figure 1. A solitary cow house punctuates this lead and chert mining landscape between CB yard and the Hungry Hushes in Arkengarthdale. In the top centre is an inclined plane for the twentieth century chert workings

THE LANDSCAPE LEGACY

The most obvious remains are those resulting directly from extraction and its associated spoil heaps and processing plants but many influences are far wider and more subtle. The road improvement works necessary for today's quarry traffic have their counterpart in the development of the turnpike system, most notably the route from Reeth to Brough, turnpiked in 1770 in large part to facilitate transport of coal from Tan Hill and the road from Reeth to Richmond which was turnpiked in 1836 with the principal purpose of reducing the costs of transporting lead (Figure 2). What routes were used to transport coal from Tan Hill to Richmond Castle, when the industry was first recorded in 1384, is unclear but many other roads and tracks owe their existence to the need to transport, not just the minerals themselves but the fuels necessary for their processing.

Iron smelting required vast quantities of charcoal to keep continuously charged furnaces in operation and this would have had long lasting effect on ecosystems. Conflict between foresters and ironmakers was one of the causes of the decline of the iron industry in Skipton Chase. Foresters levied tolls on ore carried to the furnaces early in the fourteenth century but in the 1320s iron smelting ceased for Barden and neighbouring woods '*had suffered grievous injury*' from charcoal-burners and smelters. Today there is relatively little woodland in the former Forest of Barden – is this a direct legacy of the iron industry?

In 1540 Leland noted that Swaledale had *'little corn and much gress, no wodd but linge and sum nutte trees. The woode that they brenne their leade is brought owte of the parte of the shire and owt of Dirhamshire'* and that Arkengarthdale *'had little or no wood'*.⁴ Is the paucity of woodland in these two valleys essentially a result of smelting lead on bales throughout the medieval period using wood as the main fuel?

By the late seventeenth century most lead smelting was taking place on ore hearths with peat and kiln-dried wood (white coal) as the major fuels. It is possible through documentary sources and field work to identify some areas where woodland was managed during the post-medieval period to provide a regular fuel supply for the industry.⁵ It is rather harder to identify areas where the peat cover has been stripped or drastically reduced in depth yet just the size of the peat stores at some smelt mills indicate the amount of peat that would have been cut for industrial use, in addition to that needed for domestic purposes.

Woodland of course would have been under further pressure for building materials, not just for the direct demands of the industry but for the local population which was sustained at an artificially high level by the additional income stream from mining. The large numbers of miners' cottages in some villages now support the area's tourism industry as second homes or holiday cottages but were generally incremental additions to settlements. The New Village, designed and built for Ingleton's now defunct coal industry, although just outside the national park boundary stands out as industrial housing: the cottages at the CB Yard in Arkengarthdale were built to house estate workers rather than just miners. The New Village is also unusual for the area in that the houses are not vernacular buildings. Another special quality of the Yorkshire Dales National Park is its traditional Dales architecture - most buildings are constructed from locally quarried stone, with the sandstone roofs generally won from underground workings.

The independence fostered by mining communities is also reflected within the built environment: as in many other mining areas there are numerous non-conformist chapels, reading rooms and literary institutes. The large size of some, such as the Wesleyan Methodist chapel at Gunnerside, rebuilt in an Italianate style in 1866-7 with seating for 300 in the gallery and 400 on the ground floor, now vastly exceeds the demands of the local population and is an indication of the then confidence of the local community, shortly to contract dramatically as the lead industry declined.

THE HISTORIC ENVIRONMENT RECORD

The National Park Authority holds the Historic Environment Record (HER) for the Yorkshire Dales. As its name suggests this is a data base which attempts to record basic information on all known historic environment features in the National Park. This information is compiled from a variety of sources, field work, examination of aerial photographs, documentary research etc. It is maintained by the Authority but like all data bases is only as good as the sources used, the quality of the data collected and the level to which it is maintained. It aims to be comprehensive but by definition is not - information about the historic environment is continually increasing, not least because



Figure 2. Jinglepot bales, Apedale. The positions of smelting debris are indicated by arrows. The site on the left was radiocarbon dated at AD 900 to 1030.¹

part of the mine was on his land. The men were to be arrested and put in either York Castle or the Fleet Prison, sadly the outcome is unknown. A bale at the eastern end of Bishopdale Gavel Mine has been radiocarbon dated by Richard Smith to 1270-1400.^{1,8} John Smelterer's occupation is fairly obvious, if he lived at Smelter Farm, this might be the source of the farm's name.

