

# *Parks in the* *DARK*



*Aila Taylor*



Front cover: Hannah Collings in Lost John's Cave, by Harry Kettle.

Back cover: Aila Taylor in Easegill Caverns, by Harry Kettle.

# Introduction

The national parks of England and Wales are widely appreciated for their natural beauty and cultural heritage. However, much of this appreciation focuses on heights - from the chalk hills of the South Downs to the sharp ridgelines of the Lake District - while ignoring the depths below.

But what about the places that never see the light of day? If we delve into the heart of our national parks, what lies beneath the surface?

*Parks in the Dark* aims to shed light (pun intended) on the remarkable spaces *underneath* our national parks, raising awareness of the importance of caves and mines, alongside the need to protect them.

## About the Author

Aila is a woman with many hats - outdoor writer, caving guide, conservationist, and climate activist amongst them. After researching caves in early medieval Britain for her MPhil at the University of Cambridge, she moved to the Yorkshire Dales where the caves that she once studied would be on her doorstep. Since then, she has written for several publications on national parks, nature restoration and outdoor sports (including caving).



Aila on Ingleborough, taken by Tom Staveley

## About the Project

This project is in collaboration with Campaign for National Parks, and funded by Campaign for National Parks, Ocean City Media and the National Lottery Heritage Fund. A huge thanks must go to all of the above who have made this project possible, in addition to all of the cavers and mine explorers that have contributed their time and expertise along the way.



Part of the **NEW** project  
**PERSPECTIVES**

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# CONTENTS

5. Why should you care about the underground?

6 - 7. Yorkshire Dales National Park

8 - 9. Peak District National Park

10 - 11. Bannau Brycheiniog National Park

12 - 13. Eryri National Park

14. Cave formations

15. Flora and fauna

16. Cave conservation

17. Other national parks & landscapes

18 - 19. Myths & legends

20 - 21. How to explore caves





# WHY SHOULD YOU CARE ABOUT THE UNDERGROUND?

From the vertical, fern-lined potholes of the Yorkshire Dales, to the maze-like passages of South Wales, to the haunting mines of Eryri, our national parks are full of subterranean spaces of all shapes and forms. The character of these spaces is distinct to each national park, and they are an essential part of what makes these protected landscapes so unique.

Although the underground world remains largely unnoticed by most national park visitors, it is deeply entrenched within the natural and cultural history of each place, in addition to providing an irreplaceable habitat for rare species. As the primary aim of our national parks is to **‘conserve and enhance the natural beauty, wildlife and cultural heritage’** of each area, conserving subterranean spaces is imperative for national parks to achieve their purpose. Exploring caves and mines also provides opportunities for the **‘understanding and enjoyment of the special qualities of national parks by the public’**, thus helping national parks to meet their second aim.

There is no doubt that subterranean spaces deserve to be valued, appreciated and protected as much as every other landscape in a national park, and that they should be considered as part of national park management. This zine hopes to introduce the unique underground worlds of 4 national parks, bringing light to these mysterious places and demonstrating why every national park visitor should value them.





A photograph taken from inside a dark cave, looking out through a large, irregular opening. The cave walls are dark and textured. Outside, a bright green valley stretches out, with rolling hills in the distance under a blue sky with scattered white clouds. The text 'THE YORKSHIRE DALES' is written in a large, white, stylized font across the top, and 'National Park' is written in a smaller, white, cursive font below it. The text 'HOME TO THE UK'S LONGEST CAVE SYSTEM' is written in a white, sans-serif font, curving along the edge of the cave opening.

