

NEOTECTONIC MACROFOLDS IN THE AREA OF FILIATRA (WEST MESSINIA, PELOPONNESUS)

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In order to understand the type of deformation of the Western Messinia area, the drainage network, the planation surfaces that occur on the Lower Pleistocene marine deposits, the fault zones and the faults were studied. In addition, the structural contour map of the contact between the Lower Pleistocene marine deposits and the flysch of Gevrovo-Pylos Unit was constructed.

Based on the results of this detailed analysis the whole area was separated in three parts, the Northern, Central and Southern. In the Northern part the tributaries have a direction from SE to NW, and the planation surfaces dip to NW. In the Central part the tributaries have a direction from E to W and the planation surfaces are dipping to W. In the Southern part the tributaries have a direction from NE to SW and the planation surfaces are dipping to SW. The fault zones and the faults of the big macrostructure of Filiatra-Gargaliani tectonic horst, strike NNW-SSE and E-W, the fault zones of E-W direction are the youngest.

The shape of the surface between the Lower Pleistocene marine deposits and the Gavrovo-Pylos flysch – as it is given by the structural contour map – resembles an anticlinal structure whose axis strikes ENE-WSW.

Taking into account, the results of the aforementioned analysis we believe that the deformation of West Messinia area is not of brittle type but of brittle-ductile type, as a result of a rotational couple stress field.

NEOTECTONIC EVOLUTION OF THE KILLINI PENINSULA (NW PELOPONNESUS, GREECE)

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The Killini peninsula (NW Peloponnesus) being the external part of the Hellenic arc, is one of the most tectonically active areas in Greece. The recent seismic activity (October 16th, 1988) in this area was the reason of studying, among else the neotectonic evolution of the area.

The study was based on the geological mapping of the formation, which make us conc-

lude that in this structure we have alpine and post-alpine formations.

The alpine formations are the basement and they can be distinguished in Triassic Evaporites and Cretaceous-Eocene Limestones. The post-alpine formations which unconformably are overlaying the alpine formations, are distinguished in the Psili Rachi Conglomerates (Pliocene), the Ligie Formation (Pliocene – L. Pleistocene), the Glossas Sandstones formation (Tirrinio) and also the Coastal Deposits, the Dunes, Scree and Alluvial formations.

Also, from this study, we conclude that in this area, we have intense neotectonic deformation, which we can observe from the presence of the alpine basement in different altitudes from place to place and from the deformation of certain post-alpine formations.

Especially the Glossa sandstones formation exists at the sea level peripherically of the peninsula and also in different altitudes up to 180 m, following the morphological peculiarities.

This last one shows that in the Olocene there was an uplifting which gave the present morphological image. The reason of this uplifting can be attributed either to evaporites diapirism movements or to a more complicate mechanism, of which the main elements are the costal compression as the result of the collision of the lithospheric plates and the evaporites plasticity which due to the compression urge into the vertical direction.

NEW GEOLOGICAL DATA OF THE NEOGENE DEPOSITS OF N. EUBOEA

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North Euboea forms a large horst with a NW-SE direction.

Neogene formations cover the greater part of the area and consist of the following:

- Upper Pliocene conglomerates and marls of Istiea area.
- Lower Pliocene marls, conglomerates and marly limestones of Limni area.
- Upper Miocene reddish-brown fluvial deposits of Prokopi-Achladi areas.
- Upper Miocene marls, clays and marly limestones of Kerasia-Ag. Anna area.
- Lower Middle (?) Miocene siltstones and clays of Kerasia-Ag. Anna area, which form an unconformity with the overlying Upper Miocene formations.

Alpine and post-alpine formations had been affected by numerous faults of NW-SE, NE-SW and E-W directions. The syndimentary faults and slumpings which occur in the neogene deposits show the intense tectonic instability during the sedimentation periods.

Microtectonic analysis showed that N. Euboea had been affected by the following tectonic phases:

- A NE-SW trending extensional phase.
- A tectonic phase in which strike-slip faults dominate.
- An extensional phase with a NNW-SSE direction which is still active.