

THE NEOPALEOZOIC - TRIASSIC FORMATIONS OF THE SOUTHEASTERN PART OF LESVOS ISLAND: TECTONIC APPROACH

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The Neopaleozoic-Triassic formations in the southeastern part of Lesvos Island occupy a large area. They present a visible thickness of more than 1000 m and are covered by an extended ophiolitic nappe which, at its base bears an important Triassic volcanosedimentary formation which is tectonically intercalated.

The Neopaleozoic-Triassic formations constitute a continuous series of metasediments and consist of metaclastic rocks (pelites, sandstones, conglomerates and shales) containing crystalline limestones and dolomites in the form of lenses or bedded intercalations. In the upper part, the metacarbonates are more extended, forming discontinuous intercalations of various thicknesses. Breccia and large carbonate blocks occur in the Triassic members.

In the metacarbonate rocks of the above formations a rich fauna, of Carboniferous-Permian age, has been reported in previous works. In the metacarbonates, contained in the upper part of the metaclastic formations, *Megalodon* fossils are present (Upper Triassic).

Stratigraphically the lower parts of these formations are found to the South of the studied area while towards the NNW we find the upper members.

The Neopaleozoic-Triassic formations have suffered a very low to low grade metamorphism.

In the studied area the general development of all the pre-Neogene formations trends 10° - 30° NE. This direction is followed by the main thrust lines. They have been folded intensively with closed asymmetric folds, inclined or overturned. Locally fan folds are developed. Their general axis direction is 10° - 30° NE, dipping either 40° SW or 15° NE. The style of folding presumes a bilateral compression.

A major shearing zone is developed parallel to the long axis of Geras Gulf (20° - 40° NW), dividing the studied area in a south-western part into which the main compression is oriented SE to NW and in a northeastern part into which the direction of the main compression is opposite to the previous one. A 10° - 30° NE lineation is also present superimposed to an older one with a 20° - 30° NW direction.