



1 Evolution of NW Africa during the Mesozoic (Western Meseta, High Atlas and Anti Atlas)

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Important Post-Atlantic rifting event happened in Western Meseta during the Mesozoic. Following the well documented rifting, a major exhumation episode is signaled by a transition from marine limestone (Early Jurassic-Middle Jurassic) to continental red sandstone (Late Jurassic-Early Cretaceous) deposits.

Classical geological interpretations made the statement that NW Africa was a stable and emergent region during Mesozoic and Early Cenozoic times, in contradiction with recent Low-Thermal Thermochronology data performed on Paleozoic rocks from the Western Meseta (recently available in the literature) which provided ages between 130-160 Ma using apatite fission track dating.

The aim of this work is to determine the geographical extension of the Post-Rifting exhumation episode in NW Africa.

We will present a complement FTA and (U-Th)/He set of analysis realized on Triassic, Paleozoic and Precambrian rocks sampled from the High Atlas and the Anti Atlas. The obtained AFT ages range between 165 to 120 Ma confirming an unexpected Middle-Late Jurassic to Early Cretaceous vertical motion in all NW African domains as already documented in the Meseta.