

Travelling through the land of maars and volcanoes

Vulkaneifel Magazine



Vulkaneifel
NATUR- UND GEOPARK



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World famous Geotopes



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Travelling at leisure
Vulkaneifel Muße Paths



Immerather Maar

Maars: dreamy, peaceful places...



Eruption of the Ukinrek Maars © Juergen Kienle

Far from it! Once all hell broke loose here.

Can these “eyes of the Eifel” lie? Pure and clear, they shimmer in shades of blue and green, awakening magical misty creatures in the morning sun. And on hot summer days, they invite you to take a refreshing swim. But their birth was anything but peaceful.

Maars are the result of violent explosions deep in the earth. Rising magma, gases and ground-water come together, causing the first explosions of steam. This is repeated hundreds of times. The bedrock is crushed with unimaginable force, torn apart and sometimes ejected kilometres high. The rock packages break off the steep slopes of the crater, creating a bowl-shaped depression in which water can collect. Finally, the maar is born.

But the fire from inside the earth has also piled up mountains in the Vulkaneifel. Until 10,000 years ago, volcanoes were still smoking here, and the Ulmener Maar — Central Europe’s youngest volcano — was the last to form.



Millstone cave Rother Kopf

Travelling through the land of maars and volcanoes

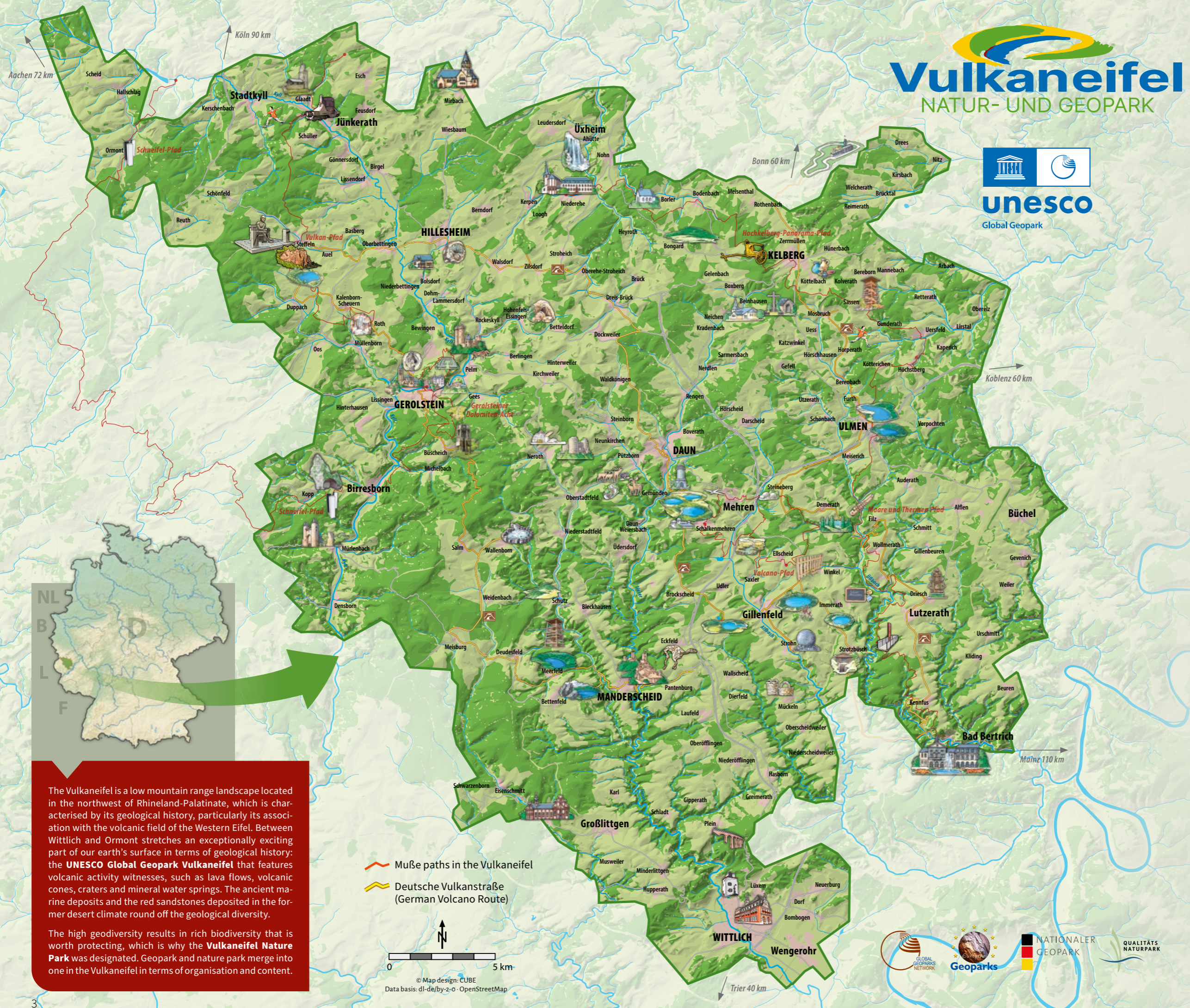
Dear readers,
dear guests and friends of the Vulkaneifel,

A warm welcome to the land of maars and volcanoes. With its majestic peaks, dense forests, clear streams, fragrant meadows and scenic villages, the Vulkaneifel presents itself as a charming holiday region that is immensely peaceful.

Beneath the surface, however, there is more than mere silence. The mighty volcanic forces that once led to the formation of this enchanting, sometimes harsh landscape are still active. Fire and water have shaped the Vulkaneifel and are still shaping it today. Its impressive legacy thus far includes approximately 350 small and large volcanoes, maars, lava flows and countless mineral water and carbonic acid springs. The geological history of the Vulkaneifel (or Volcanic Eifel) offers even more: red sandstones, tropical reefs and mighty marine deposits tell of both calm and turbulent times during the past 400 million years.

Few regions of our earth provide a comparably clear and fascinating insight into the history of their becoming and changing. Due to its importance to the global community, the Vulkaneifel Nature and Geopark was recognized as a UNESCO Global Geopark in 2015. This distinction is confirmation of the work done and, at the same time, an invitation to further develop the offers in the Nature and Geopark. Carefully curated cycling and hiking tours lead to the treasures of this fascinating landscape. Numerous information points provide facts about geosites and biotopes; geo-museums reveal scientific phenomena, and certified guides inspire visitors on exciting discovery tours.

All your senses will be stimulated and challenged as you taste and savour local flavours, walk or hike the trails, or take out a cycle or mountain bike to sightsee and discover the beauty this landscape has to offer. Join us on a journey through the land of maars and volcanoes!



Vulkaneifel
NATUR- UND GEOPARK



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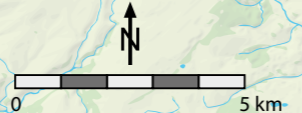


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The Vulkaneifel is a low mountain range landscape located in the northwest of Rhineland-Palatinate, which is characterised by its geological history, particularly its association with the volcanic field of the Western Eifel. Between Wittlich and Ormont stretches an exceptionally exciting part of our earth's surface in terms of geological history: the **UNESCO Global Geopark Vulkaneifel** that features volcanic activity witnesses, such as lava flows, volcanic cones, craters and mineral water springs. The ancient marine deposits and the red sandstones deposited in the former desert climate round off the geological diversity.

The high geodiversity results in rich biodiversity that is worth protecting, which is why the **Vulkaneifel Nature Park** was designated. Geopark and nature park merge into one in the Vulkaneifel in terms of organisation and content.

- Muße paths in the Vulkaneifel
- Deutsche Vulkanstraße (German Volcano Route)



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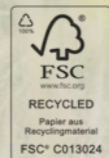


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Weinfelder Maar



Geopark

A Vision that goes around the World

Nothing in the world is more powerful than an idea whose time has come! When it comes to the concept of geoparks, this Victor Hugo quote hits the mark.

The term Geopark currently yields almost 6 million results on Google. However, in 1997 when Google first launched, there would have been only one result: the Gerolstein Geopark in the Vulkaneifel. This marked a significant milestone as it was the first time where geosciences and tourism were integrated through educational programmes and georoutes under the leadership of Dr Marie-Luise Frey.

Around the same time, Dr Guy Martini (Réserve Géologique Naturelle de Haute Provence, France) and Prof. Dr Nikolaos Zouros (Petrified Forest Lesvos, Greece)

met at a geo-congress in China. Together with Dr Frey and Mateo Andrés (Parque Cultural del Maestrazgo, Spain), they drew up a charter defining geoparks:

A geopark is a protected region that contains phenomena of special geological significance, rarity or beauty. These phenomena are representative of the geological history of the region and the processes that led to its formation. Like a natural park, a geopark falls under the supervision of the region-based administration in which it is located. In addition to the opportunities for scientific work and broad environmental education, a geopark should have great potential for local economic development.

The foundation stone was laid on fertile ground. In 2000, the Foundation of the Eu-

ropean Geopark Network was established, followed by the launch of the Foundation of the Global Geopark Network in 2004. Finally, the dream of UNESCO Global Geoparks, which had taken shape via a LEADER IIB project in 1998, became a reality. In 2015, the UNESCO General Assembly made the decision to establish UNESCO Global Geoparks as a third category for the designation of sites, alongside World Heritage Sites and Biosphere Reserves. UNESCO defined three overarching goals for a geopark. These goals encompass the preservation of an intact environment, the promotion of sustainable economic development, and the enhancement of general geoscientific education. Simultaneously, the Global Geopark Network was integrated into UNESCO's "International Geoscience and Geoparks Programme" (IGGP).

That may sound distant and abstract, but we have been and continue to be part of it. We have been and continue to be given the opportunity to help shape it. We were pioneers in realising that the preservation of our geological heritage can be achieved through its sustainable valorisation: protection through use! Anyone who travels through the Vulkaneifel today recognises that its geological uniqueness is lived. It is reflected in hotel names, on menus, in events and tourist offers. The geopark has become a defining element of identity formation, fostering a newfound awareness and attentiveness among the people of the Vulkaneifel.

As I write this, I'm not sure I can properly convey the scope and significance of this Geopark project. I have been involved for more than 20 years, I know the people involved and have been allowed to participate. The picture on the left, which is also the cover of the first Geopark Network magazine, shows my hand and that of my daughter - symbolically, the geo heritage is passing on to the next generation. I was allowed to design the UNESCO Global Network logo and the Vulkaneifel logo and have accompanied all GeoLife and Vulkaneifel magazines in their creation.



The first Vulkaneifel Magazine „GeoLife“ from the year 2001.

I know of no geo project that touches more people worldwide: 211 UNESCO Global Geoparks in 48 countries (as of Jan. 2023), including China, Canada, Brazil, Mexico, Korea, Nicaragua, Ecuador, Tanzania, Vietnam, Thailand! Hundreds of millions of people must have visited a geopark and learned something about our fascinating Earth. What these four geoscientists have done and achieved for the sustainable protection and development of geologically outstanding regions demands the greatest respect and high regard! Her path was never easy and required unconditional passion, endless diligence, great trust, profound knowledge and a great deal of patience. Without the constant efforts of these geoscientists, the project might have not succeeded. ■VT

Global Geoparks Network

All UNESCO Geoparks are also members of the "Global Geoparks Network". They support UNESCO's technical work on geoparks in countries of the Global South with 1,000 US dollars annually.

As of January 2023, 211 UNESCO geoparks in 48 countries work very closely together in this global network. The representatives of all geoparks meet every two years at the International Conference on UNESCO Geoparks to share expertise, advance strategic issues and launch joint projects. Within the framework of regional networks, the geoparks meet twice a year.

The network grows by about 10 to 20 geoparks per year. New applications for the award are very strictly examined, with only about half are approved. To ensure a geographically balanced distribution of UNESCO geoparks, each member state may only have two applications "in process" at any given time.

UNESCO Global Geoparks And National Geoparks in Germany



The distribution of **UNESCO Global Geoparks** across the world is notably uneven, with Europe and Asia emerging as the primary regions. This disparity can be attributed to political or structural causes, rather than a reflection of the accumulation of geological phenomena.

The geopark idea was eagerly embraced in Germany. There are currently 18 national geoparks, including the eight German UNESCO Global Geoparks. The designation of **Nationaler Geopark in Deutschland** is carried out by the GeoUnion Alfred-Wegener-Stiftung on behalf of the Bund-Länder Committee for soil research (BLA-GEO).

Nature parks serve to preserve and further develop the natural and cultural landscape with its fauna and flora. These parks, serving as model regions, actively promote sustainable regional development and tourism. Moreover, they provide opportunities for environmental education and sustainable development.

The concept of nature parks was developed over 100 years ago, with the aim of preserving, maintaining, developing and restoring large-scale cultural landscapes that offer remarkable scope for recreation. Each nature park represents a distinctive landscape with unique features.

The Vulkaneifel Nature Park was officially inaugurated on 31 May 2010, making it one of Germany's newest nature parks. Its special feature: it is also a UNESCO Global Geopark. In addition to its natural qualities and varied cultural landscapes, it has a unique geological heritage.

Vulkaneifel Nature Park

GEO and BIO Belong Together



The geological subsoil determines in type of habitat that can develop on the surface. Geoparks possess a comprehensive understanding of the Earth's history and inanimate nature. On the other hand, nature parks primarily focus on the study of animate nature, including flora and fauna.



Despite their differences, these two areas are inherently interconnected and found expression through the designation of the Vulkaneifel as a nature park in 2010. This designation honours the special cultural landscape of the Vulkaneifel, which boasts a large number of high-calibre habitats of-



fering sanctuary and survival opportunities for various flora and fauna. In terms of organisation and content, the nature park has seamlessly merged with the geopark. Geo and Bio can thus be further developed as an integrated whole, which falls in line with the concept of geoparks.



The primary objectives of protecting the Vulkaneifel Nature Park

1. to protect, maintain and develop the Vulkaneifel with its volcanic remains, maars, moors, streams, meadows, pastures, valleys, mountains, forests and dry grasslands that collectively form a large-scale, cohesive area of significant natural scenic value as well as to maintain or restore the efficiency of the natural balance,
2. to promote and develop its special suitability as a near-natural area for sustainable recreation and environmentally compatible tourism, including sport,
3. to uphold and develop the distinctive diversity, uniqueness and beauty of the landscape, which is characterised by a variety of uses, and its diversity of species and biotopes, and to strive for sustainable and environmentally compatible land use for this purpose,
4. to increase sustainable regional value creation on the basis of its natural, cultural and economic qualities through the cooperation of all those concerned and interested, including the commercial sector, such as mining companies,
5. to preserve, maintain and enhance the cultural and recreational landscape, including agriculture and forestry, and to promote overall sustainable regional development.

In the core zones of Salmwald, Liesertal (North and South) and Uessbachtal, an additional conservation objective is to provide opportunities for tranquil and near-natural recreational experiences.

Geodiversity → Biodiversity

High geodiversity leads to high biodiversity. Altogether, the Vulkaneifel Nature and Geopark offers a home to ten German "responsible species". These species are exclusively or predominantly located in Germany. The species richness of the fauna and flora in the vicinity of the maars is also particularly remarkable. While the forest-free upland and intermoor vegetation of some dry maars is a refuge for extremely rare butterfly and dragonfly species, the biotope complexes in maar slopes provide a habitat for bird species, such as the red-backed shrike, woodlark and corn-crake.



Experience nature first hand

Pick a delightful tour, lace up your hiking boots and set off on an adventure - the earlier, the better. The Vulkaneifel Nature and Geopark offers a wealth of paths, trails and places that take you very close to the biotic communities that are native to the protected areas here. Please be careful, mindful and respectful of the plants and animals, some of which are exceptionally rare and worthy of protection. Here are a few nature-tour tips:

- **Vulcano-Pfad:** 26.2 km, Start: Maarstraße (village centre), 54552 Schalkenmehren
- **Pfad der Artenvielfalt:** 13.5 km, Start: Car park, 54552 Darscheid
- **HeimatSpur Lavaweg Strohn:** 20.5 km, Start: Vulkanhaus Strohn, 54558 Strohn
- **Hippelsteinchen und Fernsichten:** 7.6 km, Start: Hauptstr., 54584 Gönnersdorf
- **Moorpfad Ormont:** 9.8 km, Start: Church, 54597 Ormont
- **Spuren der Kamillen Traud:** 4.3 km, Start: Hikers' car park 56767 Kolverath
- **Eifelsteig-Erlebnisschleife Mühlenroute:** 36 km, Start: Tourist-Info, 54516 Wittlich

What Makes the Vulkaneifel so Unique

The name itself reveals the captivating history of the Vulkaneifel region - a testament to its fiery past. Volcanic activity in this area dates back to the Tertiary period, approximately 45 to 35 million years ago. After a prolonged period of quiet spanning millions of years, a second active phase of volcanism began in the Quaternary period around 700,000 years ago. The volcanoes that emerged during this time still have a significant impact on the landscape today. The last eruption recorded 10,900 years ago, Germany's - even Central Europe's - youngest volcano, the Ulmener Maar.

There are a total of around 350 eruption centres in the Vulkaneifel. The older tertiary volcanoes have been eroded down to their remains due to weathering and erosion, leaving behind only remains that can be detected using geophysical measuring methods.

