

JEWELS FROM VOLCANOES

A journey through 500 Million Years of Earth History



**GEOPARK
PORPHYRLAND**

Steinreich in Sachsen



Zuständig für die Durchführung der ELER-Förderung im Freistaat Sachsen ist das Staatsministerium für Energie, Klimaschutz, Umwelt und Landwirtschaft, Referat Förderstrategie, ELER-Verwaltungsbehörde.



Entwicklungsprogramm für den ländlichen Raum im Freistaat Sachsen 2014 - 2020

Europäischer Landwirtschaftsfonds für die Entwicklung des ländlichen Raums: Hier investiert Europa in die ländlichen Gebiete.



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Gleisberg Quarry on Rochlitz Hill with 60 m high porphyry walls

Welcome

Come and join us on an exploration of the geopark "Porphyry Land. Saxony's Wealth of Rocks". Boasting a highly diverse landscape and outstanding geological features, this geopark belongs to one of the 16 national geoparks in Germany.

Around 290 million years ago, 500 million year old marine sediments were buried under 800 meters of volcanic deposits. However, there are several isolated outcrops of these marine sediments in the geopark, for example the hill Collmberg near Wermsdorf. The geopark is mainly composed of pyroclastic flow deposits, lava flows and volcanic tuff. Striking examples of these are the porphyry tuff on Rochlitz Hill and the quartz-porphyrines near Wurzen. Millions of years of intense weathering has converted these volcanic rocks into valuable kaolin clay. During the Tertiary, around 66 million years ago, the geopark region was located on the southern coast of the North Sea. This is the time of lignite formation and lignite mining in the area can be traced back to 1697.

The extensive northern glaciations during the last 500,000 years truly put the finishing touches on the area of the Porphyry Land. This is impressively illustrated by the glacial and wind striations found on many porphyry rocks. Their discovery in the Hohburg Hills near Wurzen in 1844 led to the globally accepted ice age theory. Glaciers from the North covered the lowlands with boulder clay, sand and gravel. The river sediments deposited in this basin over time tell a different history that is revealed in the steep walled valleys of the upper course and the gentle, wide valleys of the lower course. In contrast, a new force has been shaping the landscape

in the most recent past and present: humans with their settlements, farming activities and demand for raw materials. The latter has led to the development of a diversified industrial culture in the mineral-rich geopark region associated with raw material mining and utilization for construction and ceramics production.

Today the remains of the supervolcano form a frame for the delightful basin landscape with its rich cultural and historical heritage. The geopark also brings together such topics as architecture and craft. Geology has even been addressed in music, art, sport, Wellness and the hospitality industry.

The continued development of the geopark is supported and facilitated by the towns and communities between the Hohburg Hills and Rochlitz Hill, the Naunhof lakes and the hill Collmberg, the counties Leipzig, Nord-sachsen and Mittelsachsen as well as the members of the organizing association. These actors collaborate in projects such as installing new visitor centres and destinations, creating and signposting new GeoRoutes as well as organizing interesting offers for sustainable education and eco-tourism.

Geopark Porphyryland e. V.

Organizing association of the National Geopark "Porphyry Land. Saxony's wealth of rocks"

Geopark Porphyryland



	Geoportals
	GeoAdventure Workshop
	Geotopes



Geoportals and GeoAdventure Workshop

- A** **Geoportal Röcknitz Mansion** (page 24)
 Exhibition "Time-Change-Rock – Eventful History of a Landscape"
 An der Wasserburg 3, 04808 Thallwitz, OT Röcknitz
 Tel. 034263 70723 · www.gemeinde-thallwitz.de
- B** **Geoportal Museum Steinarbeiterhaus Hohburg** (page 25)
 Kirchgasse 5, 04808 Lossatal, OT Hohburg
 Tel. 034263 41344 · www.steinarbeiterhaus.de
- C** **Geoportal Mügeln Railway Station**
 "China Clay Experience" (page 32)
 Bahnhofstr. 2, 04769 Mügeln
 Tel. 034362 442906 · www.stadt-muegeln.de
- D** **Geoportal "Clays for Ceramics"**
in the Künstlerhaus Schaddelmühle (page 33)
 Zur Schaddelmühle 5, 04668 Grimma, OT Schaddel
 Tel. 034384 71202 · www.schaddelmuehle.org
- E** **Geoportal "Porphyry House" on Rochlitz Hill** (page 17)
 Rochlitzer Berg, 09306 Rochlitz
 Tel. 03737 7830 · www.rochlitz.de
- F** **GeoDiscovery Workshop in the Knight's Estate Trebsen** (page 26)
 Thomas-Müntzer-Gasse 4c, 04687 Trebsen
 Tel. 034383 92344 · www.rittergut-trebsen.de

Geotopes

- 1** **Glacier striations at the Spielberg**, Thallwitz, OT Böhlitz
- 2** **Gaudlitzberg**, Thallwitz, OT Röcknitz
- 3** **Quarry Spitzberg**, Lossatal, OT Lüptitz
- 4** **Quarry Wolfsberg**, Lossatal, OT Lüptitz
- 5** **Wind and glacial striations on the Kleiner Berg**,
 Lossatal, OT Hohburg
- 6** **Quarries and plant conservation area**
at the Wachtelberg, Wurzen, OT Dehnitz
- 7** **Kirchbruch Beucha**, Brandis, OT Beucha
- 8** **Rock face at the Haselberg**, Naunhof, OT Ammelshain
- 9** **Quarry at the Collmberg**, Wernsdorf, OT Collm
- 10** **Gattersburg Porphyry at the**
Grimma suspension bridge "Petrified Lake", Grimma
- 11** **"Versteinerter See"**, Leisnig, OT Börtewitz
- 12** **Millstone quarry at the Hasenbach**, Mügeln, OT Sorznitz
- 13** **Schwemnteich quarries**, Grimma
- 14** **"Huge Monolith" and "Teufelsstein"**,
 Grimma, OT Thümmlitzwald
- 15** **Red porphyry cliff at Mildenstein Castle**, Leisnig
- 16** **Parthe spring "Gossenborn"**, Bad Lausick, OT Glasten
- 17** **Gleisberg quarry**, Rochlitz, OT Noßwitz
- 18** **Eulenkluft**, Wechselburg

For tourist destinations and offers in the region Leipzig visit www.leipzig.travel/de/region

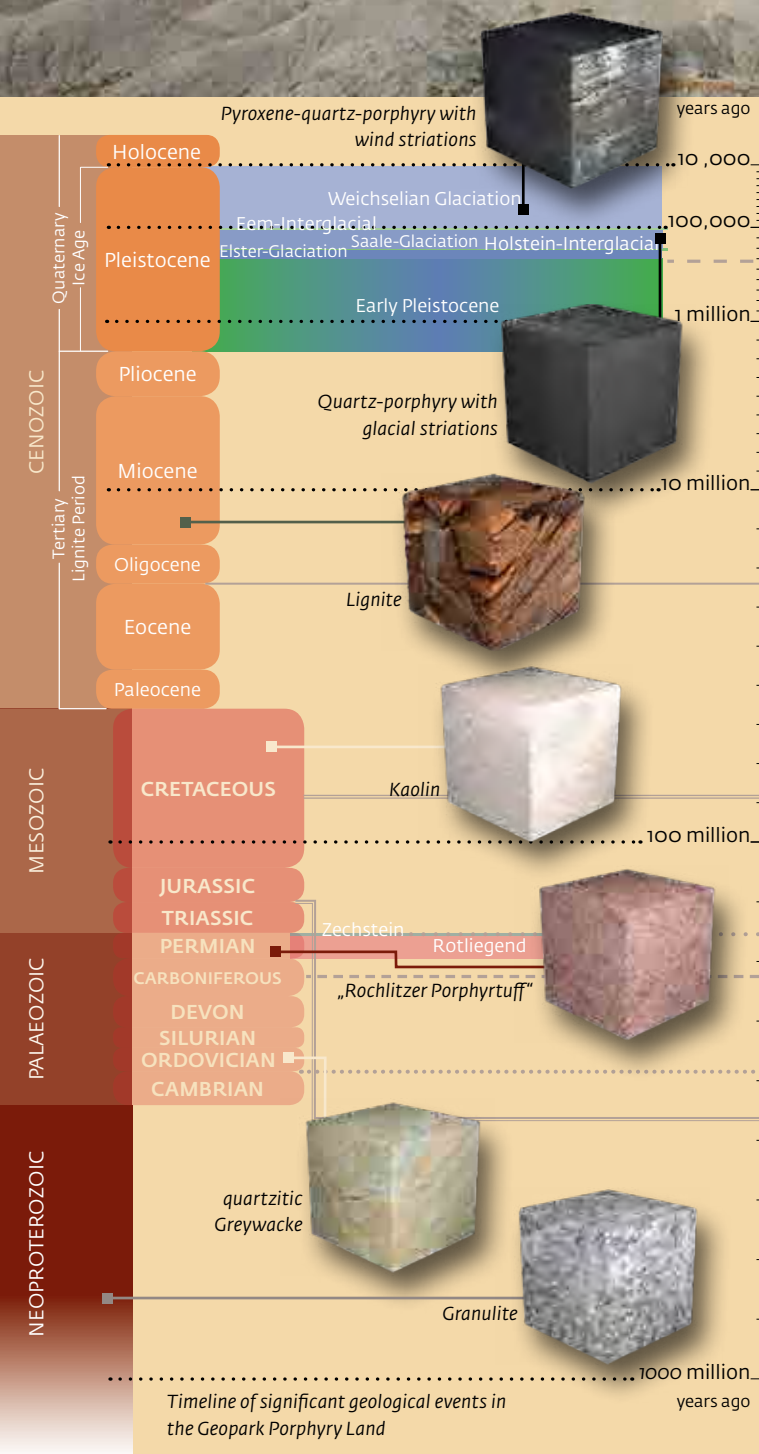


Geo-touristic destinations

- Bad Lausick**
 Kurpark (Spa park) with historic thermal springs, Parthen spring, Spa and Town Museum with core sample from the thermal spring drilling operation, Colditz Forest
- Bennewitz**
 Planitzwald, landscape conservation area Grosssteinberg-Ammels-hain; Mulde ferry
- Brandis**
 Kirchbruch Beucha with mountain church, Beucha - Village of Rocks, 7-Quarries Trail, Kohlenberg with East and West Quarry, Naunhof-Brandis Forest
- Colditz**
 Töpelsberg-Rock with Local History Museum, ceramics industry remains, Colditz Castle, Adventure Gardening Centre Tanndorf, Colditz Forest
- Grimma**
 Geoportal Schaddelmühle, Old Quarry Schwemnteichbrüche, Kössern – Village of Master Builders, Wilhelm Ostwald Park, Trail of Stones, Mulde navigation, Ship Mill Höfgen with Bowling Grotto, Thümmlitz Forest
- Leisnig**
 Castle Mildenstein with red porphyry cliff, "Petrified Lake" Börtewitz, Monastery Buch
- Lossatal**
 Geoportal Museum Steinarbeiterhaus Hohburg, Kleiner Berg with wind and glacial striations, Kaolin lake, GeoRoutes Mining Trail and Kleiner Berg, working quarry Lüptitz, abandoned quarries Spitzberg and Wolfsberg, Hohburg Mountains
- Mügeln**
 Geoportal Mügeln Railway Station with "China Clay Experience", narrow gauge railway, light railway Glossen, Kaolin-reloading ramp Glossen, working Kaolin pits, former mill stone quarry Sorznitz
- Naunhof**
 Water works Naunhof, abandoned quarry Ammelshain, Moritzsee, Grillensee, Albrechtshainer See, Naunhof-Brandis Forest
- Rochlitz**
 Rochlitz Hill with Friedrich-August-Tower, abandoned and working quarry, Porphyry Learning Trail, Forest Learning Trail to Wechselburg Monastery, GeoRoute Rochlitz-Fischheim-Seelitz, Rochlitz Castle
- Thallwitz**
 Geoportal Rocknitz Mansion, Volcano playground, Park Canitz, water works Canitz and Thallwitz, Water route, geological Explorer Trail, abandoned quarries Gaudlitzberg, Spielberg, Holzberg
- Trebsen**
 GeoAdventure Workshop, quarries Altenhain and Trebsen, abandoned quarries of the Frauenberg, Castle Trebsen
- Wernsdorf**
 Collmberg hill with Albert Tower, Greywacke quarry of the Collmberg, Quarry Wernsdorf, Castle Hubertusburg, Cultural Landscape Museum, Wernsdorf Ponds, Wernsdorf Forest
- Wurzen**
 GeoRoute in the nature conservation area Mühlbachtal-Wachtelberg, Wachtelberg hill with Bismarck Tower, Mulde ferry

Travelling back in time – finding out why are we so rich in raw materials

Kaolin pits Schleben/Crellenhain near Mügeln



The Porphyry Land possesses a wealth of rocks: unconsolidated deposits and hard rocks representing 500 million years of Earth history lie close to each other. The story of the raw materials that are extracted in the geopark today is an exciting journey into the past.

During the Cambrian around 500 million years ago and into the Ordovician, our region was covered by an ancient ocean, into which sandy, quartz-rich marine sediments were deposited. Around **320 million years ago, during the Carboniferous**, mountain building processes folded these sediments into a vast mountain range. Right from the beginning this high mountain range was gradually eroded just like the Alps are today: involving factors such as weathering, mudflows and rivers. Today, the eroded remains of this mountain range form the **quartzitic greywackes** of the hills Collmburg near Oschatz and Deditz-Höhe near Grimma.

During the Permian, 290 million years ago, the north-west Saxon area formed a basin, which became filled with deposit. The crust beneath this area was crossed by deep fault systems, which facilitated large-scale and intense volcanism. The volcanic rocks that were expelled from a deep magma chamber are classified as **porphyry**, the namesake of the Geopark Porphyry Land. These rocks characterise the appearance of this region.

The volcanic rocks formed during this time can be differentiated according to the type of deposition: rocks of the lava flows, volcanic ash deposits (tuffs) and pyroclastic flow deposits (ignimbrites, see page 8). The **Leisnig Porphyry** is an example of solidified lava that forms the walls of the Freiburger Mulde valley near Leisnig.

Ignimbrites cover extensive areas of the geopark. These rocks are the solidified deposits of differently hot pyroclastic flows associated with explosive volcanic



Enjoying a break at the glacier striations on the Kleiner Berg near Hohburg



At the Gleisberg Quarry on Rochlitz Hill

eruptions. The ignimbrites known as **Rochlitz porphyry** that have been extensively exposed by the River Mulde between Rochlitz and Colditz, are 400 m thick and the most widely occurring volcanic deposit in the Porphyry Land. The so-called "**Rochlitz Porphyry tuff**" is an ignimbrite that is only found at Rochlitz Hill and is a sought after dimension stone that has been quarried there for centuries. A different type of ignimbrite known as **pyroxene quartz-porphyry**, is also found extensively in the north and north-west of the Porphyry Land. Fissures in the deposits allowed magma to intrude, which solidified on its way up from the Earth's interior, forming the so-called **pyroxene granite porphyry**. The most famous location where this rock is extracted is Beucha.

At the end of the **Permian (Zechstein)**, our region was flooded by a shallow inland sea, which connected to the ocean. The saltwater evaporated in the dry and hot climate to form extensive dolomite, gypsum and salt deposits. During this time, north and north-west Saxony was located at the edge of this inland sea where river and debris flow sediments were deposited. Only the marine carbonate horizon of the **Plattendolomit** (slab dolomite) can be traced far into the south of the area. It has been protected from subsequent erosion in the Mügeln Basin in the north and Borna Basin in the west and is still mined in the quarries near Ostrau.

The **Triassic and Jurassic** rocks found in the Thuringian Basin (Triassic) and in isolated locations in the Lausitz (Jurassic), have been completely eroded in north-west Saxony. However, Lower Triassic (Buntsandstein) sandstones and conglomerates are found in the deeper layers of the Borna and Mügeln Basins and occasionally outcrop on the surface (Bad Lausick/Hopfgarten).

During the Cretaceous Era, Central Europe moved into sub-tropical climate zones as a result of continental drift. All near-surface rocks were subjected to intense chemical weathering, which converted feldspars to

clay minerals forming the rock kaolin, an important raw material for the ceramics industry. During the transition from the Upper Cretaceous to Tertiary, the porphyries and ignimbrites containing high amounts of potassium feldspar developed into the kaolin deposits that are still mined today near Mügeln.

Central Europe was flooded by the North Sea **during the Tertiary between 66 to 2 million years ago**, a period also known as the Lignite Era. North-west Saxony was located at the south edge of this "Ur-North Sea". **The sands, silts, clays and lignite** are mostly sediments deposited in the tidal zone along a shallow sea-coast as well as by rivers flowing in the hinterland. Temporary salt marshes developed into lignite deposits. Many historic records show that these isolated lignite deposits were mined throughout the Geopark region. The erosion and redeposition of the kaolin produced the Tertiary clay beds, which formed the basis for the highly differentiated ceramic industry in the geopark area.

The beginning of **the Quaternary or Ice age around 2.6 million years ago** was marked by rapid cooling. Central Europe was affected by periods of Arctic climate. Eventually, the Fenno-Scandian ice sheet advanced into our area during the Elster and Saale glaciations, reshaping the land surface and leaving behind thick moraine deposits. Proglacial lakes formed as the glaciers retreated that were filled with sediments such as **sand, silt and varved clay**. Glaciations alternated with warmer interglacials, which were marked by the accumulation of **thick loess deposits** in our area and the development of the so-called loess steppes. During the present interglacial, the Holocene, which began around 10,000 years ago, especially fertile soils have developed from the Loess parent material. The **sands and gravel deposited** by the rivers Elbe, Mulde or Zschopau during the ice-age are an economically important raw material source for the construction industry.

Supervolcanoes – Foundation of the Geopark Porphyry Land

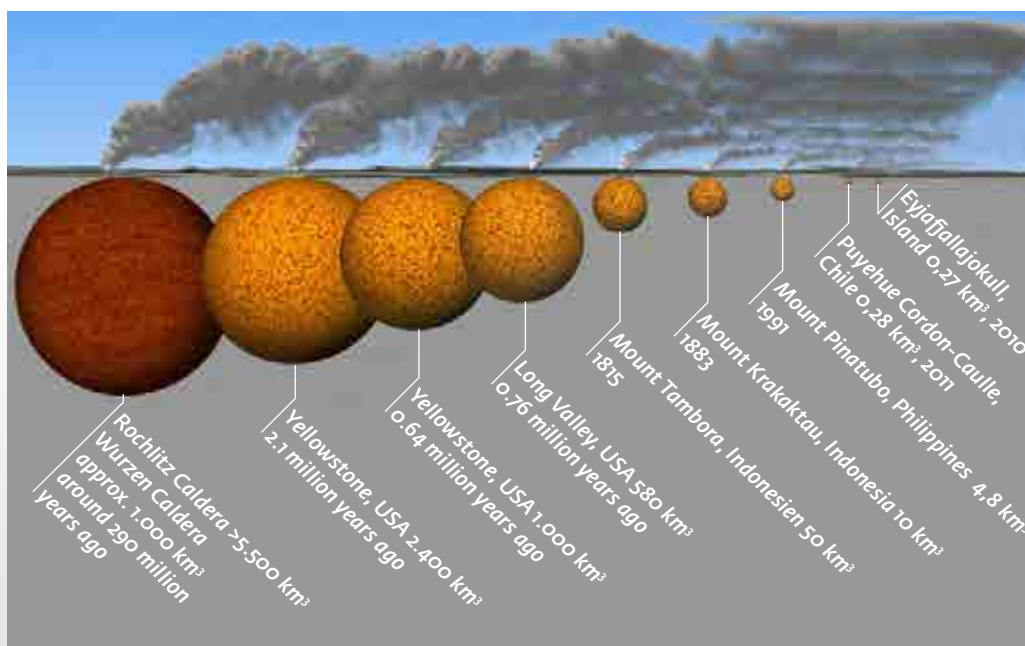
Fossil site "Petrified Lake" Börtewitz

Around 300 to 275 million years ago, Central Europe was located at the equator. For millions of years the supercontinent Pangaea was characterised by widespread volcanism. The Geopark Porphyry Land lies in such an eruption centre, the north-west Saxon volcano complex: covering an area of around 2000 square kilometres, this is the largest exposed Proterozoic volcano province in Europe.

