

WELCOME TO ALDERLEY EDGE AND WOOD MINE

The Derbyshire Caving Club has opened Wood Mine for the day to allow members of the general public to see for themselves the world of the copper mines below Alderley Edge.

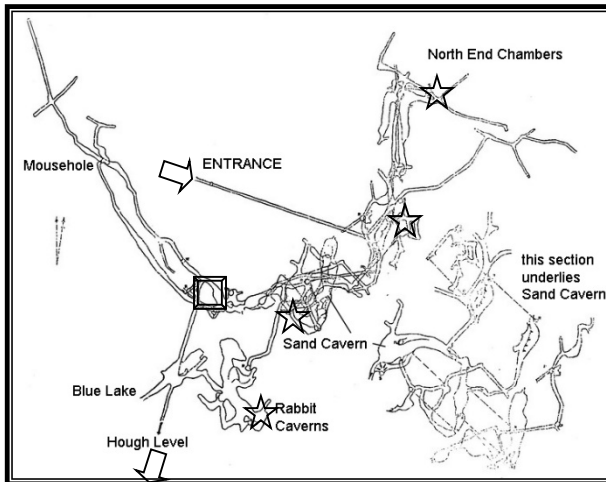
Members of the Club will be on hand before, during and after your trip to help you enjoy your trip safely. Tours of the mines are led by Club members and take place at regular intervals during the day.

FOR YOUR OWN SAFETY, PLEASE FOLLOW ALL INSTRUCTIONS CAREFULLY AND KEEP TO THE MAIN PATHS IN THE MINE. KEEP CHILDREN AND DOGS UNDER CONTROL

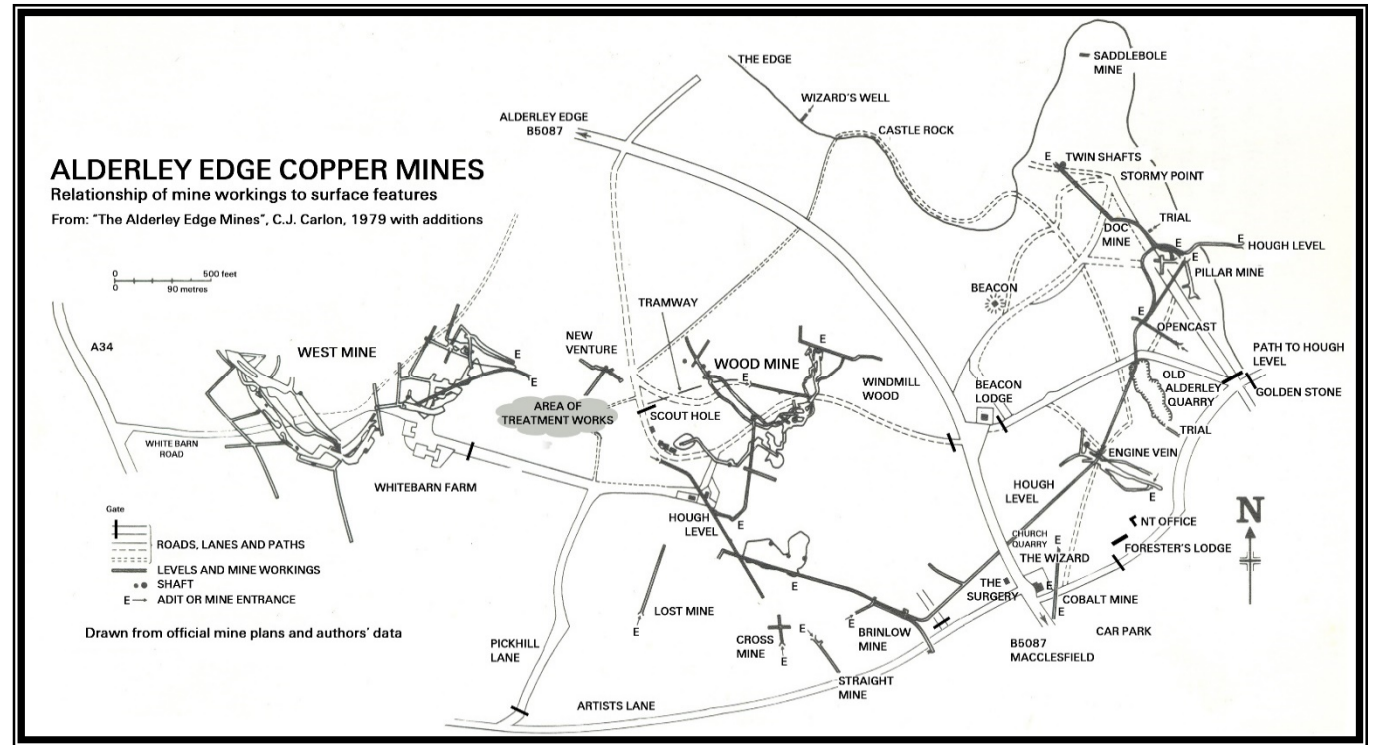
WOOD MINE

HISTORY

Whereas evidence at Brynlow and Engine Vein points to working there from the Bronze Age, Wood Mine probably offers nothing earlier than the 1860s. There may have been some earlier working at the surface but the highest level workings were in the form of a quarry which was infilled with domestic rubbish in the 1960s. We know very little about the early workings.



