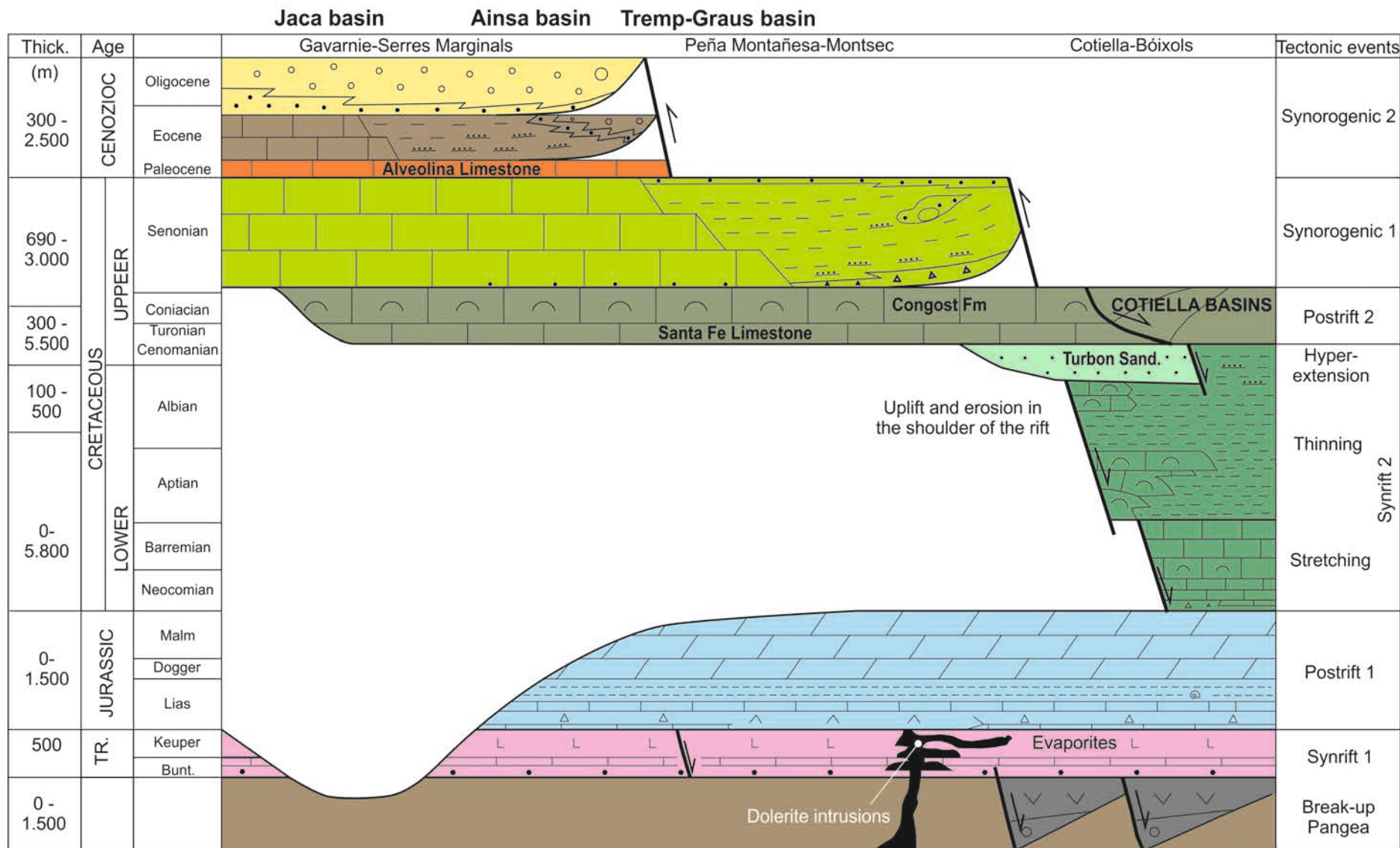


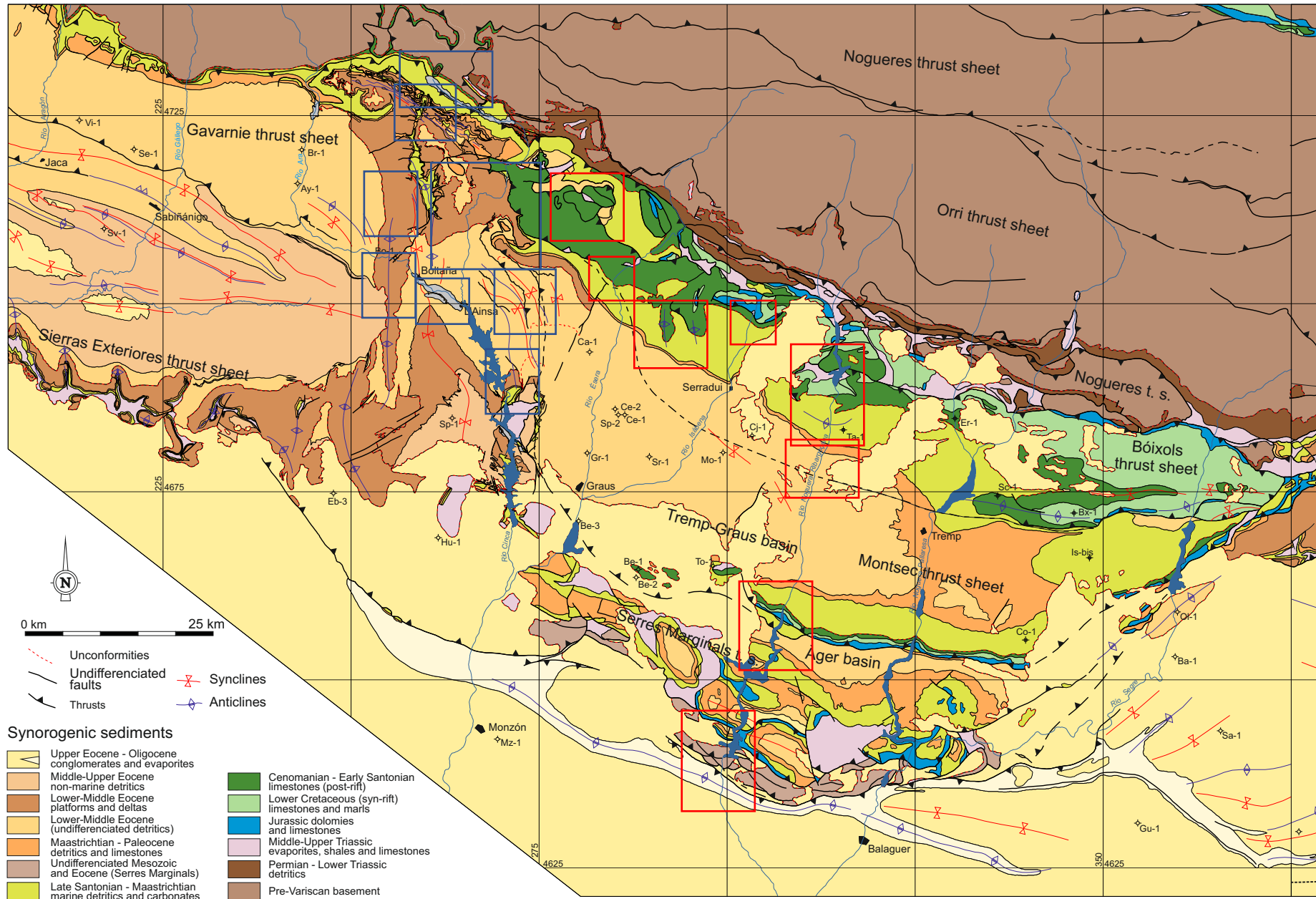
Anàlisi integrada d'un Anàleg real de Conca i Reservori The virtual field trip

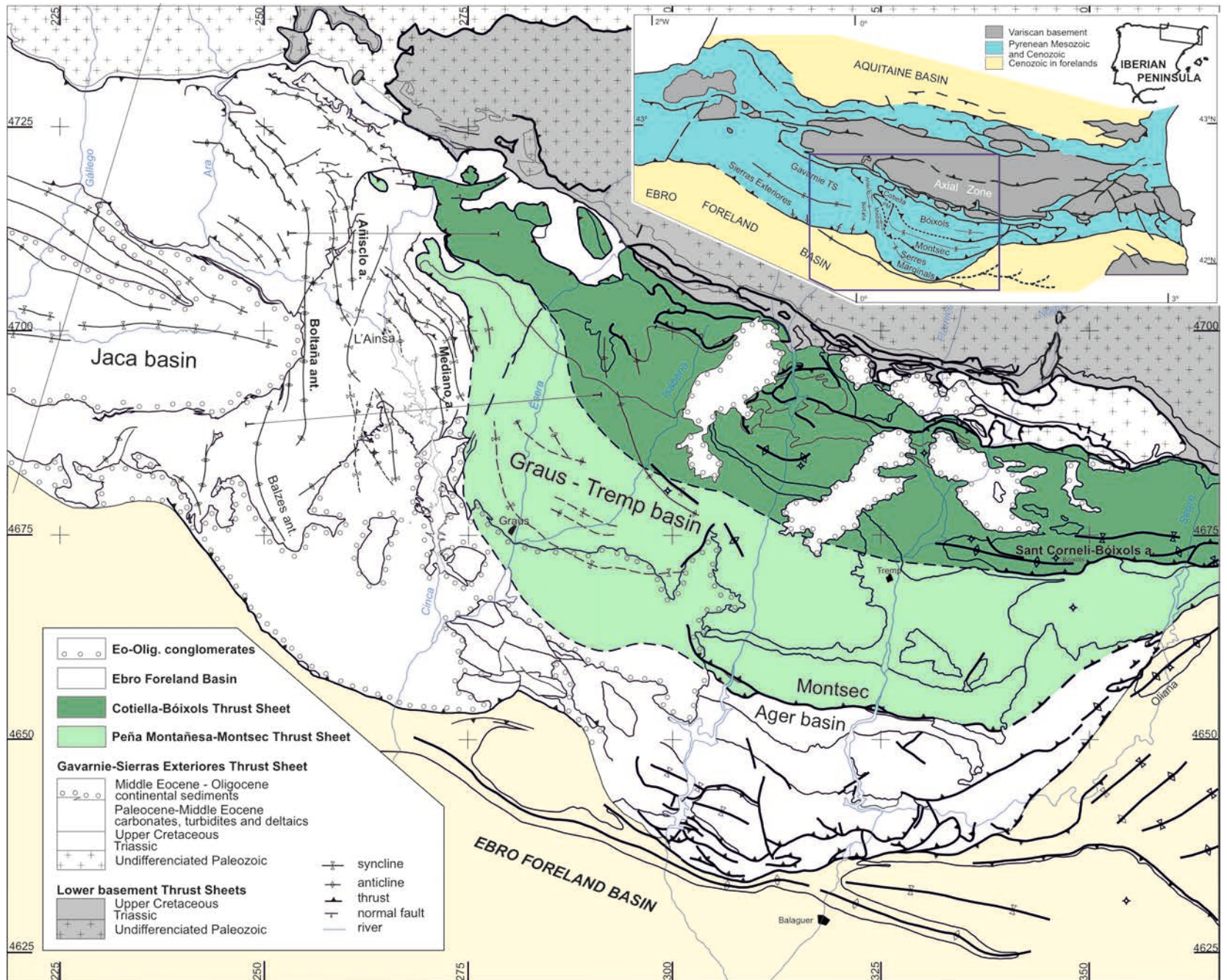
Day 3

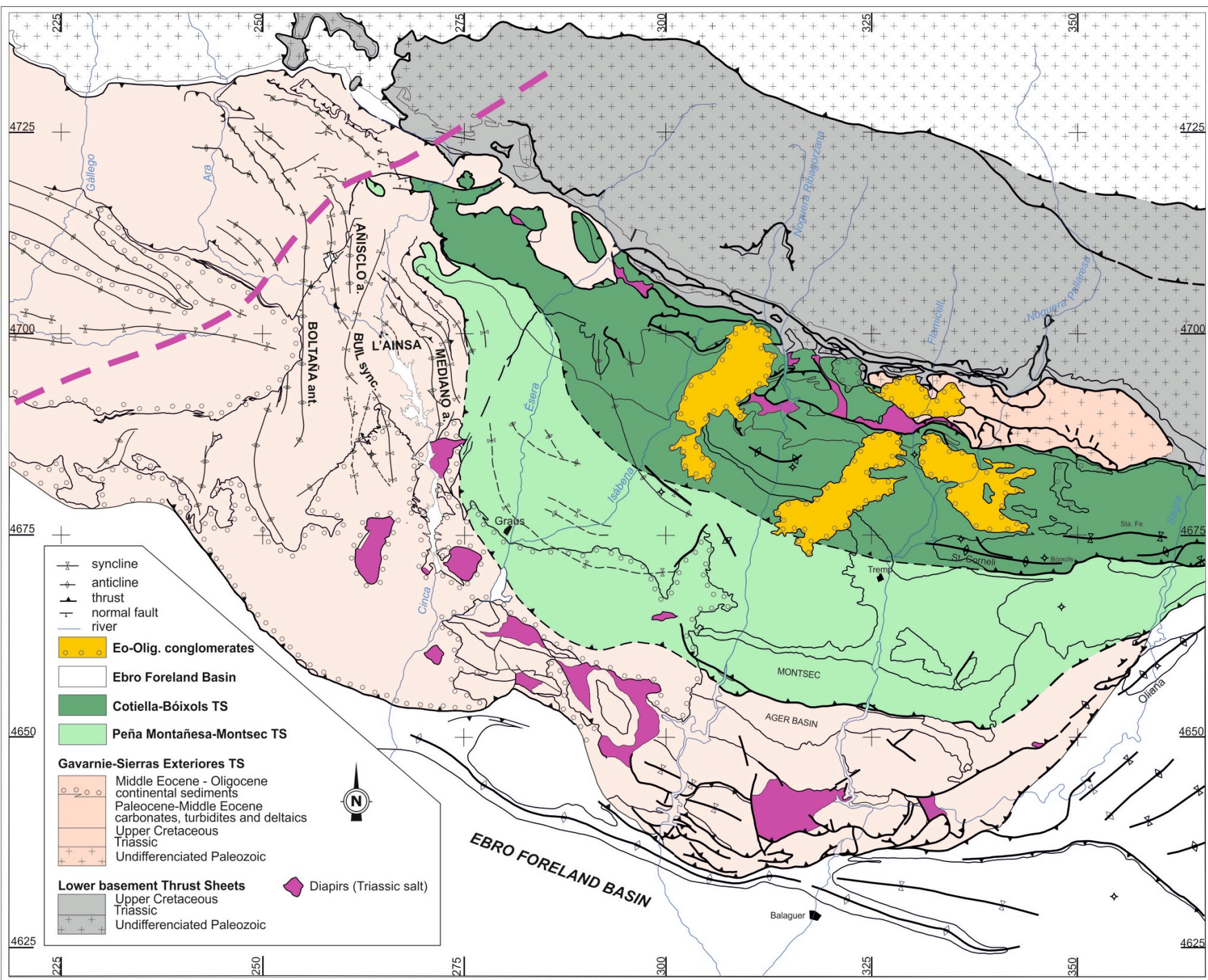
**The Structural and stratigraphic setting of the
Ainsa basin: a cross-section at the eastern edge
of the Gavarnie thrust sheet**



