# QUEEN VICTORIA and the DEVIL'S ARSE and OTHER SHOW CAVE/MINE DELIGHTS in the ENGLISH PEAK DISTRICT

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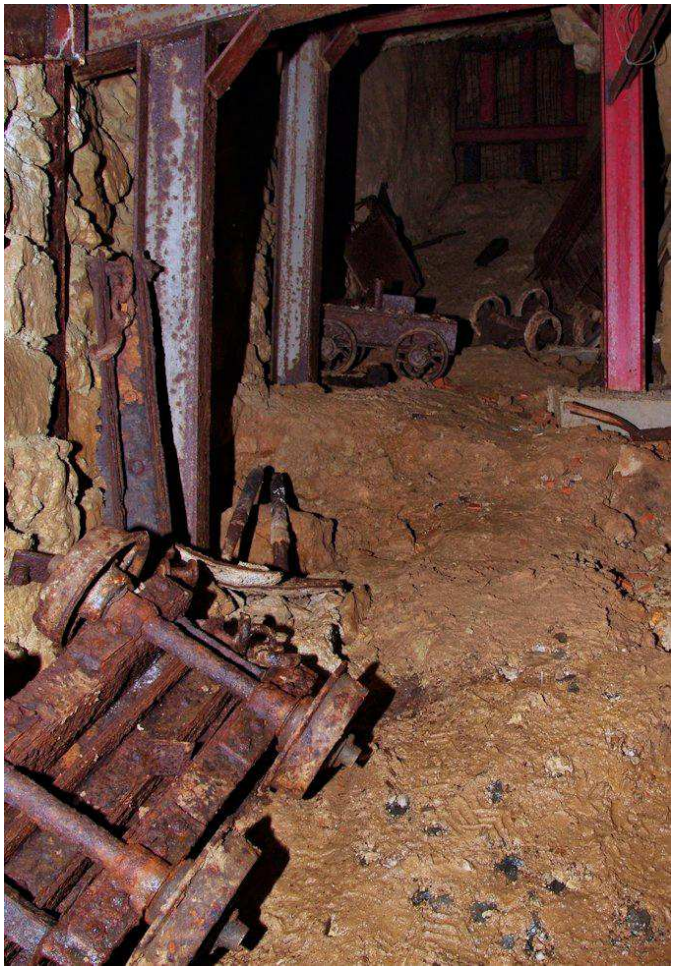
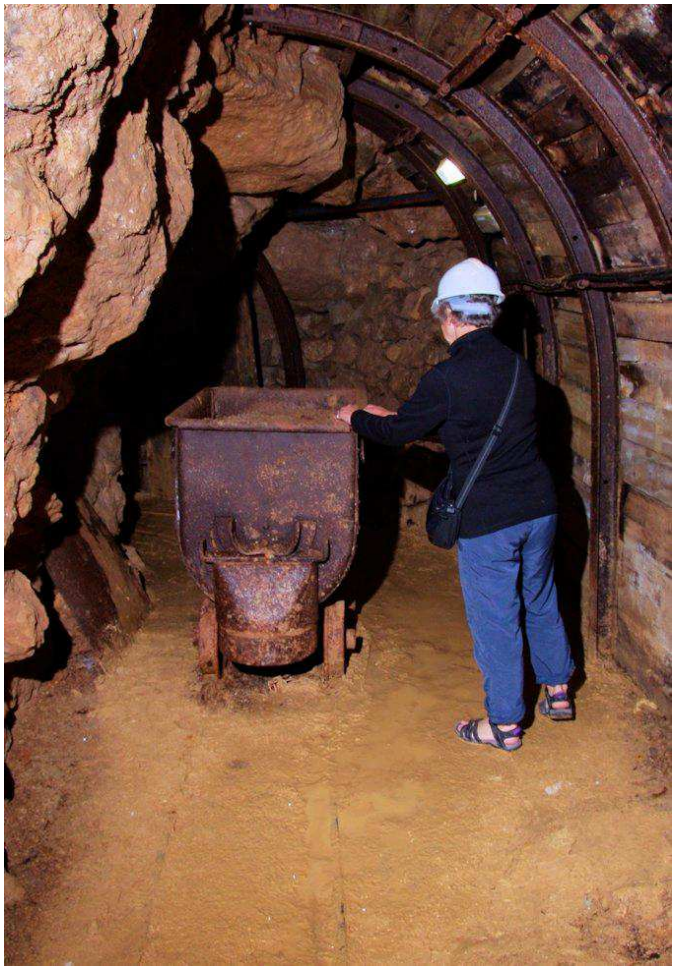
We were aiming for what is billed as the largest cave entrance in the Britain Isles, but after paying to park in a gravelled field (as is so often the case over there), the only sign we could see said "This way to The Devil's Arse". Not a promising start for a cave visit, we thought.

