Triassic-Jurassic tectonostratigraphy of the Dinarides and related areas

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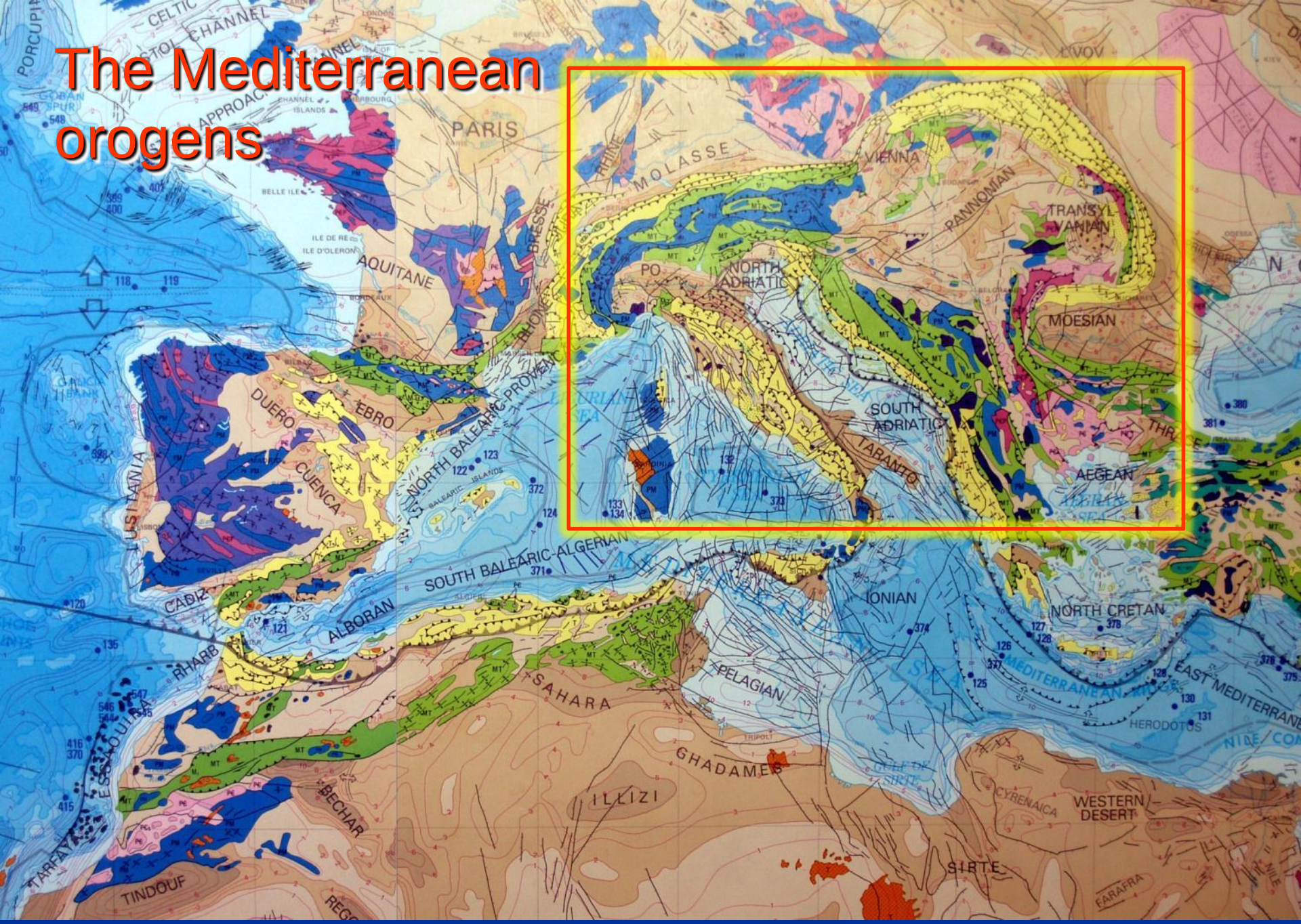
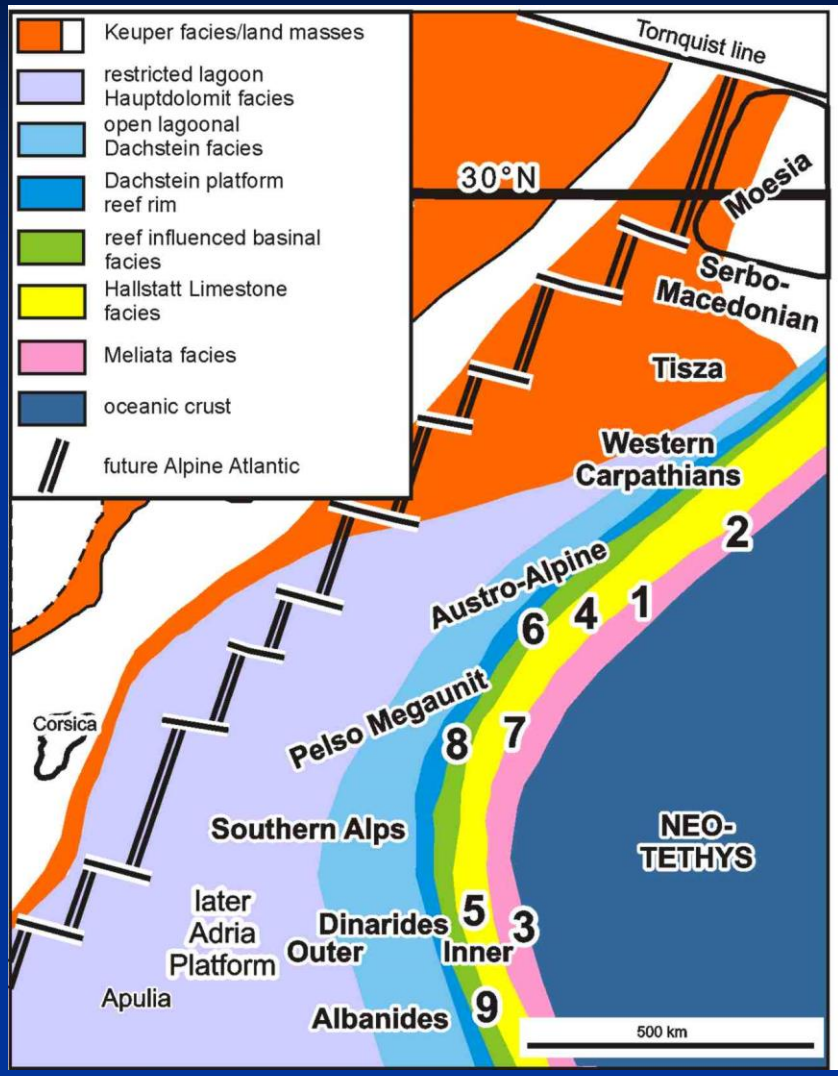
The Mediterranean orogens



AAPG 1995

How many Triassic-Jurassic oceans?



