

**Overlying unit(s):** Middle Auen Dolomite (unconformable contact).

**Lateral unit(s):** Schattloch Phyllites (conformable contact).

**Geographic distribution:** Styria and Carinthia, in the surrounding of Murau, especially south of it near the Styrian/Carinthian states border in the area of Auen (NEUBAUER, 1979: Fig. 1).

**Remarks:** -

**Complementary references:** THURNER (1958), EBNER et al. (1977), NEUBAUER (1979, 1984), NEUBAUER & PISTOTNIK (1984), SCHÖNLAUB (1992).

### Mittlerer Auen-Dolomit / Middle Auen Dolomite

THOMAS J. SUTTNER

**Validity:** Invalid; the name Mittlerer Auen-Dolomit for this unit was first used by NEUBAUER (1979: p. 464), who mapped and revised the Lower Paleozoic succession of low metamorphic sediments around Murau.

**Type area:** ÖK50-UTM, map sheets 3230 Tamsweg, 4225 Murau (ÖK50-BMN, map sheets 158 Stadl, 159 Murau).

**Type section:** -

**Reference section(s):** Section in the vicinity of Haider farmstead located south of Murau in the Auen area (N 47°02'36" / E 14°09'18").

**Derivation of name:** After Auen area (compare locality map of NEUBAUER, 1979: Fig. 1).

**Synonyms:** Dolomitkeile von Laßnitzau [partim] (THURNER, 1956: p. 164).

**Lithology:** Dark, massive ferruginous dolomite (lower part of the unit); grey dolomites with crinoid stem plates which are overlain by tuffs and metapsammites (upper part of the unit).

**Fossils:** Conodonts, crinoids.

**Origin, facies:** Shallow marine, neritic unit.

**Chronostratigraphic age:** Homeric to ?Lochkovian (see remarks).

**Biostratigraphy:** Following NEUBAUER (1979: Tab. 1, p. 465–466) conodonts referring to the *sagitta*, *ploeckensis*, *siluricus* and *crispa* zones are identified.

**Thickness:** 20 m.

**Lithostratigraphically higher rank unit:** Auen Group (see remarks at Golzeck Formation).

**Lithostratigraphic subdivision:** According to lithology a lower and upper part was discriminated by NEUBAUER (1979).

**Underlying unit(s):** Lower Auen Dolomite (unconformable contact).

**Overlying unit(s):** Haider Marble (Adelsberg Limestone) (conformable contact).

**Lateral unit(s):** ?Schattloch Phyllites; Pranker Metaclastics.

**Geographic distribution:** Styria and Carinthia, in the surrounding of Murau, especially south of it near the Styrian/Carinthian states border in the area of Auen (NEUBAUER, 1979: Fig. 1).

**Remarks:** The age confinement is based on conodont biostratigraphy. The microfossil material was extracted from five samples of sections 2 and 3 near Haider farmstead (NEUBAUER, 1979: Figs. 2, 3). Hence some of these samples yield temporally long ranging conodont taxa, an Early Devonian age for the upper part of the unit cannot be excluded (NEUBAUER, 1979: p. 465–466).

**Complementary references:** THURNER (1958), NEUBAUER (1984), NEUBAUER & PISTOTNIK (1984), SCHÖNLAUB (1992).

### Haider-Marmor (Adelsbergkalk) / Haider Marble (Adelsberg Limestone)

THOMAS J. SUTTNER

**Validity:** Invalid; the name Haider-Marmor for this unit was first used by NEUBAUER (1979: p. 466), who mapped and revised the Lower Paleozoic succession of low metamorphic sediments around Murau.

**Type area:** ÖK50-UTM, map sheets 3230 Tamsweg, 4225 Murau, 4226 Judenburg (ÖK50-BMN, map sheets 158 Stadl, 159 Murau, 160 Neumarkt in der Steiermark).

**Type section:** Dolomitkeile von Laßnitzau [partim] (THURNER, 1956: p. 164).

**Reference section(s):** Section along the forest road approx. 250 m SE of Haider farmstead (compare NEUBAUER, 1979: p. 467) which is located south of Murau in the Auen area (N 47°02'21" / E 14°09'25").

