



Geopark Karavanke/Karawanken

On the peaks of the Geopark it sometimes still seems like being on an island in the middle of the Tethys Ocean

The Geopark Karavanke/Karawanken is a cross-border geopark named after the alpine mountain chain, which connects the regions on both sides of the border between Slovenia and Austria. The Geopark area includes 13 municipalities and extends over an area of 1000 km² with a population of 50.000. It is famous for its extraordinary geological structures and its wealth of geological as well as other natural and cultural characteristics. People settled in the area for its geological resources, i.e. coal deposits and concentrations of minerals including lead, zinc and molybdenum. The "geopark" model seemed to be a good solution for the sustainable development of an area in which mining shaped and formed life on the surface.

The Geopark's geology includes a variety of sedimentary, igneous and metamorphic rocks ranging in age from Ordovician to Miocene which were formed during late Caledonian, Variscan and Alpine orogenic cycles. Some geological features in this area are of extraordinary, even world-renowned scientific importance. The predominant surface exposures of rocks in the Geopark originated as sediments deposited on a late Tri-

assic Period (Carnian Stage) sea floor between 228 and 216 million years ago. These contain some of the richest accumulations of Carnian crinoids in Europe (Helena Creek Valley) together with ichthyosaurs bones and other abundant remnants of marine life in the ancient Tethys Ocean. The occurrence of Pillow lavas in the Obir Gorge and volcanic rocks in Smrekovec are evidence of submarine volcanism. The collision between the Adriatic and the Eurasian plates resulted in the creation of the Alps and the a several-hundred-kilometre long Periadriatic fault zone. The Geopark also boasts one of the world's five major deposits of dravite, a sodium, magnesium aluminium silicate (tourmaline), the richest wulfenite (lead molybdate) deposits in Europe and one of the most famous in the world. It also contains five major lead-zinc ore outcrops (galena and sphalerite) and early Palaeozoic rocks containing pegmatite (schorlite). Some of these ores were exploited beneath the slopes of the Peca and Hochobir mountains. Today we can admire specimens of these minerals in museums. Coal mining was also important. The coalmine in Leše was one of the largest and most modern coalmines in Slovenia, and fuelled the most important European ironworks. The surface as we see it today has been shaped over millions of years, and subsurface erosion formed the extraordinary karst caves of the Hochobir and the scenic Trögern glen.

The varied geology contributes to a range of habitats, and the Geopark's rich biodi-

versity. Rare habitats have survived due to human activity and provide a refuge for unique plant species such as the endemic Zois' bellflower, Kamnik orchid, Peca meadow oat-grass, Wulfen's primrose and gentian. The Geopark is also important as a sanctuary for birds including endangered species of grouse (capercaillie, black grouse, ptarmigan and hazel grouse). Fens and streams are biologically important as well as sources of clean water.

The geologic features of this area are part of a rich cultural heritage. The cultural heritage is presented in several museums, archaeological sites (Mountain of St. Hemma) and galleries, through everyday customs and practices including traditional local events and oral tradition of fairytales, folktales and legends. The territory is associated with industrial innovation due to the early development of industry and construction of manufacturing plants.

Today, visitors and scientists are drawn to this area by the wealth of minerals in old mines, as well as by its outstanding natural resources and its people. All this is connected, presented and promoted by the Geopark. The existing tourist infrastructure has been upgraded with geo-experiences, geo-education and geo-interpretation and linked to the local economy, culture and nature, which will undoubtedly contribute to further development of the region.

Fajmut Štruel Suzana suzana.fajmut@podzemljepece.com
Rojs Lenka lenka.rojs@zrsvn.si
Bedjanič Mojca mojca.bedjanic@zrsvn.si
Hartmann Gerald gerald.hartmann@lag-uk.at
Vodovnik Primož primoz.vodovnik@rra-koroska.si
Varch Christian varch@hoehlen.at

Geo-experience
in the Mežica mine

