

Piracés, le désert en grès Miocène

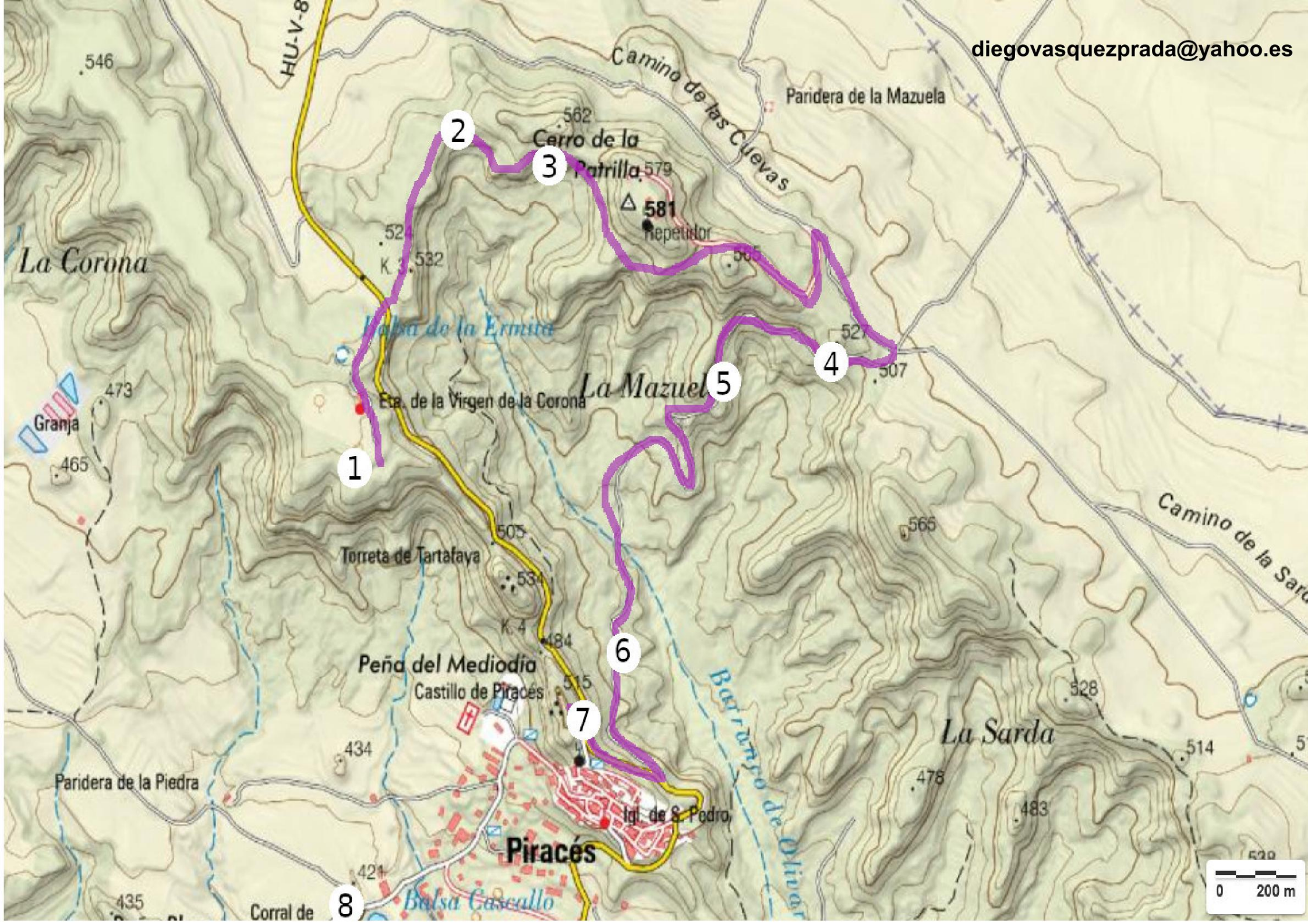
Arenisca

Arcilla

Samedi 15
novembre 2025

hoya de huesca





1- Panorama sur le Bassin de l'Ebre



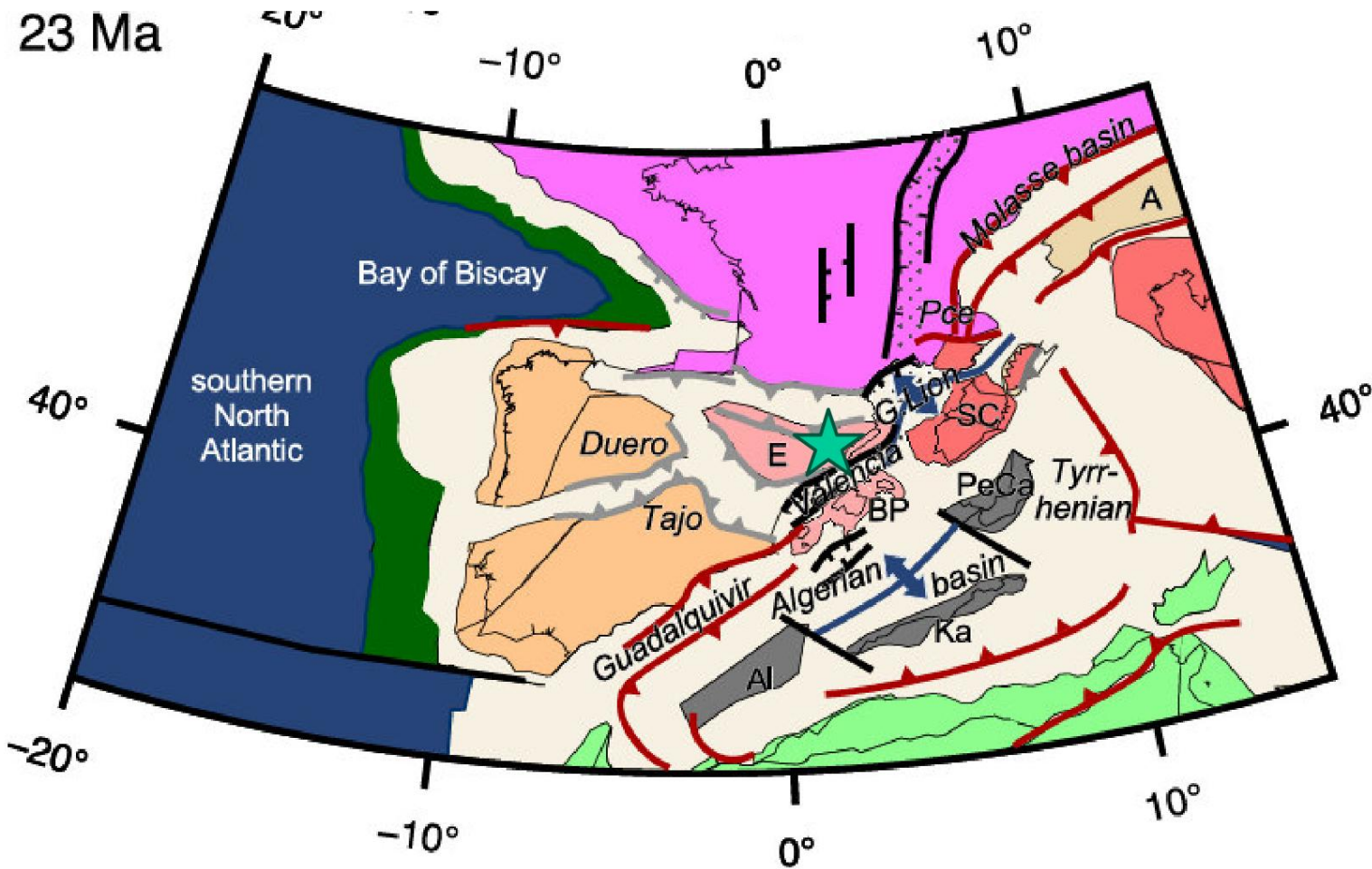
NE

Tozal de Guara

SO



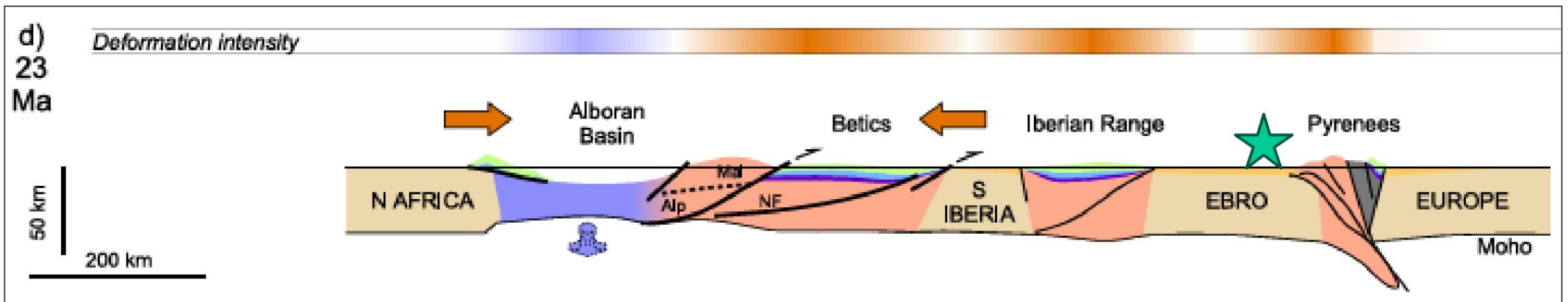
diegovasquezprada@yahoo.es



Au Miocène le bassin de l'Ebre (E) est alimenté de sédiments provenant de l'érosion des reliefs pyrénéens émergeant du Nord et surtout de l'Est.

Noter le massif corso-sarde SC juste à l'Est.

