

## Geosciences Working Group 2018

The Geosciences Working Group of the Faculty 5 of the University of Bremen offers an introduction to geology, palaeontology and mineralogy to the public every second Thursday of the month at 7:20 pm. These meetings give the chance to discuss with each other and to get advice from a scientist. The meetings include a generally comprehensible talk on geoscientific topics. Further information can be found on our homepage: [www.geosammlung.uni-bremen.de](http://www.geosammlung.uni-bremen.de)

**11th January 2018**

**Lecturer:** Michael Wendschuh

**Topic:** Crystals, symmetry and the way to knowledge



Crystals have always fascinated people - as if they had been cut perfectly by a mysterious hand and brought into a highly symmetrical shape, they don't seem to belong in our irregular world at all. And yet it is precisely this perfection that reveals a great deal about the internal organization of the crystals when you take a close look at them.

The path from the mere observation of crystals to an understanding of their inner nature is a prime example of the way in which scientific knowledge is gained. We will follow this exciting path in the lecture.

**8th February 2018**

**Lecturer:** Andreas Klügel

**Topic:** Emmelberg: View into a cinder cone of the Western Eifel volcanic field



Numerous quarries in the quaternary West and East Eifel volcanic fields provide spectacular views of the interior of volcanic cones. Here, various volcanic deposits can be studied and eruption processes reconstructed. The lecture reports on the structure of the extensively eroded Emmelberg volcano near Üdersdorf, which is particularly well known to mineral collectors, and on petrological investigations to determine the depth of origin of the magma.

**8th March 2018**

**Lecturers:** Dr. Volker Lohrmann

**Topic:** Fossil insects



The delicate structure is the reason why they rarely become fossils. Exceptions are the rich insect finds in amber and copal. Nevertheless, fossil insects can be found in many sedimentary rocks, but they are often overlooked. Famous are fossil beetles from the Messel pit near Darmstadt, which even show brightly shimmering elytrons, or insects from the Jura of East Germany and the early modern period in Denmark with detailed wing veinings. The oldest known insect is over 400 million years old, the largest fossil insects probably belong to the giant dragonfly *Meganeura*, which lived over 300 million years ago and is said to have reached a wingspan of more than 70 cm. This is reason enough to give a lecture on the enormous plenty of fossil insects and their evolution.

**12th April 2018**

**Lecturer:** Werner Liebenberg

**Topic:** Between Rhone and Cevennes, part 3



A geological excursion along the edge of the Cévennes from the Devil's Bridge near Thueyts in the north, to the gorge of the Hérault in the south. The lecture shows the diversity of a landscape of tertiary volcanism in the upper Ardèche valley and the Jurassic outcrops with its fossils to karst phenomena and caves as well as traces of the former coal mining.

**17th May 2018**

**Lecturer:** PD Dr. Jens Lehmann

**Topic:** Nevada - Travelogue from the State of Geologists



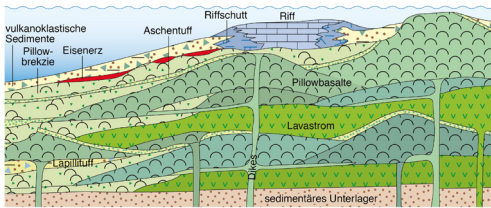
Geology plays an important role in the history, economy and future of Nevada. Mountain-forming forces created a landscape of plains on the western edge of the North American continent, separated by parallel mountain ranges. The latter also make Nevada a desert state and thus an El Dorado for geologists. Natural disasters such as earthquakes, flash floods and bush fires contrast with geological richness in the form of the largest gold deposits in the USA, among other things. Research is carried out by geoscientists from Bremen on sediments from the Triassic period of Nevada and its fossils. The lecture is a travelogue, but also shows geological and landscape highlights around the Nevada expedition of the Geoscientific Collection in 2017.



**14th Juny 2018**

**Lecturer:** Prof. Dr. Wolfgang Bach

**Topic:** Diabas Volcanism in the Rhenish Slate Mountains: Foundation and Destroyer of Devonian Reefs



The rocks of the Rhenish Slate Mountains represent sedimentary and volcanic deposits from a peripheral sea south of the equator. During a very lively volcanic phase in the middle devon, sea mountains formed in this Rhenoheryn Sea, on which riffatolle formed out of stromatopores and corals. The explosive nature of these volcanoes, however, also leads to the local destruction of the reefs. In the lecture, examples of the interactions between volcanism and reef development will be presented.chemosymbiosis.

**13th September 2018**

**Lecturer:** Harald Rohe

**Topic:** The Arctic Lecture: At eye level with the polar bears



Harald Rohe has made Spitsbergen his second hobby and reports about the Arctic Excursion 2017: Spitsbergen is a little bit cold, but still a dream destination. In his picture lecture he tells exciting stories about Spitsbergen. He reports on the changes in the mining settlements, the nature, the animals and fossil finds made during this trip.

**12th October 2018**

**Lecturer:** Jürgen Reinhard

**Topic:** History of the marl lime pits of Höver and Misburg near Hanover



They are equally well known as sources of raw materials and fossil sites: the limestone marl pits of Höver and Misburg in the immediate vicinity of Hanover. Marl limestone dating back to the latest Cretaceous are mined at these sites, which are about 73-83 million years old. Much is now known about the former creatures and their presumed environment because of a variety of fossils discovered, however, that these rocks are quarried for more than 100 years in these places is less known. The lecture will focus on the history of these excavation fields. The cement works Alemaniam in Höver was already built between 1907 and 1908, the plants in Misburg have their origins in predecessors which were operated from 1873 onwards.

**8th November 2018**

**Lecturer:** Eva Bischof

**Topic:** How does the ammonite get into the Nevada desert?



During the Middle Triassic period, the area of today's Nevada was located far away from the west coast of the Panthalassa Super Ocean. The variability of ammonoids was high in mid-deep areas of this ocean. At that time a huge „arms race“ took place between hunters and hunted - between Ichthyosaurs and Ammonites. Every time the predators developed stronger teeth, the prey animals were forced to develop more stable shells. This intensified competition has made a decisive contribution to the diversity of forms in the sea. The excellent conditions of the outcrops in NW-Nevada, USA reveal wonderful insights into the open water faunas of this part of the world. The lecture reports on the progress of the research work of the Geosammlung Bremen, which investigates the diversity of ammonites from this period.

**13th December 2018**

**Lecturer:** all

**Topic:** „Weser Geo-highlight 2018“ award & Christmas celebration



Many Bremen citizens collected rocks, fossils and minerals during 2018. Therefore, to add to the general warmth of the Christmas celebration, a prize is given for the “Exhibit of the year”. The most interesting, most pretty or best prepared specimen is voted as the “Weser Geo-highlight 2018” and honored with a prize - no matter if the find originates from the Bremen area, distant regions in Europe or even from overseas. In addition, the Geo-collection is presenting its new acquisitions of the year and the lecture programme for the year 2019 is released.