Derivation of name: After the Steilbachgraben (N 47°26'22" / E 14°29'57" to N 47°26'26" / E 14°30'06") NE of Hohentauern (N 47°26'04" / E 14°29'01"), ÖK50-UTM, map sheet 4214 Trieben (ÖK 50-BMN, map sheet 130 Trieben).

Synonyms: Steilbach Formation in the ASC 2004. "Magnesit Karbon" (EBNER, 1997) according to the magnesite deposits in the Steilbachgraben Formation. The sparry magnesite of the Veitsch Nappe is known in the international mineral deposits' literature as "Veitsch type magnesite" (EBNER et al., 2004a, b).

Lithology: Fine grained clastics with intercalations of sandstone and layers/lenses of grey, bedded limestones and dolomites. Lenses and irregular stocks of sparry magnesite are included in the dolomitic parts. Intercalations of volcanic layers (metatuffs) derived from tholeiitic intraplate basalts occur outside the type area (PROCHASKA & EBNER, 1989). Some layers of gypsum and anhydrite are known from clastic sediments closely related to the magnesite deposits of Hohentauern (PETRASCHECK, 1978) and Oberdorf (SCHROLL et al., 1989).

Fossils: Corals, brachiopods, crinoids, trilobites, gastropods, agglutinated foraminifers, spicula, ostracods especially from the Hohentauern area and the abandoned magnesite mine in Veitsch (ÖK50-UTM, map sheet 4211 Neuberg an der Mürz, ÖK50-BMN, map sheet 103 Kindberg) (HERITSCH, 1907, 1917a, 1933a; KLEBELSBERG, 1927; KOCH, 1893; FELSER, 1977; HAHN & HAHN, 1977; KRAINER, 1992, 1993a).

Origin, facies: Shallow marine, mixed siliciclastic-carbonatic shelf environment formed in a marine foredeep (molasse) environment after an early Carboniferous orogeny (FLÜGEL, 1977; KRAINER, 1992; EBNER, 1992; EBNER et al., 2007, 2008).

Chronostratigraphic age: Lower Carboniferous (?Tournaisian–upper Visean). $\partial^{34}S$ values of gypsum/anhydrite intercalations indicate Carboniferous ages (PETRASCHECK,1978; SCHROLL et al., 1989). $^{86}Sr/^{87}Sr$ ratios from limestones are increased relative to the Visean seawater curve (EBNER et al., 2008; AZIM-ZADEH et al., 2008).

Biostratigraphy: Trilobites indicate the lower Visean (HAHN & HAHN, 1977) and corals upper Visean *Dibunophyllum* Zone (H. FLÜGEL, 1975; FELSER, 1977).

Thickness: Up to 230 m.

Lithostratigraphically higher rank unit: Veitsch Group (NEUBAUER et al., 1994).

Lithostratigraphic subdivision: -

Underlying unit(s): Middle Austroalpine Crystalline unit (tectonic contact) (TOLLMANN, 1977; RANTITSCH et al., 2004; NEUBAUER et al., 1994).

Overlying unit(s): Triebenstein Formation.

Lateral unit(s): Clastic sediments (RATSCHBACHER, 1984, 1987) and other parts of the "Magnesite Carboniferous".

Geographic distribution: E-GWZ; Styria, Lower Austria.

Remarks: In ASC 2004 this formation is wrongly named "Steilbach-Formation" instead of Steilbachgraben Formation.

Complementary references: SCHÖNLAUB (1979, 1980a), EBNER et al. (1989, 1991), KRAINER (1993a), EBNER & PROCHASKA (2001).

Triebenstein-Formation / Triebenstein Formation

FRITZ EBNER

Validity: Valid; first nomination by RUMPF (1874), formal description by RATSCHBACHER (1984).

Type area: Rottenmanner Tauern, ÖK50-UTM, map sheet 4214 Trieben (ÖK50-BMN, map sheet 130 Trieben).

Type section: At mountain Triebenstein (N 47°26'43" / E 14°29'14") north of Hohentauern (N 47°26'04" / E 14°29'01"). Section 7 (RATSCHBACHER, 1984: Fig. 3) represents only a small part (~ 60 m) of the formation.

Reference section(s): -

Derivation of name: After the mountain Triebenstein (N 47°26'43" / E 14°29'14") north of Hohentauern (N 47°26'04" / E 14°29'01"), ÖK50-UTM, map sheet 4214 Trieben (ÖK50-BMN, map sheet 130 Trieben).

Synonyms: "Triebensteinkalk" in the older literature (HERITSCH, 1933a; TOLLMANN, 1977) before formalization by RATSCHBACHER (1984); "Triebensteinkalkmarmor" (RATSCHBACHER, 1984).

Lithology: Bedded, partly fossiliferous limestone marbles with metapelitic and rare metapsammitic/psephitic intercalations. Locally lenses of pure limestone marbles of greater thickness (RATSCHBACHER, 1984).

Fossils: Crinoids, corals, brachiopods, bivalves in the lower parts (HERITSCH, 1908, 1917a, 1933a).

Origin, facies: Carbonatic shelf facies interfingering with individual bioherms.

Chronostratigraphic age: Uppermost Visean–Serpukhovian.

Biostratigraphy: Lower parts within the *Dibunophyllum* Zone (HERITSCH, 1933a; FELSER, 1977).