Ref: Angrand et al. 2021 - BSGF



2- Un gigantesque cône alluvial

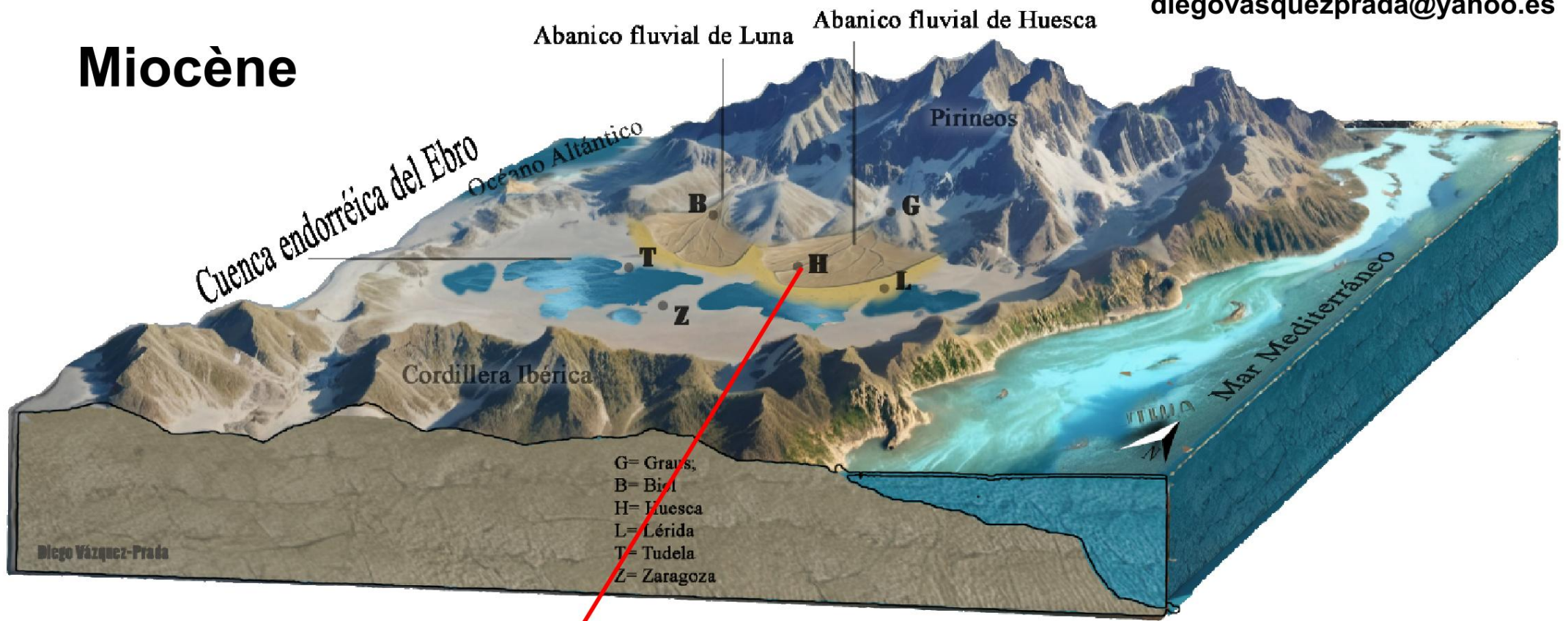




Paléochenaux



Miocène



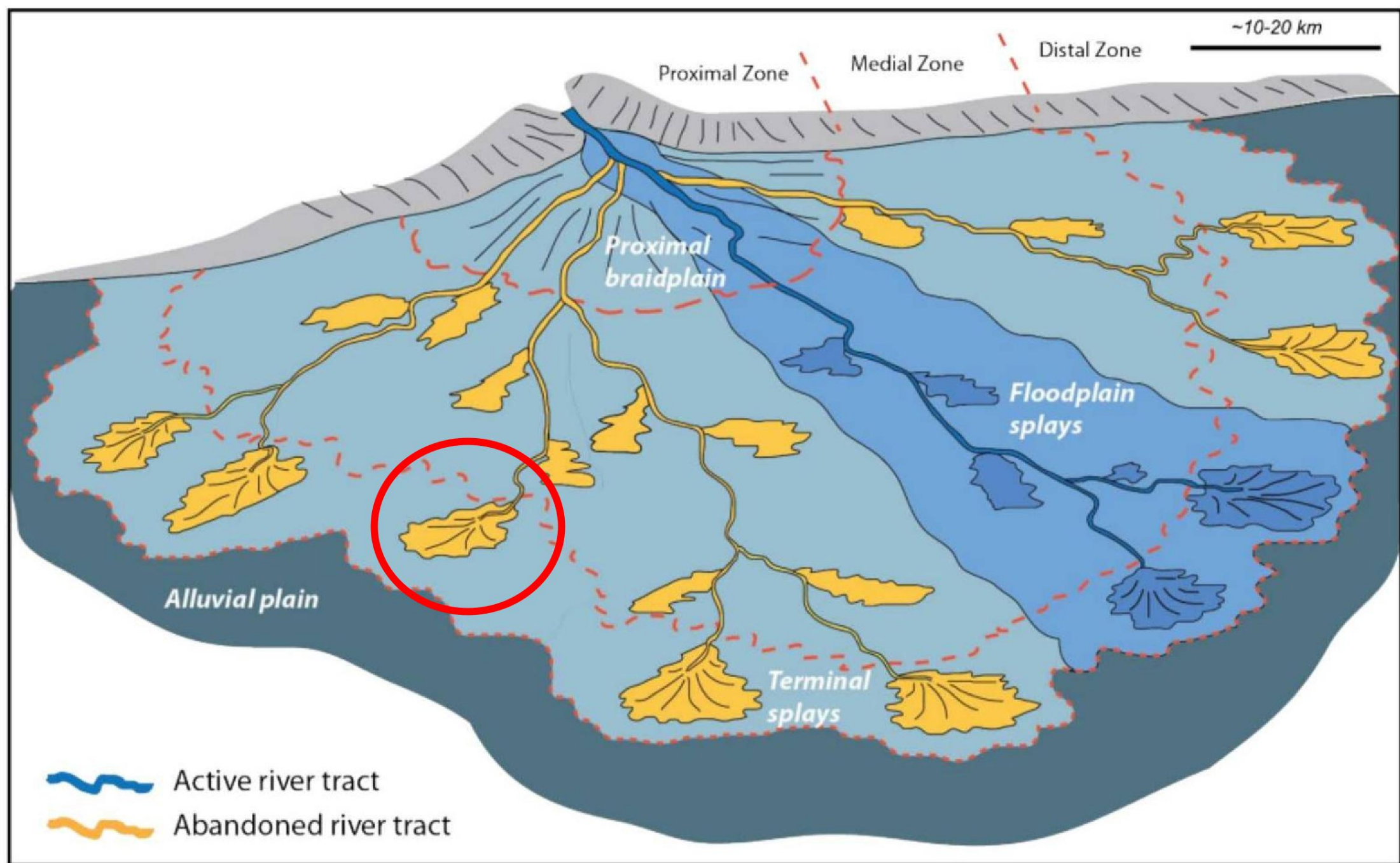


Figure 3.3: Distributive Fluvial System (DFS) model for Huesca megafan. Note the decrease in channel size and distributary pattern down-system across the active depositional lobe and subsequent active river tract. (Modified from Nichols and Fisher, 2007)

Systeme de cône fluvial de Huesca, il y a 25 Ma.



Cône fluvial de Huesca

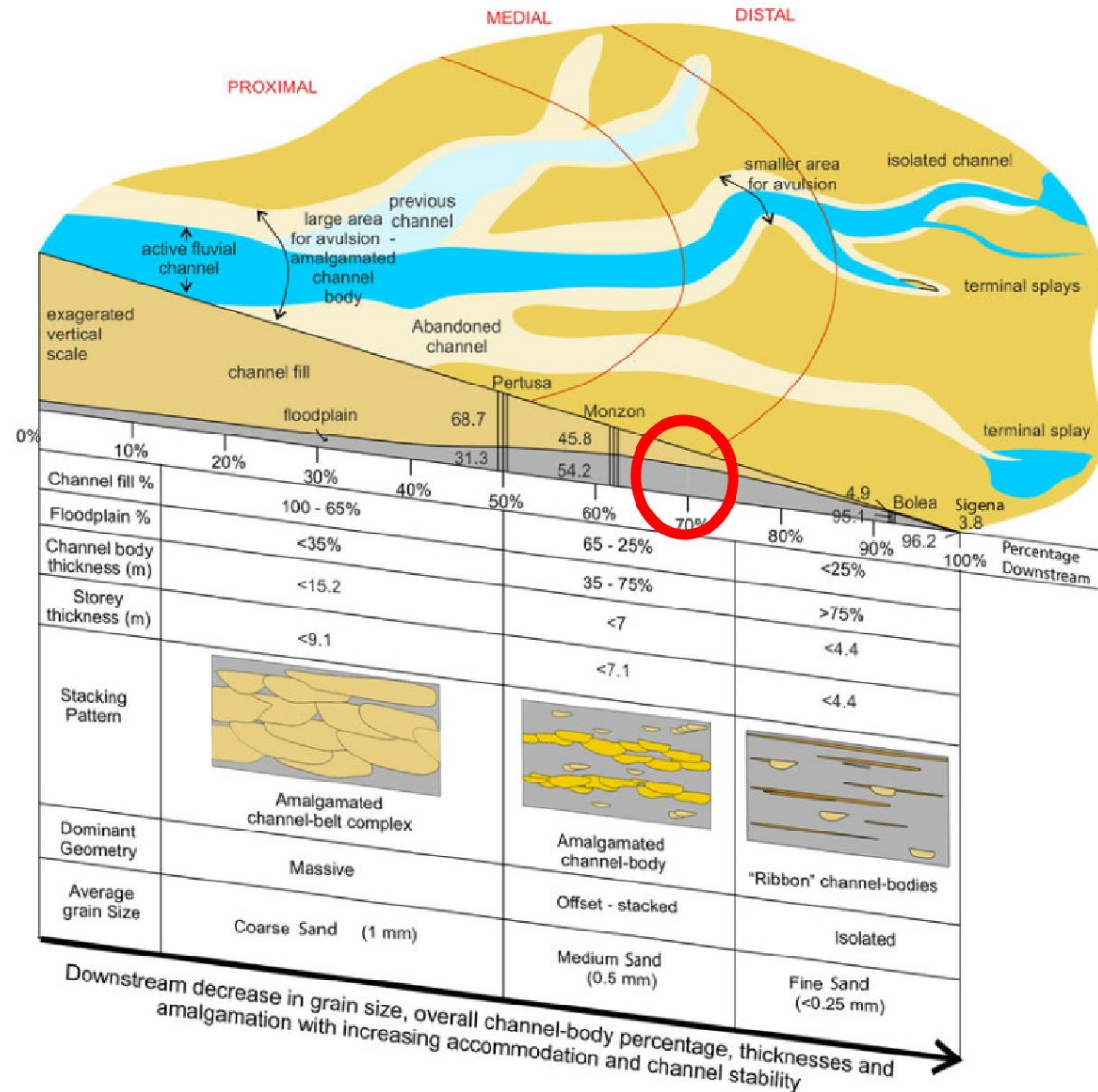
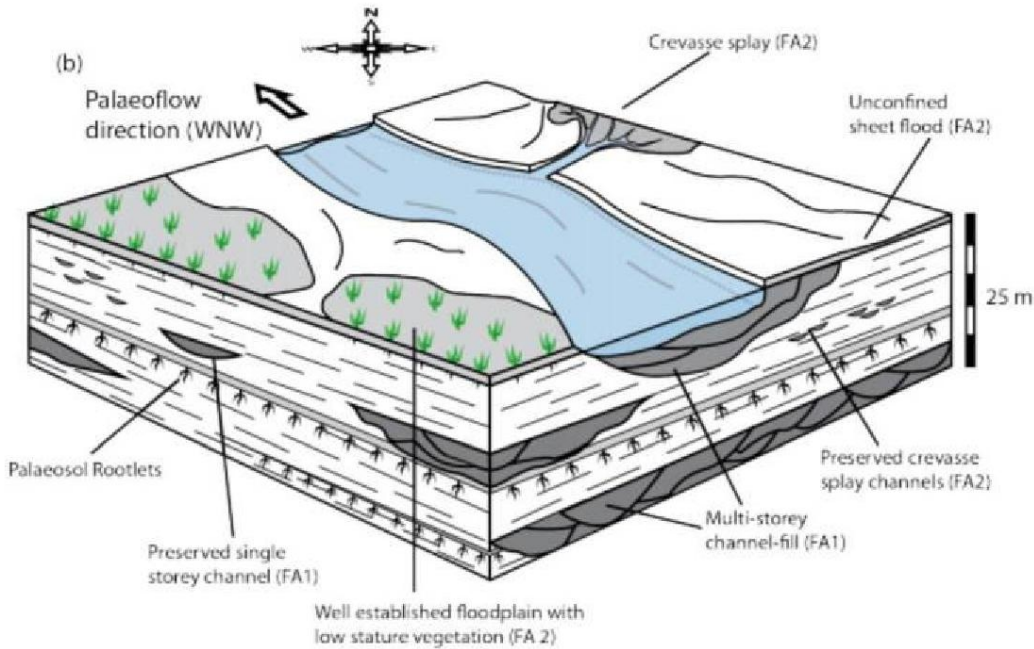
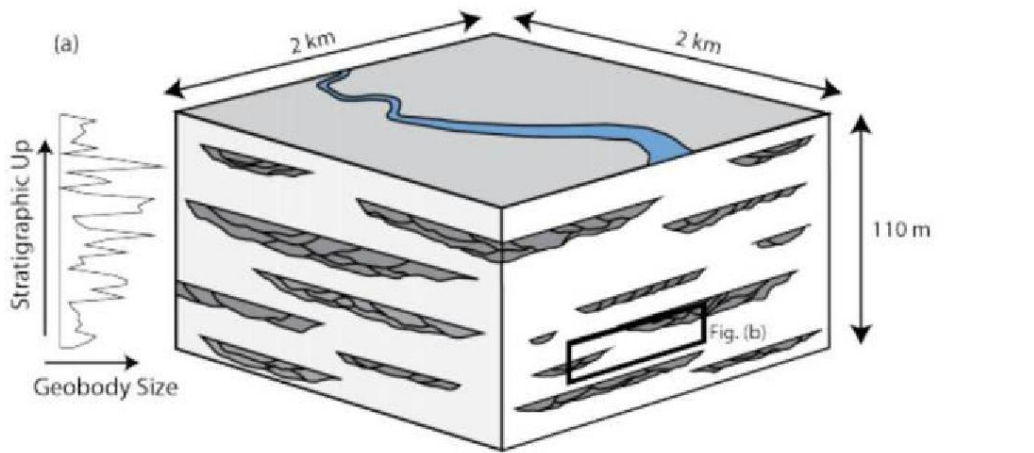


Figure 5.4: Conceptual depositional model for channel elements within the La Serreta succession. (a) Block model illustrating approximate stacking pattern derived from 3D DOM analysis (Chapter 3). (b) Channel-scale block model illustrating approximate mesoscale stacking patterns, crevasse splay and palaeosol development. These models are integral to evaluating the final reservoir simulation.

