

(2,336 m) in the Nock Mountains, in particular the area north of mountain Stangnock, approx. 2 km northeast of Karlbach and 6 km northwest of Turracher Höhe.

Type section: North of mountain Stangnock with exposures covering more than 300 m of the complete section; N 46°56'12" / E 13°47'50".

Reference section(s): -

Derivation of name: After the mountain Stangnock (2,316 m).

Synonyms: Anthrazitformation der Stangalpe; Oberkarbon der Stangalpe; Stangalm-Karbon; Königstuhl-Turracher Karbon; Königstuhlkarbon; Turracher Karbon (cf. KRÄINER, 1989: p. 566).

Lithology: At the base coarse to fine-grained molasse-type sediments of a braided river network composed of quartz-rich polymict conglomerates, sandstones and arenaceous shales.

Fossils: Speciose flora (see FRITZ et al., 1990: p. 154–166).

Origin, facies: Intermontane molasse deposit containing abundant plant remains. The basal part grades upward into a gravel-sandstone facies of a meandering river system. In this sequence in the surroundings of Turracher Höhe meter-thick coal seams occur suggesting an overall humid climate.

Chronostratigraphic age: Kasimovian–Gzhelian (Stephanian), Pennsylvanian, upper Carboniferous.

Biostratigraphy: *Odontopteris cantabrica*–*Sphenophyllum angustifolium* Zone (Kasimovian–Gzhelian).

Thickness: > 400 m.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Lower Paleozoic Series of the Stolzalpen Nappe (not shown in the ASC 2004).

Overlying unit(s): Werchzirm Formation.

Lateral unit(s): -

Geographic distribution: In the Gurktal Alps between Turracher Höhe and Flattnitz in the east and the area around the village of Innerkrams in the west.

Remarks: -

Complementary references: -

„Oberkarbon von St. Paul“ / Upper Carboniferous of St. Paul

HANS P. SCHÖNLAUB

Validity: Invalid (THIEDIG & KLUSMANN, 1974: p. 81; THIEDIG et al., 1975: p. 271).

Type area: ÖK50-UTM, map sheet 4109 Sankt Paul im Lavanttal (ÖK50-BMN, map sheet 205 Sankt Paul im Lavanttal), Carinthia (KLEINSCHMIDT et al., 1989).

Type section: -

Reference section(s): -

Remarks: The Carboniferous sequence is exposed in two small outcrops southeast of St. Paul some 500 m east of the church of St. Josef and 200 m northwest of the farmhouse Pum.

Derivation of name: Named after the village of St. Paul east of Völkermarkt in the Lavant Valley.

Synonyms: -

Lithology: Soft greyish shales, greywackes and arkosic shales.

Fossils: Plants (*Sphenophyllum angustifolium*, *Aphlebia elongata*, *Pseudomariopteris busqueti* and others; FRITZ et al., 1990).

Origin, facies: Molasse-type sedimentation.

Chronostratigraphic age: Gzhelian (Stephanian)–Asselian.

Biostratigraphy: Based on plant fossils.

Thickness: Unknown.

Lithostratigraphically higher rank unit: -

Lithostratigraphic subdivision: -

Underlying unit(s): Magdalensberg Group, Gurktal Quartzphyllite Complex (tectonic contact).

Overlying unit(s): Werchzirm Formation.

Lateral unit(s): -

Geographic distribution: Small isolated outcrops between St. Paul and the town of St. Veit in eastern Carinthia.

Remarks: -

Complementary references: -

Werchzirm-Formation / Werchzirm Formation

HANS P. SCHÖNLAUB

Validity: Invalid; the term was introduced by SCHWINNER (1931, 1932) at the northwestern margin of the Gurktal Nappe System of Styria.

Type area: ÖK50-UTM, map sheet 3106 Radenthein (ÖK50-BMN, map sheet 183 Radenthein): Werchzirbenalm (“Roter Rain”) some 3 km west of the village of Turrach, Styria.

Type section: Northeast directed crest along “Roter Rain” to “Werchzirmkessel”. The best outcrops are located between altitudes 2,000 m and 1,950 m (N 46°57'00" / E 13°49'23").

Reference section(s): Another section runs along the crest between the mountains Königstuhl and Karlnock west of Turracher Höhe overlying the Stangnock-Formation (SCHWINNER, 1938; KRÄINER, 1987b).