The Vulkaneifel region has gained significant recognition and acclaim among scientists specialising in geology, volcanology, geophysics, climatology, limnology and botany due to the presence of a special volcanic form known as **maars**. The frequency and diverse range of maar volcanism have given the Vulkaneifel an outstanding scientific standing. In the volcanic field spanning a length of 55 km and width of 25 km, 78 maars have been explored and scientifically documented thus far. **This makes the Vulkaneifel the area with the highest density of maars in the world.** The area showcases the complete spectrum of maar development ranging from water-filled maars (maars with maar lakes), such as the Pulvermaar, Meerfelder Maar or the Dauner Maars to the various stages of silting up to high moors (e.g. Strohner Määschen, Dürres Maar and Dreiser Weiher), and the dry maars (e.g. Oberwinkeler Maar, Dehner Maar), which are only recognisable as more or less shallow depressions in the landscape. Currently, 12 maars remain filled with water.

Maars play a crucial role in climate research. In 2008, the International Union of Geosciences designated Holzmaar and Meerfelder Maar as regional reference sites for defining the geological Pleistocene/Holocene boundary. "The sediment layers retrieved from these lakes, known as warves, offer val-



uable insights into the past vegetation, ultimately shedding light on the climate and land use over the past 120,000 years (refer to the article on page 17 for more details). In line with the **past-present-future principle** (understanding the present from the geological past and learning for the future), this branch of research holds immense significance in assessing climate change and its impacts.

At present, the Vulkaneifel is still rising by about 1 mm per year (in 1 million years, this is equivalent to 1 km!) and the many carbonated mineral water springs are not only an export hit, but also testify to the fact that the geological processes have not yet come to rest. A detailed analysis of the eruption ages of the volcanoes (Mertz et. al., 2015) leads to the conclusion that the younger volcanoes tend to be found in the southern part of the Westeifel volcanic field, roughly from Üdersdorf via Gillenfeld to Bad Bertrich. A new eruption will most likely be expected here (cf. technical article page 36) but at present there is no cause for alarm. The monitoring data presents no indication of acute volcanic activity. It is important to remain calm here, because these processes operate on a scale spanning tens of thousands, hundreds of thousands, and even millions of years. ■ JF

The name **Maar** can be traced back to the homonymous Eifel dialect term from the Daun region. The derivation of this word from the Latin **mare** (sea) and the late Latin **mara** (lake) is apparent. One of the first written mentions of the word **Marh** is found in Sebastian Münster's **Cosmographia**, published in 1544. He used it to refer to the Ulmener Maar and the Laacher See, although the latter is a caldera according to modern typology. Johannes Steininger (1794–1874), a geologist and grammar school teacher from Trier, was the first to apply the dialectical name **Maar** as a technical geological term to a volcanic funnel filled with water. Later, the term entered the international technical lexicon. ■ VT

Early Research in the Vulkaneifel

"The fact that we have given a special section to this significant area of land, which bears witness to ancient fiery processes, will require no justification." This is how Carl Caesar von Leonhard begins the chapter on the Vulkaneifel in his classic textbook *The Basalt Formations* in 1832. With this book he set the final point in the dispute about the formation of basalt that lasted for decades all over Europe. And Leonhard goes on to quote from the letter that Leopold von Buch wrote from Ehrenbreitstein to Johann Steininger in Trier on 12 August, 1820: **"The Eifel," says L. v. Buch, "has no equal in the world; it will become a guide and teacher for understanding many other regions; its knowledge cannot be bypassed if one wants to obtain a clear view of volcanic phenomena on continents"**.

The first extinct volcanoes in Europe were discovered in central France in 1751, but the first reports of extinct volcanoes in Germany were documented only by 1771. Initially, these were discoveries in northern Hesse and on the Rhine. The easily accessible volcanoes at Lake Laach and in the Siebengebirge also attracted early attention.

The first volcano in the Vulkaneifel was discovered by the Belgian Robert de Limbourg in 1774 near Steffeln, and his findings were later published in 1777. Following his discovery, other Belgian and French geologists also explored the area. However, Johann Heinrich Wilhelm Perz, a skipper in Oberwinter and "assistant" to the Bonn mineralogist Carl Wilhelm Nose, travelled through the northern Vulkaneifel probably before 1789. Here he collected numerous mineral and rock samples, which Nose made known in 1790.

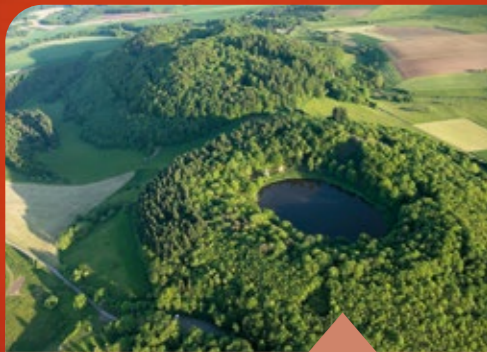
But it was only after the end of the Napoleonic Wars, when the region had fallen to Prussia in 1815, that intensive research began on the Prussian side. It was the Trier grammar school teacher Johann Steininger who published extensive studies and maps between 1819 and 1853. In 1819, he introduced the name "Maar" into geological literature, a name that was regionally common for the round crater lakes, and made the Vulkaneifel internationally known.

Soon, geoscientists from all over Europe travelled to the region and published many groundbreaking observations. A few of the most important are mentioned here: Reynaud Comte de Montlosier from France, Pictet from Switzerland, Lyell and Scrope from England, Keferstein, Stengel, von Buch and Mitscherlich from Germany.

There is not enough space here to provide a rough overview of the wealth of research results achieved in the Vulkaneifel at that time (comprehensive descriptions in: Lutz & Lorenz 2009, 2013). Only the numerous publications on the formation of maars and the role played by water vapour are worth mentioning. They are the basis of today's ideas about general phreatomagmatic and thermohydraulic processes.

And reference should be made to the innovative maps by Eilhard Mitscherlich, on which geological information was shown in combination with contour lines for the first time. These were developed to depict the volcanoes near Gerolstein, the Ulmen Maar, the surroundings of Bad Bertrich and, last but not least, the first modern "Geognostic Map of the Vulkaneifel" from 1865.

■ Dr. Herbert Lutz, July 2021



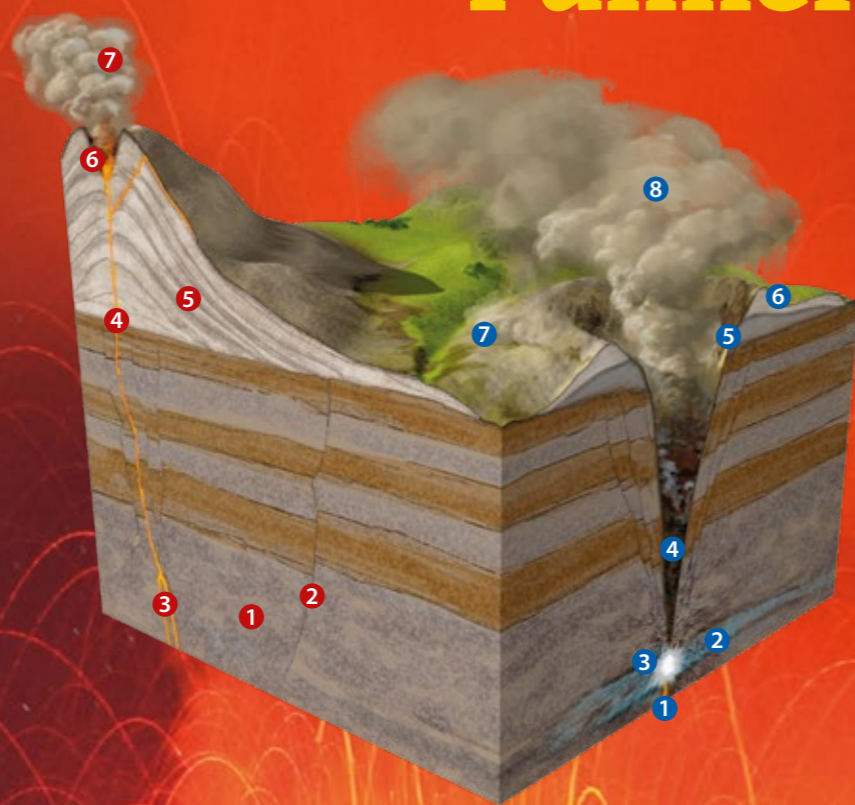
Volcanic cones:

When magma rises up from the earth's core, it can, depending on its composition, create extremely high pressure, which is then released in huge explosions. This leads to an eruption of lava, ash and cinder, and as the pressure decreases, the lava flows.

The geological interplay between these deposits gradually forms the cinder cones and strato volcanoes commonly found in the Eifel. If the summit crater fills with water, it develops into a crater lake, like the **Windsborn Crater Lake**, which is the only one to be located north of the Alps.

A careful look at the two aerial photos on the left reveals clear differences: the upper picture depicts volcanic cones rising from the landscape. The lower picture presents two circular depressions - these are Maar funnels. The reason why they look so different lies in their history of formation, as illustrated by the block below and explained on the left.

Volcanoes with Cone and Funnel



Cinder cone

- 1 Bedrock
- 2 Fault
- 3 Magma
- 4 Main vent
- 5 Cinder layers
- 6 Summit crater
- 7 Eruption column

Maar funnel

- 1 Magma
- 2 Groundwater
- 3 Explosion chamber
- 4 Vent
- 5 Funnel
- 6 Tuff ring
- 7 Base surges
- 8 Eruption column



Maar funnels:

If, as it rises, the magma hits aquiferous strata, this water rapidly vaporises, resulting in massive explosions. The surrounding rock at the contact point is shattered, transported upwards, and spat out. The blasted-out explosion chamber then caves in, leaving a funnel on the earth's surface, enclosed by a ring-like wall made from the ejected materials, thus creating a maar. The collapsed funnel can fill with water and become a maar lake.

Maars are a distinctive characteristic of the Vulkaneifel. There are officially 78 of them, 12 of which contain a lake – the “Eyes of the Eifel”. In many other maar funnels, the lakes have silted up and developed into raised bogs with special plant populations. Other maars never filled with water or have levelled out due to natural erosion, and they are now only identifiable as flat, bowl-shaped depressions.



News from the World of Eifel Volcanoes

Today, individuals on a quest to uncover their ancestral origins, including potential Neanderthal connections or Prussian heritage, can learn about their genetic makeup by simply swabbing their mouth with a cotton swab. By sending this sample off and waiting approximately a month, they can gain knowledge about their own genes, often more than they ever anticipated, for a fee of around €70.

The magmas from each Eifel volcano contain a disproportionately larger number of chemical “genes” that have resulted from the long and arduous journey, originating from mineralogically different mantle domains and constant mixing to form a magma. Some of these “genes”, i.e. certain physico-chemical properties of a magma, play a central role in its eruptive behaviour.

Within the West Eifel Volcanic Field (WEVF), the volcanoes are typically differentiated based on their level of preservation and the exposed structures and deposits found in quarries. The simplest distinction involves classifying them as either maars, which are larger holes – sometimes filled with water, or cinder cones, which are volcanic mountains. Both these formations are the result of magmas, liquid rock melts

that erupt with the crucial involvement of magmatic gases.

The magmas formed in the Earth's mantle at a depth of more than 50 km collect at the boundary between the dense (“heavy”) mantle and the light, less dense Earth's crust as they rise. This boundary layer, called “Moho”, at a depth between about 32 and 28 km is not sharply distinguished under the volcanic areas of the Eifel. Magmas that occasionally rise from this “intermediate reservoir” do not normally reach the Earth's surface directly but collect in the Eifel in intermediate reservoirs, known as magma chambers. Here, it is already much cooler than at the Moho, thereby enabling the magmas to slowly crystallise into coarse-grained rocks, depending on the residence time and crustal depth of an intermediate reservoir. These witnesses from the depths, which consist mainly of the mineral phases amphibole, mica, pyroxene and sometimes some olivine, are called plutonic rocks. From their composition, especially from the CO₂ bubbles trapped in some mineral phases such as pyroxene, one can determine the depth, i.e. the pressure, at which a magma has cooled. For the Pulvermaar, the approximate depth of a magma reservoir is about 20 km.

But how did the fragments from the depth come to the Earth's surface? We assume that a second gas-rich magma thrust entered the almost crystallised magma reservoir and the high gas content (CO₂) expanded and fragmented the solidified plutonic rocks and surrounding metamorphic rocks. All fragments are surrounded by a lava crust consisting of microscopic lava globules. Similar to industrial fluidisation processes, the thin-bodied magma was apparently sprayed onto the fragments. CO₂-rich magmas can expand enormously at this depth.

The magmas of young maars such as Pulvermaar or Dauner Maar – formed from particularly fluid and CO₂-rich melts, which are called melilith nephelinite. The main part of the newly intruded magma was formed into globules by the high CO₂ pressure and shot to the surface at high speed as CO₂-driven jets. Where the CO₂ jets met groundwater, there were also huge steam explosions.

■ Prof. Dr. Hans-Ulrich Schmincke

From: Schmincke, Hans-Ulrich: Volcanoes of the Eifel. Third completely revised edition. Springer Verlag (Heidelberg) 2023 (in prep.).

Climate Archive: Maar Lakes of the Vulkaneifel

The Eifel's Eyes look far back into the Past

Like an open book, the seasonally stratified deposits from Holzmaar narrate the climatic history spanning many millennia (Fig. 1). Additionally, human activities from long ago have been archived in this young volcanic landscape, while the volcanic ash layers testify the rise of magma from the depths of the earth's interior. However, rest assured, as the most recent eruption - the Ulmener Maar - is considered youthful solely in geological terms, having occurred a staggering 10,900 years ago.

The unique deposits that have survived in the depths of Holzmaar are "double-sided", so to speak, and consist of a light lower layer and a dark upper layer. In spring and summer, mainly the diatoms, which occur en masse in the lake, sink through a 20 m water column to the lake's bottom, where they are deposited as the light layer of the annual stratification. In autumn and winter, this is followed by plant remains such as leaves that have blown into the lake from the catchment area as well as soil erosion consisting of sand and clay particles that have been washed into the lake with the inflow. This mixture forms the dark layer of the annual stratification. Together these layers create a seasonally deposited pair with an average thickness of 0.7 mm, which is scientifically referred to as a **warve** (Fig. 1).

After the seasonally stratified or varved deposits have been extracted from the bottom of the lake using a floating platform (Fig. 2), they are evaluated under the microscope after laboratory preparation. These counts then yield an accurate age model for this natural archive – the warven chronology. With its precise and continuous chronology, the warven chronology provides the temporal framework for all further investigations. The growth principle underlying this method is comparable to the counting of tree rings used in dendrochronology.

Although the annual layers are relatively thin, limnic microorganisms such as diatoms, ostracods and chironomid larvae can be extracted from them and used to reconstruct past water conditions. Moreover, the sediment's pollen content provides information about the flora surrounding Holzmaar as well as about human activities in the lake's catchment area, such as forest clearing or grain cultivation. Finally, geochemical analyses impart insights into, for example, oxygen availability at the bottom of the lake, soil erosion processes in the catchment area or contamination with heavy metals, e.g. from iron smelting.

Thirty-five years ago, initial investigations of the seasonally stratified maar sediments provided reconstructions on time scales ranging from centuries to decades. Today, modern non-contact scanning methods with their high spatial resolutions of less than a tenth of a millimetre are advancing into temporal ranges that permit seasonal statements in the analyses. Such investigations are being carried out at the University of Bremen, as well as among other institutions, and promise many more exciting scientific insights into the environmental and climatic history of this unique volcanic landscape

■ Prof. Dr. Bernd Zolitschka



Fig. 2: The drilling platform floats on the Holzmaar and the scientists are ready to recover sediment cores from a water depth of 20 m.

© Photo: GEOPOLAR, Institute for Geography, University of Bremen

Fig. 1: Like the lines of an open book, the annual layers of this sediment core from Holzmaar, clearly visible in the photo, document past events. The section depicts dates from the early Iron Age (ca. 800 to 600 years BC) and shows, in addition to the very well preserved warves, a light-coloured event layer (between 92 and 93 cm), which is the result of increasing forest clearance and associated soil erosion. The prehistoric period of the Iron Age is known for the production and use of tools made of iron. On the one hand, charcoal was required for iron production, while on the other, the use



of the hard iron tools accelerated forest clearing as well as agriculture. Taken together, both led to intensive changes in land use and, thus, accelerated soil

erosion processes. This process is evident through the depicted light event layer. (Scale in cm; © Photo: GEOPOLAR, Institute of Geography, University of Bremen).

National Geosites

A geosite is a significant document demonstrating the history of a landscape or region. As an integral part of the natural heritage, geosites are one of the most prioritised assets that must be preserved for the future.

The term “National Geosite” was coined in 2004, when the Academy for Geosciences and Geotechnologies in Hanover called for a competition to identify the most important geosites in Germany. The Daun Maars and the Eckfeld Maar were among the 77 designated national geosites in 2006.

In a new designation process, further national geosites were added in 2019, including the Dreimühlen waterfall near Nohn in the north of the Vulkaneifel.

The Daun Maars

consists of the Gemünden Maar, the Weinfelder Maar and the Schalkenmehrener Maar.

