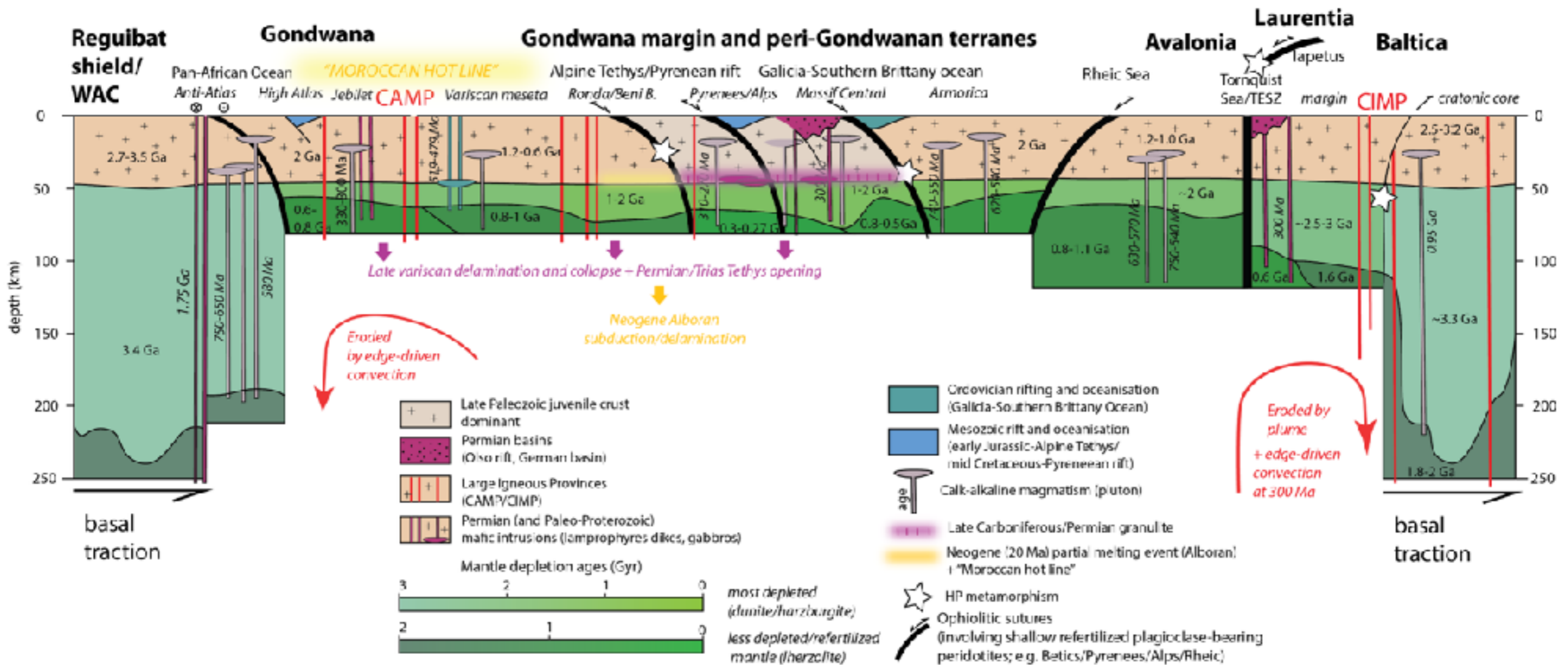
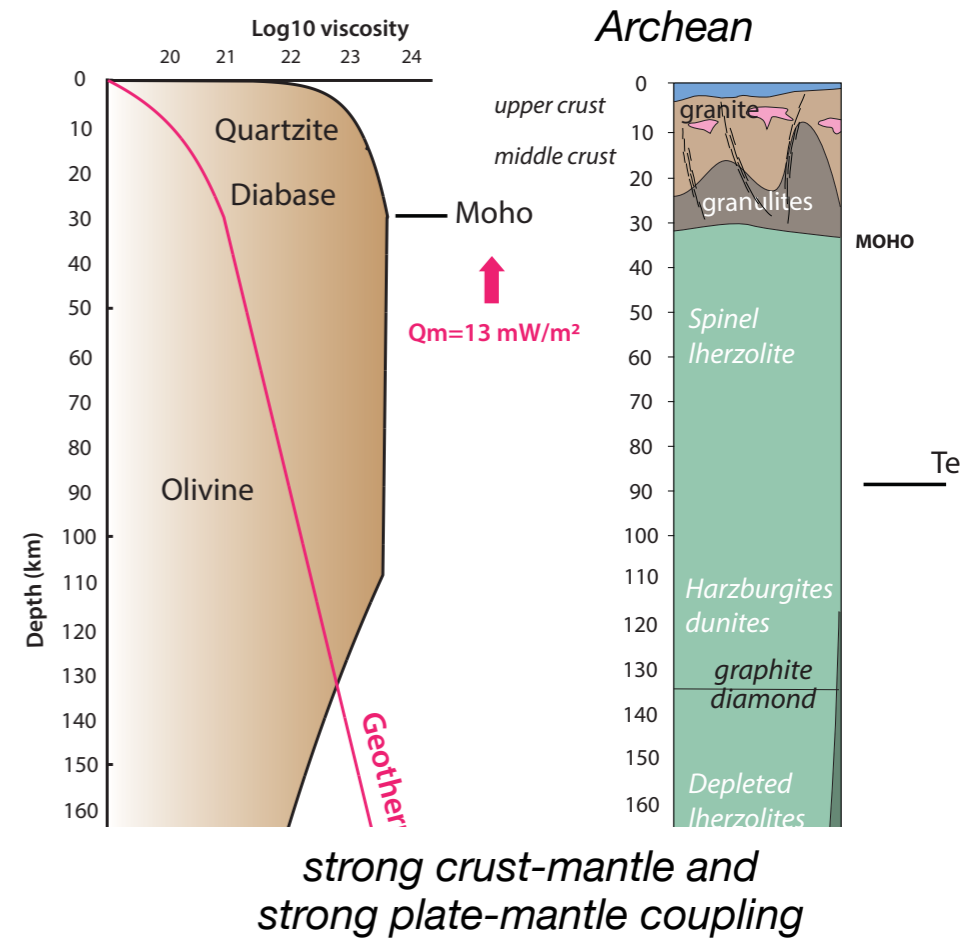