Marjorie and I were in the Peak District of Derbyshire, accompanied by our British friends Kirsty and Martin, and the previous day we had been to the Temple Mine, an old mine that had some small natural cavities, followed by a visit to Great Masson Cavern a cave that has been substantially altered by mining, and we were all planning to visit other cave-mines (or mine-caves) in the area where one would think there was ample scope for naming features after Satan, but why attach such a name to an impressive natural cave?

**The Temple Mine**

Our first underground visit in the Peak District was to the Temple Mine in the village of Matlock Bath. As with many mines in the area, the Temple Mine was established to exploit lead and fluorite (Calcium Fluoride) mineralisation in the local limestones. The mine opened in the 1922 and operated for three years. It opened again for a while in the 1950s and at that time, remnants of 200 year old tunnels were intersected by the more recent workings, indicating a long history of mining in the area. Apparently none of the operations was very profitable. Today, the mine is owned by the nearby Peak District Lead Mining Museum, which offers regular tours into the mine. There are normally two tours a day and, as group size is limited, advance reservations are recommended. However, on our mid-





*Mining equipment in the Temple Mine. The mine was lasted worked in the 1950s.*
*Photos: John Brush*

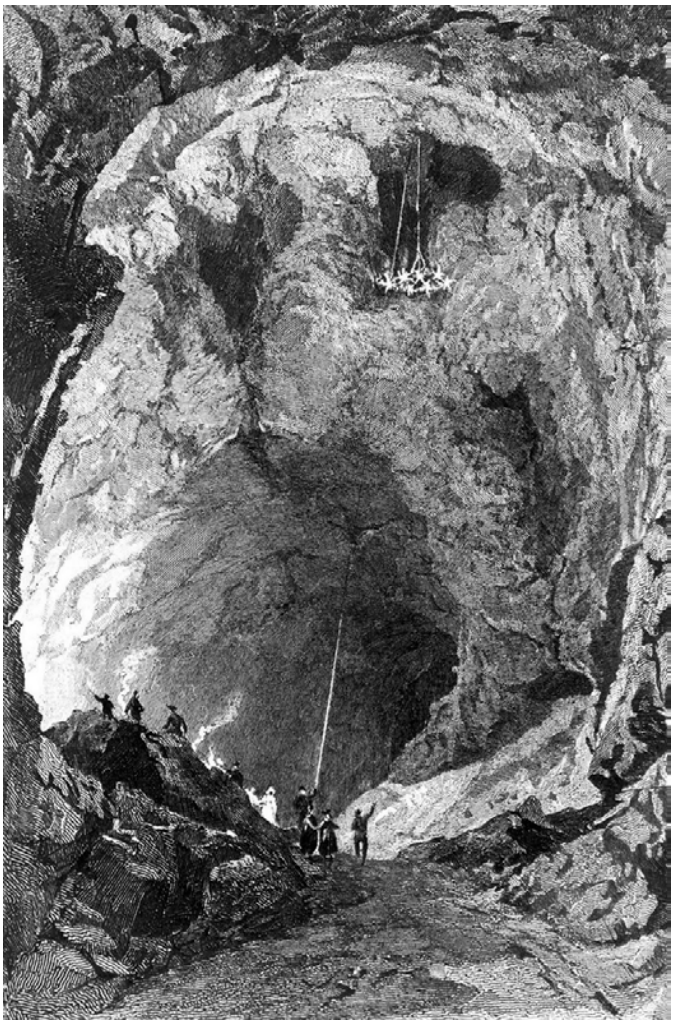
week tour, it was just the guide and the two of us, as well as a former mine geologist who was hoping to be appointed as a guide. The tour was very informative and there was a good range of old mining equipment along the tunnels. The museum is also very interesting for those with a mining or geological disposition.