KEY: Shafts: Horizontal entrances/exits:



The mine was however reworked in the early 20th century and there are signs in Sand Cavern of the use of high explosives rather than the black powder of the 1860-75 mining period.

Visitors to Wood Mine today will see mining from 1860 onwards but nothing earlier.

DEVELOPMENT OF THE MINE

Compared to some other mines at Alderley Edge, Wood Mine is complex with passages on as many as five different levels in one part. The miner followed the run of the ore which in turn followed the different beds of rock. However, the interest in Wood Mine comes from seeing how a 19th century mine was developed. Wood Mine appears to have started as four separate workings at shafts which were no more than 15m (50ft) deep. These shafts are marked by the stars on the plan to the left. The adit entrance (the main way in today) was driven to help remove ore from the mine after the main period of working had been started. Later, we think a deeper 30m

(100ft) shaft was sunk to the lowest point, shown by the square on the map. However, the deep shaft went out of use when the Hough Level was connected to Wood Mine and ore could be drawn directly to the treatment works.

MINERAL ORIGINS

The origin of the minerals at Wood Mine lies deep in the earth. At some time between the period when the sandstone was laid down in a broad estuary, some 250 million years ago, and the present, the mineral crystallised out in three veins. The veins formed in existing faults in the earth's crust. These are known locally as North Boundary, Middle and South Boundary faults. The 'primary' minerals in the veins are galena (lead sulphide), chalcocite (copper sulphide) and barite (barium sulphate). At a later time, rain water seeped down the veins and dissolved the minerals. The minerals could then be washed into the porous sandstone on each side of the vein or left as bright green and blue 'secondary'

deposits on the faults. It is now hard to find the primary ores *in situ* on the faults. The secondary deposits are malachite and azurite (both hydrous copper carbonate) and cerrusite (lead carbonate). Miners in the 19th and 20th centuries have exploited the minerals of Wood Mine to obtain lead and copper.

THE VISIT TO THE MINE

The present entrance to Wood Mine was blocked in April 1964 by 'Blaster' Bates and then rebuilt by the Caving Club. The horizontal passage (an 'adit' or 'level') leads to a junction from which most trips will take the right branch towards Sand Cavern or the left branch to North End Chambers. If you go to North End Chambers first, you will see the North Boundary Fault, a westward extension of Engine Vein, before returning the way you came and then dropping down to the Green Waterfalls. These are places where water from the surface is still finding its way through the surface soil and washing copper down into the open mine passages. The striking blues and greens covering the walls show that there is copper still to be found in the ground above. After the Green Waterfalls, you will return to Sand Cavern – sometimes by way of a short ladder.

If your trip started in Sand Cavern, then you will probably be led deeper into the mine. You will visit Rabbit Caverns and the Blue Lake Junction where you can see the passage connecting Wood Mine to the Hough Level. From here, you will go to the deepest point at the base of the 30m shaft which was used before the Hough Level connection was made. The route continues through low passages (some of them on hands and knees) as well as walking height chambers and eventually arrives at North End Chambers. Part of the route you have followed was the way ore was taken in trucks on rails from most of the mine to the surface. The sections where crawling is necessary today have become partly filled with sand and silt since the mine closed.

WORKING THE MINE

Ore was mined by using hand drills and gunpowder to break the rock. A passage was mined along the top of the mass of ore and then enlarged sideways and

downwards to extract the copper-bearing rock. This is known as 'underhand stoping'.

Ore from the surface quarry and Sand Cavern was taken out of the entrance passage. Ore from the rest of the mine was tipped down chutes and shafts into trucks running through the bottom of the mine and then drawn out through the Hough Level. Ore could be taken in trucks from this level direct to the treatment works shown on the main plan. At the works, copper was extracted from the ore by using acid and was deposited on scrap iron by electrolysis.

Wood Mine is not the largest mine at Alderley Edge and it was mainly developed in one period but it usefully demonstrates the techniques used in the most productive and profitable period of mining as well as providing a sporting trip.

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For further information, including how to see the other mines, visit the Caving Club website at www.DerbysCC.org.uk which has sections on history, geology, exploration and other topics. There is also information about joining in with the caving and mining activities of the Club. You can also purchase copies of "The Alderley Edge Mines" which was published in 2012

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The Alderley Edge Mines are owned by the National Trust and leased to the DCC.



Derbyshire Caving Club – April 2024

DERBYSHIRE CAVING CLUB LIMITED (a company limited by guarantee) OD02

THE WOOD MINE

Alderley Edge, Cheshire

SJ 8544 7760

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How the minerals were formed

How the mine was worked

How the ore was removed

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Wood Mine displays the methods of working from the 19th century, the prime period of mineral exploitation at Alderley Edge.



DERBYSHIRE CAVING CLUB