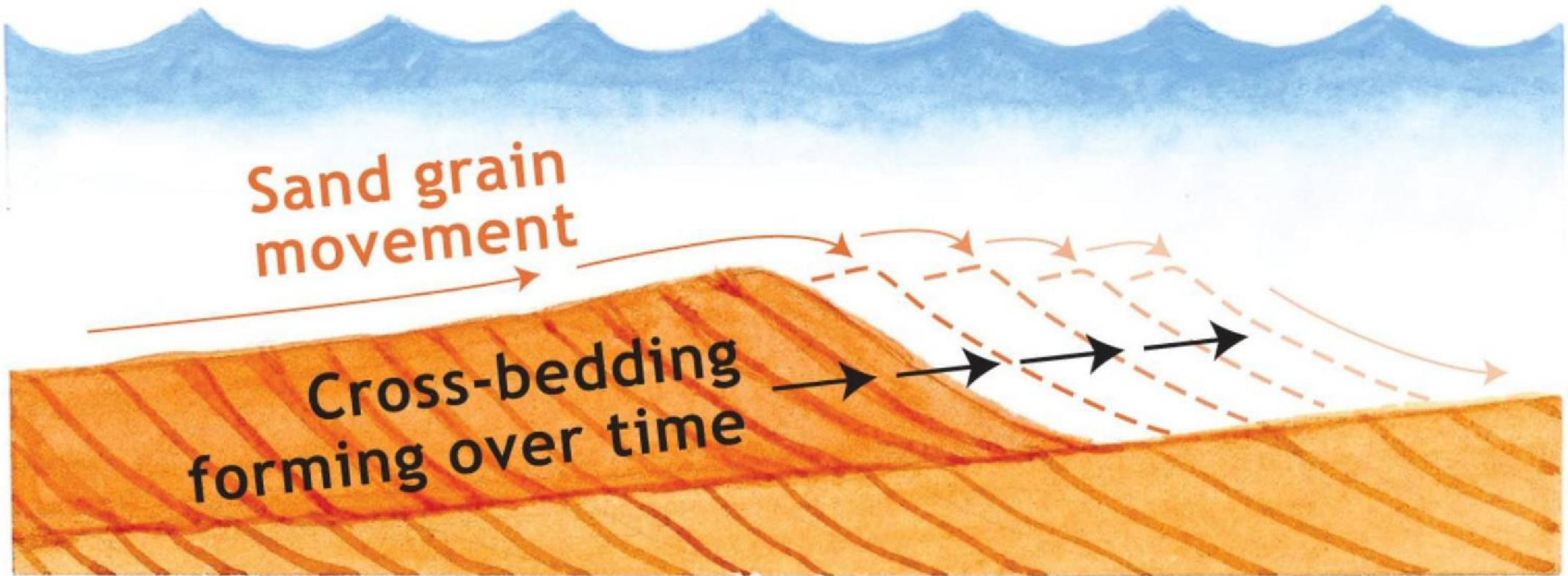
3- Les marques de courant



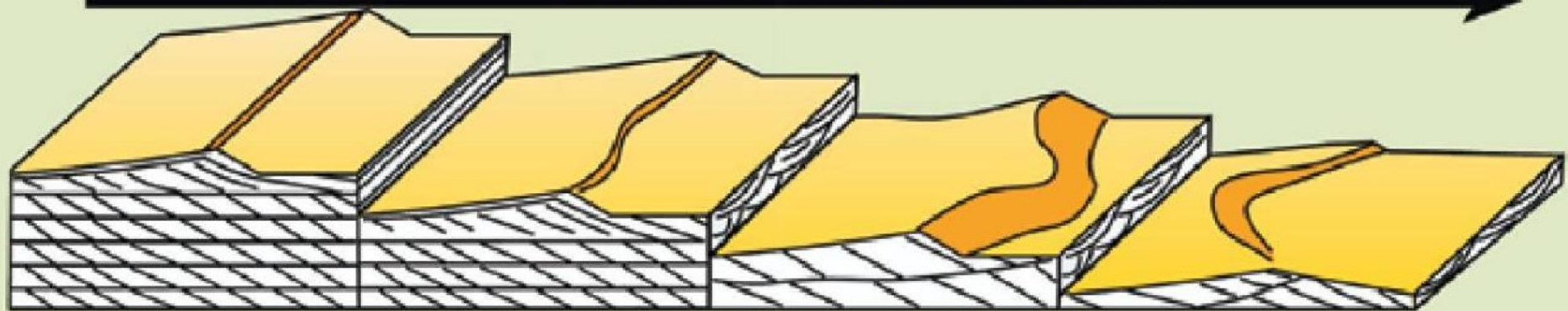
Water current →

Sand grain movement

Cross-bedding forming over time



incremento en la velocidad del flujo →



cresta recta

cresta sinuosa

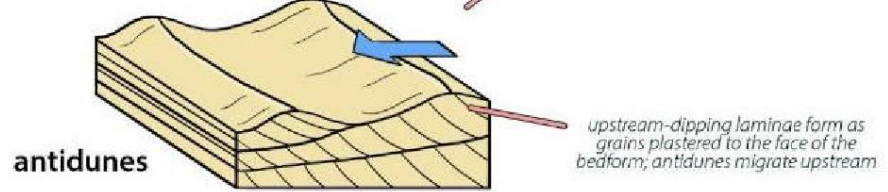
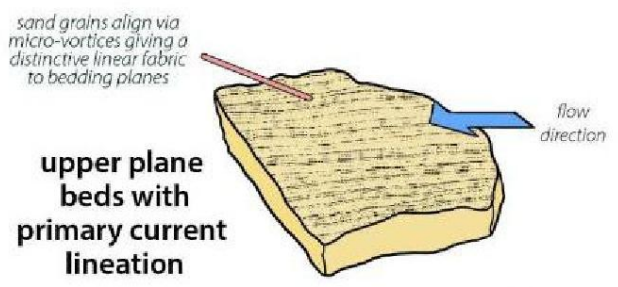
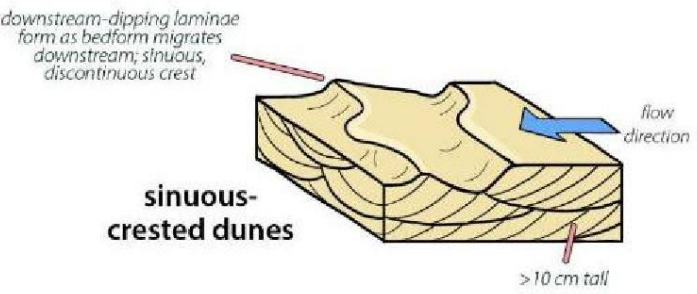
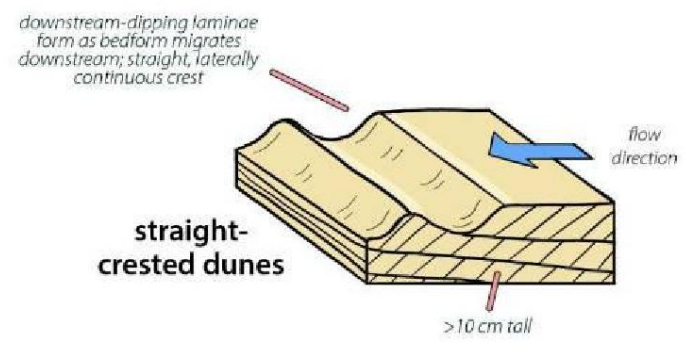
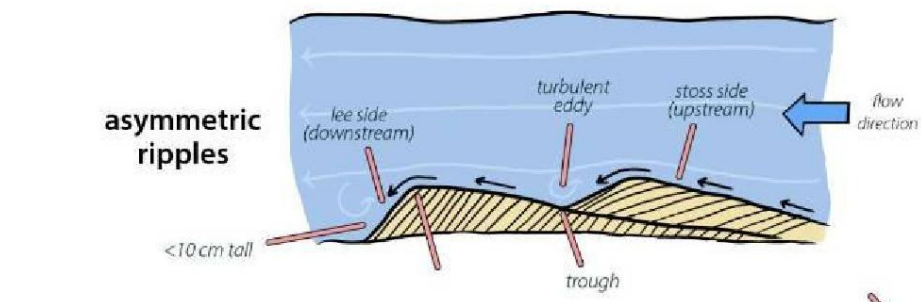
cresta linguoide

