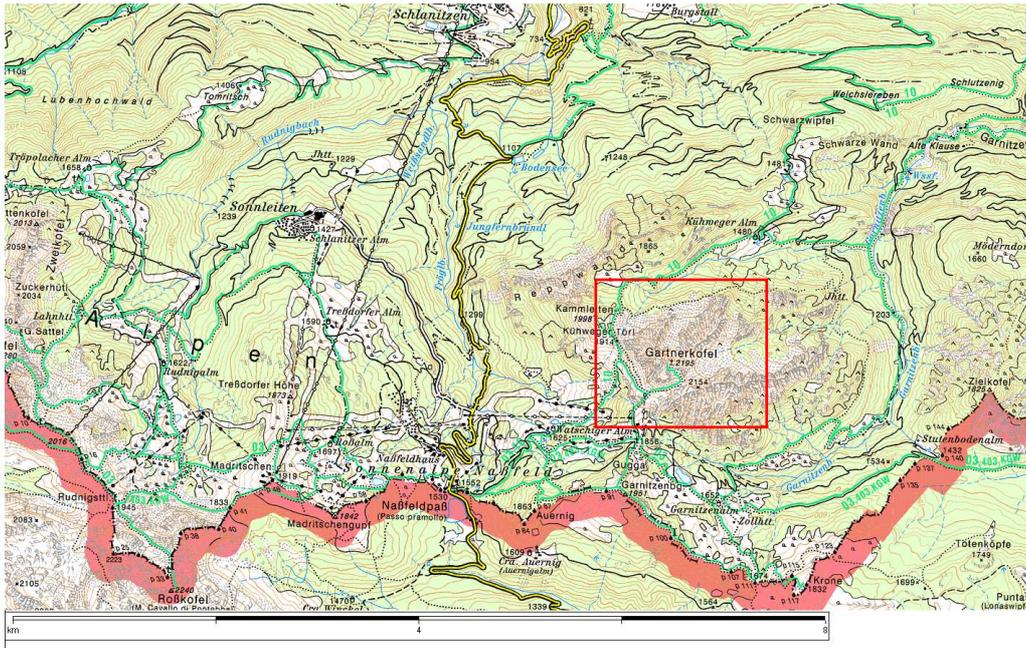


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Geotope 59: Gartnerkofel Southern Wall – Flayed and Slashed



Red square: location of the geotope; green tracks: hiking trails; ©BEV: Federal Office for Calibration and Measurement, 2005.

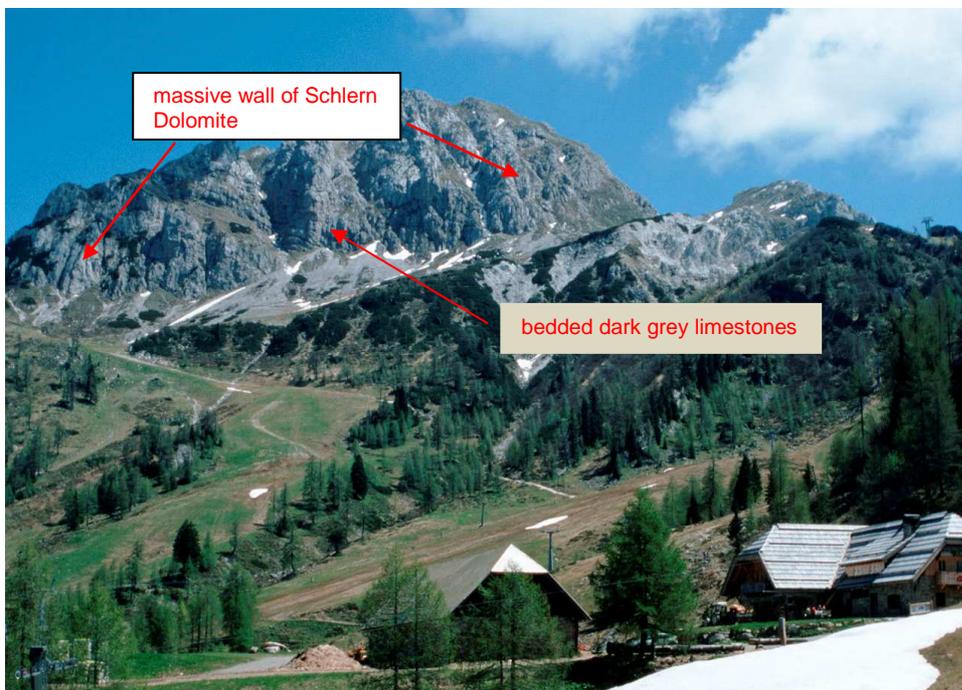
Access:

From Naßfeld via Garnitzensattel to Garnitzenalm. An alternative trail is through the Garnitzen Gorge but takes at least three hours.

Description of the Geotope

The southern wall of mountain Gartnerkofel offers a good insight into the youngest rocks of the Austrian part of the Carnic Alps. The summit consists of some 500 m of greyish unbedded dolomitic rocks which start close to the saddle southeast of Kammleiten to extend over the summit to the upper Garnitzen creek. According to the main occurrence of these rocks in South Tyrol they are named “Schlern Dolomite”.

Since a dolomitic rocks is less soluble than limestone, it is weathered to small pieces and even to a kind of grit. The whole summit is affected by fissures, cracks and holes which resemble a very old and strongly altered rock. However, this rock also contains traces of ancient life like microscopic algae, corals and other microfossils. These fossil records remind us that the mountain Gartnerkofel is a remnant of the Tethys Sea which covered southern Europe during the Triassic Period some 230 million years ago. The unbedded Schlern Dolomite was deposited in this shallow sea. Intercalated with the dolomites are, however, bedded dark grey limestones seen in the photo below. They were formed at the margin of a slightly deeper basin which was connected to the north.



View from Watschig Alm to Gartnerkofel showing the massive wall of Schlern Dolomite with intercalation of bedded limestones.

For those who are interested in more details: By supply of magnesium limestones with the chemical composition CaCO_3 are converted during dolomitisation to dolomite $[\text{CaMg}(\text{CO}_3)_2]$.