<u>1988</u> <u>Coniston Copper Mines</u>

Explorations Beneath The New Engine Shaft

The Bonsor East Shaft meet at Coniston on 2nd October finished early, so Ian Matheson and Mike Mitchell decided to spend a couple of hours on a reconnaissance of the New Engine Shaft. There have been several attempts to penetrate the bottom of the stopes, and CAT groups led by Alen McFadzean first boated then swam along the flooded bottoms and were able to see but not to reach a pair of tramlines protruding from a rubble pile fifteen vertical feet above the water. This was thought to be part of the continuation of Deep Level which comes from Paddy End via the Great Cross Course. More recently a group led by Chris Jones abseiled down a shaft from Taylors Level to view this area obliquely from above, but again failed to reach it. The shaft itself, some 300 feet deep, awaits exploration, although Peter Fleming recalls meeting two cavers sometime around 1980, who claimed to have been down and discovered an anvil in a passage. A section in Posthlethwaite shows a level between the surface and Taylors Level which extends north west. It was this level that we hoped to find.

Eighty feet of the one hundred and eighty foot rope were used to arrange a belay and Ian abseiled from the surface through the round masonry lined hole. The stonework is supported by heavy timbers twenty feet down, and below this there is no indication of a shaft, the stope extending in both directions. Directly below is a horse of rock piled with debris. The rope was not quite long enough to reach this, but about sixty feet down and twenty feet to the left is a wall of masonry, with a possible level behind it. Ian failed in his attempts to reach this, gravity getting the better of him each time, but a bolder effort by Mike succeeded. Beyond the wall a short rubble slope led down to the remains of a jack roll and a section of what appears to be wooden air trunking. At the foot of the slope a rather fragile looking false floor gives into a small aven containing a small iron kibble. A peep over the edge of the floor revealed a vertical pitch of about a hundred feet to what looked like a floor. Having no more rope Mike and Ian returned to the surface.

The following Sunday, October 9th, after the conclusion of a Mine Rescue Practice they returned, together with Peter Fleming and Ann Danson and all four reached the bottom of the hundred foot pitch, noting a possible but very difficult to reach and probably blocked level part way down. At the bottom there is a thirty foot section of false floor supported by jammed boulders and at the NW end a scramble over large boulders revealed a small backfilled level beneath, which has not yet been explored. The heavy sound of water falling into a pool could be heard in the distance. The stope continues on and down at both this and the south eastern end of the floor, but there was no time to explore further. Speculating on the source of the waterfall whilst driving home, Peter Fleming concluded that it was probably caused by water flowing along the Great Cross Course from Paddy End and falling into the flooded stopes. If this was the case then perhaps the way on was clear!

On 23rd October Ian Matheson, Mike Mitchell, Peter Fleming and Dave Bridge returned



for a full day of exploration. A problem which had been occupying their minds during the week was the whereabouts of Taylors Level. They calculated that the previous week they had descended to within twenty feet of Taylors horizon, they knew that the level existed and were familiar with it and yet there was no sign of it. The problem was solved by reference to the plan in John Adams' book, which shows Taylors Level to divide into two branches. It was concluded that the present line of descent must pass through the unknown right hand branch and that it had long ago collapsed into the depths. They descended to the point reached a fortnight earlier, and Mike set about fixing a rope down the stope beyond the north west end of the section of floor, whilst Ian did the same at the other end. There was a considerable amount of stonefall as they cleared away loose material make the descents safe and a nearby voice was heard asking what was going on! It was Alen McFadzean, who was making the trip from further along the Red Dell stopes down to Taylors. They were able to communicate, but the two parties did not set eyes on each other until all had left the mine.

Mikes route was the more complex, so Ian reached the bottom first. It is necessary to digress here to outline the activities of the LHQT explorers. In 1954 John Willy Shaw drove a bypass on Deep Level from an old trial on Dry Ghyll Vein to the North Crosscut in the hope of reopening part of the mine. He found a collapse at the junction of the North Crosscut and Deep Level and gave up the project. For the last year or so the LMQT group have spent one evening a week digging through this blockage and last August, after shifting many tons of rock and shoring back a great deal more, they finally won through. CAT members examined this work during an evening meet on 21st September, at which time LMQT had begun to construct a platform just above the water in the flooded stopes beneath the New Engine Shaft. When Ian descended this Shaft to land on the top of a rubble pile, the first thing he saw was a handline bolted to the rock which led down a rubble slope. This discovery was somewhat confusing, but investigation revealed that he had landed on the top of the rubble above the two protruding tramlines and had therefore finally entered the stope from which the continuation of Deep Level might be reached. The handline led down to the top of an electron ladder which rose out of the water. Subsequent enquiry revealed that one of the diggers had swum the length of the stope and then free climbed out of the water to gain entry to unexplored ground, which the CAT group had now independently entered from above. The CAT team were disappointed not to have been first, but were nevertheless pleased to have succeeded.

