

Alpine tectono-thermal evolution of the North African passive paleo-margin incorporated in the Western Rif belt (Northern Morocco)

Achraf Atouabat, Sveva Corrado, Dominique Frizon de Lamotte, Remi Leprêtre, Geoffroy Mohn and Andrea Schito

Session TS10.2

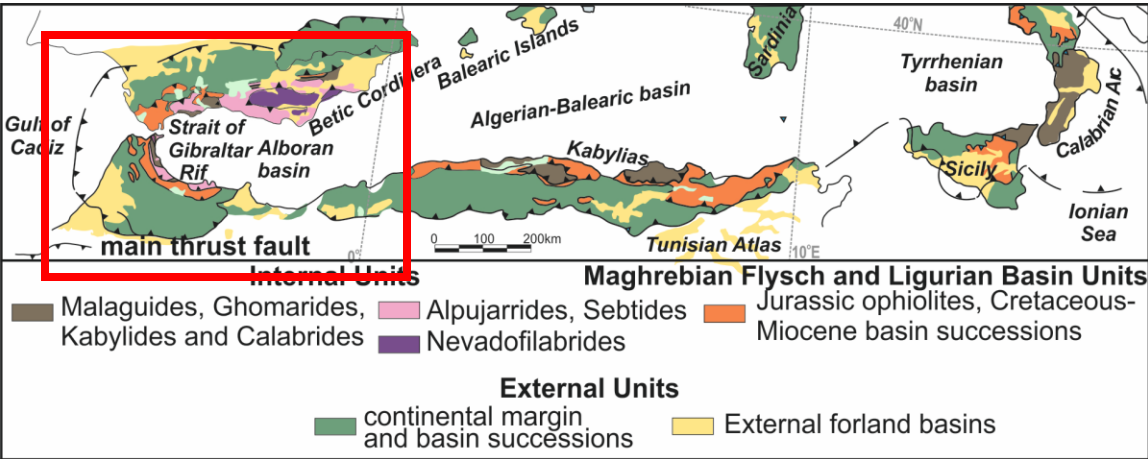
Tectono-thermal evolution of fossil and active sedimentary basins

Presented by

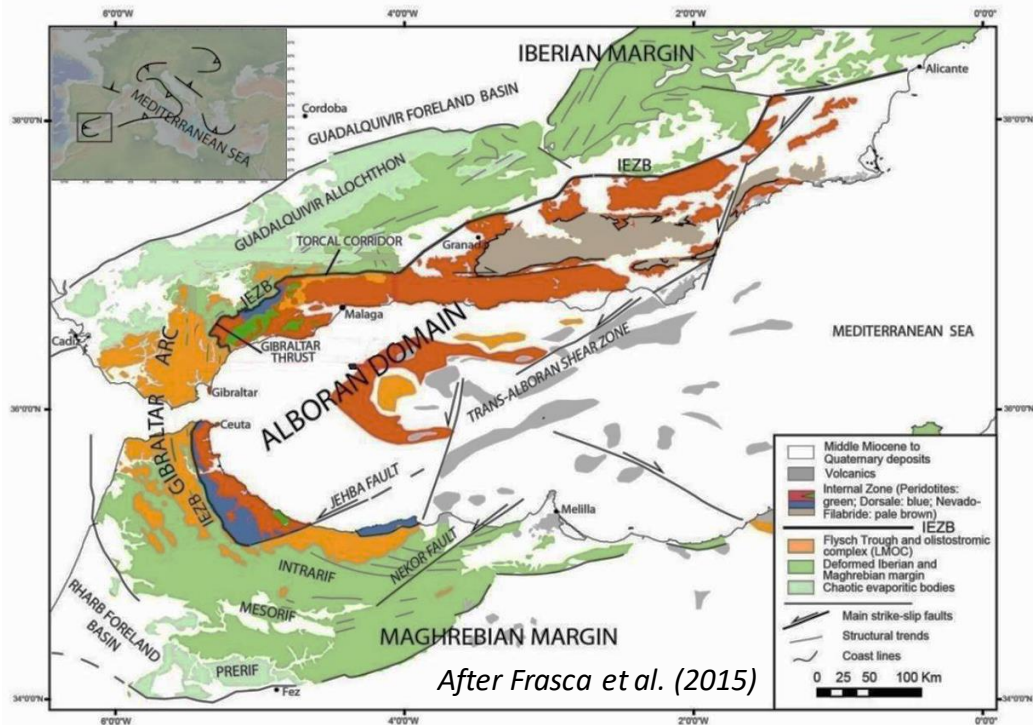
Achraf ATOUABAT

EGU general assembly 2022; Wien (Austria)