The Dreimühlen waterfall

is located south of Ahütte. It was formed by the merging of three spring rivers during the construction of a railway line in 1912. The carbonate-rich water from the springs releases carbon dioxide at the splash edge. As a result, the remaining calcium carbonate encrusts with colonising moss, which causes the sinter bank to “grow” forward into the valley at about 10 cm per year!

The Ulmen Maar

has been recognised as one of the first 100 IUGS (International Union of Geological Sciences) geoheritage sites worldwide since October 2022. These are geological sites or landscapes that hold immense international significance and vividly represent geological formations.

The Ulmen Maar was one of three German localities to be included in this global list. It is not only the youngest volcano in Central Europe but is also emblematic of maar volcanism in the Vulkaneifel and beyond.

The IUGS is one of the largest scientific organisations in the world.

and global Top-Geo-Sites



The bubbling Brubbel



The seemingly peaceful well awakens, beginning to bubble. Suddenly, a fountain shoots up into the sky. For six minutes, cold water shoots into the air, at a chilling temperature of 9°C. Then, just as quickly as it began, the spectacle is over: the “Brubbel”, as the locals affectionately call this phenomenon, calms down again. The basis of this natural spectacle is a carbonated spring. In the early 1930s, the people of Wallenborn wanted to harness it for industrial purposes and began drilling into the spring. But during this attempt, they were met with chunks of earth and water flying around them. They had encountered a cavity from which the accumulated CO₂ ejected the water into the air.

The fact that the „Brubbel“ in Wallenborn spits at such regular intervals can be explained with the help of a comparison: similar to a sparkling water bottle that is shaken, the pressure in the underground chamber rises. At some point - after about 35 minutes to be precise - this pressure exceeds the pressure of the water column above and the „Born“ begins to surge - a spectacle that you should definitely not miss!

The 3.5 km long Brubbel Trail follows the Wallenden Born. The information points along the Brubbel Trail provide insights into the village life of Wallenborn, the dialect of the village and the special features of the landscape.

Fresh from the deep

Vulkaneifel mineral water: Witness to volcanic activity

The Vulkaneifel has been bubbling and sputtering for thousands of years. Gassy water gushes out of fissures and crevices in the Earth’s crust and bears witness to past and present volcanic activity. And it is precisely this volcanic past that provides the basis for a product that we can no longer imagine our tables without: mineral water.

Initially falling to earth as precipitation, the water seeps through fissures, porous volcanic rocks and the older layers of the bedrock, consisting of marine deposits approximately 400 million years old. In the process, it accumulates minerals and is extensively filtered. Somewhere deep in the earth, the water then meets something that is heading in exactly the opposite direction - upwards: carbon dioxide (CO₂). Anyone who thinks that everything is quiet and peaceful down in the Earth’s interior today

is mistaken. Red-hot magma is constantly in motion and makes an occasional appearance above ground by releasing a variety of gases, including CO₂. It rises from the upper mantle through the Earth’s crust, which is only about 35 km thick here, to the surface. When water and CO₂ mix, the result is something we consume almost every day: sparkling mineral water.

Most of the springs in the Vulkaneifel are - scientifically speaking - hydrogen carbonate acidulous. In contrast to mofettes, in which CO₂ comes to the surface as a dry gas, it reaches the Earth’s surface in dissolved form through the mineral water springs.

What is special about these springs are the minerals and carbonic acid, granting the water an extremely tasty, sparkling and, thus, refreshing taste.



Helenenquelle in Gerolstein



Strotzbüscher Quelle

The word Drees comes from “Dreyse”, the Celtic term for a bubbling spring, related to the old Germanic word “Thrais” for bubbling or swirling. In the Vulkaneifel, the word has been preserved in dialect and refers to local mineral water and carbonic acid springs.

Springs of the Vulkaneifel: Drees

Almost every village in the Vulkaneifel has its Drees, to which it lends its name, including famous ones such as Dauner, Gerolsteiner and Dreiser. Many communities owe their foundation to a Drees and its precious water. Even the Romans praised the water quality of the Vulkaneifel springs, and built pipelines for the water all the way to Cologne.

The mineral water from the Vulkaneifel are extraordinarily rich in nutritious minerals, because of the volcanic subsoil they pass

through on their long journey. CO₂, from which carbonic acid is formed in combination with water, is responsible for the mineral enrichment. It originates from the Earth’s interior and can confidently be called the breath of the volcanoes.

The differences between different types of mineral water are greater than between individual types of beer, because minerals are flavour-bearing. No two Drees taste the same.



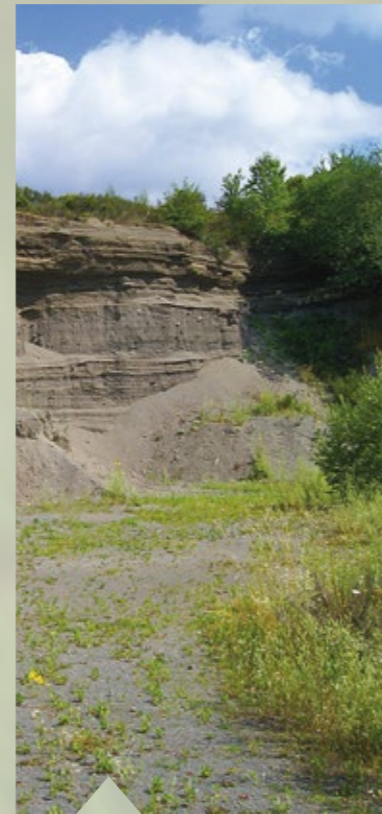
Vulkania-Heilquelle at the Dreiser Weiher

Alcohol-free Raspberry Lime Cocktail



Here is the recipe for a fruity and refreshing summer drink – perfect for hot days and made quickly and easy:

Cut half a lime into thick slices. Place some of them into a tall drinking glass, add 1 tbsp brown cane sugar and crush with a pestle. Add a handful of frozen raspberries, fill up with mineral water and serve with one or two lime slices and fresh mint.



Ideal Habitat

There are many abandoned quarries in the Vulkaneifel, most of which are closed to the public to ensure that flora and fauna develop undisturbed. Numerous wild bees and wasps can be found in the warm seasons in the artificial steep faces, especially if they are exposed to the south. Through the process of natural succession in the surrounding area, food-giving flowering plants settle, thereby transforming the quarry pits a fully-fledged habitat for wild bees.

Wild Bees in the Vulkaneifel

About 560 species of wild bees are native to Germany. About half of them are on the Red List as endangered or are already extinct. In addition to sufficient food, pollen and nectar from partly specialised plant species, wild bees require suitable nesting structures. Two-thirds of the native wild bee species nest in soils, while the rest colonise cavities, pithy stems or snail shells.

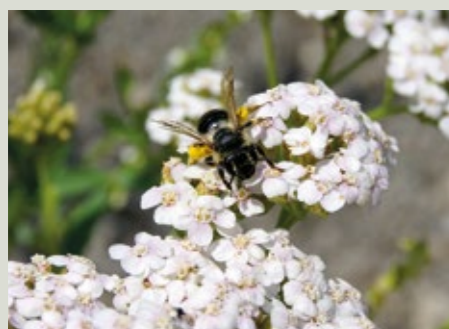
Natural cavities are created, for instance, by beetle burrows in wood or after other wild bee species have nested in slopes or steep walls. The requirements of soil-nesting wild bees are very diverse. Particular importance is certainly attached to the open earth slopes and steep slopes, which occur naturally, e.g. due to erosion or natural disasters, such as in riverbank areas after heavy flooding.

Due to consistent use of the landscape, many structures useful for wild bees have disappeared. Removal of deadwood, hedge structures and herbaceous borders cause natural hollows and pithy stems to disappear. Open terrain edges are filled in to make them easier to drive over, and scaped ridges are altered to such an extent in the interests of hazard prevention that they lose their attractiveness for wild bees.

Accordingly, secondary biotopes are of great significance. In settlement areas a human-made wealth of structures can be found. In addition, many people try to support wild bees with nesting aids, usually promoting common species such as the horned mason bee. Excavations as part of construction activities can also create “miniature” steep slopes that attract ground-nesting species such as the Yellow-fingered Furrow Bee. Notably, secondary habitats are found in inactive quarry pits, which may contain artificial escarpments and a distinct botanical diversity on barren soils. Such structures are enjoyed by diverse sand and silky bees.

Against this background, public green spaces – particularly in the settlement area – should be developed close to nature in order to create habitats for wild bees, among others. Quarry pits should be specifically maintained after abandonment of the operations, whereby the “classic” recultivation in the sense of backfilling should be dispensed with to preserve the resulting terrain breaks. An additional near-natural design of the surrounding area can, thus, provide fully developed and crucial habitats for animal species that are facing growing challenges in their survival elsewhere.

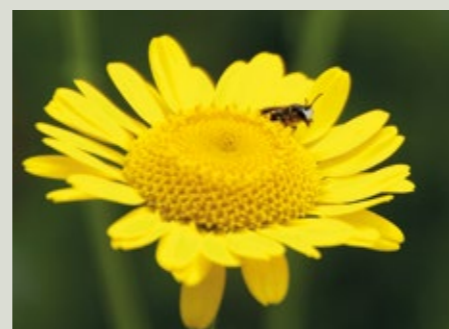
■ Dr. rer. nat. Hendrik Albrecht



Andrena spec.



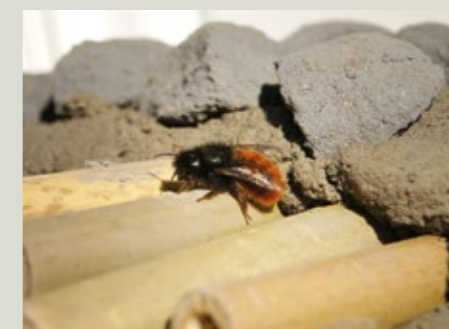
Colletes spec.



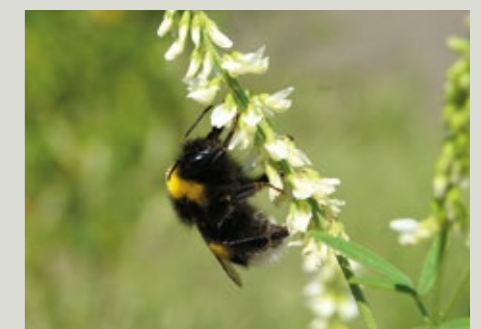
Hylaeus spec.



Lava sand mound with nest holes



Osmia cornuta on nesting aid



Bombus terrestris

Landscapes have a profound influence on us, affecting our mood and our state of mind. Renowned romantics like Caspar David Friedrich were absorbed in beauty of landscapes. And anyone who looks over his hiker's shoulder above the sea of fog virtually sinks into it.

The Vulkaneifel offers an overwhelming variety of landscapes within its compact area: forests, meadows, fields, lakes, streams, moors, rocks, heaths, rough grasslands, hilltops and valleys – a colourful, varied and yet typical mosaic of landscape elements.

A century ago, the people of the Eifel region distanced themselves from their origins due to poverty, rural migration and the demands of the economy. Today, it is the landscape, the traditions and the quality of life that make residents and guests rave about the region.

Landscapes of the Vulkaneifel

Landscape shapes People and People shape Landscape

You will not often come across untouched natural landscapes or even “primeval landscapes” in the Vulkaneifel. Humans had a hand in it early on, probably already during the last Ice Age, as evinced by findings from the Buchenlochhöhle cave. Later, it was the Celts, then the Romans and, finally, the Franks who settled in the Eifel and cultivated the landscape; natural landscapes increasingly became cultural landscapes.

While man may have had a formative influence on the transformation of landscapes, the geological and climatic conditions have been decisive elements in their formation and characteristics. In

the Vulkaneifel, several deposits from different geological eras overlap in many places: young alluvial sediments, Tertiary and Quaternary volcanism, red sandstone, Middle Devonian limestone hollows and Lower Devonian sedimentary rocks of the Rhenish Slate Mountains.

Different parent rocks produce distinct soils, each with typical pH values, nutrient contents and water holding capacity. Exposure, location, use and climatic conditions also determine the thickness of the soil. The wild plants growing on them usually adapt the different soil substrates and site conditions. In turn,

the corresponding animals adapt to these and use the growth as shelter, food or habitat.

Therefore, diversity in geology also creates diversity in flora and fauna. In other words, such diversity results in ideal starting conditions for a nature and geopark. In short: a diversity of geology generates a diversity of life, or even shorter: **geodiversity generates biodiversity.**

And that is exactly what you will experience on your discovery tours through the Vulkaneifel: a diverse mosaic of landscapes, each with its own typical flora and fauna.



Forests characterise the Vulkaneifel. 45% of the area is covered with trees. Although almost all of them are utilised for forestry, the large deciduous and mixed deciduous forests are especially characterised by their closeness to nature. The Eifel forests begin to glow with the green of May; on hot summer days, they are pleasantly cool and shady. In October, their colourful splendour heralds autumn, and in winter, bare giant trees display their monumental size in snow and hoarfrost.



What does Landscape mean?

On one hand, landscape refers to the culturally shaped, subjective perception of an area as an aesthetic whole – this is the **philosophical - cultural - scientific** concept of landscape.

On the other hand, it is used to designate an area that is distinguished from other areas by scientifically ascertainable characteristics – this is the **geographical** landscape concept.

Landscapes that have been shaped by humans are called cultural landscapes, which stand in contrast to natural landscapes. Germany, like many other countries, is especially characterised by cultural landscapes, such as fruit growing or arable farming. Where settlements dominate the landscape, we speak of densely populated areas.



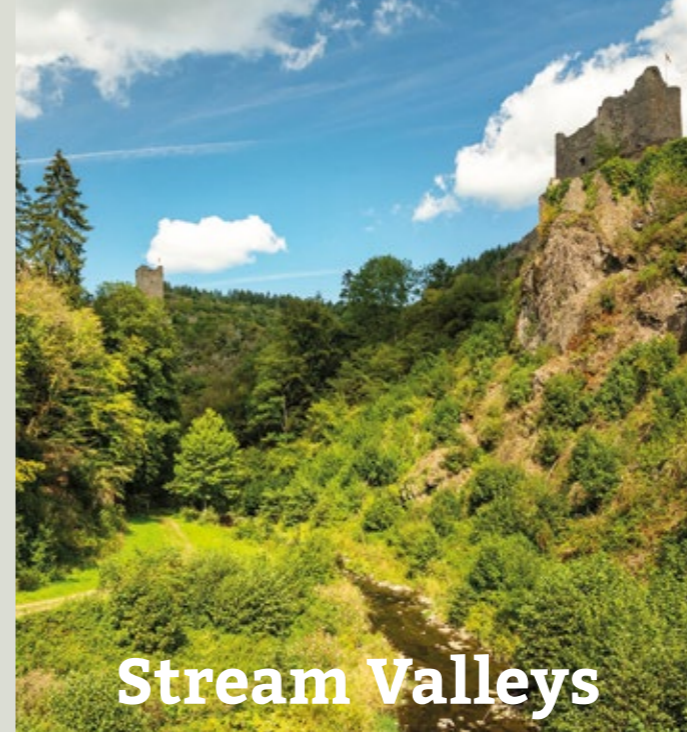
Meadows & Pastures

Colourful flower meadows? - Of course, you'll find them in the Vulkaneifel! Grassland is typical for the Vulkaneifel. Around two-thirds of the agriculturally used land consists of meadows and pastures. These are not only species-poor "uniform grassland" subjected to intensive use and manure fertilisation, but the region also boasts extensive meadows with hay production. Many communities in the Vulkaneifel still practice traditional livestock farming, with a particular focus on dairy cows.



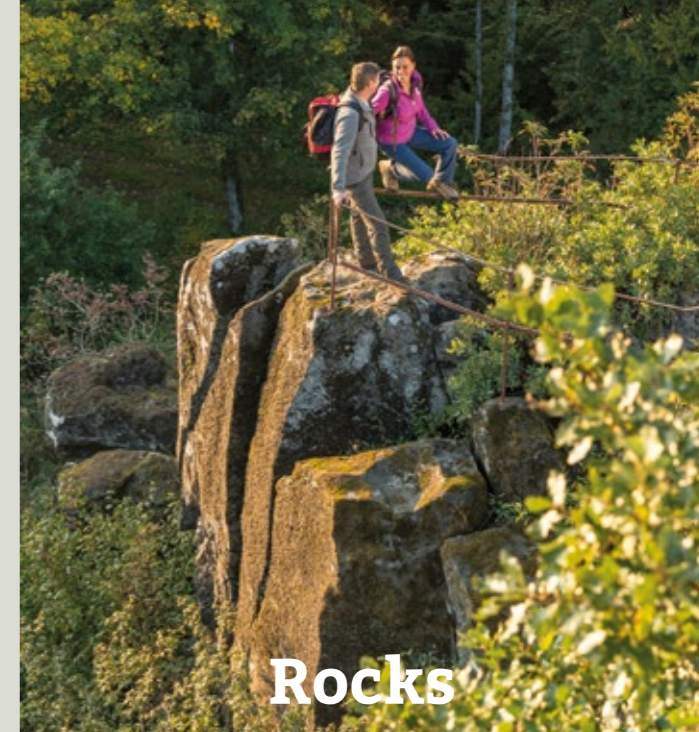
Sources

The high altitudes of the Eifel extend up to 700 m above sea level, serving as the headwaters of many Eifel streams, such as the Salm, Lieser, Alfbach, Ahbach and Uessbach. Interestingly, the birthplaces of these streams and rivers were often also favoured as human settlement sites. Many place names in the Vulkaneifel, such as Bereborn, Wallenborn, Salm or Pützborn, already indicate their association with the springs. A typical natural spring in the Vulkaneifel is the seepage spring, which has sources in a larger spring area.



