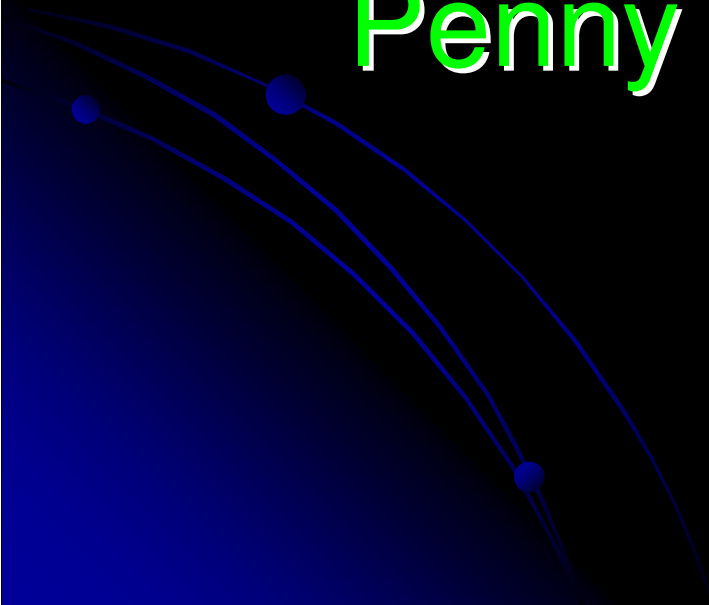


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The Origins of Life project by  
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South Africa



# Dan-yr-Ogof Caves



- Dan-yr-Ogof caves are situated one hour north east of Swansea



# The Discovery

- The river Llynfell emerging from a cave at the base of the cliffs at Dan-yr-Ogof farm has always been known.

In 1912 Tommy and Jeff Morgan had the courage to explore the cave. They used only candles to light their way and arrows in the sand to find their way back.

They discovered a wonderland of stalactites and stalagmites, but they were prevented from penetrating far into the mountain by a lake.

Undeterred they returned, this time with coracles. A coracle is a traditional one man fishing boat found on the rivers of West Wales.

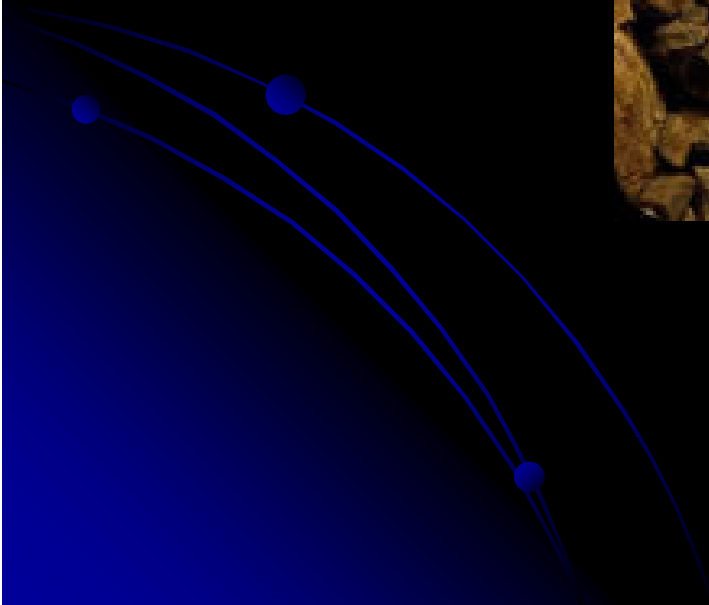
They crossed not one lake but four. They discovered more magnificent passages and chambers, but again the way on was denied them. This time it was a tight crawl.

This crawl was not passed until 1963 when Eileen Davies, a local girl and member of the South Wales Caving Club struggled through it.

She and others have now found over 10 miles of unique cave. Cavers believe that this is the tip of the iceberg and that there is still much to discover.

The journey through Dan-yr-Ogof is an experience you will never forget.

# The Bone Cave



# The Cathedral Cave





- 315 million years ago the area that is now The National Showcaves Centre for Wales lay to the south of the equator and was covered by a warm shallow tropical sea.

Shellfish corals and numerous small creatures lived in these waters. When they died their shells and skeletons sank to the sea floor. They were the source of calcium carbonate, the raw material for limestone rock.



- Over millions of years these calcium carbonate muds and sands have been deeply buried and transformed into limestones. Coral and shells settling down to sea bed to form limestone under pressure.
- The continents have moved around and mountain chains have been built and eroded. The end result is that Dan yr Ogof is now in the temperate belt of the northern hemisphere, thousands of miles from where its limestone originated.



- About 5 million years ago, during and following the development of the Alps, Dan yr Ogof was in a relatively gentle backwater. Features of the present landscape could be recognised. The sea level was about 200 metres higher than at present. The riverbeds were therefore higher than at present. Caves were forming at these levels.

- Then about 2 million years ago the Ice Ages started. Polar ice caps and glaciations in the mountainous regions locked up vast quantities of water on land. This reduced the water in the sea and sea levels fell.

The rivers responded by cutting into their beds, thus forming gorges and waterfalls. The rivers running underground in the caves cut new passages at lower levels and abandoned the higher levels.



- Cathedral cave is an abandoned higher level. The show cave of Dan yr Ogof is formed in one of these lower levels and the river is still cutting its way down to form even lower cave passages.

Some 800,000 years ago the climate became much colder with heavy snowfalls and the development of ice fields on high ground and glaciers in the valleys. The cold spells were interspersed with relatively warmer periods, in one of which we are currently living. The effects on the cave were important as glacial debris filled many of them with mud, sand and boulders, only for this infill to be washed out by floodwaters when the ice melted.

- The ice came and went and in the melt times stalactites and stalagmites were formed. This build up of cave formations continues today as acidic rain dissolves away the limestone and then precipitates it as stalactites and stalagmites in the caves.

- Source: <http://www.dan-yr-ogof-showcaves.co.uk/index.html>