Derivation of name: After Werchzirmalm (today named “Werchzirbenalm”) west of the village of Turrach (Styria).

Synonyms: Werchzirmschichten, Freudenberger Schichten, Christofbergschichten, Postvariszische Transgressionsserien, Kontinentaldetritisches Perm (cf. KRÄINER, 1984: p. 169, 1987b: p. 52).

Lithology: Red siltstones, mudstones and sandstones with interbedded polymict conglomerates and fanglomerates (Red Beds).

Fossils: Plant remains.

Origin, facies: Debris flows alternating with playa-like sediments (caliche crusts, algal layers) and rhyolitic pyroclastics in the upper part (tuffs and tuffites) suggesting a semiarid and arid climate.

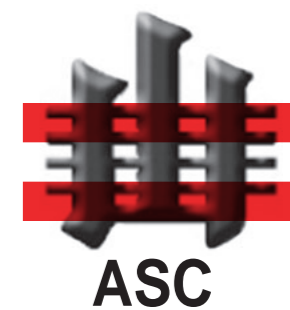
Chronostratigraphic age: Asselian.

Biostratigraphy: Based on plant occurrences at several localities at Christofberg, Ulrichsberg and the surround-

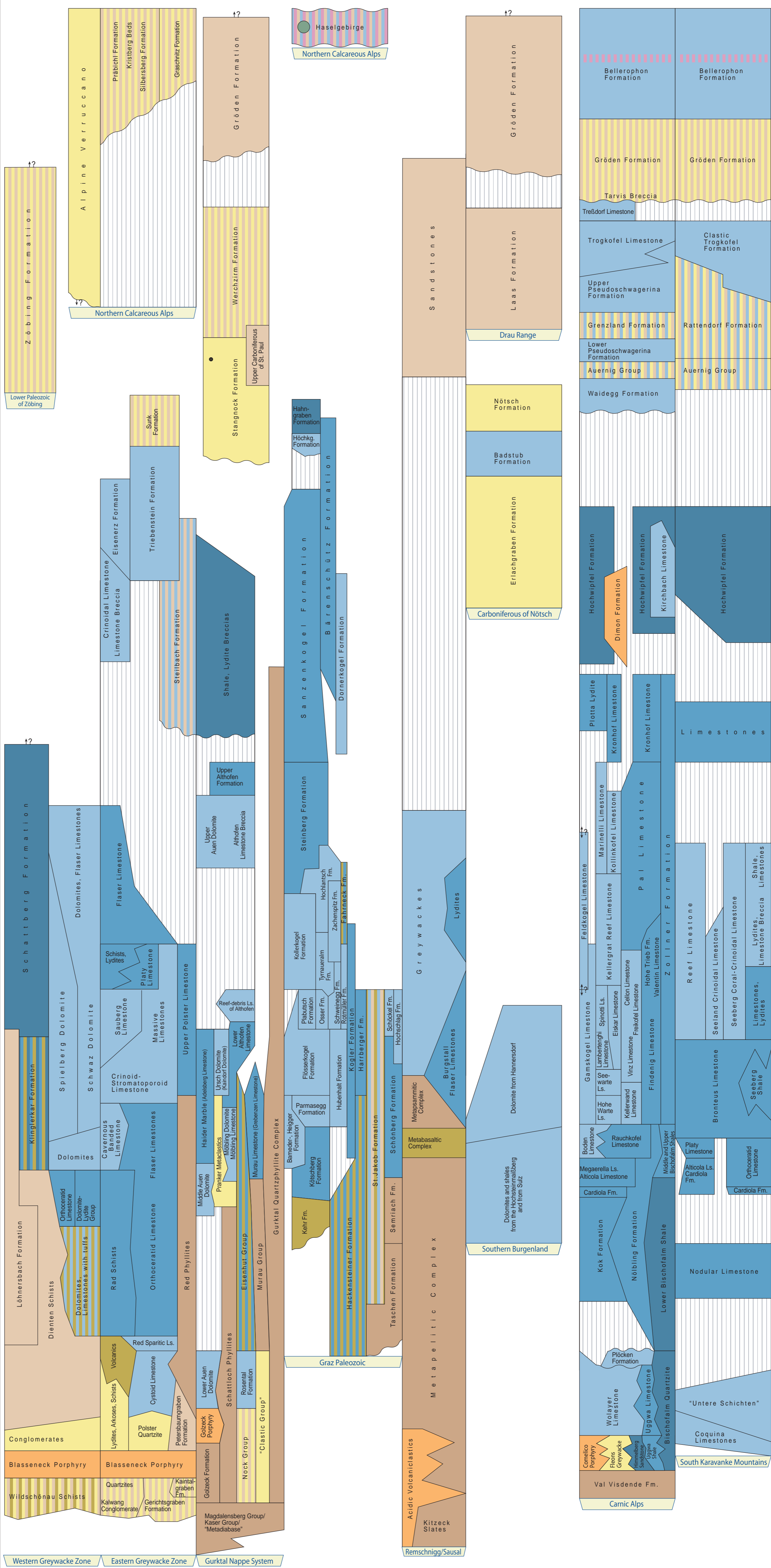
Austrian Stratigraphic Chart 2004 - Paleozoic

