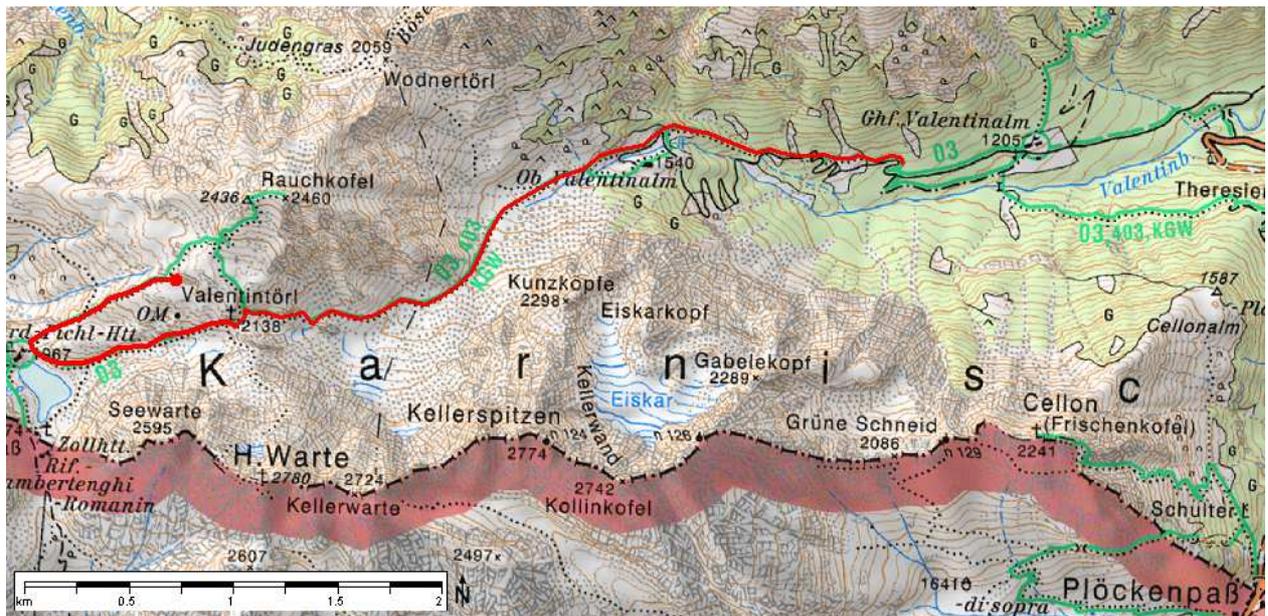


Geotope 50: Rauchkofel-Boden 2 – The Graveyard of the Orthoceratids



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

Access:

The trail starts either from Untere Valentinalm to Lake Wolayer or from the Lesach Valley through the Wolayer Valley to Wolayer Hut. At the hut a marked trail deviates to the summit of Rauchkofel and passes halfway to the Geotope at an altitude of 2,175 m.

Description of the Geotope



Fossil locality at second Rauchkofel-Boden (arrow).

The Geotope represents mass occurrences of orthoceratids which belong to the full-marine orthocone cephalopods with a slender elongate shell up to 9 m long (in the Ordovician!). The shell is divided into body

chambers with a subcentral siphuncle,

the surface may be ornamented. The genus *Orthoceras* or “straight horn” have long gone extinct, but have evolved to coiled forms which died out at the end of the Cretaceous. A distant living relative is the Genus *Nautilus* from the Indic Ocean. In the Silurian they had a global distribution and occurred in many marine rocks, especially in limestones where they can be rock-forming.

The life of an orthoceratid started as a larva which was drifted by ocean currents. Upwelling nutrient-rich water from the deep ocean caused an explosion of life with mass occurrences like those in the Carnic Alps, Bohemia or Sardinia.

The famous locality on Rauchkofel-Boden has long been known and studied by many specialists. However, there are also occurring many conodonts, a diverse trilobite fauna and also bivalves. Some representatives of the genus *Orthoceras* may reach a length of almost one meter, in average, however, they are several decimeter long. Interestingly, most of the shells are oriented in a NE-SW direction suggesting bottom-currents that affected the empty shells.



Longitudinal section of orthoceratids.