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Palaeomagnetism and Tectonics of the Mediterranean Region

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Preface

The Mediterranean region represents a complex mosaic of continental, microcontinental and ophiolitic terranes, whose overall evolution has been controlled by relative movements between the African and Eurasian plates. Deciphering the sequence of tectonic events in this region can be likened to attempting to reconstruct all the pictures in a stack of jigsaw puzzles when 90% of the pieces are missing (and the remaining 10% are no longer their original shape!). Palaeomagnetic studies have played an important part in unravelling this 3D puzzle. The palaeomagnetic technique provides quantitative constraints on our reconstruction, since it can tell us which way each of the remaining pieces should be oriented (using magnetic declinations), their relative position with respect to the top of each picture (using magnetic inclinations), and in some cases which piece belongs to which picture (using magnetic dating). Perhaps more importantly, palaeomagnetism can also tell us something about the processes which led to the present confusion in our puzzle box.

This volume illustrates the increasingly diverse range of tectonic, magnetostratigraphic, volcanological and archaeological problems being addressed through palaeomagnetic research within the Mediterranean realm. The 33 papers herein span the full width of the Mediterranean basin and present results from Permian to Quaternary rocks. Together they provide a snap-shot of the current state of palaeomagnetic research in the region. As such, they form an intermediate step in solving our 3D puzzle and are not intended to represent the final set of pictures.

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