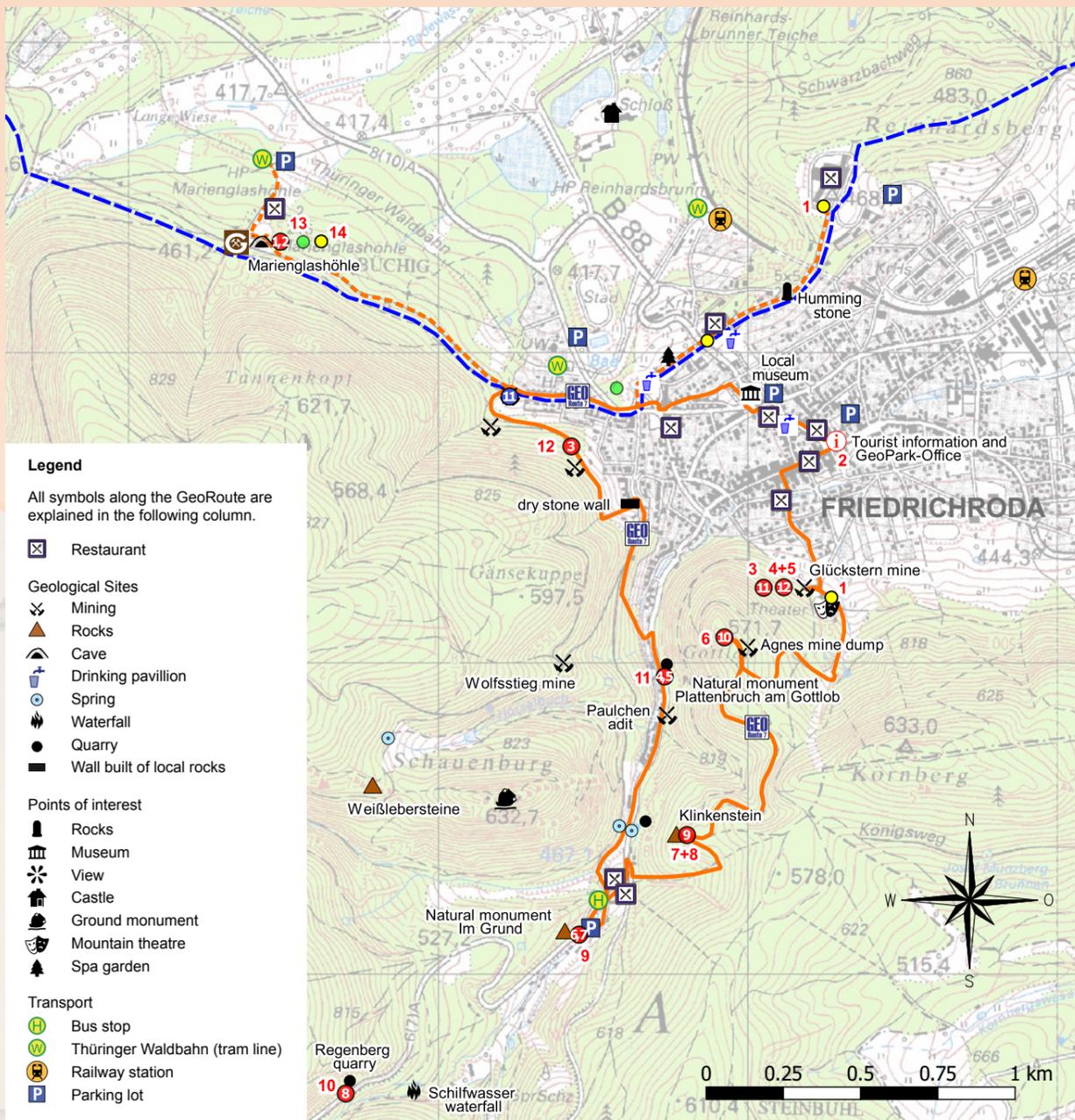
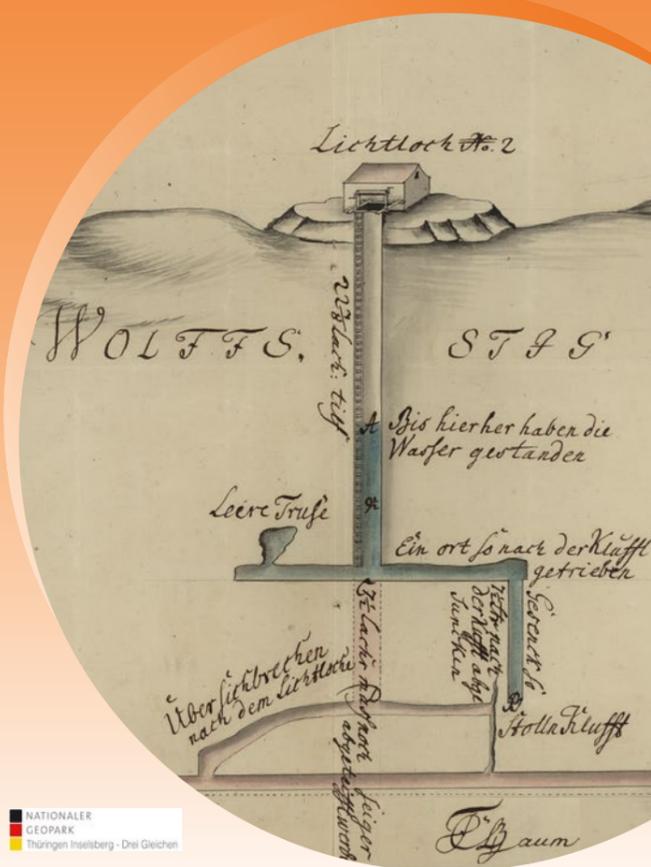