Gigantic explosive eruptions left behind extensive volcanic deposits. In addition to the lava emerging from numerous fissure vents and volcanoes and spreading over the landscape, vast amounts of fine to coarse ash was ejected into the atmosphere and later deposited as tuff. However the most devastating eruptions are those that ejected a mixture of turbulent gasses, ash, volcanic bombs and magma fragments. Sever-

al such eruptions occurred in the geopark producing so-called pyroclastic flows that speed across the landscape and can reach temperatures of up to 1000°C. Within a few million years two volcanic cauldron like structures were formed in association with the pyroclastic flow deposits (ignimbrite). These massive depressions are called calderas: at 60 km in diameter the Rochlitz-Caldera is larger than the Wurzen-Caldera at 40 km. In the millions of years that have passed since their formation, the typical morphology of the calderas has been smoothed out due to erosion and other geological processes.

Today it is only possible to piece together and reconstruct the geological development of the calderas from isolated outcrops, bore holes and geotopes. The huge volume of deposits from these extreme volcanic events places them into the group of largest known volcanoes on Earth, the so-called "supervolcanoes". These are eruptions that have ejected more than 1000 cubic kilometres

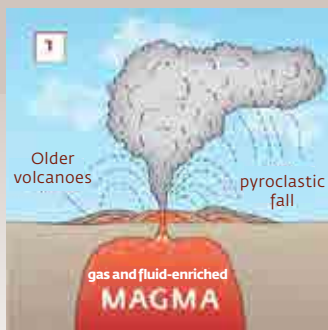


Comparing the volcanism in the Geopark Porphyryland to global events

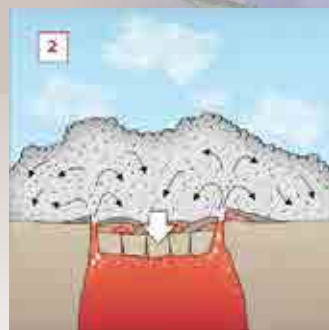
The "Petrified Lake" near Börtewitz

Life in the volcanic landscape: in periods of inactivity before, after or between volcanic events, the ejected material was eroded and deposited in floodplains also filling any lakes that had formed there. The sediments of one of these lakes have been preserved near Börtewitz. These deposits contain fossilized plant remains including conifers and seed ferns as well as animals such as amphibians, fish (incl. the remains of a freshwater shark) and arthropods. Several geological excavations carried out by the Bergakademie Freiberg and the Naturhistorisches Museum Schleusingen have yielded a wealth of fossils.

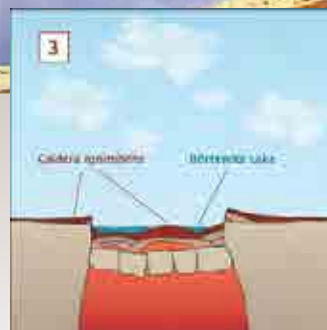
The "Petrified or Fossil Lake" of Börtewitz is an open pit that is listed as a protected natural area. However, a tip has been specially cleared for amateur fossil hunters.



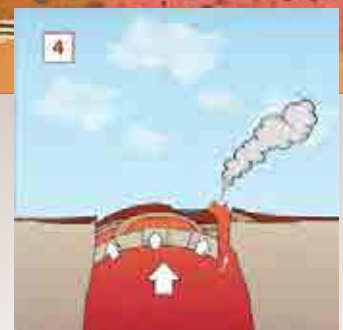
Phase 1 – Initial phase
(approx. 296 million years ago)



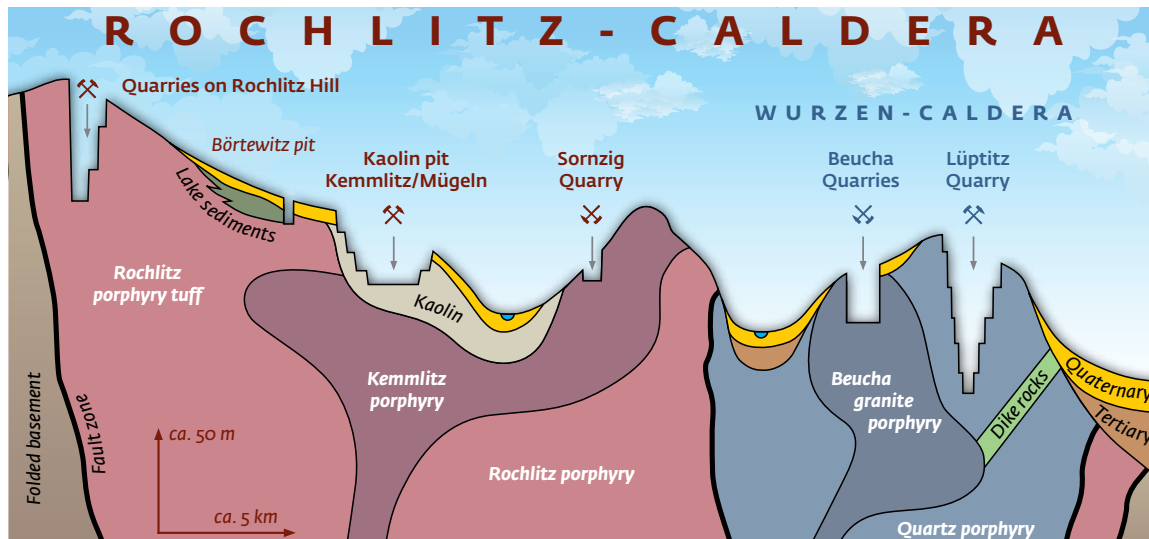
Phase 2 – Main phase
(approx. 294 million years ago)



Phase 3 – Late phase
(approx. 290 million years ago)



Phase 4 – Transition to the next large-scale volcanic event – the formation of the Wurzel-Caldera
(approx. 289 million years ago)



Current situation – schematic cross section depicting the exposed and quarried Permian volcanic rocks currently found in the Geopark Porphyry Land (vertically exaggerated cross-sections)

ash, lava and rock fragments within a geologically short period. The minimum volume of material ejected by the Rochlitz-eruption has been calculated to be in excess of 5500 cubic kilometres, while the Wurzen-eruption produced at least 1000 cubic kilometres.



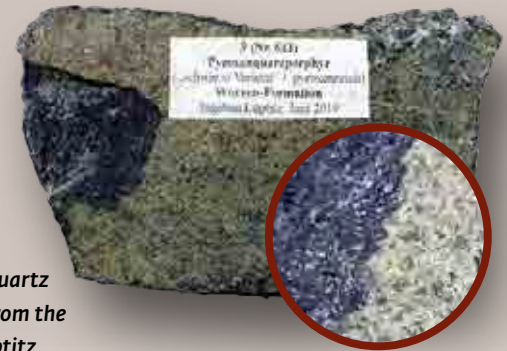
Caldera Aniakchak/Alaska, an example of a completely preserved caldera (diameter around 10 km, depth up to 600 m)



Wealth from rocks

2) Ignimbrite

former pyroclastic flow deposits



Pyroxene quartz porphyry from the Quarry Lüptitz

The inheritance from the Permian volcanoes has made the geopark wealthy. Porphyry - or geologically more accurate, rhyolite – has been used as a building material and for dimension stones for centuries.

In this context, the porphyry tuff from Rochlitz Hill and the granite porphyry from the quarries in Beucha deserve a special mention. In contrast, the grey quartz porphyries from the Wurzen region are only of minor importance. However, they are used to produce high-quality crushed rocks and grit that are irreplaceable for road and railway construction today.

Kaolin is the product of intense weathering of the porphyry and has been mined between Mügeln and Wernsdorf for around 300 years. Without the “white earth” of Colditz the alchemist Johann Friedrich Böttger would not have been able to produce the first hard porcelain in Europe in 1708. Today, kaolin is an increasingly interesting raw material for the ceramics industry that is extracted by local kaolin mining operations using state-of-the-art technology.

Types of rocks in the Geopark Porphyry Land

1) Tuff/Tuffite

Former volcanic ash deposits without and with detritus



Lastauer Tuff

3) Lava

solidified molten rock expelled by a volcano (lava flow)



Leisnig Porphyry

4) Sub-volcanic rocks

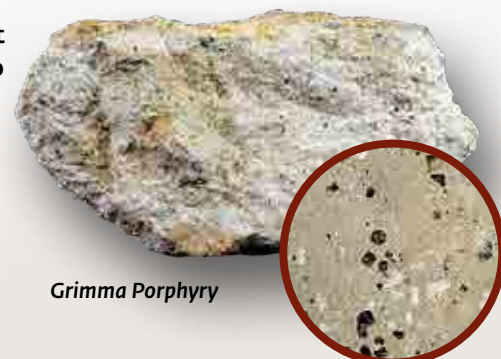
igneous rocks that have intruded into the upper Earth's crust and / or onto the surface



Trebsen Andesite

5) Magmatic dikes

igneous rocks that have intruded into the upper Earth's crust under and in the volcanoes



Grimma Porphyry

The hills of the Geopark Porphyry Land may not soar into the sky like the Himalayas, but their story is no less interesting. These conspicuous witnesses of geological and landscape development enclose the area from three directions.

Rocks that resisted the effects of weathering for millions of years now stand out as hills and ridges from the mostly level landscape of the Mulde Valley. Early in history they were settlement areas and hideaways, meeting places and places of trials. In the 19th and 20th century, the hills were central survey points, places of a romantic sense of home and patriotic yearnings and sources of raw materials or just simply popular tourist destinations, something they are still today. The hills offer many opportunities for making geological discoveries: by looking from a peak, hiking on signposted GeoRoutes or climbing in close contact with the rock, ...

The highest peak of the **Hohburg Hills** in the north is the Löbenberg (240 m above sea-level). The "Hohburger Schweiz" ("Hohburg Switzerland") is characterised by two centuries of industrial rock extraction and has been a traditional hiking and climbing destination for more than 150 years. The quarry at the Gaudlitzberg has been abandoned since 1961 and is internationally renowned for its climbing wall and the annual Bergfilmfestival. Two small hills offer spectacular geological attractions: the geotope Glacial Striations at the Spielberg as well as the national geotope Wind and Glacial Striations at the Kleiner Berg.

The Wachtelberg (148.5 m above sea level) is located south of the Hohburg Hills. This peak is crowned by a tower built by the architect Wilhelm Kreis in 1909. The former Bismarck tower is constructed with Lüptitz quartz porphyry with massive corner pillars somewhat reminiscent of antique temple columns. The "Wachtelbergturm" as the tower is called today, houses an exhibition on the history of the building and the flora and fauna of the Wachtelberg.

The otherwise level landscape to the east is dominated by **the Collmberg** (approx. 316 m above sea-level). The hill consists of quartzitic greywacke, the oldest exposed rock of the Geopark Porphyry Land. From 1835 onwards a large volume of building material was extracted in a quarry on the south-west side of the hill. Today the quarry is open but has been under protection since 1975. The Albert Tower on top of the hill was built in 1853 and named after the later Saxon king. After

left: Bismarck Tower on the Wachtelberg
centre: Friedrich-August-Tower on Rochlitz Hill
right: Albert Tower on the Collmberg



Hills and towers

View from the Albert Tower on the Collmberg

ascending the external staircase the visitor can enjoy a wonderful view. The granite column on the viewing platform was erected in 1865 and was a 1st order triangulation point of a survey net that spanned the whole of Central Europe. Using optical equipment it was possible to sight the Fichtelberg among other points

Rochlitz Hill (353 m above sea-level) is the highest point in the south of the Geopark Porphyry Land and just like the Löbenberg it was also a point in this triangulation network. The sandstone triangulation column was installed on the platform of the Friedrich-August Tower in 1866. The tower was built in 1859 to commemorate King Friedrich August II of Saxony who died in an accident. It was designed by Eduard Heuchler in the neo-romantic style with a polygonal top sitting on a square lower section. The building is completely lined with Rochlitz Porphyry tuff, which has been extracted from Rochlitz Hill since medieval times. Quarry owner Christian Gottlob Seidel ambitiously sponsored the construction of the tower. Rochlitz Hill was already developed as a hiking destination in the early 19th century – during the romantic period. Already in 1817, Seidel built a small refuge with pointed arch windows, the "Einsiedelei", just outside his quarry. Traditional tourism on Rochlitz Hill has lost nothing of its appeal even today. Here visitors will also find diverse hiking trails and thematic walks, climbing walls in old quarries, cultural events and will frequently chance upon impressive views of the Geopark Porphyry Land.



Geotopes – exciting places to understand geology

Cliff at the Haselberg in Naunhof, district Ammelshain

What would the National Geopark “Porphyry Land. Saxony’s Wealth of Rocks“ be without its geotopes? Just a Central European river landscape like many others.

It is the geotopes that provide an insight into the ground beneath our feet. These features of the inanimate nature include quarries, landscape forms, fossils, minerals or springs. These geotopes reveal over 500 million years of changeeful geological history of the Mulde Region between Rochlitz Hill and the Leipzig Basin. They tell the story of the birth of the landscape in the lava from supervolcanoes during the Permian to the final reshaping by the northern inland glaciers during the ice age.

There are numerous geotopes in the geopark. For example the quartzites from the Collmberg, one of the oldest hills in Saxony, recall the geological episode before the Permian volcanism. Many geotopes expose phenomena of Permian volcanism, sometimes as fresh and detailed as those from current active volcanoes. Some geotopes highlight deposits that have been used by humans for a long time (porphyry, kaolin, clay, sand and gravel, lignite amongst others) and therefore reveal the interrelationship between culture and industrial history. Geotopes are also locations where it is possible to study the resettlement of abandoned quarries by a valuable population of fauna and flora or the reuse of former rock extraction sites for climbing or diving in the Geopark Porphyry Land.

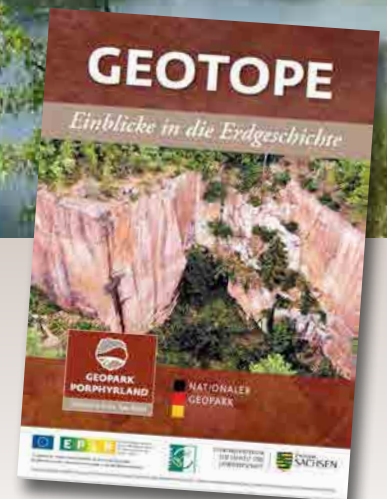
Three of the numerous geotopes in the geopark have been awarded the status „National Geotope“, a distinction only reserved for the most important geological witnesses in Germany. At the same time, geotopes document the important stages of geological development in the region left and right of the Mulde river landscape:

- the porphyry tuff of Rochlitz Hill is a record of Permian volcanism approx. 290 million years ago. This is a volcanic rock formed from the deposits of hot pyroclastic flows, a so-called ignimbrite. However the geologically inaccurate name „porphyry tuff“ is still used today, since this aesthetically pleasing rock has been used for constructions all over the world for centuries.

- The geotope Kirchbruch Beucha is also a relic of Permian volcanism. In this case however, the granite porphyry found in this quarry is a magmatic rock that solidified below the Permian Earth surface, which is why it contains beautiful mineral inclusions. This is the construction stone used to build the monument in Leipzig commemorating the 100 year jubilee of the Battle of Leipzig in 1813.

- During the ice age, beginning around 500,000 years ago, massive inland glaciers scratched the porphyries found in the geopark. Winds abraded the exposed rocks: the glacial and wind striations that had already been discovered in the first half of the 19th century in the Hohburger Hills played an important part in resolving the scientific debate about the now generally accepted ice age theory.

The 18 geologically most valuable and aesthetically impressive geotopes of the „Geopark Porphyry Land. Saxony’s Wealth of Rocks“ are presented in the brochure „Geotope – Einblicke in die Erdgeschichte“ including detailed geological information, photos and logistical /hiking advice. This makes this publication a useful “travel guide” for the individual exploration of the geology in the geopark region.



Industrial culture – exploring industrial use of stones

Factory premises, company H. Aug. Schmidt Transportanlagenbau Wurzen

What is the basis of the industrial culture and where can it be found in the geopark?

The combination of a wealth of naturally occurring hard rocks, sands, gravel, earth and water and the ingenuity of humans in finding ways to use them and create a value, was the precursor for the development of a varied industrial culture. Rhyolite and porphyry tuff dimension stones and crushed rock have been produced here for centuries. Unconsolidated rocks such as kaolin, clay, loam, gravel and sand are also found in large amounts in the geopark area.

Industrialisation and the associated intensive raw material production greatly changed the natural landscape. Before, the region was characterised by agricultural and artisan settlements and small towns. All this changed as stone and industrial mineral production gained a foothold, further attracting manufacturers of equipment and plants for extracting and transporting raw materials. Kaolin and clay are still the basis for high performance ceramics production for more applications than one would think by just looking at Meissen Porcelain. The industry is located in Mügeln, Leisnig, Colditz, Brandis and Bennewitz among others.

Efficient extraction of rocks and their weathered products also depends on the local presence of manufacturers of machines and equipment for extracting and transporting raw materials. For example, the company H. Aug. Schmidt Transportanlagenbau Wurzen has been one of the successful manufacturers since 1837. The ongoing industrialisation also caused a surge in the demand for developing a powerful infrastructure. Examples of this are the first long-distance railway connection in Germany between Leipzig and Dresden, the largest narrow gauge railway network in Europe between Oschatz and Mügeln, the Saxony mileposts that still visibly overlap at nodes for example with the railway line Leipzig–Chemnitz (1887) in Bad Lausick, and the short-lived railway line between Bad Lausick–Grossbothen (1920).

The task of the geopark today is to preserve the industrial heritage and narrate the history of stone and industrial mineral production and so acknowledge the accomplishments of craft sector, industry and business over the past 150 years. At the same time, this serves to create an appreciation of the industry today and promote the acceptance of raw material production today and in the future.

As a result it will be possible to recognize any necessary landscape interventions as part of the long-term development of the industrial cultural landscape.



Eimerkettenbagger EB 60

Hersteller: VEB Fördertechnik Wurzen
Masch. Nr.: 13018
Baujahr: 1981
Diebstg. f.icht: 30 t
Eimerinhalt: 60 l
Stundenleistung: 100 t
Einsatz: von 1981 – 1996 im Kaolinabbau
im Tagebau Gröppendorf

Bucket chain excavator EB 60, manufactured by VEB Fördertechnik Wurzen, today H. Aug. Schmidt Transportanlagenbau Wurzen



Unique and precious: "Rochlitz porphyry tuff"

Rochlitz Hill rises 353 meters above sea-level and is one of several listed National Geotopes of Germany in the Geopark Porphyry Land. Rochlitz Hill is a prominent landmark in Central Saxony and the most conspicuous boundary point between the Leipzig Basin in the north and the Erzgebirge (Ore Mountains) foreland basin in the south. The characteristic red stone of Rochlitz Hill is unique and precious.