cresta lunada



Bedforms & processes

Structures formed by unidirectional flows



laminated sandstone

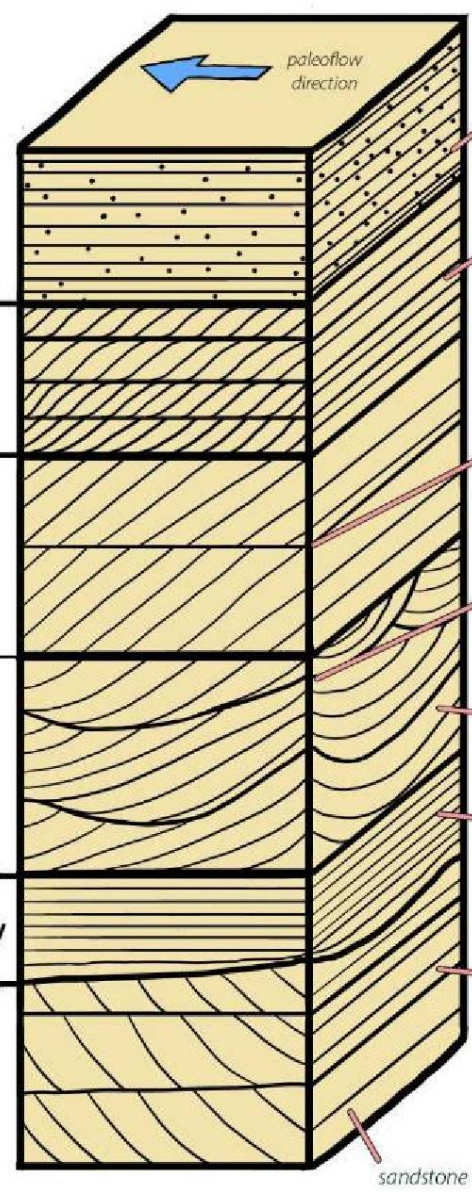
ripple cross-laminae

planar

trough

laminated sandstone w/ primary current lineation

antidunes



horizontally laminated beds in coarser sand; no primary current lineation

inclined, downstream dipping laminae within beds <10 cm thick

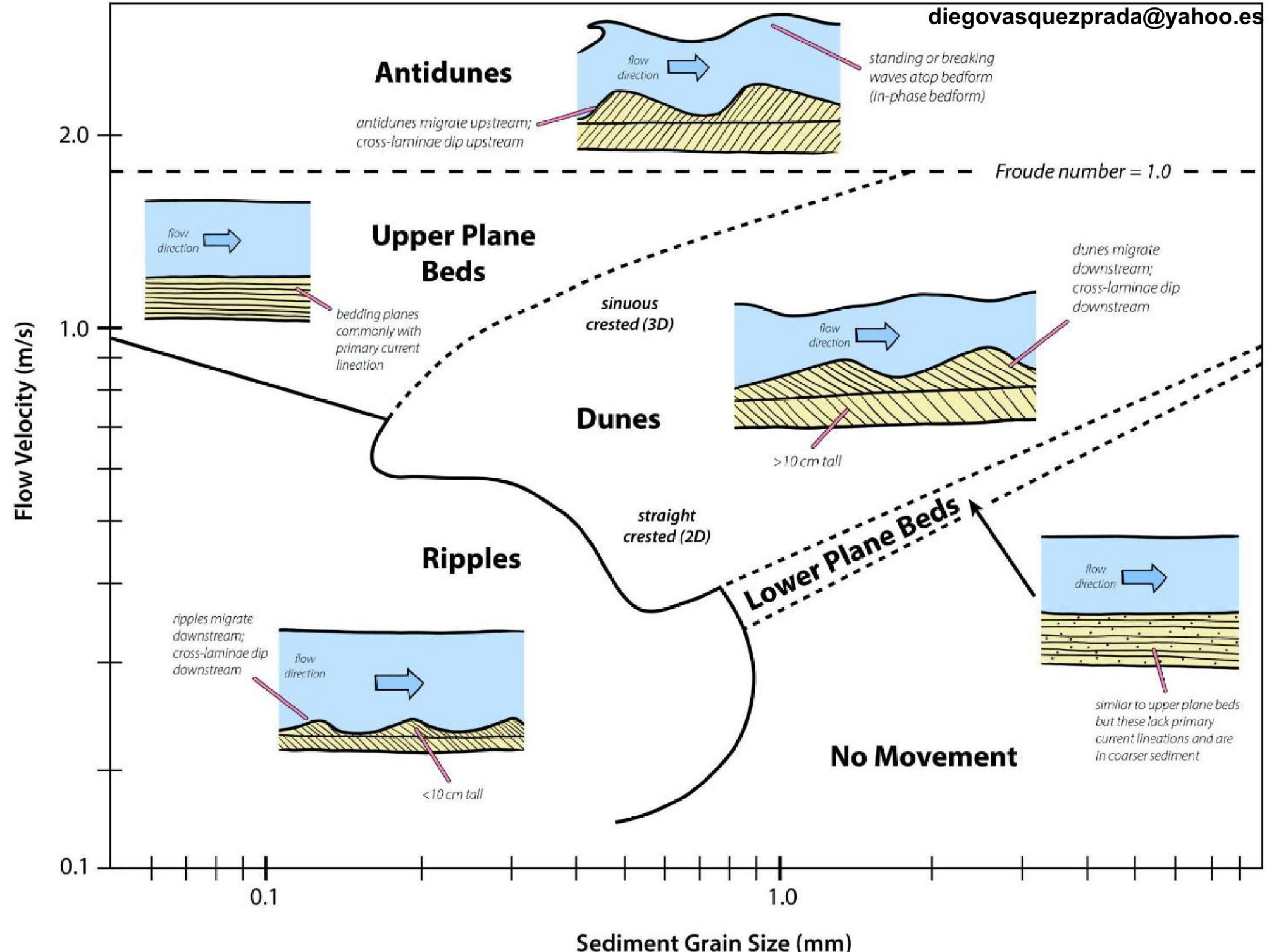
bounding surfaces are ~planar no matter the outcrop orientation relative to paleoflow; foresets commonly remain planar at lower contact

curved bounding surfaces appear u-shaped when viewed perpendicular to paleoflow and scoop-shaped when viewed parallel to paleoflow; foresets commonly tangential at lower contact

both types of cross-beds have inclined, downstream dipping laminae within beds >10 cm thick

~horizontally-laminated beds commonly with primary current lineation along bedding planes

laminae dip upstream and bedform migrates upstream; bounding surfaces variable; structures rarely preserved