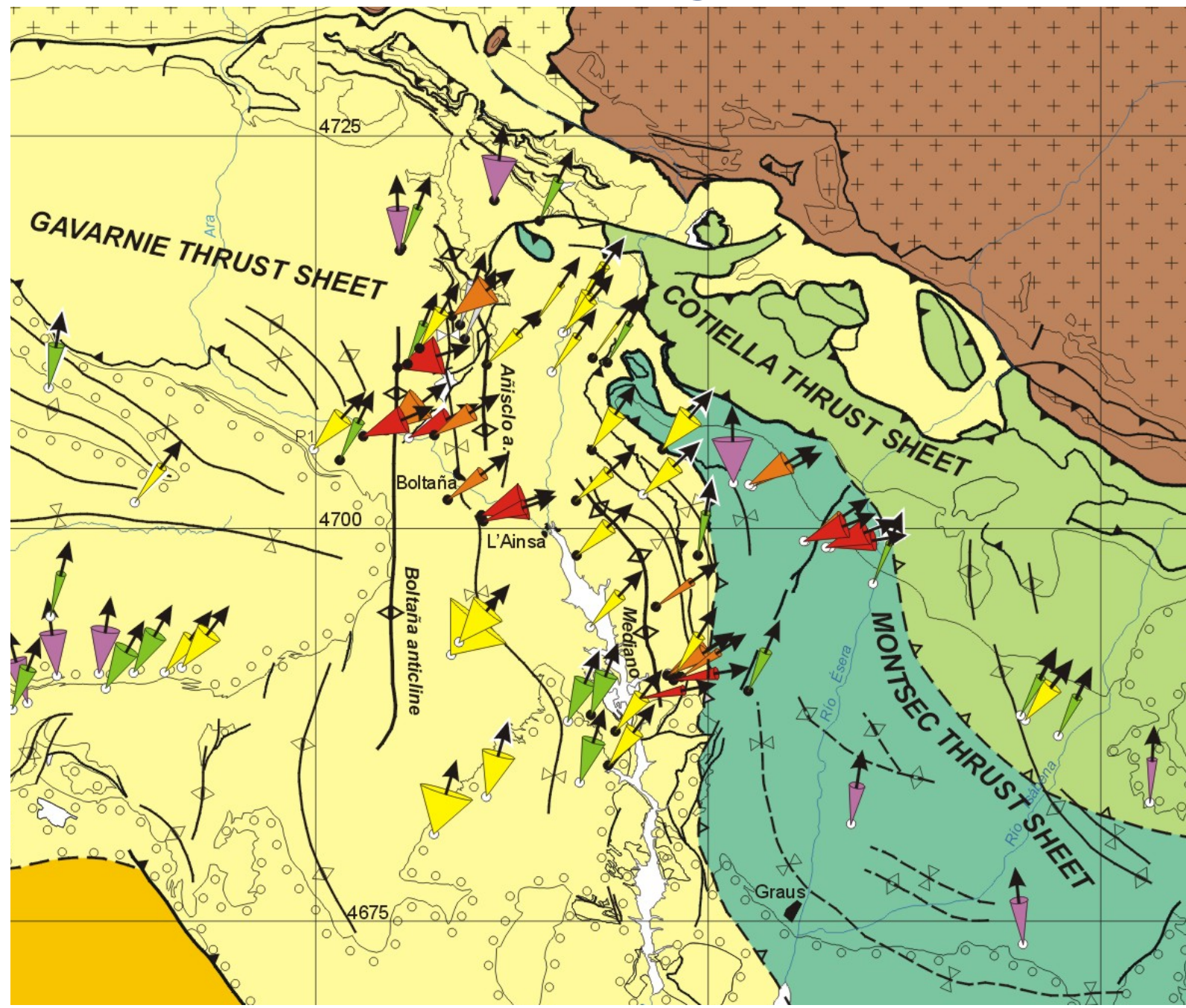
Field stops days 1 and 3

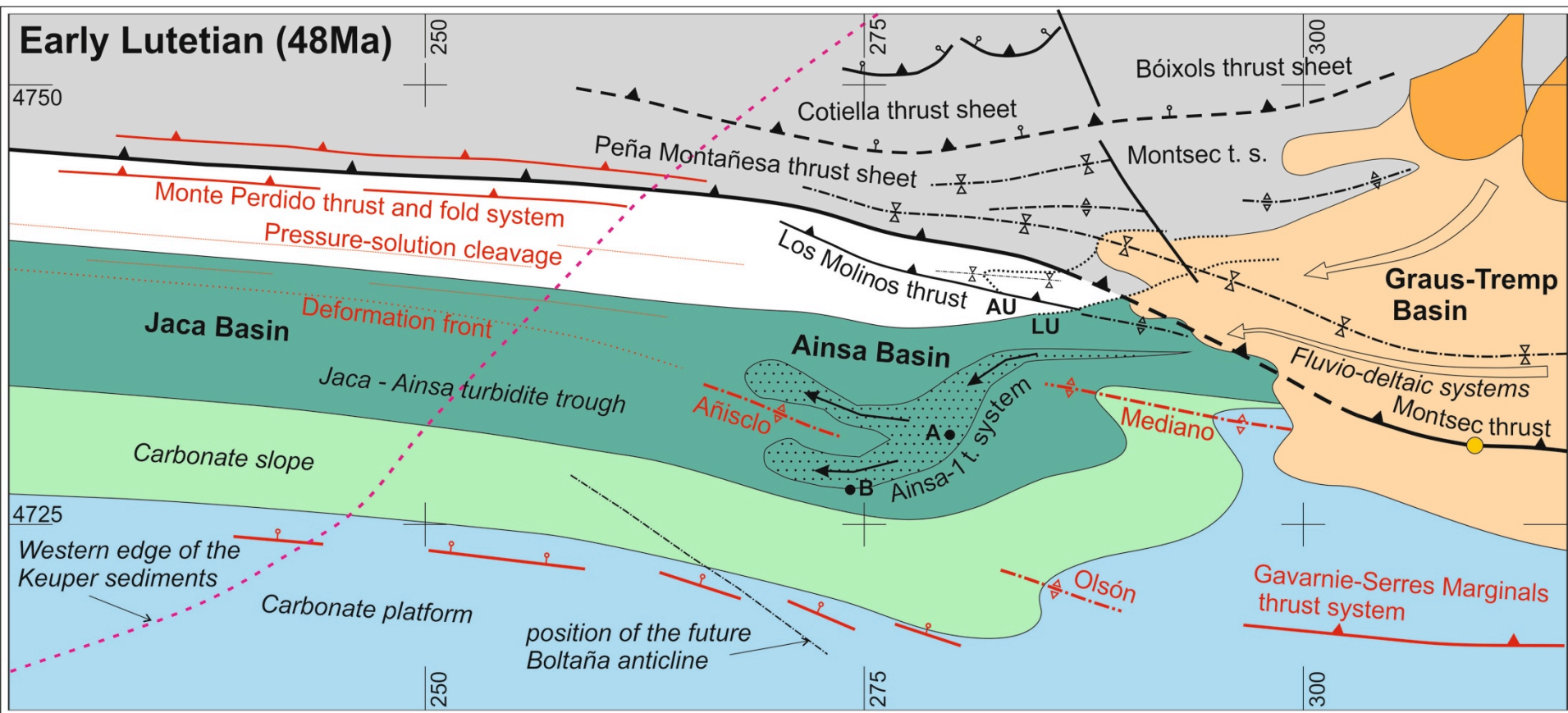




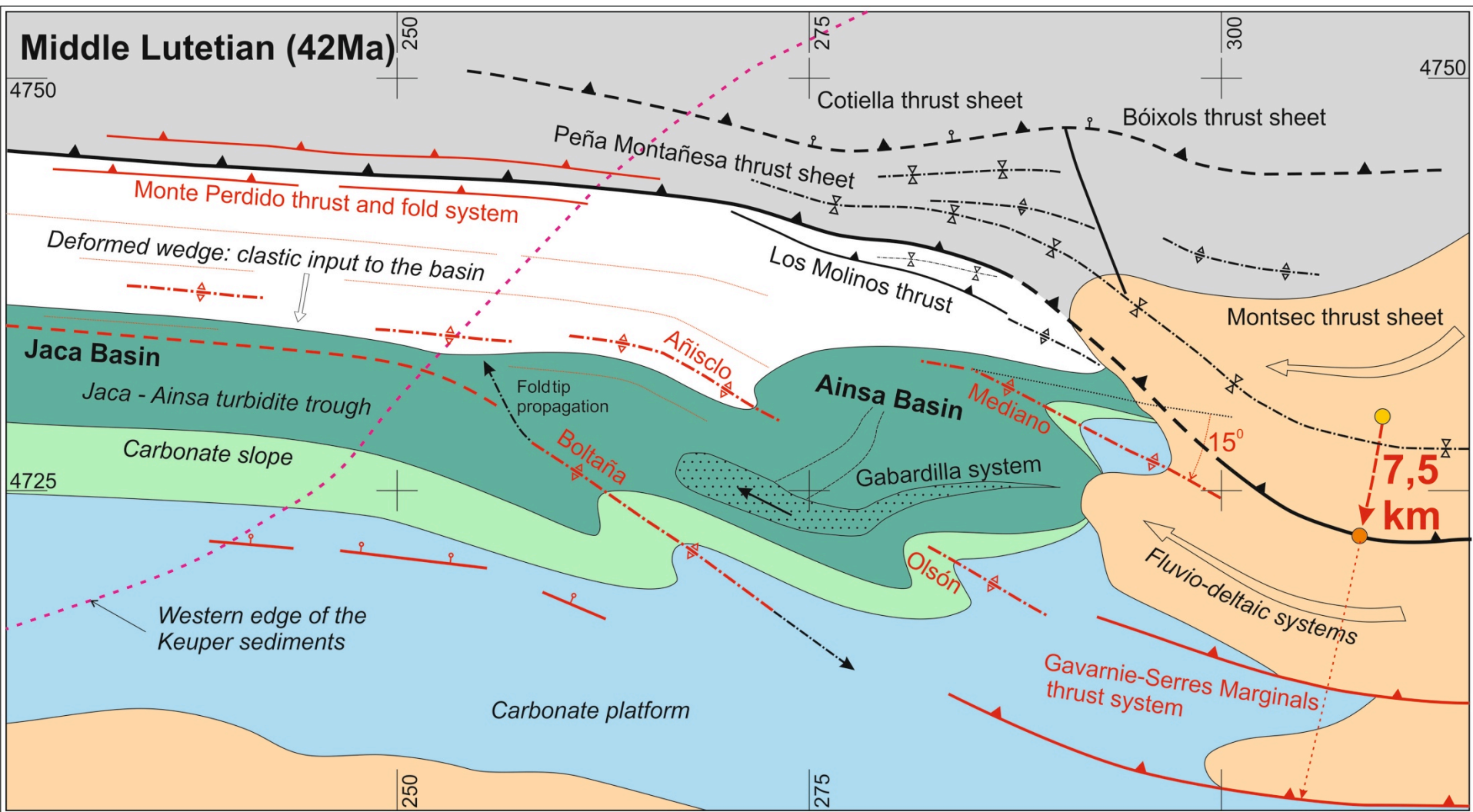


Paleomagnetic data

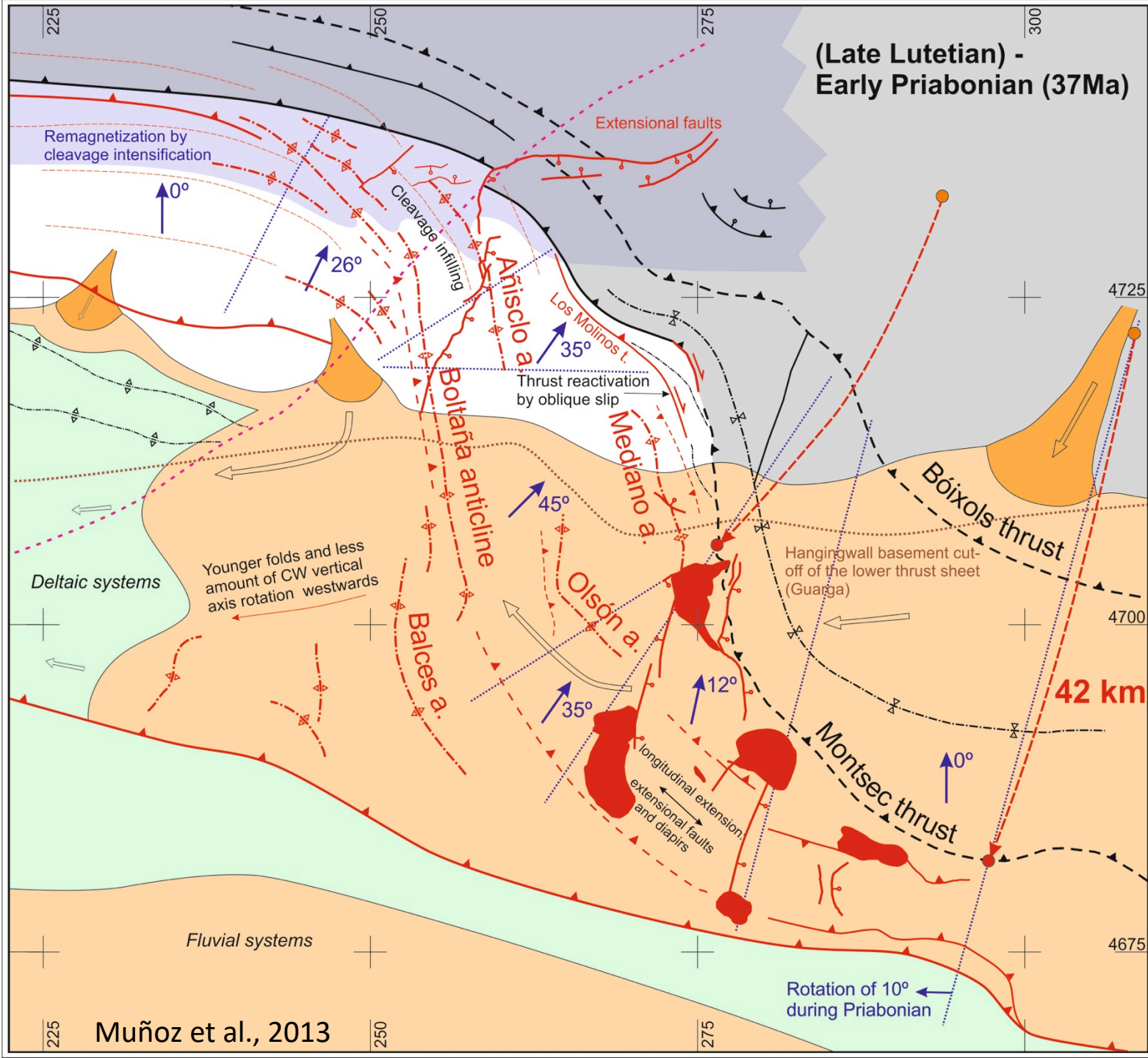




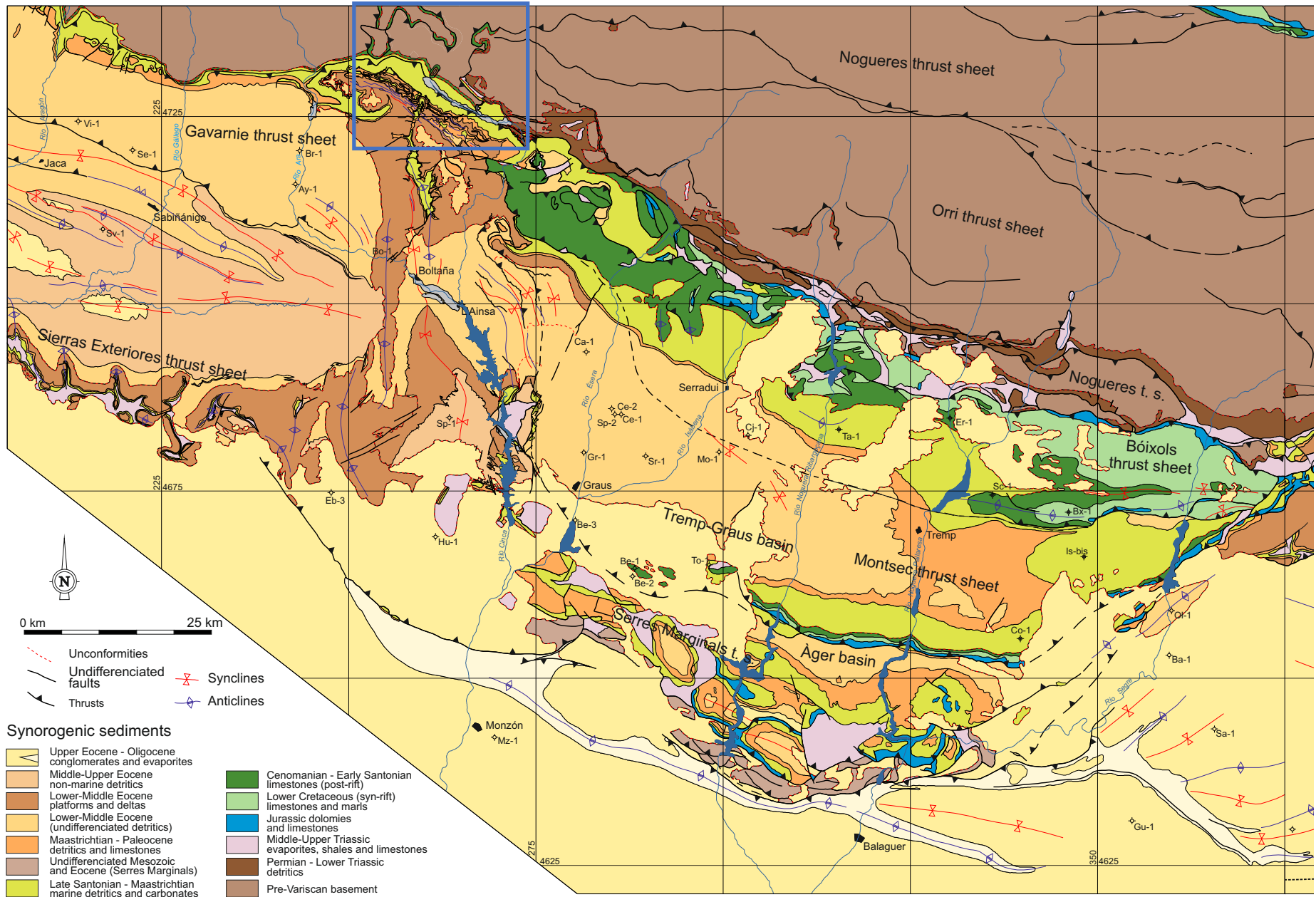
Muñoz et al., 2013

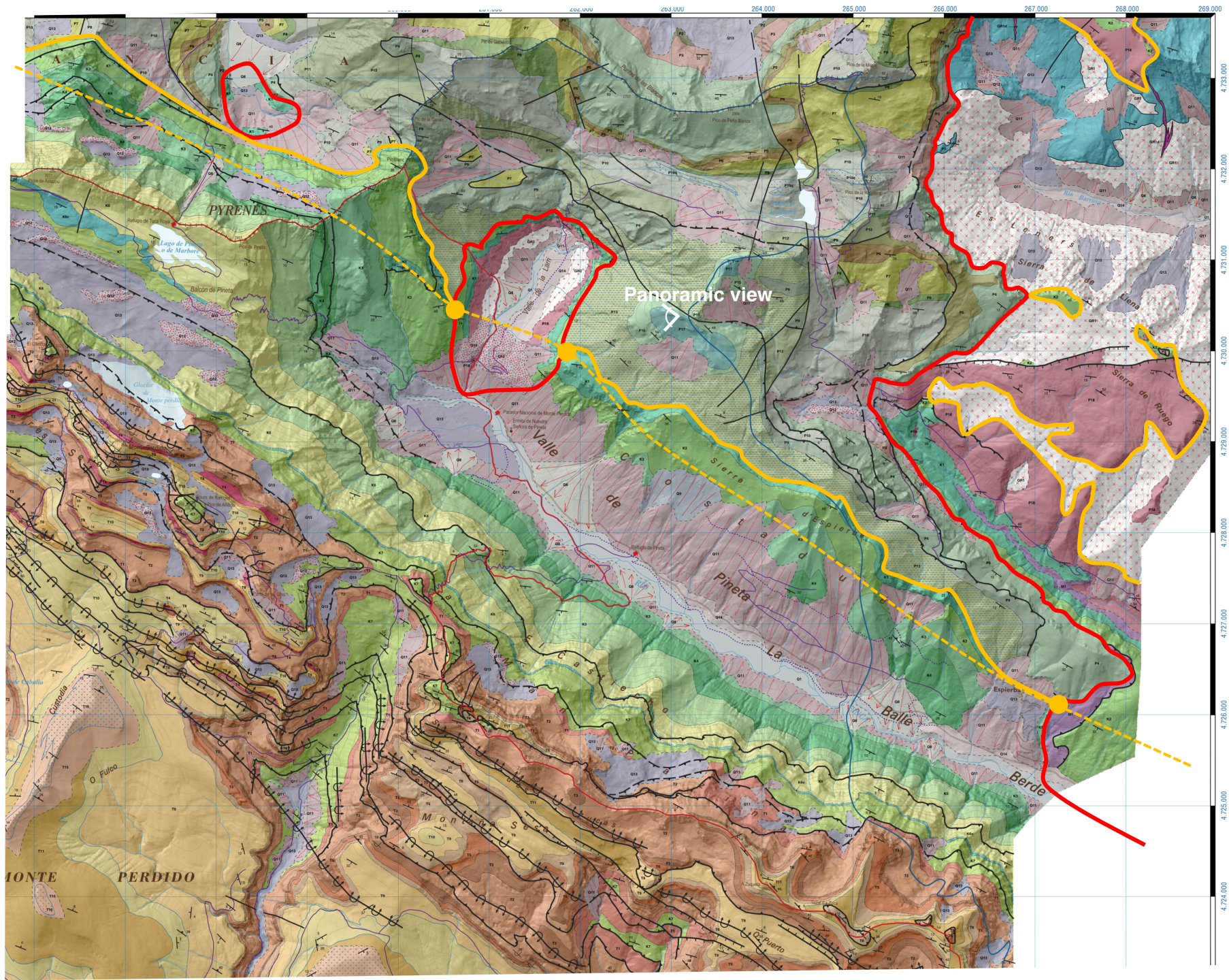


(Late Lutetian) -
Early Priabonian (37Ma)

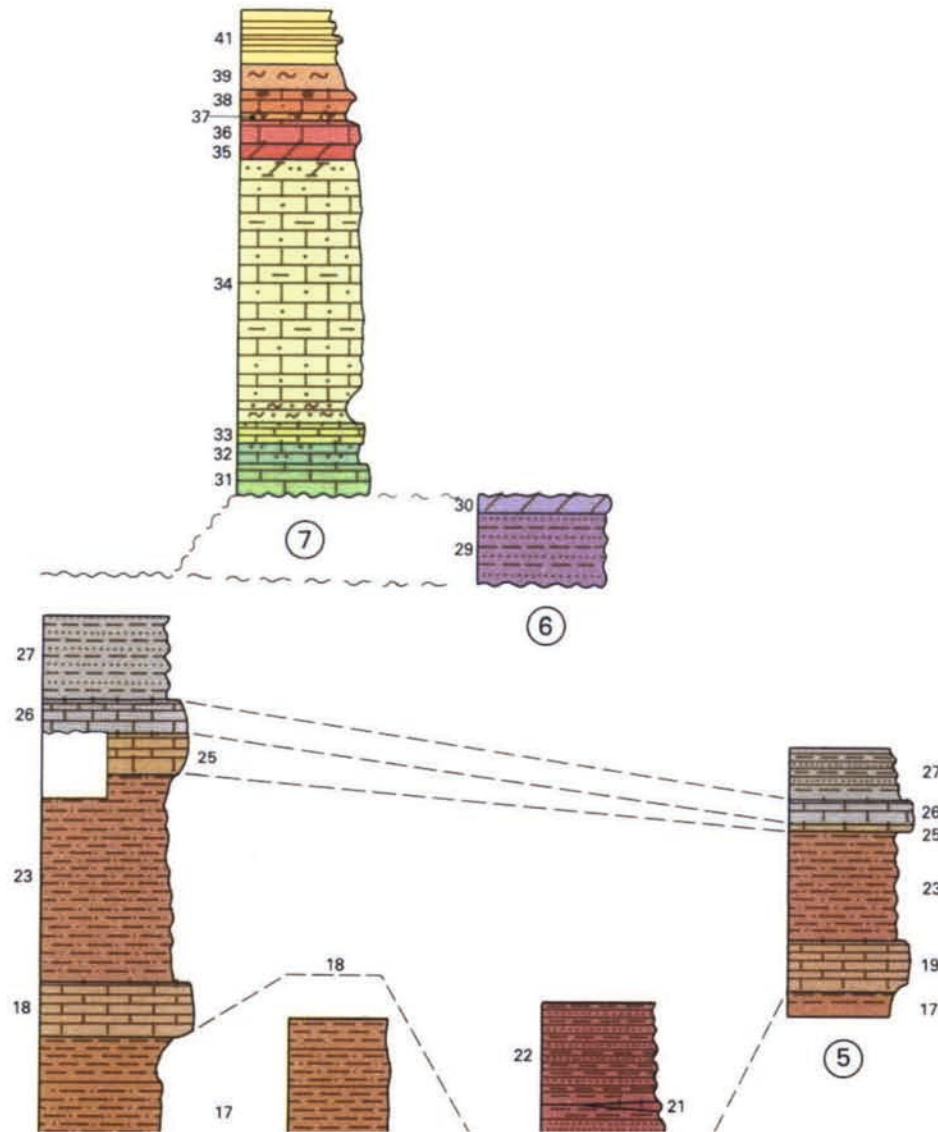


Stop 2-1: The The Gavarnie thrust





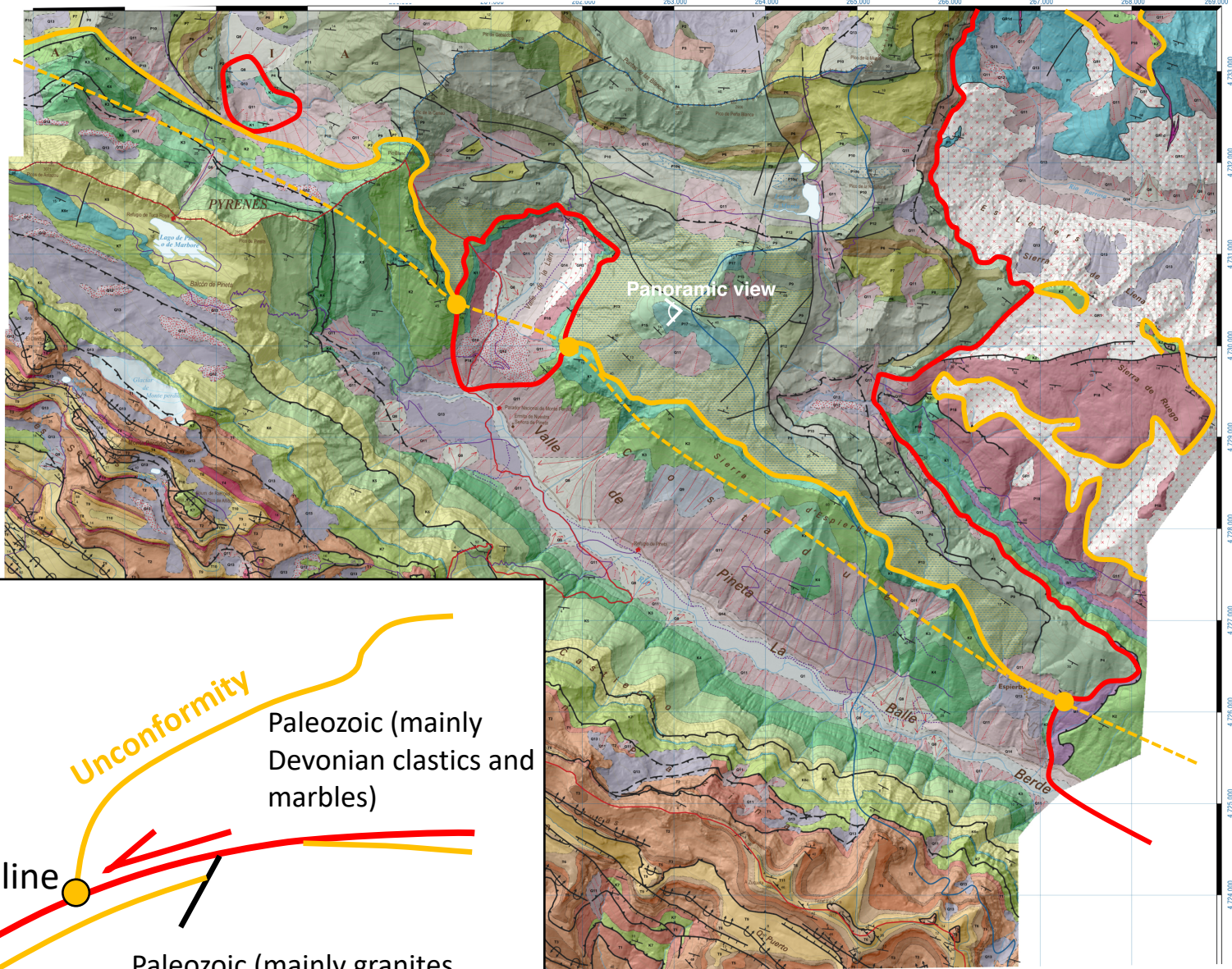
Stratigraphy of the Gavarnie thrust sheet



Geological map of Bujaruelo
(1:50.000, IGME)



Llegend geological map of
Ordesa-Monte Perdido (IGME)



S-N

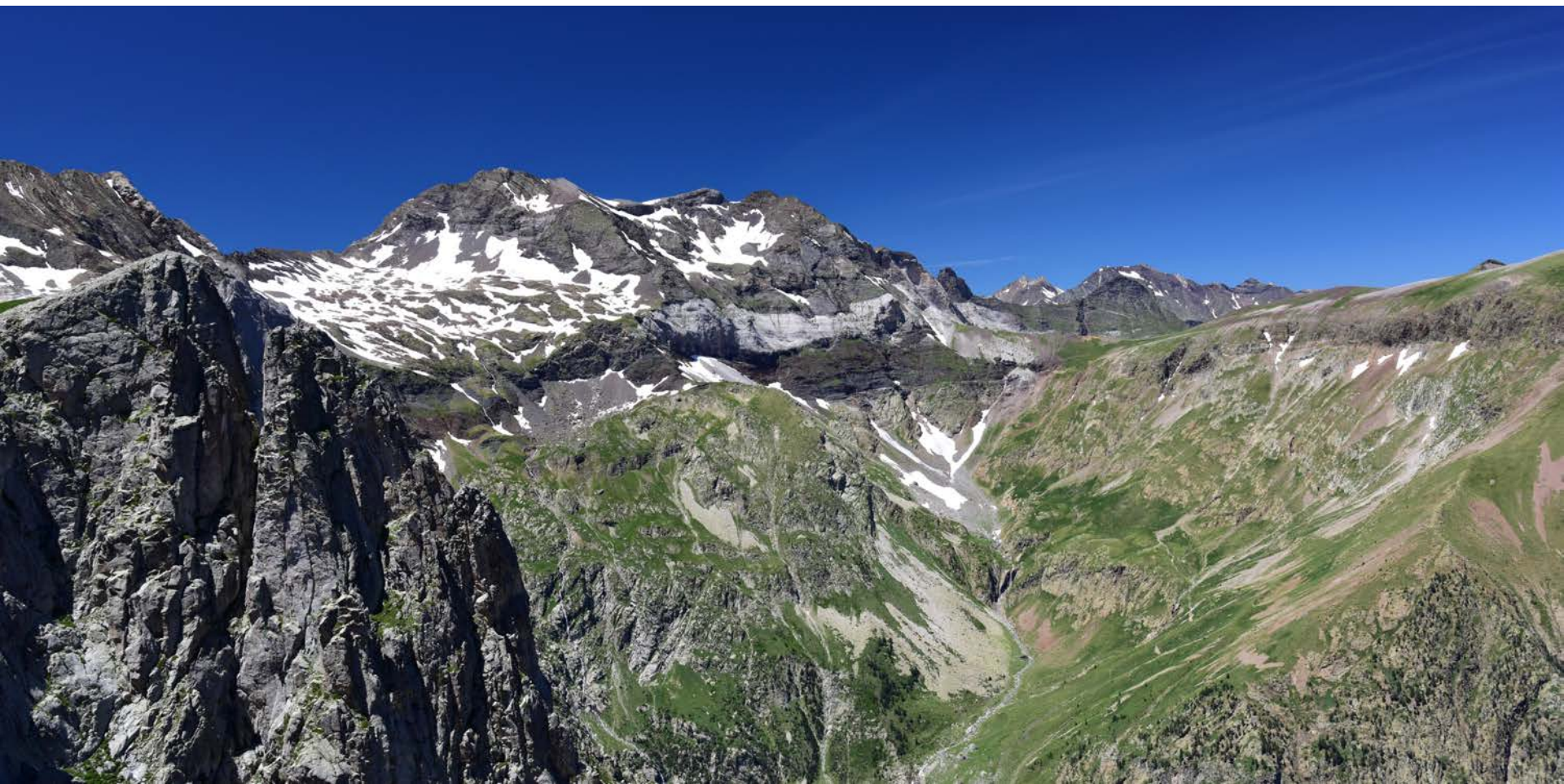
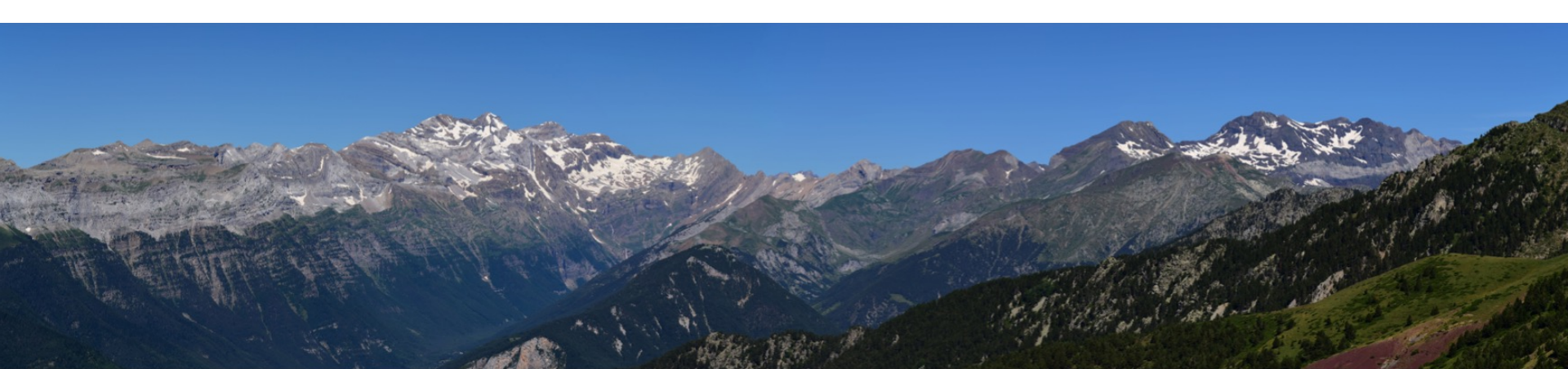
Unconformity