Friedrichroda Mining Trail

Guide for GeoRoute 7



GeoRoute 7, the Friedrichroda Mining Trail

takes you to the landmark mountain of Friedrichroda: the 572 m high "Gottlob". From here and the Klinkenstein, the walker will enjoy beautiful views of the town and the western Thuringian Forest. GeoRoute 7 follows the Dodels- and Kaempfpromenade and continues into the Schilfwasser Valley. All along the trail you will pass springs and curative mineral water wells.



The theme of this GeoRoute focuses on the highly visible remains of the more than 500-year old mining history of the hill town Friedrichroda. Nearly every step will take you to old adit entrances, abandoned quarries or sink-holes, the remains of historic mining

GeoRoute 7 Friedrichroda Mining Trail

- GeoPark Info column
- Overview panel
- GeoRoute 7: length approx. 7 km, duration: approx. 3-4 hours, difficulty level: medium
- - - tributary to hotels & to Marienglashöhle visitor mine

GeoRoute 11:

- ① Information panel with number
- GeoRoute 11: natural resources at Thüringenweg trail

Information:

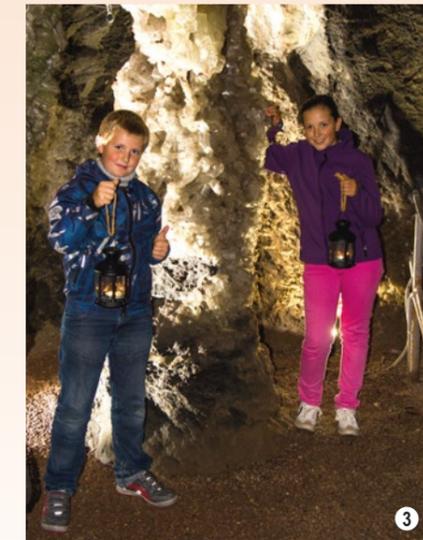
- ⑨ Information panel
- 14 Listening station
- 🏠 Geo Info centre
- 📍 Tourist information centre



operations for extracting iron and later manganese ore, rhyolite crushed rock, platy sandstones and gypsum.

Today, the former gypsum mine in Abtsberg is famous all over Germany for its wonderful crystal grotto. The visitors mine **Marienglashöhle Friedrichroda** is open to visitors every day:

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 An der B88, 99894 Friedrichroda
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 www.marienglashoehle.de
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We look forward to hearing from you!