4- Paleosols et bioturbations





Fourmilière fossile

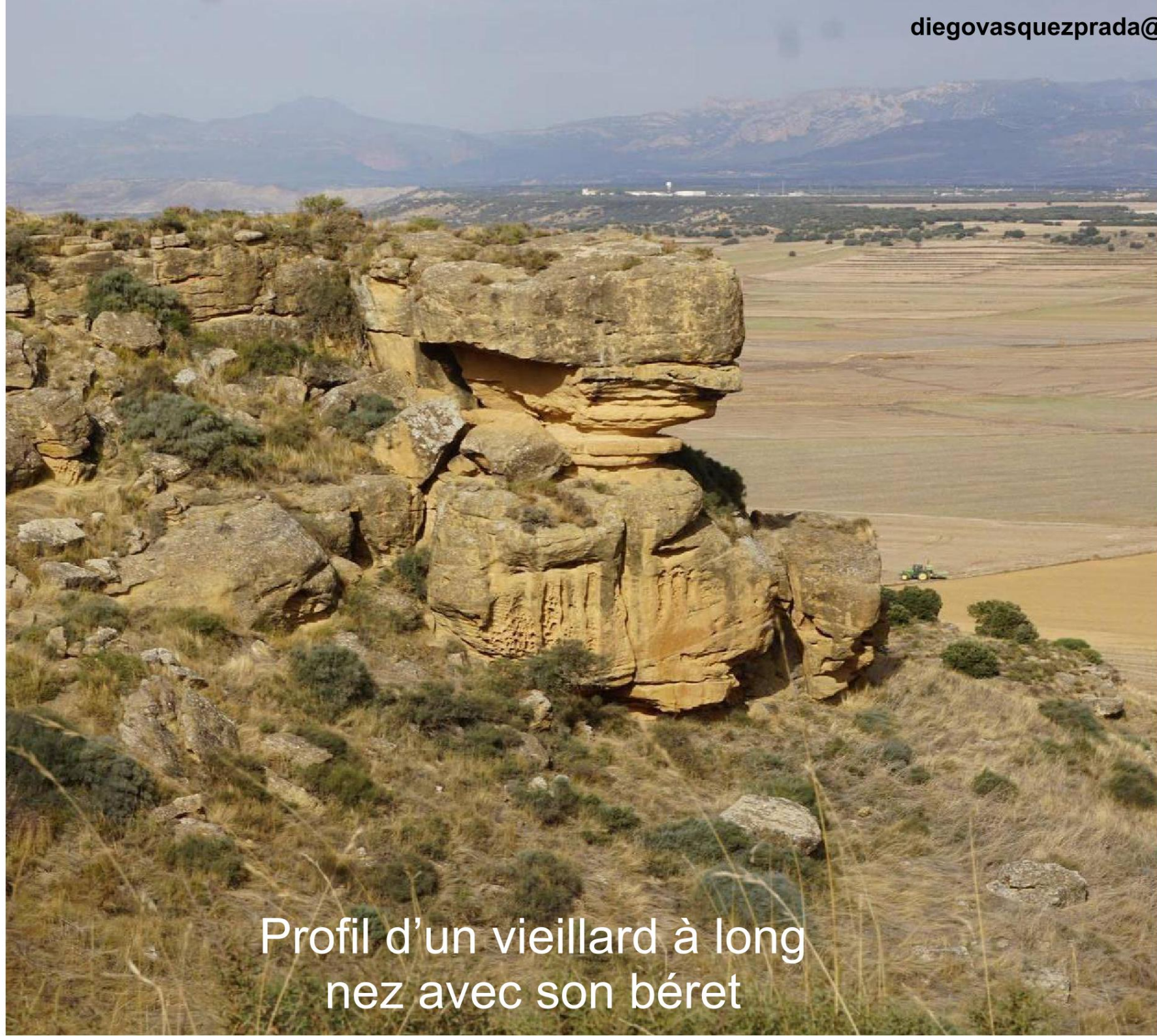


Traces de racines



5- Voie « romaine », tafonis et Cheminées de fées

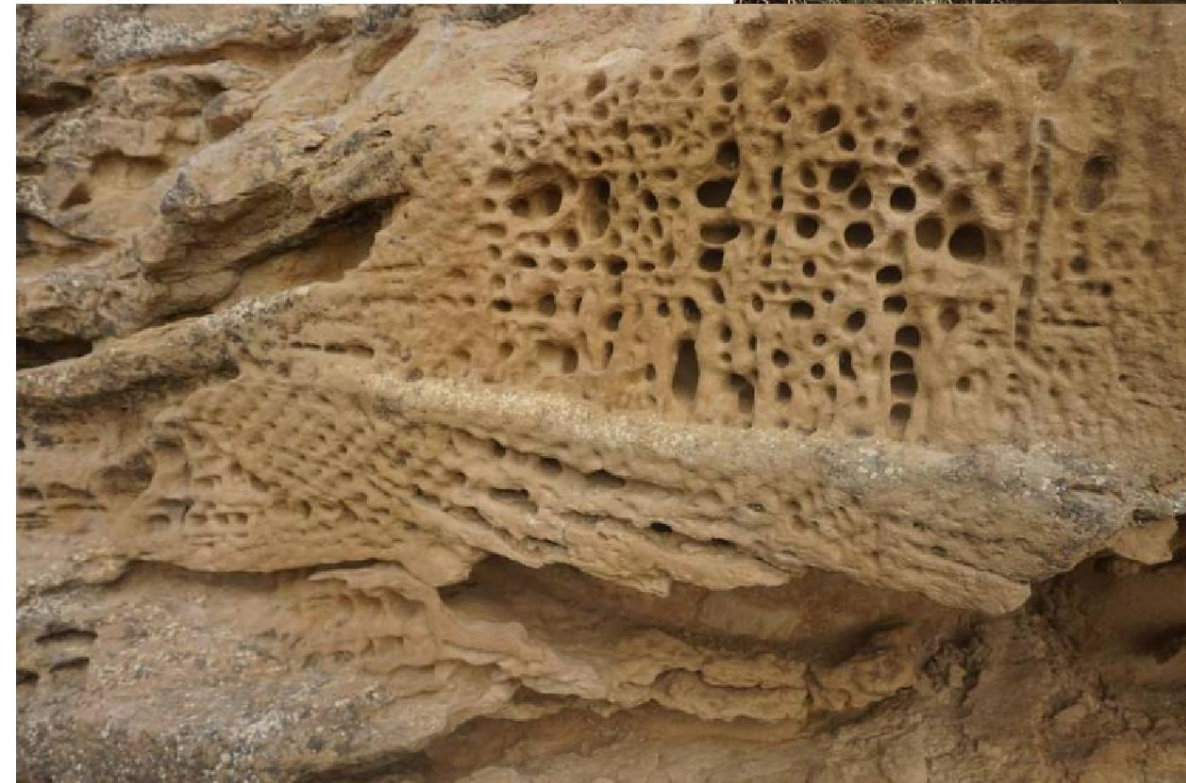




Profil d'un vieillard à long
nez avec son béret



Tafonis



6- Le grand-père Roque et son chien



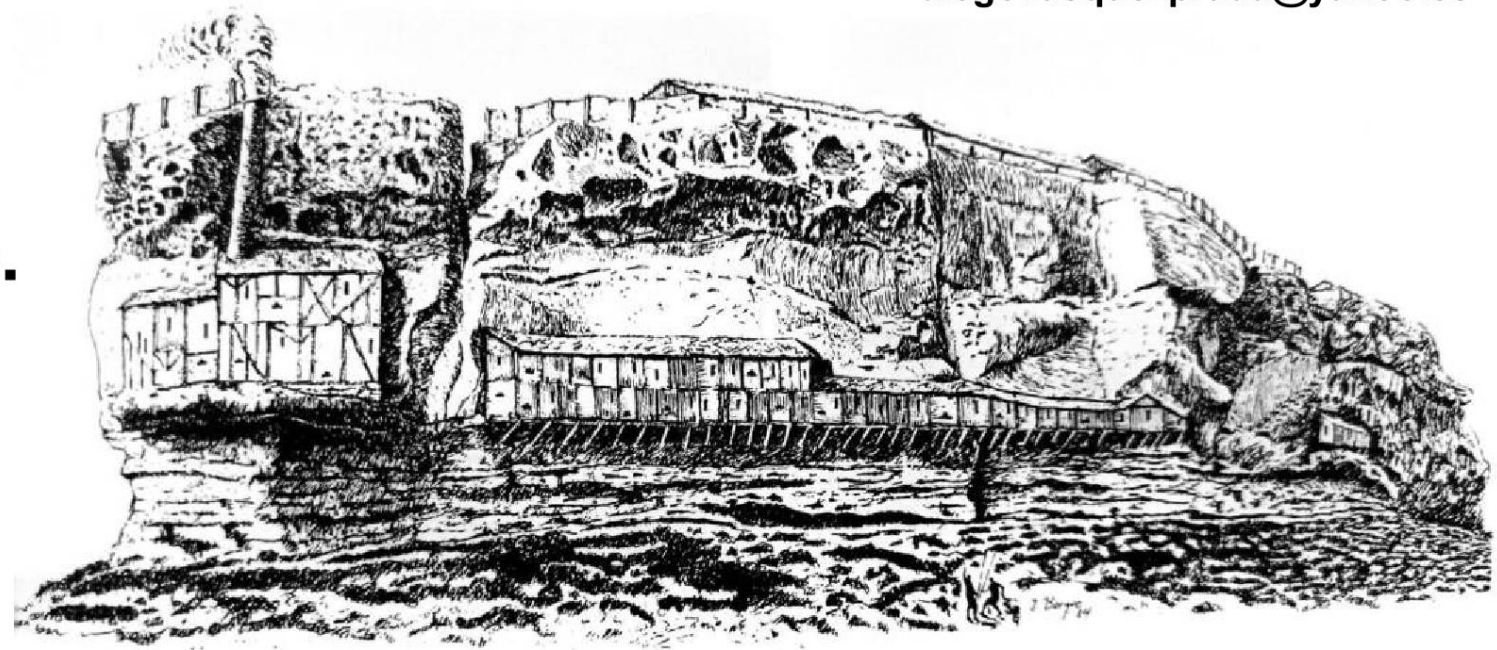


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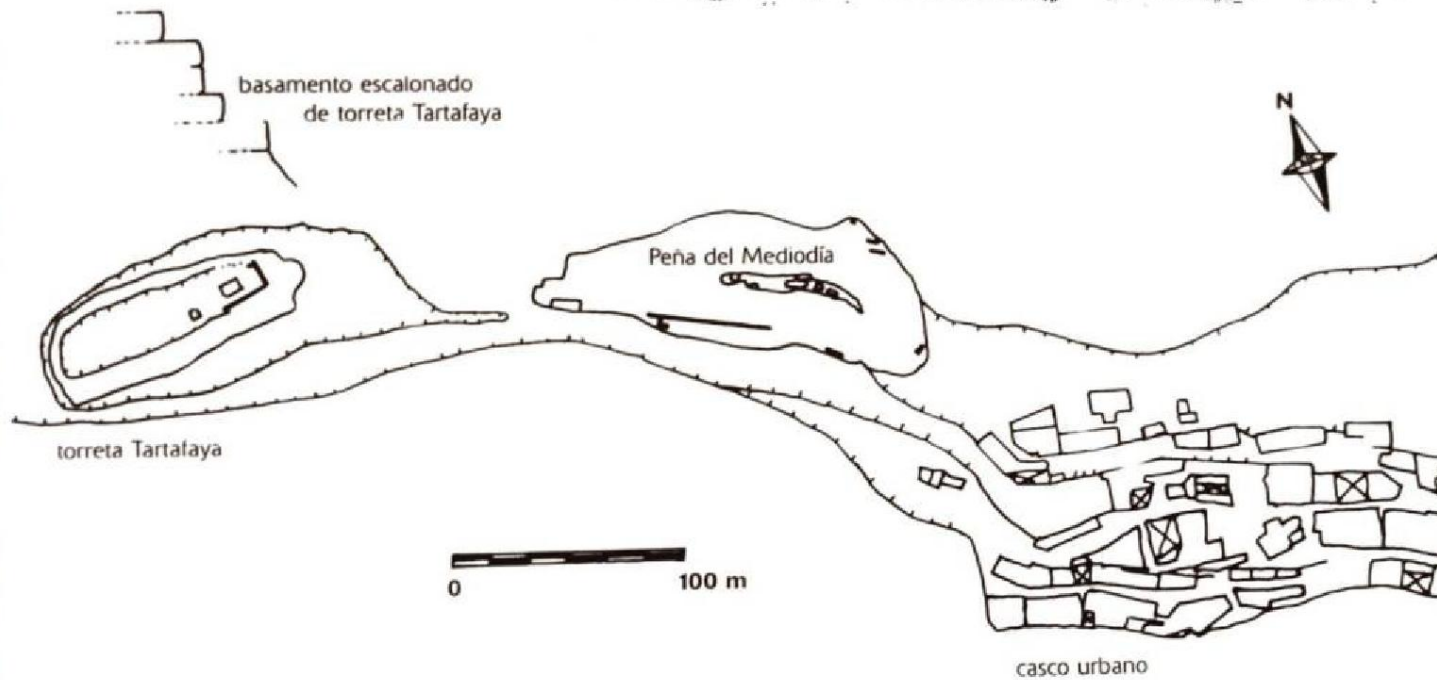
7- Le château de sable de Piracés

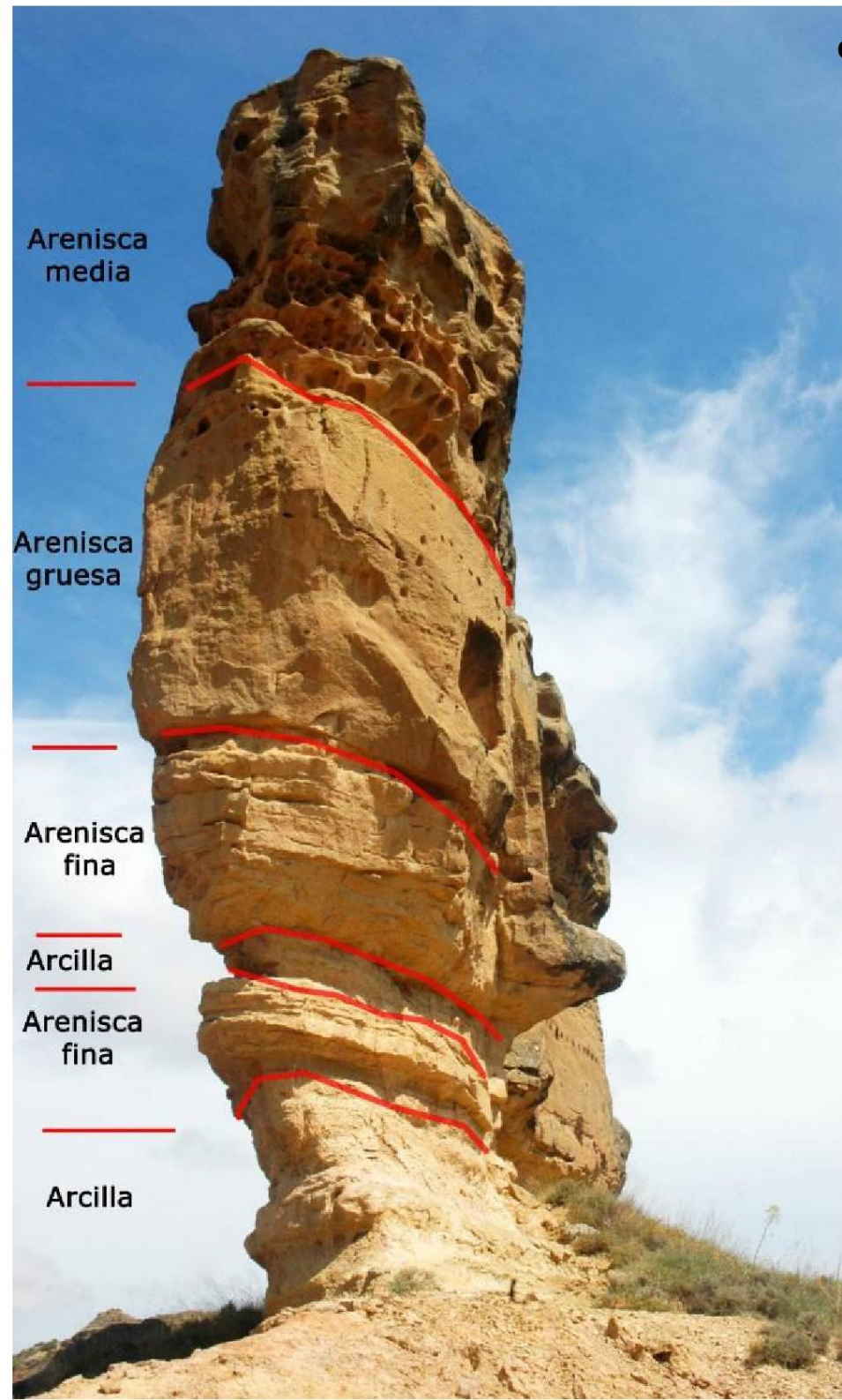


Forteresse andalusie du IX s.



Situación áreas fortificadas de Piracés, según Carlos Esco y Philippe Senac.





8- Le puits arabe de Piracés

Des escaliers à la nappe phréatique



Puits-fontaine de Piracés



Visite au Labo Paléontologique de Loarre

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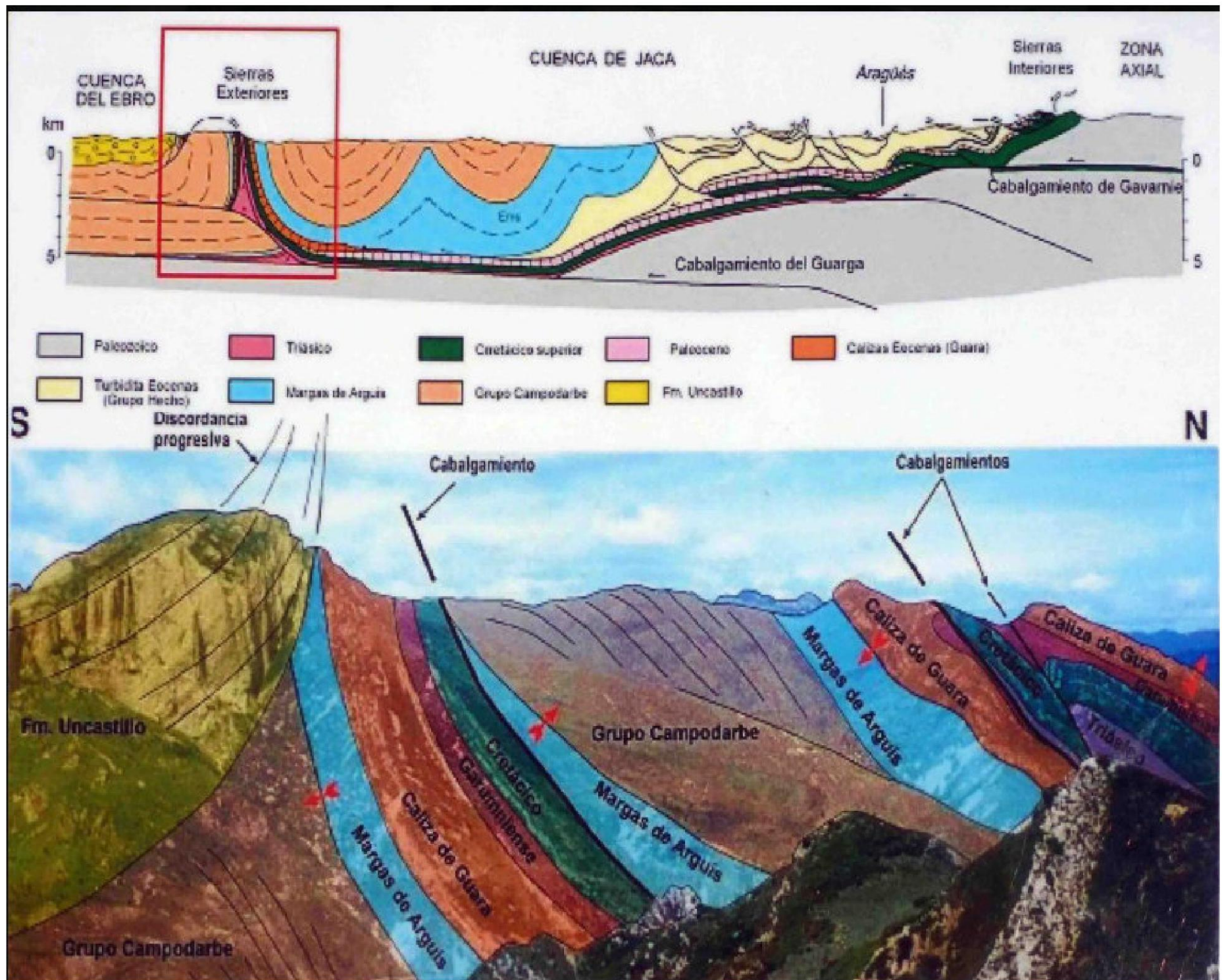