# THE YORKSHIRE DALES

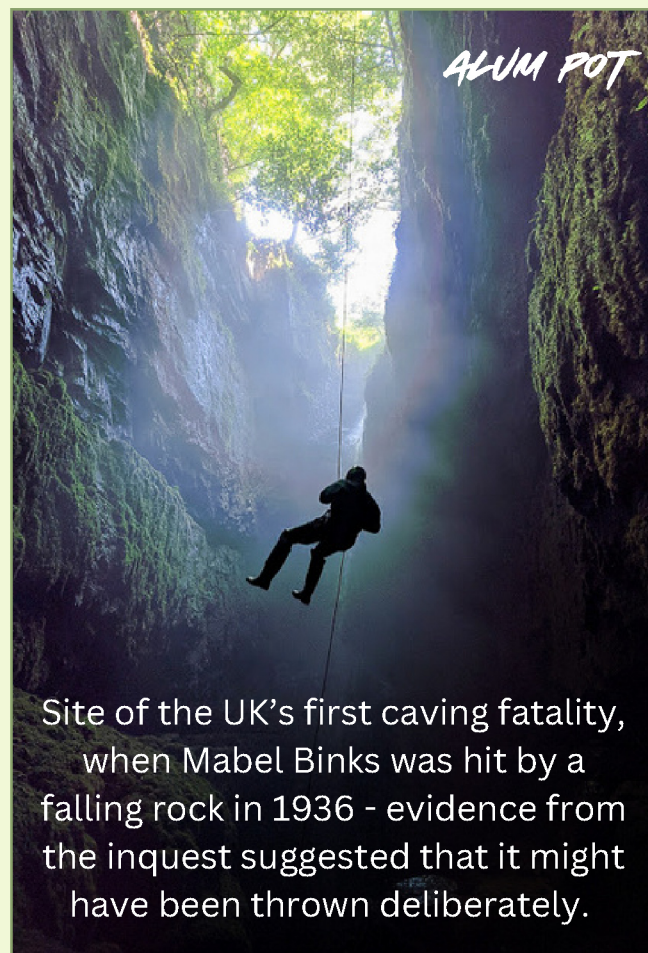
National Park

HOME TO THE UK'S LONGEST CAVE SYSTEM

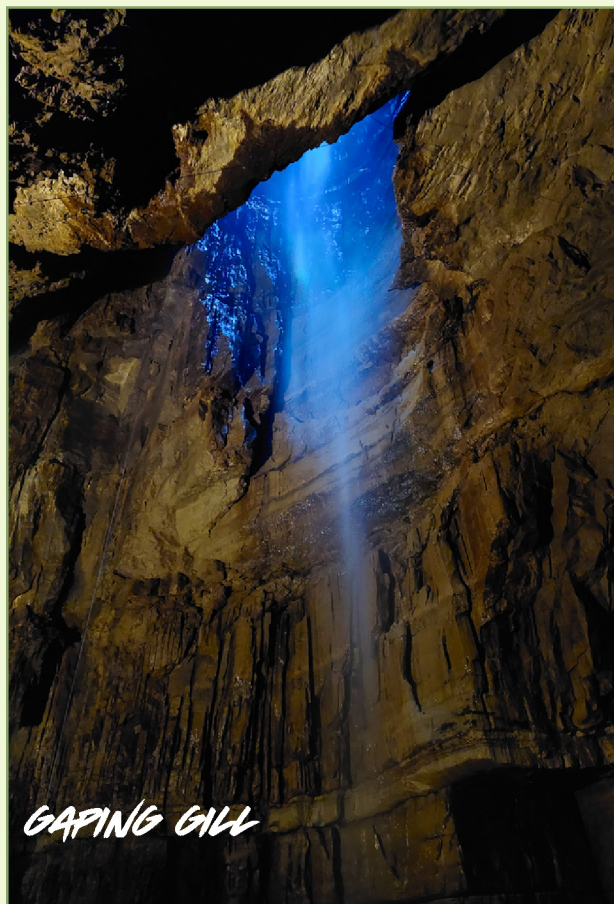


The rugged limestone landscape of the Yorkshire Dales is characterised by unique geological features such as limestone pavements, cliffs (known as 'scars') and complex cave systems. What makes the caves of the Yorkshire Dales unique, compared to other caving areas in Britain, is the vast number of potholes - deep, vertical shafts going down into the caves.

Many of these caves are part of the Three Counties System. This longest cave system in the UK at 89km, with over 50 entrances, which continues to grow as new sections of cave are explored.



Site of the UK's first caving fatality, when Mabel Binks was hit by a falling rock in 1936 - evidence from the inquest suggested that it might have been thrown deliberately.



Another famous pothole is Gaping Gill - a 100m deep shaft with a waterfall dropping into the huge cavern below. The first full descent was made by the prolific French caver Edouard Martel, the 'father of modern speleology', using a rope ladder and a candle.

