



Harz - Braunschweiger Land - Ostfalen UNESCO Global Geopark



Wernigerode Castle





Harz



On the 17th of November, 2015, during the 38th UNESCO General Assembly, the 195 member states of the United Nations resolved to introduce a new title. As a result, Geoparks can

be distinguished as **UNESCO Global Geoparks**. Among the first 120 UNESCO Global Geoparks, spread throughout 33 countries around the world, is Geopark Harz · Braunschweiger Land · Ostfalen.

UNESCO-Geoparks are clearly defined, unique areas, in which locations and landscapes of international geological importance are found. They are operated by organisations which, with the involvement of the local population, campaign for the protection of geological heritage, for environmental education and for sustainable regional development



As early as 2004, 25 Geoparks in Europe and China had founded the Global Geoparks Network (GGN). In autumn of that year Geopark Harz · Braunschweiger Land · Ostfalen became part of the network. In addition, there are various regional networks, among them the European Geoparks Network (EGN). These coordinate international cooperation.

In the above overview map you can see the locations of all UNESCO Global Geoparks in Europe, including UNESCO Global Geopark Harz \cdot Braunschweiger Land \cdot Ostfalen and the borders of its parts.

Originally, a medieval fortress crowned the promontory of the Agnesberg. After the devastating ravages of the 30-Years-War (1618 – 1648), the work of reconstructing the fortress as a Baroque residence castle began under the Count Ernst of Stolberg-Wernigerode (1716 – 1778). Today the castle ensemble presents itself in the style of historism. The final major refurbishing was carried out under the Count Otto of Stolberg-Wernigerode (1837 – 1896), the first Chief Administrator of the Prussian province of Hanover in 1867, then Ambassador to Vienna and ultimately Vice-Chancellor.

Today, on two different visitation tours, 50 rooms can be viewed. As building material for the castle ensemble, work stones from the region were used. The gateway entrance house to the castle has a façade of yellow rogenstein comprised of tiny spheres which recall fish eggs. Rogenstein, along with reddish sandstones of the



View of the castle from the Agnesberg

Buntsandstein, compromise the main building material. For the circular walls, and somewhat less frequently, for the towers as well as for ascending walls of the buildings, use was made of dark greywackes of the Agnesberg and black volcanic stone of the bedrocks of the Harz mountains. The relative age of the building can be identified by the surface finishing of the natural freestones. In the early building phases, banked sandstone and limestone were the materials most often used, stones which were "split" in accordance with their banking and stacked vertically to their stratification, so that they display identifiable fracture-raw surfaces. In contrast, the rebuilt structures or portions of the building from the 19th century can be recognized by the presence of sawed freestones with flat surfaces - amongst them yellowish calcareous sandstone and rogenstein (for bay windows, door and window frames or for staircases). Less frequently – for example in the wall of the large castle terrace – sawed stones from the freestone benches of the Muschelkalk formation were also used.

The Old Town and the New Town Wernigerode

The initial settlement was situated in a deforested area close to what is now the center of Wernigerode. Inside the Old Town stood the parish church, the collective agricultural courtyard of the nobility and the courtyards of the knights. At the beginning of the 12th century, Count Adalbert von Haimar moved from an area southeast of Hanover to Wernigerode. Assuming the name of his new property, he now called himself the Count of Wernigerode. In 1229, Wernigerode received its town charter. The descendants of ADALBERT transformed the parish church into a Benedictine canonical abbey, now the Sylvester Church. Almost at the same time, another settlement was founded along the northeastern city limits which was to become the "New Town". Here we find the Romanesque Johannis Church, Major points of interest in the center of town are the market and the city hall. The famous writer





