

Crouch End U3A Geology Group Go Caving

We all met up on Finsbury Park Station in time to catch the 0952 which was 10 minutes late. Despite the delay we still managed to catch our connection to Chislehurst from London Bridge.

We arrived in plenty of time for our tour of Chislehurst Caves. When contacted the management had suggested that Rod Legear was the best person to guide a group of would-be geologists and so it proved. He freely confessed that his expertise was in archaeology rather than geology but as it turned out he knew quite a bit about the rocks as well. If you search the internet he has written a number of short articles on the archaeology of various caves in Kent.

After paying we were led to the start of the trip where we picked up our hurricane lamps, one between two and set off into the semi-darkness. The trip had been organised by Heather and she had warned us in advance that we would need to be dressed for cooler temperatures underground and that masks were required by the owners of the cave. She was right on both counts.



The tour was very informative. Rod had been involved in the caves for many decades having carried out some archaeological excavations there. Since then he had been guiding there on a voluntary basis but was doing less now.

He was able to tell us that much of what we might have heard about the caves was incorrect. The owners of the caves had wanted to encourage paying customers so various myths, legends and ghost stories had been made up on the basis of little or no evidence. Despite the fact that parts of the caves (which were 22 miles long) had imaginative names such as the Roman section and were claimed to have been used by druids there was no evidence to support these stories.

What he was able to tell us that the lime pits in Chislehurst had originally been dug into the hillside so were actually drift mines. A second mine owned by a different landowner had been dug down from the top of the hill.



These two mines had been joined up by tunnels during the First World War of which more later. The later tunnels were quite high and wide (right) to assist in the removal of chalk after mining

By digging into the hillside the original excavators had been able to extract chalk which was used as fertiliser or burned to produce quick lime for building. It seems probable that mining had been going on since the 12th Century but reached a peak in the 18th century. The flints that were left after burning the limestone were a by-product and were put to

good use in the 18th/19th century by gun makers. Digging for limestone seems to have stopped by 1866.

The mines were taken over in the First World War and used to store large quantities of high explosive (1,000 tons). After the war the mines were used for mushroom growing by the British Mushroom Company and after the company went bankrupt the land was taken over by the current owners the Kent Mushroom Company who no longer grow mushrooms there.



During the Second World War the caves were turned into a massive air raid shelter for up to 15,000 people who would come down on the train from London each evening and go back the next morning. Bunk beds, toilets, a cinema, a church, hospital, dentist and barber shop were all installed. There were canteens and rules for the residents which seem to have been followed with only a single instance of drunken behaviour and the guilty party apologised profusely the next day!

After the war there was no going back to mushroom farming as the French seemed to be producing better and cheaper mushrooms so it was opened once again as a tourist attraction which it still is today.



How did these limestone caves come to be here? Well as pointed out by our guide the entrance was in a valley allowing a tunnel to be dug into the hillside. The underlying geology meant that the hill was made up of a bed of Upper Chalk with Thanet Greensand beneath.

From our point of the view the value of the trip was because in the caves there is a “well exposed junction between the eroded top of the Upper Chalk and the Thanet Sand. It is one of the rare good exposures of the Bullhead Bed” London Geopartnership leaflet. This allowed us to see the chalk beds which had been cut through and the lines of Bullhead Flints which occur at the boundary (above left).

Wells had also been dug out inside the caves and this allowed us to see down through the layers of chalk. The source of water was the local water table rather than springs.



Chalk beds are often the source of fossils but there were very few visible in the caves. Rod was able to show us the imprint of an impressively large ammonite (above right) in the roof of one of the passages but the fossil itself was long gone

At the end of the tour we all retired to the café for very reasonable sandwiches and coffee.

In conclusion it was a very interesting visit and many thanks to Heather for organising it.
All pictures are courtesy of Jim Cohen.

Luke Crawley May 2022