

extension). The complexity of the Carnic mountain chain is known since long time and drafted in several schemes resembling the tectonic and bathymetric interrelationship of the different nappes (compare STUR, 1856; GAERTNER, 1931; KREUTZER, 1992b; SCHÖNLAUB et al., 2004). Facies types and/or nappes corresponding to different time slices (e.g., SCHÖNLAUB, 1985a) are discriminated as follows:

Ordovician units are developed in four facies types: Fleons Facies, Himmelberg Facies, Uggwa Facies and Bischofalm Facies.

Among the Silurian strata the Wolayer Facies (shallow marine limestone), Plöcken Facies (shallow to moderately deep marine limestone), Findenig Facies (slope deposits) and the Bischofalm Facies (basinal clastic sediments such as black shales or lydites) are distinguished.

The spectra of Devonian deposits include the southern shallow-water facies (intertidal, back reef, reef and reef debris limestone) of the Kellerwand Nappe, the transitional or slope facies of the Cellon Nappe, the pelagic limestone facies of the Rauchkofel Nappe, the distal pelagic siliciclastic facies of the Bischofalm Nappe and the northern shallow-water facies of the Feldkogel Nappe.

During the early Carboniferous pelagic limestones and lydites, as well as flysch sediments (with regional intercalations of neritic limestone) and volcanites were deposited.

Val Visdende-Formation / Val Visdende Formation

THOMAS J. SUTTNER, HANS P. SCHÖNLAUB,
ANNALISA FERRETTI

Validity: Invalid; the name “Val Visdende Gruppe” for units distinguished by SCHMIDT (1930) was introduced by SCHÖNLAUB (1979); a detailed description of a part of this unit, ascribed as “Val-Visdende-Schiefer”, is provided by HUBICH & LOESCHKE (1993: p. 355).

Type area: ÖK50-UTM, map sheets 3108 Sillian, 3109 Oberdrauburg (ÖK50-BMN, map sheet 196 Obertilliach).

Type section: Section between Col Quaterná and Tscharrspitze near Passo Silvella (HUBICH & LOESCHKE, 1993; Figs. 2, 3); N 46°40'16" / E 12°28'19".

Reference section(s): Area near Lake Obstanser (Großer Kinigat, Pfannspitze, Roßkopf, Maurerspitze, Tscharrspitze-Gatterspitze, Passo Silvella) (HUBICH & LOESCHKE, 1993).

Derivation of name: After the Visdende Valley in northern Italy (SCHÖNLAUB, 1979: p. 52; see also map compiled by HINDERER, 1992: Fig. 2).

Synonyms: Val Visdende Gruppe [partim] (SCHÖNLAUB, 1979); Comelico phyllite (HEINISCH, 1981); Val-Visdende-Schiefer (HUBICH & LOESCHKE, 1993); Val-Visdende-Schichten (HUBICH et al., 1993); Formazione della Val Visdende (DUCA, 2004).

Lithology: Phyllitic schists (of variable amount of quartz) alternating with quartzite beds; subordinate conglomerate horizons occur; quartzites are less well sorted, some are of volcano-clastic origin (HUBICH & LOESCHKE, 1993: p. 355; CARLONI, 1971: p. 16).

Fossils: -

Origin, facies: The quartzites of the Val Visdende Formation probably indicate a shallow marine environment (HUBICH & LOESCHKE, 1993: p. 355). Volcanic quartz grains,

plagioclase and tourmaline suggest a source area consisting of acidic volcanic and plutonic rocks.

Chronostratigraphic age: Middle Ordovician (?); the age assignment is supported by the stratigraphic relationship with the overlying Comelico Porphyry the age of which is certainly Ordovician. However, the stratigraphic position and age is still controversial, as this unit could also be of Carboniferous age (compare SPALLETTA & VENTURIN, 1989; HINDERER, 1991, 1992; LÄUFER et al., 1993; VENTURINI et al., 2003).

Biostratigraphy: -

Thickness: > 500 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): -

Overlying unit(s): Comelico Porphyry (conformable contact?); Fleons Greywacke (conformable contact?); Himmelberg Sandstone (conformable contact?); Uggwa Shale (conformable contact?); Bischofalm Quartzite (conformable contact?).