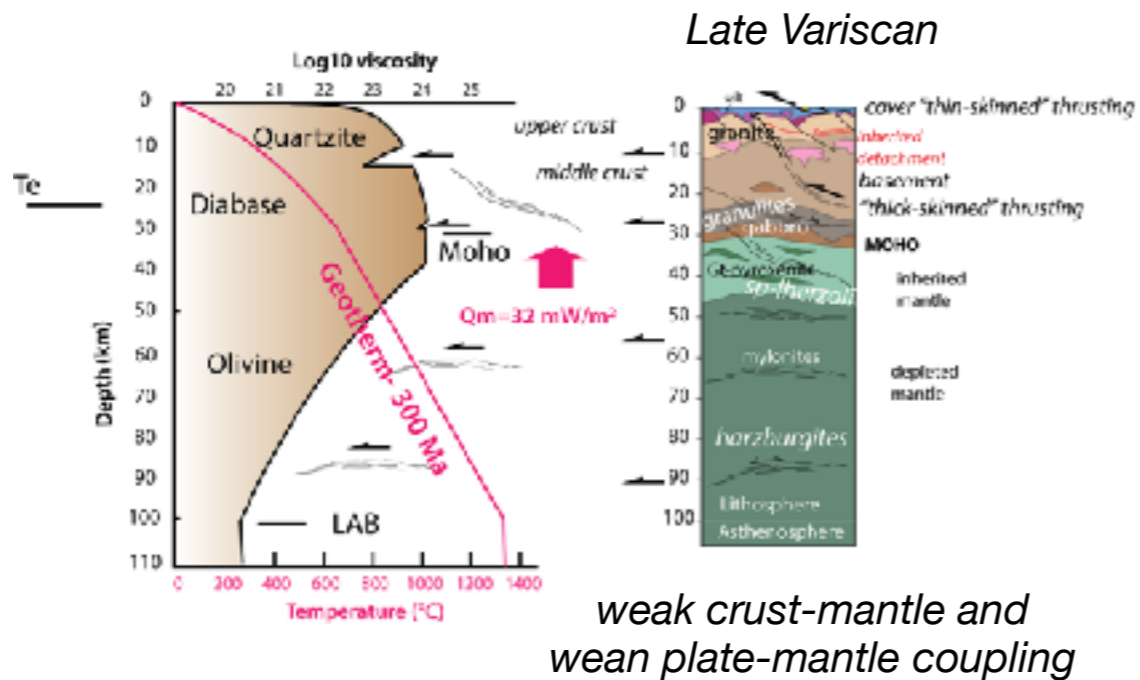