**The Heights of Abraham and the Great Masson Cavern**

A few hundred metres from the Temple Mine, Britain's first alpine-style cable car system whisks visitors out of the Matlock Bath area of the Derwent Valley to the Heights of Abraham, a dizzying 169 metres higher. This is a popular recreation area with gardens, walks, exhibitions, children's play areas, eateries and a choice of two 'caves' or a virtual cave tour. The area is billed as Derbyshire's oldest visitor attraction. It first opened to visitors in 1780 and became very popular in the Victorian era. In earlier times it was another lead and fluorite mining area and reached its zenith in the 17th Century. The two show caves, Great Rutland and Great



*Entrance to the Great Masson Cavern, a former lead mine in Matlock Bath.*
*Photo: John Brush*



*Great Rutland Cavern, an engraving by T Clark based on a drawing by Thomas Allom and published in*
The Juvenile Scrapbook, 1847.
*(image courtesy of the Heights of Abraham Website).*

Masson are in reality old mines that have some highly-modified natural passages. As mining activity declined, miners were employed to build visitor attractions, such as walking paths, gardens and a stone tower and, in 1810, the Great Rutland Cavern opened to the public,

Entry to everything at the Heights of Abraham, including the caves, is included with the Gondola ticket. We joined a tour into the Great Masson Cavern, which was a mix of natural limestone galleries and excavated tunnels. With admirable concerns about visitor safety and animal welfare, dogs are not allowed on tour. The highlight of the trip is a large cavern near the end of the tour that has a miner's inscription dating from 1705, an elaborate and historic candelabra and a light show that bathes the drab walls of the highly-modified cavern in red, blue, purple, green and electric blue in quick succession. For those not able to negotiate the cavern's 171 steps, including 80 in one flight, there is a virtual tour of the cave in a nearby exhibition room. As time was running

short, we did not visit the Great Rutland Cavern further down the hill. That tour focuses on the mining history of the area and is where visitors can apparently experience a day in the life of a 17th Century lead miner, which could be a little grim.

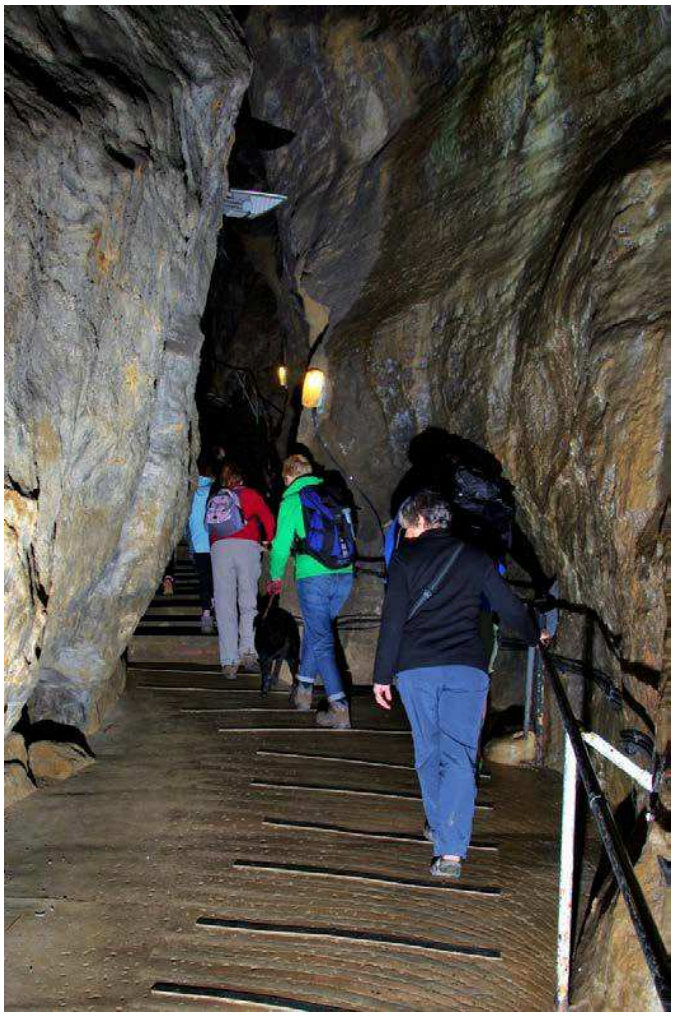
**Blue John Cavern**

"It has been suggested that the Blue John Cavern is the finest that can be seen by the general public in Western Europe" a bold claim from the Blue John Cavern Website.