Lateral unit(s): Comelico Porphyry (sensu HUBICH & LOESCHKE, 1993).

Geographic distribution: Western Carnic Alps.

Remarks: -

Complementary references: SCHÖNLAUB (1985a, 2000b), VAI & COCCOZZA (1986), FISCHER et al. (1996), SCHÖNLAUB & HISTON (1999, 2000), CARULLI (2006).

Comelico-Porphyröid / Comelico Porphyry

THOMAS J. SUTTNER, HANS P. SCHÖNLAUB,
ANNALISA FERRETTI

Validity: Invalid; this unit was named “Pfannspitzstreifen” by SCHMIDT (1930); a detailed description is provided in HUBICH & LOESCHKE (1993).

Type area: ÖK50-UTM, map sheets 3108 Sillian, 3109 Oberdrauburg (ÖK50-BMN, map sheet 196 Obertilliach).

Type section: Pfannspitze (HUBICH & LOESCHKE, 1993: p. 355), N 46°40'52" / E 12°30'05".

Reference section(s): Area near Lake Obstanser (Kleiner Kinigat, Großer Kinigat, Eisenreichgipfel, Tscharrspitze-Gatterspitze, Passo Silvella).

Derivation of name: After the region Comelico in the Province of Belluno in northern Italy.

Synonyms: Porphyroide des Pfannspitzsattel (SCHMIDT, 1930: p. 3); Pfannspitzstreifen (SCHMIDT, 1930: p. 4); Pre-Hercynian porphyritic plateau [partim] (SASSI & ZIRPOLI, 1968); Volcano-Sedimentary Complex (VSC) [partim] (SASSI & ZIRPOLI, 1989); Comelico “porphyroids” (SASSI & SPIESS, 1993: p. 601).

Lithology: Porphyry with common thin interbeds of phyllitic schists. According to HEINISCH (1981) and HUBICH & LOESCHKE (1993) the Comelico Porphyry comprises pyroclastic flow deposits (ignimbrites) with a rhyodacitic to dacitic composition. It represents volcanics of the calc-alkaline types. The porphyry contains phenocrysts of quartz, alkali feldspar and plagioclase in a matrix of chlorite, serizite, quartz and albite. Accessory minerals are apatite, zircon, tourmaline, biotite and garnet. In addition, in thin-

Austrian Stratigraphic Chart 2004 - Paleozoic

(sedimentary successions)