and natural scientist Hermann Löns (1866 - 1914) described Wernigerode as the "Colorful Town by the Harz". The city hall was first mentioned as a building in the year 1277. After a fire which devastated the town in the 16th century, the city hall was redesigned in its present form. The market fountain displays the coat of arms of the counts of Stolberg, who took over the rule of the town after the family of Wernigerode counts died out in 1429. In 1714, Count CHRISTIAN ERNST ZU STOLBERG-WERNIGERODE (1691 - 1771) acknowledged the sovereignty of Brandenburg-Prussia over the county of Wernigerode. Next to the city hall, a building constructed in 1821 as a private residence at Klint 10 now houses the Harz Museum (natural history and a section devoted to the history of the town.) Starting from the market place, the "Breite Straße" passes the Krell Smithy (1678), now the Harz Cultural Center. Across from the large parking lot stands the ice-age memorial stone marking the rim of the former glacier.

Public Park of Wernigerode Mineral Canyon

Under the motto "Experience Harz Views", the State Garden Exhibition of 2006 in Wernigerode created new landscapes within the city. Between the "Kurtsteich" and the "Schreiberteich" a "Mineral Canyon" now cuts through the area. Over the length of 48 meters, it contains a "geological window" with rocks and minerals that would manifest themselves in a subterranean cut with a profile 15 kilometers long extending from the Lustberg near Schmatzfeld northwards over the Schlossberg Wernigerode, past the mining museum "Büchenberg" all the way to the Hahnekopf in the Bodetal by Rübeland to the south. This "window" offers us insights into the relationships of landscape forms, stones and geological structure as we view the respective stone fragments of the geological cut in each section. The first of 24 sections contain the rocks of the northern Harz foreland; sandstone and marl



from the Subhercynian Cretaceous Basin and those geological sediments of the Triassic and Permian which have been uplifted by the tectonic movements of the Harznordrand Fault into their present vertical stance. In section 7, the Lower Carboniferous Kulm greywackes of the Harz basement border the Zechstein gypsum rocks of the foreland at the reconstructed Harznordrand Fault. These rocks are followed by the Devonian and Carboniferous slates, greywackes and limestones of the Wernigerode formation with the typical alternation of slate and sedimentation structures in the individual tectonic blocks. The sections 15-23 contain typical volcanites, ores and limestones of the Elbingerode Complex. Built into these are volcanic rocks from the Middle Harz veins which have broken their way through the Harz basement in Lower Permian (Rotliegend). The facing wall contains two sections with rocks of the Brocken granite massif.



Already prior to the year 1306, the counts of Wernigerode erected the Stapelburg as a defense and customs control point on the royal road connecting their home castle with the important imperial city and mining metropolis of Goslar. After changes in possession, the fortress landed for a second time as an inheritance in the Halberstadt diocese. It was not until the rule of Count Christian Ernst of Stolberg-Wernigerode (1691 - 1771) that the fortress was acquired anew from the Halberstadt diocese as property in possession of Wernigerode. Five years later, King FRIEDRICH WILHELM I. OF PRUSSIA (1688 - 1740) annuled the remaining territorial claims of the Halberstadt diocese, now Prussian, and reinstated the original connection of the Stapelburg with Wernigerode. In the ruins of the walls we find, amongst other rocks, rogenstein that was used as construction material.







Glass Manufacturer Harzkristall (Harz Crystal) Glassblower Workshop in Derenburg

The Derenburg glass manufacturer "Harzkristall" is one of the few glass-blower workshops still in production in Germany. The workshop itself has been in existence for over 60 years, built by Sudeten Germans who have revived the art of glass blowing here in 1949. In the course of an hour's visit, the guests can become acquainted with glass making through a direct encounter with the processes involved. They experience the heat of the ovens and witnesses examples of perfect handcrafting under the guidance of specialists. Visitors, if they wish, can blow glass themselves, thereby experiencing how much craft is demanded of the glass blowers.

Meanwhile children of all ages can romp on the playground, part of the well-tended, park-like grounds of the factory.