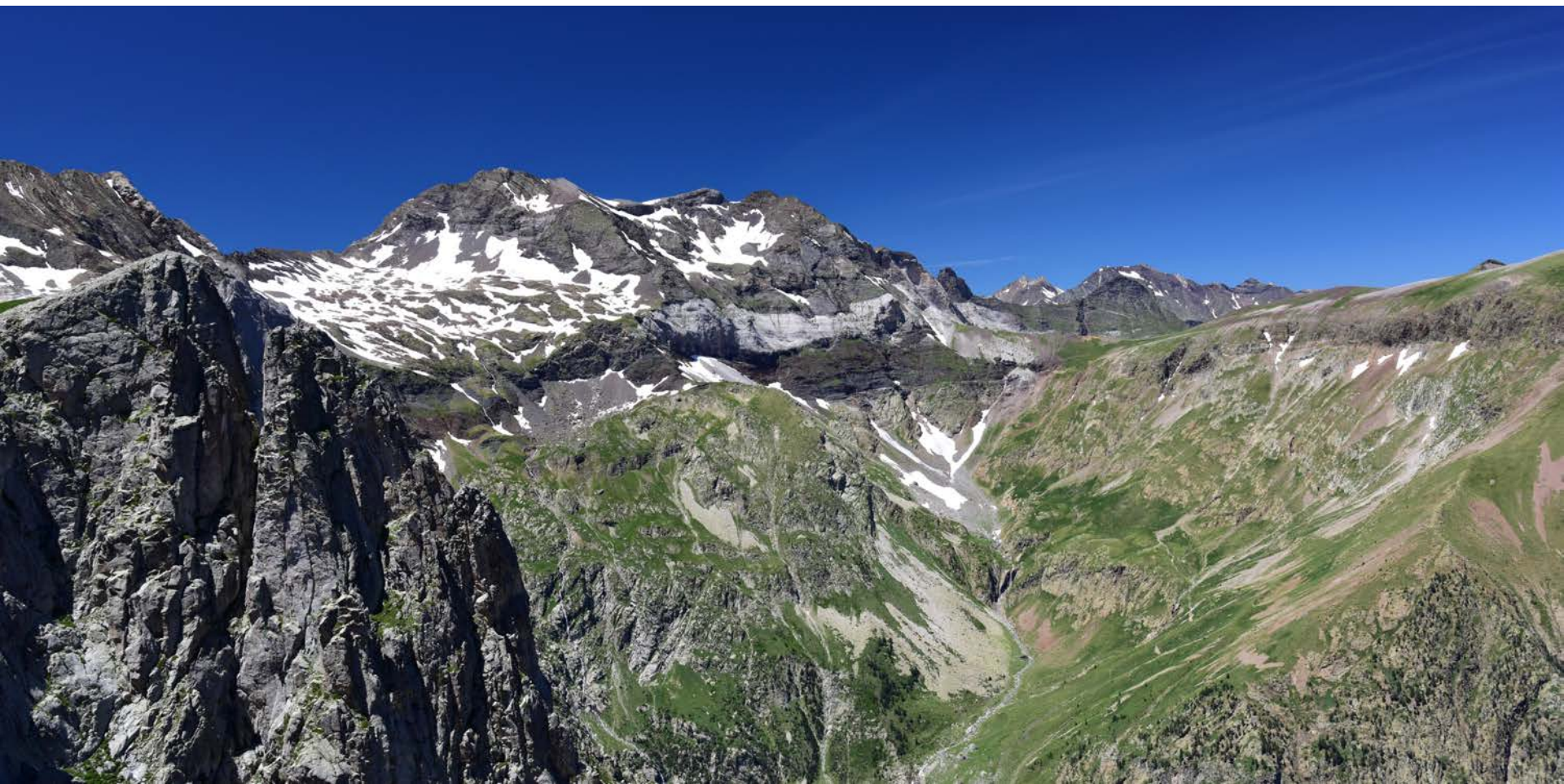
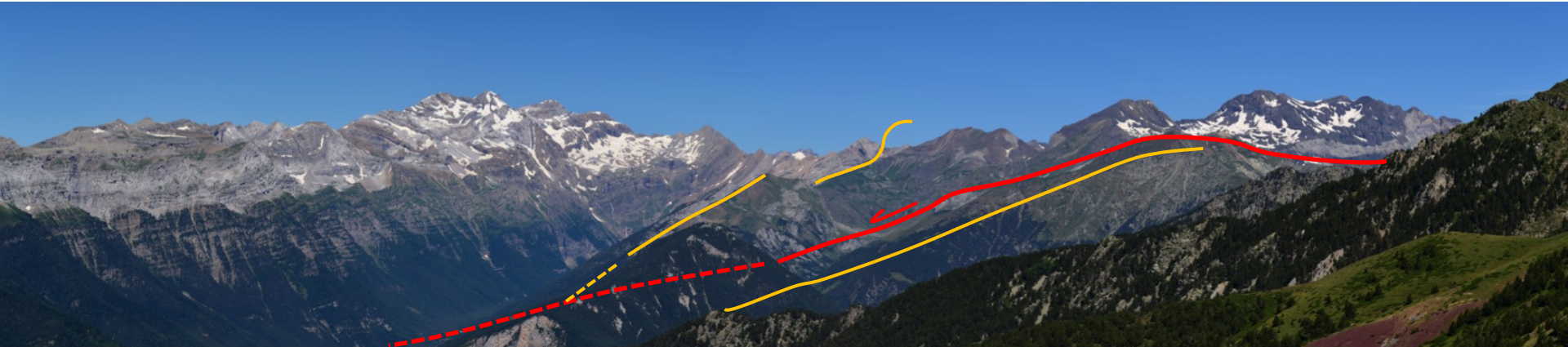
Paleozoic (mainly
Devonian clastics and
marbles)

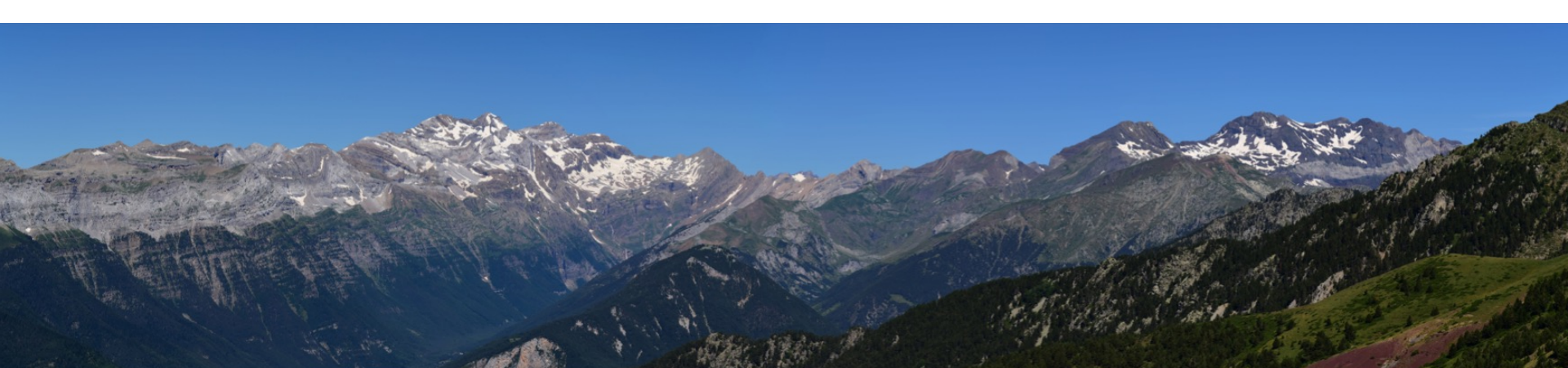
Cutoff line

Gavarnie thrust

Paleozoic (mainly granites
and Ordovician
metamorphic rocks)