Magmatism and depletion ages in crust and mantle: a synthesis

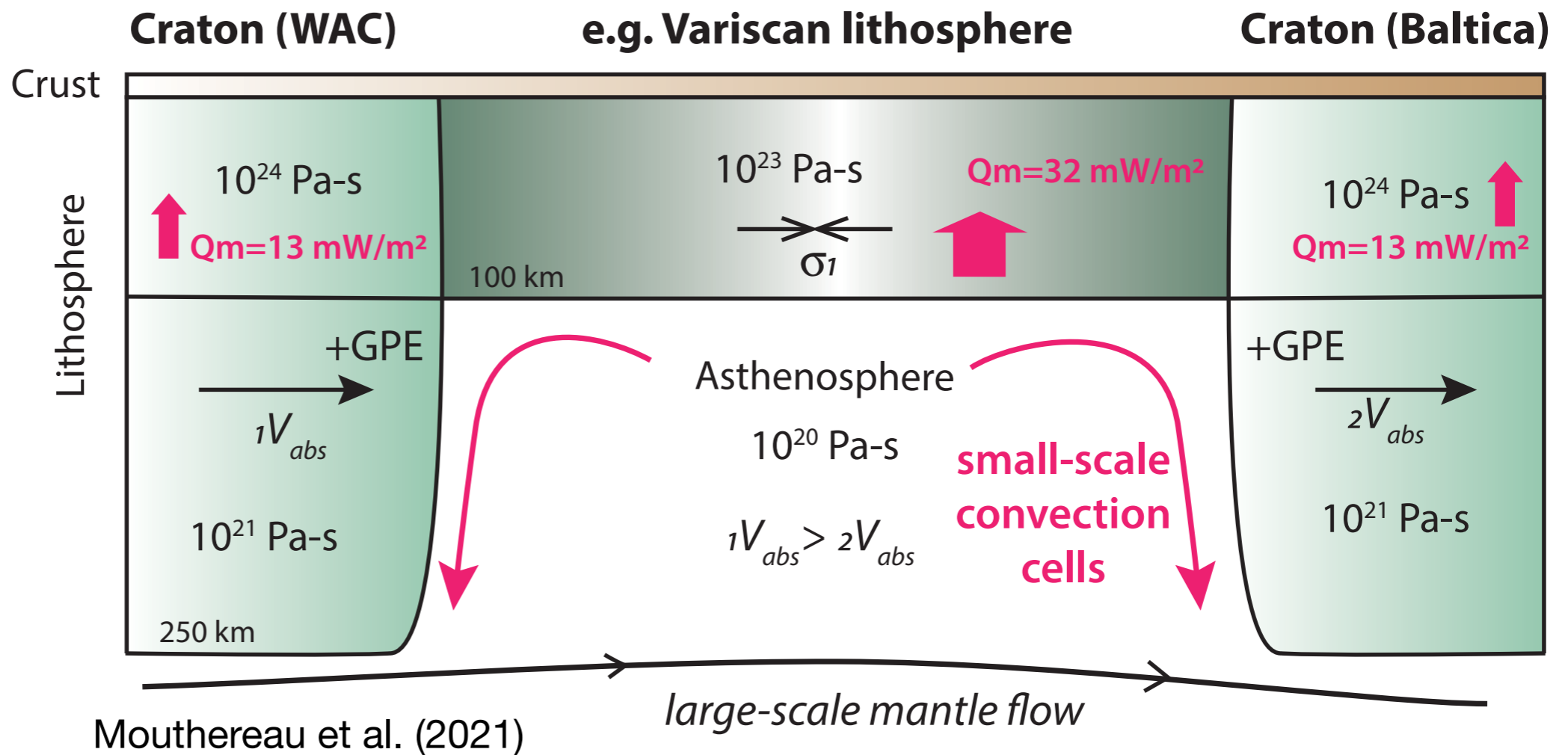


Mouthereau et al. (2021)