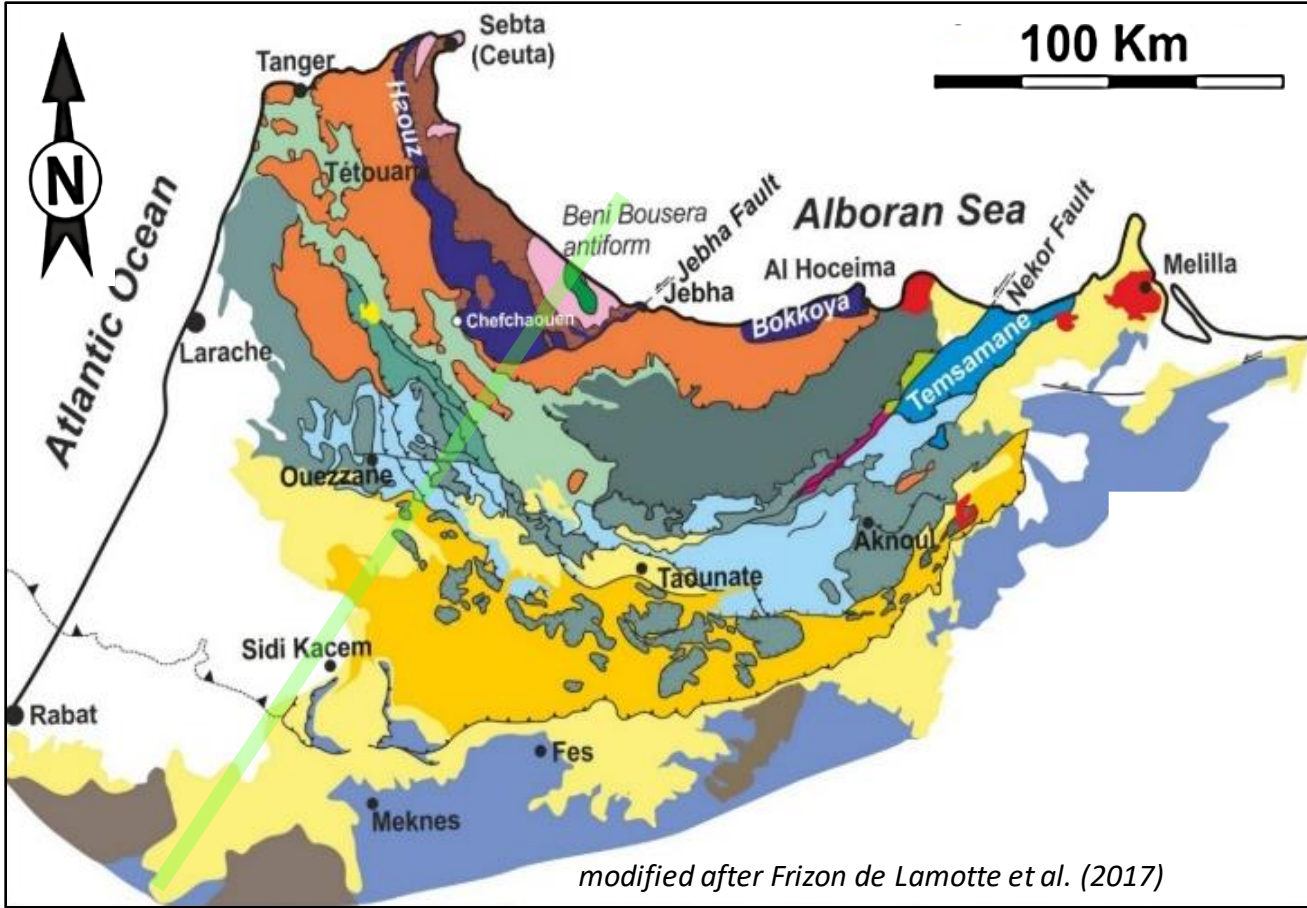
The Rif Belt in the Mediterranean puzzle