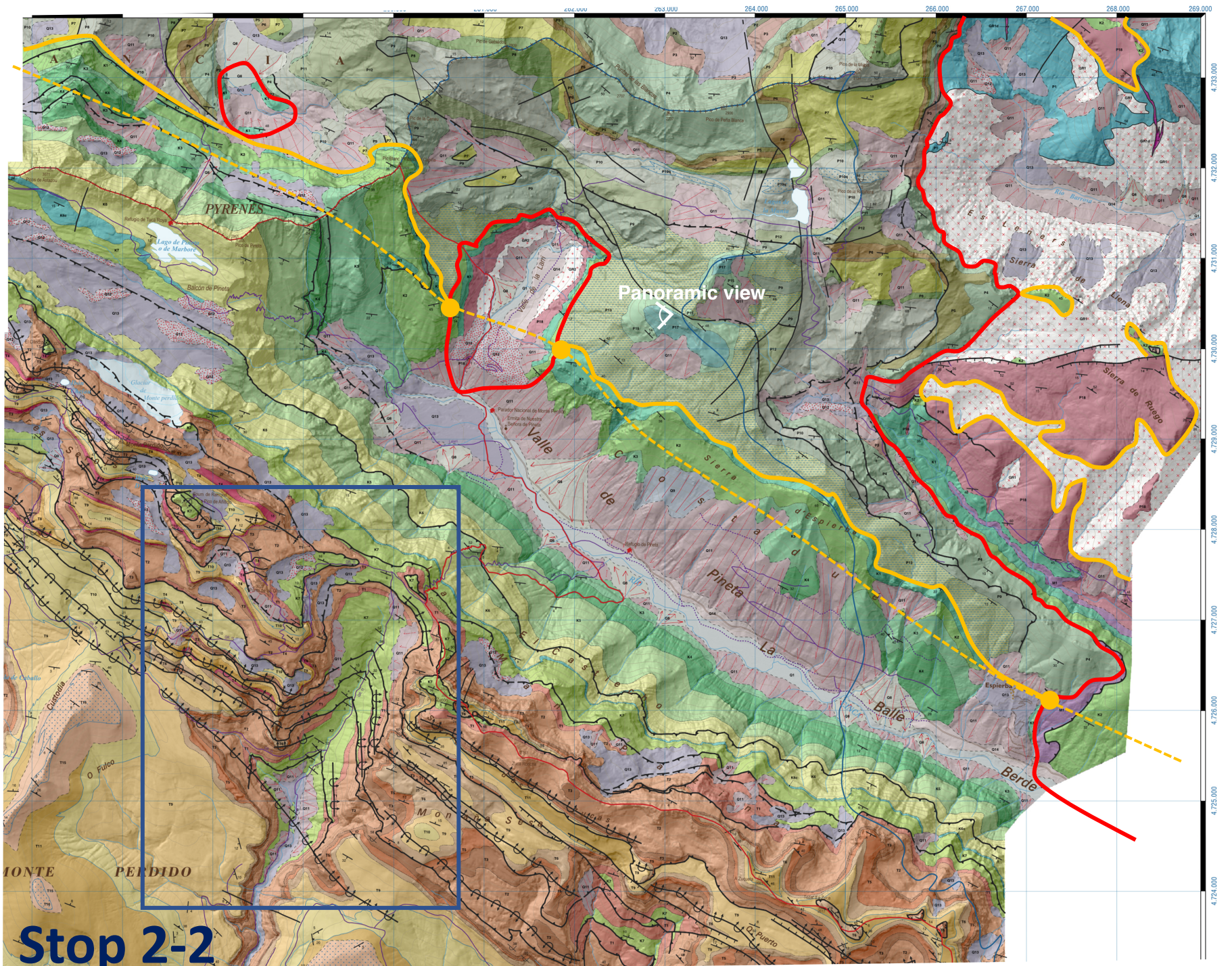






Stop 1-3



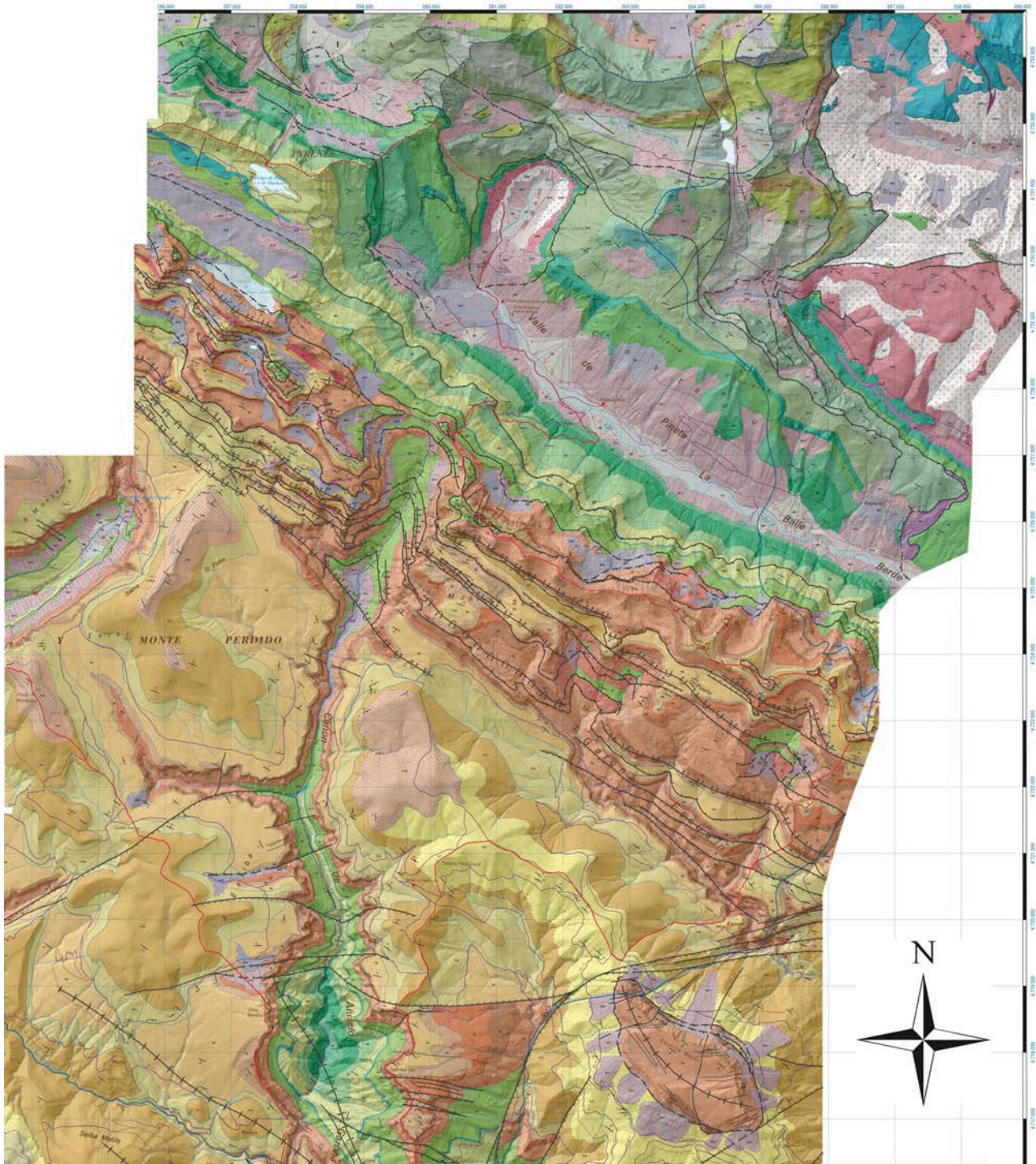


Stop 2-2

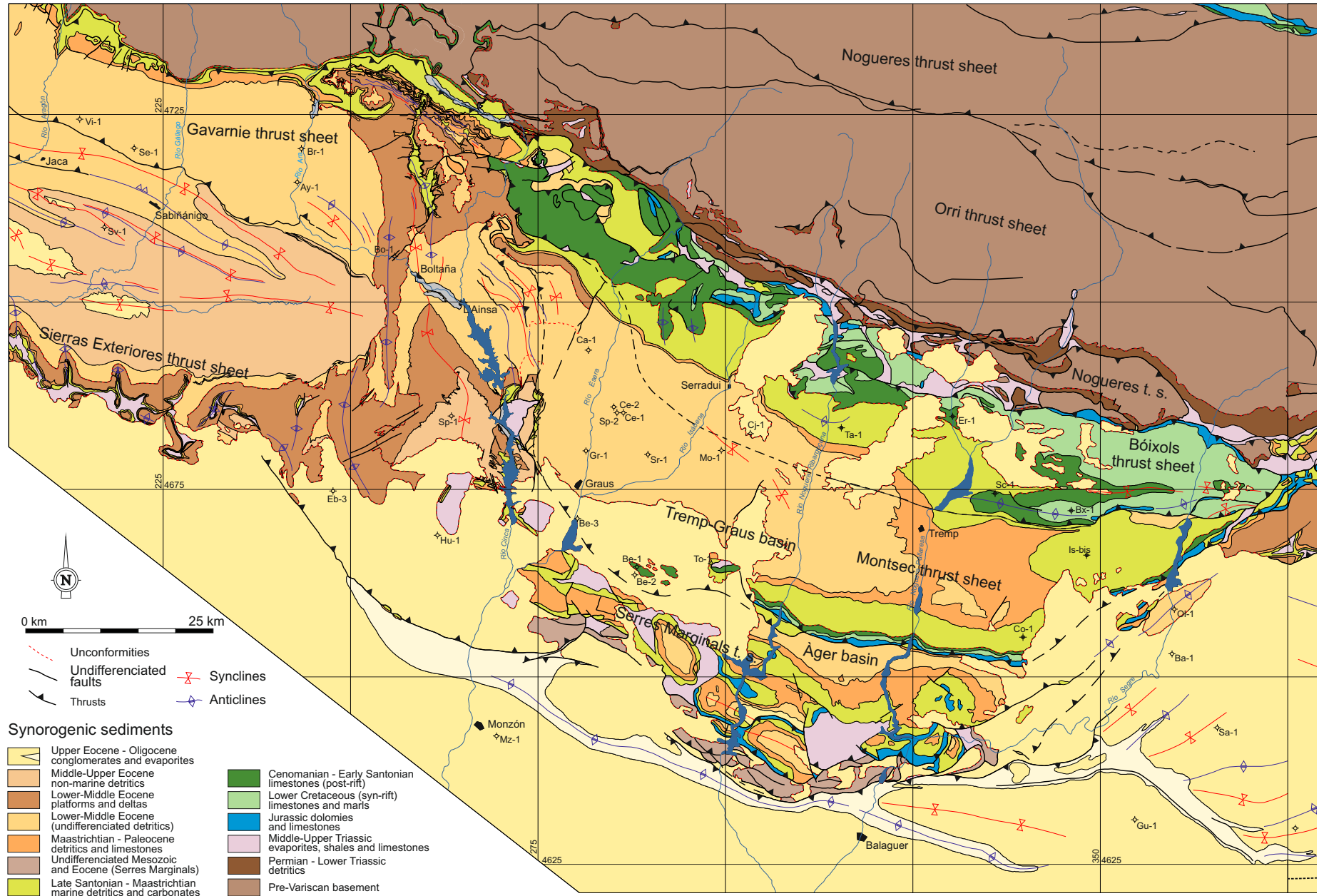






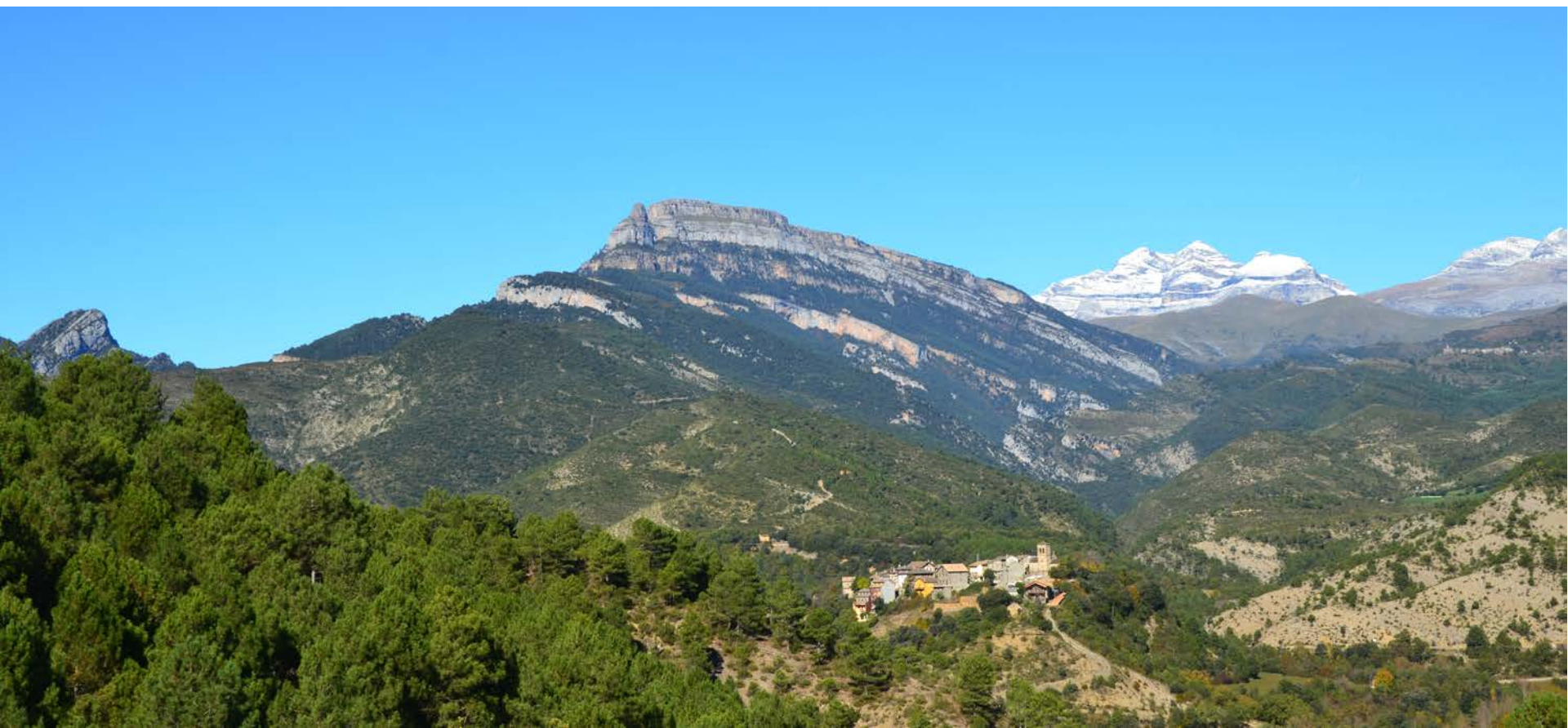


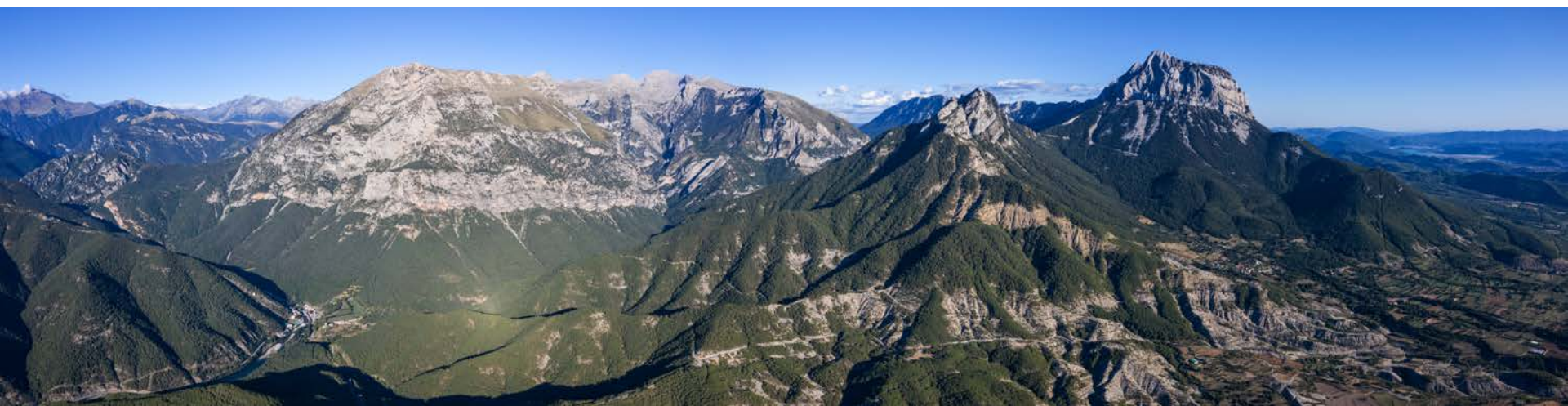
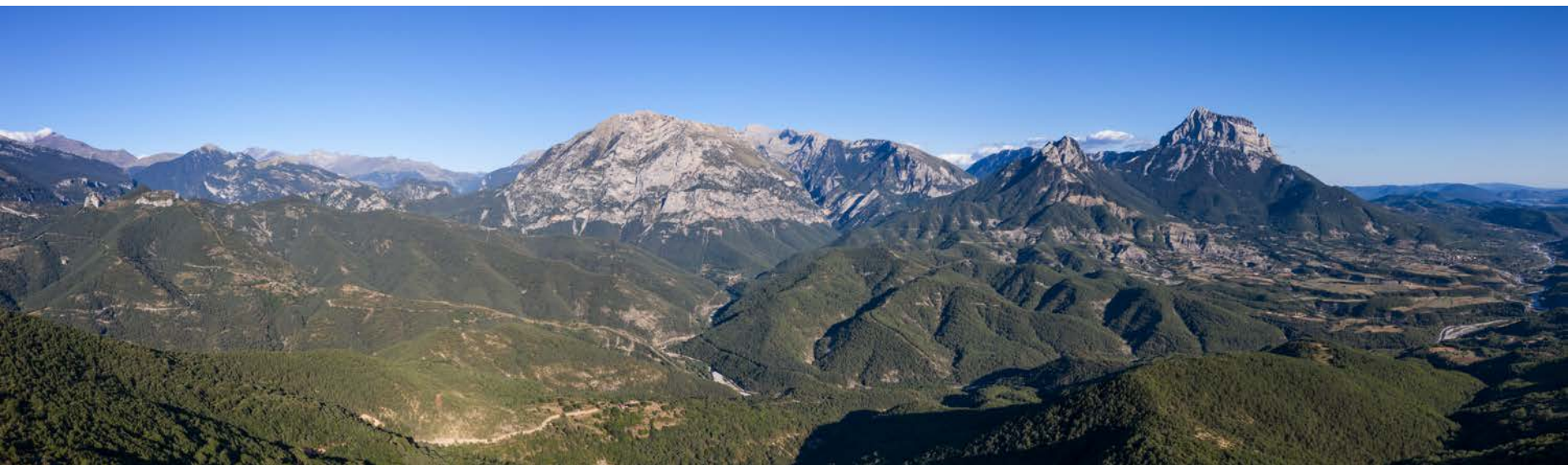
Stop 2-3: Gavarnie, Peña Montañesa and Cotiella ts.













Anàlisi integrada d'un Anàleg real de Conca i Reservori The virtual field trip

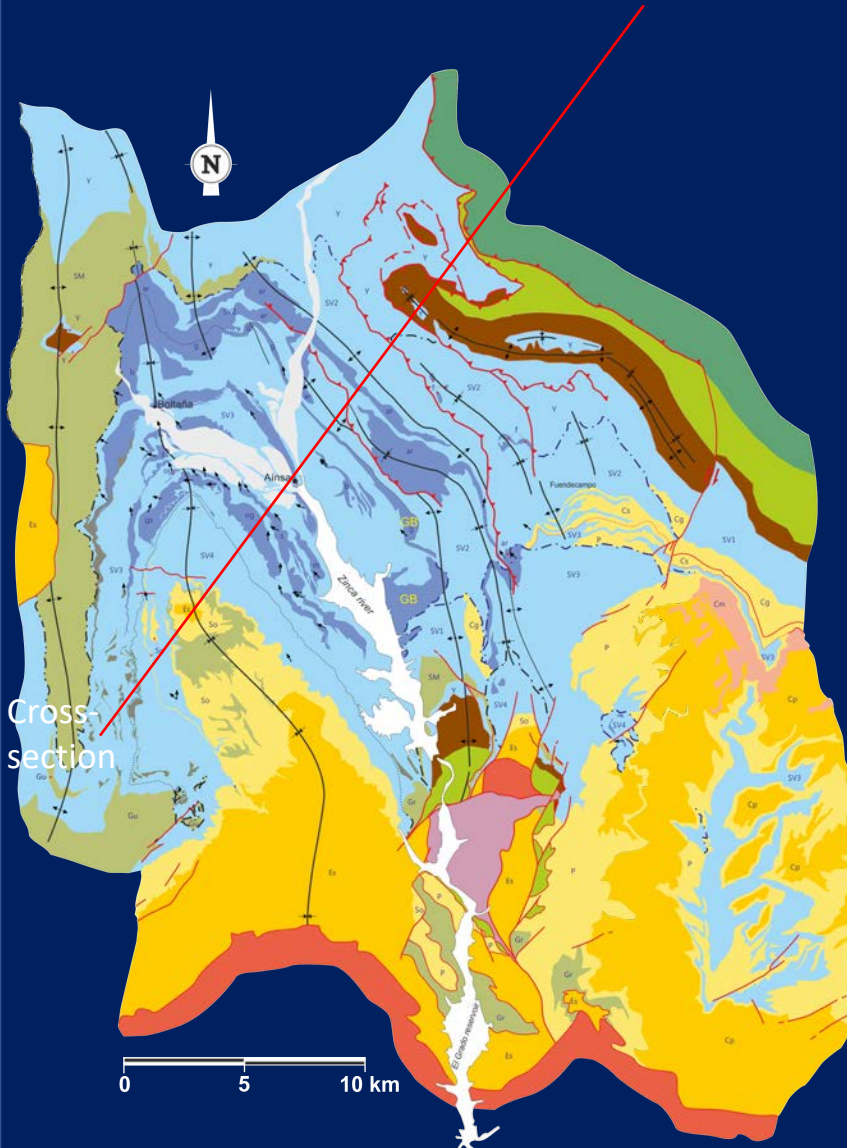
Day 3

**The Structural and stratigraphic setting of the
Ainsa basin: a cross-section at the eastern edge
of the Gavarnie thrust sheet**

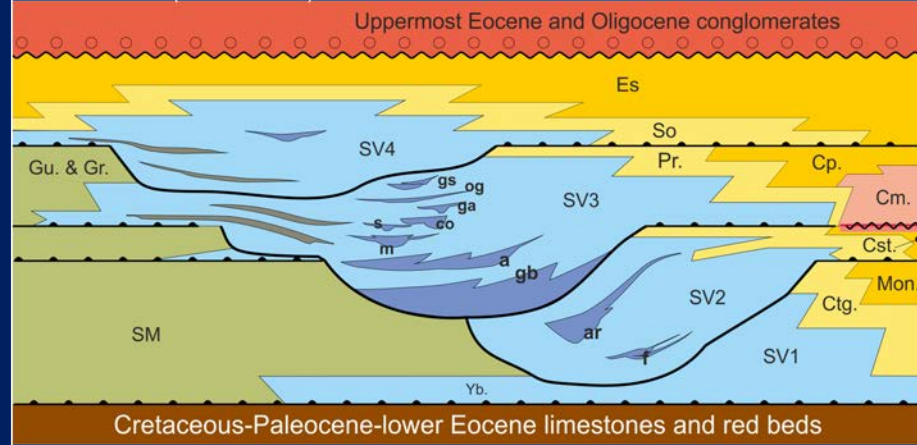




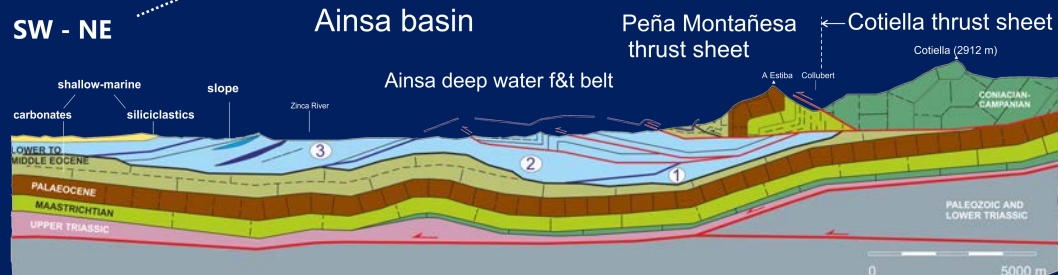
Structure and stratigraphy of the Ainsa Basin



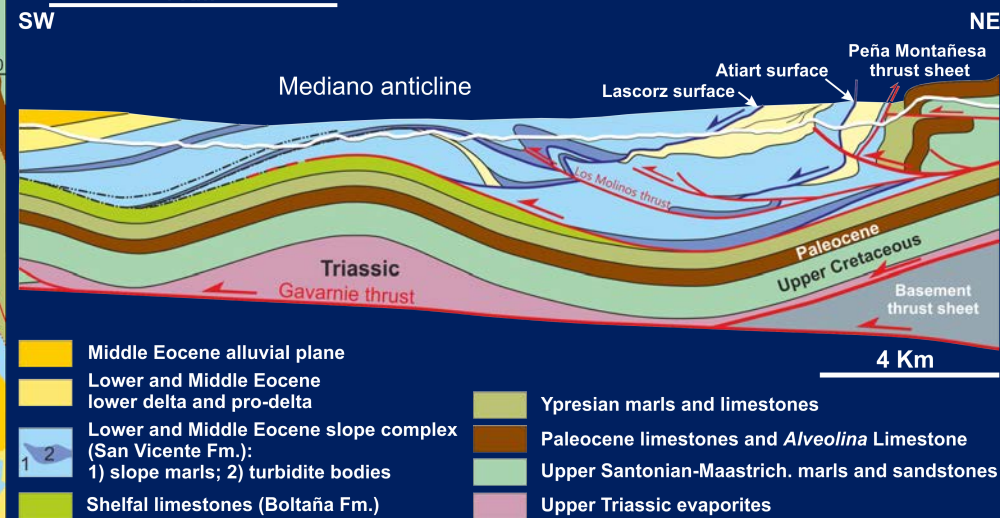
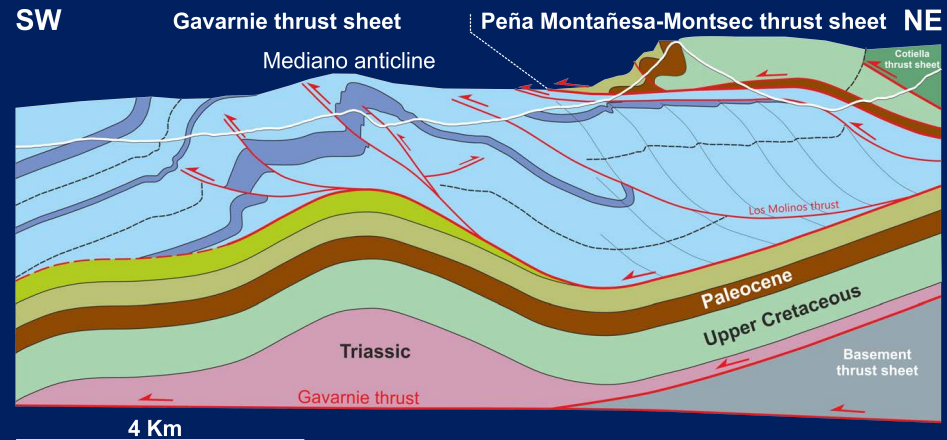
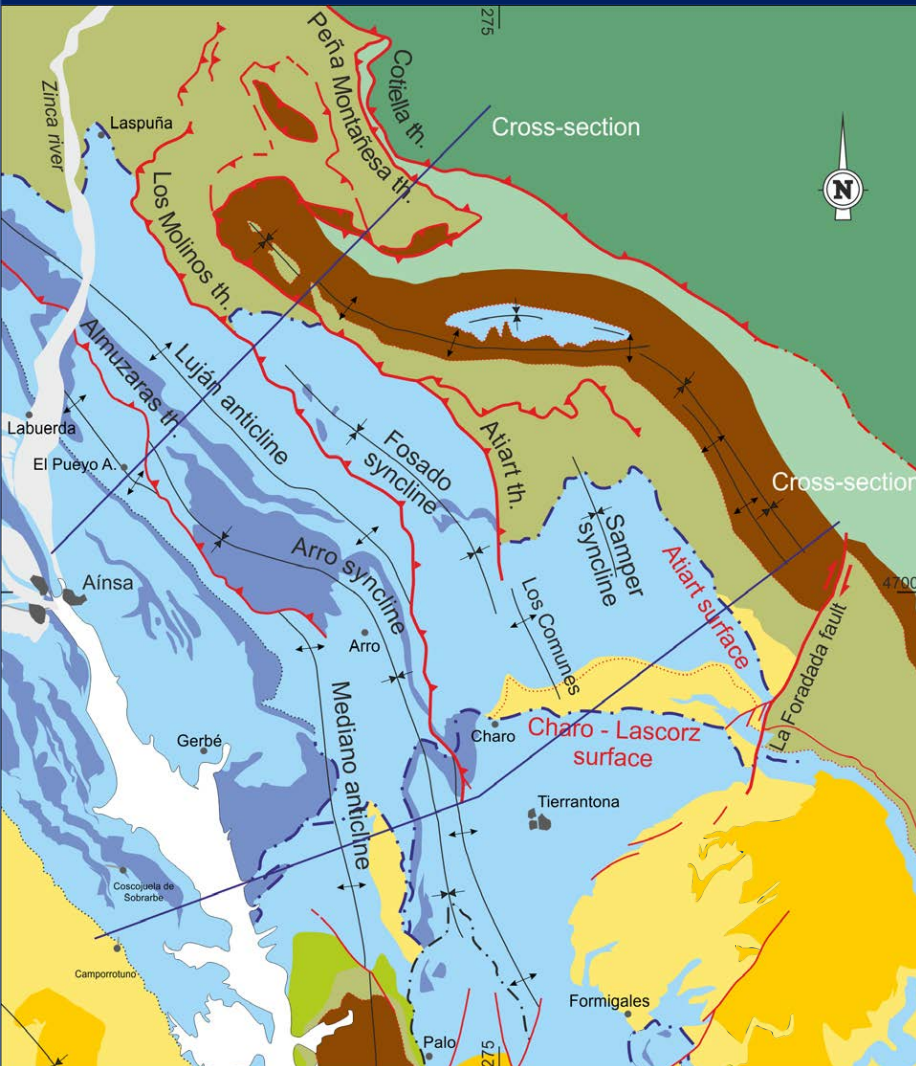
SW - NE (Not to scale)



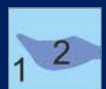
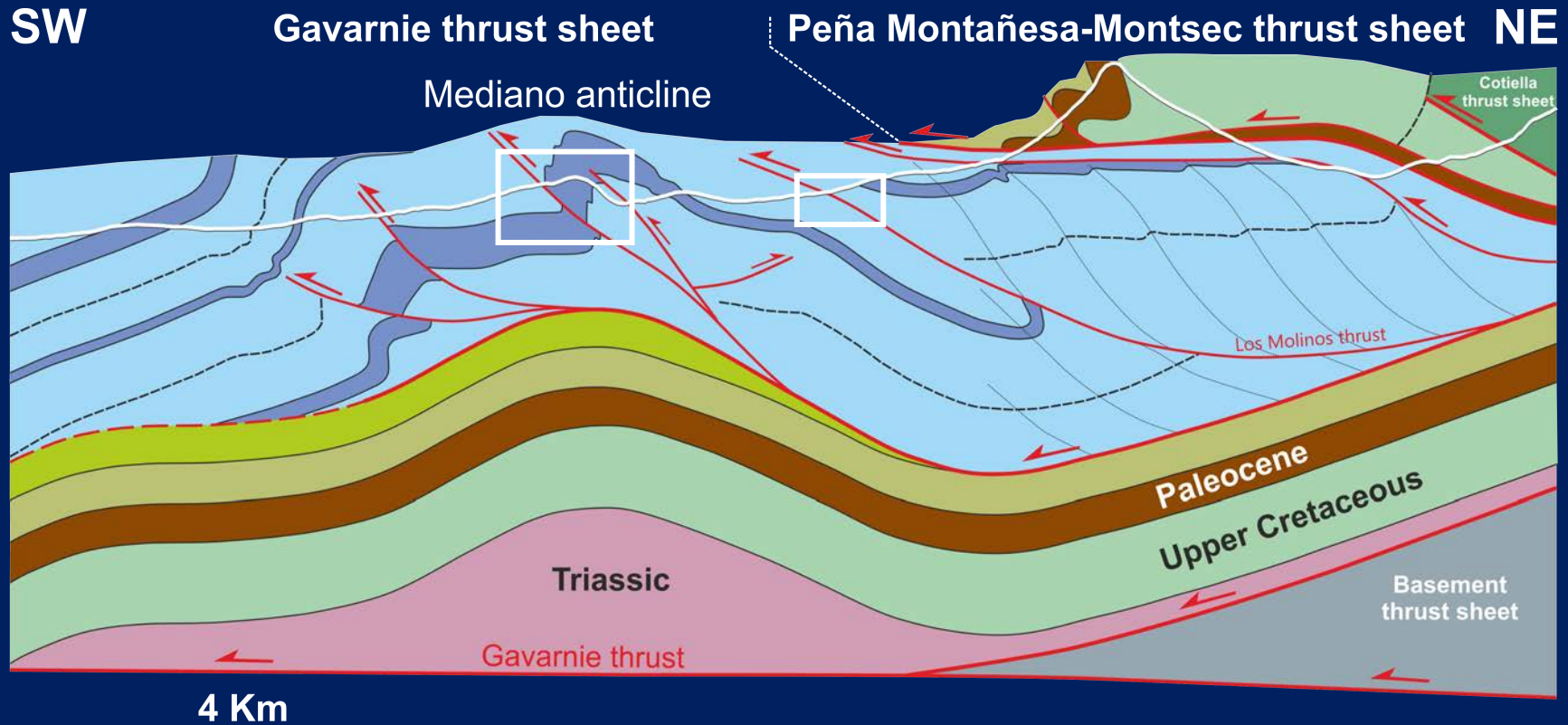
Allogroups	Age
IV	Bartonian and Priabonian
III	Lutetian
II	Cuisian
I	Ypresian
	Therapsid



Structure of the deepwater fold and thrust belt



Structure of the deepwater fold and thrust belt



Lower and Middle Eocene slope complex (San Vicente Fm.):
1) slope marls; 2) turbidite bodies



Shelfal limestones (Boltaña Fm.)
Ypresian marls and limestones



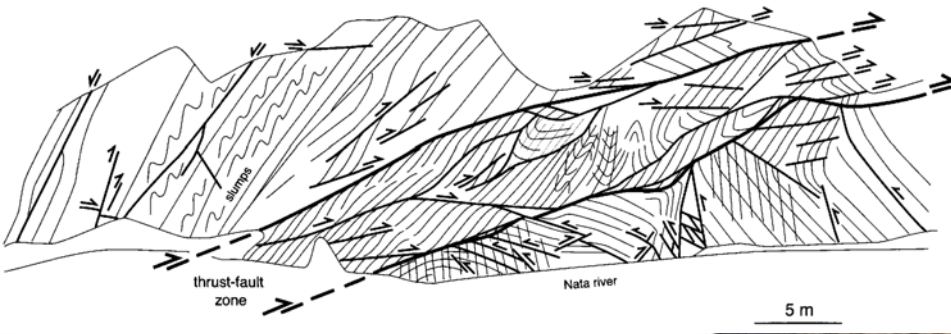
Paleocene limestones and *Alveolina* Limestone
Upper Santonian-Maastrich. marls and sandstones
Upper Cenomanian-lower Santonian limestones
Upper Triassic evaporites