Stream Valleys

Numerous streams drain the Vulkaneifel from north to south in parallel valleys towards the Moselle. The valleys of the Kyll, Salm, Kleine Kyll, Lieser, Alfbach and Uessbach alternate throughout the region. The watershed runs along the Wiesbaum-Walsdorf-Dockweiler-Boxberg-Köttelbach line, and streams draining north of it, such as the Ahbach, Trierbach and Nohnerbach, drain into the Ahr. Specialists such as dippers, kingfishers and damselflies depend on clean and structurally rich streams for their survival.



Rocks

The Vulkaneifel is littered with rocks and rock faces, many of which are of natural origin, while others are the result of rock quarrying activities. Depending on the geological subsoil, you will find limestone and dolomite rocks, volcanic cinder and basalt rocks, mottled sandstone rocks or greywacke rocks in the region. These rocks serve as special biotopes in the landscape. Particularly, the open rocks facing south present climatically extreme locations. Only adapted animal and plant specialists can survive here.

Calcareous Grasslands

Calcareous grasslands have earned their title as one of the most species-rich grassland communities in the country. Up to 40 and more different plant species and numerous animal species adapted to them can be found per square metre. From early spring to the onset of winter, violet pasque flowers, yellow sunflowers, blue gentians, colourful orchids and shining golden thistles delight us with their blaze of colour. Common companions are juniper bushes, which are disdained by grazing animals because of their spines.



Heathlands and Bristly Grasslands

Until the 20th century, heaths and bristly grasslands were commonly seen the open landscapes of the Vulkaneifel. These areas, where acidic and nutrient-poor soils dominated, often provided a – quantitatively – meagre diet. Today, these types of landscapes are among the most endangered habitats in Rhineland-Palatinate. In the Vulkaneifel, numerous remnants of heath and bristly grasslands have been preserved and are now protected as nature reserves.



Wetlands

Larger wetlands are commonly found in flat lowlands and large floodplains. As a rule, they are less prevalent in low mountain landscapes. **Nevertheless, the Vulkaneifel boasts a few large and ecologically significant wetlands.** These wetlands are often located in non-water-filled maar depressions or siltation areas of ponds and lakes. They play a crucial role as bird habitats. With a bit of luck you can meet snipe, cranes and white storks during the migration season.



Rock Outcrops

The **Vulkaneifel's special attribute**, ravine and rock outcrop forests on basalt rock, stem from its volcanic origin. Over the course of thousands of years, the blocks have been eroded out of the loose material. What remained were the vents of the volcanoes, which, as hard basalts, were quite weather-resistant and, today, characterise the landscape as volcanic domes. Our Celtic and late Roman ancestors often utilised their exposed locations, utilising the blocks as ring ramparts.





Floral Specialists in need Orchids of the Vulkaneifel of Protection

Orchids, renowned as exotic flora from a distant world have found their way into living rooms as decorative plants. However, they can also be discovered in the wild if certain conditions are met. The Vulkaneifel is one such special natural area in Germany that provides the most diverse conditions to offer a supra-regional considerable variety of “native” orchids, as the wild orchids are also called.

The Vulkaneifel enjoys a unique geological history dating back circa 400 million years, with the soils found here reflecting its ancient marine past. Alkaline soils of fossil origin are found in the limestone troughs, while acidic (siliceous) soils are remnants of sediments from clastic erosion products of former neighbouring continents. Both soil types are characterised by their fauna and flora thus contributing to the diversity of natural habitats in the Vulkaneifel.

Apart from the different soil types, other site issues are also an important criterion for the occurrence of adaptable orchid species, as with all plants. The Vulkaneifel has a wide range of sites, such as the calcareous rough grasslands (semi-arid grasslands), mostly found on exposed slopes interspersed with typical juniper bushes (juniper heaths) and easily recognisable in the landscape. However, orchids can also grow in shrub and forest margins, sparse limestone beech forests, wet meadows and spring swamps, especially if they are close to nature.

The orchids that flower early in the year – from the end of April – include the lesser orchid and the man’s orchid, commonly found in rough pastures, which “open” the orchid season in the Vulkaneifel. May and June witness a more diverse flowering of orchids, with the broadleaved orchid taking center stage in lush meadows.

Additionally, the calcareous grasslands are adorned with the exotic-looking ragwort species, including the fly, bumblebee and bee ragwort, which can be found in different forms exhibiting unusual colour variants and hybrids. They are known as sexual decoy flowers as they attract certain male insects by their female appearance and sexual scents (pheromones) with the aim of pollination. Interestingly, these ragworts flower at a time when the females have yet to hatch.

The orchid season in the Vulkaneifel comes to an end in July and August, with the Sten-delwurz species taking the spotlight in shady locations.

Orchids rely on fungi for germination, growth and even survival. This symbiosis at near-natural sites allows only careful interventions, such as sheep grazing after flowering. Increased attention and strict protection are essential for the survival of these floral specialists in the Vulkaneifel.

■ Alfred Graff



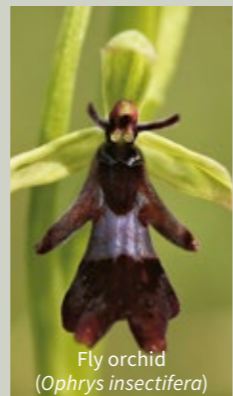
Man orchid (*Orchis anthropophora*)



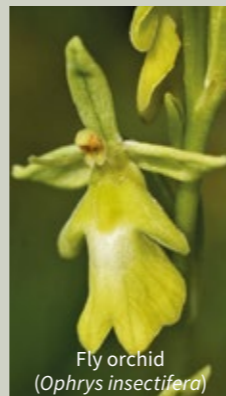
Bee orchid (*Ophrys apifera*)



Military orchid (*Orchis militaris*)



Fly orchid (*Ophrys insectifera*)



Fly orchid (*Ophrys insectifera*)



Royal helleborine (*Epipactis atrorubens*)



Since the end of 2016, the Vulkaneifel Nature Park and UNESCO Global Geopark has been part of the LIFE-IP ZENAPA project, which brings together the topics of climate protection and biodiversity. The fact that energy transition and climate protection also have an impact on biodiversity and nature conservation has become increasingly evident in recent years. Life-IP ZENAPA takes up this area of tension, makes the connection visible

and looks for solutions on how climate, nature and species protection can be harmonised with the energy transition. The main objective of the project is to implement national and Europe-wide climate protection goals while taking into account national and European biodiversity and bioeconomy strategies. Together with 15 partners, the Institute for Applied Material Flow Management at the Trier University is pursuing this goal throughout the project.

ZENAPA Zero Emission Nature Protection Areas

Goals for the Vulkaneifel

Several diverse topics are considered within the framework of ZENAPA in the Nature and Geopark: from sustainable procurement, renewable heat and power generation, the establishment of alternative energy plants and children’s climate protection conferences to the creation of neighbourhood concepts, a large number of measures are included.

To realise the project’s potential, concrete and realisable measures are identified, such as: street lighting using LED, sustainable mobility with e-car sharing pool, photovoltaics for public buildings and private households as well as commerce/trade/services, possibly in combination with storage technologies.

Climate protection and neighbourhood concepts

A climate protection concept was developed for the Vulkaneifel Nature and Geopark, which aims to harness local resources through innovative management and, thus, create regional added value.

Further examples of measures:

Conversion to LED lighting

Replacing conventional lighting with LEDs has economic and ecological advantages. In addition to lower energy consumption and maintenance costs, fauna and flora are exposed to reduced light pollution.

Another central element of the project is the creation of neighbourhood concepts for selected local communities to identify the potential for CO₂ savings, increased energy efficiency and a reduction in primary and final energy demand. In 10 pilot communities, measures are being promoted to increase energy efficiency in the neighbourhood. To this end, an analysis is being conducted to determine who the largest energy consumers in the neighbourhood are, where the potential for energy saving and efficiency lies, and what the overall energy balance of the neighbourhood should look like after the refurbishment. An optimisation concept is then developed in workshops together with the residents.

Alternative energy crops

These include, for example, the “continuous silphium”. It stores rainwater in its leaves and increases erosion control through strong soil rooting. Moreover, the composite plant attract insects and promotes biodiversity.

Cavitation in biogas plants

With a cavitation plant, the efficiency of a biogas plant can be increased considerably. The plant promotes the formation, growth and decay of gas bubbles in the biogas substrate, so that microorganisms have a larger surface to attack. Thus, significantly more biogas can be produced more swift from the same amount of substrate. ■



Education for sustainable development

Education for Sustainable Development (ESD) promotes individuals' willingness to take responsibility for one's own actions, to solve problems and participate in shaping a sustainable, democratic and culturally diverse society. By creating spaces for experimentation and design, sustainability solutions and social innovations can emerge. In addition to imparting knowledge, ESD aims to enable learners to recognise challenges and find their own approaches and solutions, i.e. to acquire so-called design competence. In doing so, it draws on the historically grown references to environ-

Environmental Education in

mental education, global learning, peace education, consumer education, intercultural education and democracy education. Education is nevertheless one of the 17 global goals for sustainable development of the 2030 Agenda, the Sustainable Development Goals (SDGs), of the United Nations. The Agenda is a roadmap for the future. With it, the global community wants to promote a dignified life worldwide and simultaneously permanently preserve the natural foundations of life, including the economic, ecological and social aspects. To achieve this, an understanding of the processes in nature and landscapes, especially in one's own living environment, is required. This increases appreciation for one's own region, which is the basis for holistic and sustainable regional development.

The promotion of education for sustainable development is a special concern of the Vulkaneifel Nature and Geopark. Due to its municipal sponsorship, the Nature and Geopark has a special responsibility to ensure the relevant actors are brought together locally. Holistic and sustainable regional development was already formulated as the primary objective in the master plan, which was adopted in 2013 and developed collaboratively with the specific demands of the region. In the same year, the concept "Environmental education from the very beginning" was aiming to enhance the population's understanding and proficiency in geo and nature-related competencies.

The earlier the better

In order to reach children of school and pre-school age, the Nature and Geopark relies on cooperation with day-care centres and schools. So far, several day-care centres, primary schools and a grammar school have been designated as Nature and Geopark day-care centres or schools. Together, the children and youth are given the opportunity to experience nature, culture and home in their immediate environment, e.g. through project days and excursions. The focus is on questions and solutions on topics such as volcanoes and the mining of their rocks, traditional crafts, sustainable land use, flora, fauna and man. The attentive exploration of the surroundings trains attentiveness for the diversity, uniqueness and beauty of the landscape establishes an emotional connection to one's homeland. This is based on the principle *that we protect and preserve what we know and value.*

New adventures every day

There is hardly any other place in Germany where you can experience the elemental forces of the earth as directly as in the Vulkaneifel. Only here can you walk through the middle of a volcano, jump over solidified lava flows, climb the rocks of a reef or stand witness when a geyser spews its fountain. Nature acts as a classroom, the landscape as a special space of experience for children and young people: especially in the Vulkaneifel, educational institutions use their direct surroundings to discover the natural and cultural space of the region with kids. The Nature and Geopark also pursues this adventure with the Nature and Geopark Kitas & Schools – regularly throughout the year. "The kids experience their homeland in a new and different way

the Nature and Geopark

through play. Through a newly gained understanding of nature and culture, the decision-makers of tomorrow are empowered to think and act in a sustainable way," says Achim Herf from the ESD-team.

Out – and close to life

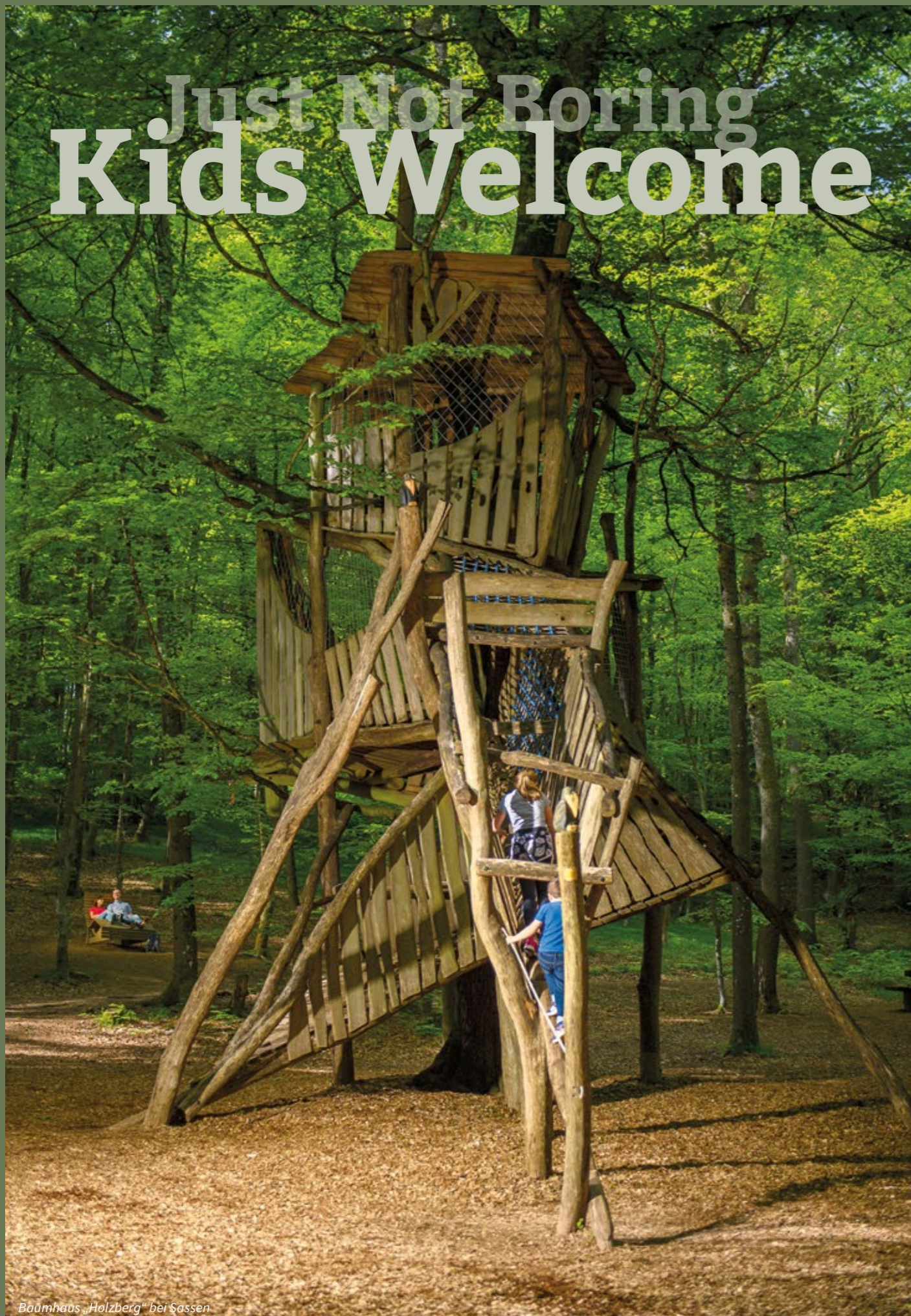
In addition to the widely scattered information boards at hiking trails and junctions, the outdoor facilities are particularly suitable for the curious. These boards display information on special topics of the Vulkaneifel along short circular routes or at stations. The Volcano Garden has been set up in the former quarry near Steffeln – with a circular path along which information on the hot history of the two volcanoes, Steffelner Kopf and Laach Maar, becomes vivid. Visitors can walk through a lava flow in the valley near the Mosenberg Volcano Experience Park. The area is a home to whole covered classroom. Specifically, in the Vulkaneifel, geology is closely linked to biology. In Niederscheidweiler, the connection between naturally occurring forms is on display for visitors to touch on the village square. Biodiversity in settlement areas has also become an increasingly important topic, which the Lower Nature Conservation Authority has taken up together with the Nature and Geopark. This has resulted, among other things, in information stations that provide information about wild bees. So far, these include the areas around the district administration in Daun and the wild bee nature trail at the Vulkanhof in Giltenfeld.

The region not only offers a natural backdrop, but it is a living component of many programmes and activities – an educational adventure with rock and water, in ice caves and basalt quarries, in Maar outdoor pools or on forest excursions. The nature experience programme offers a wide range of guided walks and hikes – some of them involving the whole family. "Children discover their surroundings in a completely different way than adults. On the family tours, everyone sees the Vulkaneifel together with different eyes and a lot of imagination," reports tour guide Irene Sartoris at the information station about lava bombs in Strohn.