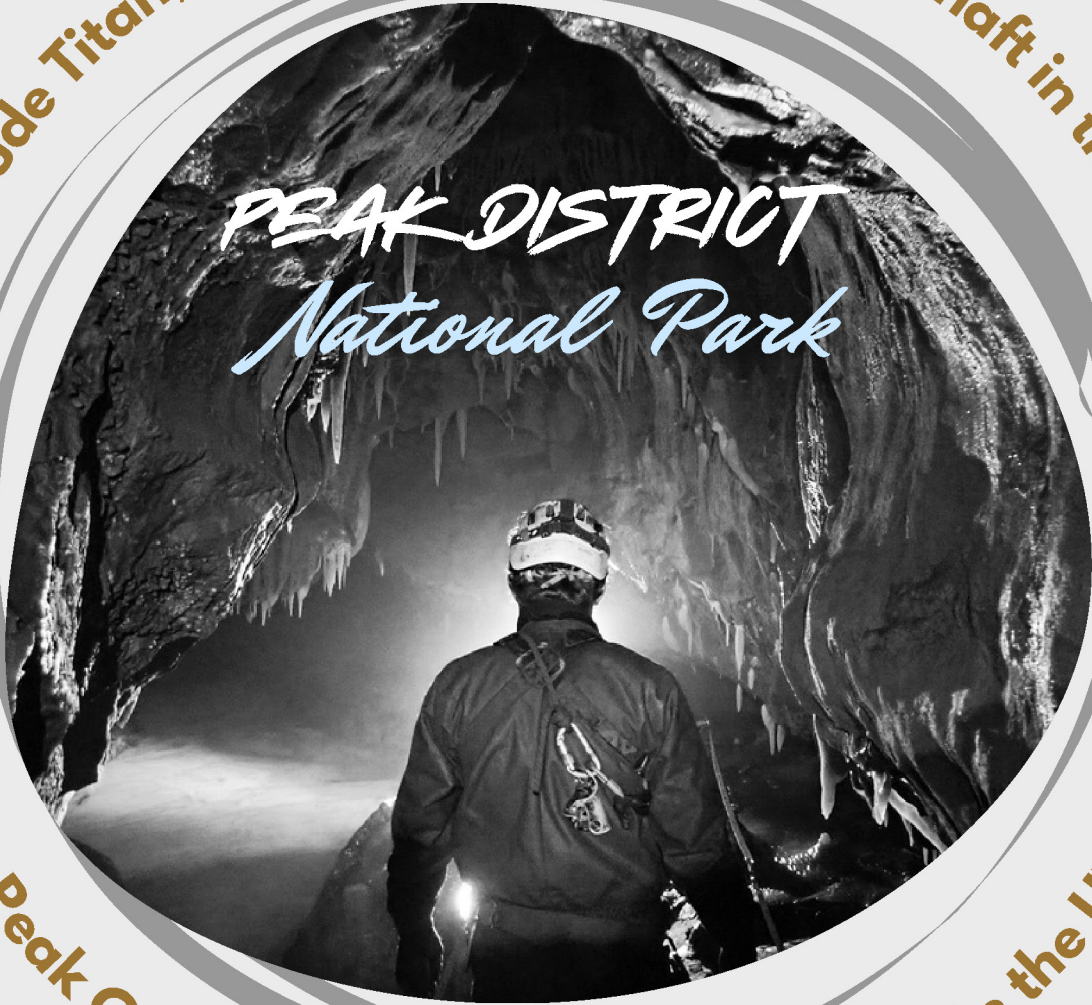
Potholes create a microclimate that is sheltered from the extreme winds that ravage the open moors above, remains at a fairly consistent temperature all year round, and is shaded yet exposed to sunlight in the middle of the day, making them an important habitat for ferns, mosses and liverworts.



Below: Joel Stobbart in the White River series in the Peak-Speedwell cave system.

*The only place in the world where the rare Blue John stone is found.*

**Notable caverns include Titan, the deepest known natural shaft in the UK at 141.5m deep.**



**& Peak Cavern, the largest cave entrance in the UK.**

*Home to both natural caves and mines, with some mines dating back to the Roman period.*



# PEAK CAVERN (AKA THE DEVIL'S ARSE)

As the largest cave entrance in the UK, Peak Cavern is a memorable place. Originally called 'The Devil's Arse', after the strange noises produced from water in the cave, it was renamed in 1880 to prevent offending Queen Victoria during her visit. For hundreds of years, until 1915, Peak Cavern was home to a community of rope-makers who lived and worked in the cave making ropes for the local mining industry.

