



## What triggered the early Pleistocene tectonic transition across the eastern Mediterranean?

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Subduction plays a fundamental role in plate tectonics but when interrupted it may trigger a series of geodynamic and sedimentary responses. A cascade of synchronous structural modifications recorded across the entire eastern Mediterranean region are dated to a relatively short period - late early Pleistocene. These deformations are documented within plates (e.g., Arabian, Sinai and African plates); along plate boundaries (e.g., Dead Sea and North Anatolian faults and Cyprus arc); and in the Mediterranean basin. During the same period the northward subduction of the Sinai plate was interrupted when the Eratosthenes Seamount - Cyprian arc collision initiated. Subduction-collision processes of the eastern Mediterranean serve as a unique modern analogue for similar settings worldwide. Understanding their association with accompanying neo-tectonic processes is therefore predominantly important. By fostering a detailed and comprehensive approach this research provides a coherent tectonic picture for the eastern Mediterranean early Pleistocene tectonic transition in order to explore its triggering mechanisms.