**So what are you waiting for?
Look no further: we have the perfect offer for both young and old!**



Just Not Boring Kids Welcome



Baumhaus „Holzberg“ bei Sassen

*In verdant woods, where sunlight softly gleams,
I wander through the forest's gentle grace,
Where birdsong weaves a symphony of dreams,
And brooks converse with whispers, face to face.*

*With every step, I tread on mossy ground,
As ancient trees stand tall, their branches sway,
Their whispered secrets, whispered without sound,
Unveiling mysteries of nature's play.*

*Oh, how I yearn to linger in this place,
To walk, to listen, to be one with grace.*

You can simply try to put your impressions into rhyme along the way. Of course, you can also “nonsense” verses that are good for a laugh. This can easily be made a group game, with one person coming up with the first line and the others taking turns to add the rest.

Experiencing nature with all your senses and having fun at the same time is not difficult feat. In fact, with a little imagination, a hike that might otherwise be boring for children can become great fun for the whole family. Apart from the fun factor, we can also learn something to nourish our minds, spend time in nature to enhance our senses. The shared experience is great for building relationships with your community and nature.

Here are a few ideas:

You are an animal (or plant, landscape, etc.).

By providing a few specific details, you can effectively convey your unique characteristics, making the rest of group guess who you're supposed to be. For example:

The animal you are supposed to be lives in the forest - it has four legs - it has a long tail - it eats mice - it lives in caves - it is a chicken and goose thief - I am a fox !

The game can also be turned around and you ask: **Which animal am I?** Then the others have to ask questions that you answer with **yes** or **no** - until they guess the animal.

Nature memory game

When you have found a nice place to rest, explore the surroundings and gather objects from the forest, meadow or stream to make a pile on the ground. Cover everything with a cloth or jacket. **Who can still list all the objects?**

Find your tree

Test your sense of touch and your memory! For this game, find a clearing with different trees nearby. Let someone blindfold you with a scarf or cloth and lead you to one of the trees. Feel the bark, the circumference of the trunk, etc. and memorise everything very carefully. Then let yourself be led back again. Take off the blindfold and **find your tree!**

Tracking

Many animals live in the forest, even if you don't spot them right away. Some run away or hide when they hear people. Others only come out at dusk or at night. Nevertheless, all animals leave traces. And now it's detective work: look out for downed grass, bent twigs, footprints in damp soil or sand, a snail slime trail, spider webs, gnawed-on cones, droppings, roosts, etc. **Whoever can name the most different polluters wins!**



Kyllpark Gerolstein

Double Page for Young Researchers

The Vulkaneifel has been the focus of research and science for a long time, due to its unique concentration of maars, which cannot be found anywhere else in the world. Additionally, it is the only region in Germany with so many volcanoes. While volcanic eruptions occur regularly across the world, scientifically studying these ac-

tive volcanoes, poses significant risks. However, within the Vulkaneifel, a diverse range of volcanoes can be found, including both ancient and recently formed ones, as well as strata and maar volcanoes.

The extraction of basalt and lava from the quarries exposes layers that impart val-

uable scientific insights. Today, we have a comprehensive understanding of the processes taking place during a volcanic or maar eruption. Nevertheless, scientists keep coming across phenomena that raise new questions. Some of these questions remain unanswered. So we will need curious researchers in the future, too!



© Joshua Knüppe + CUBE + Raven

The Vulkaneifel has undergone several transformations throughout the course of the Earth's history. Geological eras are measured in millions of years. If you consider that modern humans (*Homo sapiens*) have only been around for about 250,000 years, 250 million years is a thousand times as much. Going back even further about 400 million years ago, the Eifel lay on the equator at the edge of a subtropical shallow sea, as depicted in the picture. At the time, the

Gerolstein Dolomites were still a reef of corals and stromatopores.



Subsequently, approximately 220 million years ago, the Vulkaneifel lay in the middle of a dry, hot desert with mighty rocks of red sandstone, similar to the picture presented above with the Eifelosaurus. This period is called the Triassic, popularly known as the beginning of the time of the dinosaurs on Earth – they populated the Earth for about 150 million years. **And that is 600 times as long as we humans have been around until today!**



Willi's head looks like a **river pebble**. This is reminiscent of the many low mountain range rivers and streams that flow through the Eifel and have carved the winding valleys into the bedrock.



Take a close look at Willi Basalt. Its body looks like a hexagonal column, exactly like a typical **basalt column**. Basalt is formed when molten rock cools in a volcano.



Willi's cap looks like a **trilobite**. These are small extinct arthropods. They inhabited the primordial oceans and have been preserved as fossils in large numbers; they are also found in the Vulkaneifel. You can see them in the Gerolstein Natural History Museum.

Match the bark, the leaves and the fruits to the right tree!

In the Vulkaneifel, there are many forests with very different tree species. It is not easy to clearly identify a tree. It helps if you know the bark, fruits or leaves. If everything is connected correctly, the resulting word is:

Pedunculate oak <i>Quercus robur</i>				
Common beech <i>Fagus sylvatica</i>				
Sycamore <i>Acer pseudoplatanus</i>				



You can find the solution to the riddle on the homepage of the Vulkaneifel Nature and Geopark:

The Development of Young Volcanism

Besides the Sarresdorf lava flow near Gerolstein, the youngest volcanoes of the West Eifel are found at its south-eastern end. The question arises as to where exactly the most recent volcanic eruptions took place. Can conclusions be drawn about the next eruptions from the distribution pattern?

From a northwest-southeast oriented volcanic system near Gerolstein, consisting of the Papenkaul and Hagelskaul, the Sarresdorf lava flow found its way into the valley of the Kyll about 25,000 years ago. In the course of time, the river cut through the lava flow and deepened the stream bed by a further 3.5 m. At the south-eastern extremity end of the volcanic zone, the Ueßbach only managed to do this by a mere 1.3 m. In contrast, the volcanoes near Bad Bertrich are relatively younger. We estimate their age at about 16,000 years.

before the current day, it became even colder. The Eifel resembled a polar desert; no shrub or blade of grass grew, and only stone and sand deserts characterised the landscape. Thus layer after layer was deposited in the reservoir. The ashes of the neighbouring volcanoes also found their way into the succession of sediments. And here's the sensational result: we were able to identify numerous volcanic eruptions, which probably originated from the Dauner Maars (4), Immerrather Maars (3), Holzmaargruppe (3).

The Pulvermaar-Römerberg-Stohn maar system was the final eruption we discovered. This implies that between about 30,000 and 20,000 years before today, there was an accumulation of maar eruptions between Daun and Strohn, which ended with the massive eruption of the Pulvermaar.

So we see several hotspots that are possible candidates for the next volcanic eruptions: first, the area southeast of the line Meerfelder Maar, Dauner Maars, Booser Maars,

and second, the even younger area around the Pulvermaar, which extends in the south-east over the temperate mineral spring of Strotzbüsch to the volcanoes and thermal water of Bad Bertrich, as well as a foothill to the north into the area of the former Tertiary volcanoes of the High Eifel, which further extends over the young volcanic form of the Weidert to the youngest volcano in the Eifel so far – the Ulmener Maar.

■ Prof. Dr Georg Büchel

in the South-Eastern Part of the Volcanic Zone of the West Eifel

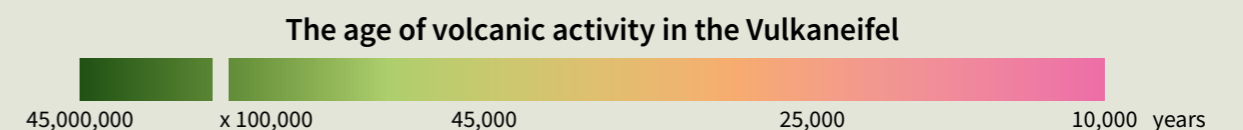
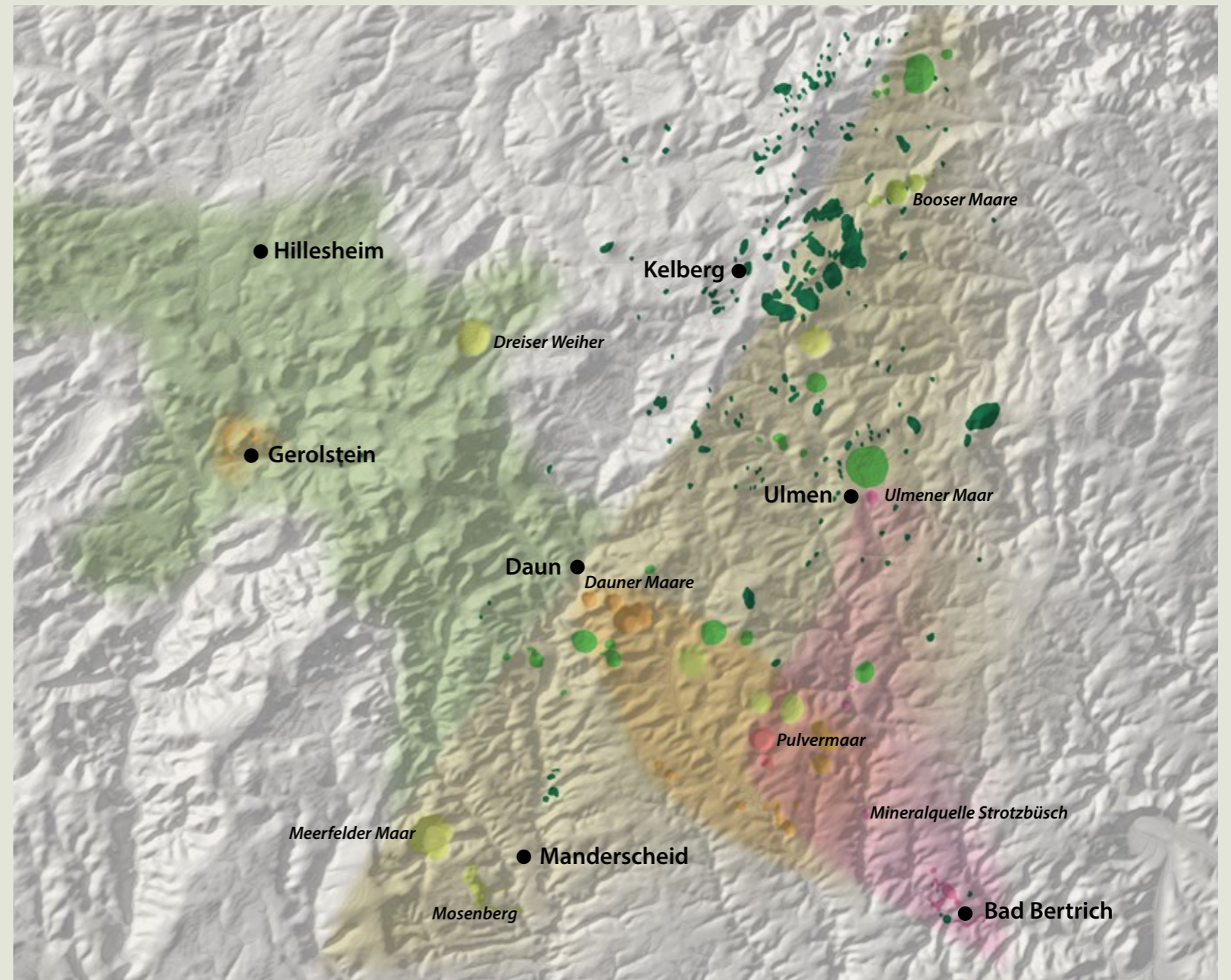
From our analysis of the soils below the tephra of the Ulmen Maar, we uncovered the remains of the Laacher pumice. As a result, the Ulmen Maar is younger than the Laacher See volcano, whose age is estimated at 12,900 years. Radiocarbon dating of root remains revealed an age of about 11,000 years. This makes the Ulmener Maar the youngest volcano in Central Europe.

What is the age of the maars whose craters are almost as well preserved as the Ulmener Maar, i.e. the Meerfelder Maar, Dauner Maar, Holzmaar, Dürre Maar and Hitsche, Pulvermaar, Dreiser Weiher, Mosbrucher Maar and Booser Maars?

Additionally, we can use the deep erosion of the streams. For example, the Mosenberg volcanoes are slightly older than the Meerfelder Maar. They sent lava flows into the valley of the Kleine Kyll. Today, the stream bed is 9 m lower. In this respect, one arrives at an age of about 45,000 years. The Dreiser Weiher is of a similar age.

By utilising the radiocarbon method, on the remnant of an incarbonated tree trunk the Booser volcanic group can be determined to be around 35,000 years old. The Mosbrucher Maar is estimated to be around the same age. And what about the remaining volcanoes? Intensive investigations in recent years have led to the discovery of an old large natural reservoir, which measured 45 m at its deepest point, that was dammed up by the cinder cones of the Wartgesberg group 33,000 years ago.

It was cold at that time. Ice rind effects and summer thaw periods led to the deep erosion of streams and rivers, as we have already seen above. Between about 20,000 and 14,500 years



Traces of the Last Ice Age

The Ice Age, also known as the **Pleistocene**, lasted from approximately 2.7 million years to about 11,000 years before the current day. During this period nu-

The outcrop wall is part of the Wartgesberg volcano, which was active about 34,000 years ago. It exhibits a multi-layered structure (Fig. 1). Black, coarse-grained tephra belonging to the Wartgesberg volcanic eruption can be observed at the bottom. Above this layer are younger deposits of reddish, finely layered tephra, which are assigned to the Sprinker Maar eruption. Brownish, fine-grained material from the last glacial age lies on top.

During the cold periods, enormous glacial masses expanded from Scandinavia and the Alps. The Eifel and Hunsrück remained ice-free, but permafrost conditions existed with deeply frozen ground. Massive ice wedges and other frost-related structures (e.g. wavy patterns in the Sprinker Maar deposits) are evidence of intensive and long permafrost dynamics. In the aerial photograph, the large-scale distribution of ice wedge structures is very clearly visible from the darker-coloured, wide-meshed ice wedge network (Fig. 3).

Ice wedges are formed as a result of repeated freeze-thaw cycles over centuries/millennia (Fig. 2). The exposed large ice wedges have penetrated deep into the tephra of the Sprinker Maar. The fill material is mainly loess loam from the last cold period mixed with pre-existing weathered material

■ Dr Raimund Schneider,
Dr Marcel Lorenz

merous fluctuations between warm and cold periods took place, leading to several glacial ages. The last glacial age, the effects of which can be seen in the form of

ice wedges and other frost patterns in the outcrop, is called the **Weichselian glaciation** in northern Germany and **Würm glaciation** in southern Germany.



Fig. 1: Ice wedge in the outcrop wall in the Wartgesberg volcano

Fig. 2: Stages of ice wedge formation (adapted from Strahler & Strahler, 1996)



Fig. 3: Frost pattern structures in an aerial photo (Google Earth)



Anyone planning an excursion to explore the ancient Romans civilisation usually head for the great Roman cities of Trier and Cologne. But there are also numerous attractive legacies of the former empire in the Vulkaneifel – nestled within a unique natural setting.

Romans in the Vulkaneifel



Reconstruction drawing of the villa of Bodenbach during an attack. Illustration: Nic Herber, 2015

Celts, Romans or both? Boom and bust

The earliest evidence of Roman culture in the Vulkaneifel can be found in coins or pottery shards, which can be traced to the beginning of the first century AD. However, the people living here by no means immigrated from present-day Italy. Instead, the Celts had already inhabited the Vulkaneifel in the centuries preceding Christ, embracing the comforts of Roman culture, thereby becoming Romanized. Changes under the influence of the Romans included the transition from wooden to stone construction and the integration of the Vulkaneifel into an almost global trade market. The introduction of underfloor and wall heating proved to be a significant improvement in the quality of living, especially in the cold winters of the Eifel.

Today, there are numerous Roman villa complexes preserved as archaeological sites. The villas mostly do not correspond to our modern ideas of magnificent large houses; instead, they were farms that supplied the surrounding villages like Jünkerath with food. Although, affluent Romans also lived in the Vulkaneifel. The villa in Gerolstein,



Excavations at the Roman villa in Bodenbach in 2013. Today, the site can be visited. The ground plan of the villa and the defences is visualised in the terrain by plants. Photo: P. Henrich

luxuriously furnished with mosaics and a large bathing complex, is a notable example as the villa in Duppach, where burial towers standing over 20 m bear witness to the great wealth of the deceased.

Religion and faith played a crucial role in Roman culture. This is evident in the Gallo-Roman sanctuary of Pelm, where the Roman god Hercules was worshipped together with the local fertility goddess Caiva. According

to an inscription, a wealthy private citizen sponsored this temple district.

Teutons and Romans – Time of crisis

The Roman economy and culture underwent significant growth in the Vulkaneifel until around 260 AD. Then, however, the empire was subjected to numerous crises due to Germanic invasions, a deterioration in the climate and internal political problems. The defensive wall that protected the settlement of Jünkerath bears witness to this. But private individuals also protected their possessions with fortifications. Three ditches and a wall protected the villa of Bodenbach against enemy attacks. At Duppach-Weiermühle, the owner left his villa. Archaeological excavations revealed that iron ore smelting specialists from Gaul settled in this area and made makeshift repairs to the ruined buildings. With the fall of the Roman Empire, the Vulkaneifel came under the influence of the Franks during the 5th to 6th centuries.