The Northern Harz Rim Thrust Zone ... The "Horstberg" of Wernigerode

Leaving Wernigerode on the old B 6 towards Blankenburg at the city exit, we see to the left the remains of an old roadway defense tower on the Horstberg. Along the path on the crest we discover an old quarry which has been left exposed. The Horstberg manifests two linear hogback zones. The Terebratelbank of the Lower Muschelkalk well as the Trochitenkalk zone of the Upper Muschelkalk emerge as hogback structures. The sediment layers of Middle Muschelkalk between the hogbacks consist of soft dolomitic limestones, which gave way to the forces of erosion and thus formed a depression. In the central portion of the quarry, the vertical position and overthrust of the strata in the Harznordrand Fault can be observed. Here the Schaumkalk limestone beds of the Wellenkalk formations were extracted in the old quarry. From the peak, we have a panoramic view across the Subhercyne Basin of the Harz foreland.





... and the Northern Harz Rim Fault "Austberg-Rundweg" (Austberg Trail)

Approximately 1 km before the old brick factory in the direction of Benzigerode, the "Austberg-Rundweg" crosses the bicycle trail R1 and the road. We begin the 7 km long trajectory by heading south to the settlement of Wolfsholz. In the springtime, "Märzenbecher" are to be found there, blooming in the moist depressions. The small waterholes, as they now exist, often came about as sinkholes from the underlying Permian gypsum rocks. Somewhat further southwards we reach the edge of Northern Harz Rim Fault. At the "Hillberg", consisting of greywacke in the FFH-Region designated as "Deciduous Forests between Wernigerode and Blankenburg", we turn to the east and, before the hut shelter at the forestry station Eisergarten, we traverse the historical border between Prussia (Old Wernigerode) and the Duchy of Brunswick (territory Benzingerode) and finally arrive at the observation tower built by the Regenstein counts in the 13th century.



Advert

Landmarks are points in the landscape or actual localities which are highly visible and well-known. They serve as an initial orientation in one of the largest Geoparks worldwide and give the specific areas their names. Every landmark area is represented in a special leaflet.

Geopoints are points of particular interest. At these points, the geological history of the area or the evolution of the cultural landscape are evident and can be conveyed to visitors. Geopoints are numbered in sequence within the region of a Landmark. They can be combined to constitute an individual Geo-Route. The Geopoint Nr. 1 is always the place which has given its name to the Landmark.

This map will help you plan your own personal **Geo-Route** which, as described, begins with the former county seat of Wernigerode and ends in the former county of Blankenburg. The county of Wernigerode had already been Prussian for some time before the kingdom of Hanover, along with Elbingerode in the southern portion of the region included in Landmark 8, also became Prussian in 1866. Benzingerode and Blankenburg belonged, however, up to the end of World War II to Brunswick.

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Nature Reserve Ziegenberg near Heimburg

Benzingerode lies between Austberg and the Struvenberg, also designated as Ziegenberg, in the break carved out by the river Hellbach through the Muschelkalk banks (to which the previously described Horstberg also belongs). All together, the Austberg, Ziegenberg and Horstberg comprise a portion of the European Natural Reserve system Natura 2000. Almost half of the 146 hectars of this FFH region falls into the classification of an indigenous calcareous and semiarid grassland and its accompanying stages of bush growth. The Ziegenberg has been classified since 1981 as a nature reserve. The dominant vegetation is the Gentiano-/Koelerietum mesoxerophytic grassland. Amongst the plants, the various types of orchids attract particular attention. The great variety of plant life in this region would be threatened were these expanses of pastureland to be abandoned. Evidence of





early cultural life here is to be found in pre-historic and early history finds as well as in the Struvenburg itself. It was originally built in the period of the Franconian conquest. This fortress surrounded by earthen mounds, typical for the Harz, is located immediately east of Benzingerode on the 286 meter high western limestone crest of the Struvenberg (305,7 m NHN). An ascent is possible from the edge of the town.

Small old quarries reveal for the most part a steep incline of strata from the Triassic, dipping towards the North – for the most part Lower Muschelkalk, but partially up to the Middle Keuper. In the quarries, the Schaumkalk banks of the Wellenkalk formation were most frequently sought for extraction. We can hike along the path on the crest and return along the south side to our point of departure. Lying south of the bicycle trail, we find depressions – sinkholes or old caved-in gypsum mining shafts.