**Derivation of name:** After the Haider farmstead (Auen area).

**Synonyms:** Karbonatkomplex des Adelsberges (NEUBAUER, 1980a).

**Lithology:** Micaceous yellowish marble (beds 0.5 to 1 m thick), flaser limestone, light grey dolomite, bright grey laminated limestone.

**Fossils:** Conodonts, crinoids.

**Origin, facies:** Marine limestone, pelagic unit.

**Chronostratigraphic age:** Lochkovian to Emsian.

**Biostratigraphy:** Few broken polygnathid conodonts from the upper part of the unit suggest that this unit might have been deposited during the early Middle Devonian (compare NEUBAUER, 1979: p. 467).

**Thickness:** 20 m.

**Lithostratigraphically higher rank unit:** Auen Group (see remarks at Golzeck Formation).

**Lithostratigraphic subdivision:** -

**Underlying unit(s):** Middle Auen Dolomite (conformable contact).

**Overlying unit(s):** Upper Auen Dolomite (unconformable contact).

**Lateral unit(s):** Pranker Metaclastics; Ursch Dolomite (Kaindorf Dolomite).

**Geographic distribution:** Styria and Carinthia, in the surrounding of Murau, especially south of it near the Styrian/Carinthian states border in the area of Auen (NEUBAUER, 1979: Fig. 1).