■ Dr Peter Henrich

Time to Dream



Wanderland Vulkaneifel

The enchanting scent of wild flowers, the gurgling murmur of a brook and a cooling shade from the oak canopy – what more could you want?

Hiking is not only a delightful pastime; it is also a true balm for the mind, body and soul. It grants you the opportunity to experience all the wonderful treasures that make the Vulkaneifel landscape so unique. And don't worry, there are a lot of enthralling experiences awaiting your exploration, as the numerous expert articles within this magazine promise.

Hiking routes in the Vulkaneifel are regularly among those chosen by the readers of the "Wandermagazin" as the most beautiful trails in Germany. Among these are the Lieserpfad and Im Tal der wilden Endert as well as the Vulkaneifel paths Vulkamaar-Pfad and Manderscheider Burgenstieg, to name a few. Additionally, 5 of the 15 stages of the breathtaking Eifelsteig also lead through the Vulkaneifel. So lace up your hiking boots and into nature! A well-developed network of premium quality hiking trails awaits you!



Beautiful hiking trails are not easily crafted. Creating and maintaining hiking trails poses great challenges for local authorities and tourism agencies, especially when aiming for premium quality. The promotion of sustainable tourism is anchored in both the Geopark and Nature Park tasks of the **Vulkaneifel Nature Park and UNESCO Global Geopark**. By providing valuable input, controls processes and – importantly – to initiate and promote hiking trail projects to a not inconsiderable extent or even to make them possible in the first place, thanks to the funds provided by the mainly municipal shareholders and the state of Rhineland-Palatinate. Beyond the signposting of hiking trails, it is essential to incorporate natural and geological history as well as local topics to enhance the experience value of the hikes.

In the course of the last few years, a well-structured network of hiking trails has gradually been developed in cooperation with many stakeholders, which, in addition to leisurely walks, stimulating half-day tours and challenging multi-day tours, also includes numerous barrier-free offers. The best possible transport connections, parking facilities and gastronomic offers were naturally taken into account in the planning of the trails.

A good overview of the current range of hiking trails with more than 100 hiking trails is provided by the free **panoramic hiking trail map**, the digital version of which can be explored virtually on the homepage of the Vulkaneifel Nature and Geopark. ■

Apart from the interesting topics anchored in the region and landscape, intrinsic values increasingly play a role in hiking: Hiking promotes physical health, brings joy, grounds individuals and nourishes the soul. Simultaneously, information relevant to the trail is served up in the form of gripping stories that stir the emotions. For instance, the **Eifelsteig** becomes a fascinating work of the elements: fire, water, air and earth, the **Schneifelpfad** offers a path of peace and the **Vulkanpfad** allows to ascend the throne of His Majesty Vulcanus, the God of Fire.



Hikeable Diversity

The geologically most exciting and charming sites in the Vulkaneifel are best explored on foot. Whether it's the Eifelsteig or a Vulkaneifel path, whether it's easy or challenging, whether it's half-day, one-day or multi-day excursion – there are many ways to explore the Vulkaneifel Nature Park and UNESCO Global Geopark. You will find a dense network of certified paths and trails that lead to geological sights and special natural treasures ensuring a comprehensive and fun experience of the uniqueness of the Vulkaneifel.



The Eifelsteig

is a certified premium long-distance hiking trail, which leads from Aachen through the Vulkaneifel to Trier. As one of the most popular trails, it offers many stages and overnight accommodation options. Hiking expert Manuel Andrack called the Lieserpfad, which partly follows the Eifelsteig, the most beautiful hiking trail in the world.



The Vulkaneifel paths

connect to the *Eifelsteig* or branch off from it – among them are varied circular tours for the less trained as well as for real sports enthusiasts. On these trails, you will experience the unique geological highlights of the Vulkaneifel. The shorter tours are particularly suitable for day hikes and for families, depending on the level of difficulty you opt for.



Muße Paths Vulkaneifel

narrate authentic stories from the region of special places and historical events, about fairy tales and myths. They provide food for thought, and their traces are reflected in the landscape. At places of leisure – the centrepieces of the Muße path – you dive deep into history. All the paths have one core message in common: take your time, take it down a notch and come to yourself!



Along the Lieser, Endert and Salm rivers

lie some of the special adventure hiking trails, including the well-known *Lieserpfad*, which is divided into four daily stages. And in the *Valley of the Wild Endert*, you will find yourself on the “most beautiful hiking trail in Germany”, which was awarded in 2019.



The local hiking trails

are particularly rooted in the region and make up the lion's share of the hiking trail network in the Vulkaneifel.

Hiking trails in



GEROLSTEINER LAND



in the GesundLand Vulkaneifel

Theme trails



Adventure loops in the holiday region Wittlich Stadt & Land



Et jit net jerannt



» The Vulkaneifel Muße Paths

“I am the Vulkaneifel, born from the battle of the elements! ...” The tour guide looks over the garden fence. Her strong voice resounds over the group of actors and press representatives. It is the completion of the Vulcano Trail, currently the last of a total of six storytelling paths in the Vulkaneifel. From the small plateau at the Muße place, just east of Ellscheid, a prominent figure carries the opening remarks of the trail manager of the Vulkaneifel paths through the vast expanse of the surrounding fields: the wind. Anyone who has read the story on the lectern board next to the garden fence element will recognise the “invisible one who keeps everything alive”: in the waves gliding over the fields, in the swaying of the trees, in the dance of the leaves, in the piling up of the clouds....

Muße paths are a unique and innovative concept. Online search engines only return results from the Vulkaneifel when searching this term. It almost seems as if leisure is an Eifel invention. **Et jit net jerannt!** is how editor Fritz-Peter Linden puts it in good Eifel dialect, and he hits the nail on the head. After all, hiking is meant to be enjoyed and not treated as a race.

The Eifel is not alone with this idea of Slow Travel: on the contrary, after the

Slow Food initiative, this culture of enjoyment is gaining popularity in the tourism and leisure sector and preparing to become a trend as an expression of a social rethink. And the best part is that the Eifel is right at the forefront, leading the way as a trendsetter! Inner peace and slowness, however, cannot be achieved at the push of a button, and certainly not by force. It requires guidance to experience more inspiration, clarity, mindfulness and inner richness. And that is precisely what the new Muße paths in the Vulkaneifel aim to accomplish.

How do Muße paths work and what are their special features?

Muße paths, first and foremost, are hiking trails that fall under the premium category. Each trail possesses its own character and tension, winding through its own landscape and presenting diverse perspective. But every exceptional hiking trail fulfils these conditions. Recognising these peculiarities, focusing on them and working out the inherent message are the first steps in creating a Muße path. It is through this process that the trail earns its title, claim, wisdom, promise of use and typical symbol. The ultimate aim of these trails is to immerse you in an atmosphere that enhances



your journey as well as offers you a respite from the demands of everyday life, inspiring a true sense of leisure.

Stories serve as powerful tools that make complex interactions memorable with minimal effort. Thus, storytelling is the ideal medium for these Muße paths. But the stories are not fairy tales - they are authentic! Fur-

ther, they are embedded in the Eifel-wide “meta-story”, the “super-story” of the perpetual struggle of the elements. Fire, water, air and earth ultimately lead to the formation and transformation of the Eifel landscapes and their characteristics.

At the trail’s starting and end points, there are boards with a map of the experience as

well as the framework story of the path narrated by the element of fire with a clear reference to the symbol, which you will meet at selected spots along the path.

Get involved! Give yourself the leisure and experience a hike with a story in your head that will change your view of your surroundings and make it richer. ■

The Gerolsteiner Dolomiten-Acht
Healthy, strong, sparkling –
on the trail of water in Gerolstein



The Maare & Thermen Pfad
Winding paths
and wild companions



The Vulcano-Pfad
A look over the garden fence
into the land of maars



The Schneifel-Pfad
The way of peace



The Vulkan-Pfad
In the realm of his majesty Vulcanus
- the God of fire



The Hochkelberg Panorama-Pfad
Ad nonum lapidem,
milestones in history

Together on Adventure Tours

The aroma of coffee wafting from the large cups mingles with the mouthwatering smell of freshly fried bacon. Our Geopark host keeps her word: a hearty breakfast is the right foundation for our adventure today. We are already excited because we booked a tour with Irene Sartoris. Our host assures us that Mrs Sartoris is a wonderful nature and geopark guide, possessing a comprehensive understanding of the volcanoes.

She picks us up in front of the cosy guesthouse before sunrise. It is pleasantly fresh and the morning is already dawning. Shouldering our backpacks with packed lunches, refreshing mineral water and some rainproof clothing, we set off. After only a few metres,

we reach the entrance to the Vulcano Trail. We walk up the Maar crater over gentle meadows, with the Schalkenmehren Maar resting behind us under delicate wisps of the fading morning mist. At the top, we are greeted by an awe-inspiring sunrise. The wide view over the Eifel heights is overwhelming...

Unlike other landscapes, the Vulkaneifel displays its history shaped by fire and water. With expert guidance, the region’s rich past comes to life, cause and effect become plausible, traces in the landscape turn into clear tracks. The enthusiasm of the specially trained nature and geopark guides for the fascinating geo-phenomena is infectious – the Vulkaneifel landscape and nature become an unforgettable experience! ■

Varied, exciting and diverse – the NatureExperienceProgramme of the Vulkaneifel Nature and UNESCO Global Geopark

Twenty-five certified nature and geopark guides, ten tourist guides and other providers offer an extensive programme of guided hikes, workshops and much more throughout the year. Whether it’s exploring the Birresborn ice caves, an excursion to the fire mountains of the Vulkaneifel, geocaching for kids or a botanical hike to special medicinal plants – let yourself be inspired!

See also p. 54 ff.



Pure Pleasure Cycling



Exploring the Nature and Geopark by Bike



Several premium cycle routes lead through the Vulkaneifel: the **Kyll-Radweg**, **Maare-Mosel-Radweg** and **Vulkan-Rad-Route Eifel**. The first two are perfect for leisure cyclists and families with children, while the third route is aimed primarily at sporty, ambitious riders. Those who prefer a more comfortable ride can also rent an e-bike on site.

The routes can be enhanced with individual adventure loops and stopovers. For example, on the Salm Cycle Path or the Wittlicher Senke Cycle Path connecting the Vulkaneifel with the Moselle Valley. Or particular interest are also the themed routes, such as the **Kosmosradweg Kleine Kyll**, **Mineralquellen-Route** and **Eifel-Pilger-Radweg**.



To make sure that children don't miss out, there are also **special children's cycle paths** on the sections of the Kyll Valley Cycle Path between Densborn and Bewingen and between Daun and Gillenfeld on the Maare-Mosel Cycle Path that are almost free of inclines and declines – even the youngest can experience nature, culture and history together with their knowledgeable companions Willi Basalt, Biggi Biene, Elli Eule and Freddi Fledermaus.

Cycling and touring in the Vulkaneifel have become increasingly popular, and the hosts have responded by providing better offers. Hoteliers, restaurateurs, farms and bicycle rentals in the Eifel guarantee a high-quality service tailored to cyclists. They have been recognised as “bicycle-friendly” by the Allgemeiner Deutscher Fahrradclub (ADFC) and have been working closely together in route teams ever since. Furthermore, all routes are also signposted consistently and uniformly according to the ADFC guidelines.

Mountain biking is a perfect match for the stunning landscapes of the Vulkaneifel. For enthusiasts of this exciting sport, the **Vulkaneifel Trail Park** offers a large playground of 750 km well-marked trails with over 17,500 metres of altitude! And there's more: at the annual VulkanBike Eifel Marathon, you can meet and compete with fellow riders. ■

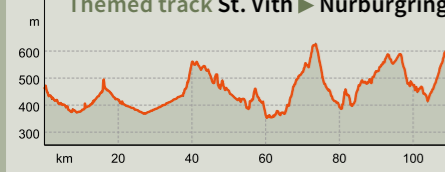
The Vulkaneifel Cycle Path Network





Eifel-Ardennen-Radweg

Themed track St. Vith ► Nürburgring



Length: 109.5 km Duration: 8 h
Ascent: ▲ 1508 m Difficulty: difficult
Descent: ▼ 1362 m Best: III - X



The link between Eifel and Ardennes

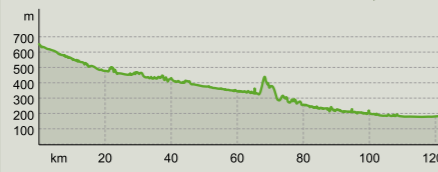
In the western half of Prüm, the route runs almost exclusively on asphalt along former railway lines. This section has few inclines and is, therefore, suitable for families and occasional cyclists.

From Prüm onwards, the route is sporty and challenging. The middle section crosses the valleys of the Prüm, Kyll and Alfbach rivers. Thus, the route goes up and down several times. Riders are rewarded with wide views over the volcanic peaks of the Eifel and winding descents throughout the trail.



Kyll-Radweg

Long-distance track Losheimer Graben or Dahlem ► Trier



Length: 122 km Duration: 10 h
Ascent: ▲ 231 m Difficulty: average
Descent: ▼ 706 m Best: III - X



The north-south connection through the Eifel - right through the Vulkaneifel.

The cycle path leads through the Eifel from the Eifel heights to the oldest city in Germany, Trier. The Cologne-Trier railway line is your constant companion and always brings you back to the starting point.

At the beginning of the tour you will experience the northern Eifel with its dams and lakes. The tour continues through the Vulkaneifel, which is characterised by elemental forces, and the southern Eifel with its typical orchards and rugged rock formations of the Bitburger Gutland.



Kalkeifel-Radweg

Railway line track Ahrdorf ► Hillesheim



Length: 21.7 km Duration: 2 h
Ascent: ▲ 162 m Difficulty: easy
Descent: ▼ 92 m Best: III - X



From the Ahr to the Kyll or vice versa

The cycle path follows the Ahrbach valley through a region that has been characterised by lime mining since Roman times.

You cycle almost continuously on a former railway line and thus almost without ascents, but full of twists and turns and peppered with sights worth seeing: e.g. the Dreimühlen waterfall, Kerpen Castle and Niederehe Monastery. For those who have already completed a longer tour, the barefoot path is recommended. It is also worth getting off your bike in Hillesheim: to walk the 13th-century town wall.



Vulkan-Rad-Route Eifel

Themed track Dümpelfeld/Ahr ► Bad Bertrich



Length: 67 km Duration: 5 h
Ascent: ▲ 955 m Difficulty: difficult
Descent: ▼ 1019 m Best: III - X



Mountains, castles, basalt and fit legs

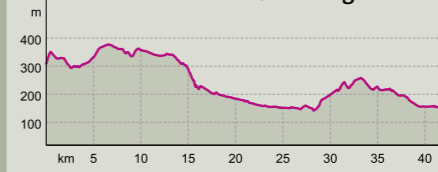
This breathtaking tour with the ascent to Nürburg Castle and rapid descent to Bad Bertrich is both fun and challenging for ambitious cyclists.

The Mosbrucher Weiher nature reserve and its dry maar will delight nature lovers, and the captivating youngest Eifel maar in Ulmen invites you to linger among its sights. If the water is too cool for your liking, you can take a dip in the well-tempered healing water at the end of the route - in Bad Bertrich - in the unique Glauber salt spring.



Eifel-Pilger-Radweg

Themed track Himmerod ► Maring-Noviand



Length: 42.6 km Duration: 3 h
Ascent: ▲ 243 m Difficulty: average
Descent: ▼ 440 m Best: III - X



Monastery, churches, pilgrimage

In search of contemplation, deceleration, peace and tranquillity, the Eifel Pilgrims' Cycle Route leads past numerous old churches, two inimitable monasteries and countless lovingly restored wayside crosses and wayside shrines steeped in history.

Small, popularly told anecdotes about answers to prayers or authentic stories, combined with an incredibly varied landscape, lead to an unparalleled cycling experience.



Elztal-Radweg

Gunderath ► Mayen



Length: 31 km Duration: 2¼ h
Ascent: ▲ 206 m Difficulty: average
Descent: ▼ 409 m Best: III - X



From the Vulkaneifel to the Front-Eifel

The Elztal cycle path leads from Gunderath (CenterParcs Park Eifel) via Uersfeld, Lirstal and Oberelz through the idyllic Elz valley to Monreal and from there on to the eastern station of Mayen.

In the picturesque half-timbered village of Monreal, it is worth taking a break to immerse yourself in the view of the two castle ruins, Philippsburg and Löwenburg, before continuing steeply uphill along the Nierstraße towards Mayen. After passing through the village, you will reach the Mayen eastern station - your final destination.



Mineralquellen-Route

Themed track Ahrdorf ► Daun



Length: 30.4 km Duration: 2 h
Ascent: ▲ 294 m Difficulty: difficult
Descent: ▼ 230 m Best: III - X



Connecting Ahr and Lieser

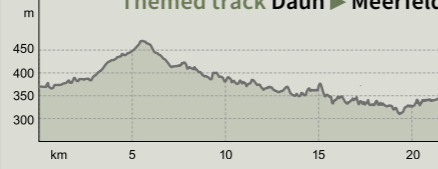
On its first two-thirds, the cycle path follows the Ahrbach from its confluence with the Ahr to its headwaters around Dockweiler in a steady, gentle ascent. It passes the natural monument of the Dreimühlen waterfall, runs through Oberehe-Stroheich, curves around the dry maar "Dreiser Weiher" and arrives at the mineral springs centre in the village of Dreis-Brück.

