Cellon Formation

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Österreichische Karte 1:50.000
Blatt BMN 197 Kötschach

Blatt UTM 3109 Oberdrauburg
Blatt UTM 3110 Kötschach-Mauthen
Blatt UTM 3116 Sonnenalpe Naßfeld

Carta Topografica d'Italia 1:50.000
Foglio 018 Passo di Monte Croce Carnico
Foglio 031 Ampezzo
Foglio 032 Tolmezzo

Definition

Stromatoporoid and coral-bearing very thick bedded floatstone/rudstone (Bandel, 1972, 1974; Kreutzer & Schönlaub, 1984; Schönlaub, 1985; Kreutzer, 1990, 1992a, b; Hubmann et al., 2003; Schönlaub et al., 2004; Schnellbächer, 2010).

Description

Medium dark gray, very thick bedded (more than 10 m), poorly sorted, coral- and stromatoporoid-bearing rudstone and subordinate floatstone with clasts up to ca. 40 cm of diameter and poorly sorted, very coarse to fine grainstone matrix; sometimes rudstone shows a fining upward trend up to grainstone. Sometimes the layer base shows inverse grading with laminated grainstone passing to floatstone/rudstone. However, the deposits are mostly disorganised.

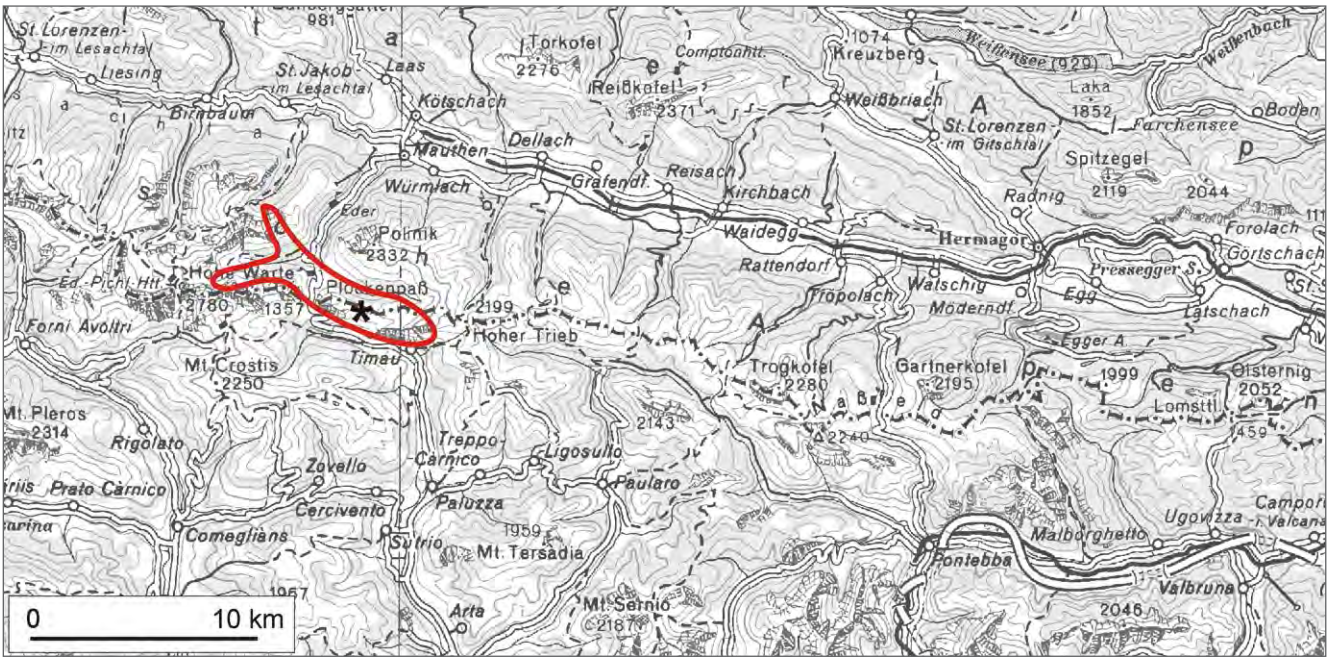
A phosphorite-rich horizon (Bandel, 1972) is present about 9 meters from the top of the unit.