Peter followed Ian down, Mike and Dave completed their route shortly after and all four set off to explore. (See plan.) After a climb down to the sole of the level a chamber was reached in a few yards from which a tunnel extends about two hundred and forty yards to the south. Halfway along it was the broken anvil reported to Peter Fleming by the cavers in 1980. The crosscut ends with no sign of any ore having been discovered. Climbing out of the chamber and continuing north west there is a partially collapsed manway in the middle of the floor which drops straight into deep water. This is marked as a shaft on the mine plans and it is possible to pass by on a narrow debris strewn rock ledge. The level continues in solid rock to a wider section where there is another rock cut shaft to one side. At this point the level was blocked by grey shale and rock, from which issued a stream of water which plunged down the shaft. Peter's theory was proved to be correct!

A fourth visit was made by Ian Matheson, Mike Mitchell, Peter Fleming, Ann Danson and Angela Wilson on 30th October and a direct descent of the New Engine Shaft was envisaged. However, as this would have descended straight into the water at the bottom a deviation was made from a stemple close to the stone wall sixty feet down. This proved to be directly above the eastern end of the floor one hundred and eighty feet below the surface. Just below here Peter Fleming penduled into an interesting small working where there are considerable quantities of chalcopyrite visible, both on the walls and in broken rock on the floor. On arrival at Deep Level Chris Jones could be seen the other side of the shorter of the two flooded stopes, having entered via the LMQT route. He reported that a walkway some fifty yards in length had been constructed on angle brackets bolted to the wall of the longer one, just above the water. There was a leaky rubber dinghy which he used to cross the shorter stretch of water in order to join the rest. Some time was spent digging at the blockage by the waterfall shaft and at one time there seemed to be a space above. However a heavy run of material blocked it again and some very large jagged boulders could be seen. When time ran out some left by the very sporting LMQT route, to complete the first through trip via the New Engine Shaft, whilst the others went back up to strip out the ropes.



A couple of weeks later Peter Fleming received a phone call from Roy Garner to say that the LMQT group had completed their walkway and had succeeded in getting through the waterfall dig. He reported that Deep Level continued along the Great Cross Course to a point almost beneath Gaunts Level. A CAT meeting was arranged for the following Wednesday evening to explore this new ground and it was attended by Peter Fleming, Ian Matheson, Dave Bridge, Angela Wilson, and Sheila and Anton Chenyll-Proctor-Thomas. The waterfall blockage was found to be a cross course and the bottom of the stope beyond had been blocked by debris. High above, a hole in the rock roof may have been an ore pass from the northern branch of Taylors Level. One climbs up through the dig and after a few yards one enters water which varies in depth from waist to chest deep (or higher if you are little) for most of the next three hundred yards. The first section is a cross cut, the water does become shallower for a while and there are two short trials on the right. Then one climbs over a partial blockage and is in deep water again, the level bends to the left and the nature of the rock changes as the Great Cross Course is entered. Here one is in grey shale, brittle, fractured, and jagged. It hades about twenty degrees and there have been occasional collapses of the hanging wall on the left. The branch to Triddle Shaft can Just be made out, but it is blocked to the roof. In any case it is known that a hundred yards away, near the foot of Triddle Shaft, there is a heavy fall, so a

connection is unlikely. Further along there is a section where timbers, set at an angle, support the roof and seem to have been intended to protect the drainage channel at the expense of access for tramming. There are two places where it is necessary to climb over a grey clayey collapse and to squeeze between it and the roof to drop down into the water again and finally one reaches a point where the whole roof has dropped down in sharp angular blocks which completely fill the tunnel. Whilst both water and air pass through, it seems unlikely that the way can be cleared and a more promising route would seem to be from South Shaft, where LMQT are already beginning their next assault.

Ian Matheson.