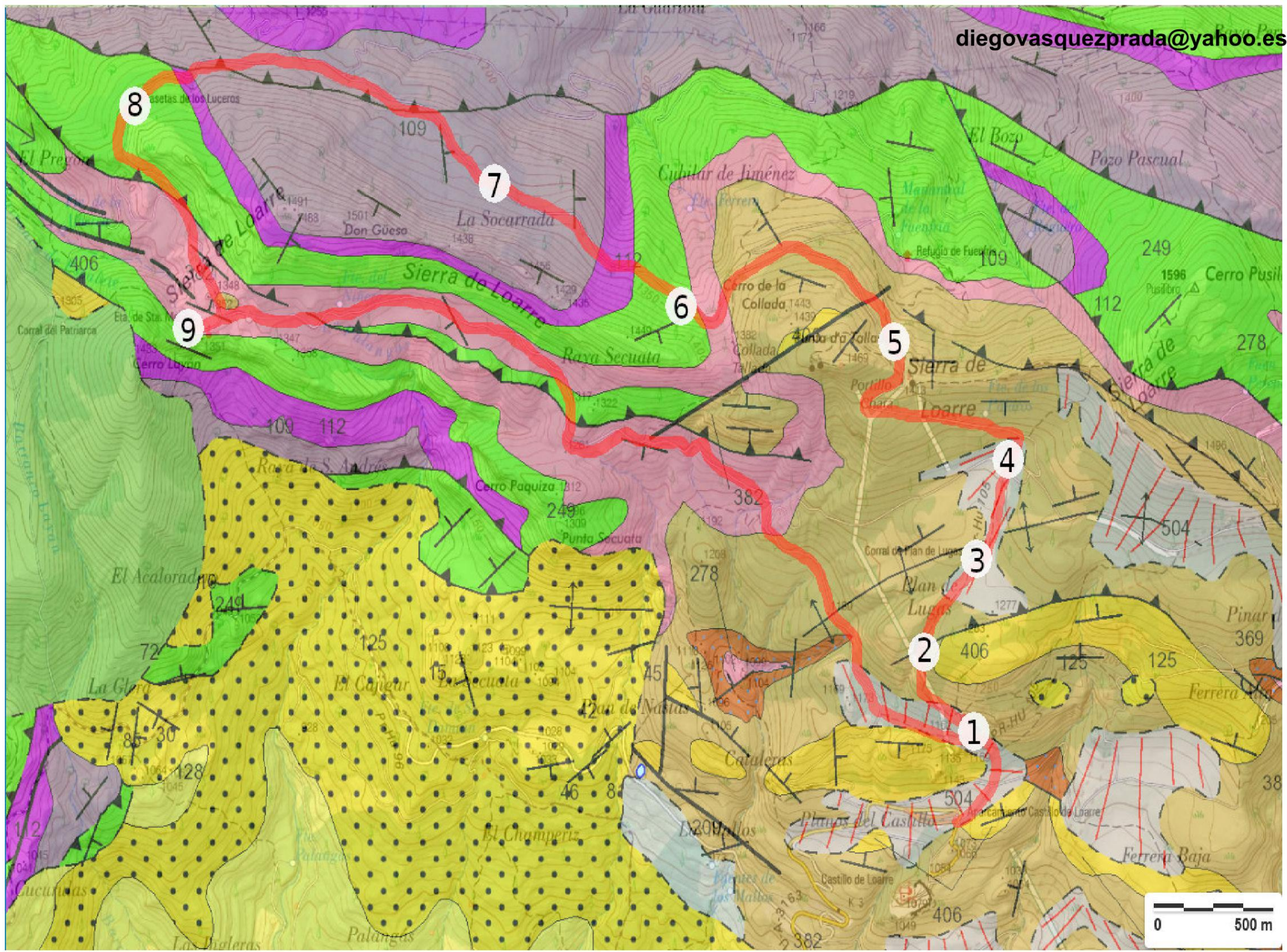
Loarre et les nids de dinosaures



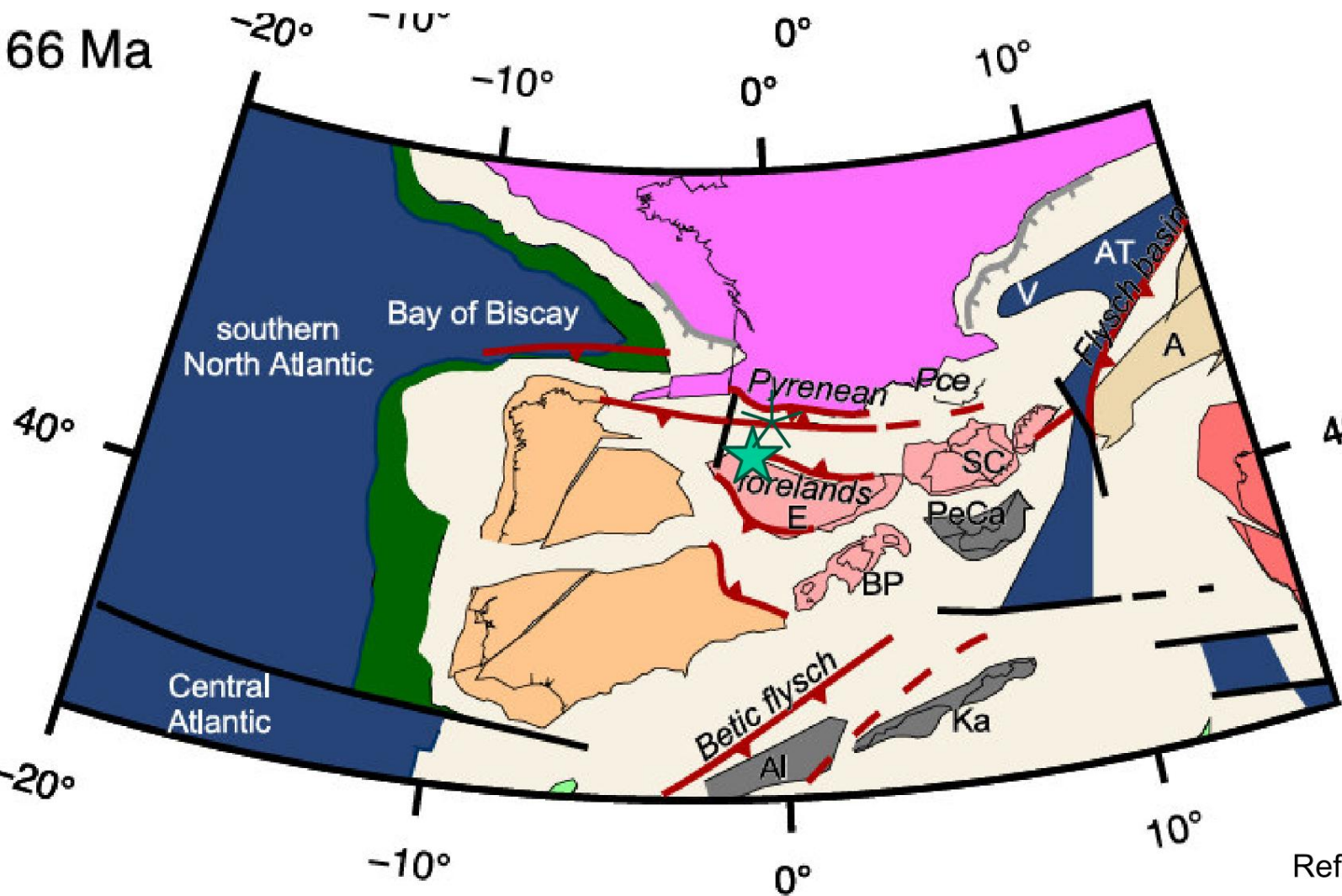
Dimanche 16 novembre 2025







66 Ma

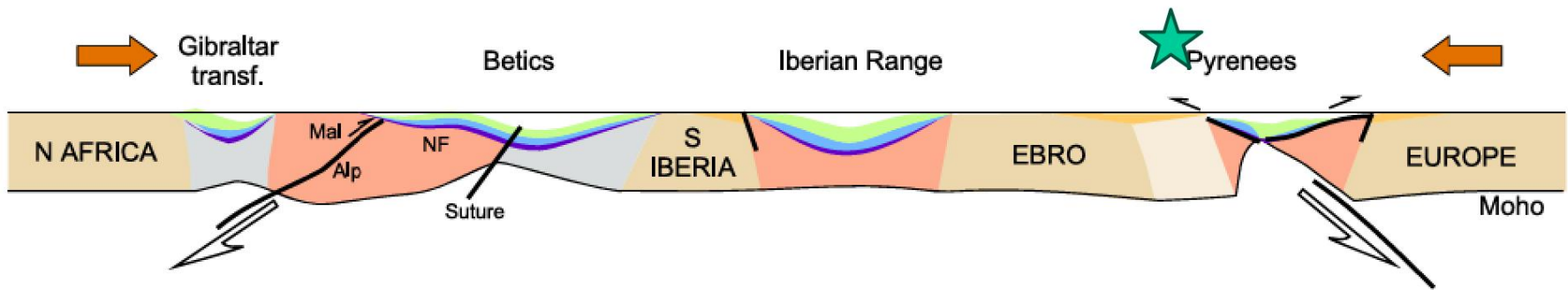


A l'époque de ces dinosaures les Pyrénées commencent à sortir de la mer à la faveur de chevauchements et de plis (lignes rouges). Noter les îles sardo-corses (SC) encore alignées avec les failles pyrénéennes...

Ref: Angrand et al. 2021 - BSGF

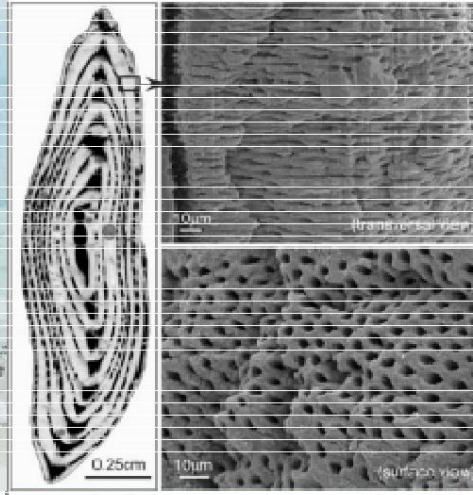
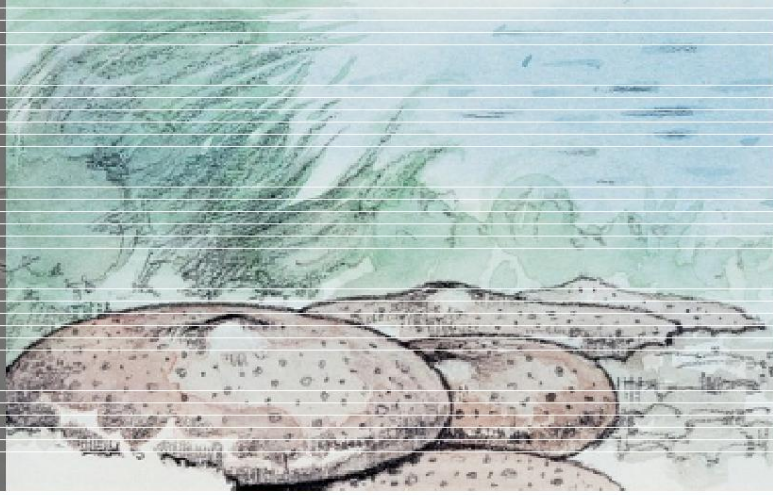
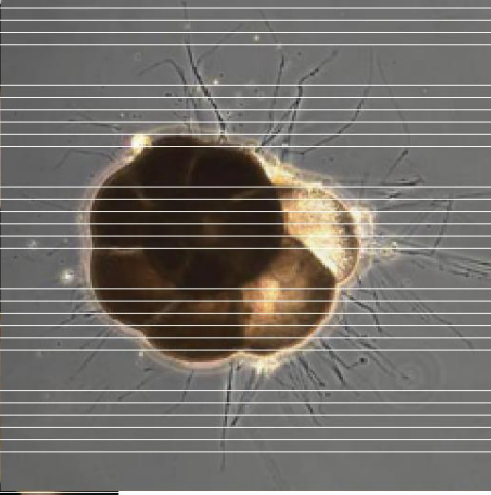
b)
66
Ma