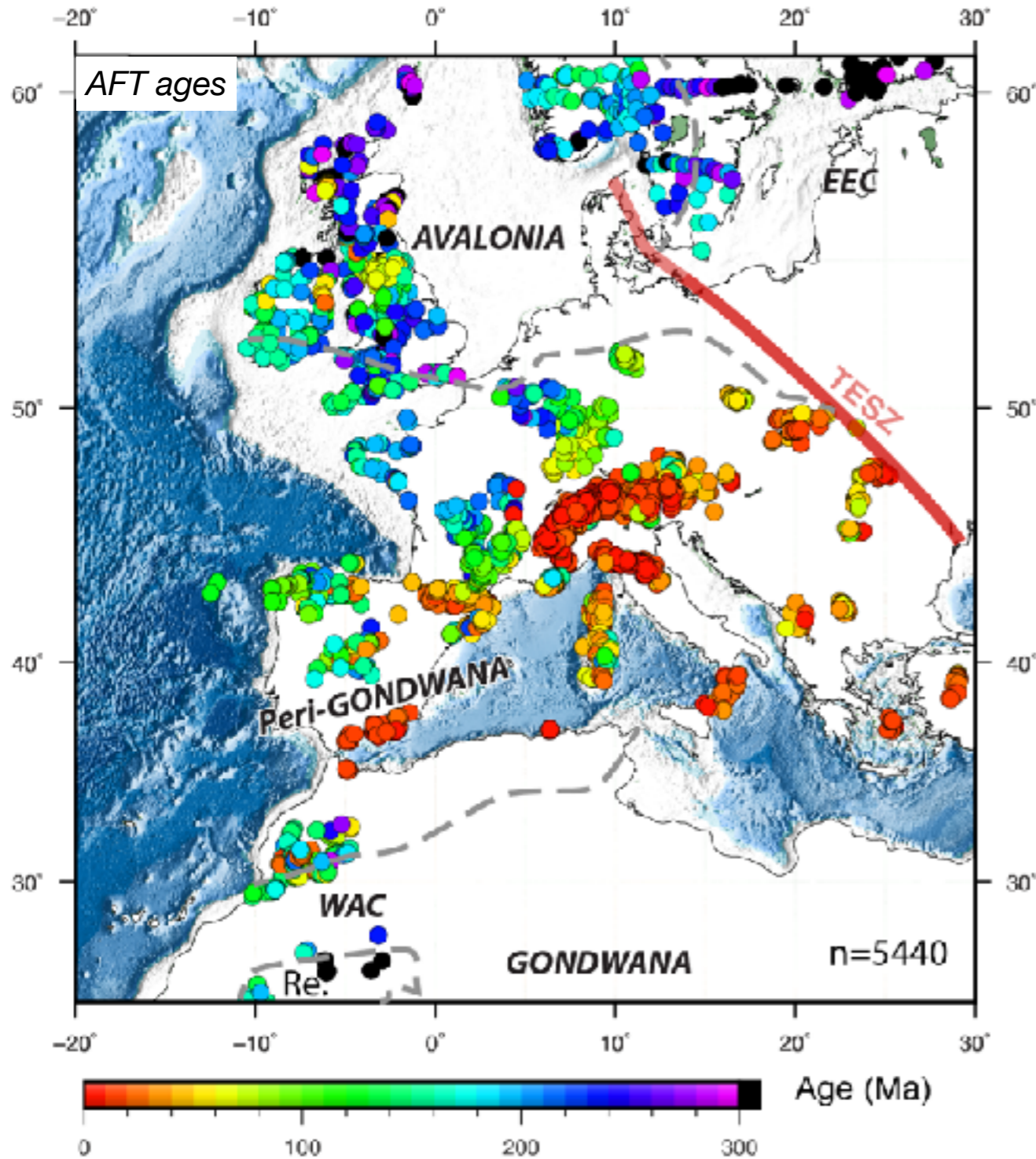
Contrasting continental rheology



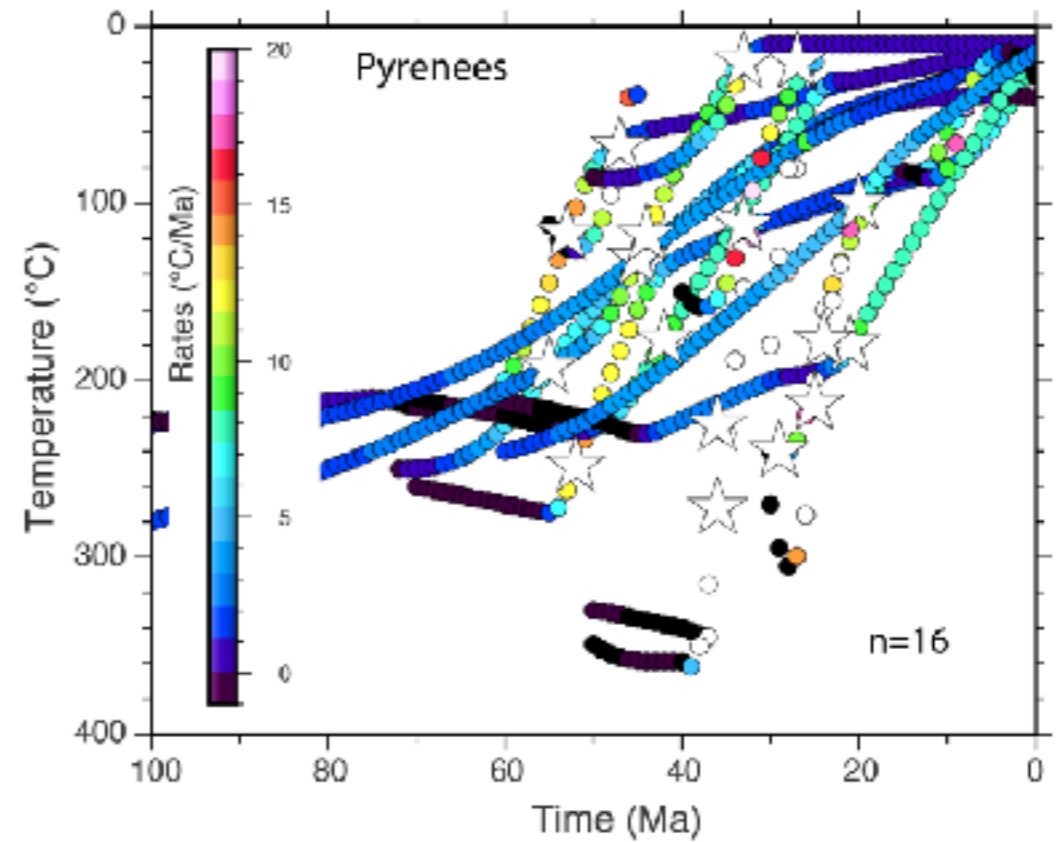
No thermal relaxation since 300 Ma (inheritance) -> **requires an increase in the mantle heat flux**



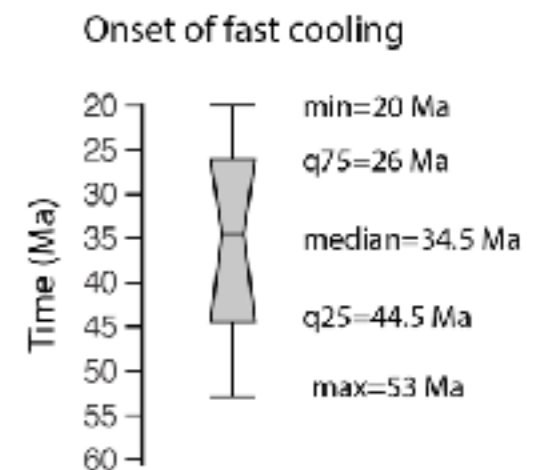