Thickness: 35–300 m (RATSCHBACHER, 1984).

Lithostratigraphically higher rank unit: Veitsch Group (NEUBAUER et al., 1994)

Lithostratigraphic subdivision: -

Underlying unit(s): Steilbachgraben Formation (note typological error "Steilbach-Formation" in the ASC 2004).

Overlying unit(s): Sunk Formation.

Lateral unit(s): -

Geographic distribution: E-GWZ; Styria, Rottenmanner Tauern.

Remarks: -

Complementary references: TOLLMANN (1977), SCHÖNLAUB (1979, 1980a), EBNER et al. (1989, 1991, 2007, 2008), KRAINER (1992, 1993a), EBNER & PROCHASKA (2001).

Sunk-Formation / Sunk Formation

FRITZ EBNER

Validity: Valid; formal description by RATSCHBACHER (1984).

Type area: Rottenmanner Tauern, ÖK50-UTM, map sheet 4214 Trieben (ÖK50-BMN, map sheet 130 Trieben).

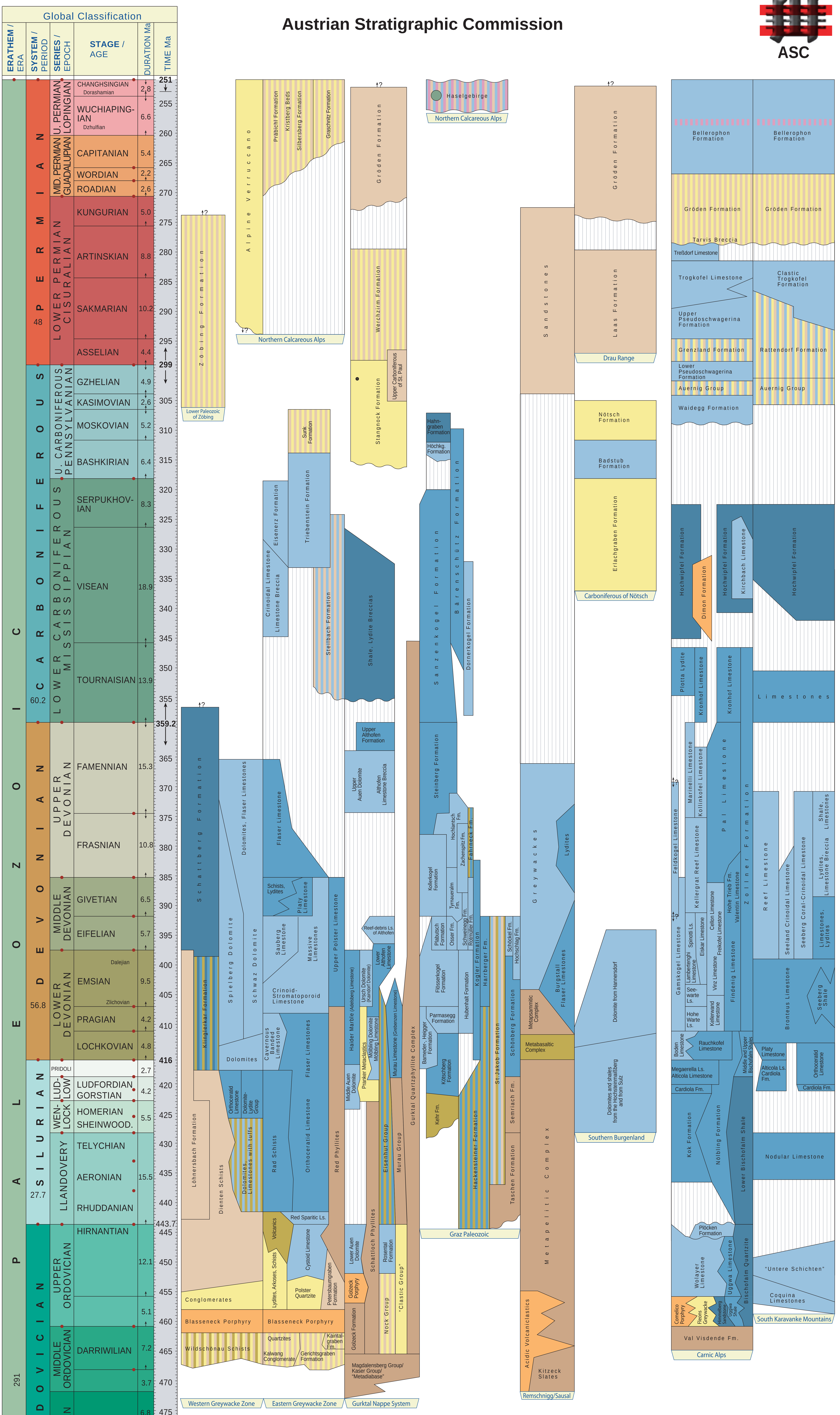
Type section: Sections 1–6 (RATSCHBACHER, 1984: Fig. 3) around the abandoned graphite mine Sunk (N 47°27'49" / E 14°28'29") 3.4 km N of Hohentauern (N 47°26'04" / E 14°29'01"), ÖK50-UTM, map sheet 4214 Trieben (ÖK50-BMN, map sheet 130 Trieben).

Reference section(s): -

Austrian Stratigraphic Chart 2004 - Paleozoic

(sedimentary successions)

Austrian Stratigraphic Commission



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

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:
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