

The background image shows the interior of a cave system. A narrow, winding path with metal railings leads through the dark, rocky passages. The walls are rugged and textured. In the lower part of the image, a stream flows through a rocky channel. The lighting is dramatic, with spotlights illuminating the path and the surrounding rock formations. The overall atmosphere is mysterious and ancient.

The Fränkische Alb

Our Students' Project
Karst project week 2021

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What is Karst

- Karst is a geological formation consisting of carbonated rocks with a high content of calcium carbonate
- Karst consist mainly of three different minerals:
 - Limestone
 - Dolomite
 - Gypsum
- The formations known as Karst are formed by rainwater:
 - The rocks are solved by the water
 - Carbonic acid is produced
 - The water and the carbonic acid erode the rocks
 - Vast formations and caves are created
- There are two forms of Karst:
 - Underground Karst (Karst caves)
 - Overground Karst (Surface Karst)

How were the karst caves formed?

- Water penetrates into the Earth's interior (through cracks and joints).
- The water hits an impermeable layer (e.g. clay).
- It loosens the calcareous rock.
- Small holes become large cavities, fine gullies become wide trenches.
- An extensive network of underground rivers, valleys and caves is created.

Karstgebiete



Karst Forms

- Karst landscapes have specific surface forms.
- In the temperate latitudes one can find mainly carts, sinkholes, poles, valley shapes and transitional shapes.
- There are also special forms in the tropics, such as tower or cone karst.
- Underground karst areas are dominated by distinctive cave systems.