After crossing the watershed between the Ahr and Lieser rivers, the route ends in Daun, where several cycle paths invite you to continue your journey.



Kosmosradweg

Themed track Daun ► Meerfeld



Length: 22.2 km Duration: 2 h
Ascent: ▲ 460 m Difficulty: easy
Descent: ▼ 490 m Best: III - X



On the road in the solar system

The infinite expanse of the universe comes together here to the length of a day's journey, each metre travelled corresponds to 500,000 km! Everything that defies our imagination of space and time becomes "tangible". From the spa park in Daun via Pützborn, Ober- and Niederstadtfeld and Schutz, the winding route leads to Meerfeld. It is divided into two thematic areas. First, you travel true to scale at faster-than-light speed from the sun to its satellites. And then you go on a journey through time between the present and Big Bang.



Maare-Mosel-Radweg

Railway line track Daun ► Bernkastel-Kues



Length: 58.5 km Duration: 4¾ h
Ascent: ▲ 381 m Difficulty: easy
Descent: ▼ 669 m Best: III - X



Cycling along the railway line through the Vulkaneifel to the Moselle Valley

An enjoyable and effortless cycling experience awaits you! The almost gradient-free and asphalted path is perfect for leisure cyclists or families with children - in both directions.

Over viaducts and bridges, through tunnels and Eifel forests, past the Maars and extinct volcanoes, the trail descends into the vineyards of the Moselle. Cycling experience loops lead to the Strohn lava bomb or the Manderscheid castles, for example.



Radweg Wittlicher Senke

Schweich ► Wittlich



Length: 30.5 km Duration: 2 h
Ascent: ▲ 274 m Difficulty: easy
Descent: ▼ 236 m Best: III - X



Cosy between meadows and fields

This cycle path forms an attractive connection through the Wittlich region between the Maare-Mosel-Radweg path from Wittlich to the Mosel-Radweg to Trier.

Over a length of 30 km, you cycle through the slightly hilly landscape of the Wittlich valley with beautiful views of the Moselle mountains and the Trier valley. The path takes you past small villages, such as Hetzerath, Esch, Salmthal and Dreis, until you finally reach the town of Wittlich. From Esch to Dreis, the route is identical to the Salm-Radweg.



Salm-Radweg

Dreis ► Klüsserath



Length: 16.5 km Duration: 1½ h
Ascent: ▲ 163 m Difficulty: easy
Descent: ▼ 212 m Best: III - X



A flying visit to the Moseleifel region

The Salm meanders almost exclusively through the Moseleifel region from Himmerod Monastery to the Moselle river mouth at Klüsserath.

The Salm-Radweg connects the Maare-Mosel-Radweg near Wittlich and the Mosel-Radweg in Klüsserath. Moreover, the path serves as a gateway to explore the region's rich architectural heritage, including the magnificent Dreis Castle, beautiful churches, charming mills, traditional farmhouses and estates of esteemed winegrowers in the renowned wine region.



The biker's great playground

With an area of 500 km² and a route network of 750 km, the Vulkaneifel offers ideal conditions for varied mountain bike tours.

The "Kôulshore" offers crisp highlights. Behind the name "Koul", Eifler dialect for lava pit, and the English term "Shore" are technically demanding single trails, rapid descents and wooden Northshore elements that make for an adrenaline-packed ride. Inexperienced riders are discouraged from riding these trails.

The annual VulkanBike Eifel Marathon is a unique mountain bike festival. (www.vulkan.bike)

LIFE *experience*

It is these extraordinary moments that make an experience unforgettable. Places, views and locations only attain their beauty, fascination and joy through our perception – through what resonates with you. These moments are the ones that grant us happiness, moments that enchant us.

The Vulkaneifel testament to the eternal struggle of the elements. Violent forces and destructive explosions have given rise to volcanic mountains and maars. Today, a green, sometimes snow-covered, blanket gently and gracefully covers this rugged landscape and provides a multi-faceted habitat for plants, animals and people.

Welcome to this wonderful stage of life and indulge in these special moments: on the Vulkaneifel Muße paths, on a guided adventure hike or as part of the annual Sunday series.



As dramatic and wild as the formation of the maars was, today, the water-filled maars appear to us as the tranquil eyes of the Eifel. Many legends and stories entwine around these silent witnesses of the battle of the elements. Listen to their stories from experienced guides in our Sunday series from April to October.

The Sunday Series

The mysterious 13
– 12 maars and 1 crater lake

The guided tours to the volcanic lakes of the Eifel are recommended for family outings. Starting time: 11 a.m. (Sundays), Duration: 1.5–2 hours, Route: 3–8 km, Price: € 5.00 per person, the tour is free of cost for children up to 12 years of age.



Maar Presence

No Questions left Unanswered



What is it about volcanoes, cinder cones and maars, or donkeys and goats, churches and castles, fire and water, up and down...?

These questions may seem unrelated, but at the Maarsattel*, an area nestled between the Weinfelder Maar and Schalkenmehren Maar, our knowledgeable nature and geopark guides are ready to provide answers.

Thousands of years ago, all hell broke loose at this very spot. Numerous volcanic eruptions created this unmistakable maar landscape! Our guides not only offer insights into the natural wonders and geology of the area but also shed light on the fascinating role of goats as “living lawnmowers.” They will entertain you with intriguing stories and legends surrounding the Weinfelder Maar and its chapel.

Do you still need tips and ideas for further hikes or excursions? Turn to our guides for advice, stories or if you want a quick chat. We also provide comprehensive brochures and maps, free of charge, to help you explore the region’s natural spots. Allow your gaze to wander over this breathtaking view, which transforms with each passing season.

Every year from mid-May to the end of October, the nature and geopark guides are available to assist guests at the Maarsattel* on weekends at no extra cost, but with full enthusiasm! ■

*Location: Weinfelder Maar, Maarsattel car park: coming from Daun, second car park (on the right of the road)

Museums of the Vulkaneifel

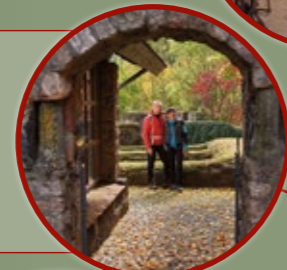
Eisenbahnmuseum Jünkerath · 54584 Jünkerath-Glaadt, Mühlengasse 3a, Tel.: 01577 887813 · www.eisenbahnmuseum-juenkerath.de
The Jünkerath railway enthusiasts display museum documents, uniforms and objects here, reminiscent of the time when the railway dramatically changed life in the Eifel.



Kleines Museum Bolsdorf · 54576 Hillesheim-Bolsdorf, Im Auel, Tel.: 06593 133300 · www.gerolsteiner-land.de
Everyday objects from almost forgotten times find their place in the "Little Museum", where the old people's department of the Bolsdorf volunteer fire brigade builds a bridge to the past.



Museum „Villa Sarabodis“
54568 Gerolstein, Sarresdorferstr. 19
www.eifel.info/a-museum-villa-sarabodis
The small, charming museum "Villa Sarabodis", located in the shadow of the Erlöserkirche, displays and explains artefacts from the Roman-Celtic marriage in the Kyll valley.



Telefonmuseum Gerolstein
54568 Gerolstein, Hauptstr. 72, Tel.: 06591 4122
www.gerolsteiner-land.de
This museum holds 700 telephones from 125 years of history and 400 photographs from 90 years of radio history.



In addition to all the beauty and charm that the natural landscape of the Vulkaneifel has to offer, there are many interesting, curious and lovingly compiled things waiting to be discovered.

Naturkundemuseum
54568 Gerolstein, Hauptstr. 72, Tel.: 06591/9849890
www.nkm-gerolstein.de
Beautiful natural history museum, focus: paleontology and volcanism.



We have listed a selection of 20 museums and collections which, in addition to natural science, historical and cultural themes and content, will also surprise and delight you with typical Eifel crafts and regional products.

Mausefallenmuseum · 54570 Neroth, Mühlenweg, Tel. 06591 81121
www.neroth.de
This extraordinary museum documents the home work and distribution system of wire goods manufacturing in the 19th century.



Thanks to the variety of museums in the Vulkaneifel, an overcast day that may not be suitable for outdoor activities can be transformed into an extraordinary experience – particularly for children and young people.

Clara-Viebig-Zentrum · 54533 Eisenschmitt, Manderscheider Str. 2, Tel.: 06567 960505 · www.clara-viebig-zentrum.de
Eisenschmitt and the districts of Kronenhütte and Eichelhütte owe their names to the iron industry. In the Clara Viebig Centre, you can learn a lot about the crafts of the iron smelters, charcoal burners, founders and chasers. And, of course, you can learn about Clara Viebig.



Alte Posthaltere Thurn & Taxis · 54516 Wittlich, Marktplatz · www.casatonym.de
Since 2016, the CASA Tony M Museum has been located in the historic post office building, dating from 1753. The works of the Wittlich-born artist Tony Munzlinger are exhibited here.



Eifel-Vulkanmuseum · 54550 Daun, Leopoldstr. 9, Tel.: 06592 985353
www.eifel.info/a-eifel-vulkanmuseum
The museum displays three-dimensional landscape models of cinder cones, maars, mineral springs, information panels and exhibits on West Eifel volcanism.



Nostaljikum Uersfeld · 56767 Uersfeld, Lindenstraße 1, Tel.: 02657 940113 · www.nostaljikum.de
Reminiscence of the good old days of the 40s and 50s. The clock's hands have frozen in place. Experience a world where the past is resurrected, evoking a profound sense of nostalgia in a mere 300 m².



Heimweberei-Museum · 54552 Schalkenmehren, Mehrener Str. 5, Tel.: 06592 173939
www.schalkenmehren-eifel.de
This museum showcases the tools of old crafts, such as spinning and weaving, offering visitors the chance to try their hand at the crafts themselves.



Schulmuseum Immerath
54552 Immerath, Hauptstr. 58, Tel.: 06573 9526182
The historical furnishings come from schools in the Eifel region, providing valuable insights into school conditions over the past 200 years.



Museum zum alten Eisen
54558 Mückeln, Tel.: 06574 8425
www.mueckeln.de
Old household objects can be admired, including many irons from bygone eras.



Puppen- und Spielzeugmuseum
54533 Laufeld
www.puppenmuseum-laufeld.de
The museum's collection comprises dolls made of wax, wood, bisque porcelain and celluloid from 1840 to the 1950s.



Wittlicher Histörchen
54516 Wittlich, Burgstraße 48
In the turret, the living situation of the medieval turret is simulated on a few square metres. On the upper floor: an animated film about the history of Wittlich.



Altes Rathaus Wittlich · 54516 Wittlich, Neustr. 2 · www.kulturamt.wittlich.de
The Renaissance building from 1652 houses the cultural and tourist information office, the municipal gallery boasts a permanent exhibition in honour of the artist Georg Meistermann.

Hertha and Martha are cheerful companions who find joy in exploring new places and discovering delectable herbs along the way. When they arrive at the Vulkanhof, they immediately head for the stable to meet their fellow residents.

As they approach, they are greeted with curious and happy bleating. The smell of grass and fresh hay wafts through the air. The goats at the Vulkanhof are thriving, taking great joy in the pleasures of life. A guided tour will present you with all you need to know about goat keeping, including about the process of milking and where the kids live ...



In the Daun Wildlife and Adventure Park



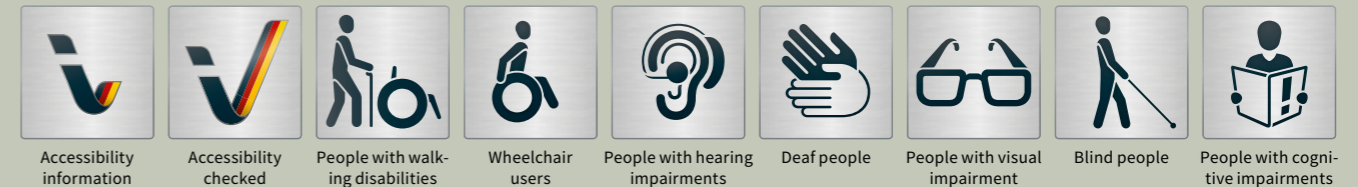
“Travel for All” in the Vulkaneifel Nature and Geopark



Right in the Middle

The Vulkaneifel Nature and Geopark is a region offering a wealth of experiences, allowing visitors to experience nature untouched. However, this often poses a problem for people with disabilities. We are committed to improving accessibility while preserving the integrity of nature and the environment. We have already implemented barrier-free or low barrier paths, trails and places. As a model region in the “Tourism for All” project, we aim to manifest a future where people can revel in the beauty of nature, free from any barriers.

Please visit our homepage or www.eifel-barrierefrei.de for information on our current offers. You can also find our selection of offers on page 57.



The project “Tourism for All” was funded by the Ministry of Economy, Transport, Agriculture and Viticulture in Mainz. The Nature Park and UNESCO Global Geopark Vulkaneifel is one of the model regions that was selected through a competition conducted throughout Rhineland-Palatinate.

In the course of the project, two infrastructure projects were applied for: **implementation of individual tourism measures in the town of Ulmen with the core project being opening the tunnel between the Jungferweiher and the Ulmener Maar** and creation of a **barrier-free infrastructure and valorisation of the Niederburg in Manderscheid**. Furthermore, the aim is to further close the tourist service chain by certifying businesses and excursion destinations according to “Travel for All”.

A survey was conducted covering almost 40 businesses, which serve as the basis for measuring successful excursion days in the Vulkaneifel, also taking into account guests with handicaps.

The nationwide standardised certification system “Travel for All”, enables the ease of assessing the suitability of accommodations or excursion destinations from the comfort of your own homes. Detailed test reports, accompanied by photos, provide a comprehensive overview and indicate that the hosts are trained and qualified. Clearly defined pictograms ensure the recognition throughout Germany. Each target group has its pictogram, which are consistently presented in the same order. There are two levels per target group: **partially accessible** (with an “i” in the corner) and **barrier-free**.



Gärten Heimweberei-Museum Schalkenmehren

Vulkanhof Goat Cheese Dairy Gillenfeld



On our guided tour, you will have the opportunity to learn exciting things about goat keeping, milking and where the kids live. The family farm was named one of the best cheese dairies in Germany by "Feinschmecker" – no wonder, since the cheese tastes so delicious! Take a look around the farm shop and end the experience in our cosy Eifeler Scheunencafé.

Our car park is barrier-free, and we have designated parking spaces for wheelchair users at the farm. The access road to the barn and farm shop is also wheelchair accessible. While our WC is not barrier-free, the farm shop is accessible via a mobile ramp. Additionally, our terrace is open for use. Furthermore, we have a drivable parking area in the goat barn, allowing you to interact directly with the animals. Please note that assistance dogs are not permitted. However, visitors are welcome to book a guided tour of the farm with a sign language interpreter.

Vulkanhof - Ziegenkäserei
 Vulkanstraße 29 · 54558 Gillenfeld
 Tel.: 06573 - 9529928
 info@vulkanhof.de
 www.vulkanhof.de



The survey will be conducted soon.

The Ulmen Maar Tunnel



The tunnel between Jungferweiher and Ulmener Maar stretches 120 m through the earth. And God Vulcanus is in on the action.

The project includes the connecting tunnel, Pump House viewing platform and town centre of Ulmen. Everything can be experienced barrier-free and is raised according to "Travel for All". The tunnel can be used by guests with disabilities (except blind people) and is partially accessible with a wheelchair or walker. The northern entrance, geological showroom and circular route around the Jungferweiher have been made barrier-free. All signage is accessible for wheelchair users and is written in easy-to-read language. There are plenty of parking spaces available, and the WC can be used in the café at the campsite. The listening tour, which connects all the individual tourist projects in Ulmen via eight stops, has also been implemented in easy language.

A car park is available at the Citizens' Support Bureau, and a wheelchair-accessible toilet is available on the ground floor.

Citizens' Support Bureau at Ulmen Town Hall
 Marktplatz 1 · 56766 Ulmen
 Tel.: 02676 - 409-0

info@ulmen.de
 www.ulmen.de

The survey will be conducted soon.

Schalkenmehrener Maar Circular Trail



On a walk around the maar, you will dive deep into the Earth's history of the Vulkaneifel. Around 25,000 years ago, the region was prone to vigorous bubbling, with lava flowing and chunks of earth flying through the air. Nowadays, things are much more peaceful at the maar: the water glistens in the sun, children's laughter resounds from the natural outdoor pool and swimmers and boaters cavort on the water. And take time for a cosy picnic.

The circular trail, 3.5 km long and asphalted throughout, starts at the barrier-free car park not far from the church, at the corner of Maarstraße/ Im Bungert. The path reaches a gradient of more than 6 % for approximately 300 m. It is recommended to have someone accompany you on your visit here – unless you manage this small descent with suitable aids, such as a wheelchair with a brake. A WC is located in the Heimwebereimuseum and Hotel Schneider am Maar as well as Michels Wohlfühlhotel and Restaurant comply with the "Travel for All" guidelines.

The survey will be conducted soon.

Niederburg Manderscheid



The castle invites you on a journey to the Middle Ages. The castle festival at the end of August is particularly lively and exciting.