Formation

The "Rochlitz Porphyry Tuff" only occurs on Rochlitz Hill and is considered to be the most striking rock of the geopark. Formerly known as Rochlitzer Porphyrit it has been used for centuries as dimension stone in construction and as raw material for sculptors and can be

found adorning many public buildings all over Germany. The unique "Rochlitz Porphyry tuff" was formed in massive volca-

nic events approx. 296 to 289 million years ago. The parent material was a silicate magma. The gas enriched and viscous magma erupted in gigantic explosions.

Clouds of hot rock fragments, so-called pyroclasts ("pyr" = fire; "klastos" = broken in pieces), are a characteristic feature of these eruptions. The ejected material can vary from pure ash, which consolidates to tuff to solidified deposits of pyroclastic flows known as ignimbrites. Because of the density of these hot currents of gas and pyroclasts they can flow along the ground. Depending on the temperature at the time of deposition the particles will either become welded together to result in a lava-like dense rock or form a porous mass. The rock from Rochlitz Hill is mostly a low grade welded ignimbrite. The red, reddish-violet partially greyish-yellow porous rock is often broken by irregular joints. It contains numerous inclusions such as rounded quartz and feldspar together with volcanic glass fragments and xenoliths (foreign rock inclusions) of older rocks from deep in the Earth's crust. A characteristic feature of the rock from Rochlitz Hill is the presence of yellowish bands crossing the otherwise red appearance. Radiometric dating indicates that the material was deposited around 294 million years ago, during the Lower Permian.





Rochlitz Castle with Porphyry Show

Precious rock for stonemasons and architects

The rocks from Rochlitz Hill were already used during the Bronze Age to make grinding stones for milling corn. These implements have been dated to be 3000 years old. The age of old buildings constructed with porphyry is an indicator of when the rock was first extracted in quarries. Surprisingly it was already in widespread use for important constructions in the 9th and 10th centuries. Rochlitz Porphyry Tuff has been broken in Rochlitz for churches and gravestones since the Romanesque period. The most famous building is the Benedictine Monastery Wechselburg with its grand architectural details and valuable sculptures.

The utilization and popularity of Rochlitz Porphyry Tuff increased during the Gothic period. A few examples are mentioned here: Rochlitz Castle and the impressive choir and nave of St. Cunigunde Church in Rochlitz. From early on, the rock was also used for constructing bridges: in 1333, for the bridge in Bad Dübén and 100 years later for the massive dimension stone bridge in Rochlitz over the Zwickauer Mulde.

The first stonemason guild-house was built in Rochlitz presumably in the 15th century. The Rochlitz Guild song from 1462 has been preserved to this day. The traditional association of stonemasons and quarry owners was called the "Rochlitzer Hütte" and it remained the umbrella organisation for quarrymen and stonemasons until the 19th century. The old town hall (Altes Rathaus) of Leipzig is considered to be one of the

most important buildings of this time. Two of the last commissions carried out in the name of the Rochlitzer Hütte was the massive stone bridge over the Zwickauer Mulde in Wechselburg (1844 to 1846) and the Friedrich-August-Tower on Rochlitz Hill (1859).

Castle with Porphyry Show

For some time now, the former courtroom in Rochlitz Castle from 1588 houses the "Porphyry Show". Countless exhibits and informative panels allow you to explore the formation of the Rochlitz Porphyry Tuff and the development of quarrying in Rochlitz. In addition to 18th century tools, you will see the hiking guide written by quarry owner Johann Gottlieb Schilling from the 1820s, a facsimile of the deed from King Ferdinand II from 1621 and different porphyry sculptures from the 12th /13th century and later.

Attractions:

- Exhibition in Rochlitz Castle
- fascinating summary of the history of quarrying from the 16th to 20th century
- Slide show and audioguide



Photos from left to right:

Basilica of Wechselburg Monastery, pre-1200

Pöppelmann Bridge (stone bridge) in Grimma, 1719, rebuilt 2015

Rochlitz Castle, 10th century, extended several times until 1852

St. Trinitatis-Church in Leipzig, built 2013 to 2015



The porphyry quarries on Rochlitz Hill and their owners

Extracting rocks on Rochlitz Hill around 1930

In its company vita, the quarrying and stone processing company “Vereinigte Porphyrbüche auf dem Rochlitzer Berge” currently operating on Rochlitz Hill cites a long history as “Rochlitzer Porphy-Manufaktur since 1585”.

Rochlitz have left their mark on numerous constructions for the state railway line Chemnitz-Leipzig, including the Göhren Viaduct, the stations Cossen and Rochlitz and all milestones. Increasingly the public sector discovered the rock for schools (Rochlitz), industrial architecture (Iron Works in Hof and Schwarzenstein), universities (buildings and greenhouses in the Botanical Gardens of Leipzig), mansions and town halls (Colditz, Groitzsch) as well as gravestones and monuments. Numerous church renovations and rebuilding measures at the beginning of the 20th century increased the demand for “Rochlitz Porphy Tuff”.

Competition from abroad increased as transport across Europe improved. Especially the Scandinavian stone companies entered the attractive German market. From 1907 to 1909 a dimension stone plant with modern saws was built near the goods station Breitenborn. A siding was built to link the plant to the Royal State Railway of Saxony and thus to the rapidly growing cities Leipzig, Chemnitz and Dresden, and others such as Hamburg. A rock crusher and rolling mill was opened in 1924. The crushed porphyry tuff was used for plaster, road surfaces and sports facilities.

Among the most important buildings of those years are those of the Allgemeine Ortskrankenkasse and the underground trade fair hall in Leipzig. Around 1600 cubic metres of the red dimension stone was used to build one of the largest new museum buildings, the Grassi-Museum in Leipzig. The rock also found widespread use all over the German-speaking area for decorating gravestones and monuments. The gravestone of Immanuel Kant in Königsberg was made from “Rochlitz Porphyry Tuff” in 1923. The rocks from Rochlitz Hill can also be found adorning many important bridges. An example worth noting here is the famous Poppelmann Bridge over the Mulde in Grimma, which shines in new splendour after being rebuilt following the flood of 2002.



Geological excursion in the Seidelbruch on Rochlitz Hill

The company refers to the quarry operated by the first stonemason of the Haberkorn family since that date. The quarry owners of that time, whose names are closely linked to the quarries on Rochlitz Hill, joined together to form a new economic umbrella organisation in 1897 – by their own account the third limited company in Saxony (GmbH). The founding members were the stonemasons and quarry owners Emil and Oswald Haberkorn, Clemens and Otto Seidel and Emil Schilling from Wechselburg. Since then, the stonemasons of



and using modern technology today



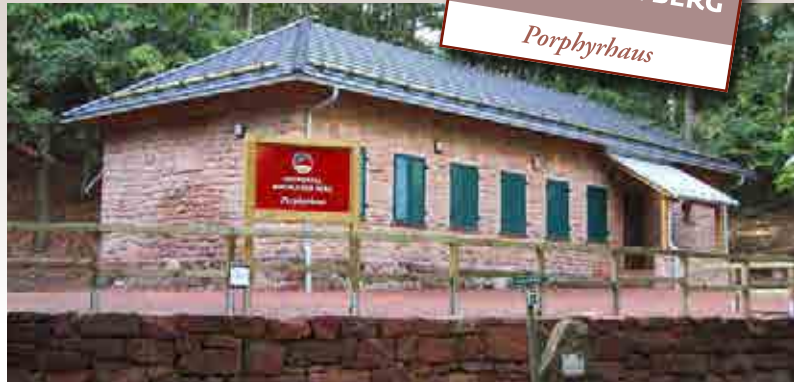
After the end of WW2 in 1945 the family Haberkorn retained ownership of the quarries until they were nationalized in 1972. In 1990, the operation was returned to Ruth Haberkorn. Then in 1991 the company Kalenborn KG from Essen took over production. One of the biggest commissions was providing the cladding for the new Catholic church for the community of St. Trinitatis Church in Leipzig.

“Porphyry House” – the Geoportal on Rochlitz Hill

The Geoportal in the former stonemason’s social club building on Rochlitz Hill is available for tourists as well as scientists, professionals and schools. The building provides room for seminars and workshops and is a venue for series of talks. The GeoRangers of the Geopark Porphyry Land and the local history and tourist association “Rochlitz Muldental” use the Geoportal as a starting point for academic and out-of-school programs for example activity programs with a stonemason, excursions on the Porphyry Trail or guided tours to Wechselburg, Fischheim or Seelitz.

www.rochlitz-muldental.de

→ Contact, see page 53



Porphyry House on Rochlitz Hill

Performance about the Stone – Sound, Lights and Magic in the Quarry

Every year the Performance about the Stone astonishes visitors in a quarry on Rochlitz Hill with a new idea and enchanting artistic installations. The night-time performance is a traditional part of the Central Saxony Cultural Summer.

www.miskus.de

→ Contact, see page 54

Performance about the Stone





Granite porphyry for the biggest monument in Europe

National geotope "Kirchbruch Beucha" and Hill Church (Bergkirche) in a picturesque setting

Thick layers of magma and tuff were deposited in the Northwest Saxon Volcanite Complex. Liquid rock material intruded into the existing rocks to form dikes.

The Beucha granite porphyry is a magma body that solidified around 1 kilometre below the ground surface (sub-volcanite) during the Permian (Rotliegend). The characteristic appearance of the rock is due to crystalline inclusions. The rock is a mixture of quartz, orthoclase, plagioclase, pyroxene, chlorite, biotite and ore minerals.

The company Gunther & Fiedler was the first to recognize the special qualities of the Beucha granite porphyry for the natural stone market in 1884. The enterprising managers invited two Bavarian stonemasons to Beucha, who were tasked with testing the utility of the rock for their craft. The blocks proved to be more than just suitable for processing in stonemason's workshops and for sawing and polishing. The innate properties such as hardness, high pressure resistance, resistance to freezing and thawing, water impermeability and the ability to take a polish opened up new prospects for utilization in construction and architecture. On

top of this, there was the abundance of granite porphyry in the locality. The rock body is crossed by widely spaced horizontal and vertical joints, which facilitated the extraction of large blocks of 10 cubic meters and more.

In the wake of these results, new stonemasons were recruited in Beucha and a training program was started. In the heyday of Historicism and Art Nouveau, the city of Leipzig developed a huge demand for building materials. The steps and foundation cladding of the grand private houses in the Waldstrassen Quarter are made of Beucha granite porphyry. This stone was also used in the construction of Leipzig Central Station, the German Library (today German National Library), the former Supreme Court of the German Reich (today Federal Administrative Court) and for the restoration of the Old Town Hall.

In 1894 the municipal council of Leipzig decided to build a Monument to the Battle of the Nations. All visible parts of the monument are constructed with Beucha granite porphyry. The 300,000 ton structure was built with 26,500 stones that were extracted in the quarry "Sorge" and the quarry Kirchbruch in Beucha. 1560 stonemasons and 450 workers were recruited to extract this huge volume of stones in the quarries, transport them to the processing site near the "Sorge", dress the stones according to the plans and patterns and sharpen the necessary tools. The lucrative assignment required professionals – and the stonemasons came from Bavaria, the Fichtel Mountains and Italy to Beucha. Johan Halser and Max Singer who dressed stones for the monument as young trainees recollect: "All of us that worked together to build this famous monument were clearly proud of what we were doing, after all this task involved mastering all difficulties associated with the stonemason's craft".



Concrete column at the Kirchbruch Beucha, lined with dimension stones cut from Saxon rocks



Monument to the Battle of the Nations in Leipzig

The 1st World War nearly put an end to the stone industry in Beucha. Only a fraction of the former workforce remained in employment, initially producing road surfacing. However demand for processed dimension stones from Beucha for build-

stone industry in Beucha received a large assignment to produce 10,000 square metres of slabs, each 4 cm thick, for the concourse of Leipzig Central Station. The modernized stone production plant was closed in 1996.



Loading station with stonemason's huts, Beucha around 1900

ding bridges and buildings increased again in the 1930s. WW2 quickly halted this development.

In October 1945, the three large natural stone companies in Beucha were disowned and disassembled by the Soviet military administration. The companies were then taken over by the VEB Granitwerke Beucha. The technical equipment remained in a desolate state until the 1960s. However the reputation and skill of the experienced technicians and stonemasons ensured the realisation of more assignments: the Monument of Meeting in Torgau, parts of the Buchenwald Memorial and bridges for the canals in Amsterdam. Demand increased in the 1960s with the new housing program. Over 15,000 square meters of granite porphyry slabs were used just in the centre of Leipzig, for example for the Gewandhaus. Just before German Reunification the

Beucha – Village of Stones

Around 3000 people live in the village Beucha that quite rightly calls itself "Village of Stones". The appearance of the village is characterised by quarries. The hill church of Beucha is reflected in the quarry lake of the former Kirchbruch quarry in the village centre. Kirchberg hill was already revered by the Slavs as a cult site. However in the mid 19th century the hill and the church were destined to be obliterated in order to extract stones. The tower and sacristy date from the Middle Ages. When the church

was to be sacrificed to meet the great demand for stones, the then priest successfully lodged an appeal. The church and cemetery were left standing on the remains of Kirchberg hill as the quarry gnawed away the sides. Today the hill church and Kirchbruch (quarry with lake) are the landmark of the village and a popular photo motif. The climb up to the church begins at the arch of the water tower. On a fine day, it is possible to see the Monument to the Battle of the Nations and look into the quarry "Sorge", which is the only one of the five quarries

*Beucha – Dorf der Steine,
Sax-Verlag, 2012*





Beucha granite porphyry

Monument celebrating rock extraction operations in Beucha



in Beucha still in use today. This is where the stones for the restoration of the Monument to the Battle of the Nations and the reflecting pool were produced. The quarries "Spittelbruch" and "Hausbruch" are located in the district Kleinsteenberg. These abandoned quarries once belonged to the family Preiser. The abandoned quarry "Tollertbruch" is located just outside the village on the road to Brandis. A quarry tub from the quarry, several blocks of granite porphyry and an information panel are a reminder of the stone producing activities in this quarry.

The inhabitants of Beucha have always been keen to preserve the history of their "village of stones". From the Kirchbruch along the August-Bebel-Strasse stands the Monument for the Quarryman, erected in 1984 to commemorate 100 years of stonemason tradition in Beucha. The community provided the site at the Kirchbruch. The then factory manager Rainer Habel remembers how it was a conscious decision not to include figurative depictions, to ensure that the focus lies on work of the stonemason and not the sculptor. The stone column on a rustic pedestal was designed by the sculptor Hans Forster from Leipzig. Just a few steps away on the parking lot stand the remains of the former hoist for lifting the broken rocks from the Kirchbruch: two five meter high reinforced concrete columns that could not be blasted. In 1988 the idea was born to use the concrete columns to present the dimension stones produced in the former GDR. The graphic designer Gerd Nawrot and the geologists from the company "Elbnaturstein Dresden" were the consultants for the implementation. The surroundings were designed by the local community. Here one can still compare and admire granite, syenite, quartz porphyry, diabase and syenite granite from different parts of Eastern Germany.

Wandelkonzert – musical walk around the Kirchbruch Beucha

Since 2019, the sound artist Erwin Stache from Beucha and the Association Kulturhaus Beucha present a unique cultural event in the Leipzig Region at the Kirchbruch Beucha: from the beautiful location of the hill church (Bergkirche), visitors are invited to take a musical-scenic walk around the former quarry that was certified as a National Geotope of Germany in the Summer of 2019. Choirs, musicians and sound artists from Beucha and



surroundings have contributed to the listening and viewing stations along the trail. Unusual sounds are created from extraordinary sound bodies such as a self-playing cuckoo clock organ. The transformation of the Kirchbruch Beucha into a musical landscape takes place annually in Summer.

www.kulturhaus-beucha.org und www.estache.de
→ Contact, see page 54



Rock crushing plant at the quarry Grossteinberg for producing crushed rock and grit



Basalt-Actien-Gesellschaft

The company Basalt AG is the largest producer of broken natural stone and asphalt in Germany. After careful examination of the reserve and extent of the deposit, rock quality, the technical manufacturing facilities and connection to the road and rail network, the Basalt AG decided to develop the quarries in Lüptitz and Grossteinberg for the future and to operate these economically and at full capacity.

In addition to Grossteinberg and Lüptitz the backup quarries in Trebsen, Hohnstadt and Dornreichenbach are operated when demand arises using mobile processing technology and kept in standby for future use. In this context the reserve deposit Röcknitz-Frauenberg is especially important for Lüptitz since the site will play a significant role in determining the future of rock production between Wurzen and Eilenburg and continue to grow in importance. The quarries along the Mulde fulfil an important supply function for building materials for the region around Leipzig, Saxony and beyond. The efficient railway connection transports the products to Berlin-Brandenburg, Mecklenburg, Hamburg or Schleswig-Holstein.

Quartz porphyry is used in a wide range of applications such as track ballast for the Deutsche Bahn AG, as asphalt and concrete aggregate for civil engineering and road construction, river bank reinforcements, fill material, special products for the base material and ceramics industry among many others and will remain an indispensable raw material in the construction sector in future. . www.basalt.de

Trade Association Mineral Building Materials (Unternehmerverband mineralische Baustoffe – UVMB)

Foundation of our daily lives: mineral building materials

Each one of us uses 1 kilogram rocks per hour, either as building material for houses, roads and bridges or as fine stone dust in toothpaste. The necessary raw materials are found in our neighbourhood: in quarries, sand or gravel pits in our region.

The extracted rock is a natural product that stands at the beginning of a long value added chain in the mineral processing industry. The extraction operations have been a characteristic part of our region for centuries. However, we are rarely aware of this fact in our everyday lives. The member companies of the Trade Association Mineral Building Materials (UVMB) have joined efforts to inform the public by publishing brochures for example, on the Rock of the Year, creating information panels about fauna and flora diversity or producing play and learning materials for children focussing on sustainable raw material utilization. Open days, school projects and guided tours of the production sites are invaluable tools to increase public awareness for geology and the production of these local treasures.

The UVMB welcomes the special commitment of the Geopark Porphyry Land. Saxony's Wealth of Rocks, to preserve the regional geological heritage and transferring the valuable knowledge about this treasure on to future generations clearly and with enthusiasm. It is truly dear to the heart for the association to support this voluntary work and to develop new projects together with the geopark and local companies. Find out more on www.uvmb.de

→ Contacts, see page 54



The history of the quarries in the region Wurzen/Grimma

The construction of the first long-distance railway line between Leipzig and Dresden (from 1835 to 1839) was the starting point for systematic rock extraction in the region. Growing industrialisation called for a rapid expansion of the transport network. This in turn meant that there was a growing demand for stones.

In the mid 1830s, brothers Carl and Gustav Hartort initiated the organised extraction of quartz porphyry. As a result of the very high pressure resistance and other material properties, quartz porphyry is especially suitable for producing hard core and road metal as well as paving stones.