Topographic evolution using LT thermochronology



Extracting increase in cooling rates from T-t evolution



Acceleration of cooling/exhumation
-> topographic growth

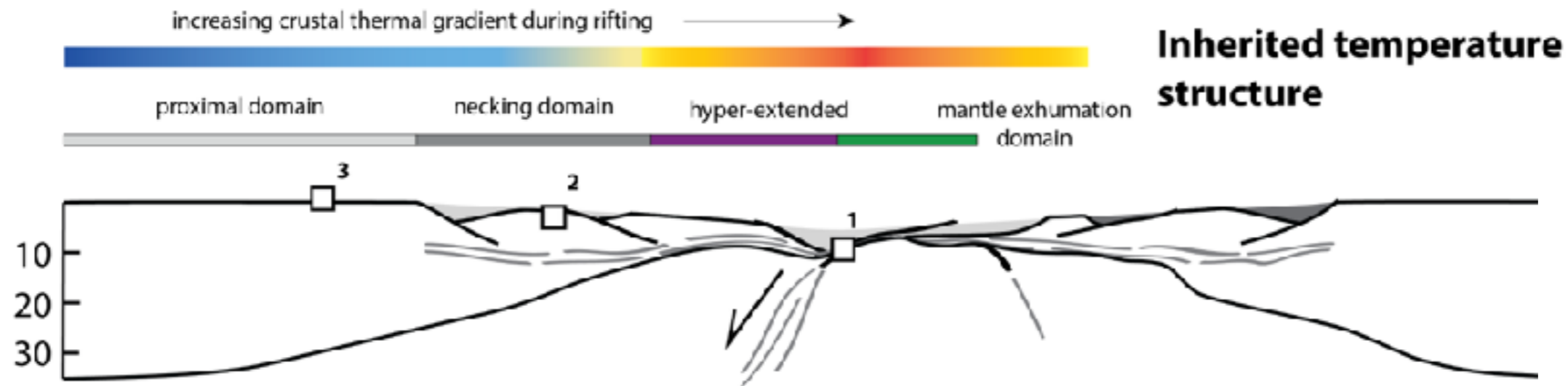


Mouthereau et al. (2021)
modified from compilation by Herman et al. (2013)

