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## Neogene to recent geodynamic evolution of Northern Tunisia foreland thrust belt.

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This work analyses the tectonic evolution of Northern Tunisia from the Late Miocene to Present. Two orthogonal extensional systems with ENE- and SE-directed transport produced the extensional collapse of the Tell and Atlas Foreland Thrust Belts (FTBs) in northern Tunisia during the Late Miocene to Pliocene in a context of NW-SE plate convergence between Africa and Eurasia. These systems produced the extensional denudation of the Tunisian Atlas and Tell foreland thrust belts, which we related to deep mantle tectonic mechanisms, known as a common feature in other FTB's in the western Mediterranean, i.e. Betics, Rif, Calabria and Apennines. Low-angle normal faults have extended and reworked the Tunisian Tell external foreland thrust belt, exhuming midcrustal lower-greenschist metapelites and marbles with Triassic protholiths, and forming Late Miocene basins. This extension was followed by later Pliocene to Present tectonic inversion, developing the active shortening structures in Northern Tunisia. The main shortening structure is formed by different reverse and strike-slip fault segments, linked forming the 130 km long Alia-Thibar fault zone. Restored Plio-Quaternary deformation observed on reflection seismic lines indicates deformation rates around 0.6-0.8 mm/yr in the studied segments and larger amounts of shortening to the West of Northern Tunisia (16%) than to the East (7%), which suggests that tectonic inversion started earlier to the West and later propagated eastwards, reaching Northeastern Tunisia in the Late Pliocene. Due to the young age of this tectonic inversion, the present relief of Northern Tunisia is characteristic of a young thrust and fold belt, with dominating axial valleys along synforms and an incipient transverse drainage development propagating from West to East.