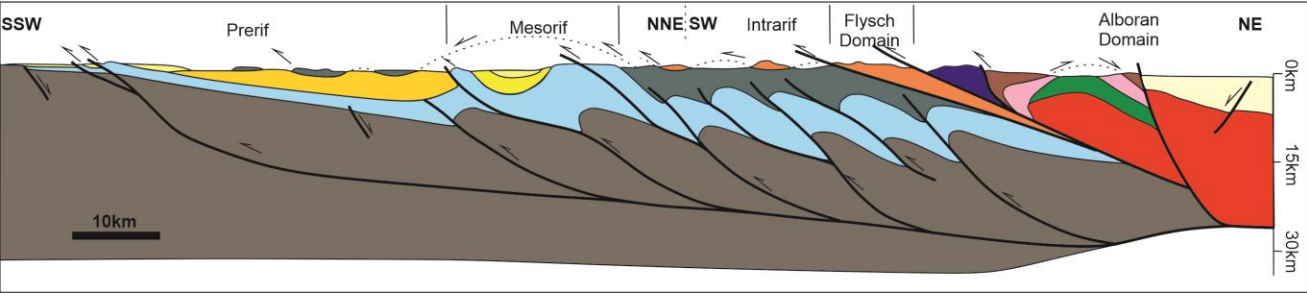
modified after Durand-Delga (2000)



After Frasca et al. (2015)

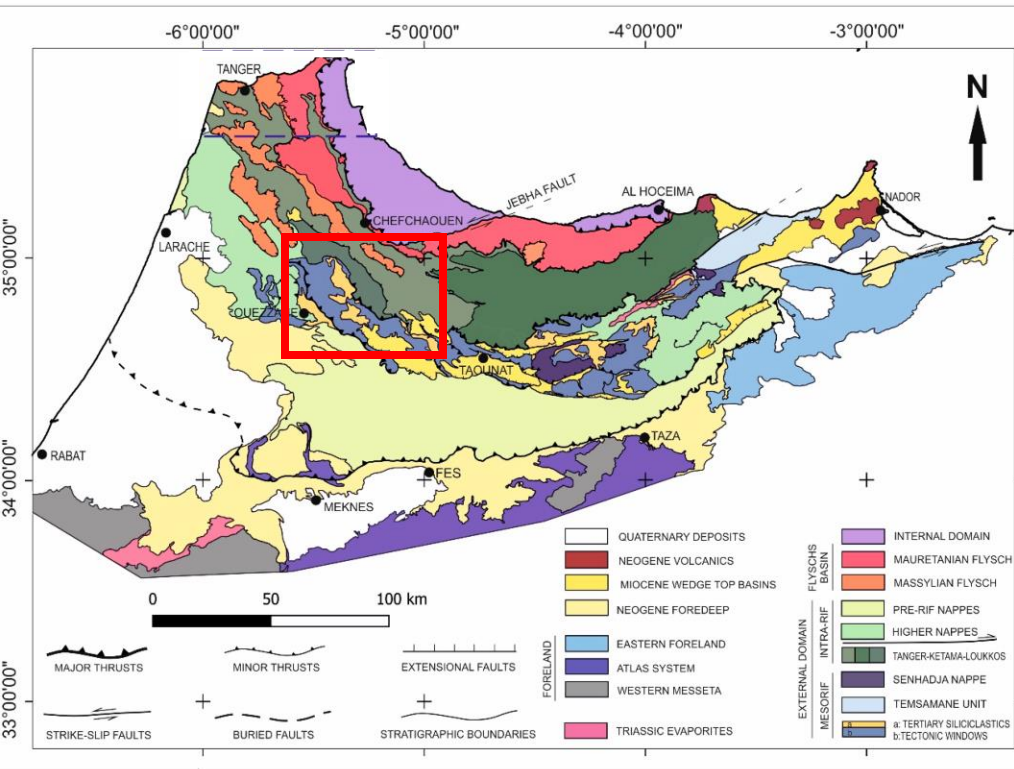


modified after Frizon de Lamotte et al. (2017)