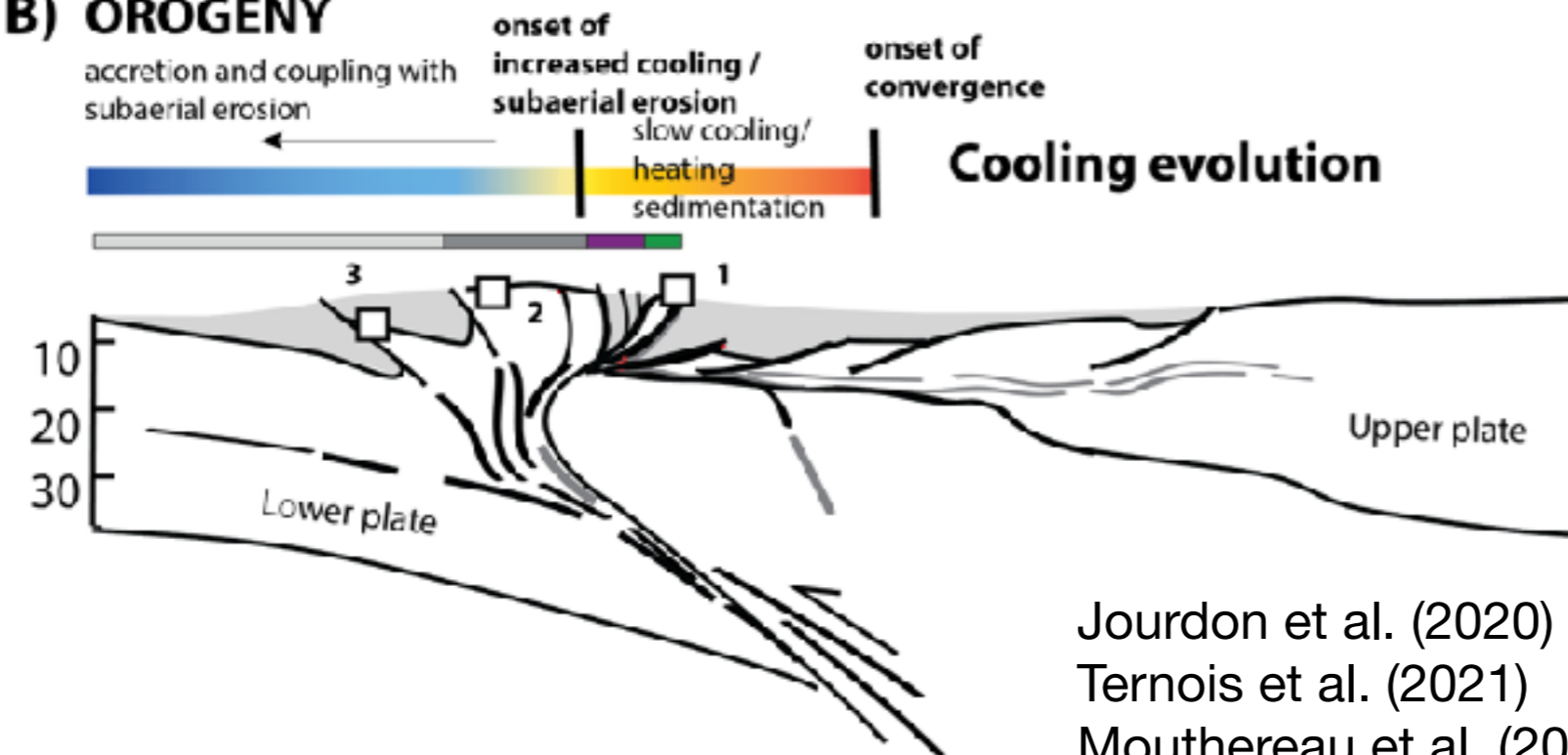
Topographic evolution using LT thermochronology