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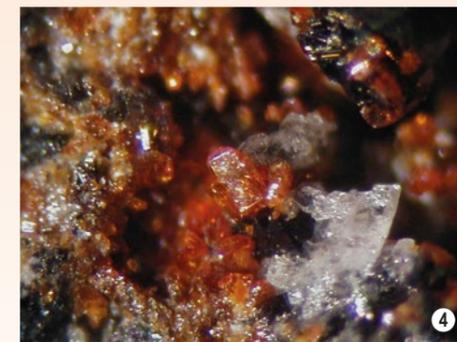
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Das Faltblatt ist auch in Deutsch erhältlich.



Deep in the hills of Friedrichroda

Friedrichroda looks back on a long and interesting history of mining. For at least 400 years the local mines produced iron, manganese, cobalt and even gypsum. Discover the traces of the historic mining activities all along the Mining Trail.

The oldest official document related to mining in Friedrichroda is a prospecting permit dated June 16, 1477, signed by the Landlord of Weimar Count Wilhelm III of Saxony. The permit authorizes the Abbey of Reinhardsbrunn to look for silver on the



Illustrations
Title: Plan of the Wolfsstieg Mine from 1757, Extract from Thüringer Staatsarchiv Gotha Nr. 557a Bl. 10

- 1 The Gottlob, landmark hill of Friedrichroda, setting for ancient legends and mining area between 1550 and 1924.
- 2 View of the Marienglashöhle GeolInfoCentre
- 3 In the crystal grotto of the Marienglashöhle
- 4 Gottlobite, a new mineral discovered in 1997. The width of the picture represents about 1.5 mm.
- 5 Fortuna adit of the Glückstern Mine at the Gottlob hill
- 6 Mining officer Carl Friedrich Baum, administrator of mining around Friedrichroda between 1750-1801



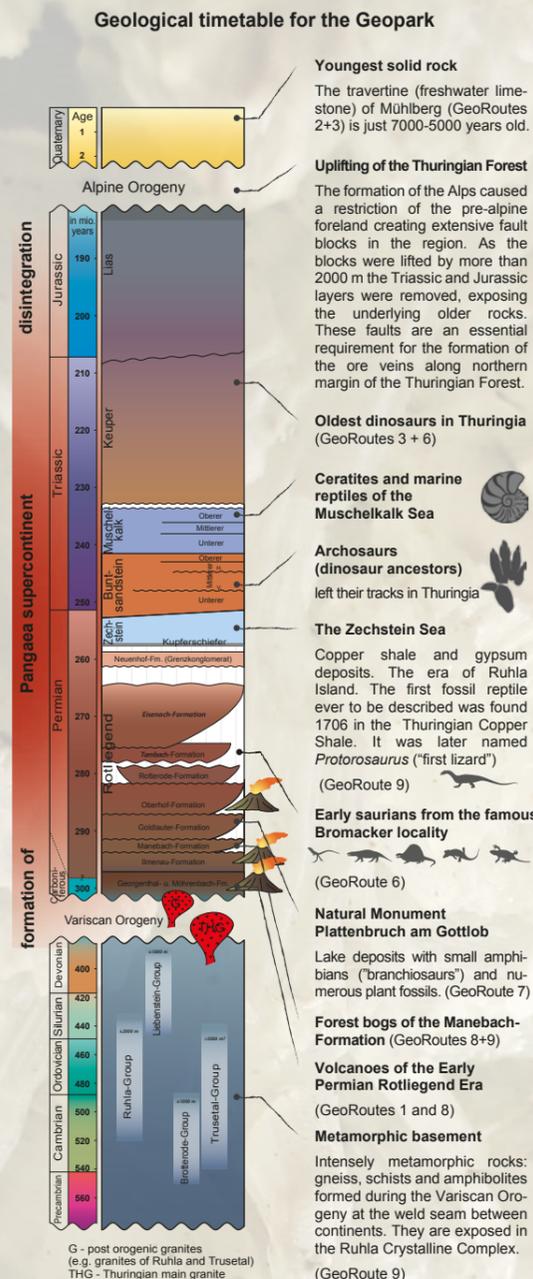
Schorn hill. Silver was never found, but the search discovered the typical Friedrichroda iron ore veins.