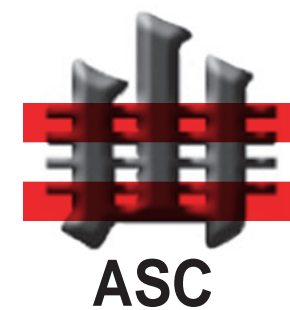
**Remarks:** -

**Complementary references:** THURNER (1958), NEUBAUER (1984), NEUBAUER & PISTOTNIK (1984), SCHÖNLAUB (1992).

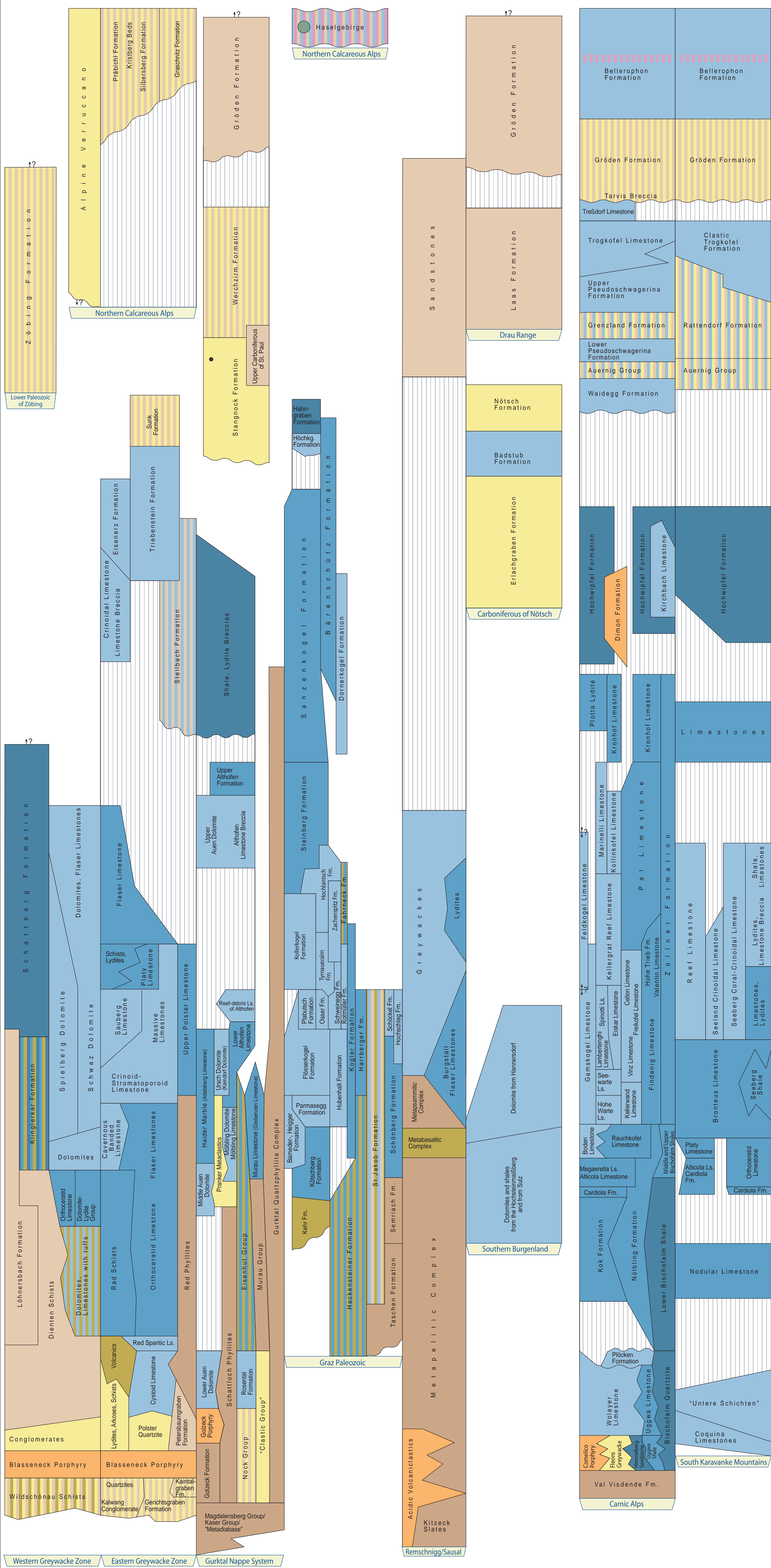
# Austrian Stratigraphic Chart 2004 - Paleozoic

(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	295		
		PERMIAN	UPPER PERMIAN / CARBONIFEROUS / PENNSYLVANIAN			GZHELIAN	299	PERMIAN	LOWER PERMIAN / CISURALIAN
KASIMOVIAN	305								
MOSKOVIAN	310								
BASHKIRIAN	315								
PERMIAN	LOWER PERMIAN / CISURALIAN			SERPUKHOVIAN	320				
				VISEAN	335				
				TOURNAISIAN	350				
PERMIAN	UPPER PERMIAN / DEVONIAN			FAMENNIAN	359.2	PERMIAN	UPPER PERMIAN / DEVONIAN		
				FRASNIAN	370				
				GIVETIAN	385				
		EIFELIAN	395						
		PERMIAN	LOWER PERMIAN / DEVONIAN	EMSIAN	405				
				LOCHKOVIAN	410				
		PERMIAN	UPPER PERMIAN / DEVONIAN	LUDFORDIAN / GORSTIAN	416			PERMIAN	UPPER PERMIAN / DEVONIAN
				HOMERIAN / SHEINWOOD	420				
				TELYCHIAN	425				
				AERONIAN	430				
RHUDDANIAN	435								
PERMIAN	UPPER PERMIAN / DEVONIAN			HIRNANTIAN	443.7				
					445				
PERMIAN	UPPER PERMIAN / DEVONIAN			ORDOVICIAN	445	PERMIAN	UPPER PERMIAN / DEVONIAN		
				MIDDLE ORDOVICIAN	450				
				LOWER ORDOVICIAN	455				
		TREMACIAN	460						
		PERMIAN	UPPER PERMIAN / DEVONIAN	PAIBIAN	488.3				
					490				
		CAMBRIAN	UPPER CAMBRIAN		495			CAMBRIAN	UPPER CAMBRIAN
					500				
					505				
					510				
	515								
	520								
	525								
	530								
	535								
	540								
	542								



- 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), 2<sup>nd</sup> 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

