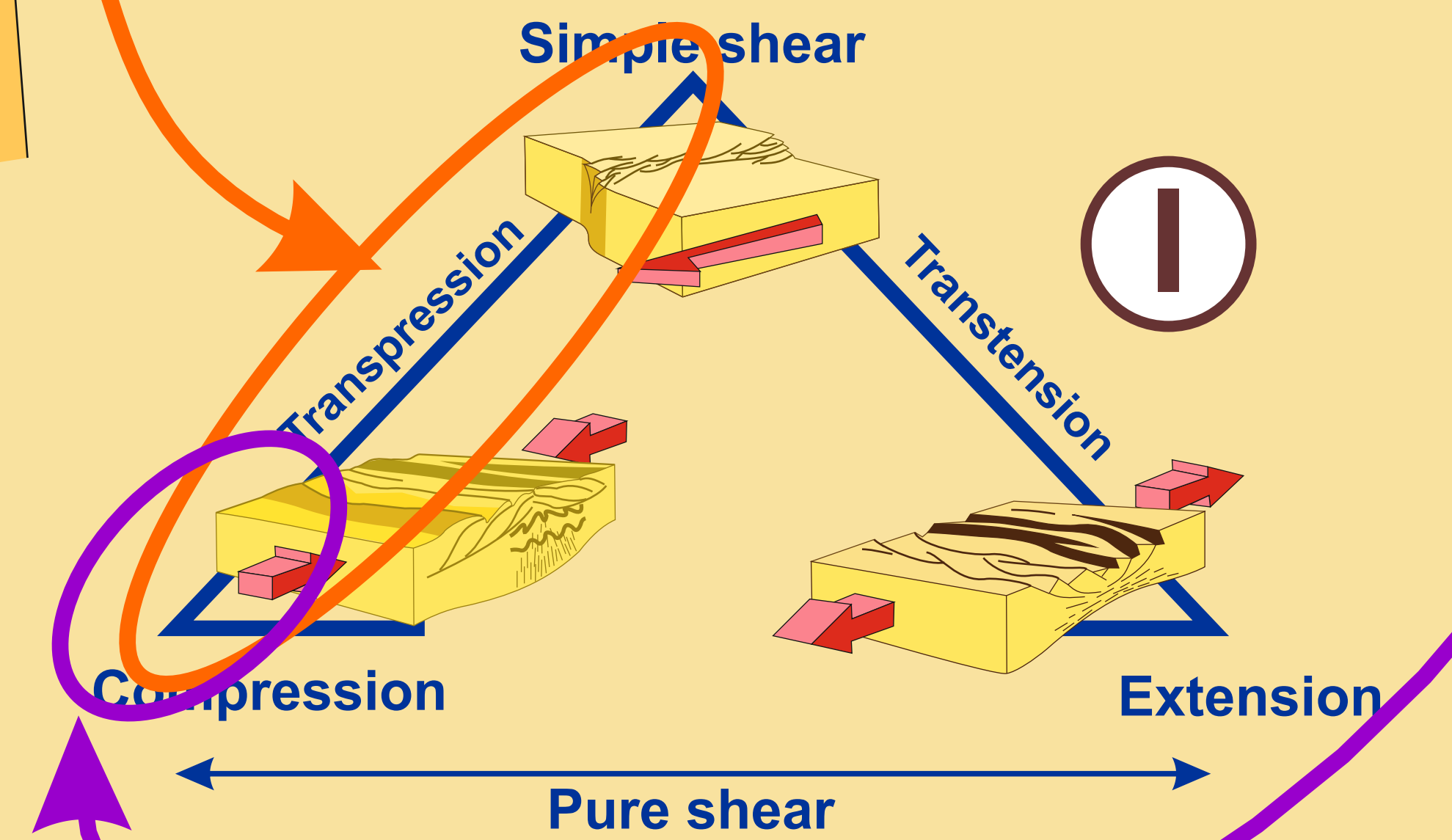
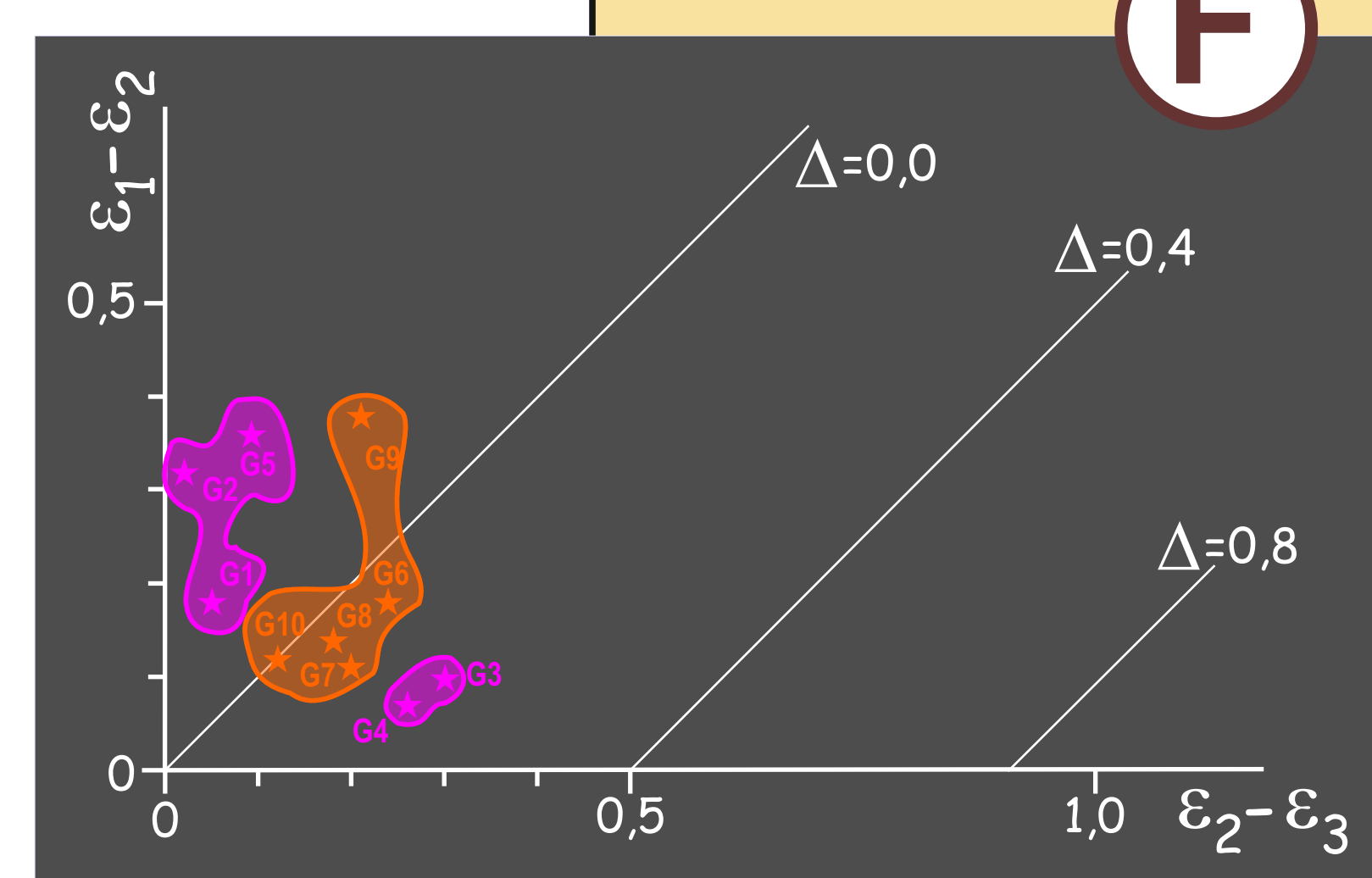
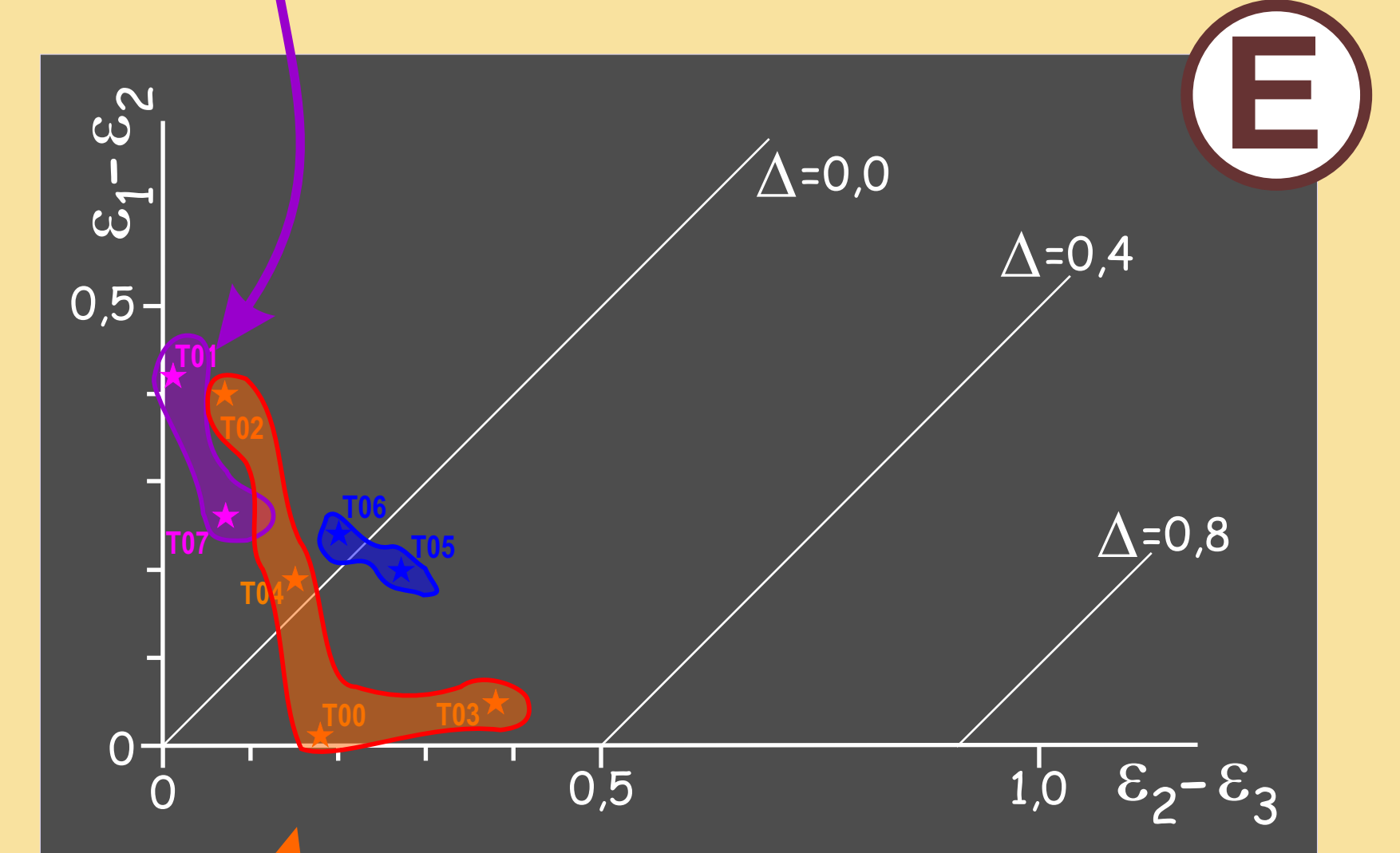
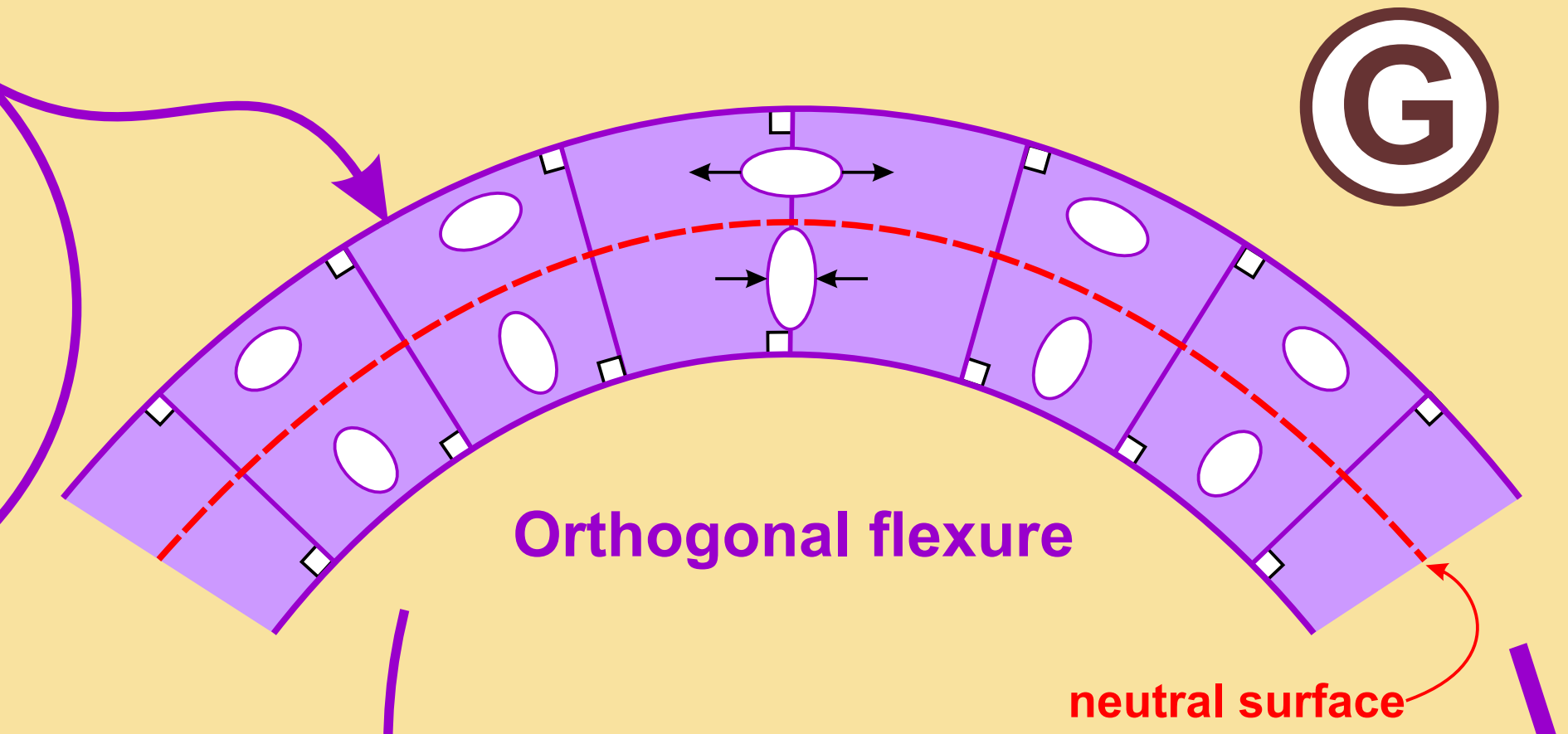