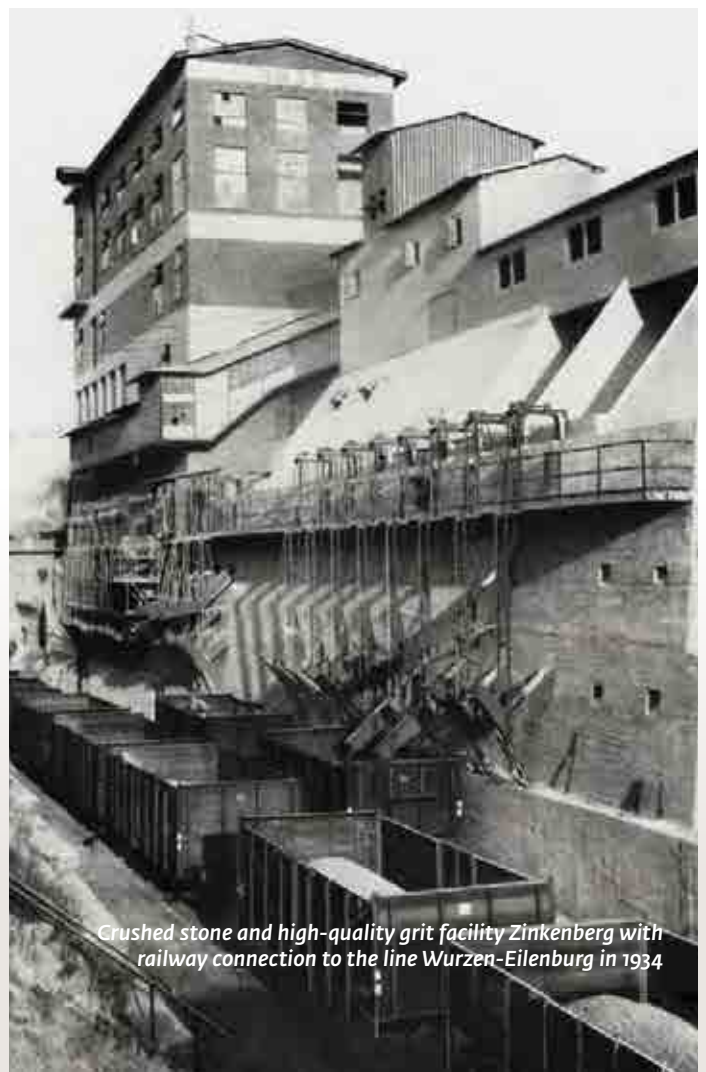
Several production sites were opened in the hills along the Mulde. In 1862, Friedrich Zachmann founded a quarry company in Lüptitz. In addition to this, several quarries were opened in the area around Grimma and Brandis.

Rock extraction was hard manual work until the end of the 19th century. The stones were loaded by hand. Wood wheelbarrows were used to transport the broken stones. Horse carts took the stones to the buyer or the next railway station. The quarry owner only provided stone carriers and wheelbarrows. All workers had to provide their own tools.

Industrial rock extraction began around 1890. The working conditions in the quarries improved with the introduction of tippers on tracks. The connection to the railway network was the prerequisite for extending and the survival of the quarries. This is why the companies operated steam locomotives on their own connecting railway lines or ropeway conveyors to the loading stations along the railway lines. Chamberlain Adolf Freiherr von Schönberg,

who was responsible for rock extraction operations at the Zinckenberg and Gaudlitzberg quarries, built a private railway connection to Doberenschütz in 1896. This line was used to transport paving stones to Berlin, Potsdam as well as to North Germany.

In 1899 the individual quarry companies around Röcknitz joined forces to form an economically powerful company, the "Hohburger Quarz-Porphyr-Werke Aktiengesellschaft Röcknitz". Soon extraction and processing were modernized, stone crushers were



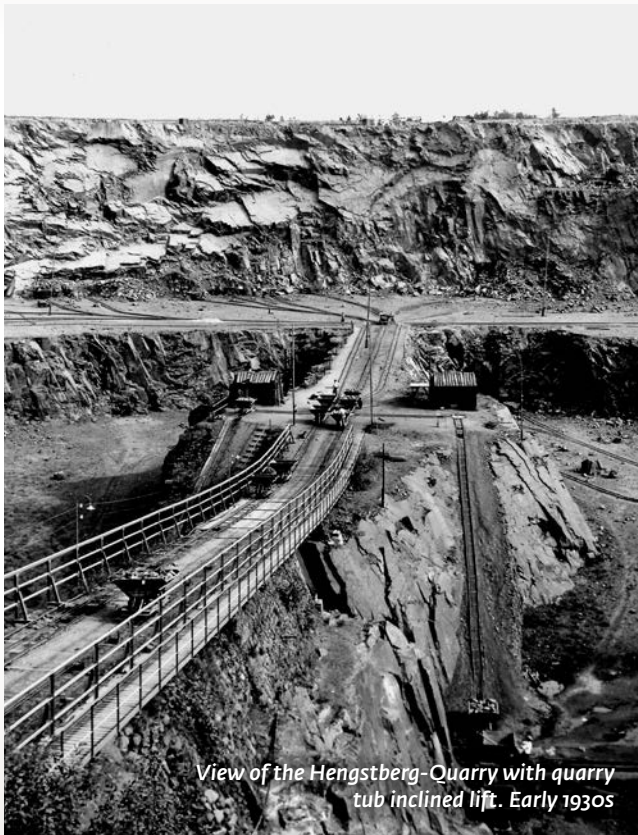
Crushed stone and high-quality grit facility Zinckenberg with railway connection to the line Wurzen-Eilenburg in 1934



Stone cutter's huts at the Hengstberg Quarry near Hohnstädt, early 1930s

introduced to break up the quartz porphyry, compressor plants were installed to provide pressurized air and the quarries were hooked up to the power grid.

The first experiments with "artificial roads" with an asphalt surface began in 1925. In the wake of this development, a new rock crusher was installed in the Zinkenberg quarry near Röcknitz. As the de-



View of the Hengstberg-Quarry with quarry tub inclined lift. Early 1930s

mand for grit increased, a new fine grit plant was put into commission in 1934. A number of asphalt batch mixers were added later. In the mid-1920s, a new railway line was built between Wurzen and Eilenburg via Böhlitz. However developments were

hindered with the outbreak of WW2. Production was stopped at all quarries after the end of the War.

Many quarry companies were disowned in 1946 and became assets of the people. The quarries north of Wurzen were combined to form the Quarz-Porphyrwerke Lüptitz und Collmen-Böhlitz. Something similar also happened to the quarries around Grimma. Production in the quarries started again with very few workers.

Shovel excavators and lorries greatly facilitated transport in the 1950s. The complete mechanisation of the quarries effectively put an end to the hard physical labour. In 1963, all quarries in Röcknitz, Böhlitz and Lüptitz and later in Hohnstädt, Trebsen and Grossteinberg were combined to form a nationally owned enterprise – the VEB Splittwerk Röcknitz-Hohnstädt. The following years saw the replacement of old means of transport with new and bigger technology: lorries capable of loading 10 tons were superseded by 27 ton dump trucks. More powerful excavators were employed. A new rock crusher and grit plant was installed in Trebsen. However, by the mid 1980s the quarries also felt the intensifying crisis in the state-directed economy. Increasingly the plants were operated until they were worn out.

The large state combines were dissolved and privatised in the wake of the social changes of 1989/90. The Sächsische Quarzporphyr-Werke (SQW) GmbH Röcknitz was founded under the auspices of the trust company. The Philipp Holzmann AG and a medium-sized company bought the shares of the SQW GmbH. Following the takeover, the owners invested primarily in new loading and transport technology. The old operation Lüptitz made way for a new plant for manufacturing crushed rocks and grit in 1994. Following the insolvency of the company Holzmann AG in 2002 the SQW GmbH was sold to the Basalt-Actien-Gesellschaft.



Geoportal Röcknitz Mansion

Volcano playground "Fred Porphyrstein" at Röcknitz Mansion

The exhibition "Zeit – Wandel – Stein. Erlebte Geologie einer Landschaft" ("Time – Change - Stone. Experiencing Geology in a Landscape") in the Geoportal Röcknitz invites visitors to explore past eras full of massive volcanic eruptions, marine floods and ice ages. The exhibition explains how porphyry, kaolin and lignite were formed and which enormous geological forces sculpted today's landscape. The highlight of the exhibition is the informative

visual journey through 300 million years of Earth history describing the changing intense of our region from a volcanic landscape in the Permian to the landscape erosion during the Upper Cretaceous, the salt marshes and flooding by the "Ur-North Sea" during the Tertiary, the glaciers of the ice age up to the human influence on our landscape.



Next to the mansion lies a park with a GeoDiscovery Garden boasting attractions such as an ice age stone labyrinth, an iceberg, a barefoot trail and Tertiary forest, which picks up the topics of the permanent exhibition in Röcknitz Mansion. Since the opening of the tour-

ist rest area "Fred Porphyrstein" Röcknitz with the volcano playground in 2017, the Geoportal Röcknitz Mansion has attracted many young guests. Children can enjoy a view of the whole GeoDiscovery Garden from the top of the central "volcano". While they can climb in any of seven playground areas, slide down the lava slides, try out the crawl and slide tunnels or use the swings, the parents, hikers and cyclists can enjoy the discovery garden. Parents can even leave time management up to their children: a look at the stone sundial displays the time in a child-oriented manner.



www.gemeinde-thallwitz.de
→ Contact, see page 5





Geoportal Museum Steinarbeiterhaus Hohburg

Exhibition room with tools and traditional flag from 1890

The Geoportal Museum Steinarbeiterhaus is housed in a half-timbered house with a barn and garden built in 1802, which provided shelter and food for one stoneworker family. The half-timbered house has been preserved in its original state and offers a look into the life of the stoneworkers and a presentation of the history of the north-west Saxon stone industry. The kitchen, living room and bedroom appear as if the family has just left the house. Household items, gardening tools and equipment for working in the field and barn are ready to be used. Some of the rooms contain a presentation of the work methods at the beginning of the industrial excavation of stones as well as the technological progress and work method development in the quarries.

The open-air exhibition at the museum presents machines and equipment for the stone industry as well as a replica machine building for a portable steam engine built in 1907, a petrol station from the 1930s and a mobile rock crusher. Some of the machines are in working

order. A new Primus-Garage was inau-

gurated in 2011. A stonecutters hut where cobblestones were hewn by hand and the breaking hammers used by women to crush stones and the quarry tubs and rails are a reminder of the hard life of stoneworkers in the early days of production.

Temporary special exhibitions are organised twice a year focussing on photography as well as the local visual arts and presentations of the key collections from the museum. Guided tours are available in the museum and also along the mining trail and to industrial monuments in the region around Wurzen. Folk and Dixieland concerts take place on a regular basis in the garden of the stoneworkers house. The cultural highlight of the year is the Country concert on Whitsun.

The museum is not barrier-free. There is plenty of parking space available close-by.

www.steinarbeiterhaus.de

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Museum entrance (left), portable steam engine from 1907, for driving the rock crushing plants (right)





GeoDiscovery Workshop in the Knight's Estate Trebsen

Gemstone polishing in the GeoDiscovery Workshop



The Raw Materials Competency Center Trebsen is an integral part of the "GeoDiscovery Workshop" and offers a wide range of information about regional mineral raw material resources, production and uses. The creative use of natural materials such as gravel, sand, earth and volcanic rocks to produce art as well as interdisciplinary educational offers on topics such as cultural and environmental education help to illustrate the processing steps from resource to building material and the development of the Saxon construction and industrial culture. The GeoDiscovery Workshop is organised by the sponsoring association Rittergut Trebsen e. V. and offers interesting programs focussing on topics such as volcanism, ice age, valuable stones, raw materials and building materials.

The former estate farm building provides 40 project workplaces, for experience-driven learning and cultural educational offers aimed at introducing geological topics to children, youths and adults. Besides teaching geological theory, the workshop programs include the creative use of natural materials for art and deal with topics such as raw material utilization, environment and conservation.

One of the key topics is volcanism in north-west Saxony approx. 290 million years ago. The GeoDiscovery Workshop collaborates with experts from the University of Leipzig (Department of Geosciences) and mineral building material producers to develop new projects. Projects over several days are also feasible since the estate also houses a hostel.

Topics such as construction or creative design with clay or soap stone, creating mosaics from natural stones, working like a stonemason, the discovery of the Mulde as a raw material supply, investigating the world of minerals as well as rock identification and the rock cycle can be booked by schools, kindergartens, holiday groups and other interested groups.

The GeoDiscovery Workshop offers a comprehensive research collection of Saxon natural rocks and mineral raw materials. The permanent exhibition in the Knight's Estate Trebsen "Edle Steine in Sachsen – Schätze im Porphyry" ("Gems in Saxony – Treasures of the Porphyry") presents a unique collection of gems from Saxony ranging from agate to amethyst. The exhibition "Porphyry, Tuff & Co." ("Porphyry, Tuff and more") is a display of approx. 50 types of volcanic rock from the "Geopark Porphyry Land". The Knight's Estate Trebsen offers gem polishing days on a regular basis, where it is possible to polish your own gems. In addition to this the offers in the Knight's Estate Trebsen is complemented by the following interest groups:

- IG Edle Steine – a platform for exchanging experiences and obtaining professional consultations in relation to the regional occurrences of mineral resources.
- IG Keramik – a meeting of youths and adults interested in forming, building and designing with clay.
- IG Experimentelle Archäologie – practical work centred around the history of metallurgy in Saxony.

www.rittergut-trebsen.de

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Discovering the Wealth of Stones on foot

Benedictine monastery Wechselburg on the Forest Discovery Trail, starting on Rochlitz Hill

GeoRoutes and thematic walks take the visitor to interesting geological, natural and industrial sites in the Geopark Porphyry Land. The trails are self-guided but it is also possible to book a certified GeoRanger at the Geopark to accompany a group. All tours are published on www.outdooractive.com including maps and a description of all discovery stations.

Hohburg Hills Mining Route

The marked 7.1 kilometre long circular route starts at the Geoportal Museum Steinarbeiterhaus in Hohburg and passes three abandoned quarries. Information panels explore the long history of the quarries. Hikers can enjoy a wonderful view of the village and the nature surrounding Hohburg from the ski slope. The 4.1 kilometre long GeoRoute Kleiner Berg to the wind and glacier striations also begins at the Stoneworker Museum.

7-Quarries Trail in Brandis

Beginning at the Kirchbruch Beucha and the imposing Hill Church, this 13.2 kilometre long circular route touches six more quarries between Brandis and Beucha, where Beucha granite porphyry was extracted for many decades for example for the Monument to the Battle of the Nations in Leipzig among others. Today hikers can watch climbers scaling the rock faces in the Ost- and Westbruch on the Kohlenberg.

Hiking around the Wachtelberg

The 3.8 kilometre long circular route in the nature reserve "Wachtelberg-Mühlbachtal" in Dehnitz, a district of Wurzen, combines distinctive geological, botanical and landscape features all within a small area. The highlights along the trail are the Wachtelberg with Bismarck Tower and the former pyroxene granite porphyry quarry, and, in Spring the flowers of the pasque flower.

Trail of Stones Grimma

Numerous artists have left their signature and created delightful accents along the 8 kilometre long walk along

the Mulde between Grimma and Förstgen. The 28 stone stations, such as stone signposts, stone chairs and feel stones as well as sculptures make reference to the geological and geographical features of the Mulde landscape.

Porphyry Nature Trail on Rochlitz Hill

In addition to the wonderful view over the surrounding landscape, Rochlitz Hill also possesses a unique geological phenomenon: the Rochlitz porphyry tuff. Interesting facts about this volcanic rock are explained on 15 stations along the 2.7 kilometre trail. The highlight of this walk is the view from the Friedrich-August-Tower.

Several GeoRoutes start on Rochlitz Hill

- Forest Discovery Trail Wechselburg (9.5 km, circular route between Rochlitz Hill, Wechselburg and Mulde)
- Adventure Trail Seelitz (13 km long trail through the Mulde landscape from Rochlitz via Beedeln, Seelitz and back to Rochlitz)

The choice of GeoRoutes is continually growing. All GeoRoutes are described on the geopark website. One of the overriding aims of the Geopark Porphyry Land is to signpost the SuperVolcano Cycle Route, which will connect Geoportals, the GeoDiscovery Workshop, interesting geotopes and the attractive Mulde landscape in the geopark.

On the GeoRoute Rochlitz-Fischheim-Seelitz





White Gold

Kaolin Pit Schleben/Crellenhain near Mügeln

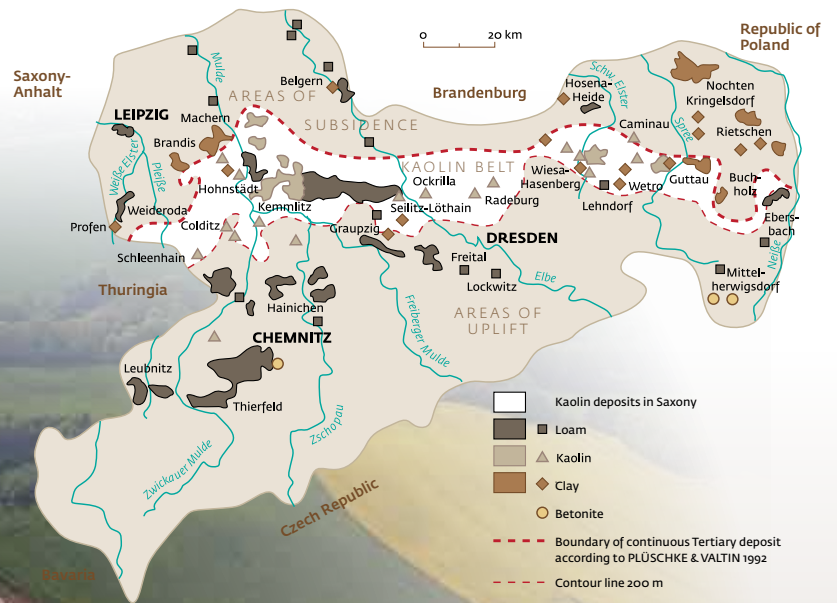
The subtropical climate during the Upper Cretaceous and into the Lower Tertiary facilitated deep weathering of all surface rocks. Kaolin is a product of this process. The parent rocks of the kaolin deposits in the region Kemmlitz-Mügeln are the Rochlitz quartz porphyry and Kemmlitz porphyry.

In addition to differences in the depth of kaolin formation by weathering, erosion plays an important role in the occurrence of deposits. These are seen as relics of a formerly extensive, over 100 meter thick kaolin blanket. The individual deposits consist of basins holding up to 30 m thick kaolin accumulations. These basins are separated from each other by areas with thin kaolin deposits or porphyry ridges.

The colour and structure of the kaolin derived from the Rochlitz quartz porphyry is highly inconsistent. Depending on the degree of weathering the mineral composition and structure of the kaolin from the

Kemmlitz porphyry varies considerably: the clay content within the basins is lowest where the accumulation is thickest and increases towards the sides. The deepest weathering zone is a poorly weathered substratum of porphyry. This transitions upwards into a layer where feldspar has been incompletely altered into clay. This is followed by the kaolin itself.

Kaolin is mostly covered by ice age sediments, however isolated deposits are capped by Tertiary sediments. Typically the profile begins with the Holocene soil layer with an average thickness of 0.4 meters. Then follows a layer of loam, 1 – 5 meters thick, either deposited in floodplains or at the base of hill slopes. This overlies the main deposit that consists of weathered loess





from the Weichselian Glaciation (1–12 m thick). Boulder clays or marls and lake sediments (silt and banded clays) are only found as relics. The kaolin surface is often covered by a layer of gravel. These are usually the remains of Pleistocene melt water channels.

The Kemmlitz Kaolin Works

The history of the KEMMLITZER KAOLINWERKE (Kemmlitz Kaolin Works) goes back 135 years. As a result of the special qualities of the kaolin the Kemmlitzer Kaolinwerke has been a steady supplier for the ceramics industry for a long time. Thus, different types of kaolin from Kemmlitz can be found in various sanitary ceramics products, wall and floor tiles, in technical ceramics and in fine, white porcelain tableware.



Kaolin is produced using the bucket-wheel excavator SRs 130 in the Kaolin Pit Schleben/ Crellenhain.