*The entrance to Blue John Cavern, one of only two sites where the banded purple and cream variety of Fluorite, known as Blue John, is currently being mined.*
*Photo: John Brush*

Blue John Cavern is situated in rolling hill country above the village of Castleton. The cave is named after the semi-precious translucent banded purple and cream coloured fluorite (or fluorspar) that is unique to that part of the Peak District. It has been crafted into items such as jewellery, goblets and small dishes for at least 200 years. Local legend has it that Blue John has been mined since Roman Times, but it seems there is no proof of this. However, what can be said with certainty is that

*Verdant growth near a floodlight in Blue John Cavern.*
*Photo: John Brush*



*The tall fossil stream canyon in Blue John Cavern. As with many British Show Caves, dogs are allowed on tour.*
*Photo: John Brush*

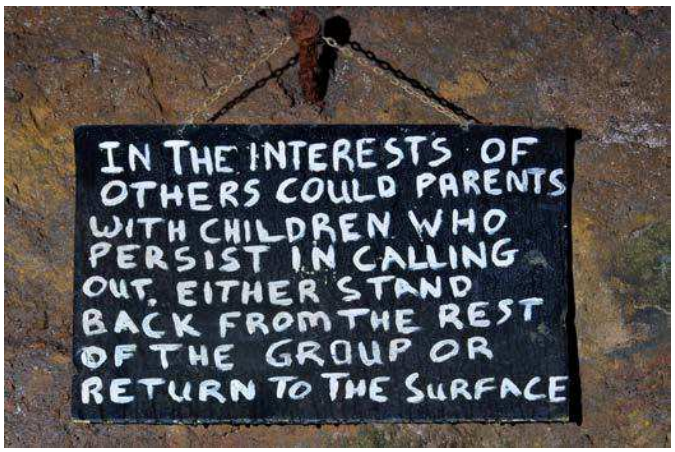
this show cave is one of only two places in the world where Blue John is currently being mined. How the semi-precious stone came to be known as Blue John is not known, but one suggestion is that it is from the French "Bleu-Jaune', meaning Blue-Yellow.

The natural entrance to the cave is a vertical shaft, but visitor access is now through a tunnel dug into the hillside behind a modest stone building that serves as the ticket office, café and souvenir shop. The first steps - there are 245 of them on the tour route - lead down the tunnel and into a tall, inclined fissure. With its meanders and scalloped walls, this fossil stream passage is stunning. In places the walls are coated with a thin layer of flowstone that we were allowed to touch: "bet you are not allowed to do that in Australia". Quite. Beyond the reach of human hands, the flowstones are attractive and range from white through various shades of cream and, occasionally, grey. Every so often there are patches of a verdant green growth on the walls. The origin of these can only be guessed at, but they appeared to be associated with large upwards-facing floodlights that are used to illuminate tall sections of passage.

*A vein of Blue John that has been left unmined beside the Blue John Cavern tour path. Lampenflora suggests the lights are left on throughout the day.*
*Photo: John Brush*

The tour route descends steeply and care is needed on steep, wet sections of concrete path that were quite slippery. Having two extra points of contact with the path, dogs seemed to be having no troubles at all, but for some of the human members of our party, it was a different story.

Beyond the end of the tour route, the passage appears to be quite muddy, and further down, we were told, there is an active streamway leading to a sump.




*A sign in Blue John Cavern.*
*How many cave guides must think this at times?*
*Photo: John Brush*

A highlight of our tour was seeing a large vein of Blue John that has been left in-situ in the cave wall. In a wider section of passage closer to the entrance, there was a display area where chunks of Blue John had been cemented into a retaining wall and there were pieces of old mining equipment, including a winching apparatus that was used to haul men, equipment and extracted Blue John from the cave. Mining today takes place in side passages away from the show cave route and is done by tour guides in the quiet winter months. Mining, in a cave, in a National Park? "Bet you are not allowed to do that in Australia", the guide might have said.