Charlotte Payne admiring a calcite river



in the Peak-Speedwell System. Taken by Harry Kettle.

## WHERE CAVES AND MINES MEET

A distinctive feature of the underground Peak District is that, rather than existing separately, mines and caves are interlinked, with passages from a mine leading into natural cave passage. It is where the lines of natural history and industrial history blur together. For example, the 18<sup>th</sup> century James Hall's Over Engine Mine (known colloquially as 'JH') drops into the Peak-Speedwell cave system after almost 200 metres of vertical shafts. In the same way caves do, these now-abandoned mines provide important habitats for wildlife such as bats, providing a perfect example of the way heritage can support nature conservation.



# BANNAU BRYCHEINIOG National Park

Bannau Brycheiniog is home to the UK's deepest cave, **Ogof Ffynnon Ddu** (Cave of the Black Spring, colloquially known as 'OFD'), which is 274 metres deep and has 31 miles of passages.

The national park also contains the largest cave entrance in Wales at **Porth yr Ogof** (gateway to the cave). This cave is as ominous as it is impressive, because it also holds the record for the cave with the greatest number of deaths in Britain. So far, 11 people have died in Porth yr Ogof, primarily due to a deep pool with treacherous currents at the back of the cave.

Other caves include **Ogof Draenen** (hawthorn cave), which is the longest cave in Wales and the second longest in Britain, after the Three Counties System in the Yorkshire Dales National Park. **Ogof y Daren Cilau** (cave of the outcrop with many nooks) contains the largest passage in the UK, known as 'the Time Machine'.



Lucy Hyde in Cloud Chamber, Dan yr Ogof. Taken by Harry Kettle.



*Extract from a journal entry, 26/10/24*

Down here I am half human, half other. The dark water swirls around my waist like a pack of wolves as I strain against the current and clamber through the streamway. White lines of quartz run in streaks across the black walls and dazzle under the light of my headtorch. I am so focused on remaining upright that I barely notice them as I follow the river twisting, turning, churning through the cave. If I lost my footing, I would be carried downstream to a sump, where the water meets the roof of the cave. There, I would surely drown. The ground is uneven, and at points in the streamway the floor simply vanishes. I must traverse across these deep pots by balancing on a single scaffold bar, but the high water is bubbling so much that I can't see where the bars might be. Instead, I stumble blindly through the dark and place all of my trust in my feet. I am in the heart of the world - and it is cold, dark and empty.

This is Ogof Ffynnon Ddu - the deepest cave in Britain. While the land above ground is riddled with lime kilns, quarries, and tramroads as souvenirs of the area's rich heritage, a large majority of the underground version of Bannau Brycheiniog remained untouched until the last century. Since then, it has attracted cave explorers from across the world and is known to be one of the finest examples of underground streamway in Britain. However, its beauty is equally matched by its danger, and several notable incidents have occurred in the cave system over the years. In 1951, two cavers were cut off by rising water and spent 59 hours underground before being rescued. 70 years later, in 2021, it took 54 hours to rescue a caver with serious injuries from the cave. It is a beautiful place, but it is also a dangerous place.

Outside of the streamway, a large number of natural treasures can be found. Crystal pools, pristine calcite columns, and stalactites dripping from the ceiling in ivory ribbons are all hidden within the cave system. The complexity of the system provides vital protection for many of these specimens, which would be at a much greater risk of being damaged if they were more easily accessible. To view them is a reward reserved only for those that dare to venture deep beneath the ground.



# ERYRI National Park



slate stacks sing  
axes swing

rock crumbles

earth rumbles

d o w n  
a n d  
i n  
t h e  
d a r k

there glows a spark  
of light.



Emily Mabbett in Croeser Rhosydd mine



Eryri is home to some truly spectacular, cavernous places. Places created by the hard manual labour of generations of miners. Places where communities were formed, riches were made, and men died.

There are four key jewels to the crown that is North Walian mining: the slate mines of Blaenau Ffestiniog, the metal mines of the Gwydyr Forest, the copper mines of central Snowdonia, and the lead mines of the Milwr. Each place is fascinating in its own right. They are places where the last marks of the men and boys who made the places can be found – from their tools to the newspapers they read, to their last footprints when they downed tools and left the mine for the last time.