Late Triassic - Norian

A) One ocean Reconstruction

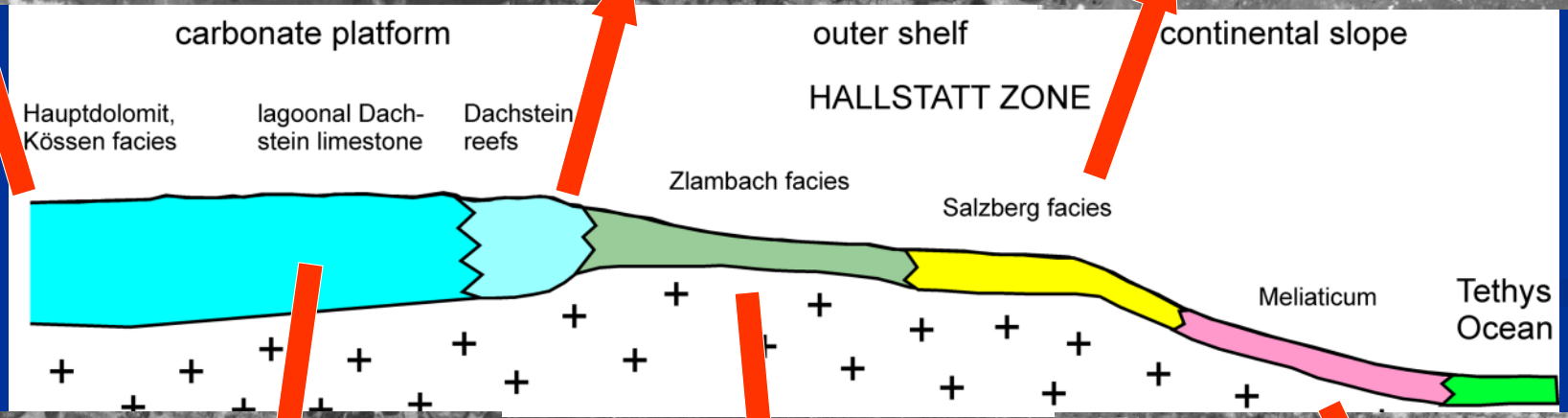
B) Multi-ocean reconstruction

Missoni & Gawlick 2011

Stampfli & Kozur 2006

Late Triassic shelf configuration

Facies Belts



Study area Middle-Late Jurassic mélanges

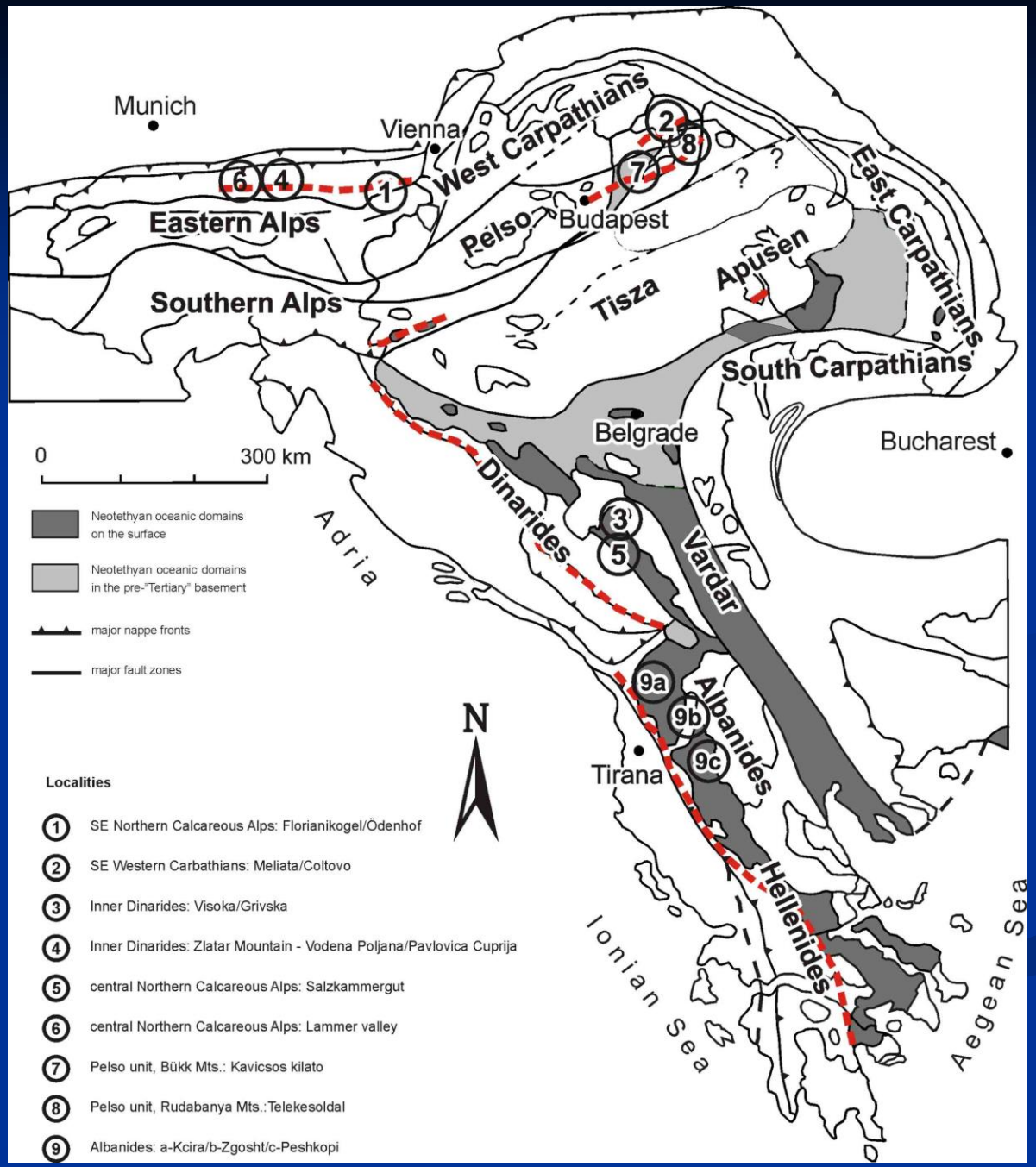
Eastern Alps

Western Carpathians

Pelsöunit

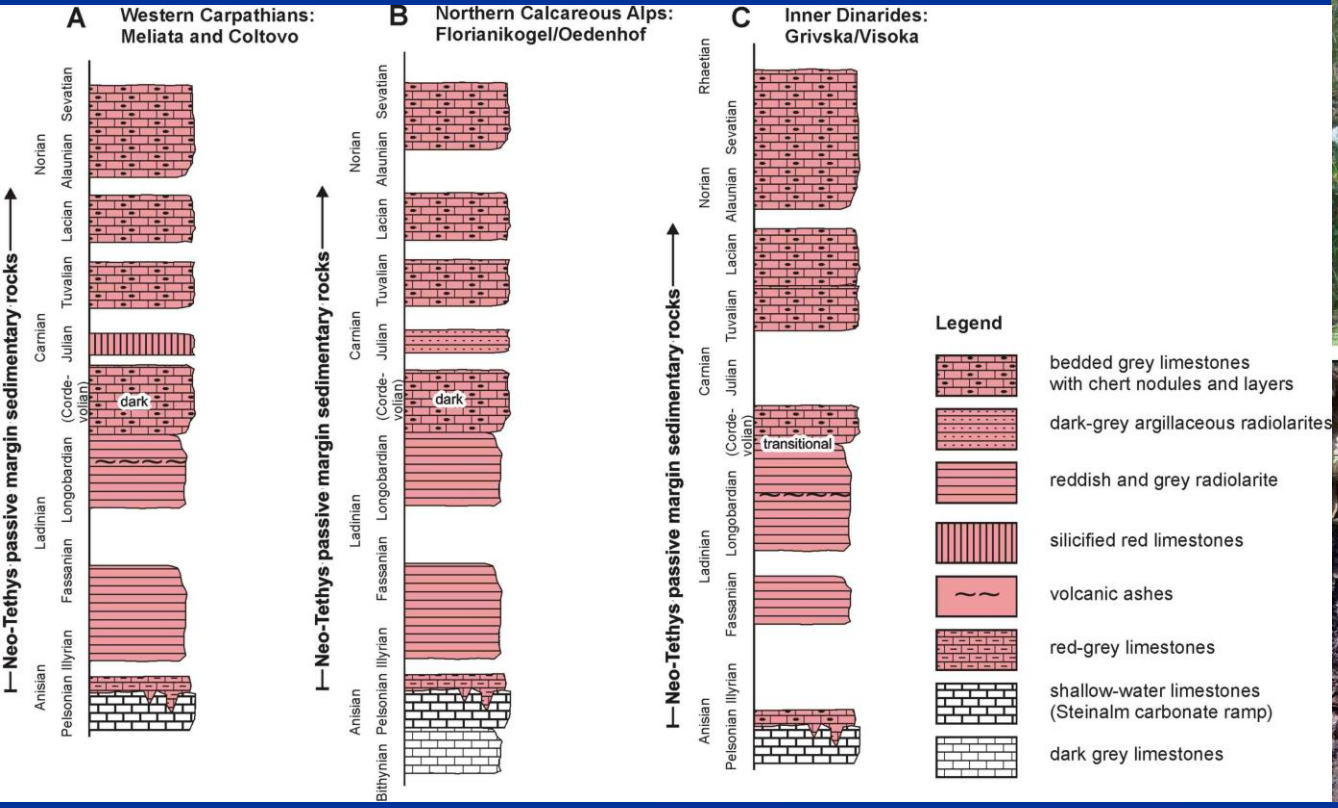
Dinarides

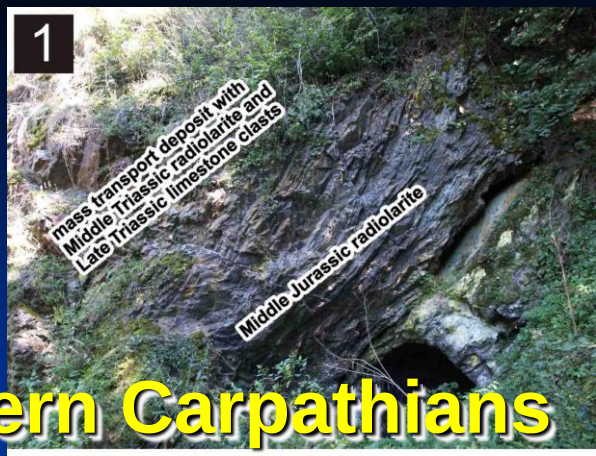
Albanides

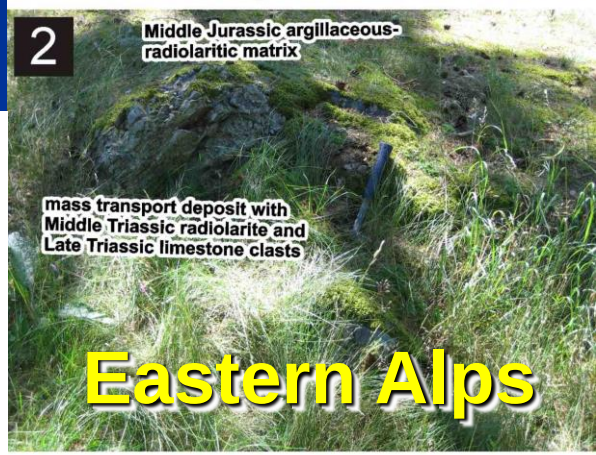


Meliata/Ophiolitic Mélange Bajocian-Callovian

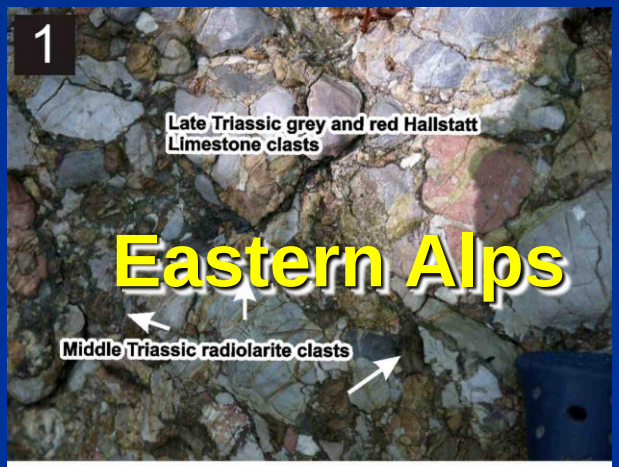
Eastern Alps
Western Carpathians
Dinarides