NE - SW



NE

SW

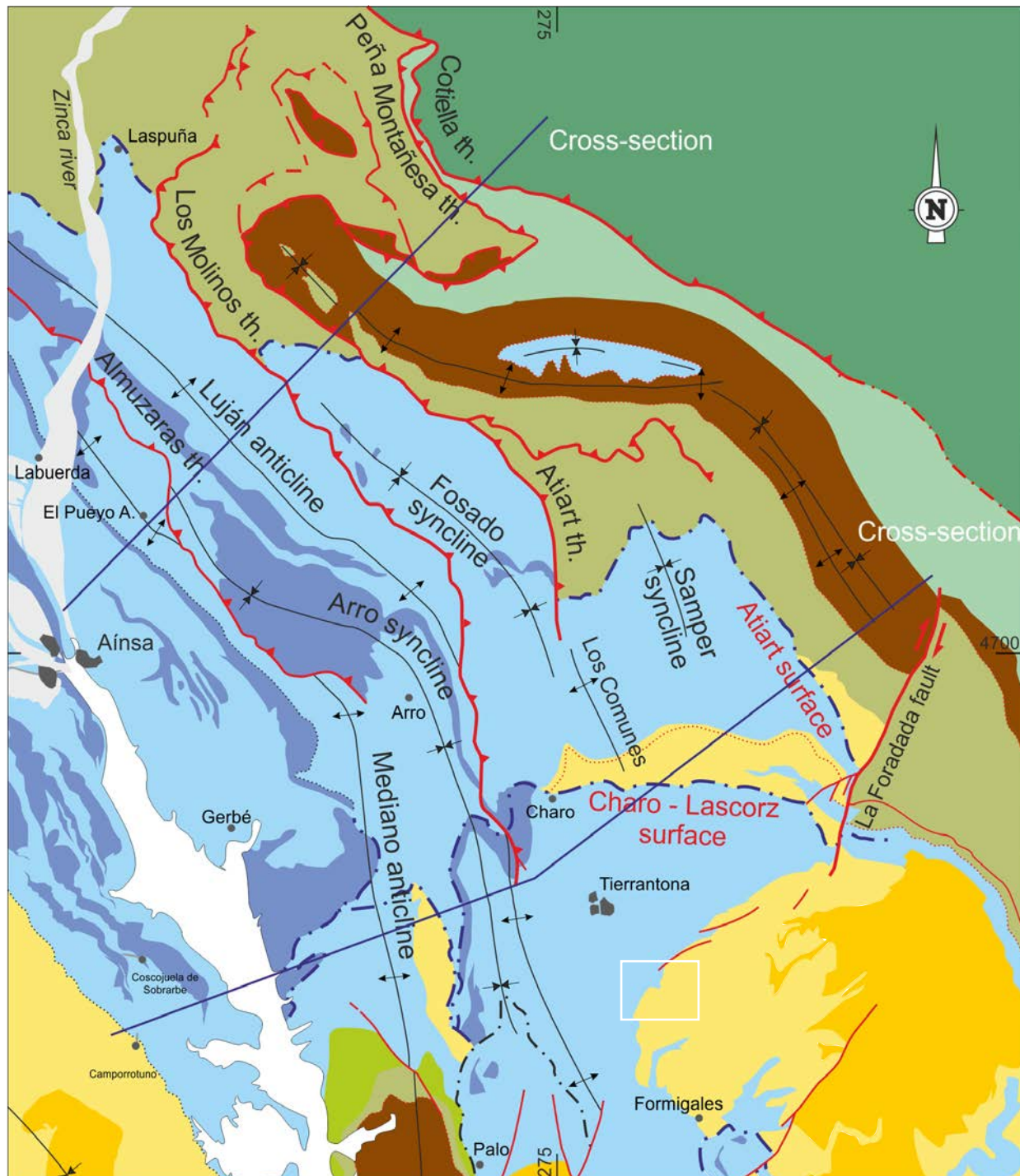


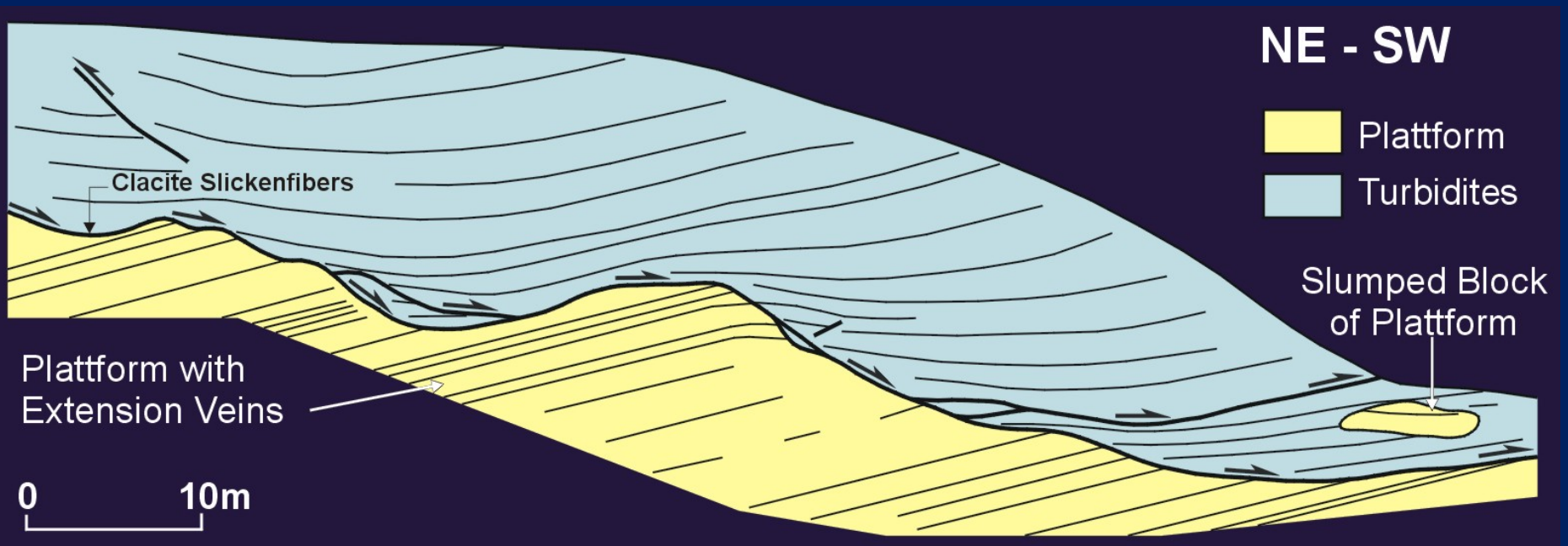
Los Molinos thrust



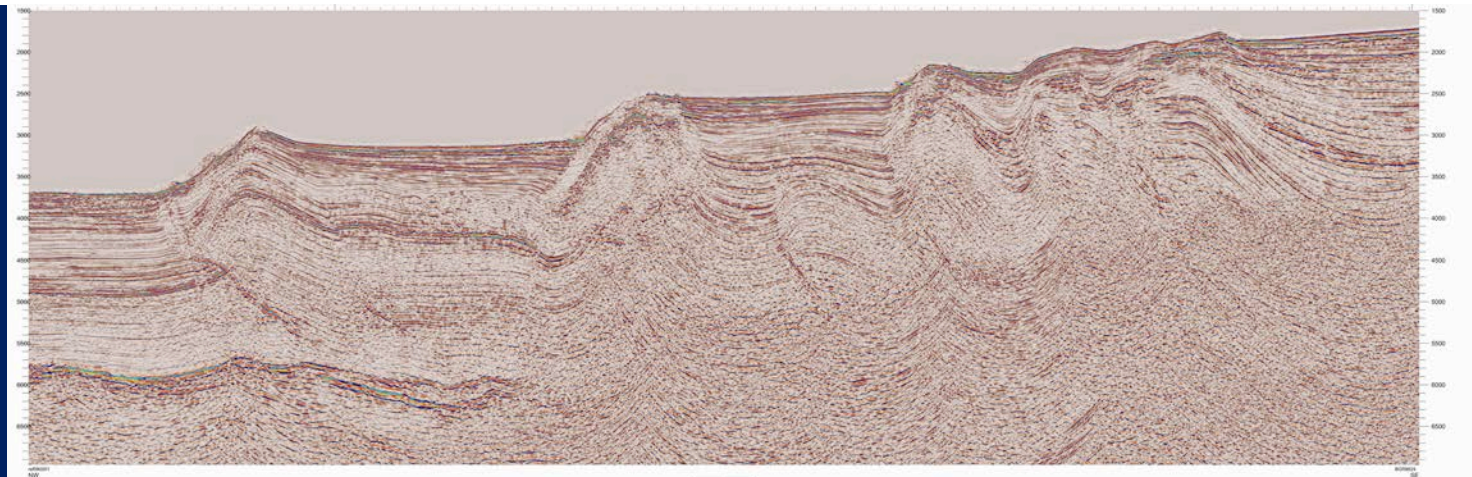
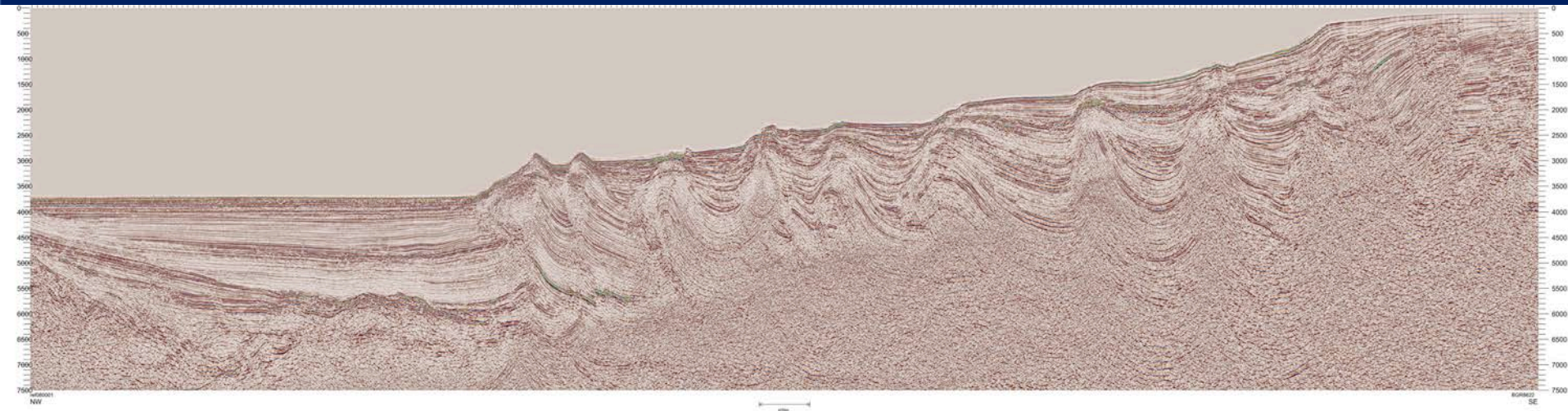
Atiart thrust = Montsec thrust

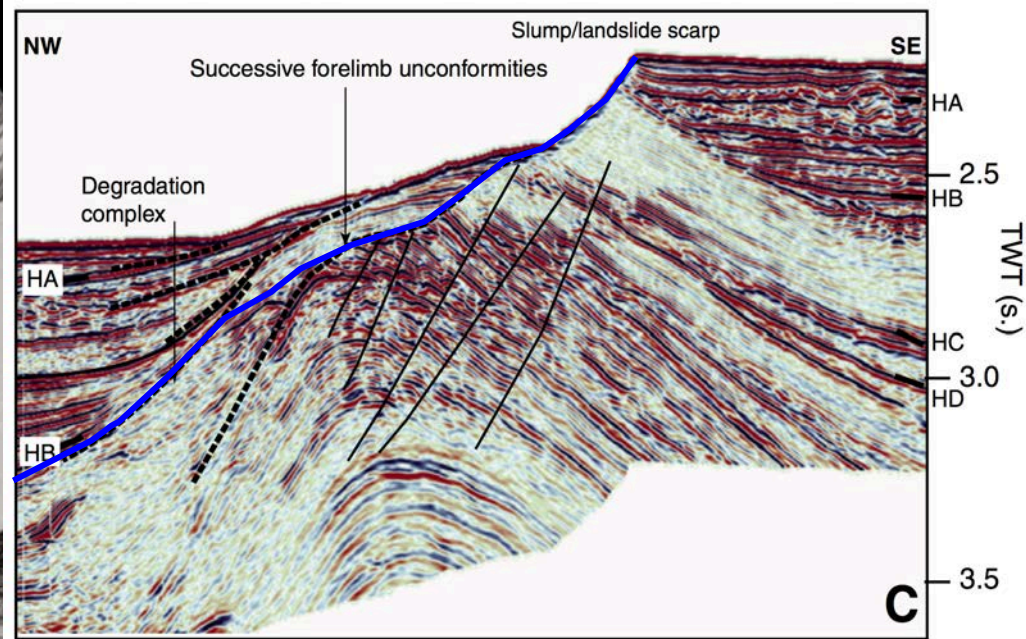
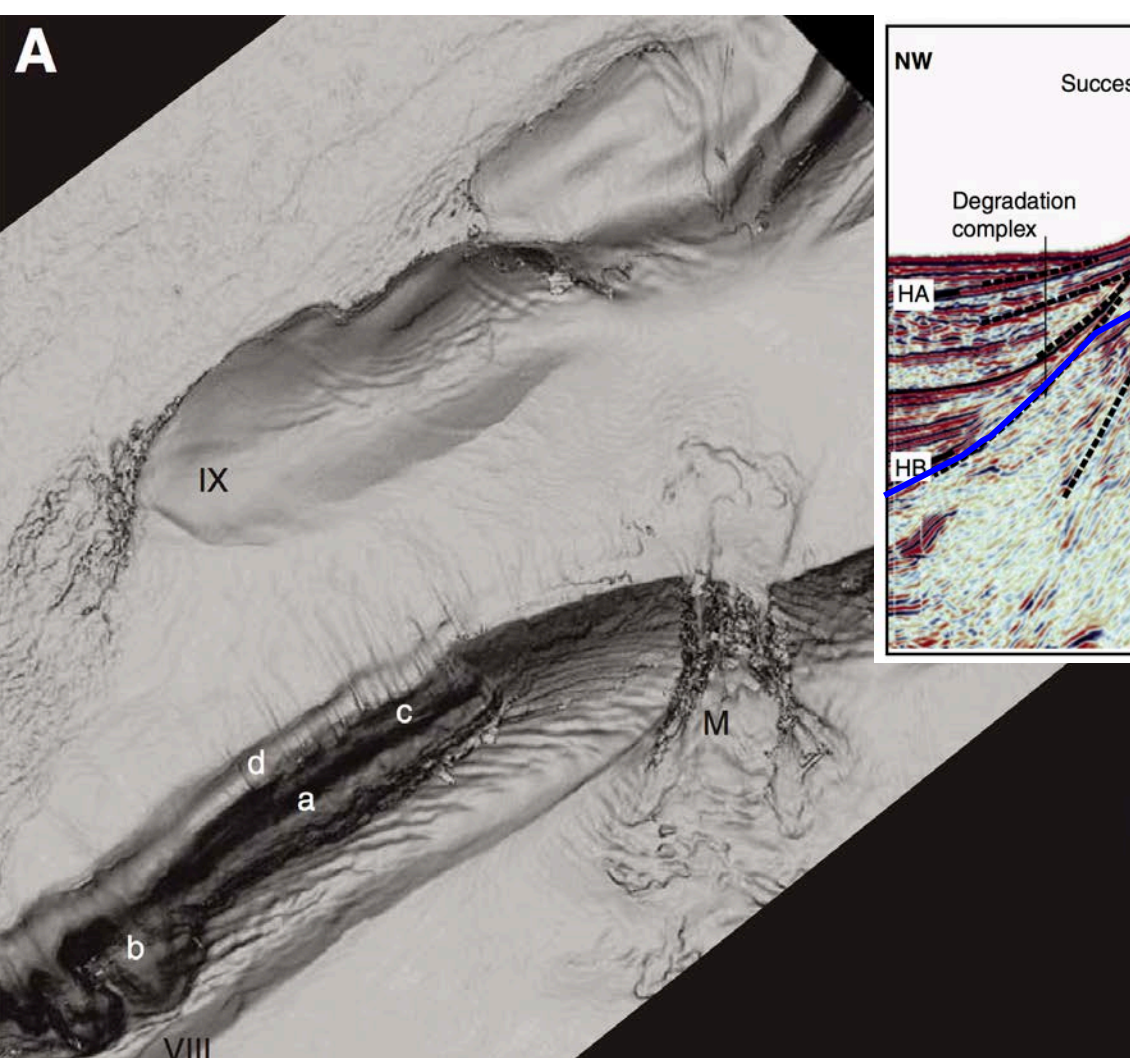






Sabah deepwater fold and thrust belt



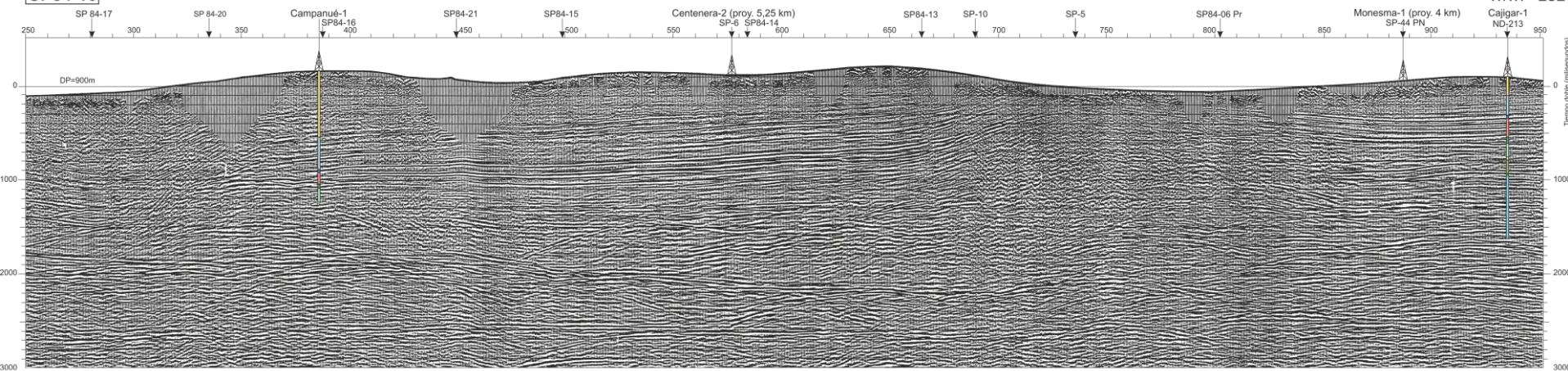


Deepwater Fold Belt -
Anticlinal Collapse,
Offshore Brunei

Seismic image of the seafloor
reflection shows curved
degradation faults at the crests
of thrust fault propagation folds

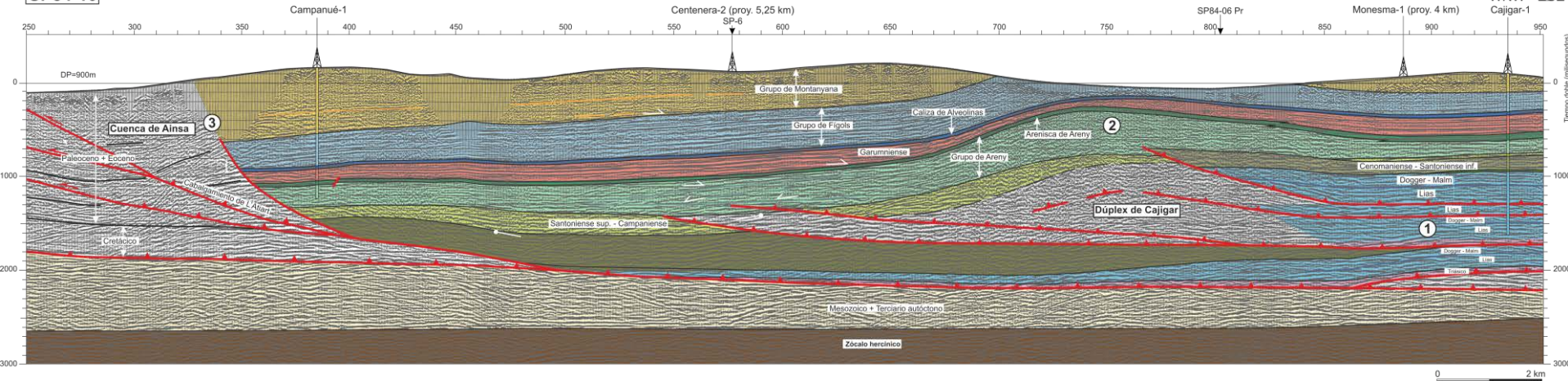
SP84-10

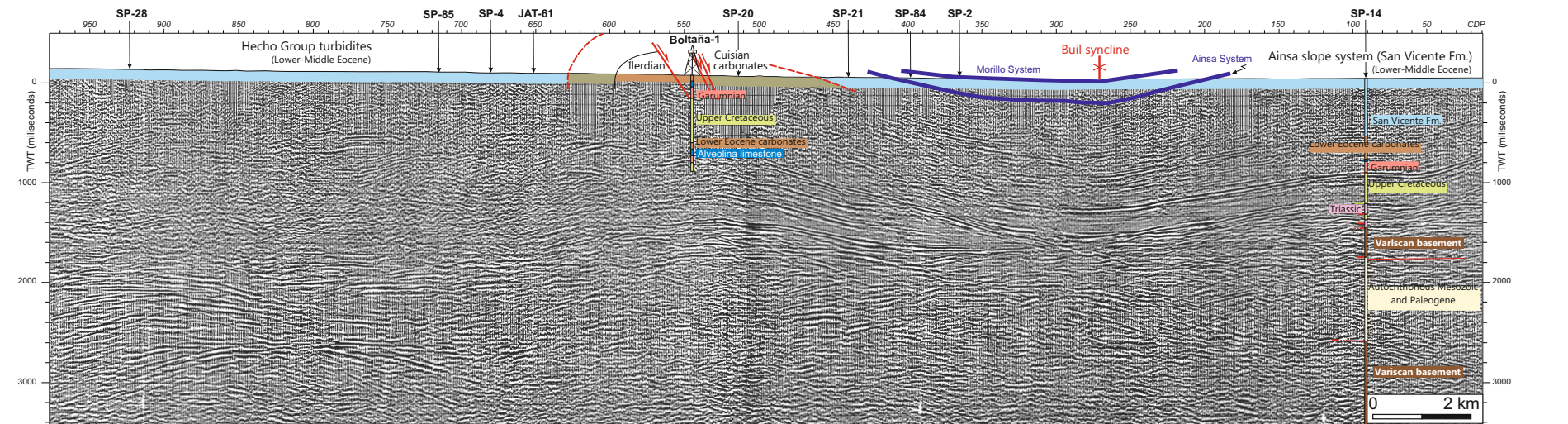
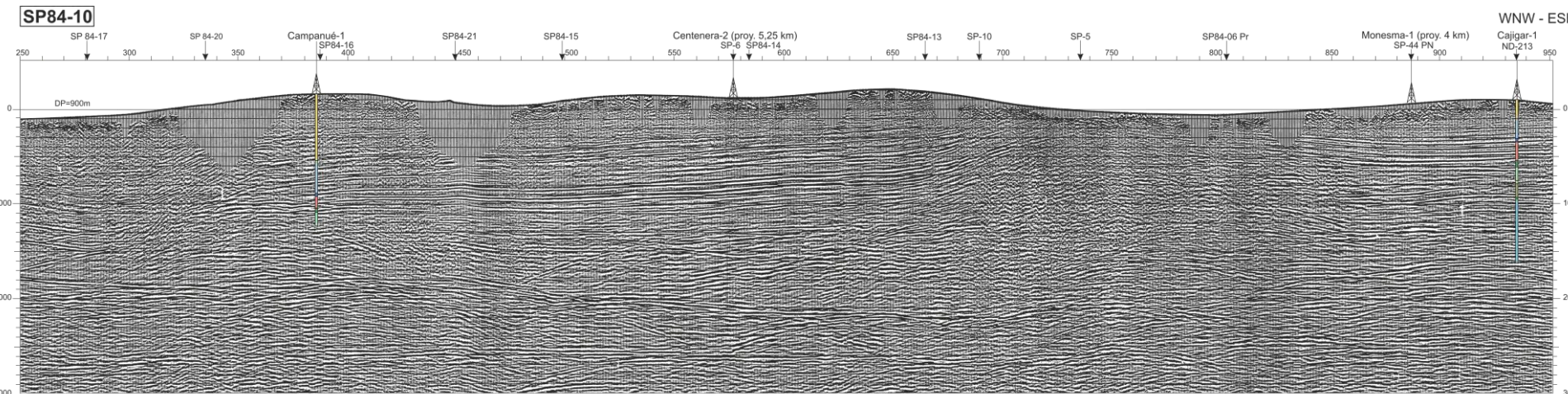
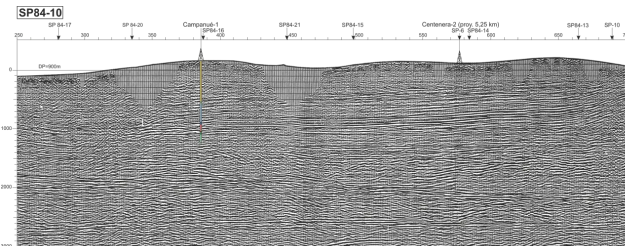
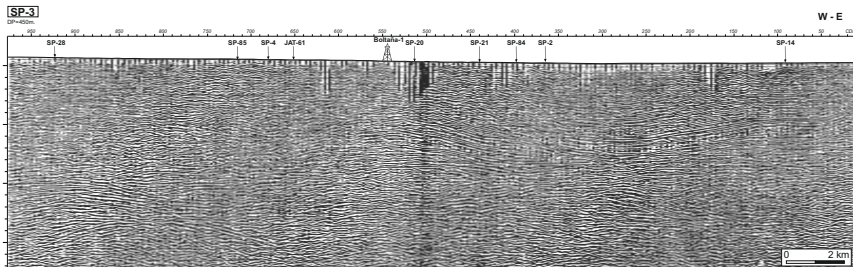
WNW - ESE