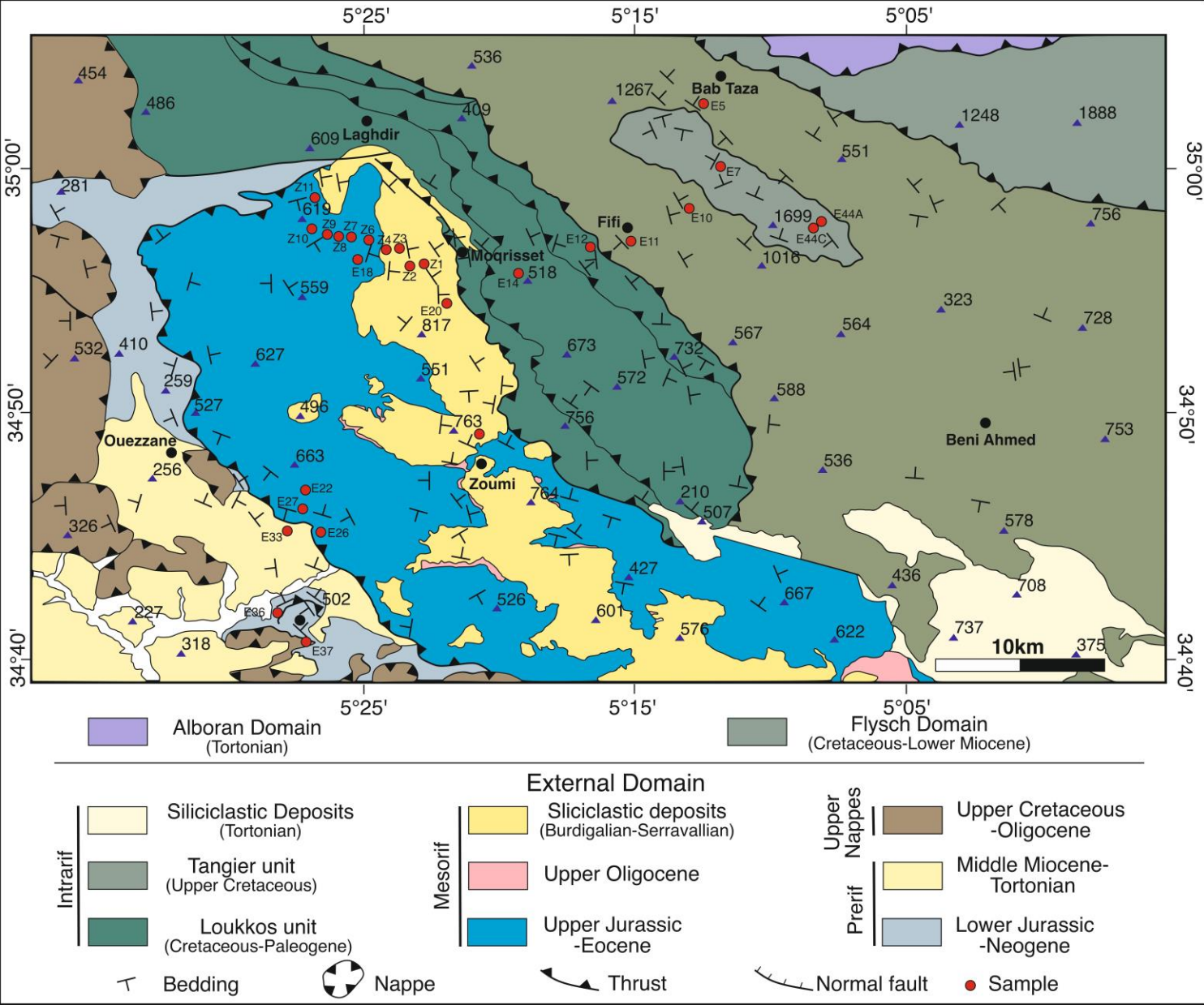


modified after Crespo-Blanc and Frizon de Lamotte (2006)