t-T evolution of inverted rifted margins

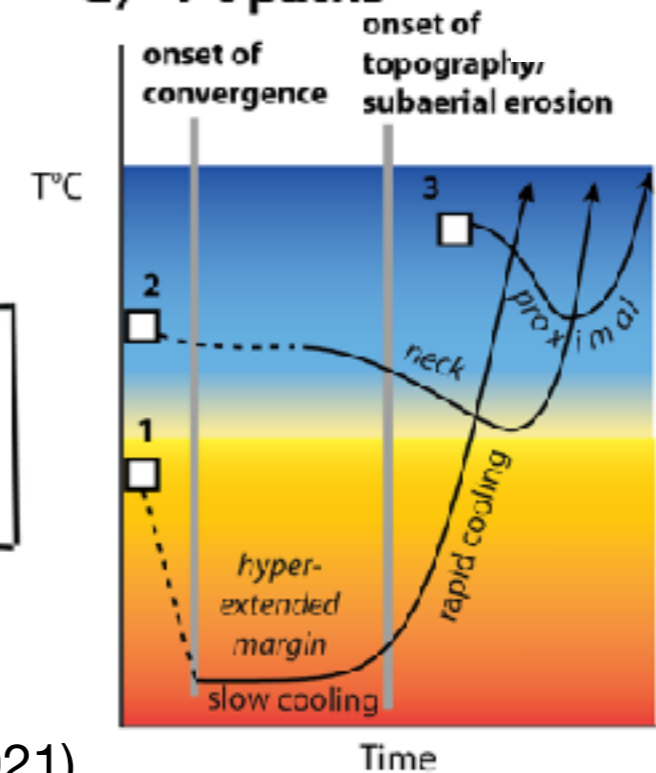
A) RIFTING



B) OROGENY

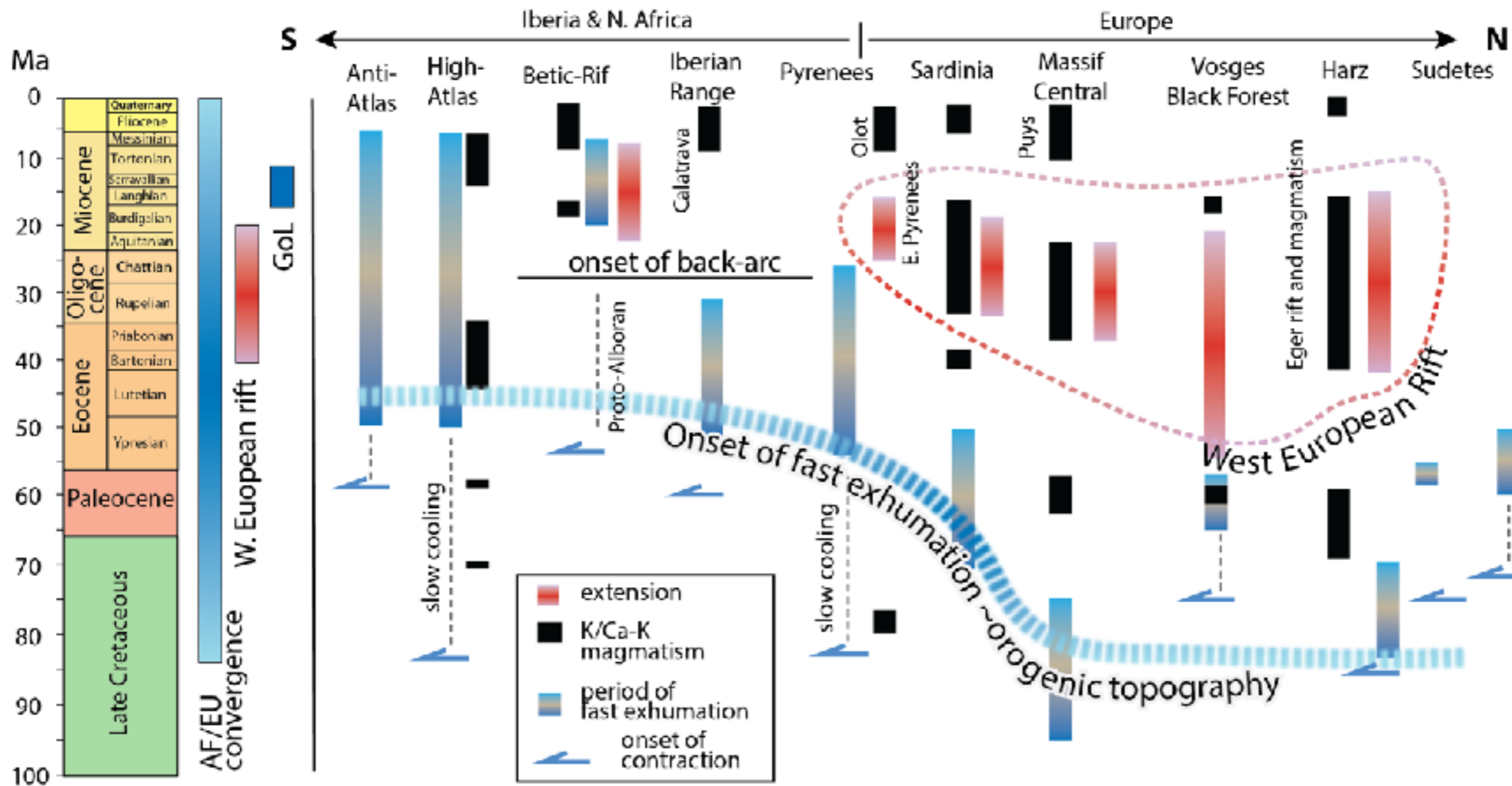


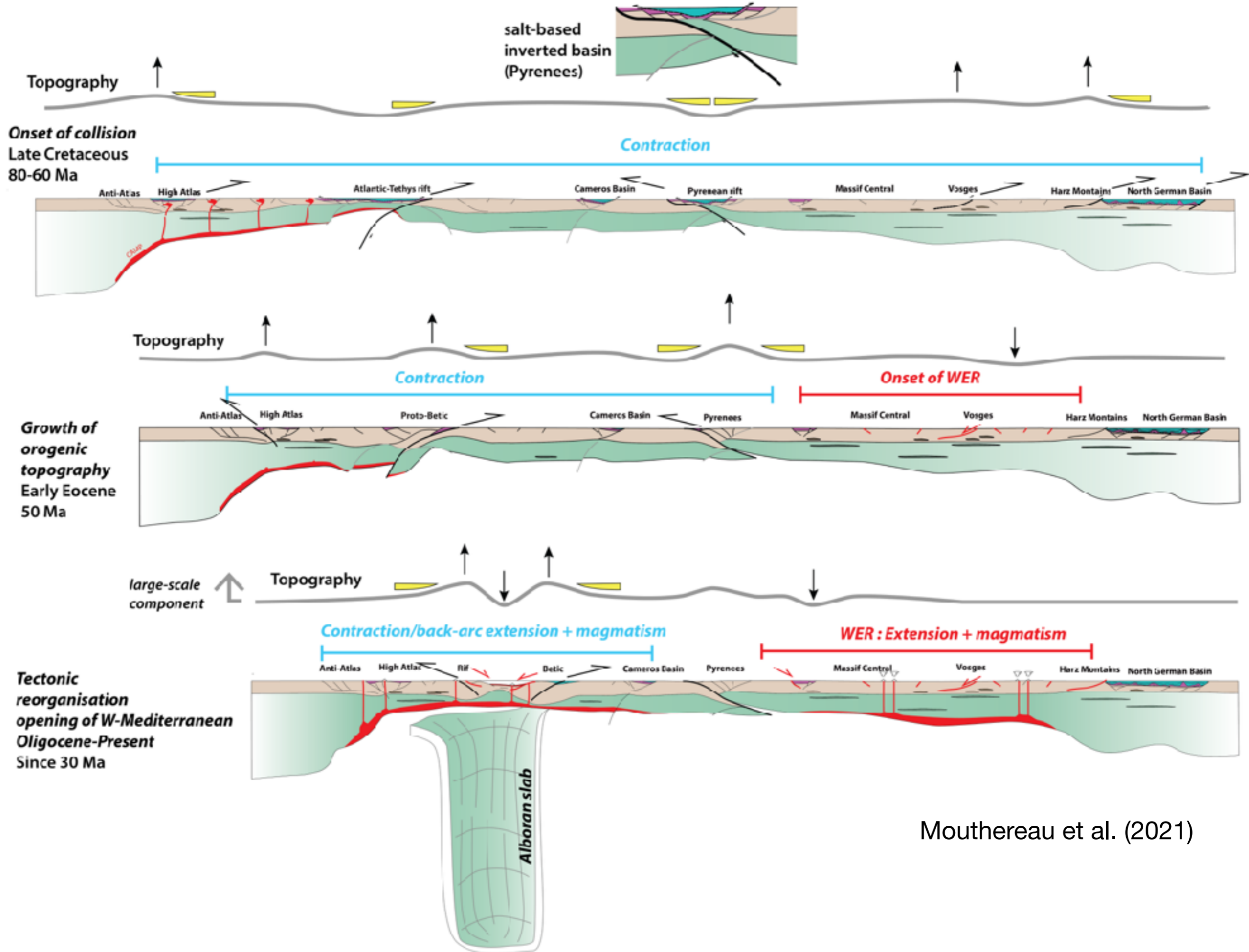
C) T-t paths



Jourdon et al. (2020)
Ternois et al. (2021)
Mouthereau et al. (2021)

Tectono-magmatic and syn-convergence exhumation evolution of W Europe





Mouthereau et al. (2021)