

LEGEND

Holocene deposits

g₂ beach deposits

Littoral sands and gravels bearing bioclasts.
Thickness: few metres.
HOLOCENE

b₂ eluvial-colluvial deposits

Pebbles and cobbles dispersed in a sandy-silty matrix, bearing soils.
Thickness: up to few metres.
HOLOCENE

a₁ rockfall deposits

Polygenic diamicton accumulated at the foot of cliffs.
Thickness: <10 m.
HOLOCENE

Pleistocene deposits

Portovesme synthem

MIDDLE *p.p.*-UPPER PLEISTOCENE

Portoscuso subsynthem

Yellowish eolian sands and sandstones.
Thickness: up to 10 m

Calamosca subsynthem

Polygenic conglomerates and breccias, and yellowish bioclastic sandstones and calcarenites (cf. "*panchina tirreniana*" auct.).
Thickness: up to 10 m.

Paleozoic-Mesozoic deposits

ZRR Monte Zirra formation

Oolitic and oncolitic limestones bearing quartz and arenaceous lithic clasts alternated with marls, quartzitic sandstones and dolostones.
Thickness: >30 m.
LOWER JURASSIC? (?Hettangian)

KEU Keuper

Red, green and yellowish marls with gypsum intercalations.
Thickness: >60 m.
MIDDLE-UPPER TRIASSIC (Ladinian *p.p.*-Carnian)

MUK Muschelkalk

Yellowish dolomiticites with carniolar porosity probably due to dissolution of evaporites.
Thickness: >5 m; up to 150 m from literature.
MIDDLE TRIASSIC (Ladinian *p.p.*)

Cala Viola sandstones

MIDDLE TRIASSIC (Anisian *p.p.*)

CVI_c pelitic and marly lithofacies (cf. "Rör" facies)

Cm- to dm-thick, yellowish and grey sandstones associated with grey-greenish claystones, marls and massive red siltstones.
Thickness: >10 m.

CVI_b arenaceous lithofacies

Red, orange and purple, cm- to dm-thick, sandstones and siltstones.
Thickness: 15-20 m

CVI_a pelitic and sandy lithofacies

Well- to thinly-bedded dark red sandstones and siltstones, bearing climbing ripples and trough-cross lamination/bedding.
Thickness: 2-7 m

Porticciolo conglomerate

LOWER TRIASSIC (Induan?-Olenekian *p.p.*)

CPO_b pebbly to fine sandstone lithofacies

Cm to dm-thick tabular beds of whitish-pink coarse-grained to pebbly sandstones; upwards, fine to coarse-grained reddish cross-stratified sandstones.
Thickness: up to 10 m.

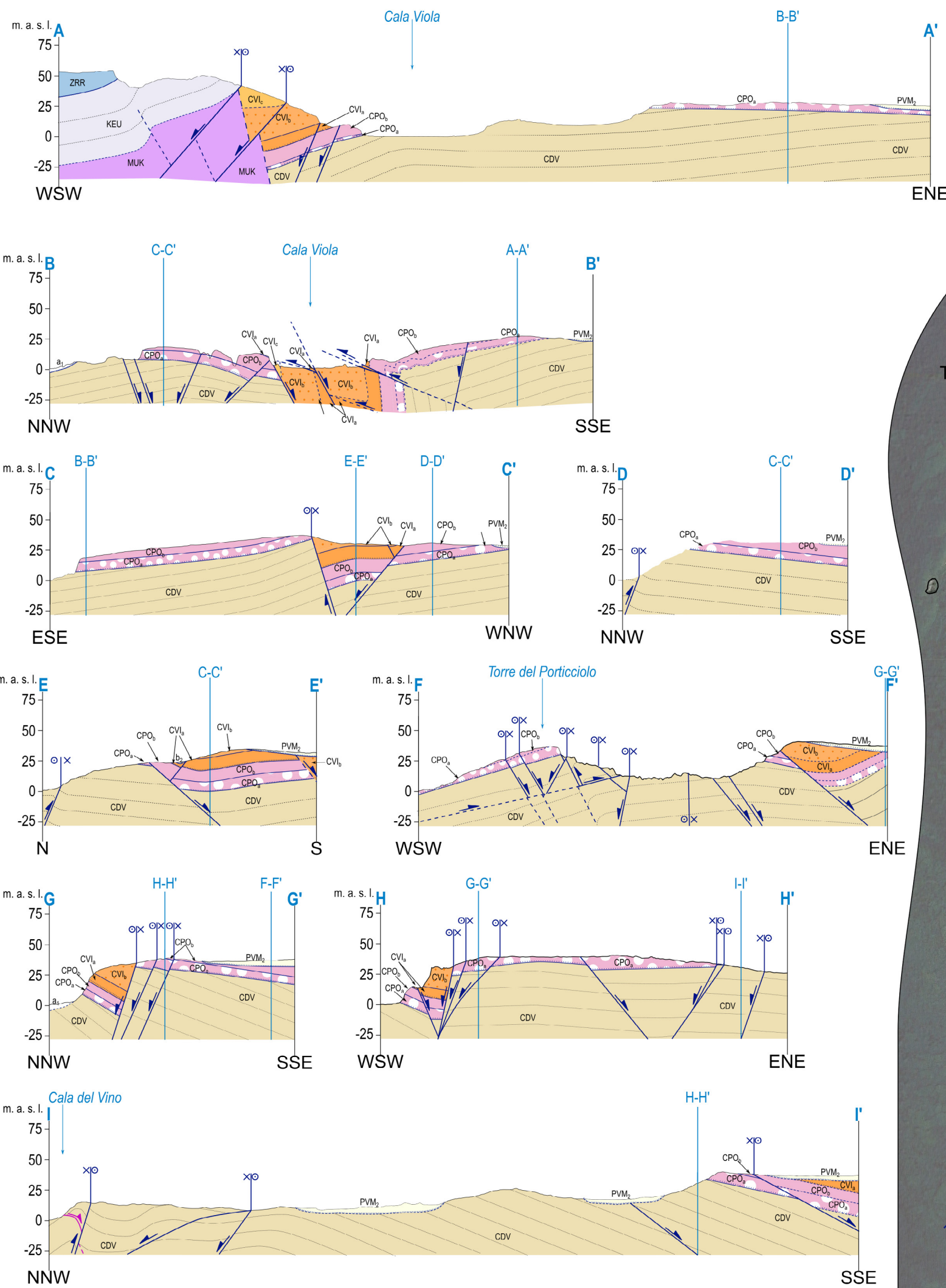
CPO_a orthoquartzitic conglomerate

Reddish and pink conglomerates and sandstones dominated by pebbles of metamorphic quartz.
Thickness: 0-3 m.

CDV Cala del Vino formation

Massive red claystones and siltstones bearing cm to m-thick channelized yellowish greenish sandstones.
Thickness: up to 200 m.
CISURALIAN *p.p.*- GUADALUPIAN *p.p.* (upper Kungurian-Roadian *p.p.*)

GEOLOGICAL CROSS SECTIONS



The Cala Viola-Torre del Porticciolo coastal area: a unique tectono-stratigraphic site to unravel the polyphase tectonics in NW Sardinia

GEOLOGICAL MAP

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Field geological mapping was carried out by Angelo Cipriani in September 2019