Studied area in the central-western Rif

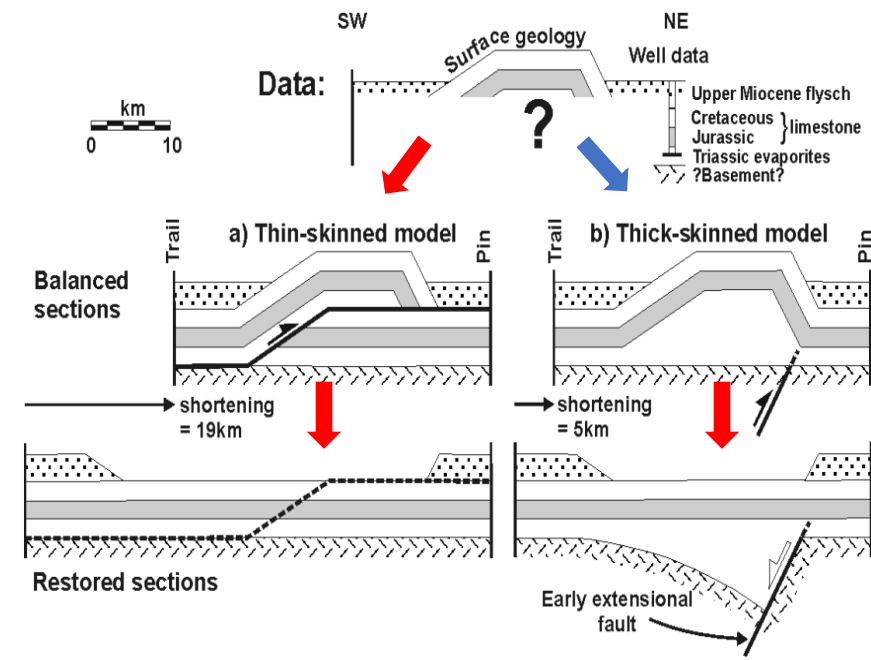


After Atouabat et al., 2020



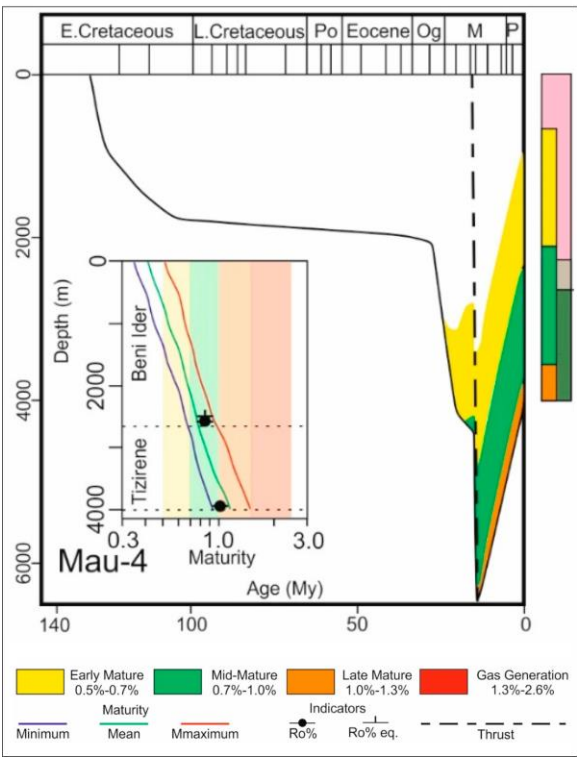
METHODS - Lab work to validate structural models

Alternative structural models from same surface data



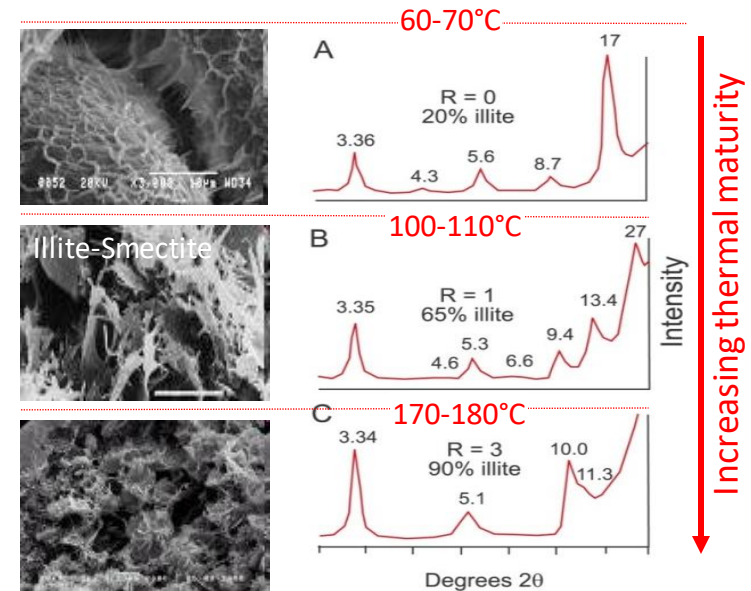
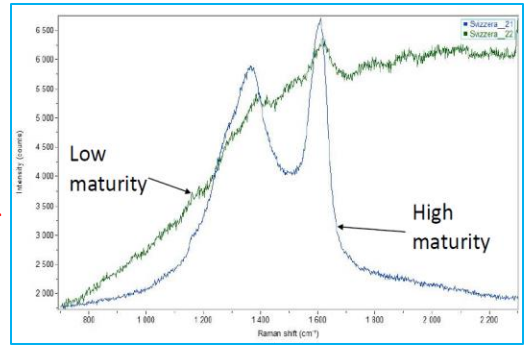
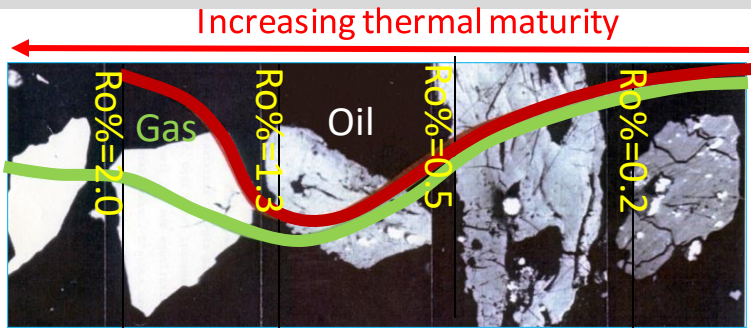
After Tozer et al. (2002); Furlong and Edman (1984)