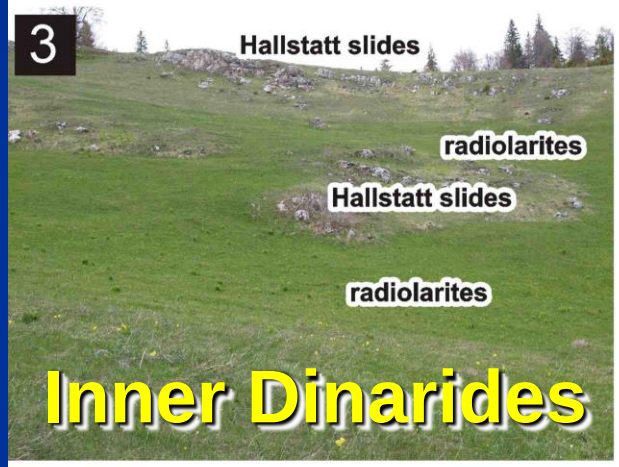


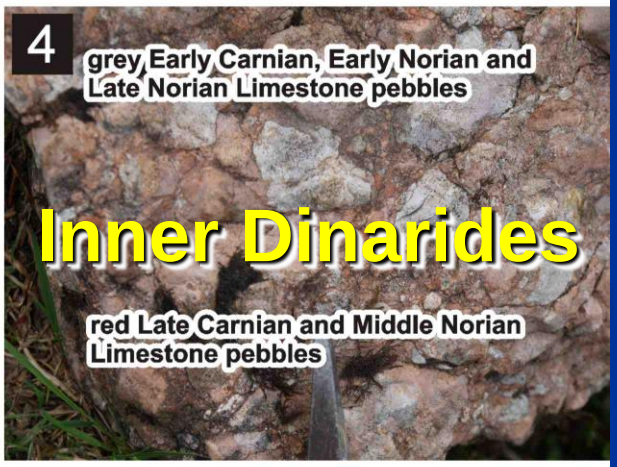


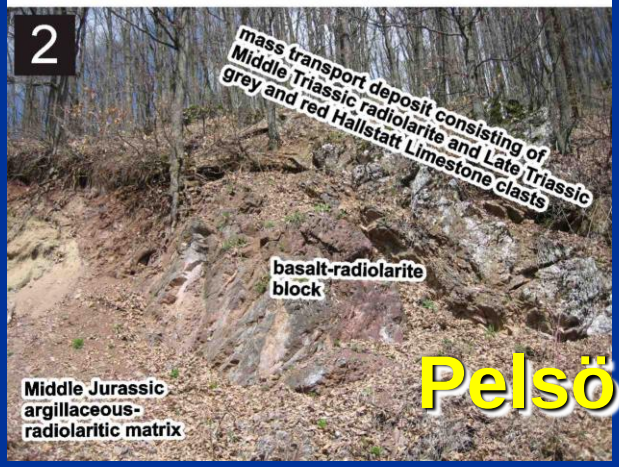


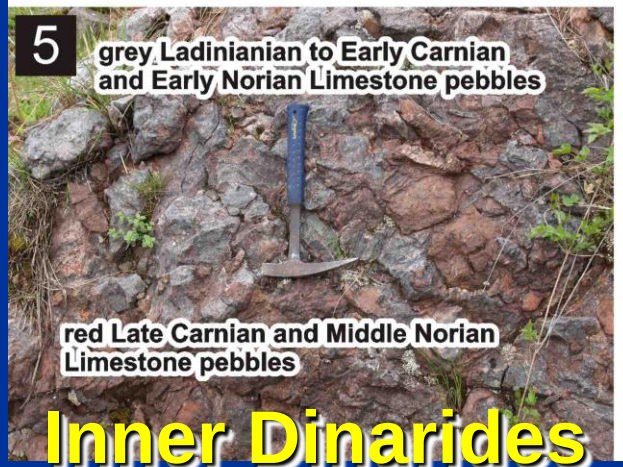
Hallstatt Mélange Bathonian-Oxfordian

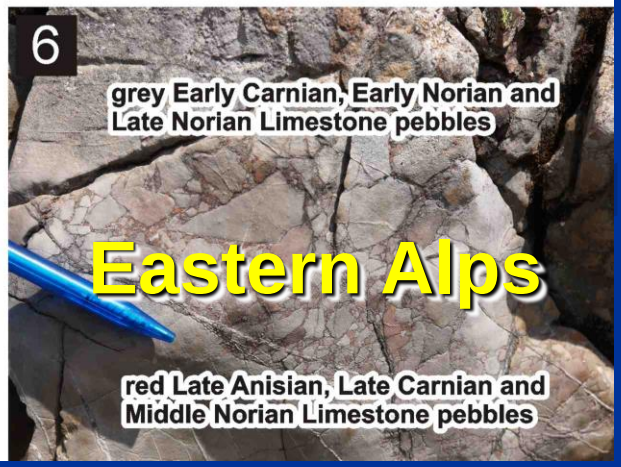