The mines of North Wales are a place where history comes alive. A place where you can walk through a museum, a place frozen in time, and a place where artefacts are waiting to be rediscovered.

To me, they are special places. It is the cultural history they represent that draws me back to them the most. Mostly created in an easily romanticizable time of empire and steam they paint a picture of our industrial history that on one hand is a tale of innovations and success, and on the other of incredible hardship and suffering. It is the strength and resilience the working families showed, and how despite the odds against them they built strong communities that supported each other and supported cultural activities – the slate mining communities in particular being great proponents of the verbal arts and thus supporters of the Eisteddfod.

Aidan, by Lydia de Brett



~ Aidan Kuhlmann

*Secretary of the British Caving Association, and a caving and mine instructor in North Wales. Age 24.  
Local national park: Eryri.*

# CAVE FORMATIONS

Cave formations, also known as speleothems, are structures formed by the deposition of minerals from water. Most of them fall into one of two categories: dripstone formations, which are formed from the process of water dripping from the ceiling, and flowstone formations, which are formed from water flowing over surfaces like cave walls.

Some examples of cave formations are:

**Stalagmites:** mounds of calcite that rise from the floor of a cave, formed by drips falling from the cave ceiling above.

**Stalactites:** icicle-shaped formations that hang from the cave roof.

**Straws:** thin, hollow tubes (shaped like straight drinking straws) hanging from the cave roof.

**Columns:** a single pillar from cave roof to floor, formed by a stalactite and stalagmite joining together.

**Gours:** a dam that forms along the edge of a pool of water. Also known as rimstone.

**Curtains:** folded sheets of calcite, resembling folded curtains, hanging from the cave wall or roof.



Lucy Hyde admiring flowstone in Upper Flood Swallet, taken by Harry Kettle



# FLORA & FAUNA

Although the lack of light in caves may not seem conducive to life, caves - and especially cave entrances - are a vital habitat for a variety of wildlife. On the outskirts of a cave entrance, you will find ferns and damp-loving plants such as opposite-leaved golden saxifrage. As you move further into the cave and light decreases, the walls are dominated by mosses, liverworts and lichens.

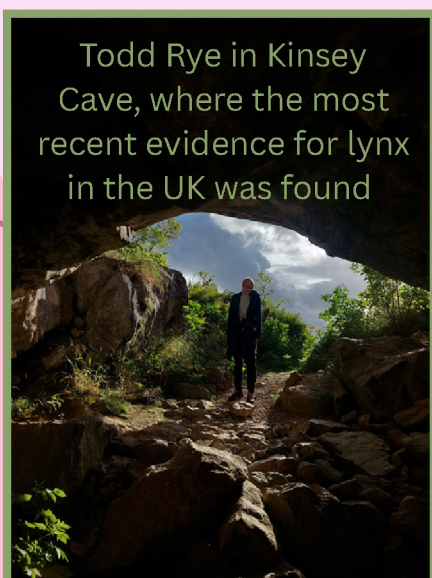


Todd Rye in Scoska Cave, the most bryologically rich cave entrance in the UK

As many caves include sinks (where water enters the ground) and resurgences (where water emerges from the ground), fish are often found in caves, including bullheads and blanchet brown trout.



Amphibians such as frogs, toads and newts are also found frequently. In some cases they may have been accidentally washed in, while in others they may be choosing to live in cave entrances. Caves are important sanctuaries for many species of cave shrimp, some of which are incredibly rare and threatened by groundwater pollution disrupting the delicate balance of cave ecosystems.



Todd Rye in Kinsey Cave, where the most recent evidence for lynx in the UK was found

Birds such as wrens and jackdaws nest in entrances. Further into the cave, bats can be found hibernating throughout winter, and in autumn bats may swarm in cave entrances. The cave fauna remaining today is a mere fragment of what it once was, and bones of animals such as lynx, wolves and bears demonstrate that these sites were once utilised by a much larger variety of wildlife.