**Treak Cliff Cavern**

The history of Treak Cliff Cavern dates back to the 1750s when a tunnel was driven into the hillside in pursuit of lead ore. Natural cave passages and veins of Blue John were soon discovered, and for almost two centuries it operated sporadically as a combined lead and Blue John mine. Since 1935, when electric lighting was installed, it has been a show cave and it is also the only place, apart from Blue John Cavern on the hillside above, where Blue John is currently being mined. Treak Cliff's annual production of Blue John is around 500 kg, all of which is supplied to workshops in the Castleton area.

We did not have time to tour the cavern, but with attractive decoration and the trialling of an innovative new mining method – using chainsaws - it sounds like an interesting place to visit.

Also of interest in the area is a perfectly formed circular depression with a raised rim located 250 metres NNW of the cavern. Unlike the many dolines on the hillside above, this depression results not from karst processes but from a bomb dropped during the Second World War. It is not hard to find on Google Earth imagery if you select an image with a low sun angle (for example, April 2007).

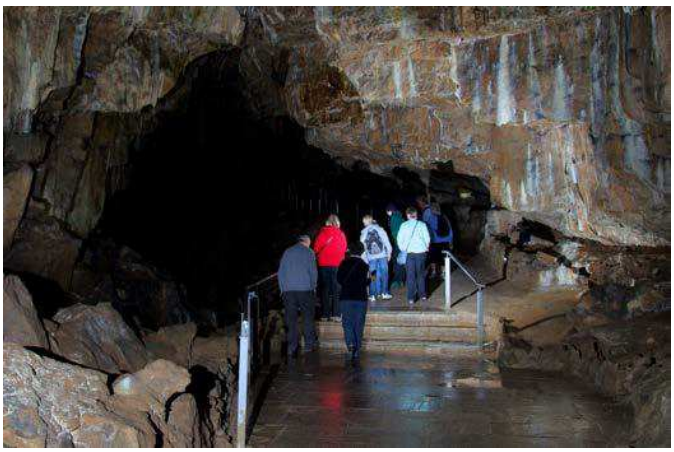
**Poole's Cavern**

Poole's Cavern, on the southern edge of Buxton, is unlike most of the other show caves in the Peak District, in that it is just a cave. It was never mined, apart from extensive archaeological excavations in the first chamber just a short distance into the cave. The excavations, which commenced in the 1890s, uncovered many Roman items and the chamber soon became known as The Roman Chamber. Almost a century later, the extensive diggings seen today have revealed more Roman artefacts as well as items from the Iron and Bronze Ages and the Neolithic Period, indicating a very long period of human visitation and use.

*The old ticket office at the entrance to Poole's Cavern, Buxton.*
*Photo: John Brush*

Beyond the Roman Chamber there is a substantial breakdown chamber with a chattering stream running along one side. Here the show cave trail, a concrete path built on top of breakdown, climbs and skirts around the top of a cascade of flowstone and gour pools, which is one of the iconic features of the cave. Another feature hangs above. This is the Flitch of Bacon, a 2-metre stalactite with a broken tip. As early as 1681, a visitor (Charles Cotton) questioned the appropriateness of the name of the stalactite, given that it is round and bears no resemblance to a side of bacon. Nevertheless, the name has stuck and its main claim to fame is that it is reputed to be the largest stalactite in Derbyshire and would have been even longer had not 19th Century vandals thrown rocks and broken off the tip. Or so the story goes.

The handrails in this part of the cave, once timber and iron, have recently been replaced with stainless steel tubing and wire cabling supported by steel posts. Further in, the handrails are all painted steel.