The kaolin deposits near Kemmlitz were already discovered in the 18th century. Industrial production began in 1883 in subsurface mines with four different operations between Kemmlitz, Börtewitz and Querbitzsch. The first open-cast pit was opened in 1928 to meet the growing demand for kaolin by the industry. The operations were nationalized in 1951 and merged to form the nationally owned company (VEB) Vereinigte Kemmlitzer Kaolinwerke (United Kemmlitz Kaolin Works), which existed as part of a larger combine until the political transition. After reunification the VEB was initially transferred to a privatisation agency. Following a number of changes in ownership, the Kemmlitzer Kaolinwerke have been a branch establishment of the Caminauer Kaolinwerk since 1999. Today the company mainly produces kaolin for the national and international ceramics industry. The clients value the kaolin for its ability to bake to a white colour and the wide application for different types of porcelain and other fine ceramics products. The product range and key markets have been extended considerably in the past few years. The company uses state-of-the-art technology to produce kaolin. Today the Kemmlitzer Kaolinwerke operate the pits Schleben/Crellenhain and Glückauf.

The production plants, open-cast pits and tailings dumps are all located on the premises of the Kaolin works. Once mining activities have been completed the areas are reclaimed and can be used for agriculture and forestry. In addition to this, lakes surrounded by pioneering forests have developed in the former pits. These are now valuable biotopes for threatened animal and plant species.

www.schleben-crellenhain.de

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The narrow gauge railway network of Mügeln and kaolin transport

Narrow gauge railway station with Geoportal in the former station building

Döllnitzbahn – through the Döllnitz Valley on narrow tracks

Since 1884, the narrow gauge train travels through the Döllnitz valley in the middle of the Saxon Heathland following the river to the former largest narrow gauge station in Germany in Mügeln. The steam train is fondly called "Wilde Robert". According to the story it was named in honour of a train operator who had a wild driving style. In the beginning the train mostly transported sugar beet and other agricultural products. Later, from 1889 onwards, the narrow gauge railway was also used as a means of transporting locally mined kaolin.

Over the decades the line was extended to a total length of 91.7 kilometres. In the early days of kaolin transport the clients used the excellent inland harbour in Strehla by the Elbe river. This enabled agricultural products and the valuable kaolin to be shipped all over the world. The volume of transported goods to Döbeln increased in Autumn, when the harvested sugar beets had to be brought to the factories in Oschatz and Döbeln within a few weeks.

By the mid to the end of the 20th century the network became increasingly

obsolete and traffic was slowly reduced until only the connection between Oschatz and Kemmlitz remained for transporting kaolin. Today the Döllnitzbahn is used for school and tourist traffic and attracts many visitors to Mügeln every year.

Much has changed over the past decades in the



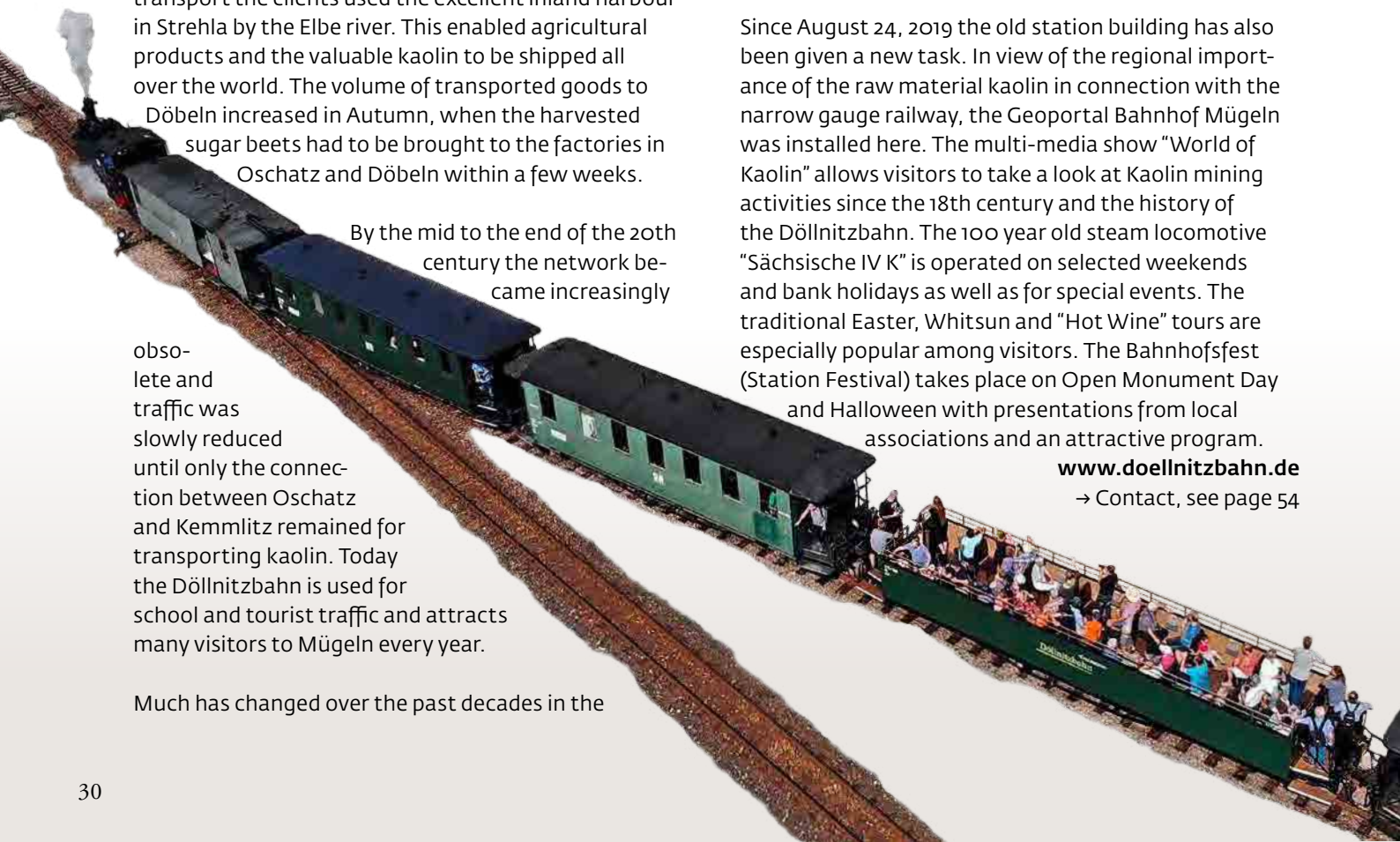
Opening of the line Nebitzschen - Kropfowitz on August 3, 1903

once largest narrow gauge railway station in Germany. Tracks were renewed, buildings restored and the outside area beautified. Several valuable trains have been restored thanks to the friends association "Wilder Robert" and the company Döllnitzbahn GmbH.

Since August 24, 2019 the old station building has also been given a new task. In view of the regional importance of the raw material kaolin in connection with the narrow gauge railway, the Geoportal Bahnhof Mügeln was installed here. The multi-media show "World of Kaolin" allows visitors to take a look at Kaolin mining activities since the 18th century and the history of the Döllnitzbahn. The 100 year old steam locomotive "Sächsische IV K" is operated on selected weekends and bank holidays as well as for special events. The traditional Easter, Whitsun and "Hot Wine" tours are especially popular among visitors. The Bahnhofsfest (Station Festival) takes place on Open Monument Day and Halloween with presentations from local associations and an attractive program.

www.doellnitzbahn.de

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Glossen – living testimony of historic loading and transport technology

Historic loading ramp at Glossen station

The large volume of agricultural and industrial products transported on the narrow gauge railway network around Mügeln after the inauguration in 1884 soon made this the economically most successful narrow gauge railway of the Royal Saxon State Railway. The railway network continued to expand and reached peak size during the heyday of the railway before the outbreak of WW1. The operation of the railway was governed by the needs of the cargo traffic. Cargo had to be loaded and transloaded from carts or works railways onto the narrow gauge railway and unloaded and transferred from narrow to standard gauge waggons in the goods stations or at the loading harbour on the Elbe river. These operations required specialised technical equipment. The conservation of the numerous surviving relics of this engineering achievement and industrial development of the region Mügeln–Wermisdorf–Oschatz is in the hands of the heritage associations as well as the communities and is supported by public funding and by the Geopark Porphyry Land.

Historic loading ramp in Glossen

The loading ramp for kaolin at Glossen station went into operation in 1899 after the railway section Mügeln – Neichen was opened. The raw material was transported by horse and cart from the nearby pits was loaded into tubs. At the ramp the kaolin was tipped into the waiting train wagons. In 1903 the kaolin pit owners were provided with an own siding directly connected to the narrow gauge network, which significantly improved the efficiency of transporting raw kaolin and kaolin sludge. The railway company was responsible for bringing and picking up the railway wagons to and from the works connection. To transport the kaolin they used standard gauge transport wagons, which were rolled onto narrow gauge transporter trailers (rollbocks) using special ramps at the loading station. When the quartzite quarry in Glossen was opened in 1925 the loading ramp was also used to transload the broken rocks from the works train. Since the closure of the narrow gau-

ge section Mügeln–Neichen in 1972 and the dismantling of the tracks at Glossen station the loading ramp is no longer in use. It took until 2006 when the State Garden Show was held in Oschatz, for the vision of the friend's association "Wilder Robert" for rebuilding the narrow gauge section to Glossen was realized. Since then the newly founded Döllnitzbahn runs steam and diesel engine trips through the beautiful landscape of the Döllnitz Valley much to the pleasure of the passengers.

Changing from the narrow gauge railway to the Feldbahn

Today the former loading station Glossen is an attraction for train enthusiasts, since it is here where three track gauges come together in one place: the 600 mm-Quarzite-Feldebahn (industrial railway) and the 750 mm narrow gauge railway meet here and the standard 1435 mm gauge rolling stock is also presented. On the days of operation the Döllnitzbahn and the Association for Presenting the Feldebahn Glossen, passengers at Glossen station can change from the narrow gauge railway to the Feldebahn and travel to the quartzite quarry, which was closed in 1990. Thanks to the commitment of the association, this important relic of historic stone production has been preserved in the Geopark Porphyry Land, including working machines such as stone crushers and bucket-chain excavators in an authentic setting. The association has installed an interesting quarry and feldebahn museum in the former social building of the quarry.

www.feldebahn-glossen.de

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Tour with the narrow gauge railway in Glossen



Geoportal Mügeln Railway Station and China Clay Experience

Looking into the China Clay Experience



Of smoking volcanoes and locomotives

Only 60 kilometres from Leipzig, Dresden and Chemnitz lies the small town of Mügeln in the middle of the picturesque Döllnitz Valley. First officially recorded in 984 the history of the town and the surrounding fruit-growing region is closely linked to the geology: approx. 290 million year-old volcanic rocks from the supervolcano, Kaolin formation, the shaping of the landscape and formation of valuable soils during the ice age are features that are unique to the Mügeln region.

The Geoportal Mügeln Railway Station opened in 2019 presenting the permanent exhibition "China Clay Experience". The station is information and visitor centre for the raw materials region "Land of White Earth" in the Geopark Porphyry Land. The exhibition in the former, completely converted station building covers an area of about 400 square metres on two levels and focusses on kaolin formation, extraction and transport per narrow gauge railway.

Photos and interactive video installations tell stories about kaolin mining, display cabinets present original mining equipment and artefacts made of kaolin. Wearing a VR headset visitors can enjoy a 360 degree panoramic view of a kaolin pit. Information panels and terminals are provided to quench the visitor's thirst for knowledge. Interactive games make these topics more enjoyable for children. The upper storey is dedicated to the development of the narrow gauge railway. The Geoportal also offers children's tours from age 5 upward, programs to supplement school lessons with explorer games, treasure hunts and a video about rocks, volcanoes and mining and tours to the active kaolin pit or to explore the industrial heritage of Mügeln. Visitors can also rent city-bikes or e-bikes here. There are still many relics of the industrial developments waiting to be discovered in and around Mügeln. These and the Feldbahn Glossen or the Railway Embankment Walk are preserved by associations as identity promoting traditions.



Terminal station with information about the narrow gauge railway network

Three discovery tours start at the China Clay Experience:

- on foot on the 5.9 km long circular route "Weg zum Kaolin" ("Kaolin Tour") to the active kaolin pit Schleben/Crellenhain
- on foot on the Luther Walk towards Grimma or Leisnig
- cycling on the Obstland-Radroute ("Orchard Land Cycle Route") through the Saxon Orchard Land
- cycling on the Döllnitztal-Radroute ("Döllnitz Valley Cycle Route") to Wernsdorf or Oschatz

www.stadt-muegeln.de

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Clays for Ceramics in the Künstlerhaus Schaddelmühle

Clays for Ceramics in the Künstlerhaus Schaddelmühle

The small village Schaddel is idyllically situated on the slopes of the Mulde Valley not far from the Mulde ferry in Höfgen. Coming from Nimbschen, cyclists and hikers can use the combined section of the Mulde Cycle Route and the Luther Walk and arrive at the Schaddelmühle in 5 to 20 minutes. Along the path, they will not only pass through the mixed forest along the Mulde but also through the installations "Aufsitzer" with quotes by Luther. This work of art was inspired by the nun Katharina von Bora from Nimbschen. The QR-Codes along the path provide visitors with in-depth information about the installations.

Volcanic rock is exposed along the cuttings for the narrow gauge railway. A ceramic bench with a banner invites the visitor to take a rest and enjoy the view of the outdoor gallery of the Künstlerhaus Schaddelmühle on the Mulde floodplain. The Geoport "Clays for Ceramics" is located next to this old water mill from the 16th century and is run by the cultural association Schaddelmühle, who also organise annual workshops for artists focussing on working with regional clays and ceramic materials.

The topics include creating decorative ceramic art for buildings as well as sculptures and vessels. Youth-oriented projects allow participants to observe work procedures and learn about clay preparation and formation.



All artwork is created in the studio of the Schaddelmühle using raw materials from regional clay and kaolin deposits. A clay preparation facility is also available, where participants can process the regional materials into pottery clay and special clays for sculptures and reliefs.

Outdoor gallery & exhibition

The outdoor gallery on the Mulde floodplain is a first in Saxony. Here visitors can admire over 45 sculptures and installations in a natural setting. The former transformer tower houses a small exhibition about the geopark and ceramics and porcelain production in in Grimma, Colditz and surroundings. The examples of products can only give a small idea of the wealth of ceramic products made from the regional raw materials.



The two large-scale fragments of a monumental ceramic wall relief from the 1970s, produced by the artists group Schaddelmühle, are an impressive example of the product diversity.

www.schaddelmuehle.org
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Designing with clay - creative art courses in an inspiring landscape

The Faïence and Stoneware Manufactory Hubertusburg

The Seven-Years-War ended in Saxony in 1763. The conflicting parties signed the Treaty of Hubertusburg, finally putting an end to this first global war in Europe and beyond. The Wermsdorf hunting and residence castle was partly destroyed and ransacked during this war in 1761. The Electorate of Saxony was in a catastrophic state at the end of the war. Castle Hubertusburg was deserted. In order to prevent the castle falling into complete disrepair, the Elector in Dresden ordered provisional repairs of the building and that it should be put to use again.

During this time, in 1768, the painter and experienced potter from the Meissen Manufactory called Tännich (Tönnig?), turned to the electoral court and requested support to further develop a product similar to faïence from Delft. He had already gained a wealth of experience, first as a painter then as factory manager, in Strasbourg, Frankenthal, Witt/ East Friesland, Jever and Kiel. Tännich had heard that the conditions in Wermsdorf were excellent due to the "...proximity of firewood and the clay deposits in the Fasanenholz...". On May 31, 1770, Elector Friedrich August III granted him permission to open a factory in the buildings of the "Deutscher Jägerhof" ("German Hunting Estate") of Castle Hubertusburg and allowed Tännich to transport his products on the post roads, which were normally reserved for electoral business only. Production was limited because the Porcelain Manufactory Meissen had a great influence on the local factory, only permitting a single firing and repeatedly imposing restrictions on production.

After the Seven-Years-War it became very difficult for the Porcelain Manufactory to sell its expensive products in poverty stricken Saxony. People preferred to buy imported faïence. Thus the Meissen Manufactory was initially quite happy to see the demand for cheap products met by the factory in Hubertusburg that was under their control and in their own country. Somewhat later, Meissen allowed the factory to add a second firing step. This allowed the production of a much finer product that was similar to porcelain, as illustrated by the plate from 1775 with overglaze painting. Initially the products were manufactured and stored in Hubertusburg and sold at St. Michael's Market in Leipzig in 1771. The Hubertusburg stoves were very popular.



Faïence plate from 1775 made by the Hubertusburg Manufaktur, Museum Deutscher Fayencen, Schloss Höchstädt a. d. Donau

The privy council and Chief Equerry, Count von Lindenau seems to have been the first to fund Tännich and his enterprise. When in 1770 Tännich was close to failing, Lindenau encouraged him to continue with his experiments and at the same time looked for a new manager – and found him in Johann Gottfried Förster. Lindenau was now inspector and proposed the possibility of improving firing procedures to the head of state in 1776.

The Elector took a liking to this suggestion and took over the Manufactory on

Stoneware tureen from around 1800 with the fake "Wedgwood" stamp, Museum Mutzschen



The Tännichs Residence (left) and the drying house of the stoneware factory have been preserved to this day.

March 9, 1776. The Elector immediately authorised the conversion of additional buildings on the castle premises for the factory. The directorate was taken over by lord chamberlain Count von Marcolini, who had joined the Saxon court as a nobleman in 1752 and had become one of the closest confidants of the Elector. At the same time, Marcolini was also general director of the Porcelain Manufactory Meissen from 1774 to 1814.

Thus a new period began for the Hubertusburg factory in 1776. In 1720, the English potter Astbury invented stoneware, which was later improved by his fellow countryman Wedgwood in 1750. The density and hardness of



Overview of the castle complex Hubertusburg. 1st half of the 19th century. Left the smoking stack of the stoneware factory

English stoneware came quite close to that of porcelain and quickly replaced the coarse Delft Faience. Only very few faience factories survived this development, mostly by producing tiles or converting to stoneware production. In 1776, the Hubertusburg factory opted for the latter. At this time, Wedgwood was producing a line of pottery called "Queen Ware" among others. From then on, this line was copied in colour and form in Hubertusburg. Even the stamp "Wedgwood" was copied and used to deceive customers. Förster understood how to make the stoneware factory economically successful. Around 1800, the factory employed up to 100 workers. The products from Hubertusburg increasingly displaced English stoneware as well as tableware from Rudolstadt and Gera from the market.

The operation had to be enlarged in 1799. The continental blockade against England during the Napoleonic Rule presumably also had a positive effect on product sales from Hubertusburg, since they were selling "rare" English stoneware here and abroad (even though they were forgeries!). Some workers even achieved some modest wealth and settled in the village of Wermisdorf. As the demand for raw materials increased, a suitable deposit was found in 1780 just a few kilometres away

in Pommlitz. As of 1814, more pits were opened near Neusornzig (1816), Mahlis (1817), Mutzschen (1819), Glosen (1824) and in Kemmlitz (1826). The Hubertusburger Manufaktur was the key driver of kaolin extraction in the current Kemmlitz Kaolin District to the present day.

When the continental blockade was lifted in 1815, sales dropped significantly. Marcolini died in 1814 and Förster was an elderly and ill man by then. During the German Campaign the allies put Saxony under the rule of the Imperial Russian General Government, who transferred factory administration to the Porcelain Manufactory Meissen. When Elector Friedrich August was reinstated as King of Saxony, all products were stamped with "K. S. St. F. H." - Königl. Sächs. Steingutfabrik Hubertusburg from January 1, 1817 onwards. The King decided to continue stoneware production on his own account and used all his power to stop decreasing sales. A commission was organised to offer suggestions on how to remove the deficiencies. New raw materials were used to improve glazing and hardness. The shapers were instructed to improve the quality and a new modeller was recruited. The master painter Keting from Meissen created special designs for Hubertusburg and also served as artistic consultant. The factory tried

decorating with chalcography and lithography and later modestly attempted enamel painting. In 1822, the honorary commissioner Kühn from Meissen became director of the factory. He introduced white glazing. Until 1834, Kühn tried everything to re-establish stoneware from Hubertusburg on the market.