Fossil content

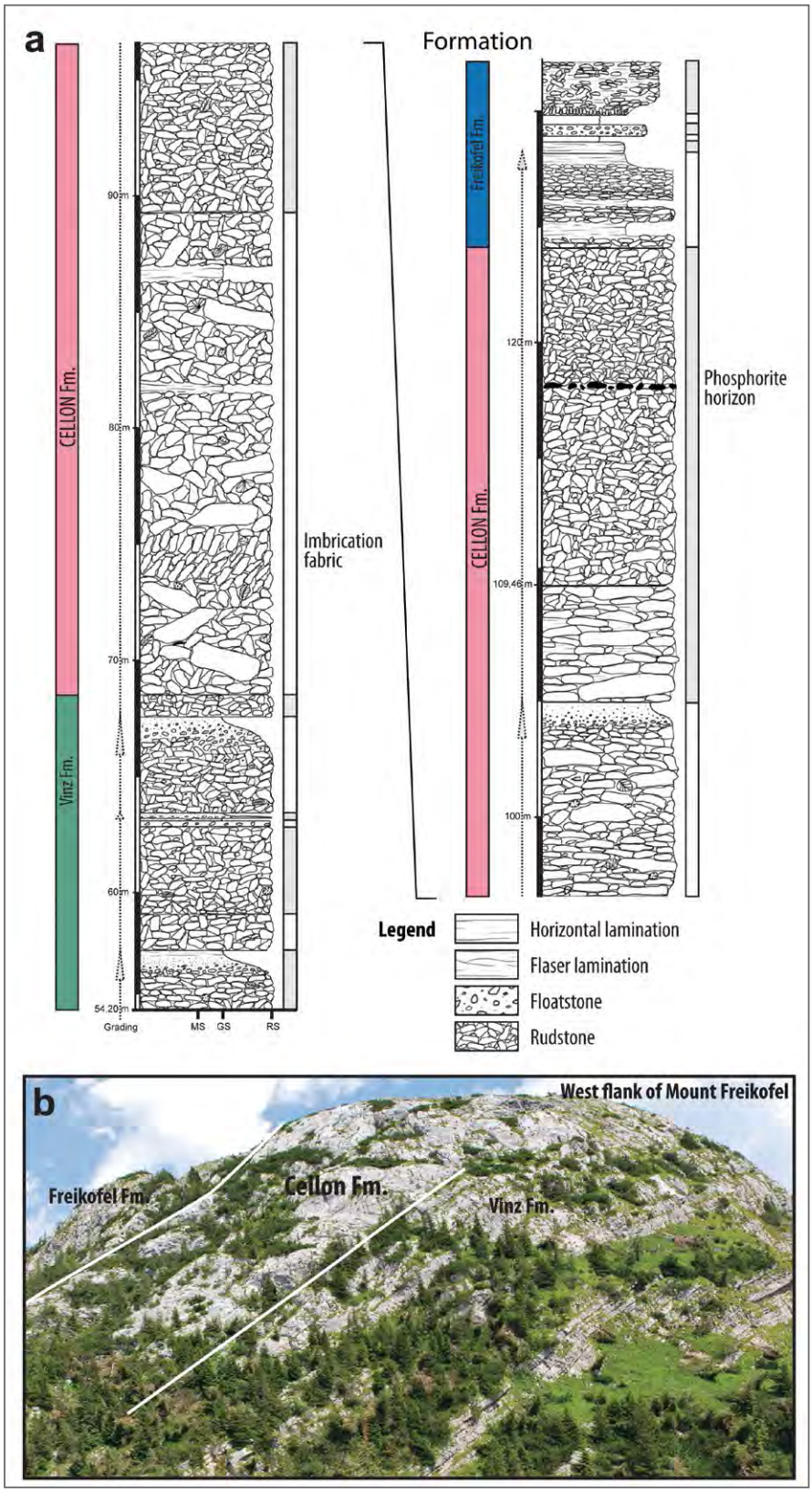
Bivalves, cephalopods, conodonts, corals, echinoderms, parathuramminaceae, stromatoporoids, trilobites.

Depositional environment

The Cellon Formation was formed at the slope of a carbonate apron (Schnellbächer, 2010) and consists of gravity-driven resedimented deposits in forereef facies.



Areas of outcrop of the Cellon Formation with indication of the stratotype (asterisk).



The Freikofel section. a) log of the Cellon Formation (SCHNELLBÄCHER, 2010); b) view of the section taken from the west (photo M. PONDRELLI).

Stratotype

Freikofel Section, located on the western slope of Mt. Freikofel (BANDEL, 1972; SCHNELLBÄCHER, 2010), between coordinates N 46°36'01.5" E 12°58'33.0" (base of the section) and N 46°36'05.1" E 12°58'33.9" (top of the section).

Reference sections -

Type area

Central Carnic Alps.

Main outcrop areas

The Cellon Formation crops out in the Rauchkofel area, in the south side of the Valentintal and between the Cellon/Creta di Collinetta and the Creta di Timau.

Thickness

About 55 m (Freikofel) to about 85 m (Kellerwand).

Views of the Cellon Formation in the field (photos M. PONDRELLI). a) part of a rudstone bed: Freikofel Section; b) part of a rudstone bed: Freikofel Section; c) erosional surface within a bed: Freikofel Section; d) phosphorite nodules: Freikofel Section.

Boundaries

Underlying units – Vinz Formation (conformable sharp contact).

Overlying units – Freikofel Formation (conformable sharp contact).

Lateral units – Spinotti Formation p.p., Kellergrat Formation (proximal part); Hoher Trieb Formation p.p. (distal part).

Derivation of name

After Mount Cellon.

Synonymy

'Lithoklastkalk' [partim]: BANDEL (1974).
Cellon Kalk [partim]: KREUTZER (1990).
Cellon limestone [partim]: KREUTZER (1992b).
Calcareniti di transizione prossimali [partim]: VENTURINI (2006).
Freikofel Rudstone [partim]: BRIME et al. (2008).
Calciruditi del Freikofel [partim]: SPALLETTA & PONDRELLI (2009).

Chronostratigraphic age

Devonian: Givetian (KREUTZER, 1990, 1992a, b; SCHNELLBÄCHER, 2010).

Biostratigraphy

Conodonts. – The base of Cellon Formation has been assigned to the *hemiansatus* Zone (Freikofel section).

Complementary references -

Remarks -

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