(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 / Dufuflian	255						
		CAPITANIAN	260						
		WORDIAN	265						
		ROADIAN	270						
		PERMIAN	LOWER PERMIAN / CISURALIAN			KUNGURIAN	275		
						ARTINSKIAN	280		
						SAKMARIAN	285		
						ASSELIAN	290		
		PERMIAN	UPPER PERMIAN / CARBONIFEROUS / PENNSYLVANIAN			GZHELIAN	295	PERMIAN	LOWER PERMIAN / CISURALIAN
KASIMOVIAN	300								
MOSKOVIAN	305								
BASHKIRIAN	310								
PERMIAN	UPPER PERMIAN / CARBONIFEROUS / PENNSYLVANIAN			SERPUKHOVIAN	315				
				VISEAN	320				
					325				
PERMIAN	LOWER PERMIAN / MISSISSIPPIAN			TOURNAISIAN	330	PERMIAN	LOWER PERMIAN / MISSISSIPPIAN		
				335					
				340					
		345							
		350							
		355							
		359.2							
		365							
		370							
		375							
PERMIAN	UPPER DEVONIAN	FAMENNIAN	380	PERMIAN	UPPER DEVONIAN				
		FRASNIAN	385						
		GIVETIAN	390						
		EIFELIAN	395						
		DEVONIAN	LOWER DEVONIAN			EMSIAN	400		
						405			
		DEVONIAN	LOWER DEVONIAN			PRAGIAN	410		
						415			
		PERMIAN	LOWER DEVONIAN			LOCHKOVIAN	420	PERMIAN	LOWER DEVONIAN
						425			
430									
435									
440									
443.7									
445									
450									
455									
460									
PERMIAN	UPPER ORDOVICIAN	LUDFORDIAN / GORSTIAN	465	PERMIAN	UPPER ORDOVICIAN				
		HOMERIAN / SHEINWOOD	470						
		TELYCHIAN	475						
		AERONIAN	480						
		RHUDDANIAN	485						
		HIRNANTIAN	490						
		495							
		498.3							
		500							
		505							
PERMIAN	MIDDLE ORDOVICIAN	DARRIWILIAN	510	PERMIAN	MIDDLE ORDOVICIAN				
		490							
		495							
		500							
		505							
		510							
		515							
		520							
		525							
		530							
PERMIAN	LOWER ORDOVICIAN	TREMA-DOCIAN	535	PERMIAN	LOWER ORDOVICIAN				
		480							
		485							
		490							
		495							
		500							
		505							
		510							
		515							
		520							
PERMIAN	UPPER CAMBRIAN	PAIBIAN	525	PERMIAN	UPPER CAMBRIAN				
		530							
		535							
		540							
		545							
		550							
		555							
		560							
		565							
		570							
PERMIAN	MIDDLE CAMBRIAN	MIDDLE CAMBRIAN	575	PERMIAN	MIDDLE CAMBRIAN				
			580						
			585						
			590						
			595						
			600						
			605						
			610						
			615						
			620						
PERMIAN	LOWER CAMBRIAN	LOWER CAMBRIAN	625	PERMIAN	LOWER CAMBRIAN				
			630						
			635						
			640						
			645						
			650						
			655						
			660						
			665						
			670						



- 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