Burial and thermal history

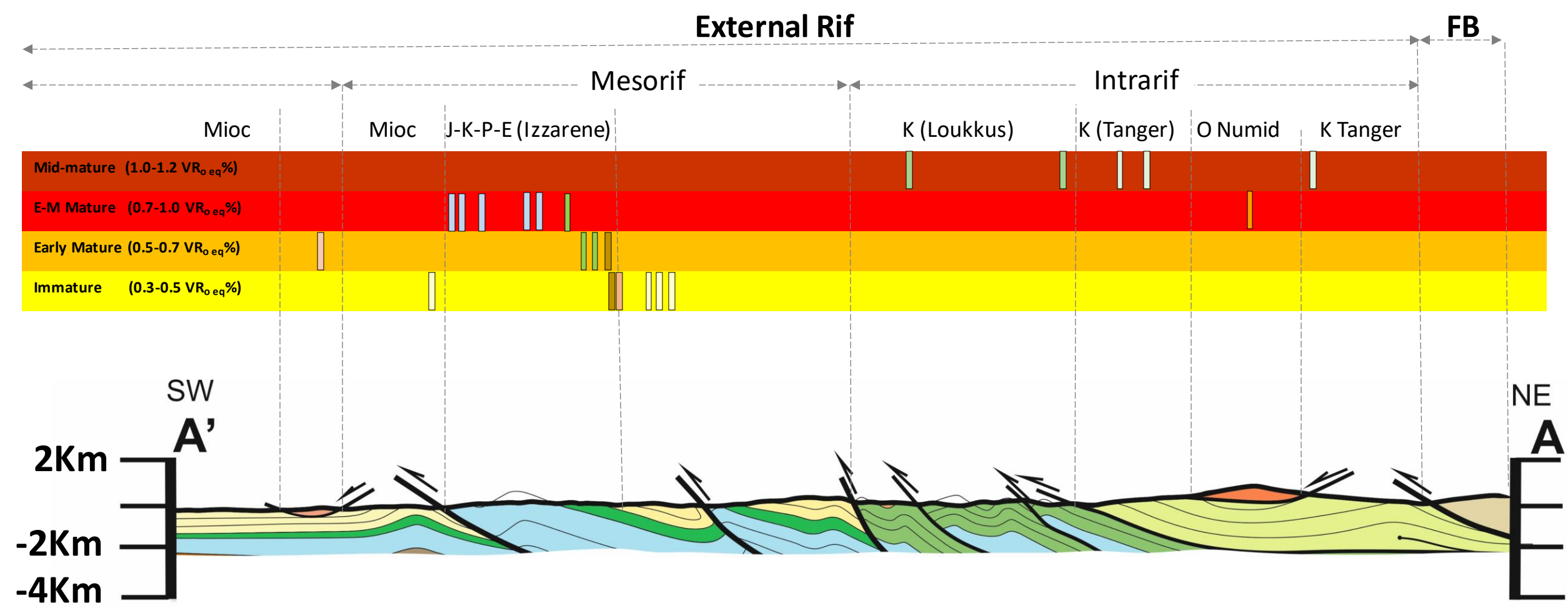


After Atouabat et al., 2020

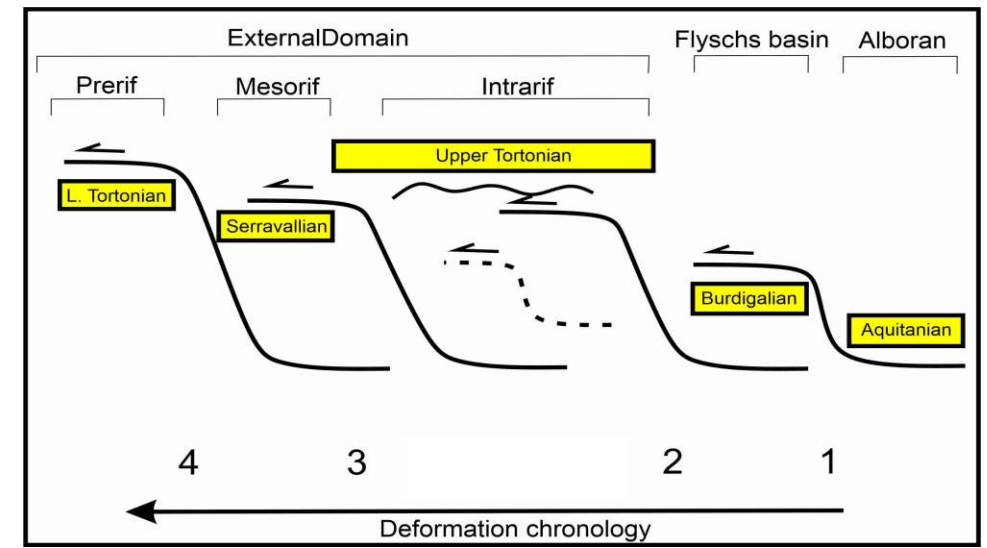
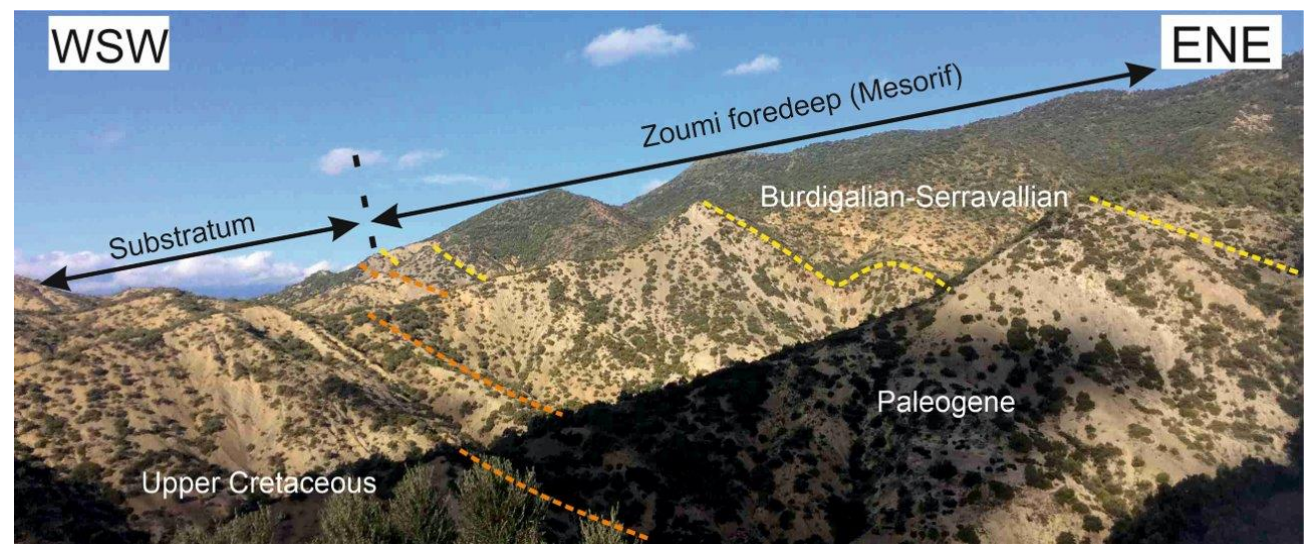
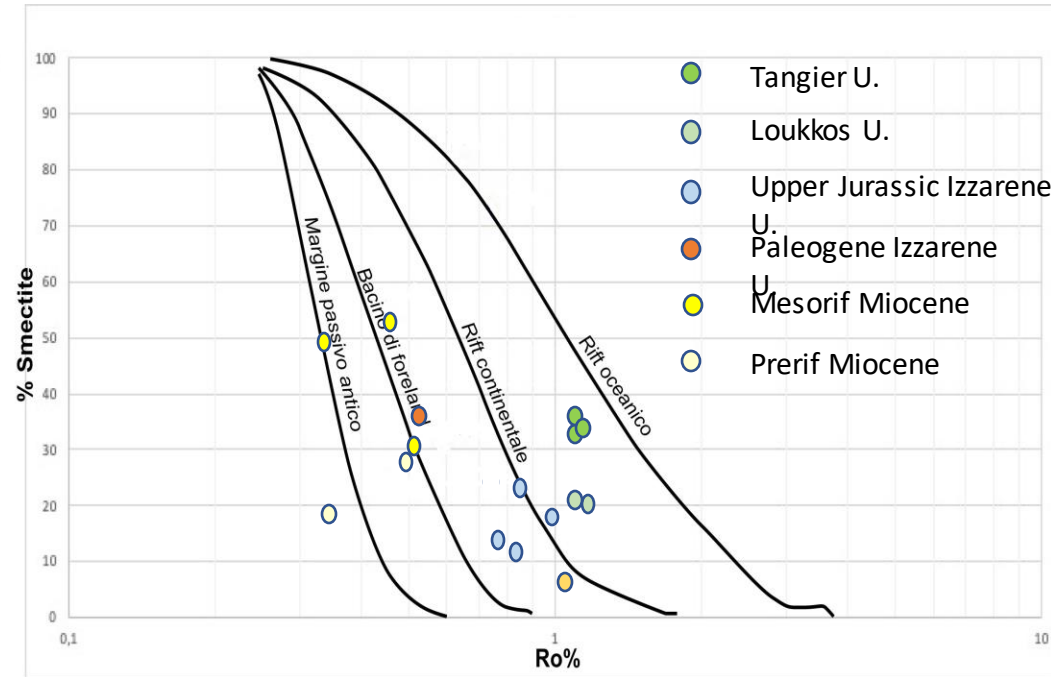