1400 TO 1700

Even fewer documents exist from the fifteenth century but more general ones suggest that the lead trade was still pursued vigorously and the York merchants attempted to stop lead being traded at any other place other than York where tolls had to be paid:

'30 September 15 Henry VII (1499)

It was enacted that from this day furth no fraunchest man of this Citie in awn person nor non other for hym or to his use or behove bye no maner lede comying from Swaledale, Wenslaydale or Craven and wee it at Burghbrigge nor at any other place furth of this Citie... on payne of forfeittour for every foudre lede so to be brought and weed at Burghbrigge nor at any other place out of this Citie contrary to this ordinaunce xx.s'.

By the end of the fifteenth century; the mining industry in the wider Wensleydale area (not including the Bolton Estate), may have stalled because it was said in 1493 that James Ward made very little profit from the mines. Ward had taken the mines after the rebellion of Edward Walton (who held them previously):⁹

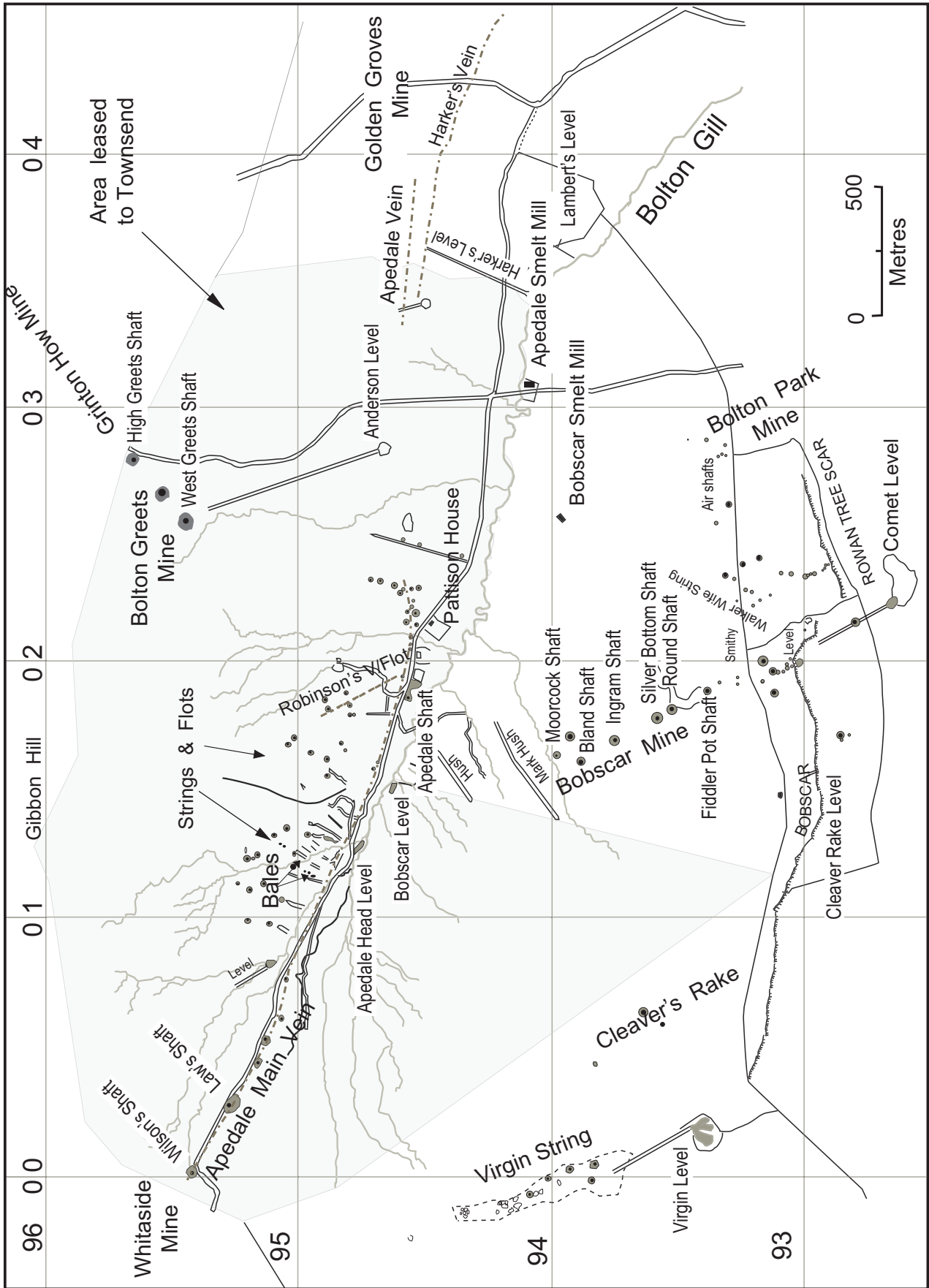


Figure 3. Map of the Apedale mines with the area leased to Townsend shown.



Figure 4. The Knot Mine above Ivy Scar, Woodhall. This is probably the site of Lord Scrope of Bolton's mine described by Leland in 1546.

'James Ward holdeth by lease of 14 years to come all the Cole & Lead mynes within the lordship of Middleham paying yearly £4 0s 0d. By these, formerly he rec'd, small benefit, but now nothing at all.... Ther are in the Lopps of Middleham and Richmond Mynes of Cole & Lead in diverse places but of small value... The mynes are taken of the King since the Cities contract, by Humphrey Wharton, receyvoe here'.

BOLTON ESTATE

The Bolton Estate (Lord Scrope's) mines were active in 1500, when a bargain was reneged on with a York lead merchant who complained that Lord Scrope's agent had failed to deliver 4 fothers of lead to York after having been prepaid £14. This could have been fraud on the behalf of the agent but more likely the mine failed to raise enough ore.¹⁰ The mine in question was likely to be Wet Groves Mine near Woodhall (see Figure 2). This mine is the one which best fits John Leland's (a traveller and writer of the time) description in 1546: *'There to a place in a great Rock a 2 miles of where my Lord Scrope seketh for Lede'*.