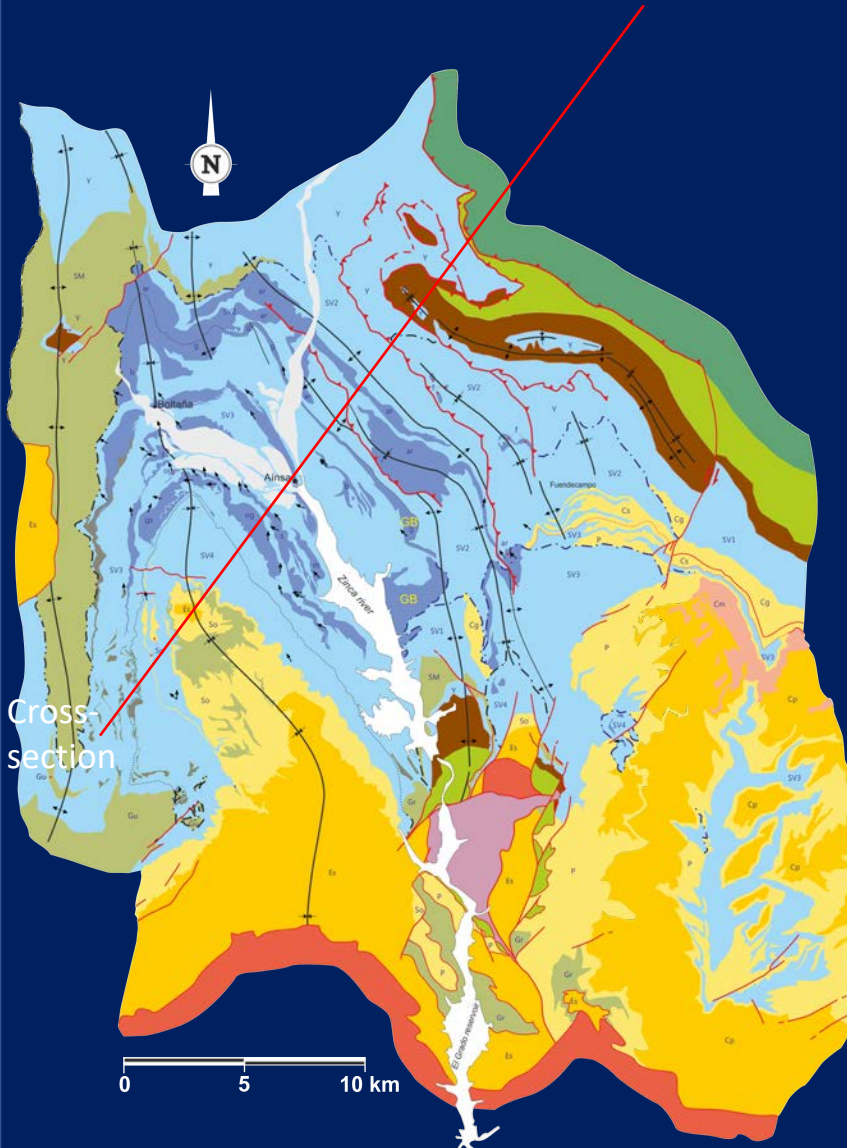
SP84-10

WNW - ESE

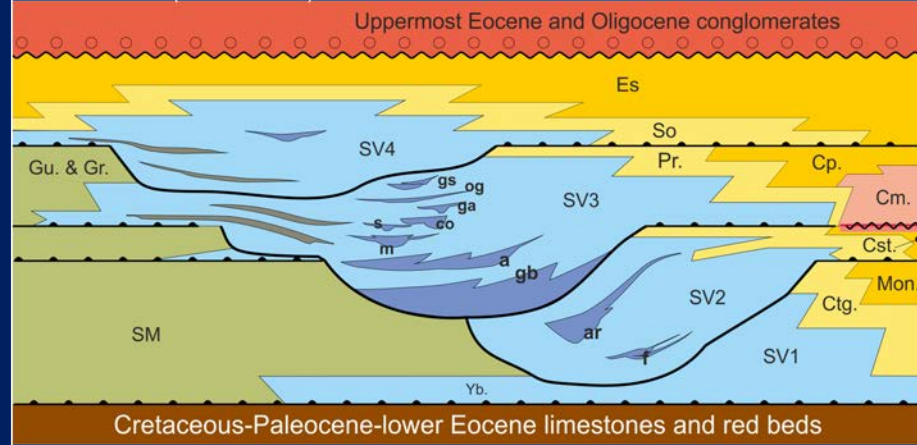




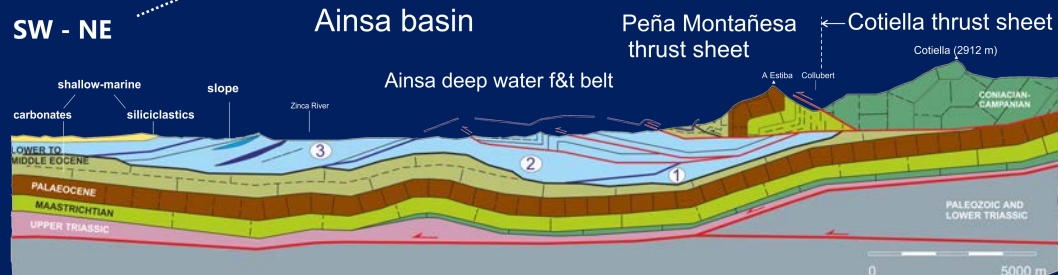
Structure and stratigraphy of the Ainsa Basin



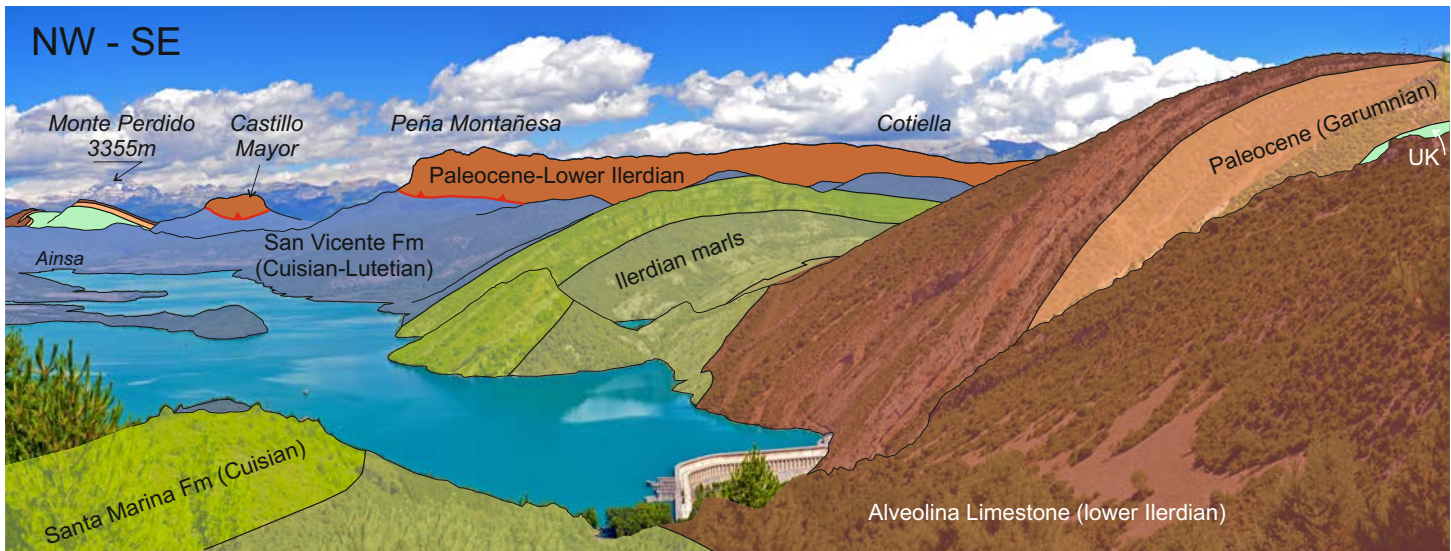
SW - NE (Not to scale)



Allogroups	Age
IV	Barionian and Priabonian
III	Lutetian
II	Ypresian
I	Therapsid

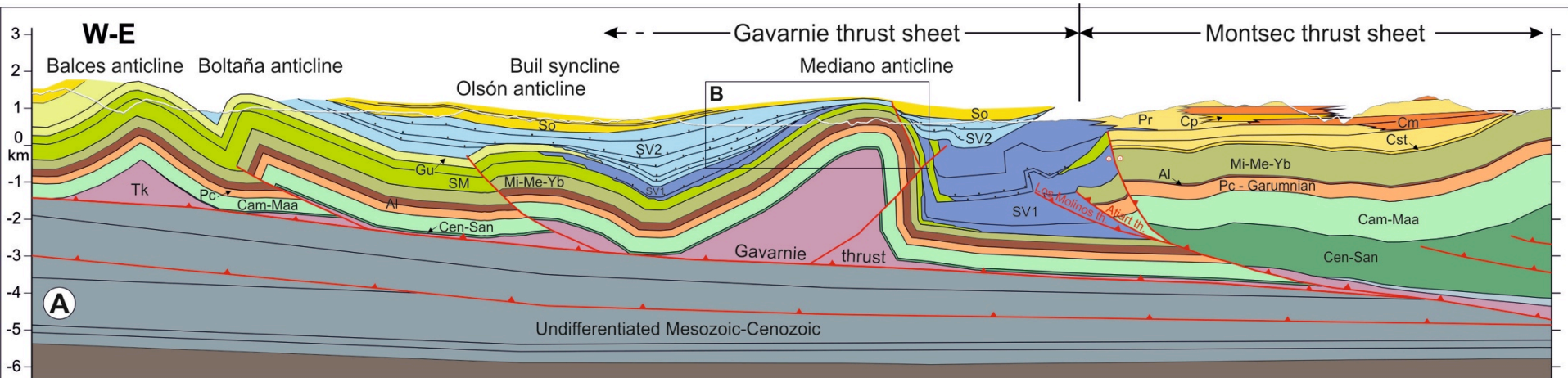






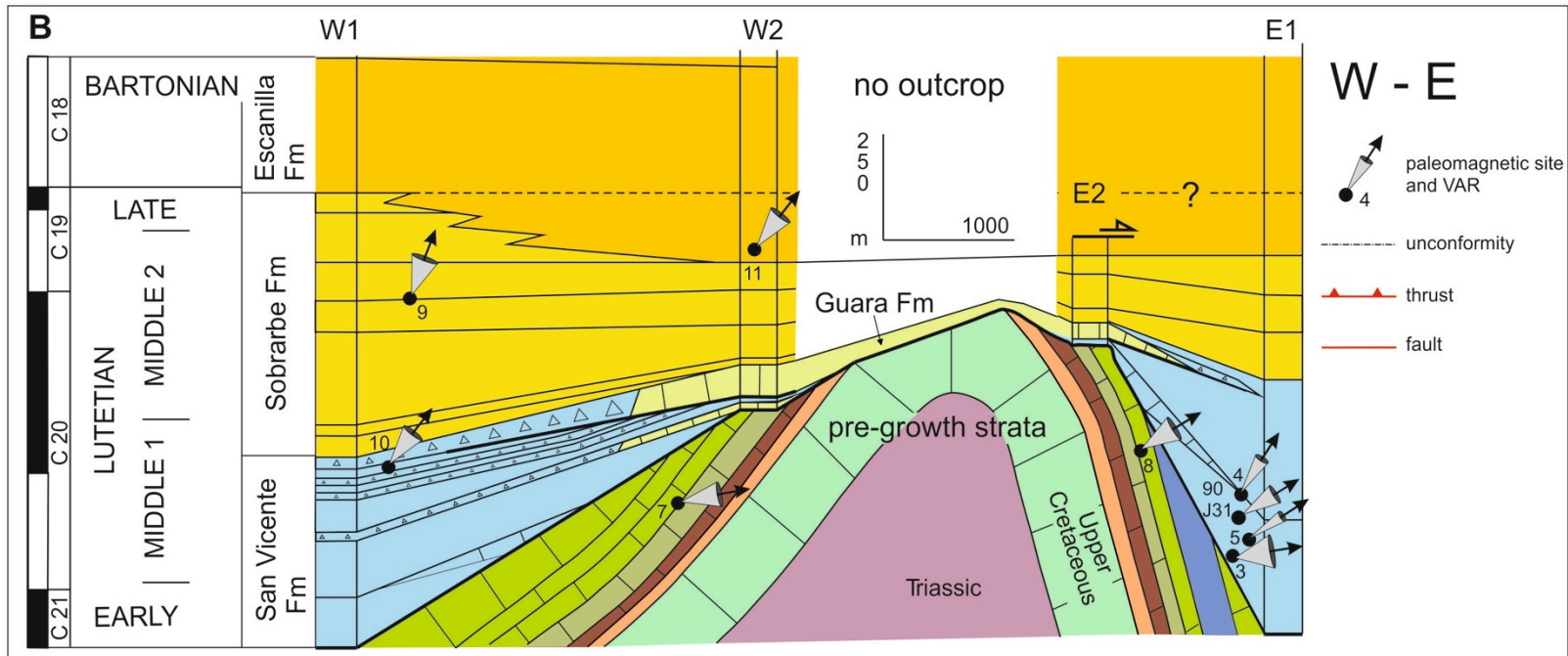


Cross-sections across the Mediano anticline



x=254002
y=4689203

x=276500
y=4690823













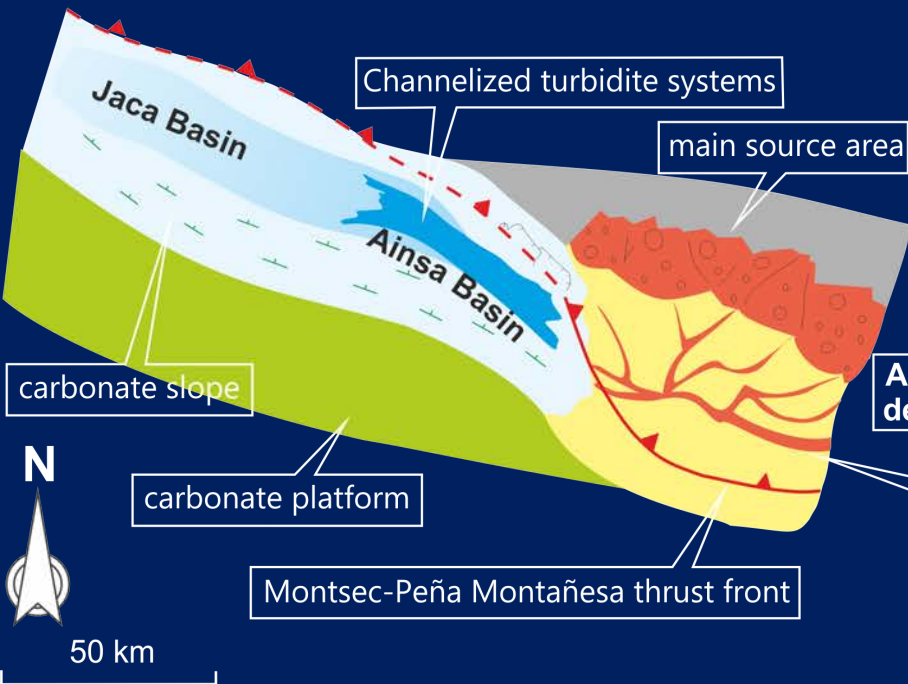


Ainsa Basin

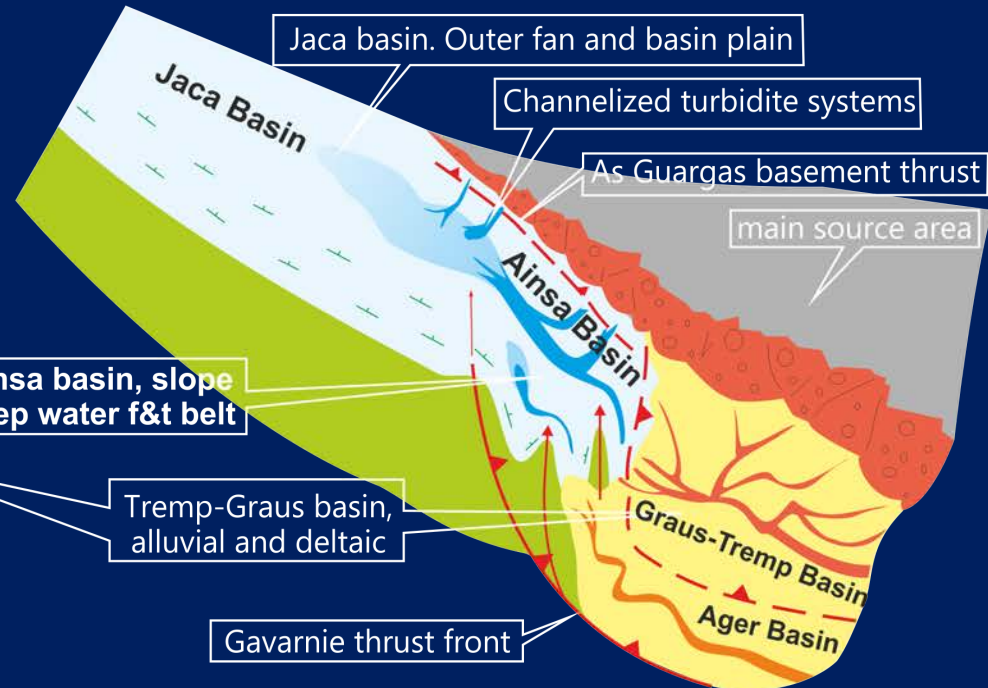
**Foredeep stage in the footwall of the
Peña Montañesa thrust sheet**