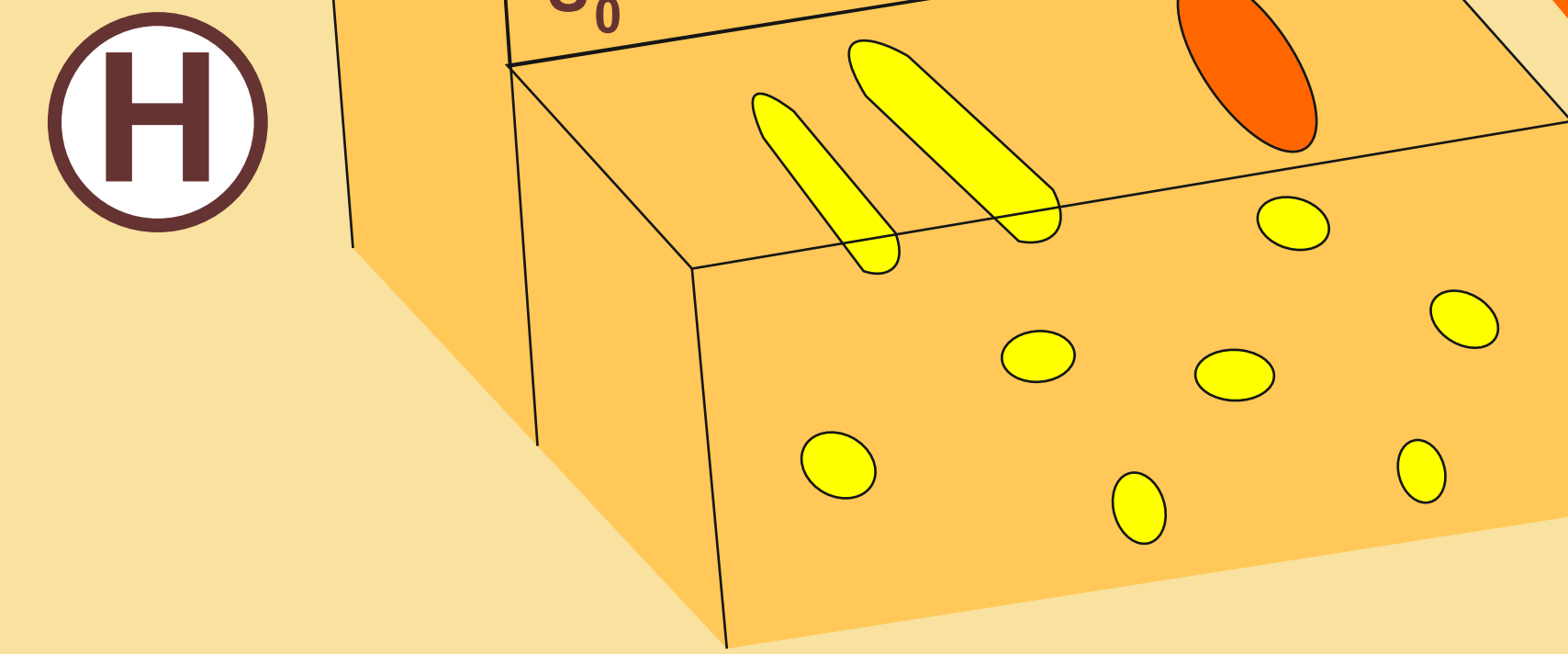
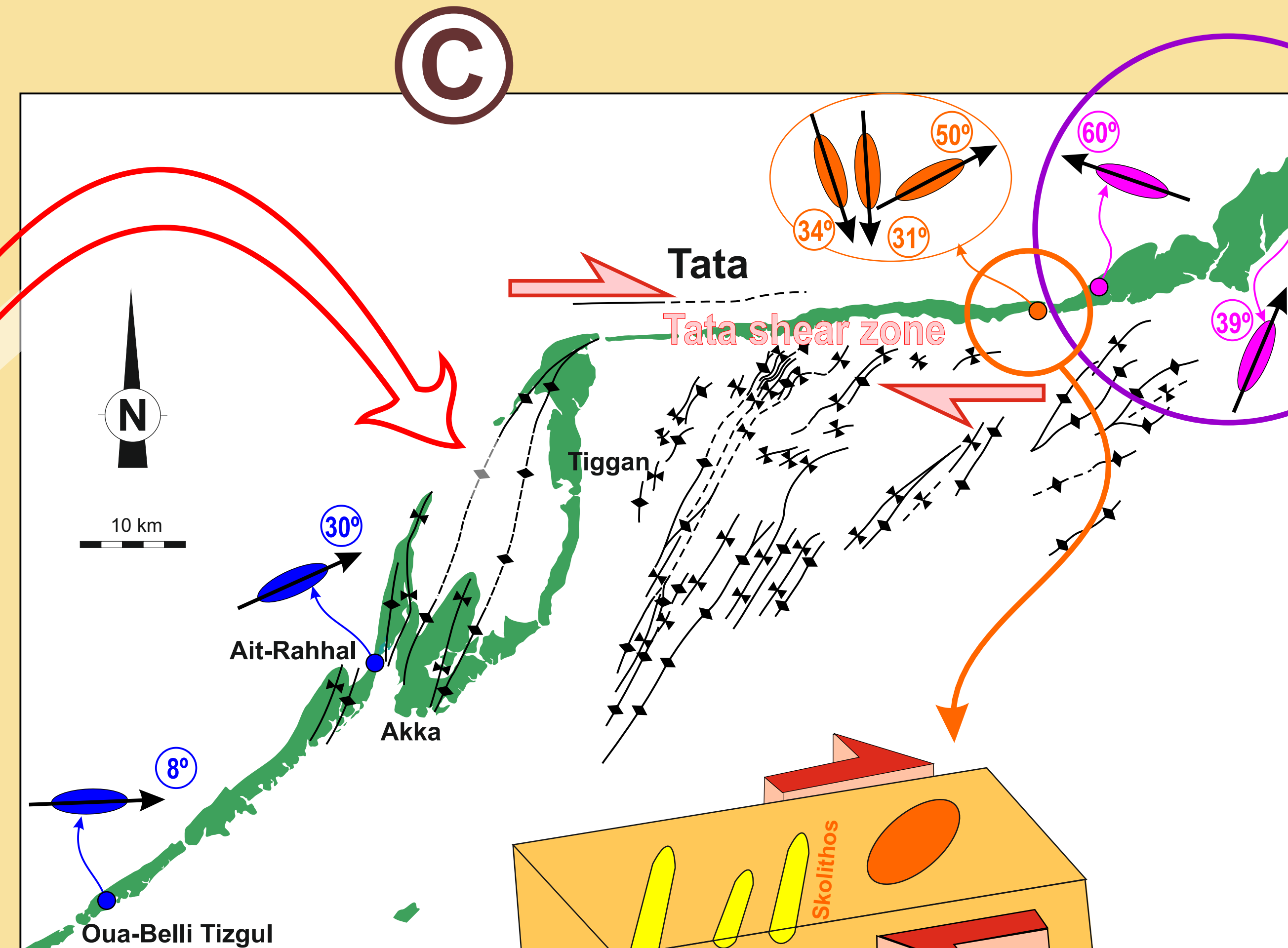
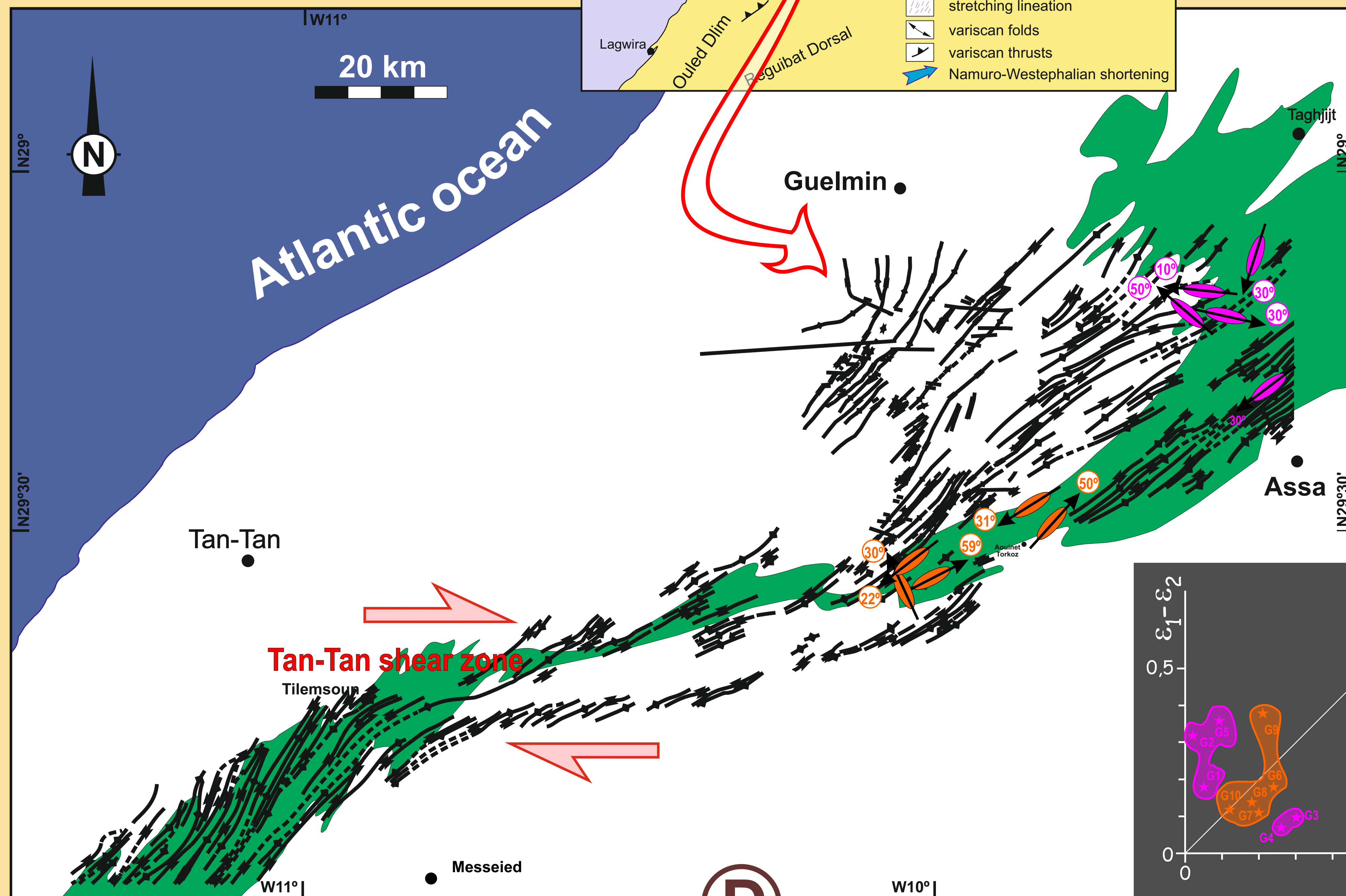
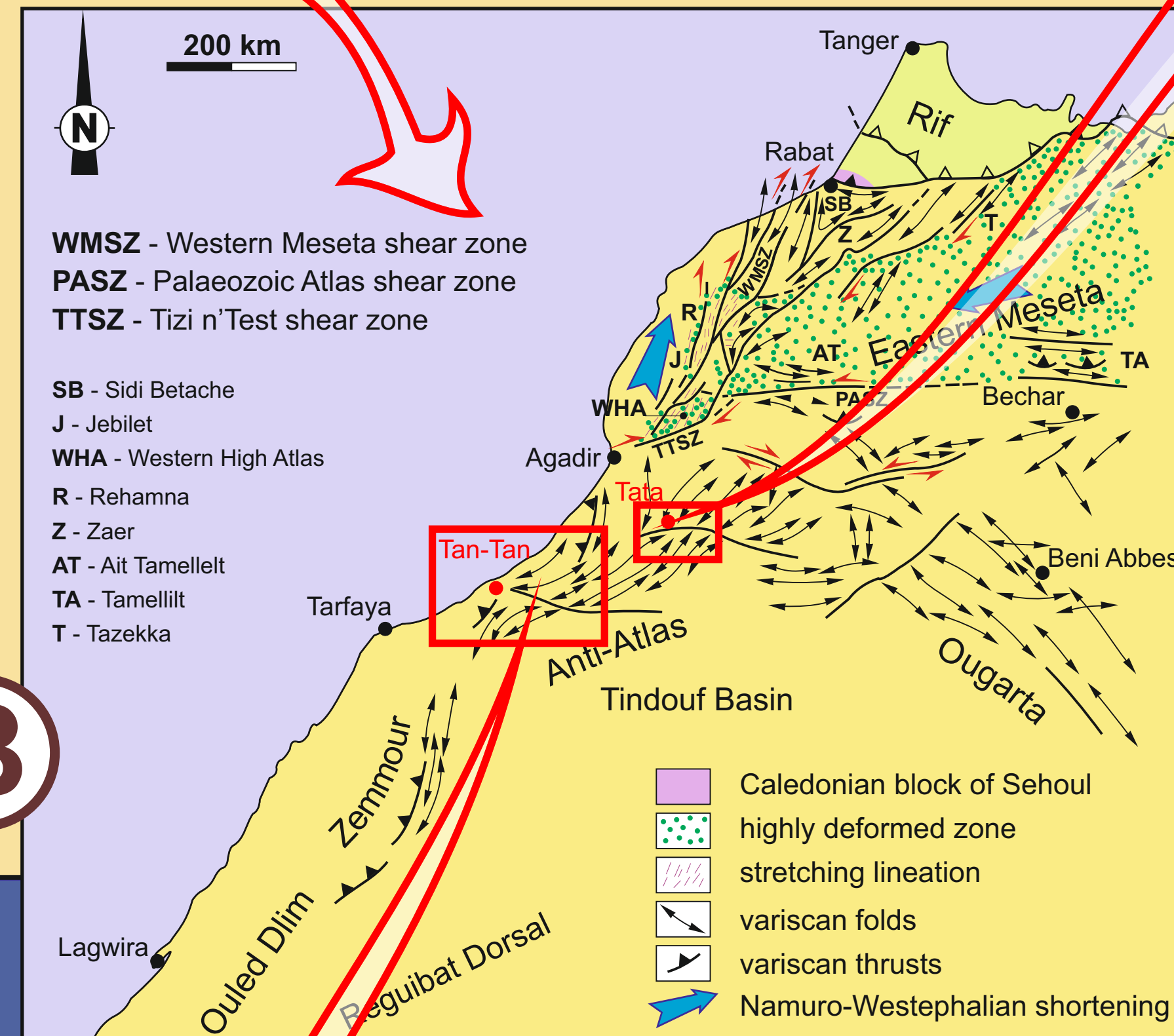


The assembling of Pangaea in upper Palaeozoic gives rise to the Ouachita - Appalachian- Mauritanide-Variscan orogen (A).

In the Moroccan Anti-Atlas major dextral shear zones are associated to this Variscan collision (B), like the Tata (C) and Tan-Tan (D) shear zones. The interpretation of this deformation is debatable but finite strain analysis in the Ordovician Quartzites using Fry method (E) and (F) help to constrain the models.



Away of the shear zones orthogonal flexural folding predominates (G) while the shear zones show a strong strain partitioning ranging from orthogonal flexure to dextral flexural in adjacent beds as emphasized by Skolithos (H). The coaxial deformation predominating in the Anti-Atlas is coupled with non-coaxial dextral deformation along the shear zones (I).

**ACKNOWLEDGEMENTS:** The authors acknowledge the funding provided by ICT, under contract with FCT (UID/GEO/04683/2013) and to COMPETE POCI-01-0145-FEDER-007690. Noel Moreira acknowledges the FCT PhD grant (SFRH/BD/80580/2011).