

The algorithm MB has been successfully tested to the earthquakes of  $M > 7.0$  which occurred in Greece from 1973 till 1983 and the applicability of this algorithm for smaller earthquakes was explored. This application is considered to be of practical importance for the area of Greece due to their frequent occurrence. After that the algorithm MB used to diagnose current TIP's for the area of Greece by using recent complete data.

The Seismological Institute will continue the research on earthquake prediction by using these methods. Our intension is the help of complementary methods for the areas which are considered as candidate for the occurrence of large shocks in the coming years as well as their continuous seismicity check by using these methods in real time.

## GEOTECTONIC EVOLUTION OF THE AEGEAN

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The Aegean area has been for long considered as an old crustal area stabilised before the alpine cycle with only minor block movements creating transgressions and regressions of the sea with final characteristic event the Quaternary subsidence of major parts of the present day Aegean. These views were based on immobilistic concepts and on the assumption that the metamorphic rocks of the Aegean were of pre-Alpidic age.

The plate-tectonics theory in the Aegean accepted that the Axios ocean separated Rhodope and adjacent areas to the North from "Pelegonian" and the External Hellenides to the South in the period Triassic-Early Cretaceous. Later on another ocean was considered, developed during Triassic-Late Cretaceous more to the South, running along the ophiolitic outcrops of Northern Pindos-Cyclades-Izmir.

The new concept of tectonostratigraphic terranes introduced the existence of several large Continental fragments within the Aegean area which are of African origin and have been rifted and drifted northwards during Late Paleozoic - Triassic and then they have successively collided and accreted to the Southern European margin during Jurassic - Tertiary.

Thus, from the Upper Rhodopean units to the lower units of Crete we can distinguish the large Pre-Alpine crustal fragments separated by the oceanic material of the temporary basins of the Tethyan ocean that separated them.

The genesis of the present day Aegean area is due to the combination of distinct micro collision events and rather continuous subduction of southward derived lithosphere beneath the European margin in the North.