**Piggy-back stage in the hangingwall
of the Gavarnie thrust sheet**

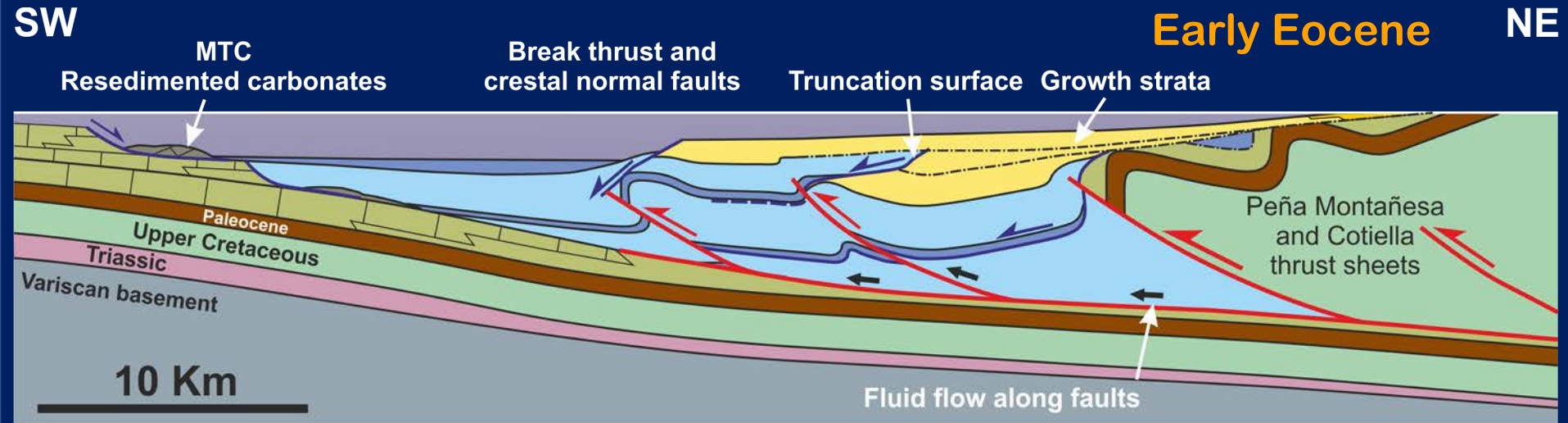
Early Eocene: foredeep stage



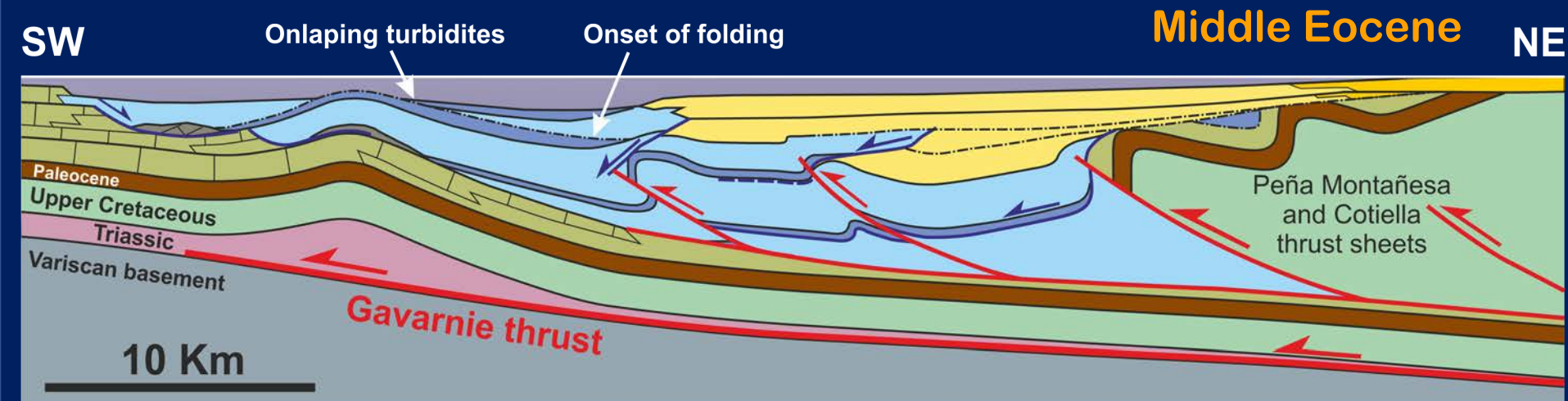
Middle Eocene: piggy-back stage

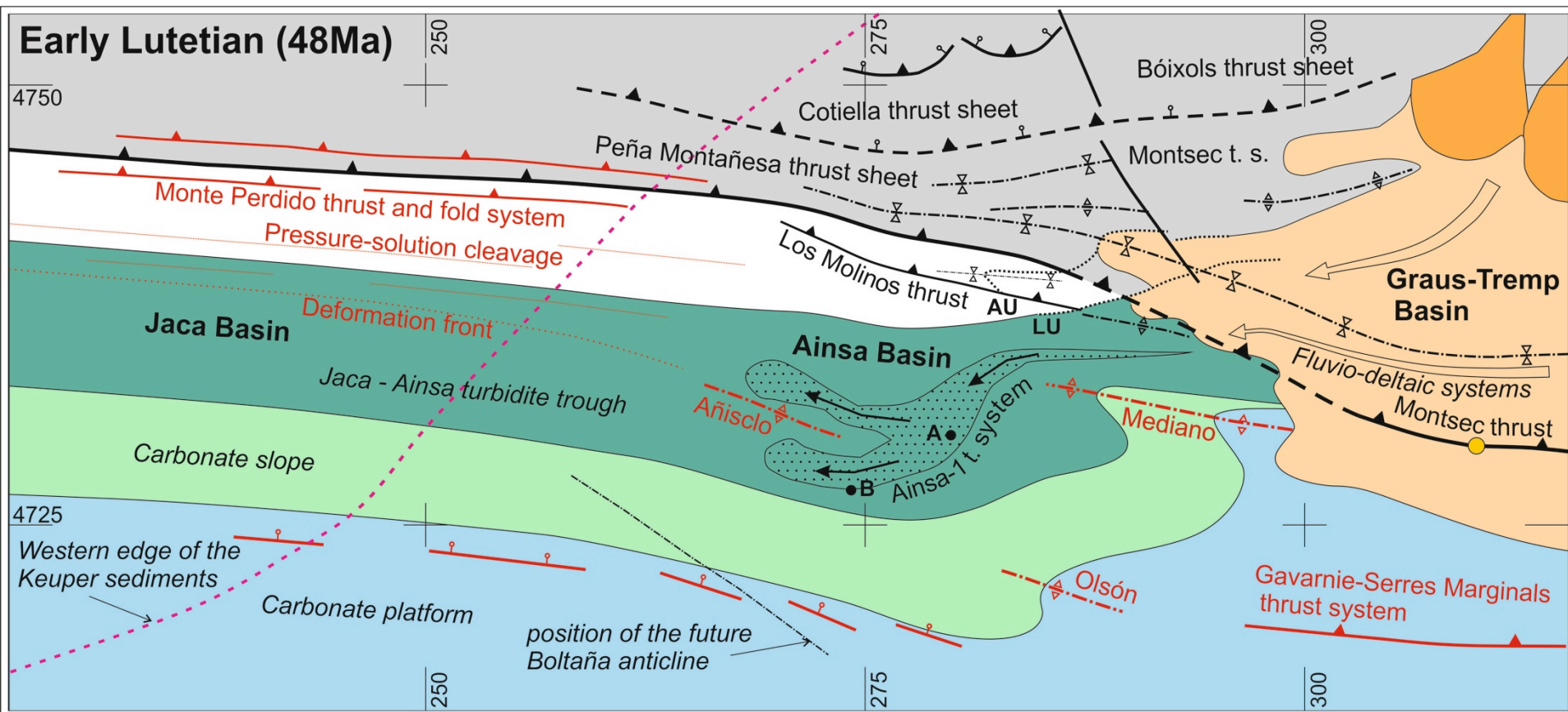


Foredeep stage



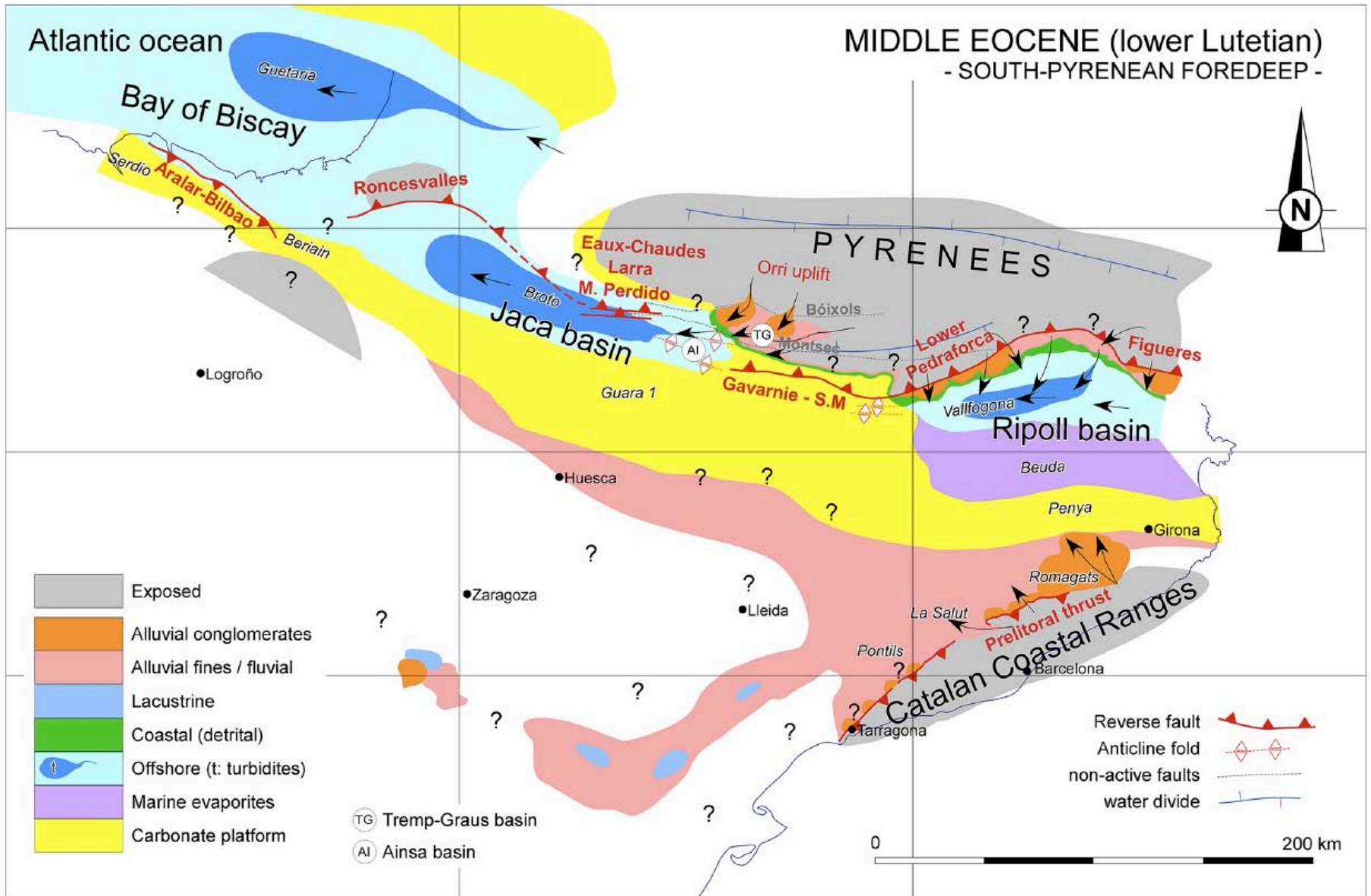
Piggy-back stage

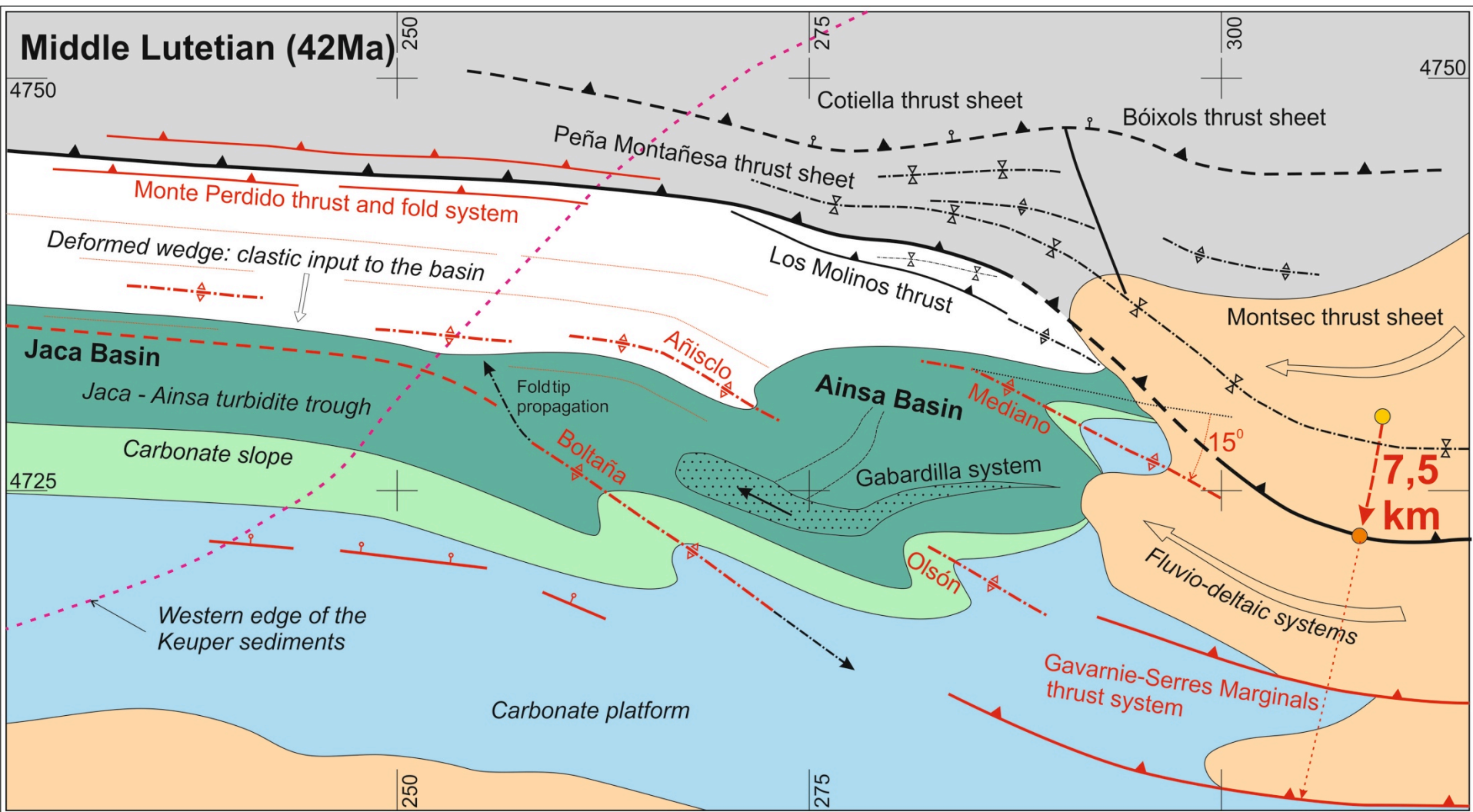


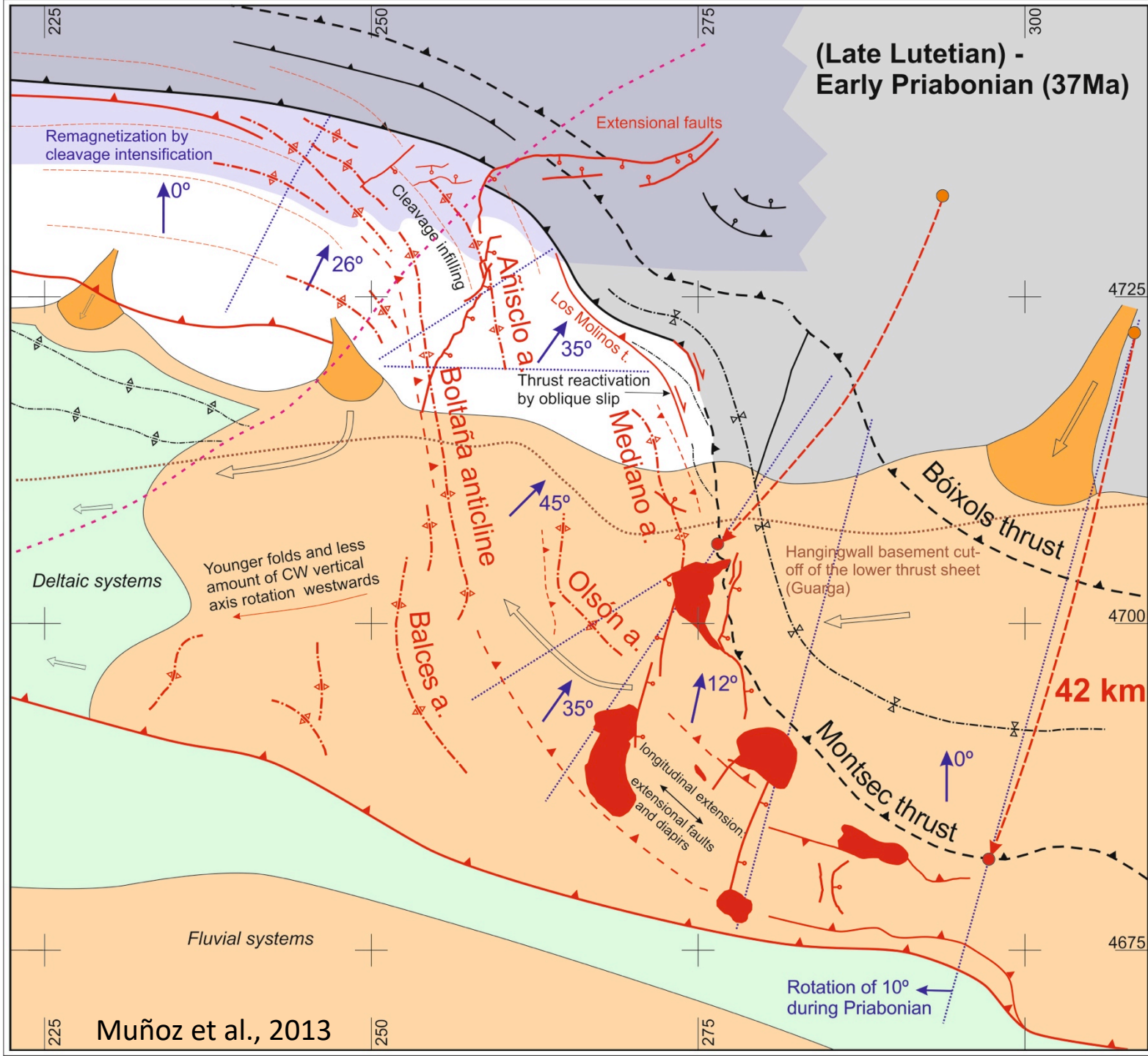


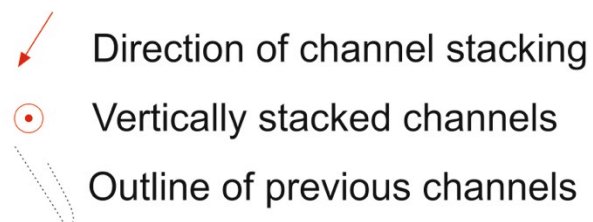
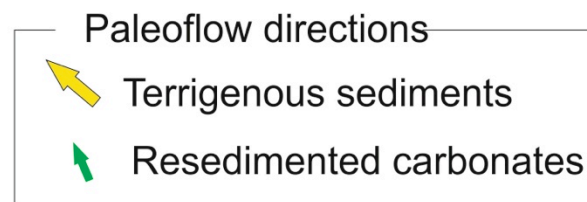
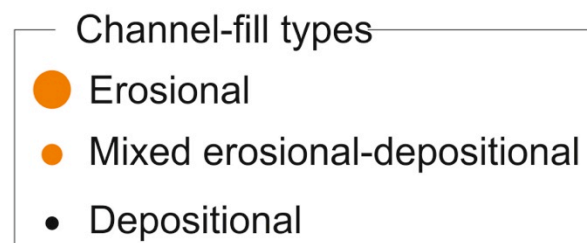
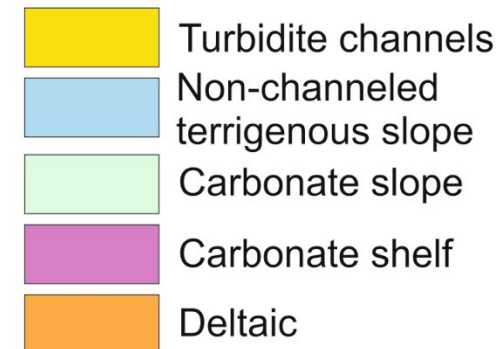
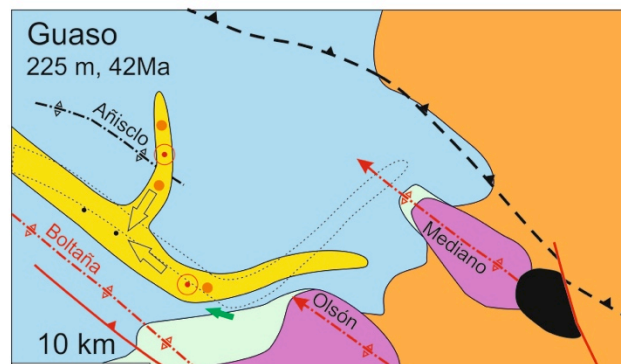
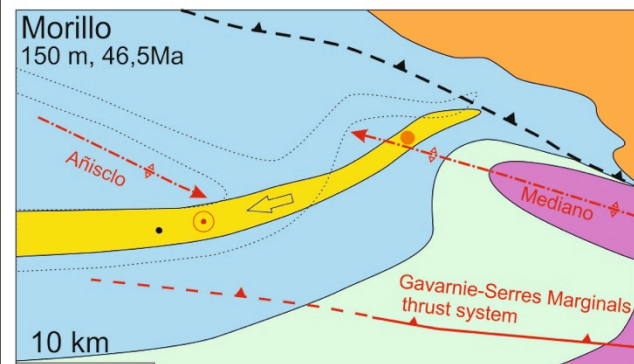
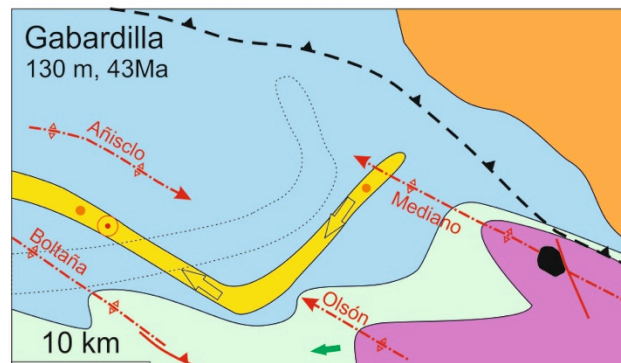
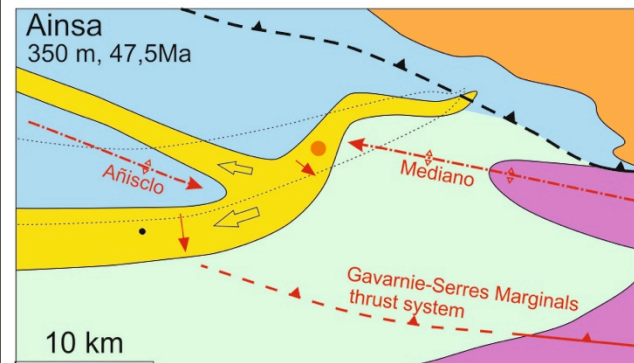
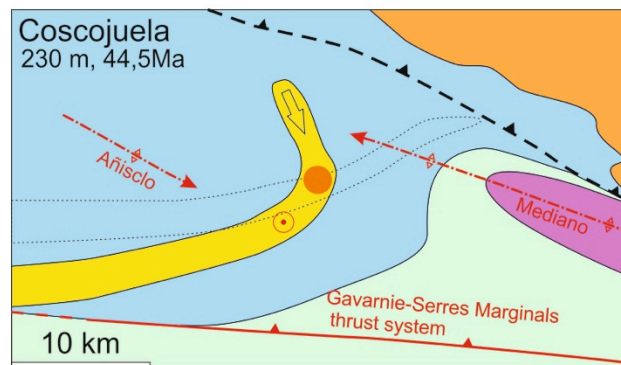
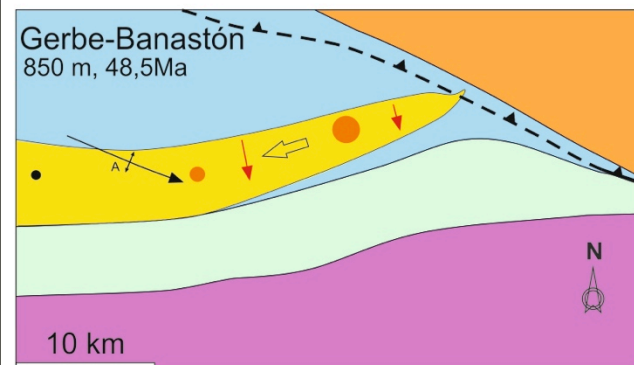
Muñoz et al., 2013