For several centuries, all mining activities focussed on extracting these iron ore deposits. The middle of the 16th century saw one of the high points of mining, when an exceptionally large number of mines were developed: the Wolfstieg Vein in 1539, on the Gottlob in 1550 and shortly afterwards the Sperrweg Vein. Nearly 500 years later it is still possible to recognize many of the remains of these mines.



Some of the ores discovered in the 16th century were useless in the eyes of the miners. This is especially true for manganese and cobalt ores. These became economically important in the 18th century, with the introduction of blue pigment production technology to the Thuringian glass and porcelain industry.



The Gottlob (572m) is a small but very interesting mining district. Five new minerals were discovered and first described here. One of these is the microscopic, orange-brown copper-magnesium-vanadate Gottlobite. This mineral was first described as recently as 2001 and has never been found anywhere else.



However, the Gottlob produced more than iron ore. A platy red sandstone known as "Flurplatten" was extracted from the quarry Plattenbruch am Gottlob. This exposure has been protected as a natural monument since 1968. In the world of science the illustrious name Gottlob is well-known as a historic fossil site, having played an important role in the research of the flora and fauna of the Rotliegend Age. In 1847, Bernhard von Cotta, a professor of geology at the University of Freiberg, discovered the first early saurian tracks. The palaeontologist Hans Pohl named this type of track *Ichniotherium cotta*.

Today we know who left these tracks. It was the Diadectids, which grew to about 1.5 m. These were ancient tetrapods, neither real reptiles nor amphibians. The Gottlob site is also famous for its plant fossils. For example, the oldest ginkgo remains in the world were found here.

One of the most famous people in the mining history of Friedrichroda is the mining officer Carl Friedrich Baum (March 18, 1723 – August 29, 1801). From 1750 onwards he was responsible for mining operations in Friedrichroda, introduced many innovations and led the mines to success in difficult times.



One of the most famous mines, the Marienglashöhle was opened during his time. However, it was only by chance that this mine was developed. It is very unusual to extract gypsum in underground mines and was never planned that way. Initially, in 1775, the Herzog-Ernst adit was driven into the hill for draining the quarry above. Then, in 1778 the adit was extended in an attempt to reach the copper shale. The gypsum deposit was discovered during this operation and offered the unexpected opportunity for underground extraction.

The Zechstein deposits along the margin of the Thuringian Forest are responsible for another special feature of Friedrichroda. They are the source of the minerals dissolved in the curative water of the Ludowinger Spring Friedrichroda. The water is extracted by means of a 58 m deep shaft, drilled in 1995 and is transferred via a high cistern to the drinking wells in the Kurpark, Friedenspark and Kirchplatz.



Audio Guide along the Mining Trail

The Friedrichroda Mining Trail is equipped with an audio guide in German. Observe the QR-codes on the information panels and feel free to test the QR-code for Listening station 1 here:



- Listening station 1 Introduction
- Listening station 2 Economy and Inventive Genius
- Listening station 3 The Glückstern Mine
- Listening station 4 What were the Venetians doing in Thuringia?
- Listening station 5 Luther Beech and Luther Well
- Listening station 6 Goethe in Friedrichroda
- Listening station 7 The Ludowingers
- Listening station 8 From Abbey to Castle Reinhardsbrunn
- Listening station 9 The first visitor of the health spa Friedrichroda
- Listening station 10 Geotope "Old Quarry in the Regenberg Porphyry"
- Listening station 11 Mining History of the Gottlob
- Listening station 12 Miner's Song
- Listening station 13 Marienglashöhle
- Listening station 14 Beneath our feet – Marienglas

- Illustrations
- 7 Mineral Goethite from Gottlob hill (Foto Spelda, Bad Tabarz)
 - 8 Natural Monument Plattenbruch am Gottlob
 - 9 Ganoid fish and coprolite in common red preservation from Natural Monument Plattenbruch quarry at Gottlob hill
 - 10 Old dry stone wall made of red sandstone from the Plattenbruch quarry at Gottlob hill. Those platy sandstones known as "Flurplatten" were extracted from many places in the Thuringian Forest.
 - 11 Early saurian track *Ichniotherium cotta* Pohl (1885) from Friedrichroda
 - 12 Drinking pavilion in the spa gardens with curative waters from Ludowinger Spring Friedrichroda
 - 13 Small waterfall in Schilfwasser stream