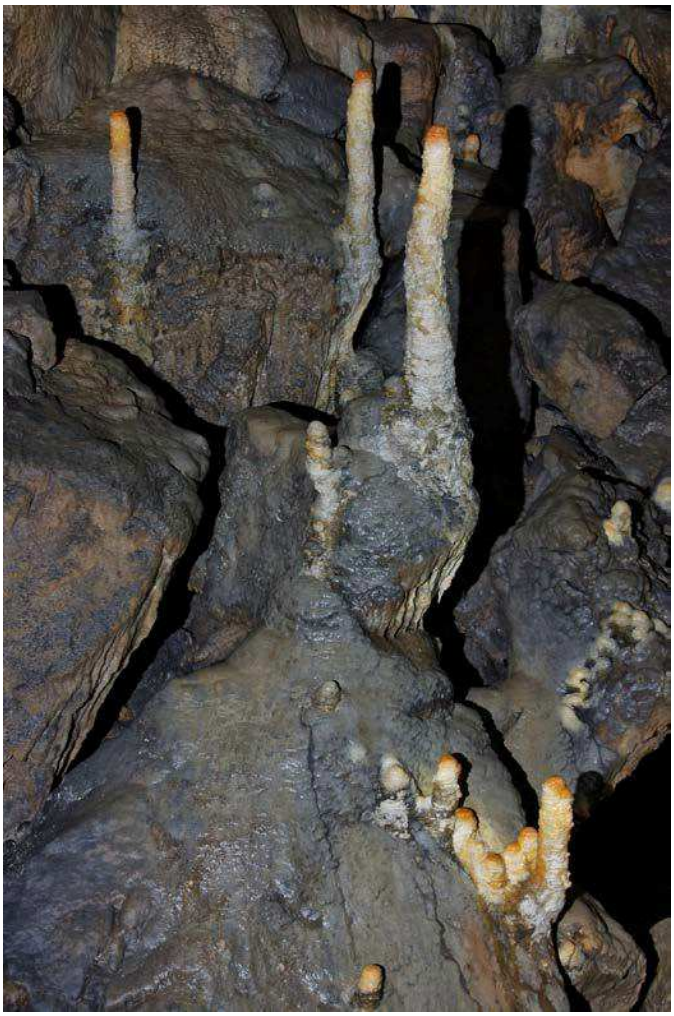


*New stainless steel handrails, with steel posts, in Poole's Cavern.*
*Photo: John Brush*

Another recent improvement is LED lighting, but signs of earlier lighting systems are still visible. A gas light pole and rusty pipework (and also soot marks) have been left as reminders of a revolutionary gas lighting system that was installed in 1859 by Frank Redfern, the cave's first official custodian. The cave was to remain under the care of Redfern and his descendants until 1965 when it closed to the public. Surprisingly, the gas lighting was still in use at that time. In 1976, the cave reopened with electric lighting and a new owner; the Buxton Civic Association, a not-for profit organisation established in 1968 to preserve the fine architecture and natural and formal landscapes of the Buxton area.

As the tour continued, our guide paused at a group of blackened stubby stalagmites in the middle of the path. "These are touchers", he said, the only speleothems in the cave that visitors are allowed to touch, in marked contrast to some other British show caves where visitors are allowed to touch decoration within easy reach and are sometimes encouraged to do so. In contrast to the

*Cascade of gours in Poole's Cavern.*
*Photo: John Brush*



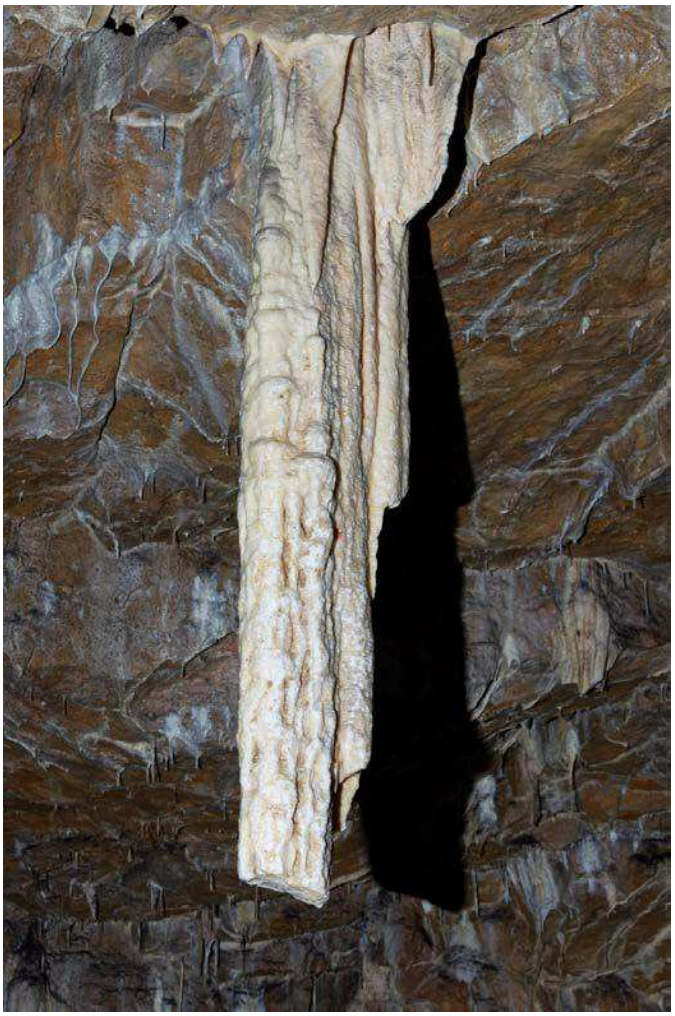
*Yellow-tipped stalagmites in The Poached Egg Chamber, Poole's Cavern.*
*Photo: John Brush*