Austrian Stratigraphic Commission



ERA	SYSTEM / PERIOD / SERIES / EPOCH	STAGE / AGE	DURATION Ma	Global Classification									
				ERATHM / ERA	SYSTEM / PERIOD / SERIES / EPOCH								
PALEOZOIC	PERMIAN	CHANGHSINGIAN / Dorashanian	251	PERMIAN	MID PERMIAN / GUADALUPIAN / LOPINGIAN								
		WUCHIAPINGIAN / Dzhulfian	255										
		CAPITANIAN	260										
		WORDIAN	265										
		ROADIAN	270										
		PERMIAN	LOWER PERMIAN / CISURALIAN			KUNGURIAN	275						
						ARTINSKIAN	280						
						SAKMARIAN	285						
						ASSELIAN	290						
		PERMIAN	TRIAS			GZHELIAN	295	TRIAS	U. CARBONIFEROUS / PENNSYLVANIAN				
KASIMOVIAN	300												
MOSKOVIAN	305												
BASHKIRIAN	310												
TRIAS	LOWER CARBONIFEROUS / MISSISSIPPIAN			SERPUKHOVIAN	315								
				VISEAN	320								
				TOURNAISIAN	325								
PERMIAN	DEVONIAN			FAMENNIAN	330	DEVONIAN	UPPER DEVONIAN						
				FRASNIAN	335								
				GIVETIAN	340								
		EIFELIAN	345										
		DEVONIAN	LOWER DEVONIAN	EMSIAN	350								
				PRAGIAN	355								
		PERMIAN	DEVONIAN	LOCHKOVIAN	360			DEVONIAN	MIDDLE DEVONIAN				
				LUDFORDIAN / GORSTIAN	365								
				HOMERIAN / SHEINWOOD	370								
				TELYCHIAN	375								
AERONIAN	380												
RHUDDANIAN	385												
PERMIAN	DEVONIAN			HIRNANTIAN	390	DEVONIAN	LOWER DEVONIAN						
				DARRIWILIAN	395								
				TREMA-DOCIAN	400								
				PAIBIAN	405								
		PERMIAN	DEVONIAN	WEN-LUD-LOCK / LOW	410			DEVONIAN	UPPER DEVONIAN				
				WEN-LUD-LOCK / MIDDLE	415								
				WEN-LUD-LOCK / UPPER	420								
				WEN-LUD-LOCK / LOWER	425								
				PERMIAN	DEVONIAN					WEN-LUD-LOCK / LOWER	430	DEVONIAN	UPPER DEVONIAN
										WEN-LUD-LOCK / MIDDLE	435		
WEN-LUD-LOCK / UPPER	440												
WEN-LUD-LOCK / LOWER	445												
PERMIAN	DEVONIAN					WEN-LUD-LOCK / LOWER	450			DEVONIAN	UPPER DEVONIAN		
						WEN-LUD-LOCK / MIDDLE	455						
		WEN-LUD-LOCK / UPPER	460										
		WEN-LUD-LOCK / LOWER	465										
		PERMIAN	DEVONIAN			WEN-LUD-LOCK / LOWER	470	DEVONIAN	UPPER DEVONIAN				
						WEN-LUD-LOCK / MIDDLE	475						
				WEN-LUD-LOCK / UPPER	480								
				WEN-LUD-LOCK / LOWER	485								
				PERMIAN	DEVONIAN	WEN-LUD-LOCK / LOWER	490					DEVONIAN	UPPER DEVONIAN
						WEN-LUD-LOCK / MIDDLE	495						
WEN-LUD-LOCK / UPPER	500												
WEN-LUD-LOCK / LOWER	505												
PERMIAN	DEVONIAN					WEN-LUD-LOCK / LOWER	510			DEVONIAN	UPPER DEVONIAN		
						WEN-LUD-LOCK / MIDDLE	515						
		WEN-LUD-LOCK / UPPER	520										
		WEN-LUD-LOCK / LOWER	525										
		PERMIAN	DEVONIAN			WEN-LUD-LOCK / LOWER	530	DEVONIAN	UPPER DEVONIAN				
						WEN-LUD-LOCK / MIDDLE	535						
				WEN-LUD-LOCK / UPPER	540								
				WEN-LUD-LOCK / LOWER	545								



- Legend**
- pelagic, offshore, siliciclastic
 - pelagic, nearshore, calcareous
 - shallow marin, neritic
 - terrestrial-continental, coarse clastic
 - terrestrial-continental, fine clastic
 - evaporite (chloride, sulphate)
 - rhyolite, dacite
 - (basaltic) andesite, trachyandesite
 - basalt
 - phyllite
 - mixed-facies (in corresponding colors)
 - coal (may include several seams)
 - ? position/age doubtful/controversial
 - | equal units
 - \ older unit left \ younger unit right
 - hiatus
 - unconformity
 - GSSP
 - Fm. Formation
 - Ls. Limestone

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Cutout and English adaptation of the "Die Stratigraphische Tabelle von Österreich 2004": Geological Survey of Austria

The Austrian Stratigraphic Chart 2004 - Paleozoic is a supplement of:
 Hubmann, B., Ebner, F., Ferretti, A., Kido, E., Krainer, K., Neubauer, F., Schönlaub, H.-P. & Suttner, T.J. (2014): The Paleozoic Era (them), 2nd edition. - In: Pillner, W.E. (Ed.): The lithostratigraphic units of the Austrian Stratigraphic Chart 2004 (sedimentary successions) - Vol. 1 - Abhandlungen der Geologischen Bundesanstalt, 66, 9-133, Wien.

Printing: Grasl Druck & Neue Medien GmbH, Bad Vöslau 2014

Landesmuseum Joanneum, OAW, Geologische Bundesanstalt, UNI GRAZ, OGG, Universität Wien, Naturhistorisches Museum Wien