B

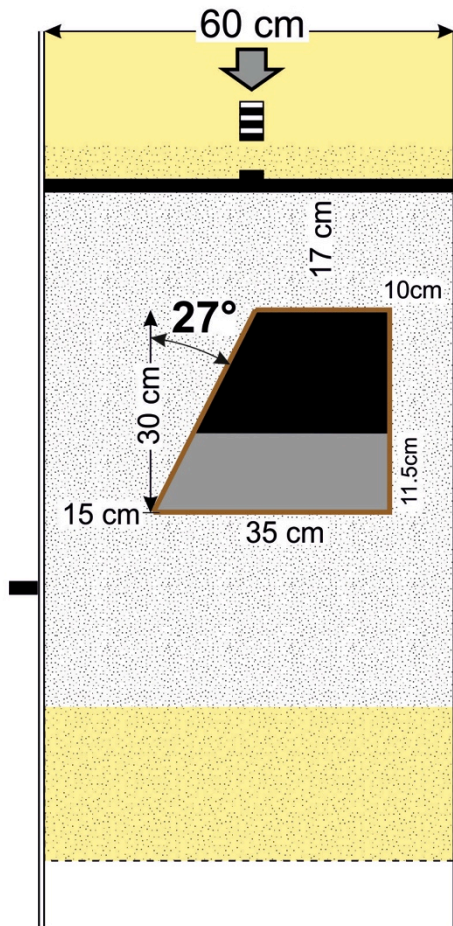




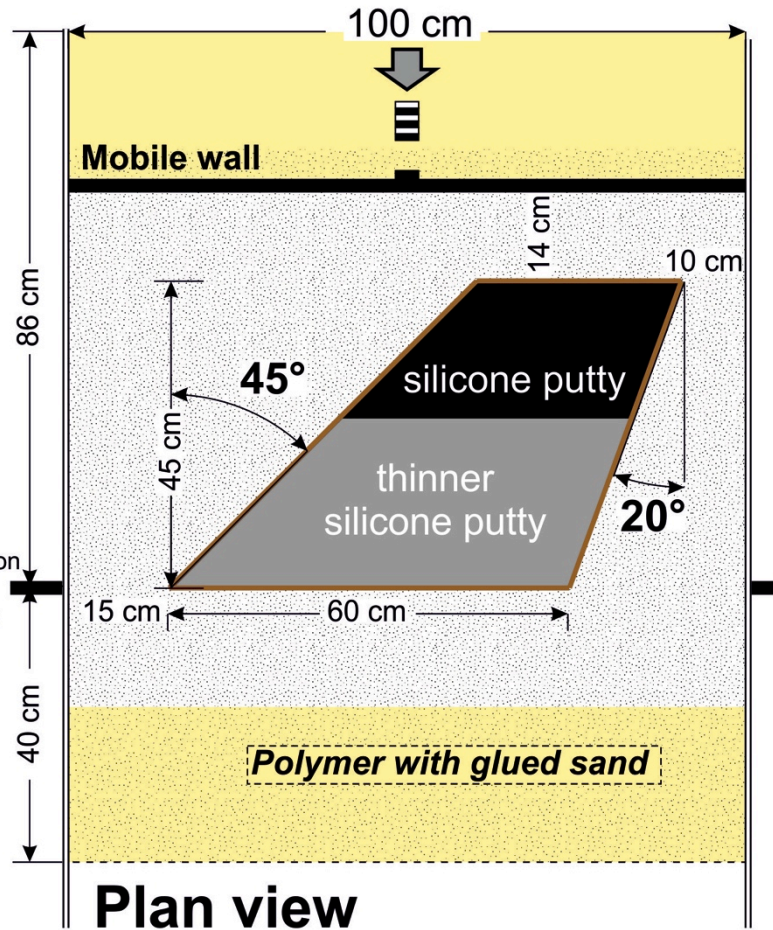




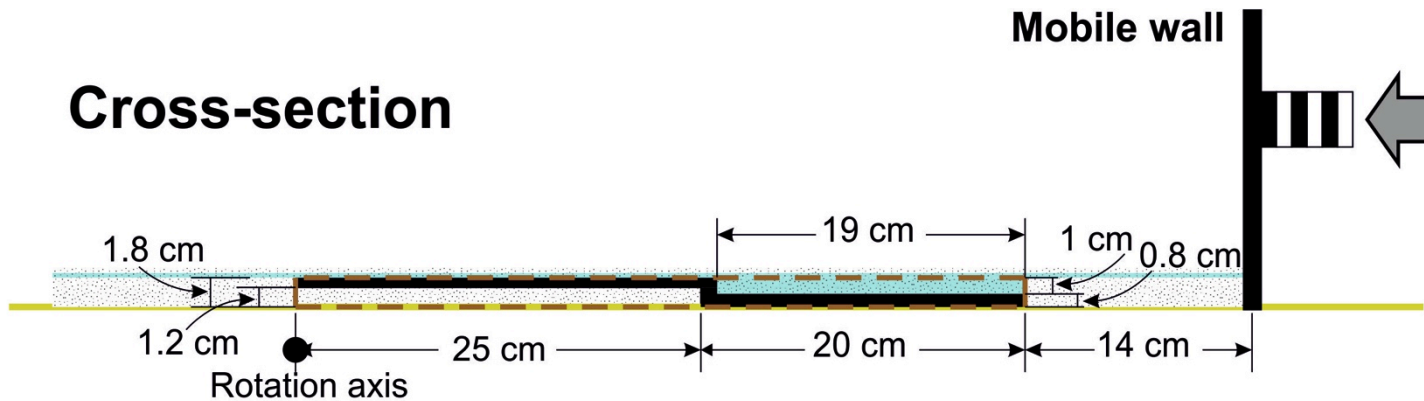
MODEL R03



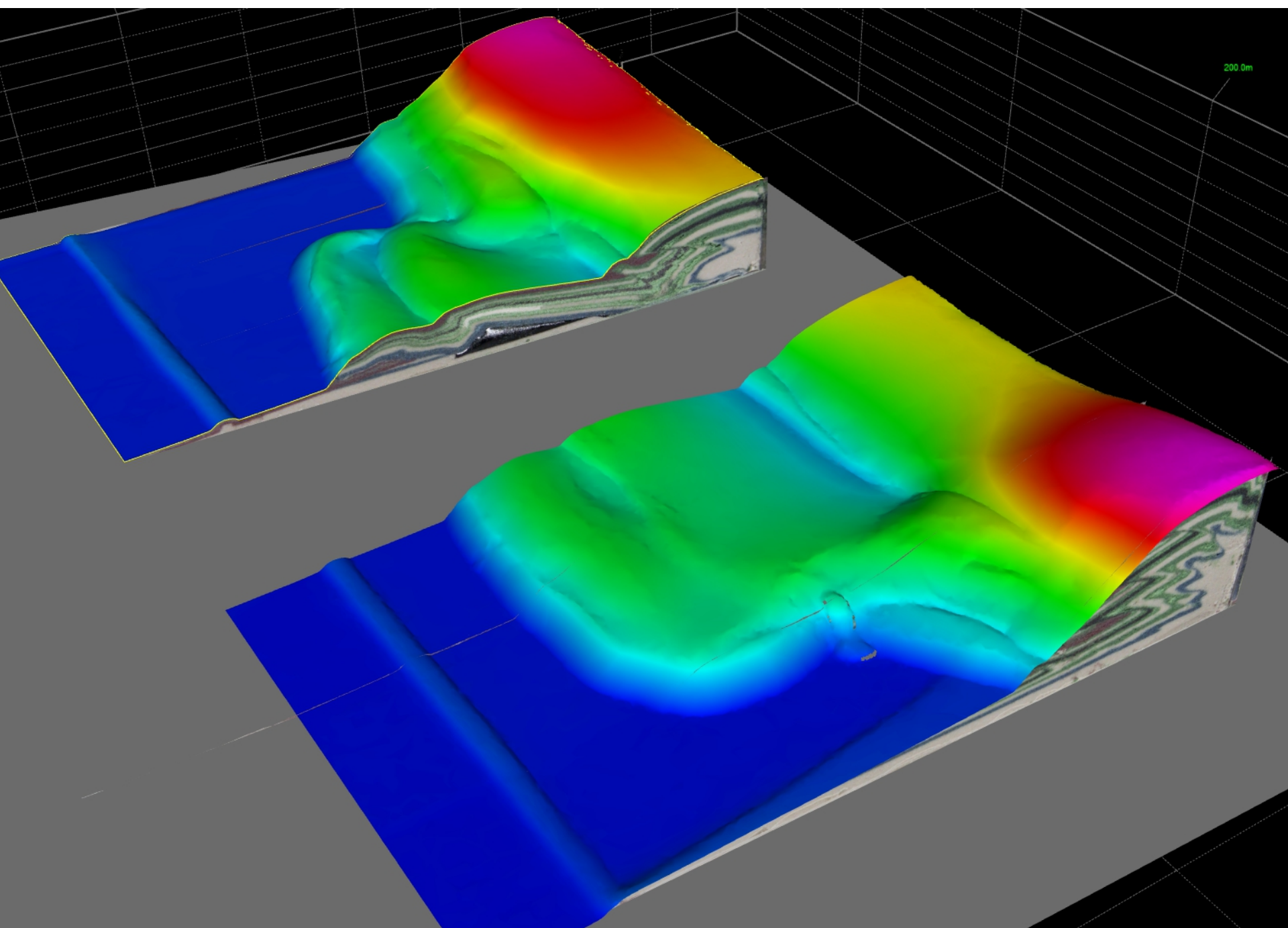
MODEL R04

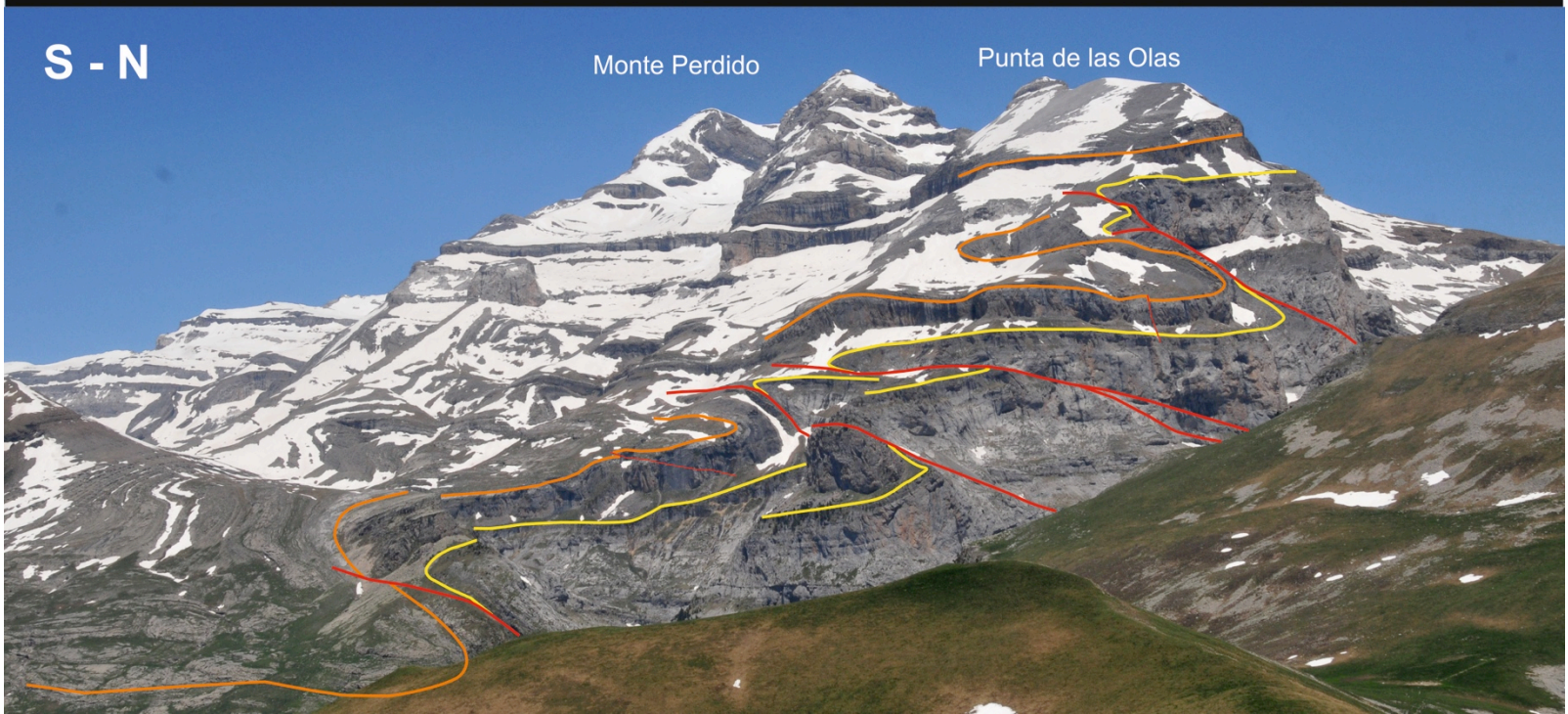


Cross-section

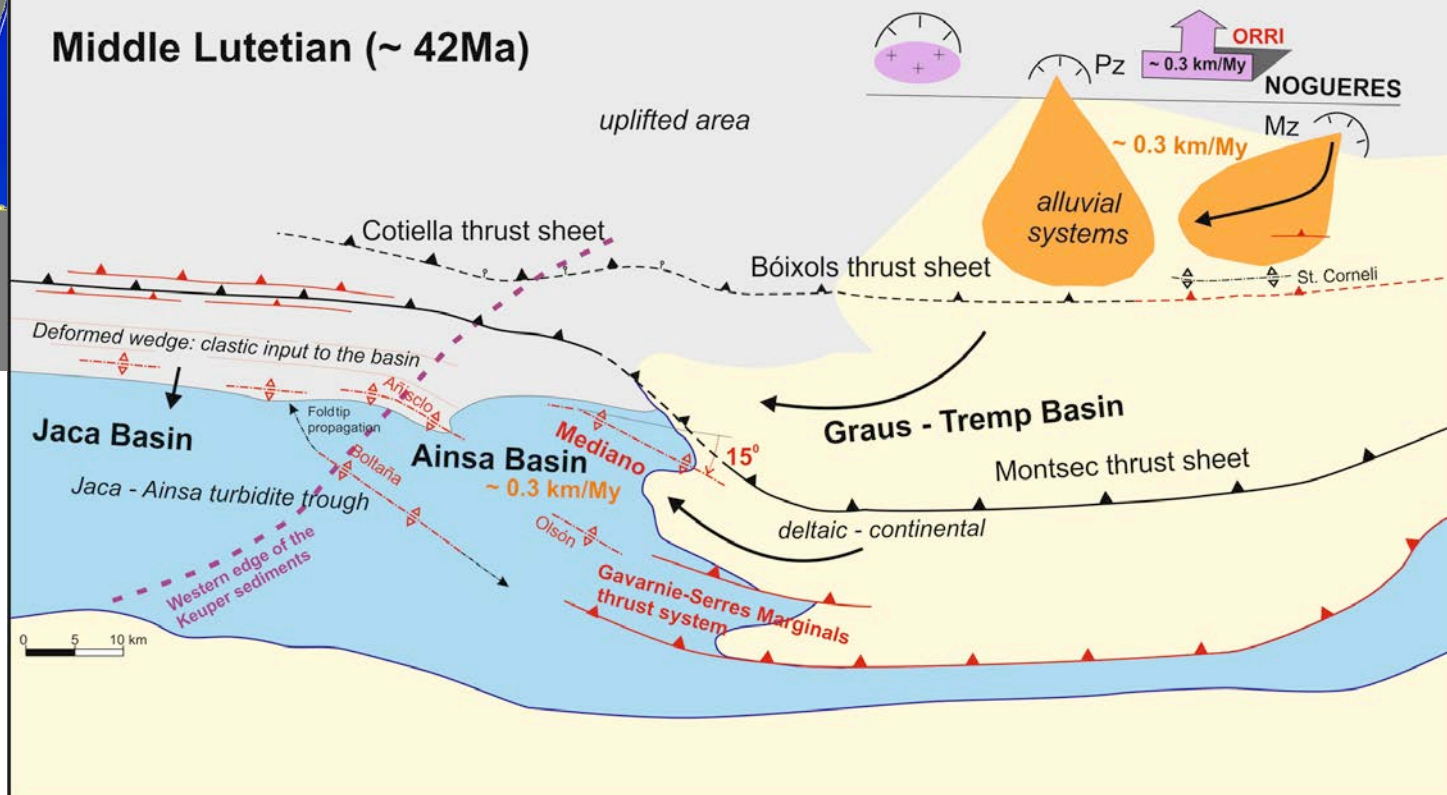








Middle Lutetian (~ 42Ma)



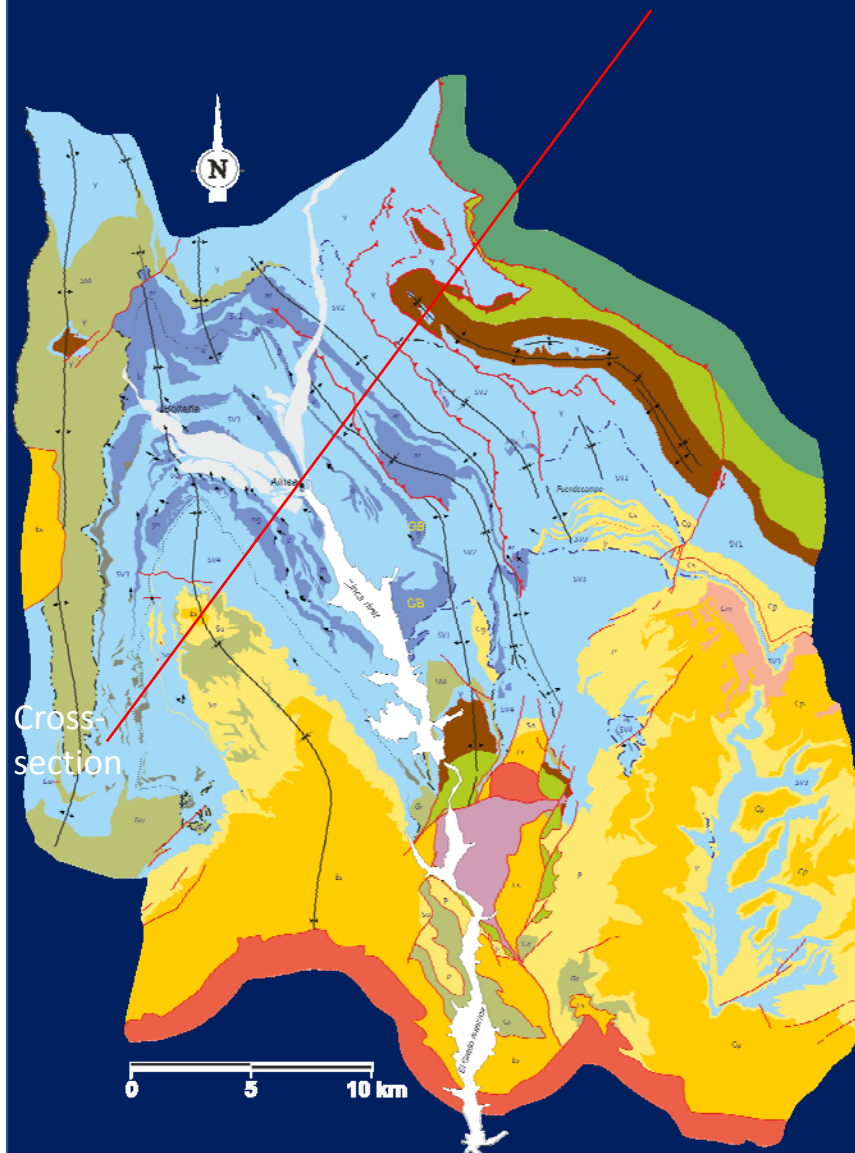
Anàlisi integrada d'un Anàleg real de Conca i Reservori

The virtual field trip

Day 3

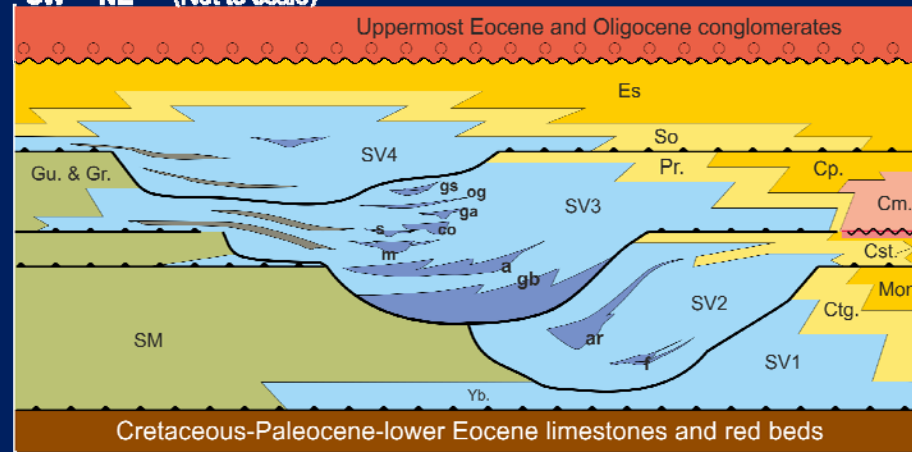
**The Structural and stratigraphic setting of the
Ainsa basin: a cross-section at the eastern edge
of the Gavarnie thrust sheet**

Structure and stratigraphy of the Ainsa Basin



Cross-section

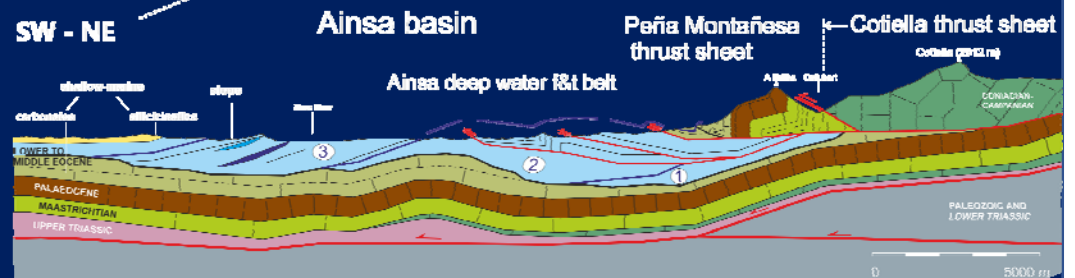
SW - NE (Not to scale)



Allogroup	Age
IV	Barremian and Paleocene
III	Lutetian
II	Ypresian
I	Therapsid

- shallow marine carbonates
- a: siliclastic and carbonate slope
- b: turbidite systems
- c: resedimented carbonates
- shallow marine siliclastics
- alluvial plain
- alluvial fan

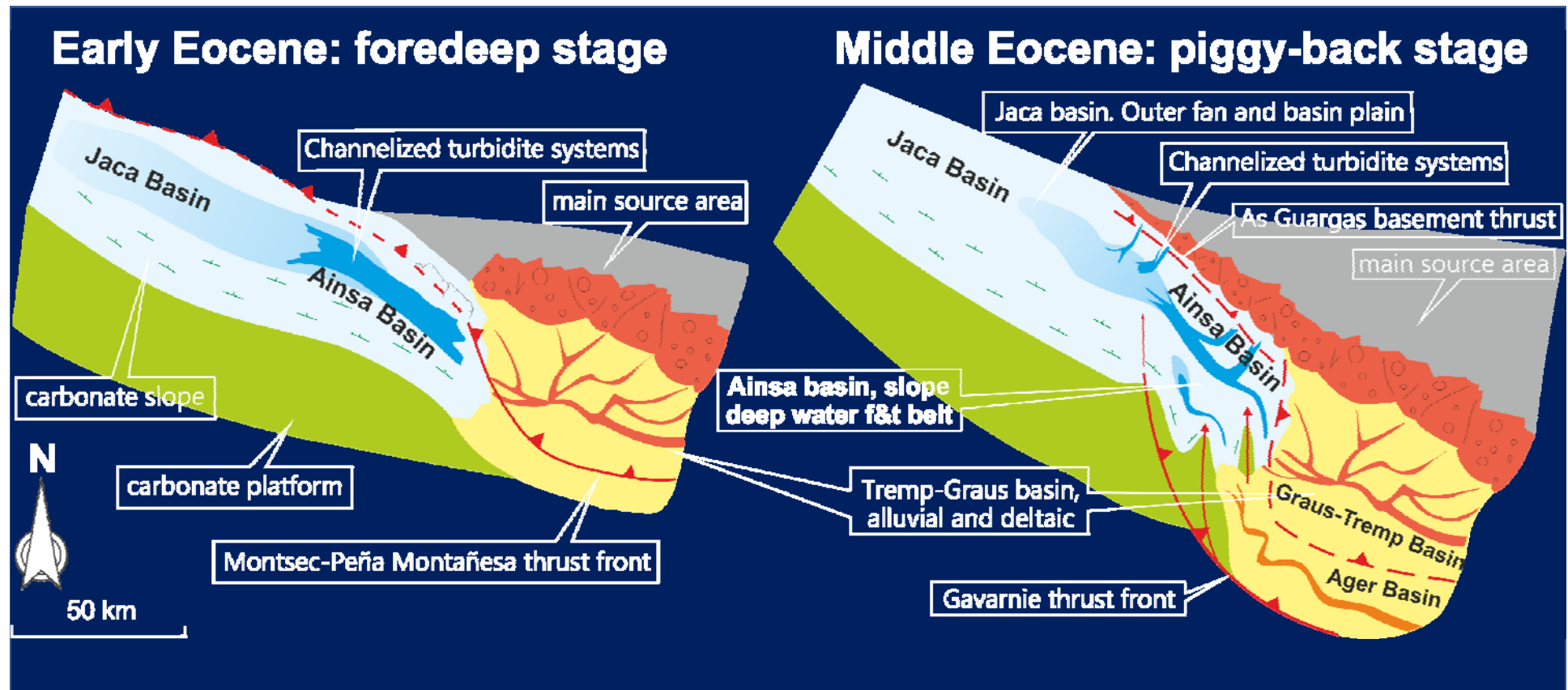
subaerial unconformity submarine condensed section submarine truncation surface



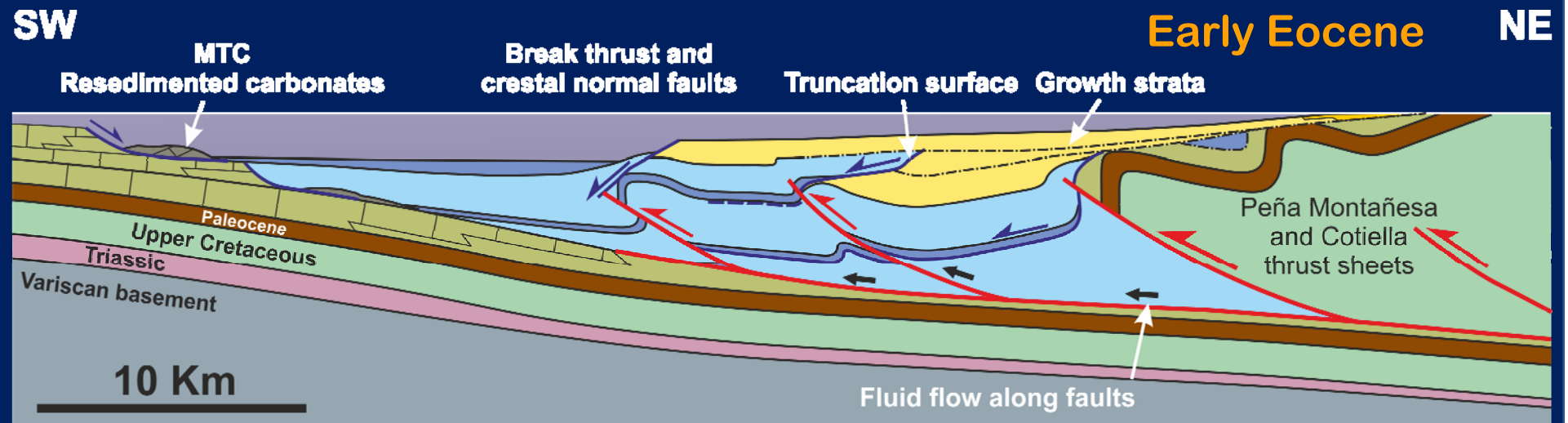
Ainsa Basin

Foredeep stage in the footwall of the
Peña Montañesa thrust sheet

Piggy-back stage in the hangingwall
of the Gavarnie thrust sheet



Foredeep stage



Piggy-back stage