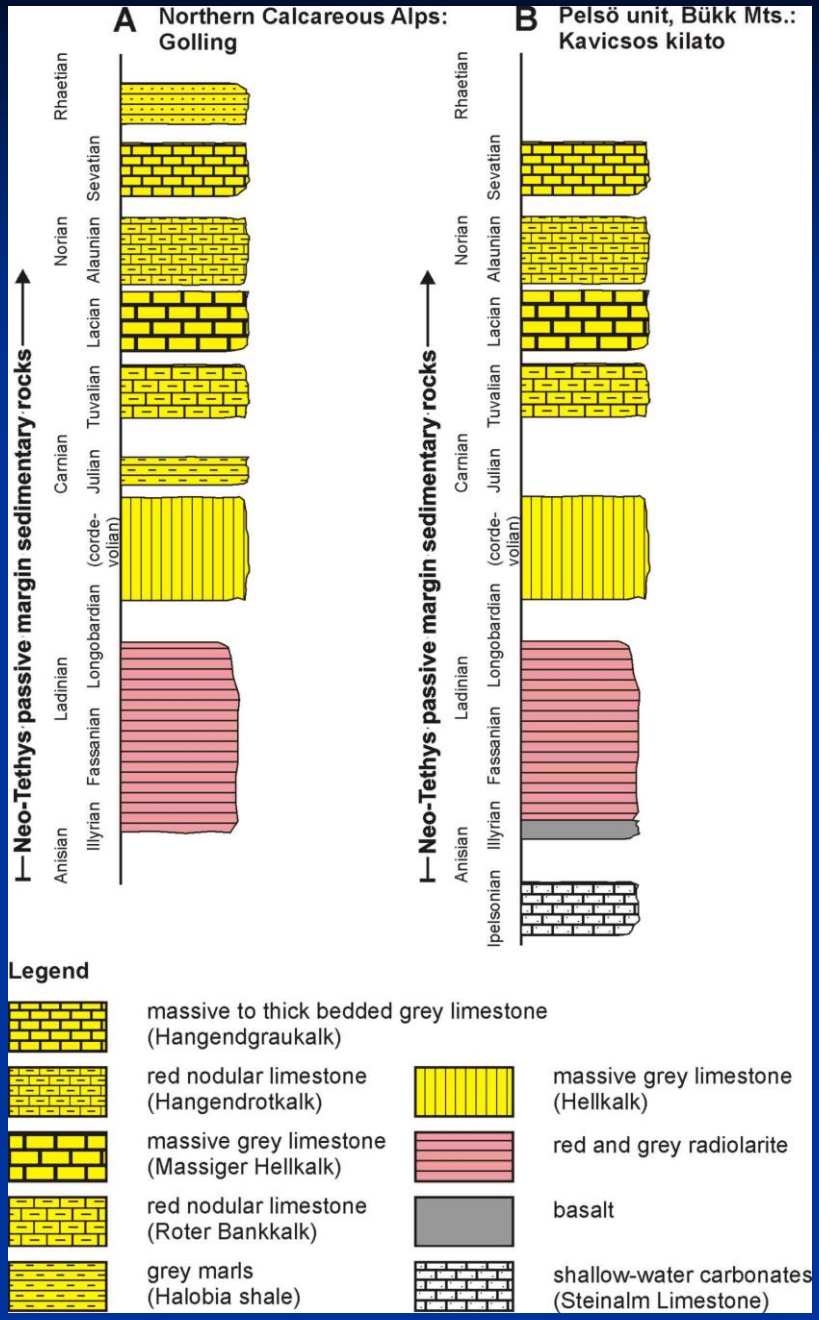


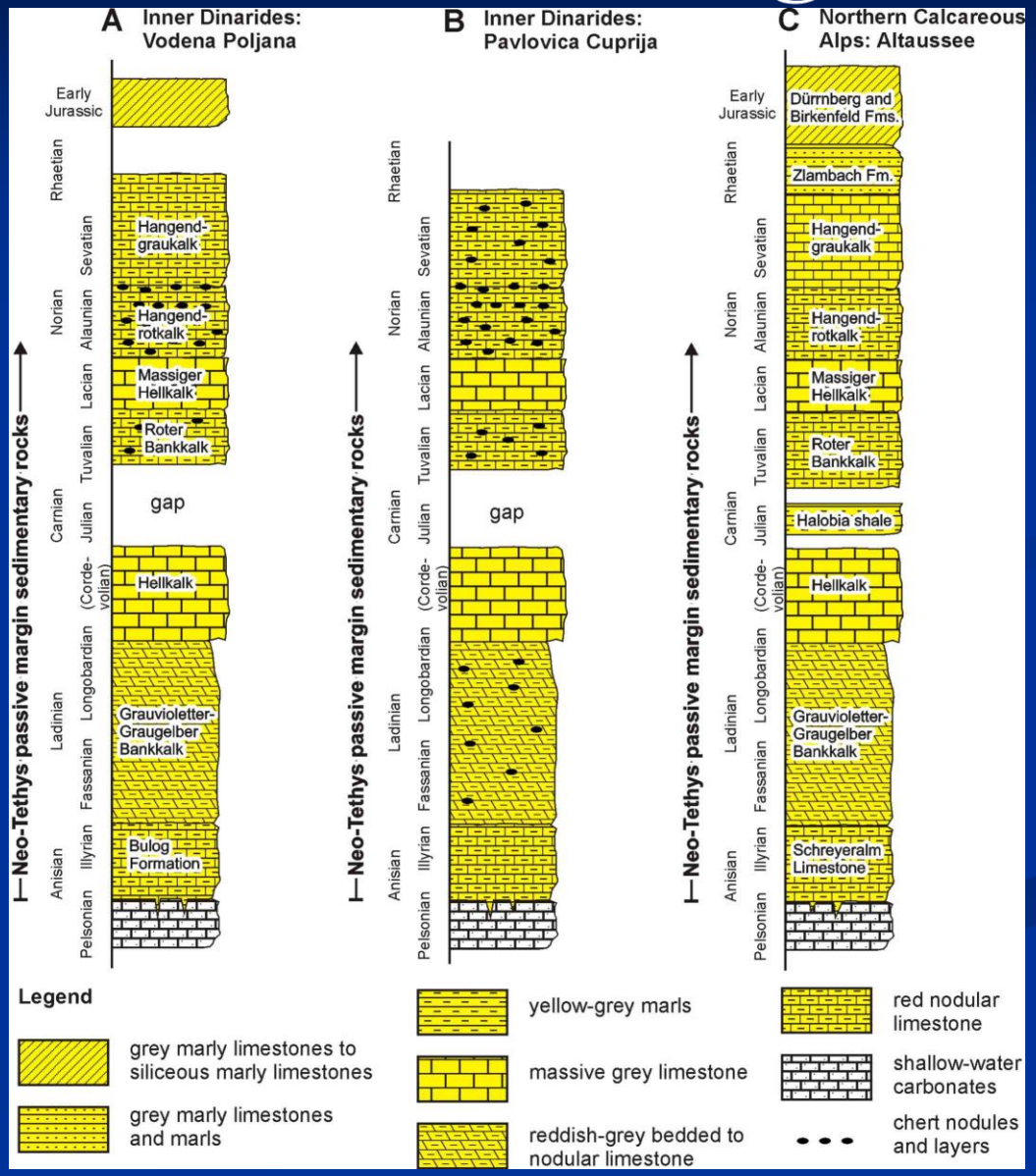




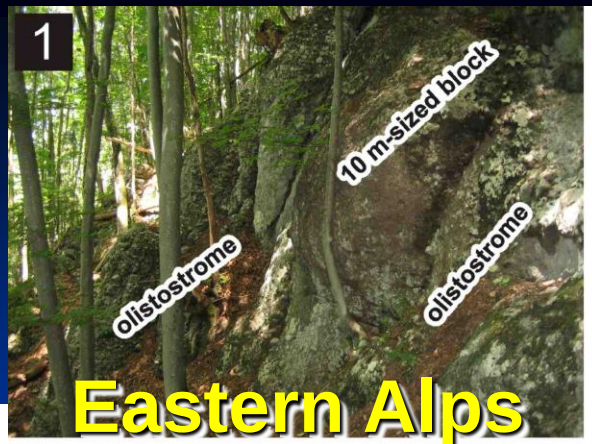


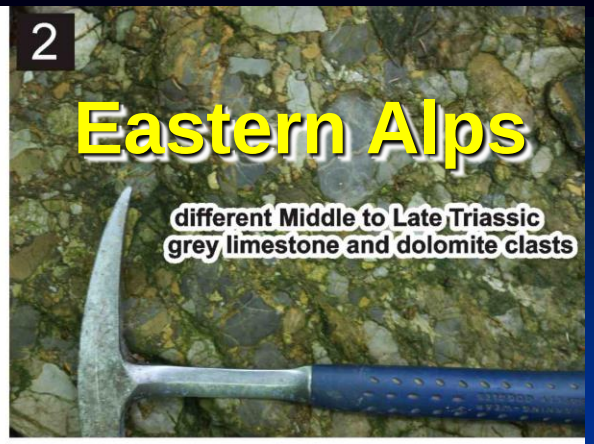
Reworked outer shelf Bathonian-Oxfordian Mélange

