# Dechenhöhle Information - Info

## **Discovery**

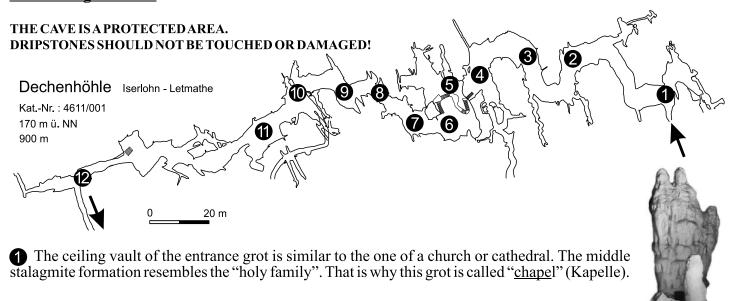
The Dechenhöhle was discovered in 1868 by two railway workers who had lost a hammer in crack during rock safety works. Mr. von Dechen, a famous german geologist, explored the cave and in his honor it's called "Dechenhöhle".

### How the cave was formed

Dechenhöhle is situated in Devonian limestone. Limestone can be dissolved by water containing carbon dioxyde (CO<sub>2</sub>). In thousands of years an underground river has washed out the cave. Now the river is flowing 25 meters below in another cave, which is called "Knitterhöhle".

The rainwater percolating through the mountain dissolves tiny amounts of calcium carbonate. When it seeps out of the cave ceiling, the water loses  $CO_2$  to the cave air. With the loss of  $CO_2$ , calcium carbonate will be deposited. Drips of water on the cave form stalactites. When the drips of water hit the cave floor, they again deposit calcite and form upward growing stalagmites.

# Tour through the cave



The "organ grot" (Orgelgrotte) is decorated with a wonderful stalactite formation that resembles an organ or a frozen waterfall. The different colours are due to tiny amounts of impurities in the calcite. Pure calcite is completely white. The brown colour is due to iron oxyde, the grey colour to manganese. Perhaps organic materials are also responsible for colorations. The green colour is due to algae and moss, which can grow near the electric lights. That is caused by heat radiation of the lights.



3 In the "king's hall" (Königshalle) you look into a geologic excavation. In the sediment layer, there were found bones of animals of the glacier period, among bones of cave bear, lion, hyena and mammoth. The most important of recent discoveries were the skeleton of a cave bear baby and the skull of a rhinoceros (Waldnashorn), which lived in a warm period between the glaciations. You can look at these findings in the German Cave Museum.

4 The "grot of the pulpit" (Kanzelgrotte) is the lowest point of the cave. It is 30 metres under the earths surface. At the ceiling you can find the "chandelier". The average growth of these stalactites is 1 mm in 10 years. Perhaps they will form a column with the stalagmites below in 20 000 years. It is important to know, that the rate of growth depends on the climate.



The "pool of the mermaids" (Nixenteich) is located at the highest point of the cave. It is 1.5 metres deep and often used as a mojo. Downstairs the "chasm of hell" (Höllenschlucht) is to be seen to the right side.

**6** In the middle of the "<u>crypt</u>" (Grufthalle) is situated a fallen stalagmite called "mummy". Looking around, huge boulders signify, that the cave collapsed at this point and was divided into two parts.



A a marvellous column is to be seen in the "grot of the palm tree". An British museum offered in 1912 60 000 goldmark for the "palm tree". We're glad that the owners didn't sale!



8 Both sides of the "hall of columns" (Säulenhalle) are decorated with "rimstone-pools". There are several stalactites at the ceiling of the "smokehouse" which look like sausages or ham.

**9** The walls of the "crystal grot" (Kristallgrotte) are covered by fossils of corals, braciopodae and stromatoporae. 380 millions of years ago, these animals lived in the Devonian sea and built great reefs. The floor of the crystal pool consists of pure calcite crystals.



The "hall of the emperor" (Kaiserhalle) is one of the most beautiful places in the cave. A majestic stalagmite is called "wedding/birthday cake".



The "gorge of the wolves" (Wolfsschlucht) is introducing the last part of the cave. It was widened and made passable for visitors in 1921.

The last grot is the "<u>vegetable garden</u>". There the stalactites look like tuber vegetables. An exit was blasted through solid rock at the left site of the grot. The end of the cave is filled up with clay and huge boulders.

# Subterranean fauna

In the Dechenhöhle were found 48 species of living animals. Near to the entrances live cave spiders. Sometimes bats can be seen.

### Deutsches Höhlenmuseum Iserlohn

You are invited to visit the German Cave Museum (admission free for visitors of the Dechenhöhle)! The museum opened in 2006. It is dedicated to all cave topics: Cave genesis, geology, paleontology, biology, archaeology and historical aspects. Special exhibitions and films inform about current explorations.

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