# CAVE CONSERVATION

The fragile nature of caves and mines means that they are susceptible to irreversible damage. Unfortunately, they have been severely damaged in the past, from Victorians destroying stalactites, to modern tourists vandalising walls and dumping waste in caves. Like all natural spaces, it is important to practice **LEAVE NO TRACE** principles underground. These include:

## 1) RESPECT ANIMALS AND WILDLIFE

Do not disturb wildlife in the cave. Avoid disturbing bats by moving on quickly and do not point your torch directly at them. Bats are very sensitive to heat, light and sound - even your body heat or torch could be enough to disturb them from hibernation. This might mean they use up precious energy reserves, significantly reducing their chances of survival. See <https://cncc.org.uk/conservation/bats/> for more information on how to prevent disturbing bats while caving.

## 2) LEAVE WHAT YOU FIND

Do not remove **anything** from the cave environment, and do not touch cave formations which can take thousands of years to form. The oils and dirt from human skin can weaken the structure of cave formations, making them more susceptible to damage and impeding their growth.

## 3) DISPOSE OF WASTE PROPERLY

Take out **everything** that you bring in, and make sure you have the means (ie. a secure bag, or a large enough closed pocket) to do so.

"Cave conservation is a vital aspect of our hobby, as is preserving these natural sites for future generations.

Protecting the ecosystems and formations of our underground spaces is an easy thing to do, and should be on the minds of all who enter our wonderful subterranean world."





# SUBTERRANEAN SPACES IN OTHER NATIONAL PARKS

Many other national parks include caves and mines that are important habitats and pieces of cultural heritage. **Northumberland** has a range of small caves, including one associated with the early medieval Saint Cuthbert, while caves in Devon - including in **Dartmoor** - house the largest population of greater horseshoe bats in western Europe. A cave system in the **North York Moors** has several unusual features, including a colony of lampreys. Although the **Lake District** has no natural caves (apart from a few small rock shelters), it boasts a range of mines including slate, copper, and lead, which demonstrate the area's rich history and are popular with contemporary mine explorers.

Kirsty Hawksworth in Conistone  
Copper Mines



Many National Landscapes also have caves and mines of archaeological and ecological importance, including: the North Pennines, Mendip Hills, Forest of Bowland, and Cornwall.

Each national park and landscape includes subterranean spaces with distinct characteristics, and this variation is part of what makes them so unique. Despite this, they are often overlooked in national park management. If we are to truly 'conserve and enhance the natural beauty, wildlife and cultural heritage' of national parks, as outlined by the 1949 National Parks and Access to the Countryside Act, then it is important to raise awareness of the world *beneath* our national parks, enable people to experience and invest more time and money into protecting it.



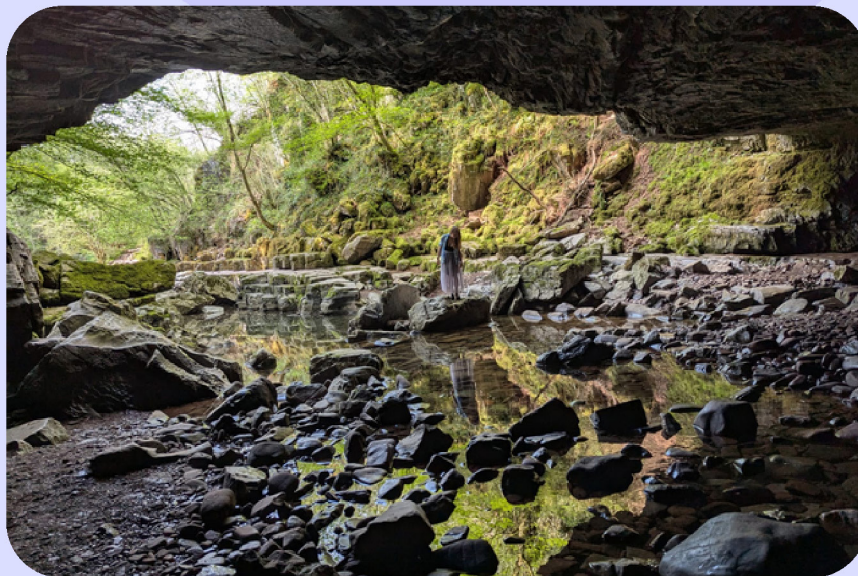
# MYTHS & LEGENDS

Caves are, by nature, secret and mysterious places. Although all of our national parks have been explored above the ground, there are still many caves beneath them that have not yet been discovered by people. It is therefore unsurprising that they feature heavily in old myths and legends.