Upright Sandstone Columns Menhirs near Benzigerode

According to the legend, three giants once wanted to reach a decision through a stone-throwing competition as to which one of them was to receive a much courted farm girl as his wife. But in the end, as they realized that the stones they had thrown were different in size. none of them could be declared the victor. The giants departed from one another in anger and left the region. What remained were the upright stone columns, not far away from the B6, two to the north, one to the south of the highway in the wide plain between Heimburg and Silstedt. These are the menhirs of Benzigerode. In the course of archaeological excavations accompanying construction of the four-lane B 6, substantial evidence of a settlement in the Neolithic period was uncovered in 2001, including a hut for the dead in which ca. 40 people were buried in the time of the Bernburg Culture (3,400 to 2,800 B. C.).







Calcareous Sandstone Spherical Stones by Blankenburg

At the roadside rest station "Regensteinblick" on the B6 one can find further information about the menhirs and these archaeological sites. Traveling in the direction of Wernigerode one can also find the reconstructed foundation outline of a long house which stems from the early Bronze Age period of Aunjetizer Culture (approximately 2,300 to 1,800 years B. C.). Preliminary inspections and the in-depth excavations turned up more than artifacts and archeological finds. In the course of the construction of the B 6, discoveries were made in the Heimburg formation of the Upper Cretaceous of spherically formed limestone concretions - calcareous sandstone concretions more resistant to erosive forces than the surrounding sandstone. These have been collected and stacked up along the B6 in large, conical piles, for example, the mound not far from the access road to Heimburg at the exit for Derenburg.

Leaving Heimburg we drive in the direction of Elbingerode and follow the signs to a mine now opened to visitors as a museum, Büchenberg. From the parking lot to the entrance is a short walk leading past a number of restored mining machines. Visitors with problems walking or guests in wheelchairs can drive up to the entrance. Here our attention is captured by an iron trellis mast. It is the "Support No. 1", which reawakens memories of the longest industrial cable railway in Europe. Since 1989, a 600 meter long stretch of the first level between the cable railway and the shaft No. 1 (Rotenberg Shaft) in the mine has been opened to the public. The trip into the mine, also accessible for wheelchair visitors, provides insights into the techniques of mining and ore extraction from the last active period of the mine and offers glimpses of interesting types of ores in the foliated tuffs (Schalstein) which can be







In the Show Mine

viewed on the tour around the shaft and in the orebody No. 5. Through activation of the starting mechanism of the industrial cable railway and a demonstration of the drills, overhead loader and a scraper at work, we can sense the true atmosphere of the mine. Iron ore mining has been taking place in the proximity of Elbingerode since the 10th century, but actually it began at an even earlier date. The primary metal ore won here was calcareous hematite, which proved to be a useful addition in the production of the sour Salzgitter ores. After the end of the war, the Harz iron ore mines -Büchenberg and Braunesumpf - were an important source for GDR raw iron provisions. In the last period of mining, the most important ore minerals won here were magnetite, siderite and hematite with quartz additions. A mining information path traverses the historical mining region and follows the former border between the Kingdom of Hanover and the Duchy of Brunswick.

Flowing out of the limestone of the Braunesumpf anticline, a karst spring issues from the Eggeröder Brunnen in Jasperode. We reach Jasperode via a forest road open to the public, which, northeast of Elbingerode, diverges from the main road and leads in the valley Drecktal in the vicinity of the "Drei-Herren-Stein" towards Heimburg. We follow the road on foot along the "Route of the German Emperors and Kings" through the Klostergrund direction of Blankenburg. After about 1 kilometer, to the left in the dark grey spilitic pillow lava, we encounter the open gallery mouth that provided a water conduit out of the former iron ore mines. Further down the valley we find a sign on an old spruce tree directing us into a side valley. There we reach a bubbling karst spring, the "Volkmarsbrunnen". To the right, after a short ascent, we discover in a limestone cliff the artificially enlarged cave "Volkmarskeller". The main room of