In 1565 Richard Lowther, Scrope's Deputy Warden of the Western Marches, leased the mines in the manor of Carperby (Wet Groves Mine). It is worthy of note that both men were acquainted with the German miners working for copper near Keswick, though how much exchange of technical knowledge there was, is unknown. In 1569 Wet Groves Mine was leased by Henry Earl of Cumberland; the lease mentions the 'old works' which would be those seen by Leland. The Earl's mining activities were to be concentrated in Ox Close and over the next three centuries this area was re-worked several times and the early evidence either removed or covered.

SOURCES AT THE SWALEDALE MUSEUM, REETH FOR THE STUDY OF MINING AND ASSOCIATED INDUSTRIES

Helen Bainbridge

The Swaledale Museum opened in 1973 in the old Wesleyan Methodist Day School, built in 1836 in the centre of Reeth. Originally conceived as a Folk Museum, its major assets are local lead mining and associated industries. This is the strength upon which



Figure 1. Part of the mining display at the Swaledale Museum.

we have built since taking the Museum over in 2004. Thanks to the generosity of the NMRS we have been able to update our panels on lead mining and introduce a new panel on geology, the knowledge of which underpins our understanding of the industrial exploitation of the area. In a second phase of development the NMRS enabled us to introduce new panels on local chert quarrying and coal mining. Archival material has been generated as a result of the research generated from producing these panels.

What we did not realise when we began cataloguing the collection of artefacts was the existing archival wealth the Museum harboured, albeit then inaccessible to the public. The archive is a serendipitous collection of material deposited by people from Swaledale and Arkengarthdale, covering the 1820s to the 1980s. The family history archive, indexed by name, provides

more information relating to named individuals. With the help of volunteers we have produced a short list of the material, soon to be on our website, and hence accessible to anyone who makes an appointment to see it. This annotated list is published here for the first time, in the hopes of encouraging research, and making the archive better known and used. Acquisitions before 2004 were not documented. Not listed here is the large collection of photographs that cover all these areas of mining, which will be catalogued shortly.