*The only stalagmites in Poole's Cavern that visitors are allowed to touch. Note the black tips resulting from the touch of thousands of greasy fingers.*
*Photo: John Brush*

black-tipped touchers, most of the stalagmites in this area, known as Poached Egg Chamber, had yellow tips. The yellow staining was long considered to be caused by iron oxides in drip water, but recent work suggests bacteria and organic compounds in decaying vegetation on the surface are also involved. We were told the stalagmites are also growing very quickly (and we were shown one that has grown on a handrail) and this is attributed to percolating rain waters picking up unusually large amounts of powdered waste from old quarrying and lime-burning activities on the surface above. Not sure about that one.

Near the end of the show cave path, a few signatures left by visitors in the 1930s and 1940s are disappearing beneath flowstone and nearby, the lower slopes of a breakdown pile have been coated with attractive flowstones and microgours. Further on, the passage continues to a breakdown choke. Convinced that the cave continued beyond the choke, the owners commissioned a ground penetrating radar survey in 1998 and, as the results looked promising, sunk a number of boreholes. The seventh borehole intersected a substantial chamber that has become known as Seventh Heaven. Nobody has been there, but video images taken with a camera lowered down the borehole show spectacular decorations. The video can be viewed on the Poole's Cavern Website.

Poole's Cavern is an attractive and interesting cave. The infrastructure is in generally good condition, the lighting is effective and our guide was knowledgeable and stressed the importance of careful management of the cave. He also expressed concern about a small patch of lampenflora, noting that it was not a natural feature of the cave and would be dealt with, contrasting with the attitude in some of the other caves in the area.

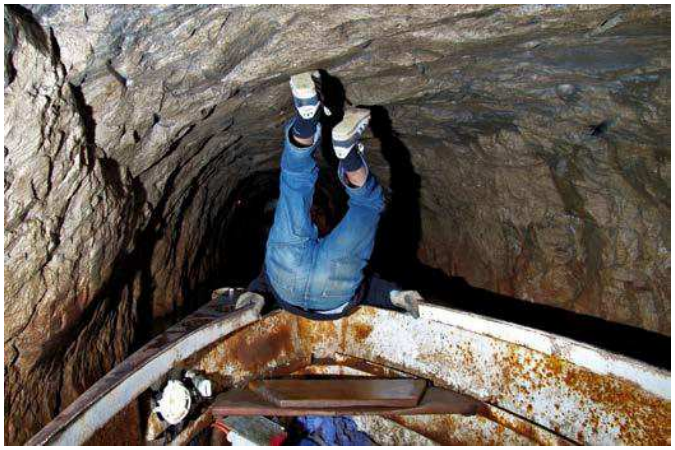


*The Filch of Bacon, a 2 metre long stalactite in Poole's Cavern, that is reputed to have had its tip snapped off by stone-throwing vandals in the 19th Century.*
*Photo: John Brush*

**Speedwell Cavern**

Speedwell Cavern is really a mine that has broken through into natural cave passages. The show 'cave' trip is essentially a long descent (125 steps) down an inclined tunnel, followed by a boat trip along a partly submerged horizontal tunnel. About 200 metres into the tunnel, visitors alight from the boat, walk a few metres into a lofty chamber, gaze upwards at a caving rope hanging down from the inky darkness, admire a sump pool at the bottom (the Bottomless Pit), peer into the continuation of the mine tunnel and then hop back into the boat for the return trip to the surface. That said, it is still an interesting trip.

