Geology and man

The Mendip landscape has been shaped through time by both physical and human influences. Much of the character and sense of place is dictated by the underlying geology, and its influence on soils, land use, agriculture and settlement patterns. The landscape draws many visitors to the gorges and caves, and to the area as a whole for recreation.

As well as being important for tourism, the Mendips have provided a valuable mineral resource that has been exploited for centuries. A wide variety of minerals occur on Mendip, but only iron, lead, zinc and silver were really exploited by miners. Manganese, strontium and barium were mined on a small scale locally. By far the most valuable commodity was lead, mostly in the form of galena (PbS). It has been estimated that more than 100 000 tonnes of lead metal have been obtained from Mendip. The lead was associated with small amounts of silver. The largest orefields occur in central Mendip, around Charterhouse, Yoxter, Smitham Hill and the Chewton Warren to Stock Hill area. Smaller orefields occur on Sandford Hill, near Tynings Farm, Burrington Ham and Eaker Hill.

Around Shipham and Rowberrow, the miners prospected for zinc ore, present mostly as smithsonite and calamine but also present as sphalerite (ZnS). This was used with copper in the Bristol brass industry. Iron ore, mostly hematite and red and yellow ochre were mined at many places on Axbridge Hill and around Bleadon, Banwell, and Compton Martin.

All of these mines have long since closed, but many of the old workings now form important wildlife habitats and nature reserves.

Today, quarrying is the major extractive industry and has had a significant impact on the Mendip Hills. Until the beginning of the 20th century, most quarries were small local concerns producing agricultural lime and building stone. The Carboniferous Limestone, Quartzitic Sandstone, Dolomitic Conglomerate and the Lower Jurassic limestones have all been quarried for building stone, examples of which can be seen in Wells Cathedral. Many of these old quarries are now important wildlife habitats and provide good exposures of the underlying geology.

By far the most valuable product is the Carboniferous Limestone. It is an important raw material that is used in a wide variety of processes, due to its physical properties and its chemical composition. It is used primary as crushed rock aggregate for the construction industry, as an essential raw material for cement manufacture and as a source of building stone. It is also used in steel and glass making, sugar refining, the chemical industry, and for reducing emissions of sulphur dioxide from coal-fired power stations.

Quarrying is a sensitive and complex issue. On the one hand, quarries supply raw materials to meet many of society's needs, create employment and contribute to the local economy, but on the other hand they can have a significant impact upon the environment and local communities. More information about quarrying can be found at https://mendiphills-nl.org.uk/.

Figures

(Figure 14) A galena vein, Star Mine, Shipham. © Chris Binding.

(Figure 15) An example of galena.

(Figure 16) Dumper truck, Whatley Quarry.

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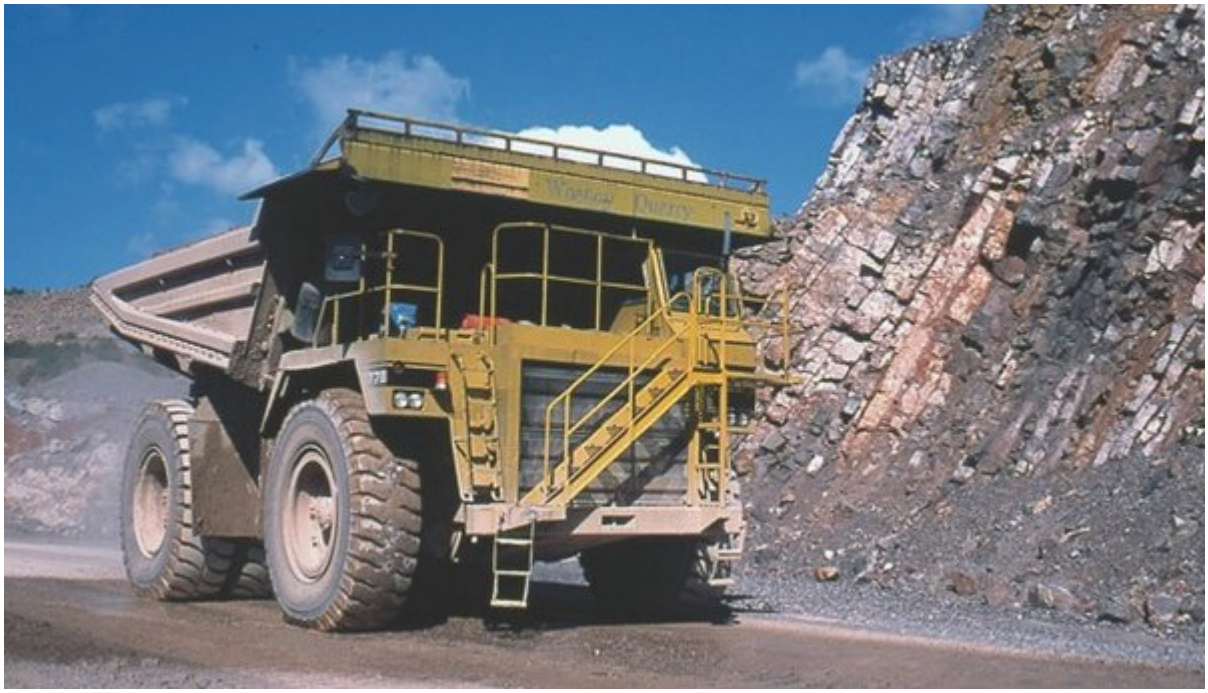
(Figure 15) An example of galena.



(Figure 16) Dumper truck, Whatley Quarry.