Volkmar's Cellar

Monument from 2007

this cave is situated on two parallel north-south running clefts, both dipping approximately 60 degrees westward. In the 9th century, a woman is said to have lived here as a hermit in the cave. A church "Michaelskirche" is also mentioned in connection with this site. Incised in the rock walls are two dedication crosses. Later, a hermitage site for the legendary "Volkmars Brothers" (monks) was located here. In 1146, the Cistercian monks settled on the site. The foundations above the cave are probably the remains of this first cloister Michaelstein, which was later relocated lower in the valley (Landmark 9). A narrow tunnel connected the former cloister to the cave church. Archaeological finds attest that, already in this period, iron ore was smelted in the bloomery furnaces at the Eggeröder Brunnen. Iron ore mining was also carried out in the 19th century in the Klostergrund. On March 16, 1893, a dynamite explosion occurred in the Volkmar mine, killing eight miners. Their loss is commemorated on a memorial stone in the Klostergrund.



The "Route of German Emperors and Kings" has been described in seven flyers prepared by the Regionalverband. They can be ordered over the address: www.harzregion.de/de/faltblaetter.html

The Classical Geological Square Mile

Geological development of the area

Near the Wernigerode Castle and directly through the region of this landmark runs the Harznordrand Fault. Extending to the north are the sediments of the Subhercynian Cretaceous Basin. South of this Fault begins the Harz basement block consisting of rocks from the Palaeozoic. Slates and greywackes with partly embedded flinty slates and limestones emerged from the oceanic sedimentation of the Devonian and the Lower Carbonifereous. Approximately 300 million years ago, at the turn Lower/Upper Carboniferous, a plate tectonics collision happened and the Variscian Orogeny extended over what is today Europe. Thereby, these sediment rocks were folded and partly converted to slate.

By this plate collision, rocks were pressed down in the deeper earth's crust, melted and rose upwards as sour magma, until the intrusive bodies became stuck and cooled down. Thereby the Brocken Granite emerged, amongst other rocks. Today the granite has reached the surface as a result of the thrusting and erosion processes since the Upper Carboniferous. The whole Harz fold-belt has been eroded and, in the Upper Permian, for a time was flooded by the Zechstein ocean.

In the course of the "middle ages of the earth", the Mesozoic, massive sediment layers developed on the folded Harz rocks – for the most part under the cover of the sea – such as clay, sandstone and limestone of the Triassic and the Cretaceous. Since the Jurassic, especially during the Cretaceous and further into the Tertiary, the half-horst of the Harz basement rose for more than 3,000 m in the wake of the Saxonian tectonics along the Harznordrand Fault, a deep tectonic structure. At the same time, mesozoic sediments north of the Harz basement were dragged upwards and turned locally in an upright position, so that their once horizontal stratification planes now stand vertically causing high geodiversity in the region.







Selected Points of Information

Restaurants and Accommodations



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Hotel "Der Kräuterhof Drei Annen Hohne www.hotel-kraeuterhof.de © 0049 39455 - 840



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REGIONALVERBAND HARZ E.V.



The Regionalverband Harz is a non-profit association incorporating the counties of Goslar, Göttingen, Harz, Mansfeld-Südharz and Nordhausen. It supports the protection of nature and environment as well as the cultural heritage of the Harz through the assistance of its sponsoring members. Its aims are achieved in part through the patronage of Nature Parks in the Harz region. As a partner in the Geopark Harz · Braunschweiger Land · Ostfalen GbR, newly founded in the year 2016, the Regionalverband is responsible for the southern portion of the UNESCO Global Geopark Harz · Braunschweiger Land · Ostfalen. Its partner association located in Königslutter is responsible for the northern portion. Since the year 2004, the Geopark Harz · Braunschweiger Land · Ostfalen has been a member of the European Geoparks Network.

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