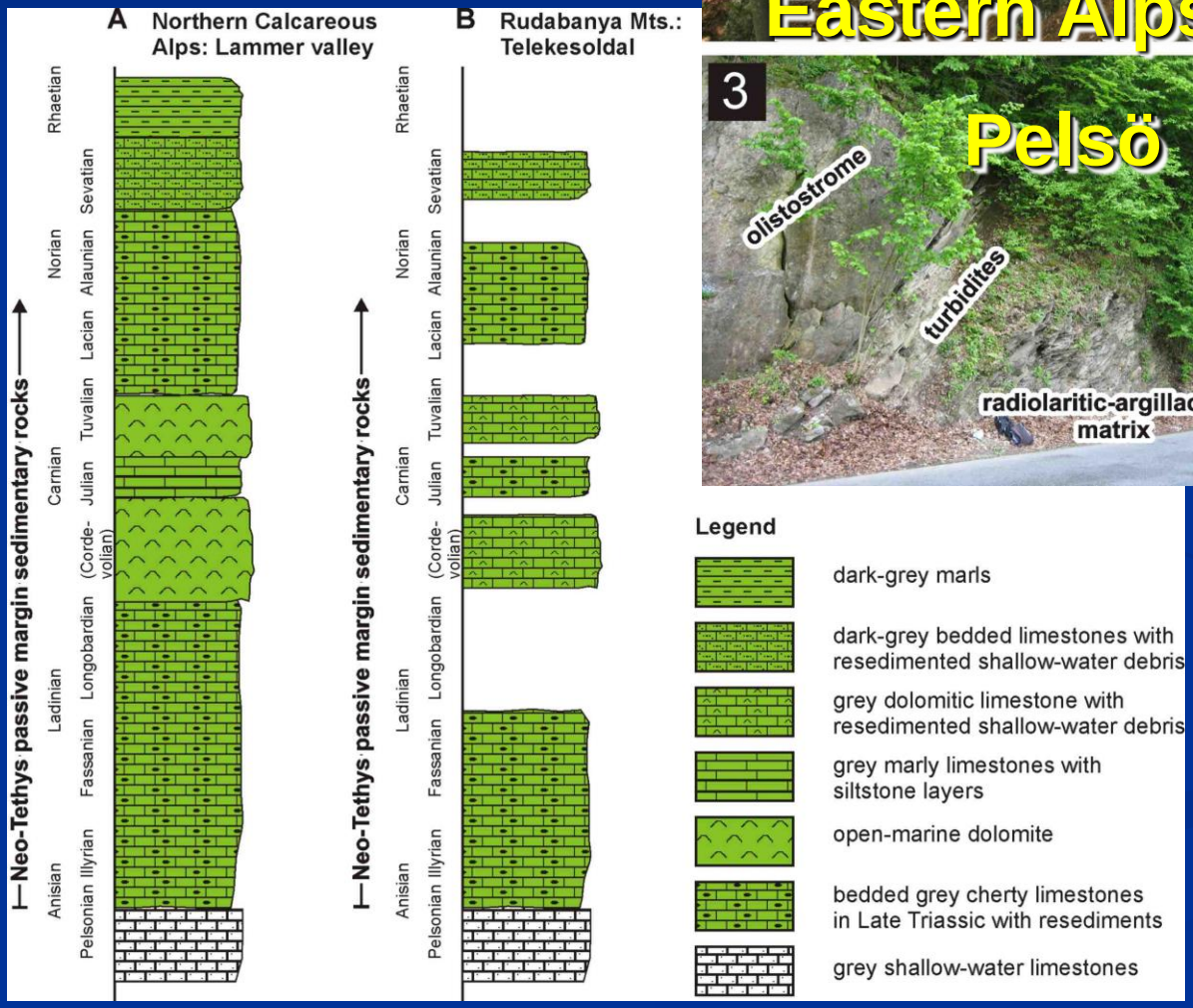




Callovian-Oxfordian Mélange

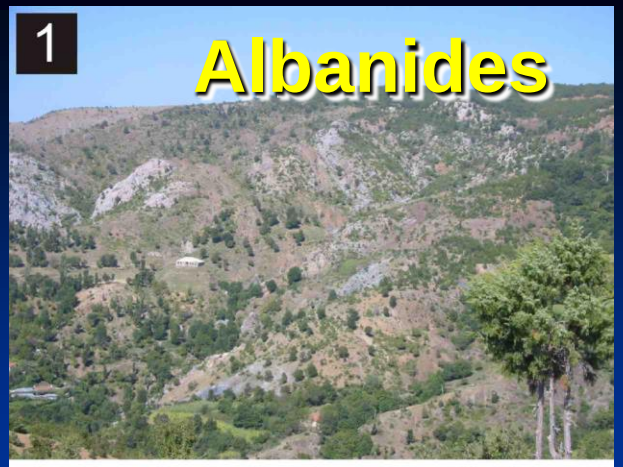


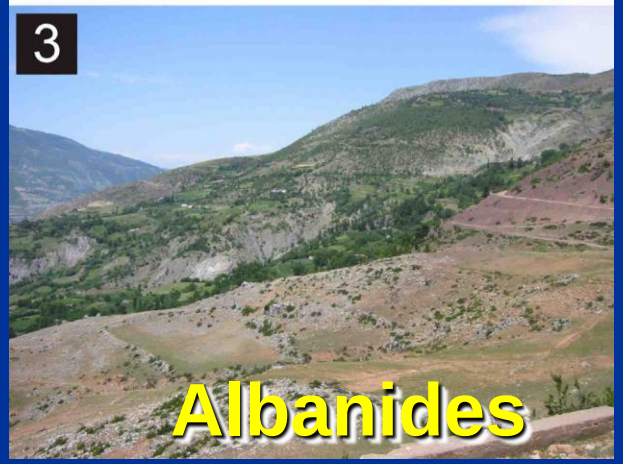


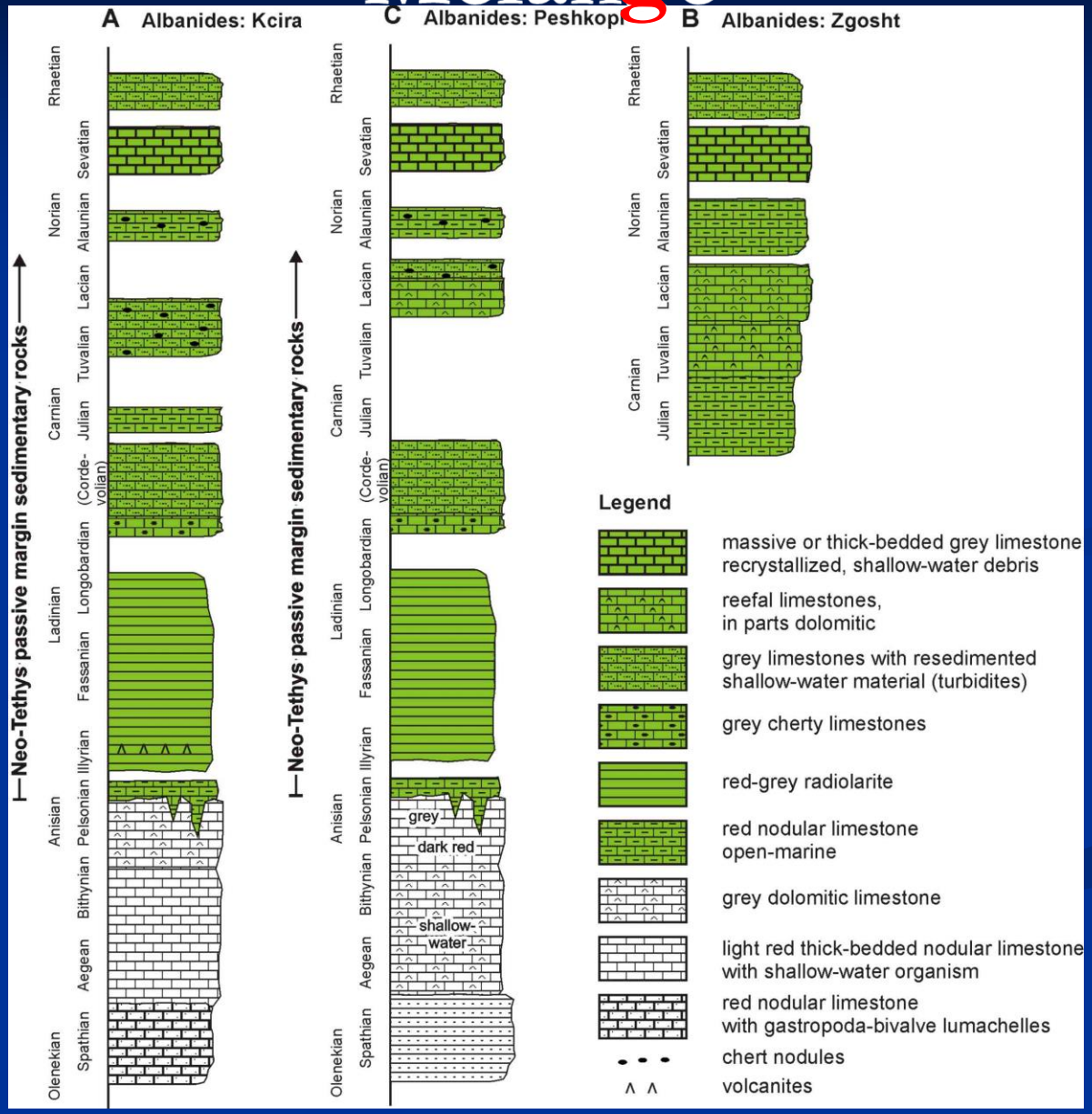


Reworked reef-near shelf