ARCHIVE LISTING

A. LEAD MINING

(i) SMA/46 & 73: Hurst Lead Mine Papers 1889-1891, letters, cost accounts, payslips & miscellaneous papers

The largest single deposit of material in the Swaledale Museum Archive is related to Hurst Lead Mines. As Mike Gill notes in his *Swaledale its Mines and Smelt Mills*, 2004, (p.154) these mines

had just been taken over by the new *'Hurst Mines Ltd, floated to replace the Yorkshire Lead Mines Ltd. The new company was underfinanced, and in December the company went into receivership. The Official Receiver Thomas Wilkins tried to keep the mine going, but found that the cost of pumping the deep workings was prohibitive. The mine was closed in April 1890. An attempt to float a company called the Hurst Mines Syndicate failed later that year. The mines were idle until 1937, when the North Riding Lead Mining Company began clearing and repair'*. These papers were acquired in 1997 from a gentleman in York, who had offered them to Richmondshire District Council, who in turn suggested the Swaledale Museum. The donor wrote: *'I have in my possession an old box containing books and letters somewhat mouse-eaten pertaining to the operation and eventual liquidation of the Hurst Lead Mines Limited of Reeth 1887-91'*. The collection includes letters, payslips, and cost accounts. The 110 letters are largely written by Thomas Wilkins from the London Office at 6 Great St Helens of the Hurst Lead Mines Limited to James Ward the local agent, between 1890 and 1891. Some are annotated with sketches of the local geology and veins being excavated. They are full of fascinating asides. Wilkins is vexed that some of the men were *'flitting about from place to place here today and there tomorrow'*, which he wanted to stop. There was also trouble with water, Wilkins writes: *'It is a frightful nuisance the pumps give us so much trouble. Do you think the Cornishmen are at the bottom of it?'*

Payslips: There are payslips, all dated 19 April 1890, for Adam Cherry, Edward Alsop, Richard Kearton, Joseph Alderson, William Hodgson, John Frankland, and James Peacock. Cost accounts listing name of workman, type of work done, gross pay, deductions and net pay, survive for January, February, June to November 1890.

Handwritten copy of a six page 'Lease of the Yorkshire Lead Mines, 6 October 1881 between Sir F. Morley, Lieut. Col. in H.M. 3rd Regimental called the Buffs and Faithful Cookson of 33 New Bond Street London'.

Printed notification to the Debenture-holders and Shareholders of the Company informing them of a suggestion 'which would avoid the cost of a sale to a new Company or a Syndicate ... that the Receiver should let the Mine to a Syndicate or a Company who would engage to perform the covenants of the lease and to pay the Receiver's cost', 26 April 1890

(ii) Mine Plans & Sections

Nearly all of our mine plans were donated by John Hardy. They were given to him by Harold Brown, who owned the Burgoyne Hotel in Reeth, who was the uncle of John's wife Thelma (née Jackson), in the mid 1970s. From this time, and using these plans John and his brother Peter used the plans to explore the local lead mines. Many of the plans bear their pencil annotations.

SMA/364: 'Longitudinal section of Old Rake, North Rake and Fryerfold 1821', by Francis Gill, paper and watercolour, framed and on display (Digital image available). Donated by John Hardy 2005.

SMA/276: 'Plan of Old Gang Mines Swaledale, 1861', James A. Clarkson, Arkindale, Yorkshire, with later annotations to 1877, and 1975 by John Hardy. West of plan is Gunnerside Gill with Sir George, Bunting and Barbara Levels, Hard Level Mouth is at bottom right, centre is Deans Vein etc, Main workings on Fryerfold Vein. Paper and watercolour, framed. Scale 8 chains to one inch. Donated by John Hardy, 2005. (See Diary of J. A. Clarkson below).

SMA/287: 'Plan of Top Horse level in Foregill Sun Vein into Surrender Ground', n.d. Scale 8 fathoms to one inch. Graph paper and pencil, laminated. Donated by John Hardy 2005.