Deformation intensity



1- Mer éocène et le Chateau de Loarre





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Ambulocetus- Paléobaleine



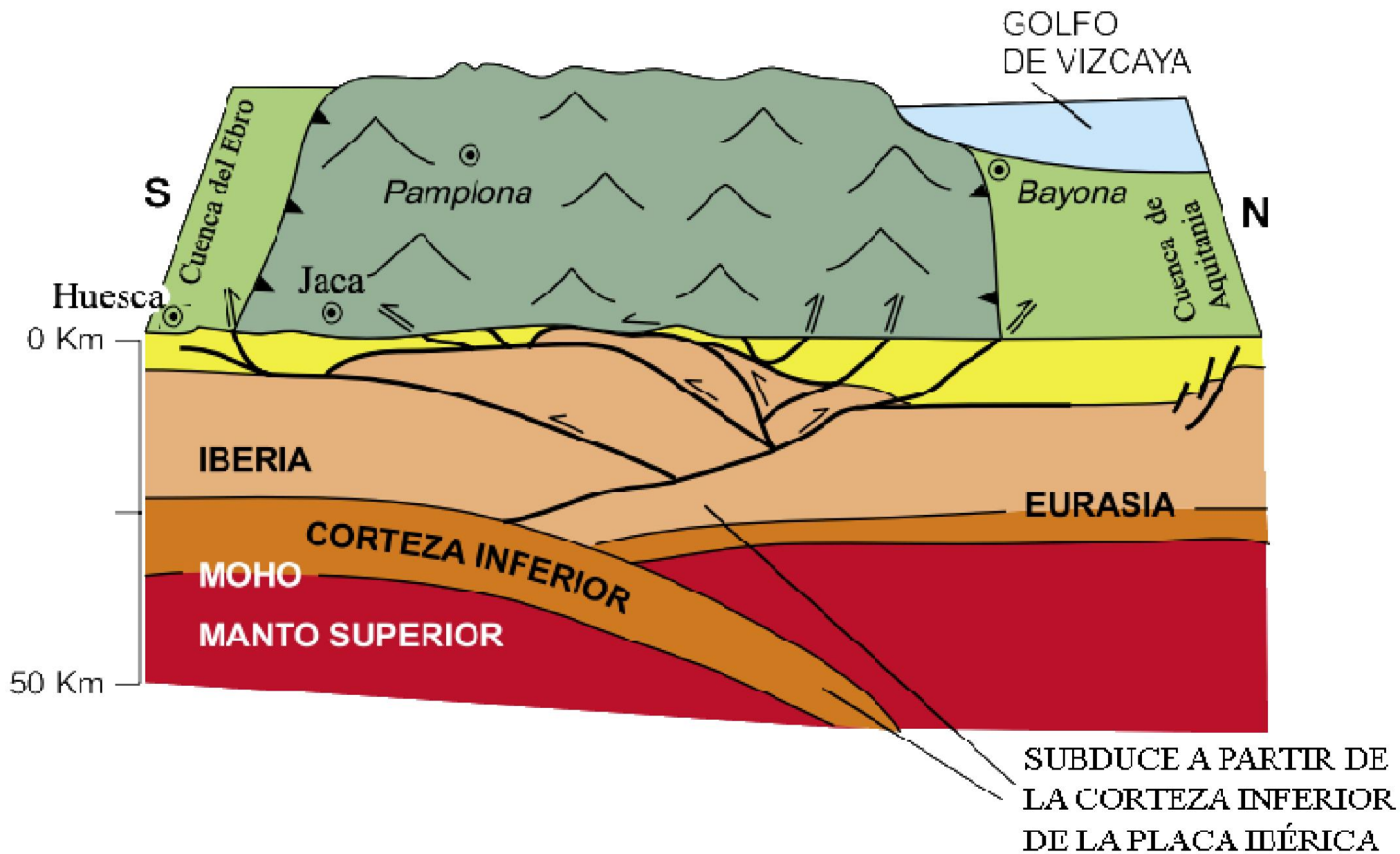
**Paléogéographie de
l'éocène**

2- Chevauchements Sud-Pyrénéens



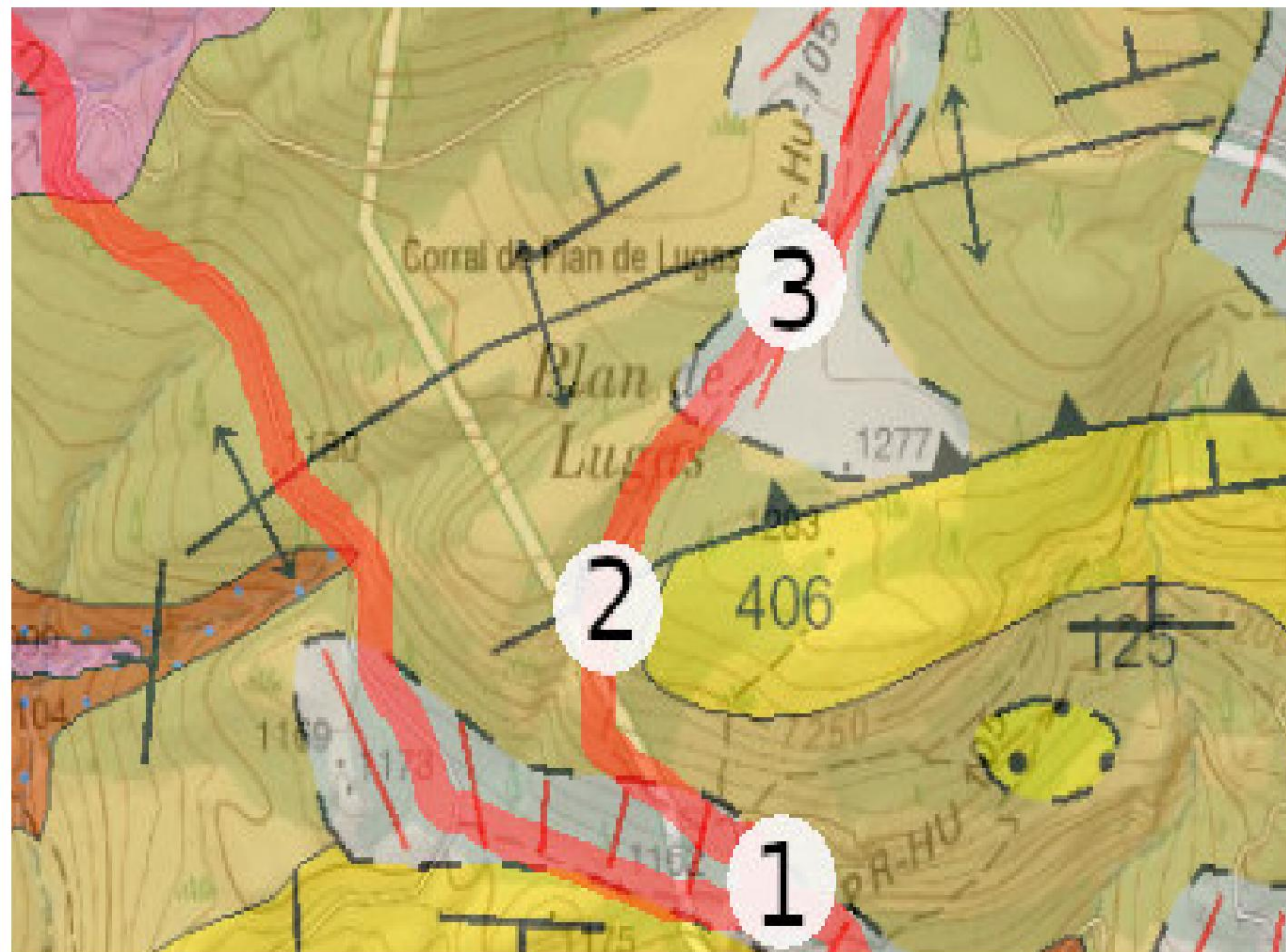
Eocène des Pyrénées

Miocene du
bassin de l'Ebre



3- Synclinal du Plan de Lugas – Cœur de Garumnien

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4- Dépôt colluvial quaternaire



5- Panorama sur Oroel et Sierras Interiores



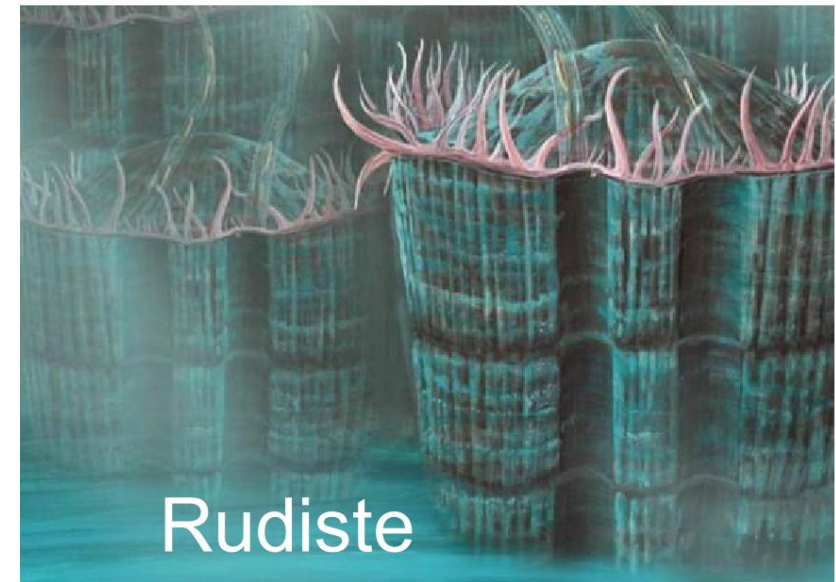
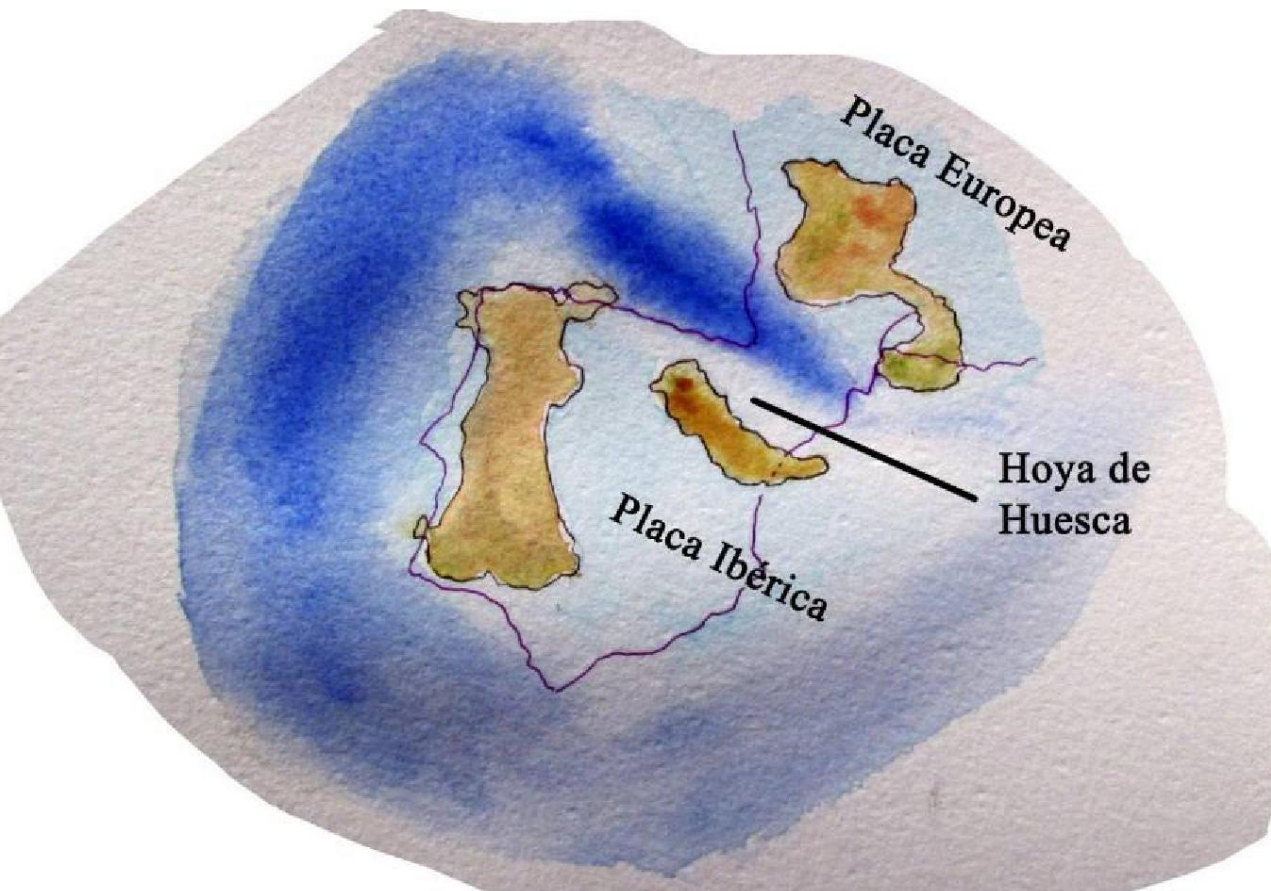
Peña Oroel

Sierras Interiores

Sinclinal du Guarga

Sierras Exteriores

6- Calcaire à Rudiste – Crétacé Sup.