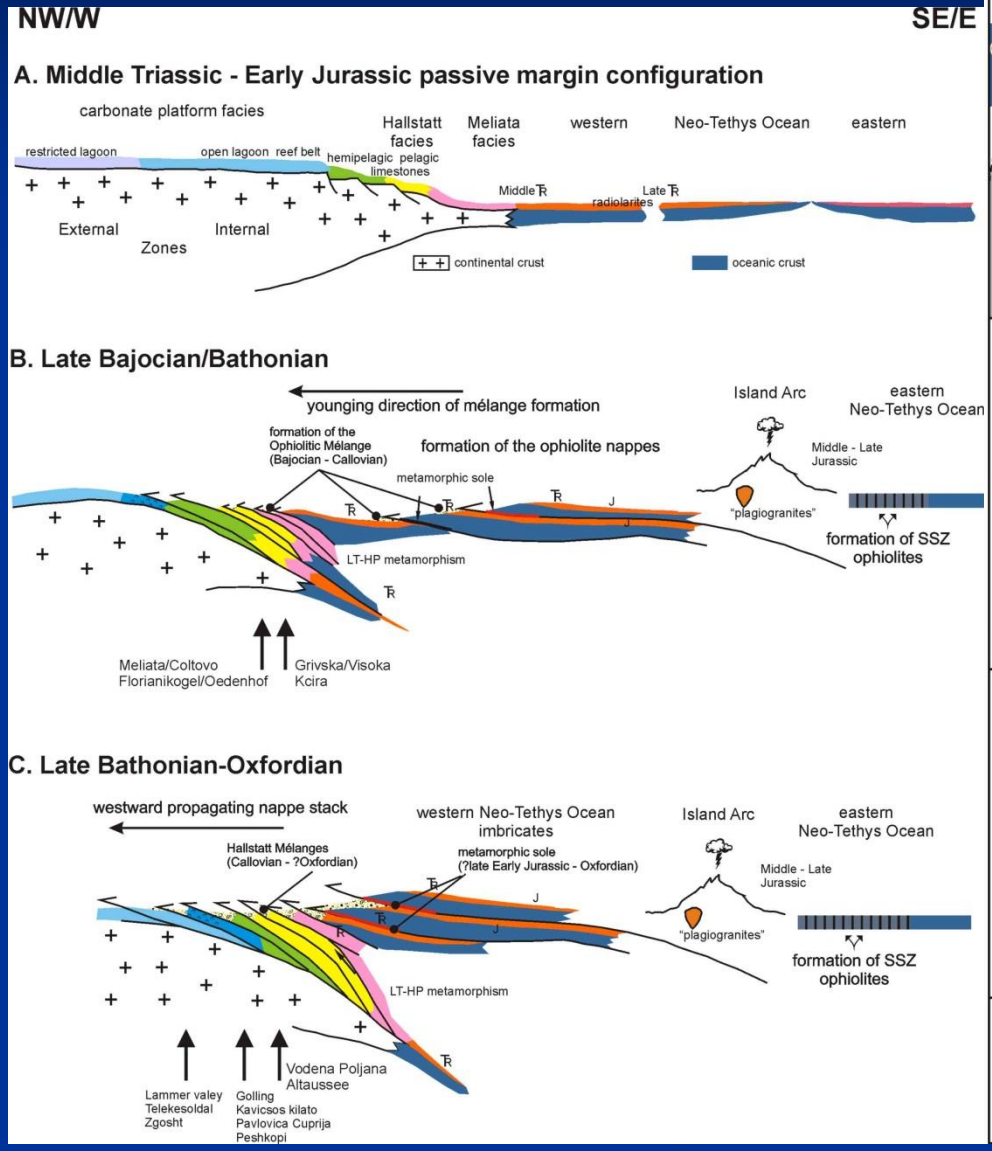
Callovian-Oxfordian Mélange

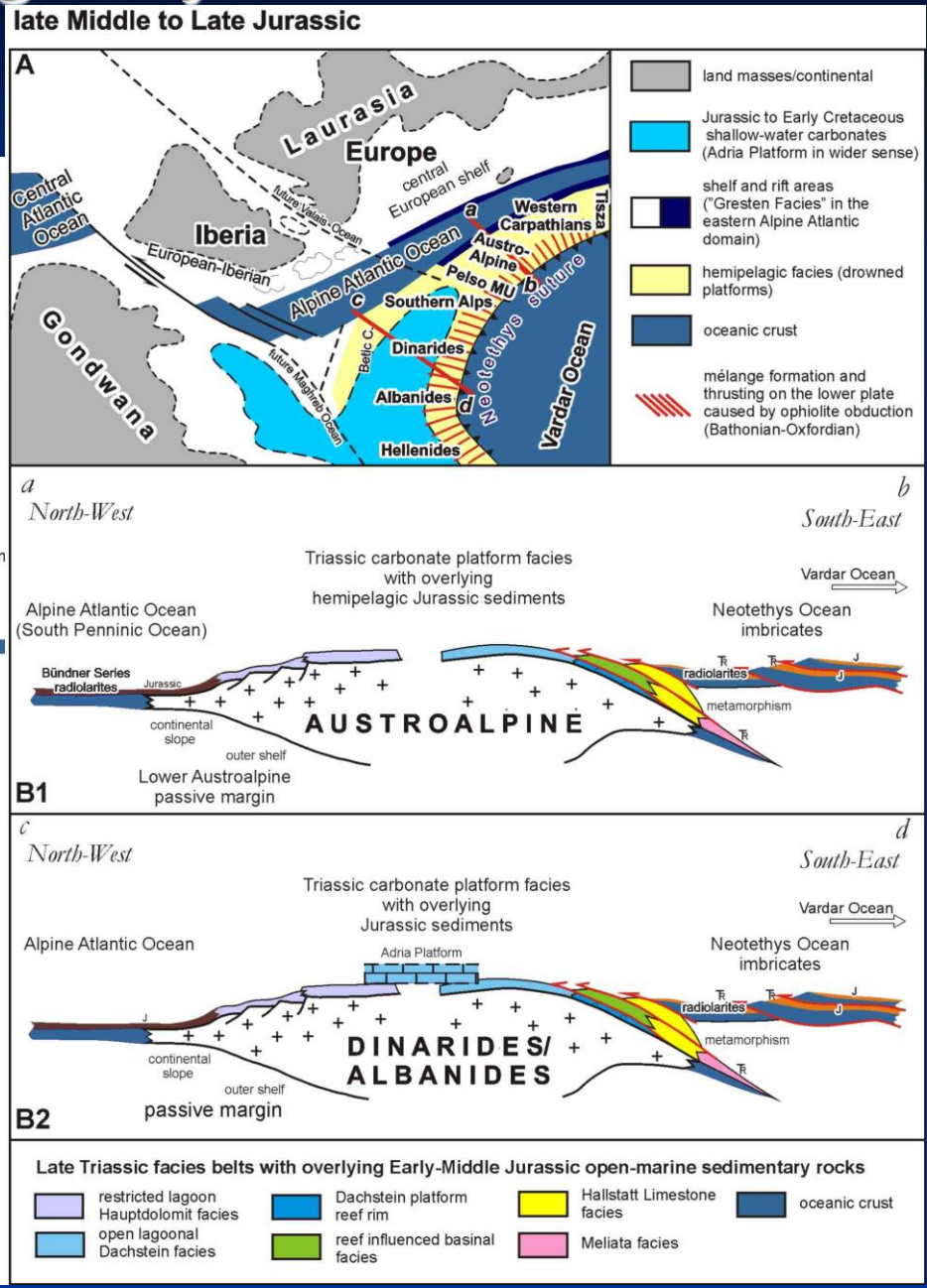




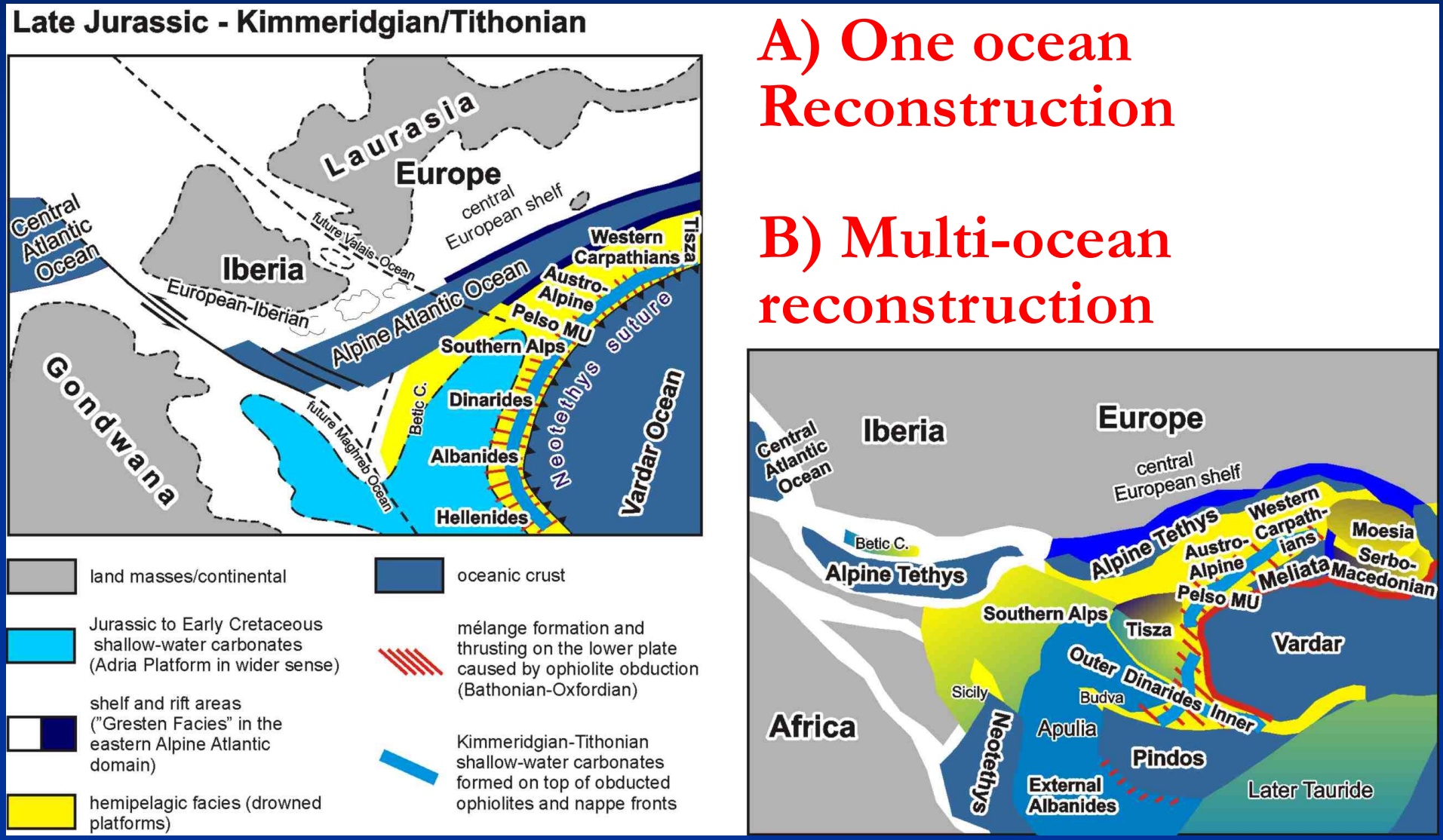


Triassic to Late Jurassic geodynamic evolution





How many oceans?

