

Geotope 8. Garnitzen Gorge – The Changing



Red marking: Hiking route according to advance description; green tracks: hiking trails; ©BEV: Federal Office for Calibration and Measurement, 2005.

Access:

Passing the village of Möderndorf for the parking at the entrance of the gorge. A hiking trail leads through the gorge, however, a fee has to be paid.

Description of the Geotope

The total length of the gorge which is divided into four parts is some 6 km. Along the gorge rocks of Ordovician (some 460 m.y. BP) to the Permian age (some 250 m.y. BP) are exposed.

Close to the entrance the rock walls on both sides of the river consist of weakly metamorphosed unfossiliferous banded limestones. Based on comparisons from other occurrences they reflect a Devonian age and were affected by two orogenies. These disturbances were responsible that all strata are inclined, foliated and bent. In these rocks intercalations of greyish and black slates occur with thicknesses of 5 to 20 m. The rock sequence belongs to the oldest strata of the Carnic Alps, however, due to missing fossils an exact age cannot be concluded.

The main reason for the formation of the gorge is that the flowing water passed some weak rock sequences. These are strongly fissured limestones and soft rocks like shaly intercalations.

The trail along the gorge offers an interplay of impressive and frequently changing colourful rock sequences, thunderous waterfalls and small pools in the rocks which are known as scours. They were eroded by the flowing water. Some of these features can be seen high up in the walls indicating that the Garnitzen Gorge was gradually but steadily incised into the surrounding rocks. Thus for the formation of the gorge also rapid uplifting in geologically short time was responsible.



Bedded dolomites of Lower Triassic age in the upper part of the Garnitzen Gorge.