However, it was too late - the economic demise of the factory in Wermisdorf was irreversible. The main reasons for this were probably the lifting of the continental blockade (real English stoneware returned to the European market) and the newly established factories in Colditz, Rochlitz, Dresden, Pirna and Steyermühle near Nossen. England and the Thuringian factories re-conquered the market with cheap products. The Hubertusburg workshops finally closed their doors in 1848.



Hubertusburg stoneware - plate with vine leaf decoration

Ice Age discovery world in the Geopark Porphyry Land

A glacier is a plane and a file, bulldozer and a means of transport all at the same time. If one also takes into account the ability of the meltwaters to act like a hydraulic mining monitor and dredger, then a glacier can be understood as a universal natural tool for shaping landscapes.

The Mulde Valley between Rochlitz and Eilenburg is characterised by ice-age sediments: river deposits (sand, gravel), glacial deposits (boulder clay, silt, varve clay) as well as wind and mass flow deposits (weathered loess, colluvium). They reflect the geological processes taking place during the ice-age, which was characterised by alternating glacials and interglacials. During the glacial period, the areas not covered by ice were barren with little or no protecting soil cover. Intensive weathering in extremely cold conditions produced a vast amount of unconsolidated material. The rivers were hardly capable of transporting away the mass of debris and fine sediment mobilised by freeze-thawing action on the porphyry slopes. This resulted in the accumulation of thick gravel and sand beds. During the warm interglacials, the rivers cut into these terraces. Multiple terrace levels were formed when this process was repeated. A large number of

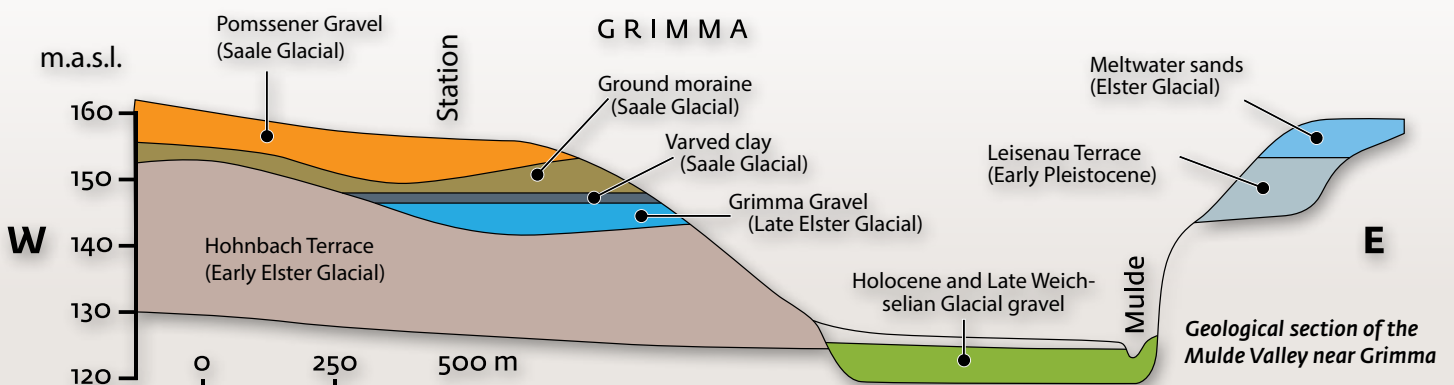


Ice age boulder field at the Kleiner Berg in Hohburg

these glacial multiple terraces, formed during the past 500,000 years (Early Pleistocene to Holocene), can be found along the valley slopes of the Mulde.

Traces of the grinding and filing activities of the inland glaciers during the Saale glacial around 150,000 years ago can be observed all over the landscape of the Geopark Porphyry Land. For example, many porphyry hills have been reshaped to roches moutonnées. In addition to this, there are the conspicuous surface marks such as glacial striations and crescent-shaped gouges caused by the abrading action of a moving glacier. The discovery of such abrasion marks in the Hohburg Hills and later at other sites in the geopark were the starting point for the formulation of the ice age theory, which postulated that Northern Europe was once covered by glaciers originating from the large Fenno-Scandian Ice Sheet.

However, there are many more ice-age features to be found in the landscape of the geopark, especially





Students at the glacier striations on the Kleiner Berg in Hohburg



Naumann-Heim-Rock on the Kleiner Berg



Rock surface with wind striations on the Naumann-Heim-Rock

associated with the Mulde. Today the river flows to the north via Grimma. However, around 180,000 years ago, it flowed through the alluvial plain in front of the proceeding glacier turning north-west near Grossbottchen toward Leipzig. Numerous gravel pits near Pommerschen, Naunhof and Kleinpösna and Leipzig-Thekla, are relics of the once 15 meter thick and up to 10 kilometre wide gravel and sand deposits of the alluvial plain. Today these sand and gravel pits are still in operation and are also popular swimming lakes. When the ice melted around 130,000 years ago, the course of the Mulde changed and developed into the present-day catchment area. Since then the Mulde flows through Wurzen, Püchau and Eilenburg. Various terraces and fault scarps located along the sides of the Mulde Valley today (e.g. between Wurzen and Eilenburg), are an indication of more recent river deposits. Erosion and deposition of gravels and sands during the Weichselian Glaciation filled the Valley with up to 10 meter thick river deposits (fill terrace). Since the beginning of the 20th century these beds are a potable water source for the city of Leipzig. The Mulde with its extensive gravel and sand deposits is a perfect example of ice age river dynamics and the resulting raw material reserves.

During the interglacials the rivers produced cut banks and point bars which developed into meanders. Heavy rainfall events and snow melt caused the rivers to flood and deposit fine material onto the flood plain. The current flood plains were formed during the most recent interglacial (Holocene). These are important reservoirs for holding back water in flood events. In the past 200 years, humans have strongly interfered with the

dynamics of the flood plains by diverting and straightening river channels and confining the river between embankments. The remains of the original network of river beds, abandoned meanders and secondary channels reveal the original state of the river landscape.

Trail to the wind and glacial striations over the Kleiner Berg in Hohburg

This 4.1 kilometres long route passes over the Kleiner Berg where there is an opportunity to see the wind and glacial striations, one of the National Geotopes of Germany. The circular route starts and ends at the Geoportalmuseum Steinarbeiterhaus. It passes the abandoned kaolin pits on the way to the glacial striations on top of the Kleiner Berg. As long ago as 1844, these were used as evidence for the Theory of European Glaciation, that was finally accepted in 1875 after a long period of heated discussions among geologists: important geologists such as Adolf Morlot, Carl Friedrich Naumann and Charles Lyell were here to investigate the abrasion marks. Continuing along the trail, the hiker passes talus slopes, relics of ice-age mass wasting, and the very rare wind striations on the Naumann-Heim-Rock. The careful observer will also discover the remains of a Slavic fortification on the hill top. The Kleiner Berg is a nature reserve and is habitat to rare plants and animals including the edible dormouse. This walk can be booked as a guided tour at the Geoportalmuseum Steinarbeiterhaus.



Drinking water production in the geopark

The Water Works Canitz operates the organic farm Wassergut Canitz to protect the groundwater



For more than 100 years, the drinking water production facilities of the Leipzig Municipal Waterworks have been located in the middle of the Geopark Porphyry Land. The four large water works Naunhof 1 and 2 as well as Canitz and Thallwitz extract and treat groundwater from the depths of the ancient Mulde valley and produce around three-quarters of the water required to supply the city of Leipzig.

Organic farming

Since 1992 the Leipzig Municipal Waterworks operate an organic farm in the inner zone of the source protection zone and other areas that lie within the recharge area. The Wassergut Canitz GmbH (organic farming company) is a subsidiary of the Leipzig Municipal Waterworks and successfully harvests organic products without the use of chemical-synthetic fertilizers and pesticides. This measure has resulted in a long-term reduction of nitrate concentrations to 25 milligrams per litre, which is significantly lower than the maximum contaminant level of 50 milligrams per litre specified in the Potable Water Act.

Park Canitz – An oasis just outside the city gates

Park Canitz lies in the highly developed, varied cultural landscape along the river Mulde in a European Bird Protection Area. Offering a wide variety of attractions for young and old, the park makes an important contribution towards increasing the awareness of the correlation between human use of nature and groundwater protection.



Project offers – Discovering nature and history in Park Canitz

- Diving into the world of water
- Stone Age project
- Discovery walk through history with action stations
- Meadow detectives
- Experience nature with all senses

www.park-canitz.de

→ Contact, see page 53



Making fire in the stone age: experimental archaeology programs in Park Canitz

Valuable groundwater

Groundwater is an important resource for the drinking water supply. This why the Leipzig Municipal Waterworks control land use within the source protection zone. The introduction of water protecting forms of agriculture and forest development are two important strategies, designed to prevent groundwater contamination and help reduce the cost of treatment in the waterworks.

www.L.de/wasserwerke

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Bad Lausick – traditional spa town since 1820

Spa and recreational swimming pool RIFF

Bad Lausick is the only traditional spa town in the Geopark Porphyry Land. The town is located at the edge of Colditz Forest and is more than 900 years old. St. Kilian Church is the landmark of the town and is one of the best preserved Romanesque churches in Saxony. The church was built in 1105 and is decorated with porphyry tuff from Rochlitz Hill.

Bad Lausick lies 173 meters above sea level and is characterised by a mild and beneficial climate. A spa water source was discovered in a coal mine in 1820. The water from the wells in Bad Lausick is classified as an iron- vitriol water. Geologically, it was formed by water percolating through iron-sulphate containing lignite and alum containing clay beds.

At the end of the 19th century, the town built an English style spa park (Kurpark), which triggered the growth of the neighbouring spa district with villas and hotels. In the meantime Bad Lausick has developed into one of the most important spa and rehabilitation centres in Saxony. Two special clinics with several departments for cardiological, orthopaedic, neurological, geriatric and psychosomatic rehabilitation provide patients and spa guests the best conditions for convalescence and recovery.

Water fun in the RIFF

The spa and adventure pool RIFF has something special to offer for all water and sauna-loving recreation-seekers. In addition to diving towers and water slides, visitors can actively relax in natural brine and outdoor pools, indoor and outdoor bubble loungers, whirlpool and Kneipp walking pool. The sauna garden with swimming pool sets a wonderful ambience for experiencing the black house and geothermal saunas. The spa pool also offers the new remedy from Bad Lausick in various bathing pools and for drinking cures in the entrance lob-

by: thermal water that is extracted at a depth of 1,300 meters.

www.freizeitbad-riff.de

Exclusive RIFF-RESORT

The RIFF-RESORT is a classified 3-star holiday flat complex, providing ideal accommodation for those holidaymakers and wellness guests who want to spend several days here. Visitors can choose from a range of holiday flats and suites for families of up to five or classic double rooms. The resort is directly linked to the spa and adventure pool RIFF via a "bathing robe" entrance. This is an excellent base for a relaxing and easy break.

www.riff-resort.de



The core from the deep drilling project at the Spa and Town Museum (Kur- und Stadtmuseum)

The offers

Bad Lausick offers a wide range of package deals for health, wellness, fitness and relaxation. These are listed in the town catalogue available at the Spa and Tourist Information Bad Lausick. The regular Fast-ing and Hiking courses are especially popular.

www.bad-lausick.de

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Castles and palaces in the Geopark Porphyry Land

Castle Mildenstein in Leisnig

The hilly landscape of Middle Saxony with its river valleys, fertile soils and forests has been settled by humans since the Neolithic. The cultures and people changed over the millennia. In the 10th century East Frankish rulers conquered the Slavic tribes east of the Saale and Elbe rivers. Castles and monasteries were the military, economic and administrative centres for their settlement and religious policies. Forests were cleared, villages and towns built. The citizens were farmers, craftsmen and traders. When they constructed buildings, they used local natural raw materials and so continuously changed the landscape. Our cultural landscape is the result of these developments over the centuries to the present day. Today it is also possible to discover many interesting facts about how the “volcanic treasures” were utilized in the numerous castles and palaces in the land of Mulde and Zschopau. The architecture and furnishings of royal residences, churches and monasteries in the Geopark Porphyry Land have a profound effect on regional style and landscape. As a result, the region has acquired a unique character best portrayed by the following examples.

Castle Mildenstein in Leisnig crowns a rocky spur made of Leisnig Porphyry that overlooks the river Freiburger Mulde. The formation is one of the most interesting geotopes of the Geopark Porphyry Land. The so-called “Rote Wand” (“Red Wall”) exposes a 295 million year old lava flow. The castle was probably built in the 10th century and is an impressive witness of the time when it belonged to the royal estate of the Holy Roman Emperor Frederick I “Barbarossa” (Emperor Red Beard) in the 12th century.

“Vorhangbogen” windows on the transept of Rochlitz Castle

Later it was the second residence of the Wettin dynasty. Regional building materials played a central role in the construction of the representative buildings. The arched portal to the Mildenstein Chapel was constructed in 1170 and is decorated with three alternating colours of dimension stones: red Rochlitz, yellowish Rüdigsdorf and greyish-violet Hilbersdorf porphyry tuff. This play of colours is the reason why this small Romanesque portal is an architectural treasure. The Leisnig Keep, the fortified castle tower, is one of the earliest brick buildings in Central Germany. The lower section of the tower is built of dark, greyish-blue Tertiary quartzite (sandstone with silica cement) dimension stones. The brick wall is set on top of this foundation – a novelty at that time. Originally the tower was taller than today, yet it still towers over all other castle buildings. This and the bright red colour of the wall is an impressive sign of imperial power.

Rochlitz Castle was built in the Late Gothic architectural style on the site of an early Burgward from the 10th century. The complex with the two conspicuous towers is sited on a rock plateau beside the river Zwickauer Mulde. The castle was secondary residence, widow’s home and hunting palace for the Wettin dynasty. A closer look at one of the towers, the so-called Finstere Jupe, reveals that local rocks were used to build the castle. The tower’s massive walls were built with spotted slate,



View of Rochlitz Castle



which was broken on the nearby quarries in the Mulde Valley. This rock encloses a 550 million year old sequence of rocks called the Granulite Mountains. The outstanding details on facades and inside the castle were created using volcanic Rochlitz porphyry tuff which has been extracted from the neighbouring hill for centuries. These design highlights are considered to be a special Saxon form of Late Gothic architecture. This was the first commission for architect Arnold von Westfalen to work for the Counts Ernst and Albrecht von Wettin in the 1470s. He designed the windows for the Castle Chapel choir and the transept, creating a new groundbreaking form: delicate tracery that ends at the top in the shape of gathered curtains. These Vorhangbogenfenster ("curtain arch windows") and other innovations first successfully tested in Rochlitz were later extensively incorporated into the architecture of Albrechts Castle in Meissen.

The highly visible mighty complex of **Colditz Castle** stands on top of a porphyry spur next to the Zwickauer Mulde. The building is characterised by the 16th and 17th century conversions with decorated Renaissance gables that are made of Rochlitz porphyry tuff just like the older portals and windows. Colditz Castle was an electoral hunting and widow's residence. One special attraction here is the remains of a cultural landscape "en miniature". Around 1600, the electoral couple Christian I and Sophie von Brandenburg commissioned the building of pleasure gardens around the castle. To this end the neighbouring animal sanctuary was extended to create a hunting and pleasure ground including a pleasure house, numerous fish ponds and gate houses. The hill next to the castle was terraced for wine growing. The whole area was surrounded by a high wall to protect the animals but also to show that this was a special judicial district. In addition to the utilization of the forest resource the Saxon court was also interested in extracting another raw material here: "white earth of Colditz". Not far from the castle is the old pit in which clay was extracted for the production of Euro-

pean hard-paste porcelain, which was first successfully manufactured in 1708. Later, the clay resources of Colditz ensured that the town developed into an important location for the ceramics industry.

The development of **the cultural landscape around Wermsdorf** and the **castles of Wermsdorf** is closely linked to the royal hunt: The Forest of Wermsdorf was one of the traditional hunting grounds of the Saxon rulers, the Wettin dynasty. The main trees growing in the mixed deciduous forests back then were beech, oak, birch, spruce and alder in the riparian zones. This is the natural climax forest community since the ice age. Initially a hunting lodge was built in the village at the end of the 16th century. At the beginning of the 17th century a hunting mansion, the Alte Jagdschloss was built opposite the lodge. However this Renaissance house with gardens soon did not meet the needs of Elector Friedrich August II. When he married the imperial daughter Maria Josepha of the Hapsburg dynasty, his father, King August "the strong" commissioned the construction of the Hunting Palace Hubertusburg on a hill from 1721 onwards – a gigantic baroque building in the French style. Taking into account the conversions overlooked by senior master builder Johann Christoph Knöffel from 1743 onwards this complex is considered to be one of the largest and architecturally important palaces in Europe.

The royal family were not only served exquisite meat but also farm-raised fish, especially trout and carp. The oldest ponds around Wermsdorf are already about 500 years old and have been farmed since then. Today, the forest and pond landscape of Wermsdorf is a popular hiking and tourist destination. Just one more example of the high recreational value of the cultural landscape Geopark Porphyry Land.



Colditz Castle



Castle Hubertusburg in Wermsdorf



Geopark and Pleasure: hunting ...

The geological history of our Earth not only resulted in the wealth of rock types found in the geopark, it also created the basis for the present day cultural area and a diversified food production. Fishing, farming, hunting and fruit production provide the main ingredients for our tasty regional cuisine.

Hunting grounds and the enjoyment of game

The Geopark Porphyry Land contains several large forests where hunting is part of the land management program realised by the State of Saxony or private leaseholders. Several imposing hunting palaces and lodges are indicative of the electoral and royal hunts. The largest of these in Saxony is the internationally renowned royal hunting residence Castle Hubertusburg in Wermsdorf. In some forests one can still see that throughout history hunting was a determining factor in land management and usage. Thus, every year tourists can watch a drag hunt in Wermsdorf. This event clearly shows that the straight alleys and perpendicular transverses in Wermsdorf Forest were originally created for coursing. The animal sanctuary in Colditz shows how animals were reared for the hunt.

This is probably the oldest preserved compound of this type in Germany. The largest processor of local game is Rauchhaupt GmbH in Bennewitz, district. The company purchases roe deer, stag, wild boar and mouflon directly from the forest office or from hunters in Saxony, Saxony-Anhalt, Thuringia and Brandenburg.