Our boat was powered by a small electric outboard motor but rather than steer with that, our guide sat at the other end of the boat and used his hands to keep the boat centred in the narrow tunnel. During this time he



*Top. Steering the boat along a partly flooded old mine tunnel in Speedwell Cavern.*

*Bottom. Testing the emergency manual propulsion system of a tour boat (legging a boat) in Speedwell Cavern.*
*Photos: John Brush*

gave a running commentary on the history and operation of the mine. It seems that the tunnel was dug in the 1770s as an exploratory drive. It intersected several lead veins, which were pointed out as we glided past, but they were not rich and the mine was never a financial success. It has been suggested that the tunnel was designed so that it could be used as an underground canal for transporting material out of the mine by boat. While this is open to conjecture, what is more convincing is an argument that the direction and elevation of the tunnel was very purposeful which strongly suggests that the miners had a good knowledge of cave passages further into the hillside and aimed the tunnel to connect with them.

The cave and mine passages form a complex system of sinks, springs, stream passages, vertical shafts and dry passages totalling 17 kilometres, making it the longest and deepest cave system in Derbyshire. The system includes the nearby Peak Cavern.

*A short side tunnel is used as a passing bay for boats in Speedwell Cavern.*
*Photo: John Brush*

**Peak Cavern**

And so to the Devil's Arse. Kirsty and Martin, our local cave experts were not fooled by the Devil's Arse sign and led us along a footpath skirting the edge of Castleton and up to the entrance of Peak Cavern. As we were a little early, we had to wait for staff to arrive and open up for the day. Our little group of four was the first tour of the day.

*The walk to The Devil's Arse (aka Peak Cavern) skirts around the edge of Castleton and follows the cave stream towards the entrance.*
*Photo: John Brush*

Before too long, we were inside the cave, which is reputed to have the largest entrance in Britain. It is some 30 metres wide and 20 metres high and the entrance chamber extends back about 100 metres. The earth floor has been terraced and this was the site of a rope-making 'cottage' industry for several hundred years. Much of the rope produced was supplied to the nearby lead mines through the 17th, 18th and 19th centuries. The last of the traditional rope makers retired in 1974, but rope making still forms an important part of the show cave tour, as we were to discover.

*Laying out twine for the first step in making rope on historic equipment in Peak Cavern. Photo: John Brush*

As soon as we reached the rope making area, the guide set about laying out metres and metres of twine between a hook mounted on a wheeled trolley and a geared wheel with several hooks and a handle that was attached to a post. We were soon to learn this was called the "fixed jack". Our guide asked for a volunteer and we all chose Marjorie who was then given a quick lesson on how to turn the handle of the fixed jack. It looked like hard work, but as we did not wish to interrupt the important work, the rest of us just watched in silence. Before long, Marjorie and the guide had whipped up a 10 metre length of rope. The pieces of rope so produced by volunteers are usually handed over as a souvenir, but the guide was so impressed with tight and even lay of our rope, that he decided to keep it - and no doubt put it in the gift shop - and instead gave us a rough piece he found lying nearby. Talk about exploitation of volunteer labour.

Not far beyond the entrance chamber we were shown a sump pool where, when conditions are right, air bubbles through the sump to equalise pressure on either side and in doing so emits loud farting noises. Hence the Devil's Arse. The cave was apparently known as this for several hundred years, but the locals renamed it Peak Cavern prior to a visit by Queen Victoria to avoid causing possible offence. In recent times, the cave operators have reverted to the original name in much of their promotional materials.

A little further into the cave, early visitors were confronted with a low section of cave with a large pool of water. To proceed, they had the choice of either bending over and getting wet, or lying prone in a boat. Once again, Queen Victoria's left her mark here. Locals reasoned that neither of the options was likely to appeal to the Queen, and so in advance of her visit, they blasted away at the roof. Since that time, visitors have not had to stoop and at the time of our visit, there was no sign of any lake.

After being regaled with stories like that, the end of the tour was somewhat of an anticlimax. There is a large but dismal chamber tinged with of green and, at the inner end there is a low, muddy passage that leads to the rest of the 17 kilometre system. To paraphrase Queen Victoria, we were not amused.