

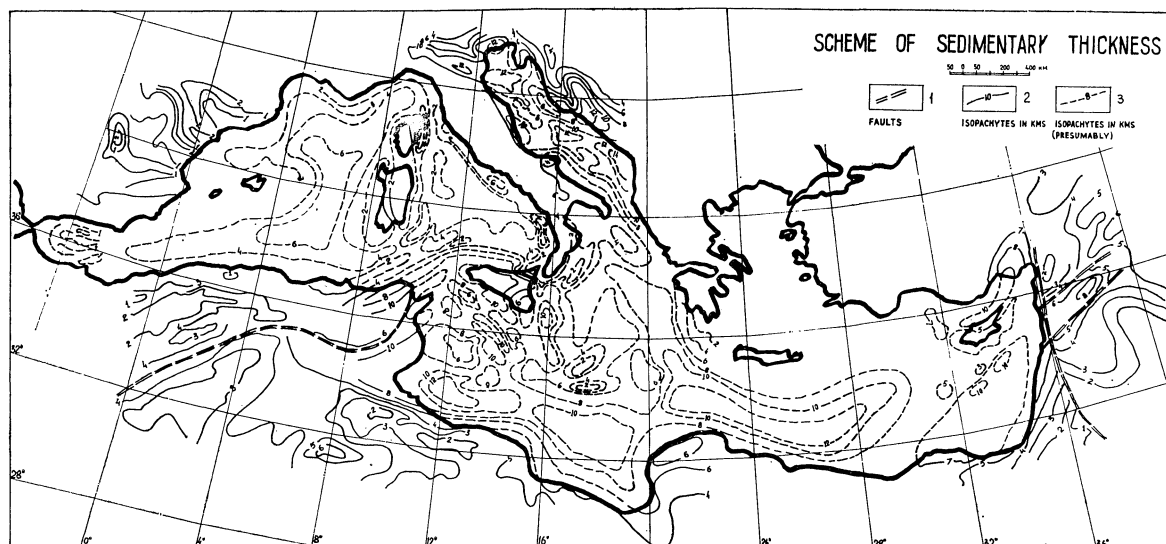
## Basic features of the deep bottom structure of the Mediterranean sea floor

by

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Combined geologic-geophysical investigations were carried out in the main Mediterranean depressions [MALOVITSKY *et al.*, *in press*]. The M-discontinuity was found to be not deep : from 12-15 km in the Algero-Provençal basin to 22-25 km in the eastern part of the sea. The consolidated part of the crust is of small thickness (5-10 km). New deep seismic sounding data show that 5,8-6,4 km/sec rocks may occur in the upper part of this complex [HINZ, 1972; MOSKALENKO, 1974]. The analysis of magnetic and gravimetric data points to the block structure and heterogeneity of the basement in different areas [MALOVITSKY *et al.*, 1974]. The major faults are of longitudinal (mediterranean) and lateral (antimediterranean) trends. The laterally oriented faults may be very ancient. A conclusion may be drawn that the consolidated basement is rather old-aged (Baikalian in the central and eastern parts of the sea and Caledonian-Hercynian in its western part).



The Mediterranean depressions are noted for great thicknesses of the sedimentary rock series reaching 8-15 km. Several structural stages are distinguished in the sedimentary complex. The youngest of them are Messinian (evaporite) and Pliocene-Quaternary stages. It is characteristic that the whole of this rock series is of platform-type dislocation [FINETTI, MORELLI, 1972].

The geotectonic nature of the Mediterranean depression is related to the appearance of the extensive Alpine Mediterranean belt. These depressions have been developing for a long time as tectonic subsidence (see data on thickness and age). The peculiarities of the crustal structure and the evolution history allow to assign these elements to a particular type referred to by the authors as "submarine platforms" or pelagocratons.

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