7- Calcaire du Muschelkalk – Trias Sup.



8- Forêt de hêtres-ifs

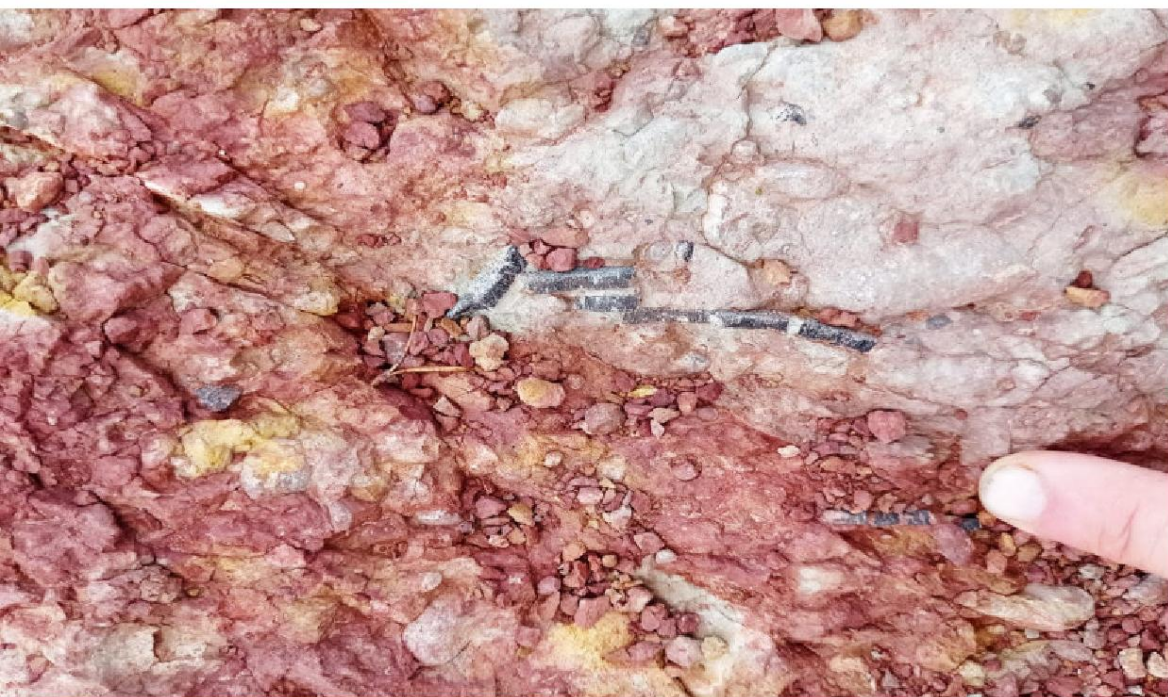
La plus au sud des Pyrénées



9- Gisement d'œufs de Titanosaures

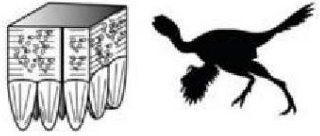




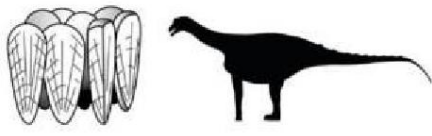


Ref: Laboratoire Paléontologique de Loarre

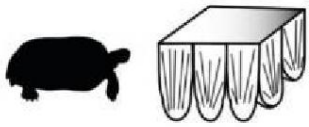
Dinosaurios terópodos
Elongatoolithidae



Dinosaurios saurópodos
Megaloolithidae



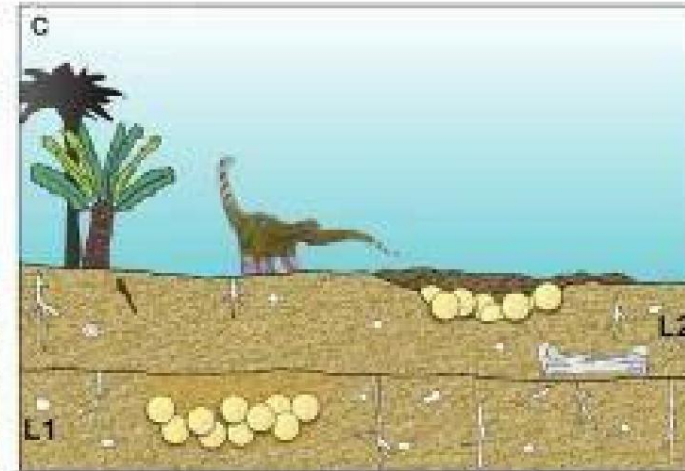
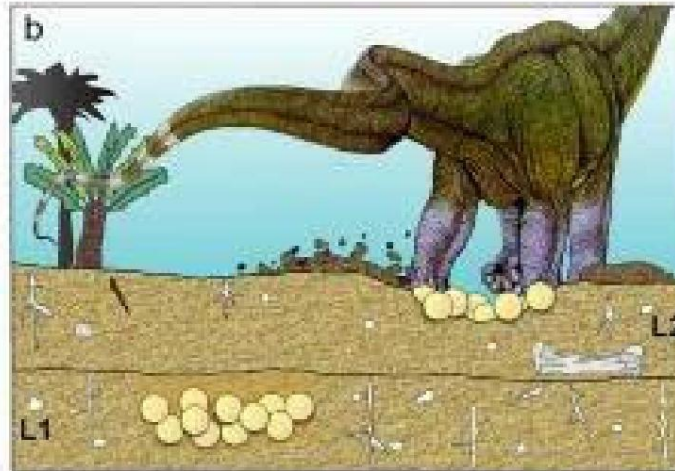
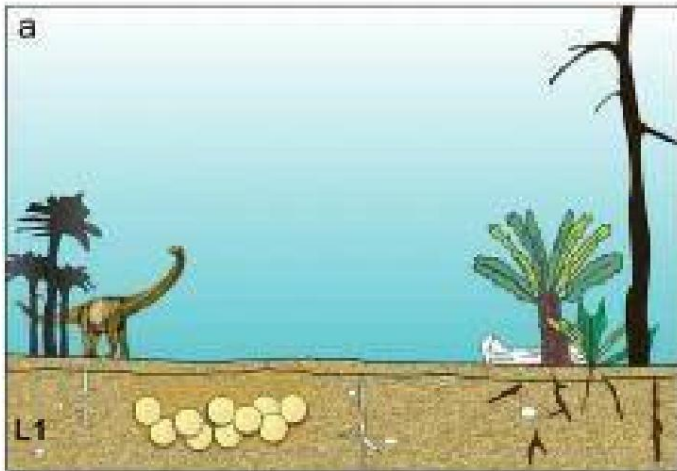
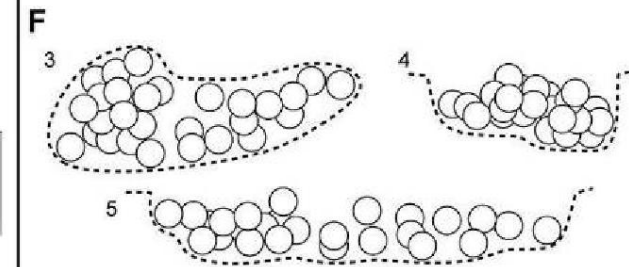
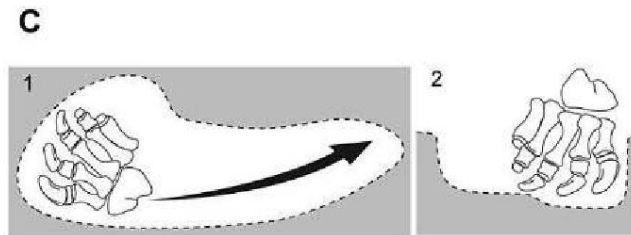
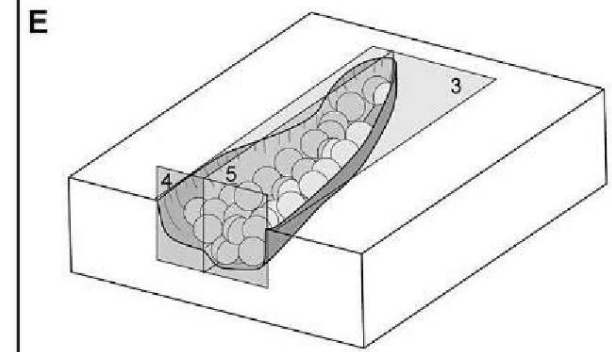
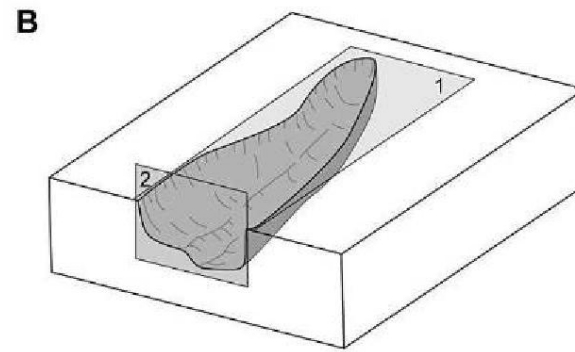
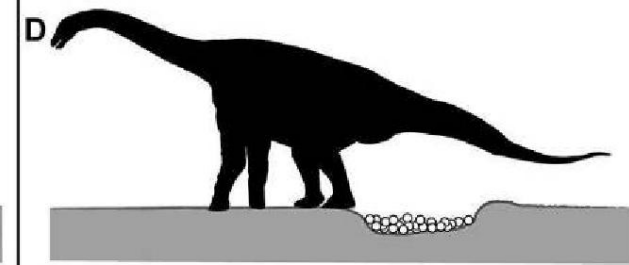
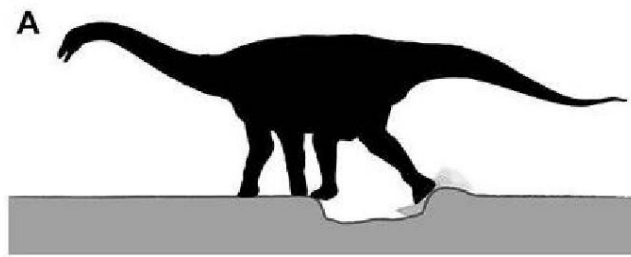
Tortugas terrestres
Testudoolithidae



Cocodrilos
Krokoolithidae



Dibujos modificados de Albert G. Sellés y Miguel Moreno-Azanza.



time sequence

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**Huevo
de galina**



Huevo de *Aepyornis maximus*



**Huevo de
Titanosauro
de Loarre**