Hunting Lodge Kössern

Wolf Dietrich von Erdmannsdorff (1648 - 1723) was chief master hunter and minister of elders in the cabinet of the Saxon elector Friedrich August I and later King of Poland, also known as "August the Strong". As "hereditary and liege lord and Chief Justiciar", von Erdmannsdorff resided in and managed the Kössernsche Rittergut (Knight's estate in Kössern). The high-point of his construction activities was the hunting lodge and the opposing Cavaliers house designed by Matthäus Daniel Pöppelmann. The assembly provided a suitable setting for the festivities he was obliged to organise as the chief master hunter for the royal hunting companies. The hunts were lavishly celebrated. The painted facade and the richly decorated festival hall of the hunting lodge still radiate the original splendour. Today the association "Das Jagdhaus Dorfentwicklungs- und Kulturverein Kössern/Förstgen e. V." closely cooperates with the owner, the town Grimma, to maintain the house and



Hunting lodge Kössern and festival room of the house



... and fishing

organise events. The annual concert series with more than 20 concerts regularly attracts more than 1,500 visitors from all over Germany to Kössern. The lodge also offers programs for children for example concerts with and for schoolchildren. In addition to this, the local choir "Chorvereinigung Thümlitzwald" rehearses and performs here. The lodge is meeting place for the senior citizens of the region and a venue for tourist activities in and around Kössern, the village of master builders.

www.jagdhaus-koessern.de

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Carp from the geopark

After Bavaria, Saxony is the largest carp producer in Germany. There are 8,400 hectares of carp ponds in Saxony. Around 90% of the average annual fish production in Saxony, which stands at around 3000 to 3500 tons, comes from carp pond management. Quite a large proportion of the Saxon fish production is located in the Geopark Porphyry Land. The largest supplier is

the company Wermsdorfer Fisch GmbH, which manages 800 ponds and runs a farm shop in Wermsdorf. Fish ponds and in some cases extensive fish farms were always an integral part of the numerous castles, monasteries, mansions and knight's estates in the region.

www.wermsdorfer-fisch.de

Horstseefischen – biggest fishing event in Germany

Fish have been farmed in Wermsdorf since 500 years. In a tradition that began in 1969, the fish in the 70 hectare Horstsee are harvested once a year on the second October weekend. The event has since developed into a tourist magnet, attracting visitors from near and far. The highpoint is the professional running commentary of the carp netting.

www.teichwirtschaft-wermsdorf.de

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Biggest Fishing Festival in Germany: the Horstseefischen

Geopark and Pleasure: fruit-growing

One of the oldest fruit-growing regions

Large orchards with millions of pome and stone fruit trees, kilometre-long avenues lined with fruit trees, century-old monasteries – all tell the story of fruit-growing in this region. Located between The Leipzig Basin, Mulde Valley and the hilly landscape of the Lommatzscher Pflege is an area that has developed into one of the oldest fruit-growing regions in Germany. Fruit production benefits from the climatic and geological conditions in the Geopark Porphyry Land: mild climate, balanced precipitation and fertile loess soils.

The nuns and monks of the proselytizing Cistercian Order planted fruit trees and bushes in their monastery gardens in the mid 12th century. Later it was the Saxon Electoral courts that encouraged fruit-growing on a large-scale. In the 16th century, by decree of Elector August (father) kilometres of fruit trees were planted along the Saxon state roads. The reason for creating these fruit tree lined avenues was to mark the edge of the road when these are covered in snow in winter. Another benefit was that large amounts of fruit could be harvested in summer. Furthermore, August the

Strong is said to have ordered that every couple should plant at least two fruit trees on their wedding day. Later rulers increased this to six trees. The first fruit producing company in Sorzig started at the end of the 19th century. The first civic Fruit-Grower's Association was formed in Leisnig. They introduced the so-called "Multi-level orchards" ("Etagen-

obstbau"). This was the first attempt at intensifying fruit production by growing several species growing to different heights on the same area. In 1973, the government of the former GDR declared fruit production in the area between Mutzschen, Mügeln and Leisnig of vital importance: to "secure the supply for the citizens of the city and district of Leipzig". A cold storage facility was built in Dürrweitzschen near Grimma capable of storing 18,000 tons. In 1976, all fruit producers of the region were united in the Agricultural Production Cooperative (LPG) "Obstproduktion Dürrweitzschen".

Discovering "Obstland" (Fruit Land)

Since 2003, the friends' association "Obstland" offers enjoyable Obstland tours and round trips by bus and charabanc. Rustic orchard pic-nicks, fresh fruit, juice and fruit wine tastings, or guided tours of the monasteries and small towns in Obstland can be booked at the association.

www.foerderverein-obstland.de

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Obstland-Route

The most impressive way to experience the magic of the orchards between Dürrweitzschen, Mügeln and Leisnig is on foot or by bicycle. Narrow roads with very little traffic wind their way through the hilly landscape. The 67 kilometre long Obstland-Bicycle Route is divided into three sections each focussing on a different topic. Thus the route is ideally suited for leisurely rides as well as fitness-oriented geopark hiking and cycling tourists.

- **Section I** – Obstland today: circular route 30.3 km Leipzig via Dürrweitzschen and Börtewitz with the fossil site "Versteinerter See" (Petrified Lake)
- **Section II** – History of fruit production:



Apple varieties for sale in a farm shop in Leisnig





Flowering apple trees in an orchard near Wurzen

circular route 20.4 km Börtewitz via Glossen and the historic works railway in Glossen Quarry, the town Mügeln with the Kaolin Discovery World in the Geoportal and Sornzig Monastery

- **Section III** – Spirituality and fruit: circular route 30.9 km Strocken via Klosterbuch, the former Cistercian monastery St. Marien, the town Leisnig with Castle Mildenstein and the world's largest cuffed boot

www.outdooractive.com

Sachsenobst farm shops in the "Obstland"

The sections of the Obstland-Route pass the Sachsenobst farm shops in Ablass, Dürreweitzschen, Leisnig and Sornzig. Look, taste and enjoy is the motto for the tour. However, even for those not hiking or cycling, the Sachsenobst farm shops are a great stop for healthy diet tips or purchasing culinary souvenirs from the geopark. For more information about direct traders at the orchards, fruit processing in the company-owned juice and wine-making facility, or about the presentation on regional farmers market, visit www.sachsenobst.de/marktplatz.

Flowering Spring awakening

Every year in Spring, Leisnig, Sornzig and Dürreweitzschen are bathed in a near endless sea of flowers. This is the time for the popular flower festivals. Festivities take place on three weekends between the end of April and mid-May in Leisnig, Sornzig (district of Mügeln) and Dürreweitzschen (district of Grimma). The "Saxon Flower Queen" is crowned every two years on these occasions and the win-



ners of the "Flower Festival Showjumping and Dressage Event" are determined.

Obstland Dürreweitzschen AG

The Obstland Dürreweitzschen AG is probably the largest fruit producer under uniform management in Germany, with an annual harvest of up to 45,000 tons produced on around 1,500 hectares. The company grew out of the Agricultural Production Cooperative "Obstproduktion Dürreweitzschen" in 1991 and has successfully transferred traditional regional fruit production into the market economy after reunification. The company produces and markets strawberries, redcurrants, gooseberries, raspberries, sweet and sour cherries, plums and hazelnuts but mainly apples and pears under the brand "Sachsenobst". Part of the local harvest is processed in the company-owned juice and wine-making facility Kelterei Sachsenobst in Neugreussnig near Döbeln and sold in Central Germany and beyond.

www.sachsenobst.de

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Activities in the geopark

Rock climbers will find routes for all levels of difficulty in the Geopark Porphyry Land

Water tours

Craggy cliffs and wide riparian zones, rough waters and quietly meandering rivers, iris, pond-lilies and kingfishers – touring on water in the Geopark Porphyry Land is an exciting nature experience. The valleys of the Mulde rivers are Bird Protection Zones, the banks are also a breeding area for threatened bird species. Touring the Mulde requires strength: canoes, kayaks or rubber dinghies are the right choice wherever the water is not rough. However, navigating the wild Zschopaufluss requires at least a robust canoe or even better a white-water kayak.

Everyman and school regatta on the Mulde

Every year in June, the water sports association “Alb-in Köbis” in Grimma hosts a school regatta for cutters at the suspension bridge. The association also organises a parallel event, the Everyman Regatta. Teams comprising eight rowers and one cox must complete two laps of the 600 meter long regatta course between suspension bridge and Rabenstein.

www.seesportverein-grimma.de

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Cycling in the geopark

Two cycle routes connect the Geopark Porphyry Land with the city of Leipzig: The Parthe-Mulde Cycle Route winds its way through the lovely Parthe riparian zone via Borsdorf and Naunhof to Grimma. The Leipzig-Elbe-Cycle Route heads to Wurzen via Brandis. Both routes meet the Mulde Cycle Route. The excellent Muldentalbahn Cycle Route connects the towns Wurzen and Grimma on the embankment of the old Mulde Valley Railway Line.

Travelling on the Mulde Cycle Route

Cyclists following the Mulde Cycle Route from Zwickau, can look forward to 158 kilometres along the rivers Zwickauer and Vereinigten Mulde. Those starting in Nossen follow the Freiburger Mulde for

140 kilometres. Both sections pass the most attractive places in the Geopark Porphyry Land and reveal the beauty of the landscape. The Mulde Cycle Route connects to several other long-distance cycle routes.

www.mulderadweg.de

On foot through the Porphyry Land

The Geopark Porphyry Land offers plenty of routes for day or long-distance hikes. The area can be traversed on foot from the Gänze von Rochlitz to Thallwitz on the Mulde Valley Hiking Trail.

Via Porphyria

You do not have to travel to Spain to go on a pilgrimage. The Via Porphyria is a 200 kilometre-long circular route through the landscape of the Mulde and Chemnitz Valleys, the Kohrener Land and the area south of Leipzig. This is a great way to get to know the history of the region, its unique culture, spiritual roots and traditions. The pilgrim's path was created by the association “Kirche im Land des Roten Porphyrs e.V.”. The route connects sacral buildings, places of worship and stillness as well as historical, technological and tourist attractions in the region.

www.via-porphyria.de



The Mulde Cycle Route also leads to Colditz Castle



Bergfilmfestival (Mountain film festival) in the quarry at the Gaudlitzberg in Thallwitz



Steeped in history: Nimbschen Monastery

Exciting: Everyman regatta on the Mulde

Saxon Luther Walk

A section of the Saxon Luther Walk also passes through the Geopark Porphyry Land. This spiritual circular route connects towns and sites associated with Martin Luther and his companions. Katharina von Bora, who became his wife, lived in Nimbschen Monastery for twelve years until she escaped in 1523. The St. Marienthron Monastery was founded 1241 in Sorntzig by Cistercian nuns and dissolved during the Reformation. In Rochlitz, the Luther Walk commemorates Elisabeth von Rochlitz, who introduced the Reformation in the towns Rochlitz, Mittweida and Kriebstein. www.lutherweg-sachsen.de

Steep challenges

Stone production in the Geopark Porphyry has created unique climbing opportunities. The Environmental Offices and Mountain Sport Associations have joined forces to establish climbing routes for children, beginners and professionals. Some of these, for example in the former quarries Spielberg, Holzberg and Gaudlitzberg in the Hohburg Hills, achieve the highest possible rating in Saxony. These climbs are excellent for training for alpine challenges.

In September 2018, the Saxon Mountain Climbing Association (Sächsische Bergsteigerbund) opened a Climbing Garden with around 75 routes in the porphyry quarries Seidelbruch and Gleisbergbruch on Rochlitz Hill. The levels of difficulty range from beginner to advanced. Popular destinations for climbers in the geopark are Brandis, Grimma, the Quarry Golzernmühle and the Rabenstein.

The designated climbing areas in the Geopark Porphyry Land are operated by the associations:

- Deutscher Alpenverein (DAV) – Sektion Leipzig,
- IG Klettern Halle/Löbejün e.V. and
- IG Klettern Mittelsachsen

They are responsible for safety and cleanliness and provide maps of the climbing areas as well as climbing guides with ratings and topos of individual routes.

Leipzig Climbing School

In 1919, the mountaineer Felix Simon from Leipzig became fascinated with the Ostbruch (East Quarry) at the Kohlenberg near Brandis. Here he discovered natural training opportunities for his climbing routes in the Alps, which were subsequently used by the alpine climbing school in Leipzig.

By 1934, 19 climbing routes were created here with various levels of difficulty. Today, the Deutsche Alpenverein (German Alpine Association), Section Leipzig, operates this ideal climbing school for different skill levels.

www.dav-leipzig.de

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Bergfilm-Festival

The oldest German Mountain Film Festival takes place every year on three days at the end of August in the quarry at the Gaudlitzberg in Thallwitz. This Mountain Film Festival uniquely combines film screenings with active mountain climbing.

During the day you can climb the wall, participate in competitions such as the Gaudlitzberg Bouldercup or speed down the steep wall to the ground on the 220 metre long alpine cableway. In the evening you can then join others to watch films. On show are current documentaries that have entered a competition. The audience decides which film will win the trophy.

www.bergfilmnacht.de



Geopark fascination for children

Volcano playground "Fred Porphyrstein" in Röcknitz



The exciting geological history of the Geopark Porphyry Land is presented in pictures for children that take them on a playful, creative and active journey through millions of years.

Discover the remains of the supervolcano ... is the title of the children's brochure published by the geopark. The illustrations created by artist Uta Bettzieche from Leipzig help children understand volcano eruptions, endless ice or the flooding of today's geopark by the North Sea. The brochure is conceived for children and youths up to 12 years old. Children are magically drawn to the different colours, structures and sizes of rocks. The children's brochure helps them to learn about the origins of the rock and identify rocks in their everyday surroundings.

history for children and youths aged 6 to 14. The music composed by Matthias Preisinger from Berlin, the excitingly pointed script written by the two actresses Jennifer Demmel and Christine Steuber from Leipzig according to an original story by Geopark experts Dr. Annett Krüger and Dr. Wolfgang Gerber and the enthusiastic playing of the wind orchestra are combined in a 45-minute oeuvre – "Supervolcano – a musical history of Earth". This association between geology and classic music is unique in Germany and can be seen at public concerts. The orchestra also performs the piece in schools. The project was supported by the representative of the Federal Government for Culture and Media and was funded by budgetary resources from the Federal State of Saxony

through a funding program within the Saxon Mining Office. www.schiffsmuehle.de/bowlinggrotte → Contact, see page 54



Performing "Supervolcano – a musical history of Earth"

Telling the history of Earth with music

In November 2019 following a long preparation period, the Geopark Porphyry Land realized a project in cooperation with the locally based Sächsische Bläserphilharmonie (Saxon Philharmonic Wind-Orchestra): a musical theatrical journey through 300 million years of Earth

fossil hunting in the "petrified lake", craggy cliffs, deep quarries, hills with towers, boat tours on the Mulde, rides on narrow gauge trains or the volcano playground just to mention a few. The adventure hotel "Zur Schiffsmühle" in Höfgen even boasts a bowling grotto that has been tunnelled into the porphyry rock.

www.schiffsmuehle.de/bowlinggrotte → Contact, see page 54



Educational, adventure and project offers

On to the rocks! Trained GeoRangers for the Geopark Porphyry Land offer exciting programs for all ages – from kindergarten age to active senior citizens.

In addition to guided excursions, it is also possible to book expeditions with magnifying glass, map and camera, artistic shaping of the Rochlitz Porphyry, creative clay and stone designing in the geopark, in the different Geoportals and the GeoAdventure Workshop.

Prehistoric metallurgy – bronze casting

The members of the interest group Experimental Archaeology in the GeoAdventure Workshop Trebsen have created a new link to geology. They are interested in the development of metallurgy in Saxony and especially in the Central German region during the Bronze Age (2200 - 800 BC). The group utilize public demonstrations of Bronze Age casting technology and thematic programs to present and inform about the technical know-how of the craftsmen of that time. The replicas are created using the lost-wax casting method or other procedures known to have been used in the Bronze Age.

www.rittergut-trebsen.de

→ Contact, see page 5

JuniorRanger training

Since 2011, the adult education centre Muldental has cooperated with the Geopark Porphyry Land to offer an annual JuniorRanger course for children aged between 10 and 12 years. The students meet once a month over a period of one year to explore their region and discover the diversity and secrets of nature. They learn to recognize the connection between their actions and the effects these have on the environment and society and grow into a strong team.

www.vhs-muldental.de

→ Contact, see page 54

Holistic educational approach

The wide range of educational offers provided by the certified GeoRangers and the availability of teacher hand-outs that tie-in with the syllabus, facilitate academic as well as extracurricular geoscientific project days for all class levels. Even kindergarten children participating in one of the playful programs will be thrilled by the special landscape of their region. In the meantime, the Geopark Porphyry Land is represented in five school books in the State of Saxony. The geopark further training program provides one or two thematic events/presentations a year targeted at Saxon geography teachers.



JuniorRangers really enjoy discovering nature. Here they are learning about bees and making honey.



Climate protection in the geopark

Children's climate protection conference in Bennewitz, 2018



The history of our Earth is characterised by extreme climate changes. The geopark addresses the current issues and challenges of climate change and climate protection.

One of the key tasks of the geopark is to develop educational programs dealing with climate and the causes of climate change as well as actively participate in climate protection programs.

Since 2016, the National Geopark Porphyry Land is partner of the European project "Zero Emission Nature Protection Areas (ZENAPA)". This program is funded until 2024 and links environmental protection with practical climate protection projects to achieve a sustainable as well as economic value creation. The project area includes eight federal states in Germany as well as the Grand Duchy of Luxembourg. This means that the project actively involves around 10 million citizens on about 10 per cent of the area of Germany. The project is managed by the Institute for Applied Material Flow Management (IfaS) at the University of Trier based at the Umwelt-Campus Birkenfeld.

ZENAPA-projects in the Geopark Porphyry Land

- one of the first measures was the foundation of the Wurzener Land-Werke GmbH in 2016 by the communities Lossatal, Thallwitz, Bennewitz and the town of Wurzen. This company specializes in securing joint energy purchases as well as sustainable environmentally safe energy production including the construction and operation of suitable plants and networks.
- Organic production of diverse energy crops and sustainable measures for safeguarding drinking water protection zones in the Geopark Porphyry Land

- Planning and implementing sustainable energy projects with active citizen involvement for their immediate benefit.
- Planning and implementation of an E-mobility concept in the geopark including the purchase of electric vehicles, operation of photovoltaic systems and instalment of charging points.
- Hosting Children's Climate Protection Conferences in schools and organising educational workshops.

Project WERTvoll

The objective of this joint project in the Geopark Porphyry Land is the development and implementation of a permanent valuable (WERTvoll) City-Rural Area-Partnership between the Wurzener Land and the city of Leipzig. Specifically, the collaboration applies ecological soil management measures for safeguarding drinking water protection zones in the Wurzener Land and pursues the development of a regional circular flow economy between communal companies, farmers, craft and food retailers.



The Geopark Porphyry Land and GeoWerkstatt Leipzig share a stand at the event "Experimentieren im Park", 2019





National and international cooperation

Collecting samples in nature

The Geopark Porphyry Land actively participates in diverse national and international cooperation projects pursuing objectives such as practical (hands-on) knowledge transfer, exchanging experiences and innovative project planning. The cooperations and partnerships are long-term commitments and play an important role for the continuing development of the participating geoparks.

forward ideas for modern environmental education measures. The objectives of this collaboration are:

- Analysing, interlinking and development of educational offers for sustainable development as well as,
- raising awareness for the topics climate change and renewable energy in school children, teachers and local citizens.

International cooperation GeoWERT

In the years between 2007 and 2013 this cooperation between the Geopark Porphyry Land, the Geopark Erz der Alpen in Austria and the Geopark Inselsberg – Drei Gleichen in Thuringia as well as the respective LEADER-regions and local action groups (LAG) has initiated three comprehensive joint guidelines for the further development of the geoparks and implemented first projects:

- Geo and Pleasure,
- Geo and Wellness, included in Geo and Health as well as
- Geo and Raw Material Competency.

International cooperation Geopark-Plus

This follow-up cooperation aims to further develop the successful collaboration, continuing with the following key tasks:

- Mission and opportunities of geoparks in the light of the demographic change,
- European Copper Road and
- Certification and evaluation as Global UNESCO Geopark.

