

GEOLOGY

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Our September u3a Geology Group trip was to Ingleborough Cave and Trow Gill. On a lovely sunny day we set off from Clapham through Ingleborough Estate Nature Trail into the area of Carboniferous Limestone. We were told that the Millstone Grit on the top of Ingleborough was also found in Clapham 2000 feet lower because of downthrow along the South Craven fault. A pleasant walk led past the peaceful lake and through the wooded valley, planted with many unusual plants from around the world by Reginald Farrer of Ingleborough Hall. We stopped at Cat Hole Sike by the North Craven Fault to view the Unconformity of Ordovician rocks surrounded by the Carboniferous Limestone which is 100 million years younger.

We split into two groups at Ingleborough Cave and one group donned helmets to explore the show cave. We could see how the cave followed the joints and beddings in the limestone and trace the cave development by seeing the remains of different floor levels and passage shapes. The acid water percolating from above had deposited calcite over thousands of years into various formations as stalagmites, stalactites and flowstone etc with beautiful reflections in the pools. Many of the formations were large and impressive and had been given names – the Pillar, the Sword of Damocles, Queen Victoria's Bloomers etc – by the Victorians and they were ideal subjects for the photographers in the group.

The other group continued along Clapdale to see some of the surface effects of glaciation on the scenery. The melting water after an ice age found its way down through the joints in the limestone creating cave passages. We stopped to view the resurgence of the water which had formed the Ingleborough Cave now known to flow underground from Gaping Gill 2.5km away. It takes several days to flow through the cave system linking the two in a system of about 15km of cave passages.

Further along the path we diverted into a small side valley and having braved the nettles we found Foxholes, a rock shelter where prehistoric human and animal remains have been found. Continuing we found Clapdale blocked by a moraine deposited by a retreating glacier. Rounding a corner we approached the impressive gorge of Trow Gill, thought to have been excavated by a torrent of meltwater which some of us found difficult to comprehend. The cliffs told the story of the deposition and development of the Great Scar Limestone in warm tropical seas and we were impressed by its scale and grandeur.

When both groups had explored the cave and Trow Gill, we met outside the cave for a welcome ice cream before returning to our cars.

Pat Ramsden