List of Karst areas of the world

Europe

- Bulgaria
- Germany
- Italy

Africa

- Madagascar
- South Africa

Asia

- China
- Japan

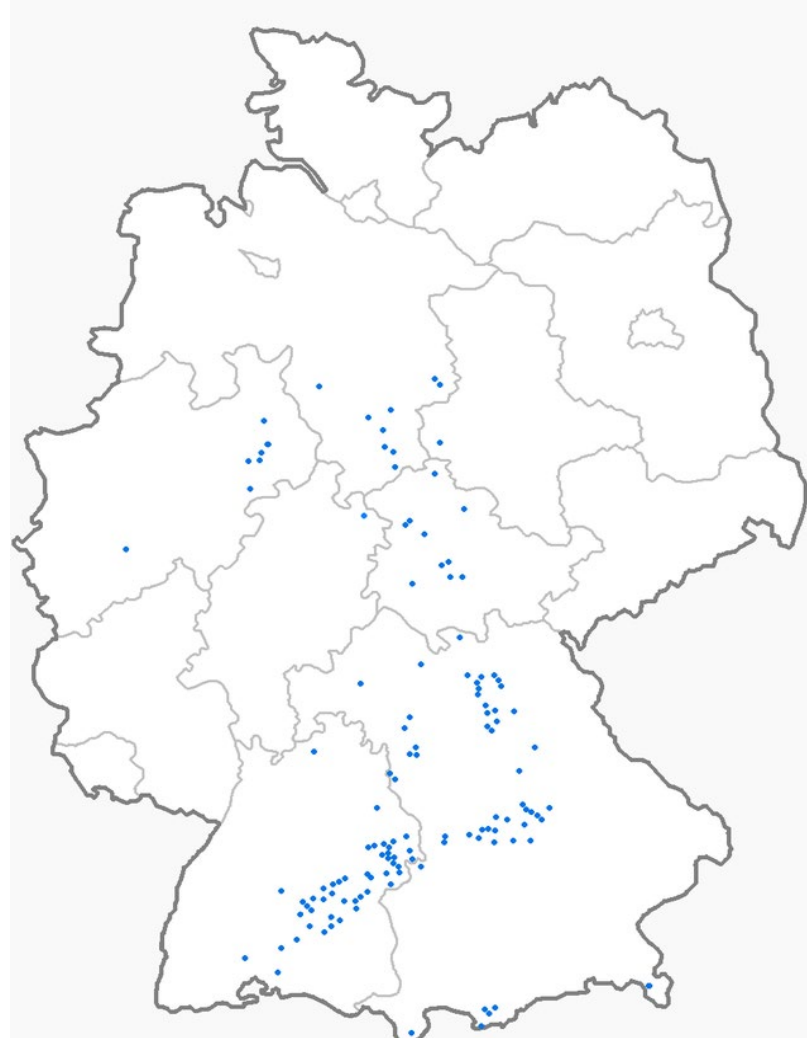
List of Karst areas of the world



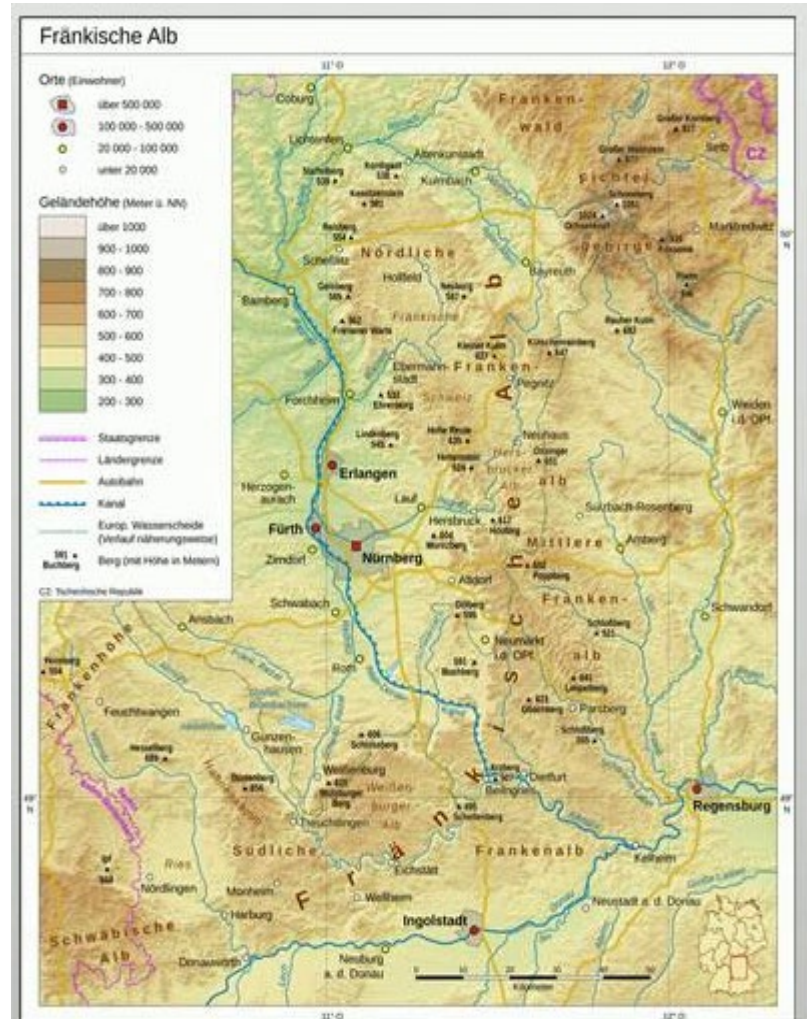
Location of the „Fränkische Alb“

- The “Fränkische Alb” is located in Germany.
- The borders are:
 - Lichtenfels am Main in the North;
 - Bamberg and Nuremberg in the West;
 - Bayreuth and Regensburg in the East;
 - Ingolstadt an der Donau in the South;
 - To the eastern edge of the “Nördlinger Ries” meteorite crater.

Karst areas in Germany



The „Fränkische Alb“. Location.



More information about the „Fränkische Alb“

- The Highest peak is Dürrenberg and it is located in Bavaria
- 7,054 km² in size
- Further mountains:
 - Poppberg 652.6m
 - Ossinger 651.1m
 - Kappersberg 650.7m

How was the „Fränkische Alb“ formed

- The “Fränkische Alb” is the geological continuation of the Swiss Jura and the Swabian Alb to the East.
- During the entire Jurassic period, about 161 to 150 million years ago, all of southern Germany lay in the area of a shallow sea, when, due to the constant subsidence of the earth's crust, massive rock sequences were deposited on the sea floor.
- The Jura sediments still make up the majority of the rock, mainly limestone, and are the basic material of the “Fränkische Alb”.

How was the „Fränkische Alb“ formed

- Due to the uplift of the European continental plate towards the end of the Upper Jurassic, the sea retreated and larger areas became mainland at the beginning of the following Cretaceous period. During this time there was a tropical climate and intensive weathering of the limestone and dolomite rocks that had previously formed.
- In the time of the Upper Cretaceous a sea again pushed into the area of the Franconian Alb.
- In the Tertiary, the sea receded again due to regional uplift and the Jura landscape was partially exposed.
- The Franconian Alb is rich in beautiful rocks, caves, sinkholes, karst springs and stone gullies. It is crossed by some deeply cut rivers and streams and by dry valleys. The dry grass slopes of the southern Alb are a biological specialty.

My Questions

Questions: What is karst?

How were the karst caves formed?

How many karst forms exist on the Earth?

Where are the „Fränkische Alb“ situated?

How big are the „Fränkische Alb“?

How is Karst formed?

How was the „Fränkische Alb“ formed?

Where are the karst areas in Germany situated?



The “Fränkische Schweiz”

Thank you for
your attention!