International LEADER cooperation "NatureNet"

This cooperation project with the Geopark "Erz der Alpen" and the Lauhanvuori-Hämeenkan-gas Geopark in Finland also focuses on putting



The cooperation partners benefit from the mutual presentations of successful educational approaches at cooperation meetings. Thus the academic activities in the Finnish partner regions indicate how learning in nature can be successfully combined with modern digital media.

The Kinderuni (Kid's University) at the University of Salzburg in the Geopark "Erz der Alpen" successfully rouses the interest of children and youths in exciting projects dealing with environmental and climate protection.

The Children's Climate Conference in the Leipziger Muldenland provides age-orientated information about the most pressing problems of the present and raises the awareness in even the youngest children for the future.





Geopark – Regional Visionary

GeoRanger receiving their certificates, November 2017



The Geopark Porphyry Land involves and integrates local actors from diverse economic sectors in the creation of educational and geo-touristic offers and thus contributes significantly to the development of the region.

The geopark key topics geology, raw material resources and production, nature development and climate change provide the link between the results of the Permian supervolcano eruption and the wide range of topics and attractions available in the geopark area, most importantly, archaeological artefacts, historical industrial relics, constructions and architecture, craft and art, pleasure, wellness and health as well as sports. The objective is the initiation of new economic and service cycles for rural areas in the geopark through educational offers and geo-tourism.

The GeoRangers are the ambassadors of the "Geopark – Regional Visionary". They maintain contact with visitors, tourist service providers and curious children, pupils and all citizens. GeoRangers are charming and well-informed guides on tours through flora and fauna to the outstanding geological highlights and the associated historical and cultural attractions of the geopark. They draw attention to the challenges of climate change and raise empathy for the need to preserve and take care of this wonderful landscape. The GeoRanger training is a project that was realized with financial support from EU-funding from the LEADER fund.

Covering an area of 1,200 square kilometres the Geopark Porphyry Land touches four LEADER regions:

- Leipziger Muldenland,
- Land des Roten Porphyrs,
- SachsenKreuz+ and
- Sächsisches Zweistromland – Ostelbien.

These four LEADER regions closely cooperate with the geopark. The cooperation is managed by the LEADER-region Leipziger Muldenland.

Selected examples of successfully implemented LEADER projects in the funding phase 2014 - 2020

- (Preliminary) study on the development of one specific highlight: The Supervolcano Centre
- Feasibility study for the conversion of the railway station Wurzen into a Geoportal
- marketing concept Geoportal Mügeln Railway Station
- Circular route Kirchbruch Beucha
- Project management "climate change manager" and "Geopark network manager"
- preparation of an exhibition concept "Infopoint Archaeology Göttwitz"
- Development of the Obstland Cycle Route
- Training GeoRangers for the Geopark Porphyry Land
- Building new village squares, playgrounds and rest areas in the geopark member communities
- Feasibility study via ferrata Brandis
- Creating tour brochures for the Porphyry trail, Forest Discovery Trail and the Seelitz Circular Route
- Conversion of the ground-floor of Forsthaus Collm in to a weekend restaurant and conversion of one outhouse in Wermsdorf into a café



Information

Tourist information

Bad Lausick (04651)

Kur- und Tourist-Information
Straße der Einheit 17
Tel. 034345 52953 · www.bad-lausick.de

Colditz (04680)

Tourist-Information · Markt 6
Tel. 034381 43519 · www.tourismus-colditz.de

Grimma (04668)

Stadtinformation · Markt 23
Tel. 03437 9858285 · www.grimma.de

Kössern (04668)

Information im Jagdhaus Kössern
Kösserner Dorfstraße 1, Grimma, OT Kössern,
Tel. 034384 73931 · www.jagdhaus-koessern.de

Leisnig (04703)

Gästeamt · Kirchstraße 15,
Tel. 034321 637090 · www.leisnig.de

Mügeln (04769)

Geoportall Bahnhof Mügeln · Bahnhofstraße 2
Tel. 034362 442906 · www.stadt-muegeln.de

Naunhof (04683)

Stadt- und Touristinformation · Bahnhofstr. 25
Tel. 034293 475647 · www.naunhof.de

Rochlitz (09306)

Tourist-Information · Burgstraße 6
Tel. 03737 7863620 · www.rochlitzer-muldental.de

Trebsen (04687)

Stadtinformation · Markt 13
Tel. 034383 60419 · www.trebsen.de

Wermsdorf (04779)

Touristinformation · Altes Jagdschloss 1
Tel. 034364 81132 · www.wermsdorf.de

Wurzen (04808)

Tourist-Information · Markt 5
Tel. 03425 8560400 · www.tourismus-wurzen.de

Geoportals, GeoDiscovery Workshop Trebsen and geotopes

→ see page 5

Museums and exhibitions

Dentalhistorisches Museum Zschadraß

Im Park 9b, 04680 Colditz, OT Zschadraß
Tel. 034381 189506 · www.dentalmuseum.eu

Dorfmuseum Schönbach

Second-largest basket collection in Germany,
crafts, forest work, agriculture
Am Drachenberg 1, 04680 Colditz, OT Schönbach,
Tel. 034381 40032

Freilichtmuseum für Volksarchitektur und bäuerliche Kultur Schwarzbach

original old regional farmhouses and workshops in
one place 1a, 09306 Königsfeld, OT Schwarzbach,
Tel. 03737 449428 · www.museum-schwarzbach.de

Heimatmuseum Mügeln

Local historical collection and exhibition in the
former poor meat shop
Schulplatz 4, 04769 Mügeln, Tel. 034362 41010
www.heimatmuseum-muegeln.de

Kreismuseum Grimma

town history, special exhibits
Paul-Gerhardt-Straße 43, 04668 Grimma
Tel. 03437 911132 · www.museum-grimma.de

Kulturgeschichtliches Museum Wurzen mit Ringelnatz-Sammlung

Domgasse 2, 04808 Wurzen
Tel. 03425 8560405 · www.kultur-in-wurzen.de

Kulturlandschaftsmuseum Wermsdorf

Excavation site Wüstes Dorf Nennowitz,
Forest classroom
Wermsdorfer Wald, 04779 Wermsdorf
www.wermsdorf.de

Kur- und Stadtmuseum Bad Lausick

Straße der Einheit 19, 04651 Bad Lausick
Tel. 034345 52971 · www.museum-bad-lausick.de

Museum Göschenhaus mit Seume-Gedenkstätte

Country house of the classic book publisher Georg
Joachim Göschen and his family
Schillerstr. 25, 04668 Grimma
Tel. 03437 911118 · www.goeschenhaus.de

Museum und technische Schauanlage „Wassermühle Höfgen“

operational mill (18th century)
Höfgener Dorfstraße 10, 04668 Grimma, OT Höfgen
Tel. 03437 707572 · www.wassermuehle-hoefgen.de

Turmuhrenmuseum Naunhof

Ungibauerstraße 1, 04683 Naunhof
Tel. 034293 32513,
web.turmuhrenmuseumnaunhof.de

Wilhelm Ostwald Park, Großbothen

Country house of the chemist and Nobel prize winner
Wilhelm Ostwald
Grimmaer Str. 25, 04668 Grimma, OT Großbothen,
Tel. 034384 7349152 · www.wilhelm-ostwald-park.de

Interesting castles, palaces and mansions

Burg Mildenstein, Leisnig → see page 40

1000-year old Wettinian castle complex, chapel,
keep and knight's halls
Burglehn 6, 04703 Leisnig
Tel. 034321 62560 · www.burg-mildenstein.de

Jagdhaus Kössern, → see page 42

Baroque treasure, built by Chief Court Hunter at
the Saxon court
Kösserner Dorfstraße 1, 04668 Grimma,
Tel. 034384 73931 · www.jagdhaus-koessern.de

Schloss Brandis

Events, meetings, weddings
Schlosspark, Im Schloss 1, 04821 Brandis
Tel. 0151 12306630 · www.schloss-brandip.de

Schloss Colditz, → see page 41

Fluchtmuseum der Alliierten Offiziere im Zweiten
Weltkrieg, Schloßgasse 1, 04680 Colditz
Tel. 034381 43777 · www.schloss-colditz.com

Schloss Hubertusburg Wermsdorf, → see page 34

Largest and formerly grandest Baroque country
palace in Europe, 04779 Wermsdorf
www.hubertusburg-wermsdorf.de

Schloss Mutzschen

Biker Cafe and hostel, events and motorbike tours
Zum Schloß 7, 04668 Grimma, OT Mutzschen
Tel. 0152 21479917 · https://motosoulresort.de

Schloss Nischwitz mit Landschaftspark

Dorfstraße 35, 04808 Thalwitz

Schloss Rochlitz, → see page 38

Widow's residence for Elisabeth von Rochlitz, per-
manent and special exhibitions, Porphyry Show
Sörnziger Weg 1, 09306 Rochlitz
Tel. 03737 492310 · www.schloss-rochlitz.de

Schloss Trebsen

Highland-Games and
other events, restaurant
Zum Schloss 1, 04687 Trebsen
Tel. 034382 40574 · www.schloss-trebsen.com

Schloss Wurzen

Bishop's residence for the bishops of Meissen
in the Wurzen Land, guided tours, hotel and
restaurant
Amtshof 2, 04808 Wurzen
Tel. 03425 853590 · www.schloss-wurzen.de

Wasserschloss Podelwitz

Home of the couple Knochenmuss,
park festivals, restaurant, guest house
Am Schloß 4, 04680 Zschadraß
Tel. 034381 124600
www.wasserschloss-podelwitz.de

Monasteries

Benediktinerkloster Wechselburg

Romaneque basilica "Heilig Kreuz", 12th century,
one of the most important buildings constructed
with Rochlitz Porphyry
Markt 10/12, 09306 Wechselburg
Tel. 037384 8080 · www.kloster-wechselburg.de

Kloster Buch b. Leisnig

Remains of the Cistercian monastery "St. Marien"
used for a variety of events: Farmer's Market,
guided tours, courses and other events
Klosterbuch Nr. 1, 04703 Leisnig
Tel. 034321 68592 · www.klosterbuch.de

Kloster Nimbschen

Monastery ruins, exhibition in the hotel with the
same name, wedding church
Nimbschener Landstraße 1, 04668 Grimma
Tel. 03437 9950 · www.kloster-nimbschen.de

Kloster Marienthal Sorzig

Remains of the monastery complex, history of
regional fruit production, hostel
Klosterstraße 16, 04769 Mügeln.
Tel. 034362 37505 · www.klostersorzig.de

Environmental education

Bildungs- und Sozialwerk Muldental e.V.

Project: ERLEBNISGärtnerei
An der Mulde 16, 04680 Colditz, OT Tanndorf
Tel: 034381 170789 oder 0176 61621946
www.schlossgaertnerei-tanndorf.de

Haus Grillensee

Family, project and sports offers
Ammelhainer Str. 1, 04683 Naunhof
Tel. 034293 46400 · www.grillensee.de

Natur- und Geschichtspark Park Canitz,

→ see page 38, Settlement history, thematic gar-
dens, project offers
Canitz 20, 04808 Thalwitz
Tel. 03425 929086 · www.park-canitz.de

Information

Naturfreundehaus Grethen

Adventure playground, Aktiv-Camp, project offers, Herbergsweg 5, 04668 Grethen
Tel. 03437 763449 · www.nfh-leipzig.de

Naturschutzstation Weiditz

Adventure offers for children and families
Am Stau 1, 09306 Königsfeld, OT Weiditz
Tel. 03737 40284, Mobil 015730360 424
www.natur-weiditz.de

Schullandheim Bennewitz

Waldwinkel 2, 04828 Bennewitz
Tel. 03425 817716 · www.schullandheim-bennewitz.de

Beucha – Dorf der Steine, → see page 18, geological discoveries in the former quarries
www.stadt-brandis.de

More recreational destinations

Döllnitzbahn GmbH/Schmalspurbahn

→ see page 30, Bahnhofstraße 6, 04769 Mügeln
Tel. 034362 32343 · www.doellnitzbahn.de

Höfgen – Dorf der Sinne

geological discoveries in the former quarries
www.dorfdersinne.de

Feldbahn Glossen

→ see page 31
preserved operational industrial railway system in the former quartzite quarry with technology collection, Zum Steinbruch 1a, 04769 Glossen
Tel. 0173 6125848 · www.feldbahn-glossen.de

Kletterwald Leipzig

Am Albrechtshainer See 1, 04683 Albrechtshain
Tel. 034293 44200 · www.kletterwald-leipzig.de

Kössern – Dorf der Baumeister

→ see page 42
exemplary baroque planned village
www.grimma.de

Kur- und Freizeitbad RIFF

→ see page 39
Am Riff 3, 04651 Bad Lausick
Tel. 034345 7150 · www.freizeitbad-riff.de

RIFF-RESORT Bad Lausick

→ see page 39
Am Riff 4, 04651 Bad Lausick
Tel. 034345 7150 · www.riff-resort.de

Sägemühle Thallwitz, almost completely originally preserved, working 200 year old saw mill, Mühlenstr. 32, 04808 Thallwitz

Tel. 03425 920917 · www.gemeinde-thallwitz.de

Organizer

Deutscher Alpenverein (DAV) – Sektion Leipzig

→ see p. 47, Könnertitzstraße 98a, 04229 Leipzig
Tel. 0341 4773138 · www.dav-leipzig.de

Förderverein „Obstland“ e.V.

→ see page 44
Obstland-Straße 48, 04668 Grimma,
OT Dürrweitzschen
Tel. 034386 95167 · www.foerdereverein-obstland.de

Kulturhaus Beucha e.V.

→ see p. 20
August-Bebel-Straße 60, 04824 Brandis,
OT Beucha
Tel. 034292 438570 · www.kulturhaus-beucha.org

Mittelsächsischer Kultursommer e.V.

→ see p.17
Georgenstraße 19, 09661 Hainichen
Tel. 037207 651240 · www.miskup.de

Sächsische Bläserphilharmonie

→ see page 48
Deutsche Bläserakademie GmbH
Steingrundweg 1, 04651 Bad Lausick
Tel. 034345 52580
www.saechsische-blaeserphilharmonie.de

Seesportverein „Albin Köbis“ Grimma e.V.

→ see page 46, Tel. 0343775 86 64
www.seesportverein-grimma.de

Mittelsächsischer Kultursommer e.V.

Georgenstraße 19, 09661 Hainichen
Tel. 037207 651240 · www.miskup.de

Volkshochschule Muldental

→ see page 49
Hauptverwaltung Wurzen
Lüptitzer Straße 2, 04808 Wurzen
Tel. 03425 90470 · www.vhs-muldental.de

Raw materials company/ associations

Basalt-Actien-Gesellschaft

Hartsteinwerke Bayern-Mitteldeutschland,
→ see page 21,
Branch of the Basalt-Actien-Gesellschaft
Windischholzhäuser Weg 5, 99098 Erfurt
www.basalt.de

Kemmlitzer Kaolinwerke

→ see page 28,
Branch of the Caminauer Kaolinwerk GmbH
Straße des Friedens 6-8, 04769 Mügeln, OT Kemmlitz
Tel. 034362 470 · www.schleben-crellenhain.de

Kommunale Wasserwerke Leipzig GmbH

→ see page 38, Johannissgasse 7/9, 04103 Leipzig
Tel. 0341 9690 · www.L.de

Unternehmerverband mineralische Baustoffe

(UVMB), → see page 21, Geschäftsstelle Leipzig
Walter-Köhn-Str. 1C, 04356 Leipzig
Tel. 0341 5204660 · www.uvmb.de

Producer of regional products

Obstland Dürrweitzschen AG

→ see page 45
Obstland-Straße 48, 04668 Grimma, OT Dürrweitzschen, Tel. 034386 950 · www.sachsenobst.de

Rauchhaupt GmbH (venison)

→ see p.42
Hauptstr. 2a, 04828 Bennewitz
Tel. 03425 89550 · www.rauchhaupt-servicebund.de

Teichwirtschaft Wermsdorf GmbH

→ see page 43
Bischofsweg 33, 04779 Wermsdorf
Tel. 034364 8000
www.teichwirtschaft-wermsdorf.de

Wermsdorfer Fisch GmbH

→ see page 43
Gemeinschaftsstraße 5, 04571 Rötha, OT Espenhain · Tel. 034206 72676 · www.wermsdorfer-fisch.de

Gastronomy

The geopark offers a wealth of lovely village inns, restaurants and cafes to cater for your needs.

The listed gastronomic destinations are also Geo-Information Points for the Geopark Porphyry Land.

Bad Lausick

Riff-Restaurant,
Am Riff 3, 04651 Bad Lausick
Tel. 034345 71524 · www.freizeitbad-riff.de

Grimma

Erlebnishotel „Zur Schiffsmühle“
Zur Schiffsmühle 2, 04668 Grimma, OT Höfgen
Tel. 03437 76020 · www.schiffsmuehle.de

Mügeln

Café Volldampf
Hauptstraße 21, 04769 Mügeln, OT Kemmlitz,
Tel. 034362 239150 · www.volldampf-kemmlitz.de

Wurzen

Landgasthof Dehntz
Am Wachtelberg 9, 04808 Wurzen, OT Dehntz,
Tel. 03425 851336 · www.landgasthof-dehntz.de

Imprint

© Nationaler Geopark Porphyryland, 7/2020

Design: Gerd Hoffmann, gidesign, Leipzig
Print: PRIMUS international printing GmbH, Großschirma

This brochure is a cooperation project realized by the National Geopark Porphyry Land and the four LEADER-regions:



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Copy-editing

Dr. Frank W. Junge und Dr. Jochen Rascher

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p. 8 – nach The COMET® Programm; Einordnung des Vulkanismus im Geopark Porphyryland im Vergleich zu globalen Ereignissen, Volumenberechnung für Geopark Porphyryland in Anlehnung an Breikreuz in Schriftenreihe DGG (2016): „GeoTop 2016 – Kultur.Wert.Stein. Verantwortung und Chancen für Geoparks“, Heft 88, Stuttgart

p. 9 oben – Zeichnung: J. Bejsovec nach einem Entwurf von Dr. H. Walter

p. 9, Schemata 1-4 verändert nach H. Bahlburg & C. Breikreuz (2017): „Grundlagen der Geologie“, Springer Verlag, Berlin; geologische Bearbeitung: M. Geißler/GEOMontan GmbH Freiberg; geologischer Schnitt: M. Geißler, Dr. J. Rascher/GEOMontan GmbH Freiberg; Visualisierungen: L. Hoschkara/DESIGN & MULTIMEDIA Wernsdorf

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p. 36 – geologischer Schnitt: nach Prof. L. Eißmann, 1975

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Funding

The State Ministry for Energy, Climate Protection, Environment and Agriculture, Department Funding Strategy, ELER-Administration is responsible for implementing ELER-funding in the Federal State of Saxony. The preparation, design and printing of this brochure was funded as part of the LEADER Development Strategy.



Zuständig für die Durchführung der ELER-Förderung im Freistaat Sachsen ist das Staatsministerium für Energie, Klimaschutz, Umwelt und Landwirtschaft, Referat Förderstrategie, ELER-Verwaltungsbehörde.



Entwicklungsprogramm für den ländlichen Raum in Freistaat Sachsen 2014-2020

Europäischer Landwirtschaftsfonds für die Entwicklung des ländlichen Raums: Hier investiert Europa in die ländlichen Gebiete.

Outstanding features of the Geopark Porphyry Land

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- *extraordinary diversity of volcanic rock types*
- *Raw material kaolin for the first European porcelain production by Johann Friedrich Böttger*
- *Numerous industrial monuments from 200 years of porphyry and kaolin production*
- *earliest recorded lignite production in the Mulde region*
- *three of the most significant national geotopes in Germany*
- *Traces of glacial and wind striations on porphyry rocks as the basis for the ice age theory*