The Niederburg will be redesigned to be barrier-free in 2023. After the project's completion, Niederburg Castle meet the requirements of the "Travel for All" certification. In addition to the barrier-free castle courtyard, we will provide a sign video for hearing-impaired guests. All information boards are accessible to wheelchair users and written in easy-to-understand language. A model of Niederburg Castle invites visitors explore the complex through touch. The catering area is also equipped with wheelchair-accessible tables and a barrier-free toilet.

Tourist Information Manderscheid
 Grafenstraße 21 · 54531 Manderscheid
 Tel.: 06572 - 9989 005
 manderscheid@gesundland-vulkaneifel.de
 www.gesundland-vulkaneifel.de

The survey will be conducted at the end of the project.

Underground from Maar to Maar

You're in another world. Cool air greets you. In just a few moments, your eyes adjust to the sparse lighting. A graffiti artist has immortalised himself on the sprayed concrete of the gallery wall – a commissioned work in the course of the gallery renovation. As we venture further, we enter the narrow, high passage, right through layers of volcanic rock. Experts recognise some layers of ash from the massive eruption of the Laach volcano a good 13,000 years ago, covered by tephra from Central Europe's youngest volcano, the Ulmener Maar, whose eruption dates back some 10,900 years.

Suddenly, the tunnel opens up. The rock formations on either side transform, rising towards the high ceiling. Where the walls used to be grey and grainy with fist-sized boulders enclosed, we are now greeted by red-dish-brown slate rock. We have arrived at the former land surface of the Rhenish Slate Mountains, whose formation dates back to a Devonian shallow sea some 400 million years ago.

The Ulmen discovery tour – real added value!

For all explorers, the Ulmen discovery tour offers 3.5 km of real landscape enjoyment with digital experiences on your smartphone. Along the signposted path, which leads around Ulmen to its most beautiful places, there are 24 so-called **pickpoints**, where audiovisual content can be discovered directly on your smartphone. Harry Haubentaucher is an expert on bird life of the Jungferweiher, and the Ulmen Maar narrates its own geological history – simply scan the pickpoint and listen to the stories.

For those visiting Ulmen Castle, a delightful children's quiz awaits our young guests, giving them a chance to win a special souvenir upon successfully answering all the questions.



An ancient water supply tunnel now open to all, even barrier-free!*

At the top of the ceiling is a strange hole, as if it was made from a giant drill. A tree once stood in its place, before the Maar eruption trapped and buried it by the tephra. Over the millennia, the wood has rotted away, but the cavity has remained. If you look closely, you can see places where people used their simple tools to cut this tunnel through the hard rock. It was built in the late Middle Ages to improve the water supply for mills on the Ulmener Bach stream – a unique large-scale water management system.

A few metres further, the wall structure changes again. You can now see and walk through the crater wall of the Ulmener Maar. A total of 120 metres will take you to the other gallery portal. And there it is, the Ulmener Maar: on the left, forest covers the steep slope, on the right you see the old town centre of Ulmen and the ruins of the former knight's castle of the Ulmen family rising high from the hill in front of you.



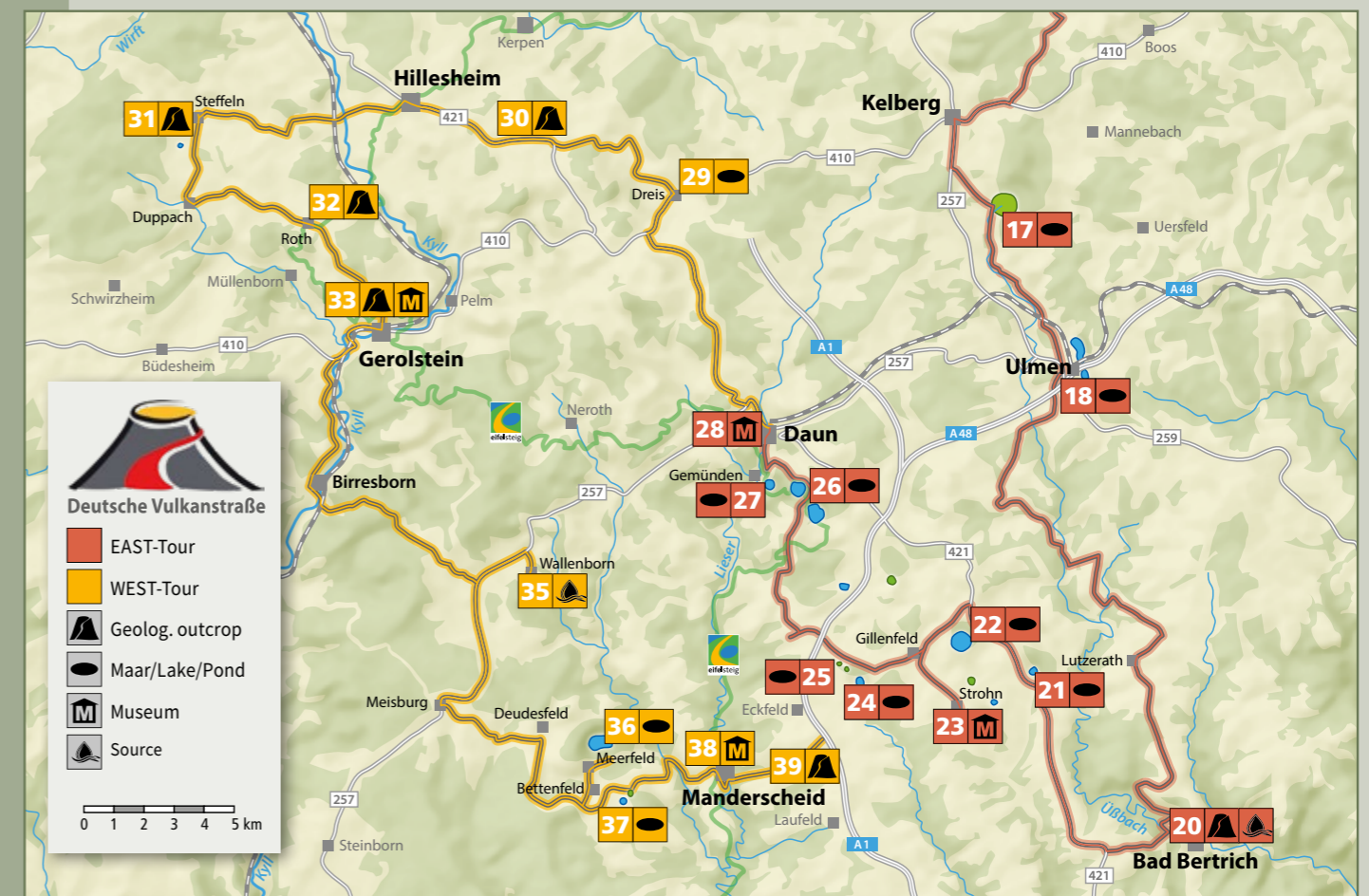
Along the German Volcano Route, there are numerous maars, cinder cones, lava flows, domes, calderas and countless bubbling mineral springs to admire. The geological, volcanological and cultural-historical sights are fascinating, and their tales are recorded in the geo-museums and visitor mines, where you can discover the secrets of the history of the formation of Germany's youngest volcanic landscape and gain insights into the life of and with the stones.



The German Volcano Road is especially suited for motorhome travellers. Not do only the selected geo-highlights make this car tour a grandiose experience, the drive alone offers a multitude of beautiful vistas. Multifaceted landscapes greet you on both sides of the road, magnificent views through passages in the sparse forests, along wildly romantic river valleys and through small villages where time seems to have stood still.

As is typical of the Eifel, the route has several ascents and descents, sometimes with twists and turns. Take a few days off to completely immerse yourself in the experience of this unique path. In addition to hotels and inns along the route, there are numerous beautifully situated motorhome sites where you can stay overnight.

The German Volcano Route



Geo-Highlights Along the German Volcano Route

- | | | |
|----------------------------|--|---|
| 17 Mosbrucher Weiher | 26 Weinfelder Maar and Schalkenmehrener Maar | 33 Papenkaule with Sarresdorfer Lavaström and Munterley |
| 18 Ulmener Maar | 27 Gemündener Maar | 35 Wallenborner "Brubbel" |
| 20 Bad Bertrich | 28 Eifel-Vulkanmuseum Daun | 36 Meerfeld |
| 21 Immerather Maar | 29 Dreiser Weiher | 37 Mosenberg |
| 22 Gillenfeld – Pulvermaar | 30 Arensberg | 38 Maarmuseum Manderscheid |
| 23 Lavabombe Strohn | 31 Volcano Garden Steffeln | 39 Rock fold |
| 24 Holzmaar | 32 Millstone cave Rother Kopf | |
| 25 Dürres Maar and Hetsche | | |

* For barrier-free offers around the connecting tunnel and the town of Ulmen, see page 57

Adventurous? Curious?



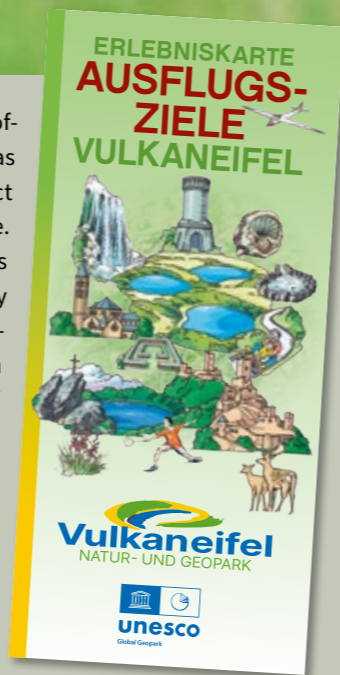
Let's go...

The **Vulkaneifel UNESCO Global Geopark** offers much more than spectacular geology. As a nature park, it offers a variety of fascinating natural landscapes along numerous paths and trails that give visitors the opportunity to immerse themselves in the habitats of native plant and animal communities.

In addition, the Vulkaneifel is a recreation and holiday destination with a wide range of leisure activities, sporting challenges, health offers as well as sights and experiences - at any time of year and in (almost) any weather conditions.

The **Vulkaneifel adventure map** serves as an exceptional and informative guide. From the old knight's castle to the millstone cave, from the wildlife park to the via ferrata, it showcases a plethora of around 180 excursion destinations and attractions.

The tourist information offices are readily available as your first point of contact for support and advice. Their competent teams are happy to answer any questions. For those planning their holidays from home, an online version of the adventure map is also available. ■



Daun Wildlife and Adventure Park



At the Eifel-Guck Lookout Tower near Sassen



Swimming in the Gemünden Maar



Burgenklettersteig Manderscheid

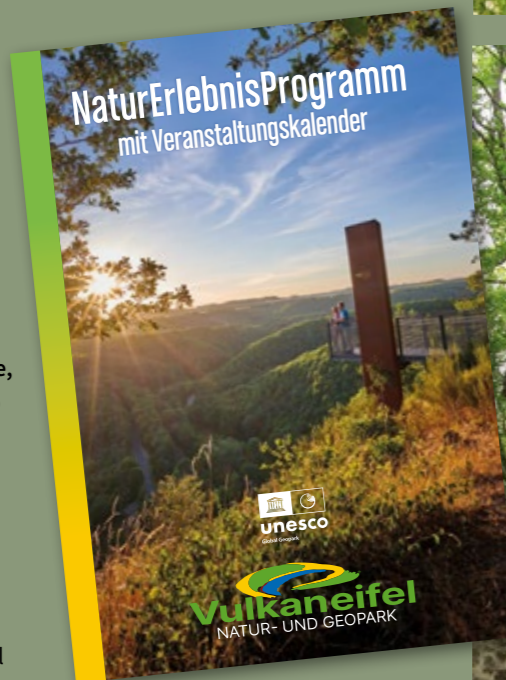


at the Schalkenmehrener Maar

ENTHUSIASM that infects

The Vulkaneifel landscape, standing apart from any other, depicts a history shaped by fire and water. Much of its treasures are obvious, but some only reveal themselves at second glance. That is why we recommend to book a tour with an expert guide.

Get the adventure programme at the nearest tourist information office in the Vulkaneifel. Leaf through more than 150 pages and choose from around 700 (!) dates! Of course, the programme is also available online.



Accompanying you on your journey are 25 certified nature and geopark guides, as well as 10 tourist guides. All experts in various areas.

They will lead you on captivating hiking, cycling and GPS tours throughout the Vulkaneifel Nature Park and UNESCO Global Geopark. Our offer includes a varied, exciting and diverse nature experience programme all year round: guided tours of wild herbs, sensory hikes, geological excursions, horseback riding to the Fire Mountains, workshops, mushroom seminars, mystery walking tours, children's adventure programmes in the holidays, hikes with Nero the Eifel Mouse and much, much more. There is truly something for everyone.

Most tours can also be booked individually. To do so, you can contact the nature and geopark guides directly.

Let yourself be infected by the enthusiasm of our tour guides. With the help of their trained eyes, you can understand the intricate connections within the regions, learn something new about the world we live in and, above all, have a lot of fun! ■



Freudenkoppe Castle Ruins near Neroth



Munterley near Gerolstein



SPECIAL PRODUCTS from a Unique Region



The demand for regional supplies and products "VON HIER" (= "from here") is growing: the COVID-19 pandemic and the growing concern for environmental protection have drawn attention to the importance of regional products and producers. The appreciation of regional quality is increasing again. And that is a good thing, because the Vulkaneifel and its producers have much to offer!

Our producers contribute to the regional identity and increase the attractiveness of the Vulkaneifel as a location worth visit-



ing. These farms are generally small or micro-enterprises that are often run as side businesses. This makes it all the more crucial to promote them and their unique products.

To this end, in the summer of 2022, the network **VON HIER VULKANEIFEL** was founded, which serves as a platform for regional producers from the Vulkaneifel to meet and exchange information on a regular basis. It encompasses companies that produce products for the end customers within our unique region. This association already in-

cludes agricultural producers, producers of toys, handicrafts and soap, handicraft businesses from the areas of clothing and textile finishing, bakeries, cheese dairies and beekeepers. The network continues to maintain a clear focus on growth, as the region has much to offer.

At www.vonhier-vulkaneifel.de, consumers and potential customers can find out about the regional producers, their products and sales outlets. Visitors to the Vulkaneifel can now take a piece of this charming landscape home with them. ■



with pleasure *Eating and Drinking*

Treat yourself to something really good



The way the grape juice pours into the wafer-thin glass is inimitable. It dips down with a slight gurgle, conjuring up dancing pearls that capture the light of the candles. With a slight twist, Martin Kucher sets the bottle down again and examines the faces of his guests tensely, almost solemnly. The noble Riesling sparkles crystal clear and exudes its enticingly fruity aroma in the lovingly furnished cross-vaulted cellar – irresistible!

Enjoyment is more than indulgence in food and drink. Enjoyment keeps you healthy. Being able to savour and dedicate time for enjoyment enhances

the quality of life and brings happiness. Life offers many opportunities for enjoyment: be it the first sip of coffee in the morning, a hot shower after playing a sport, a walk through the forest, the sound of rain-drops on the roof or the moment when a good beverage satisfies the palate. But enjoyment demands more than time; it calls for your complete attention.

The hosts of the Vulkaneifel are the first address for enjoyment. They have a wide variety of original, sometimes unique offers, including culinary experiences. And now it's up to you to turn these offerings into unforgettable moments of pleasure. ■



The UNESCO Global Geopark designation is a level of recognition equivalent to that of World Heritage Sites and Biosphere Reserves. The programme status established by UNESCO is the highest distinction that the world community has to award. It is confirmation of the work done in the regions and at the same time a challenge for the further development of the geoparks. This is because their quality will continue to be reviewed internationally in a tight four-year grid.

The consistent and courageous implementation of the geopark concept is bearing fruit in the Vulkaneifel. Good indicators are the development of the tourism figures and the rapid increase in geotourism offers. Even more: many people and businesses are now involved as ambassadors of the nature and geopark. As certified Geopark hosts Vulkaneifel, they fulfil defined quality and environmental criteria for ecological, economic and social sustainability. They are committed to the Sustainable Development Goals of the United Nations Agenda 2030. And they make it their permanent task to preserve our mosaic of geo- and cultural landscapes and to actively participate in solutions to preserve our geological heritage and to keep our culture alive. All of this benefits you as our guest, and we as the Vulkaneifel nature park and UNESCO Global Geopark stand on a good foundation with a broad chest.



Thanks to its rural character, the Vulkaneifel offers a wealth of regional products. First and foremost, of course, are the world-famous mineral waters. Good wines are supplied by the Moselle and Ahr valleys in the neighbourhood. Fruit and vegetables from sustainable cultivation are equally available as milk, cheese and meat from species-appropriate husbandry as well as game and mushrooms from the local forests. Innovative start-ups contribute spice mixtures, mustards and oils - natural, homemade and sustainable. These ingredients can be used to conjure up regional delicacies, whether for a hearty picnic or a romantic candlelit dinner.

In short: the Vulkaneifel is not only a region full of fascinating geological phenomena and great habitats. It is also a place where life is good and enjoyable – and in line with the Sustainable Development Goals of the 2030 Agenda.



Vulkaneifel

NATUR- UND GEOPARK



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