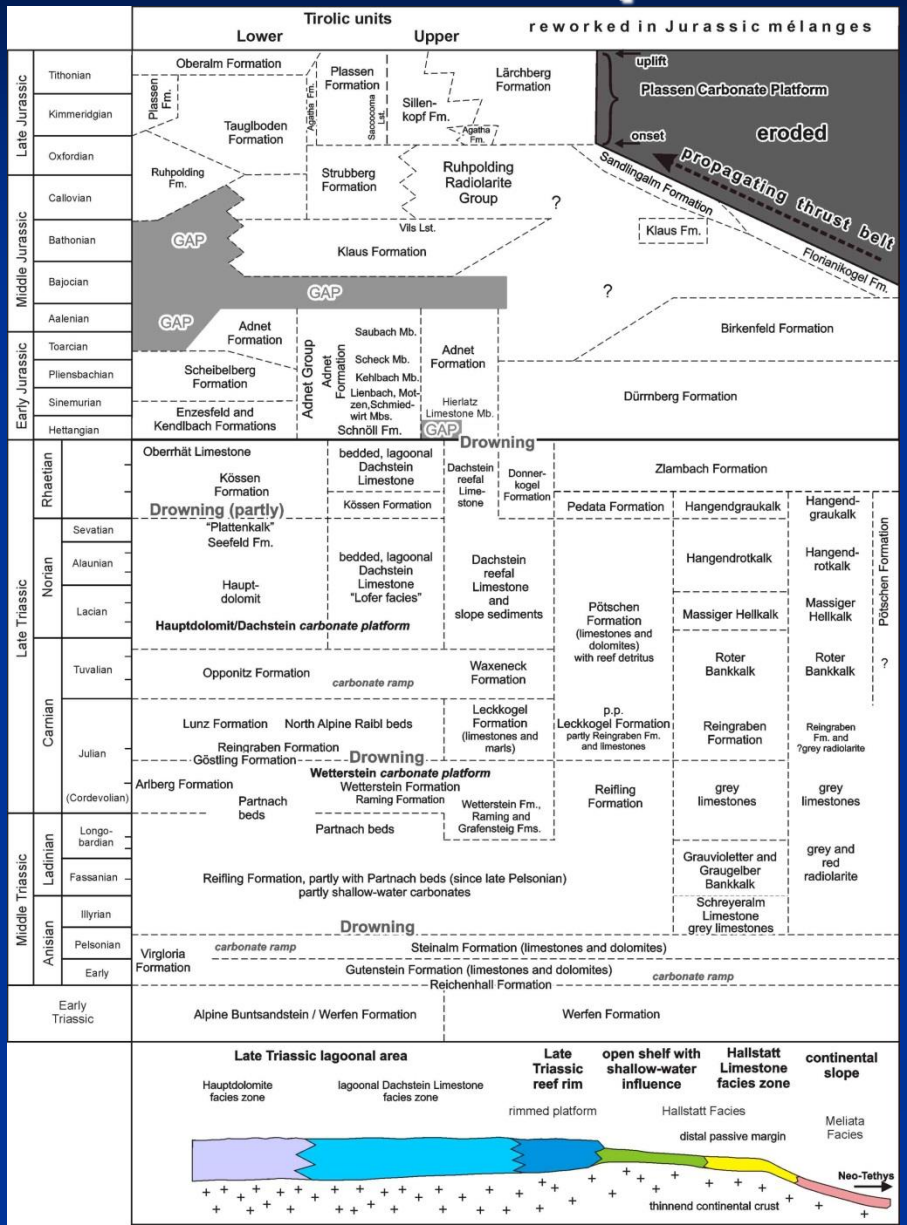


A) One ocean Reconstruction

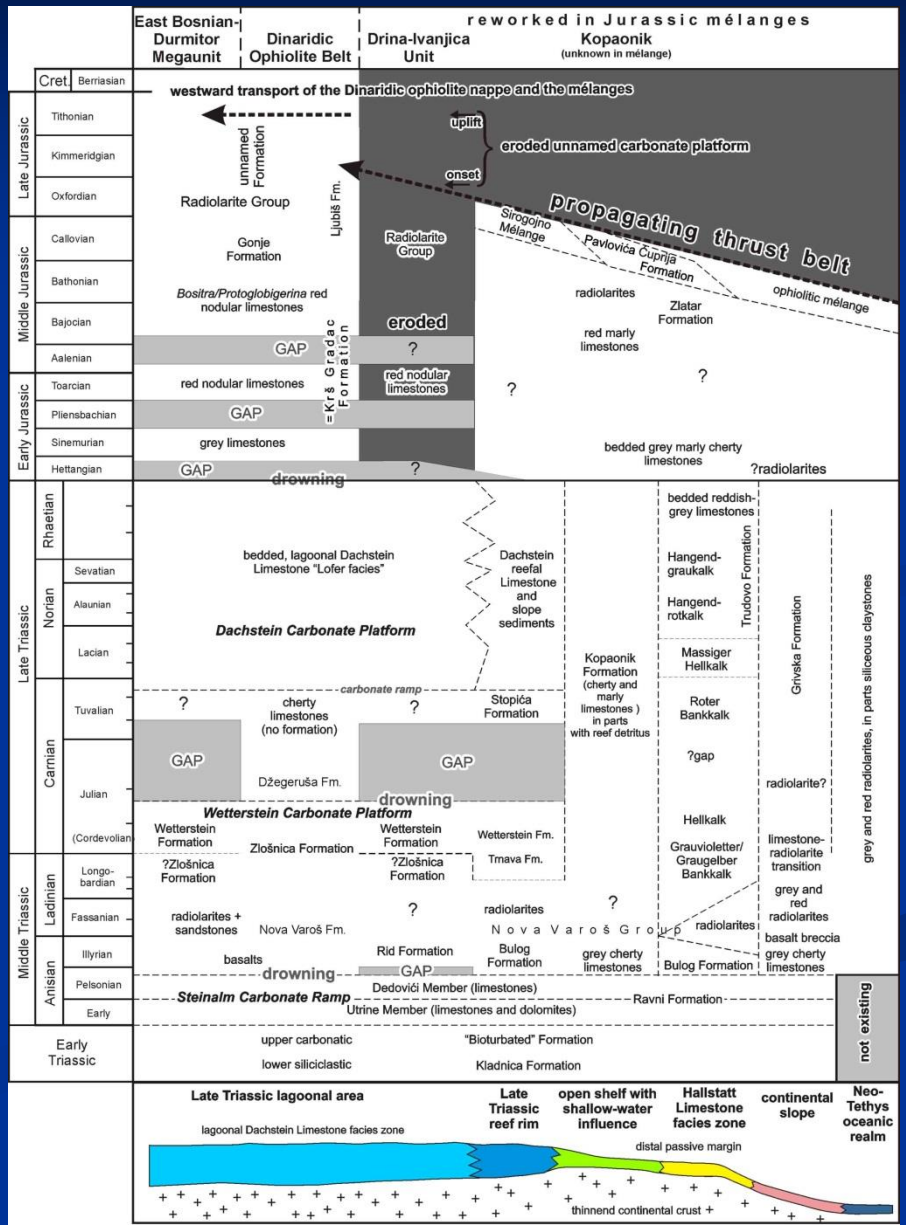
B) Multi-ocean reconstruction

Triassic to Late Jurassic tectonostratigraphy

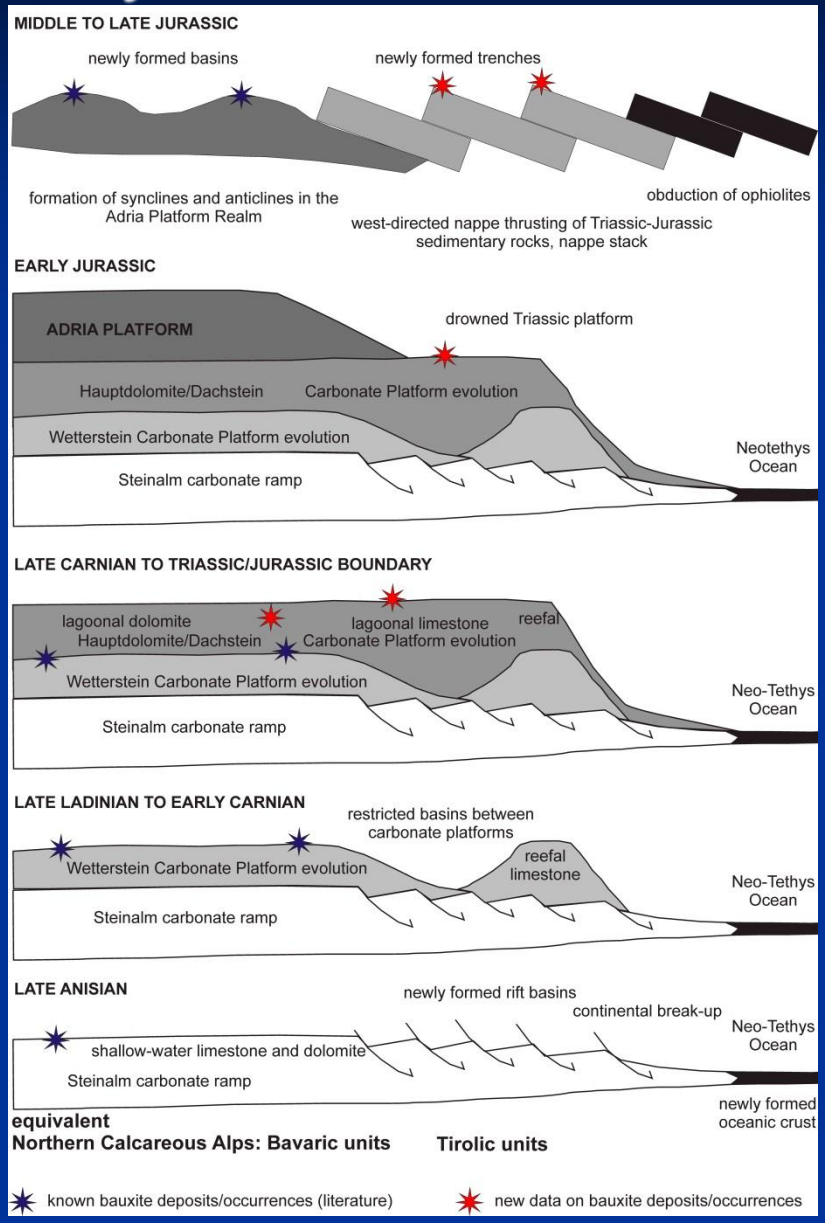
Eastern Alps

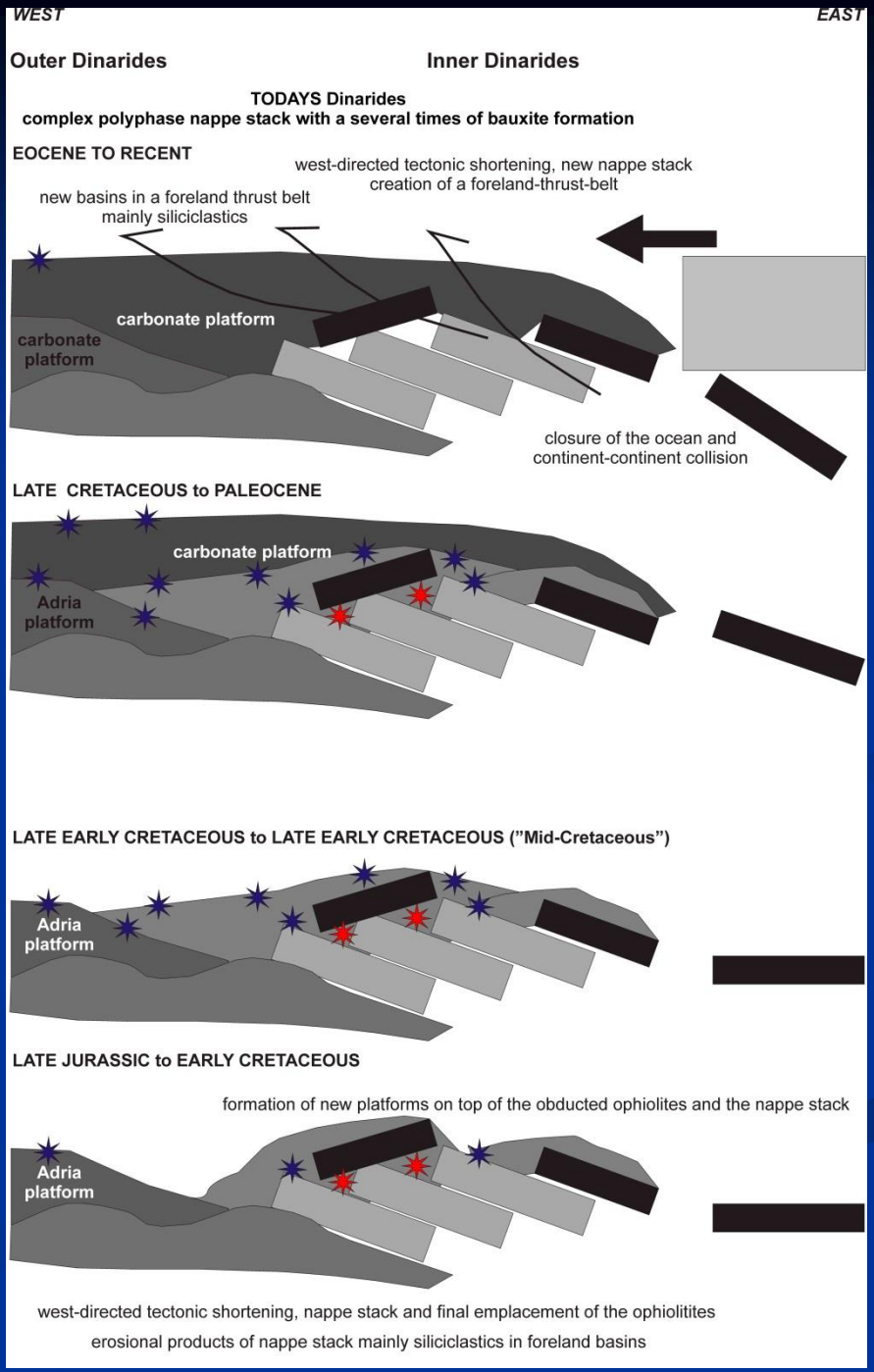


Inner Dinarides



Triassic – Eocene bauxites
Geodynamic evolution





Late Early Cretaceous - Recent

- `Mid-Cretaceous Revolution´ `eoalpine´ (not realy well explored – Tisia, Drau-Range, Transdanubian Range, ?Gemer units)
- Closure of the Alpine Atlantic (?Campanian to Neogene)
- Palaeogene-Neogene backthrusting and strike-slip tectonics with rotations (also Hellenides-Dinarides)
- Neogene strike-slip movements (lateral tectonic extrusion, rotations)
- Neogene Tyrrhenian, Ligurian, Alboran opening (Apennin-Pannonian-Dinaride rotation)