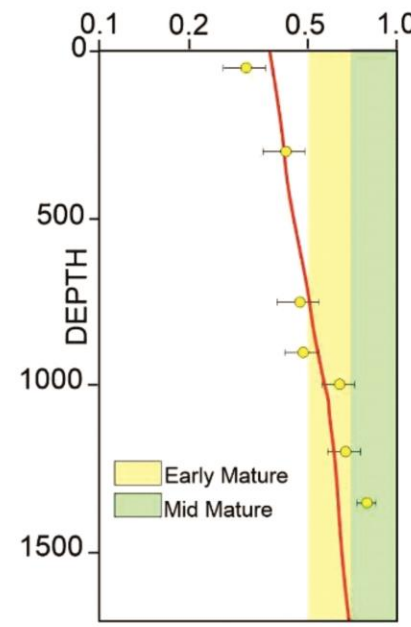
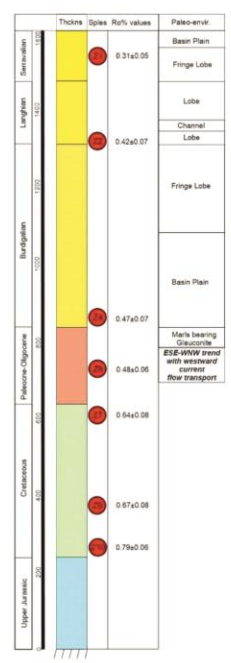
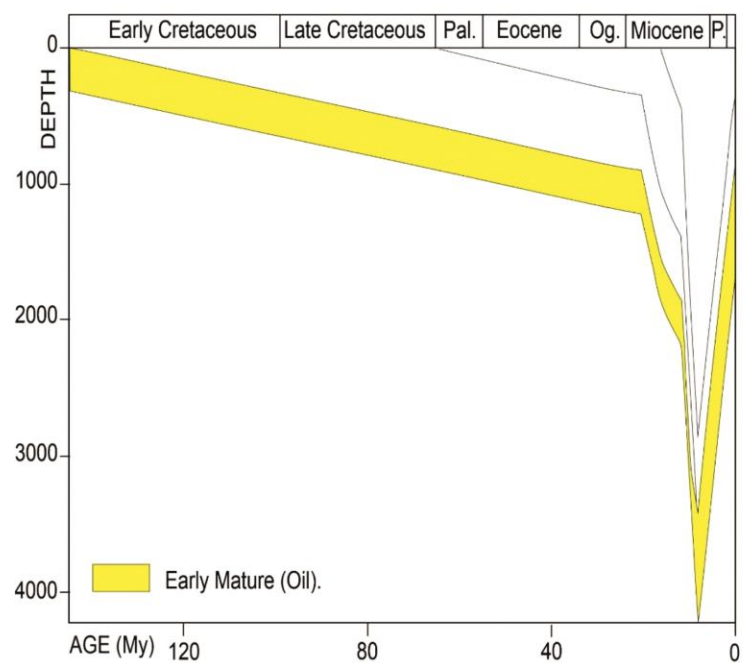
Organic petrography
Vitrinite Reflectance
Micro-Raman spectroscopy
on organic matter
Raman parameters
XRD on clay minerals semi-quantitative
analyses Illite% and stacking order R in
illite-smectite mixed layers



Spatial distribution of thermal indicators



Tectonic and thermal evolution of the central-western Rif belt



THANK YOU

