

Close to the Valentintörl the transition from the Devonian slope deposits characterising the Cellon section to the Devonian shallow water facies, with the Seekopf Fm. passing into the Hohe Warte and Seewarte Fms can be observed.

3.3.2. Stop 9 – Geological overview at the Rauchkofel South section

The Rauchkofel South section (Fig. 22) crops out in the northern side of the Valentin valley at



Fig. 22. The Rauchkofel South section.

an altitude of about 1990 m., at coordinates N 46°36'58.5", E 12°53'23.0". The section exposes rocks from Upper Ordovician to Lower Devonian, belonging to the following 7 formations: Valbertad Formation, Uqua Formation, Plöcken Formation, Kok Formation, Alticola Formation, Rauchkofel Formation and Kellerwand Formation.

The Rauchkofel South section is the type section of the Rauchkofel Formation (CORRADINI et al., 2015c), that is here about 120 m thick.

References: SCHÖNLAUB (1970).

3.3.3. Stop 10 – Valentintörl section

The Valentintörl section (Fig. 23) has been measured in the prominent calcareous cliff, which separates the north and the south Valentin passes, at coordinates N 46°36'49.5", E 12°52'51.5", and altitude 2138 m. The area is tectonically complicated by faults and thrusts. Therefore, also in the Valentintörl section large parts of the sequence are missing or extremely condensed.

The section starts with a few metres of the light grey encrinitic limestone of the Wolayer Fm. The Kok Fm. lies above, with an irregular basal contact. The Llandovery and Wenlock are missing, and the older Silurian bed belongs to the *K. crassa* Zone. The thickness of the Kok Fm. is here reduced to 4.3 m.

The Cardiola Fm. is not present and the section continues with the Alticola Fm., and the Lower Devonian units (Rauchkofel Fm., La Valute Fm. and Findenig Fm.), not yet studied in detail in this section.

References: SCHÖNLAUB (1971, 1980), HISTON et al. (1999b), BRETT et al. (2009).

3.3.4. Stop 11 – Base of Seewarte section

The Base of Seewarte section (Fig. 24) is exposed a few metres west of the southern pass of Valentintörl, at altitude 2100 m. Rocks from Upper Ordovician to Silurian in a transitional facies between the Plöcken and the Wolayer facies are here exposed.

The section starts with a few metres of badly exposed Valbertad Fm. grading into reddish carbonaceous sandstones and the greyish Katian Wolayer Fm.

The oldest Silurian beds belong to the *Pt. celloni* Superzone and are represented by dark grey shales, followed by grey to reddish siliceous mudstones and iron and manganese rich



Fig. 23. The Valentintörl section (view to the east).

carbonate beds. The rest of the Kok Fm., that has a total thickness of 12 m, varies from the typical brownish cephalopod-bearing Kok Fm. by its greyish color and its rich brachiopod and crinoid content. The accumulation of small brachiopods (“Pentamerids”) has not been studied yet.

Above 3.3 m of Cardiola Fm. crop out, represented by dark grey to black shales with limestone intercalations.

The section continues with the Alticola Fm., constituted of massive cephalopod-bearing, grey to pinkish wackestones and packstones.

References: SCHÖNLAUB (1971, 1980), BRETT et al. (2009).

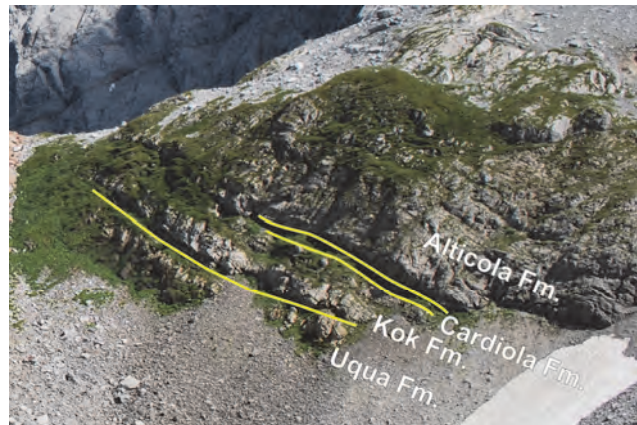


Fig. 24. The Base of Seewarte section (view to the south).

3.3.5. Stop 12 – Wolayer glacier section

The Wolayer glacier (Fig. 25) section is located in the northern side of the Wolayer valley at altitude 2080 m, about half distance between Valentintörl and Lake Wolayer, at coordinates N 46°36'48.8", E 12°52'34.9".

That section is the type section for the Valentin Fm. (SPALLETTA et al., 2015b), and also exposes limestones of the Pal Grande Fm. in the upper part. The section has been investigated