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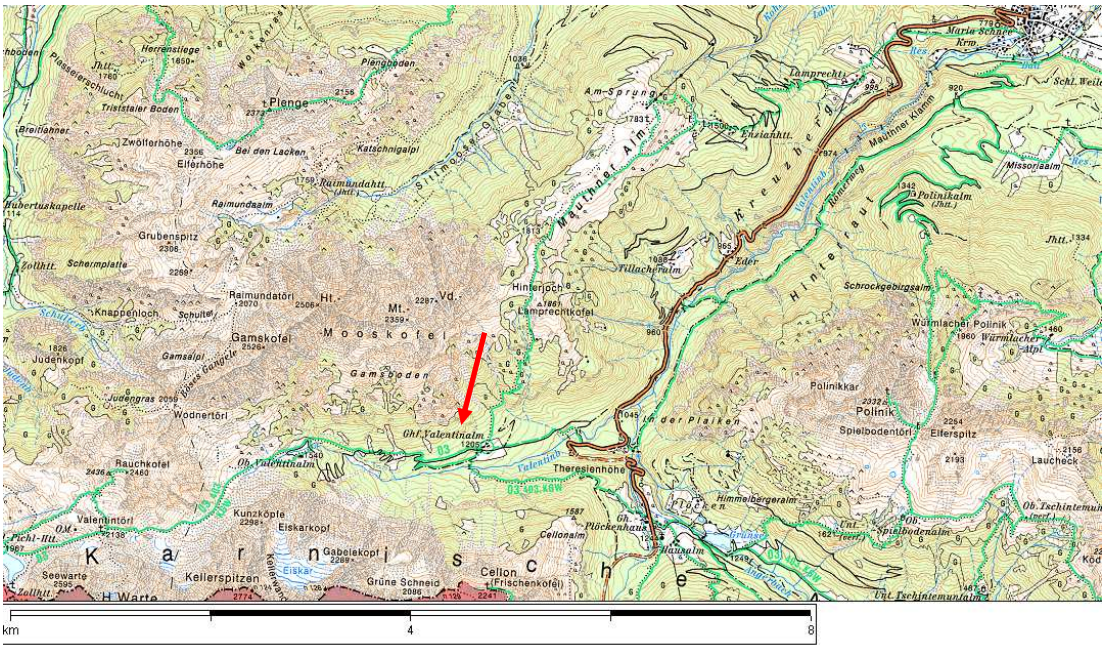
Geotope 75: Lower Valentinalm



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

Access:

The road to Valentinalm branches off near the World War I cemetery half-way between Mauthen and Plöckenpaß.

Description of the Geotope

View from Hinterjoch to Cellon, Grüne Schneid and Kellerwand.

The popular destination presents a superlative geology! Even from the main road the view on Kellerwand lets one breath caught.

Leopold von Buch, the famous German naturalist from the early 19th century described the wall as a *"terrific wall, many thousand feet high, of peculiar appearance, with numerous, few inch thick beds, from base to top. The limestone is dense, greyish, splintery, not dolomite and not similar to it".*

Since this early report generations of geologists have visited the Carnic Alps to study the rock sequence. In particular, the Kellerwand Cliff and its continuation to the east, the mountain Cellon, and to the west, the mountains Hohe Warte and Seewarte were subject of detailed sedimentary investigations, fossil collections and various analytical methods. Today many details of this area are known including environmental conditions, thicknesses, age and others which previously were unimaginable.

The sedimentary record started in the Upper Ordovician (460 to 444 m.y. BP), followed by some 60 m thick greyish and brownish limestones and shales of the Silurian (444 to 416 m.y. BP) and some 1000 m thick limestones of Devonian age (416 to 359 m.y. BP), forming the main part of the cliff. The equivalents of the Devonian are characterized by their different beddings and colors which enable a further subdivision of the sequence into several formations. In successive order they are named Rauchkofel,

Kellerwand, Cellon and Pal Formations. For a geologically very short time each of these formations was once the bottom of the sea!

The sediments of the Kellerwand Cliff represent the transition from a shallow-water reef area in the west to the open sea in the east. According to geologists this transition is characterized by “slope sediments”. During the Devonian Period the actual reef was located in the surroundings of Lake Wolayer, the open sea northeast of mountain Cellon. Today, this paleogeographic distribution is only locally preserved due to tectonic displacements. The tectonic overprinting is even stronger at Geotope no. 77, Upper Valentinalm.