## Dragons

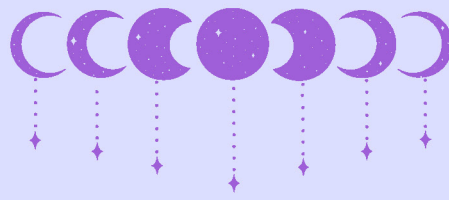
For the Anglo-Saxons, caves were often seen as wild, dangerous places inhabited by monsters such as giants and dragons. This is seen clearly in the Old English epic poem *Beowulf*, where the eponymous hero battles a giant-like water monster and a dragon underground.

The author in Porth yr Ogof, Bannau Brycheiniog. Featured in BBC Merlin.



In cultures across the world, from Welsh to Persian folklore, dragons are frequently portrayed as dwelling beneath mountains. For example, in Arthurian legend, a red dragon (representing the Welsh) and a white dragon (representing the Anglo-Saxons) battle underneath Dinas Emrys in Eryri.





## Gods

In the Peak District, several caves are named after Viking gods, such as Thor's Cave (god of thunder) and Odin's Mine (god of war and wisdom).

## Giants

Giants are said to live in caves in both Viking (Old Norse) and Anglo-Saxon (Old English) folklore. In *Beowulf*, the subterranean-dwelling monsters of Grendel and his mother are described as 'eoten' (giants), and in the Middle English story of *Brut* giants are said to live in caves. Some of these associations between giants and caves can still be found in modern place names, such as 'Giants Hole' in the Peak District.

## Fairies



Fairies are often associated with caves, including the small cave behind the waterfall of Janet's Foss in the Yorkshire Dales. In local folklore it is said that the fairy Queen Janet lives here, and that fairies can sometimes be seen dancing above the waterfall. In Welsh folklore, as in Irish folklore, the *tylwyth teg* (fair folk) are known to dwell underground or underwater.

## Bluecaps

A bluecap is a type of blue fairy or pixie that inhabits mines. Some stories talk of them helping miners, leading them to rich mineral deposits and warning them of cave-ins, while others talk of them leading miners astray and creating cave-ins.



# HOW TO EXPLORE CAVES

## 1) Connect with a caving club

The UK is internationally known for its vast, interconnected network of caving clubs. Many clubs are happy to take novices caving and help new members develop their caving skills, although there are a few that would prefer a certain degree of caving competency and experience before joining. Joining a club is a great way to meet like-minded individuals, find people to go on caving trips with, and learn new skills. A list of clubs can be found here: <https://british-caving.org.uk/about-bca/caving-clubs/>.

Some clubs also run 'New to Caving' events (free to attend), which are publicised on the **New to Caving** website run by the **British Caving Association**: <https://newtocaving.com/events.php>. This website is an essential resource for any budding cavers. The **Bradford Pothole Club** and **Craven Pothole Club** also run 'winch meets' in May and August, where you can descend Gaping Gill on a winch and explore the caverns below.

## 2) Take a course

The Council for the Northern Caving Community (CNCC) run regular subsidised courses in caving skills in the Yorkshire Dales, which are advertised on their website: <https://cncc.org.uk/training/>. Some commercial organisations also run courses in caving skills.



Lucy Hyde in Gingling Hole, taken by Harry Kettle



# HOW TO EXPLORE CAVES

## 3) Go with an instructor

Caving with an instructor can be a good way to try caving as a one-off to see if you like it. Organisations such as the Bendrigg Trust provide caving experiences for people with disabilities.

## 4) Visit a show cave

There are many show caves across the country, including a large number in national parks, which you can visit for a walking tour of a cave if you don't like the idea of caving. You can find a list of them on the website for the Association of British and Irish Show Caves (ABIS): <https://www.visitunderground.com/members/>

Some caves, such as Ingleborough Cave in the Yorkshire Dales, are wheel-chair accessible.

"Gouache and ink on paper. My art practice focuses on capturing aspects of caving that can't be documented on film or in words.

Here, I present surveying a constricted crawl with my friends as light and joyful as it felt rather than as grotty as it probably looked."

~ Emma Caspers, caver and artist, age 23.

Local national park:  
Bannau Brycheiniog





