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# ABSTRACT BOOK

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## **Basins at convergent margins: evolution of the Messinian basins developed on top of the Sicilian Fold and Thrust belt**

Sulli A. \*, Gasparo Morticelli M. & Agate M.

Dipartimento di Scienze della Terra e del Mare, Università di Palermo

\* *Corresponding email:* [attilio.sulli@unipa.it](mailto:attilio.sulli@unipa.it)

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During the Messinian inherited palaeo-topography and ongoing deformation conditioned the depositional environments of the Mediterranean region, already strongly influenced by the effects of the salinity crisis. It occurred mainly in the central region, where seabed at that time is expected to be very uneven and shallower than Western and Eastern Mediterranean.

Indeed in this area as from 15 Ma the Sicilian Fold and Thrust Belt (SFTB) was originating, characterized by a multi-stage evolution. Two main shortening events generated and developed at different structural levels (shallow- and deep-seated thrusts following a thin-skinned thrust-model) and at different time intervals, involved mainly the Meso-Cenozoic carbonate units of the ancient African passive continental margin; a more recent thick-skinned thrusting involved the Plio-Pleistocene deposits in the frontal area, as well as the crystalline basement in the internal sector of the chain. Just in the Messinian time interval along the internal sectors of this edifice the transition from shallow to deep seated tectonics was recorded.

On top of the SFTB different types of basins originated progressively in response to the shortening wave. Depending on their position and related active processes during the Messinian we can distinguish: intramountain (mainly post-tectonic), thrust-top (syn-tectonic), and foreland (pre-tectonic) Messinian basins, with different characters and geometries.

Our results are only preliminary and could represent a first approach towards a better understand of the present complex distribution of the different variety of the Messinian sequences. The next step of this study should be the palinspastic restoration of the strongly deformed Messinian successions, in order to reconstruct a more detailed Mediterranean paleogeography.