

- Une puissante suite de marbres alternant avec des paragneiss représentant sans doute une ancienne plateforme épicontinentale (Drama-Pirin).

- Une série de marbres à graphite et de paragneiss alternant avec des amphibolites et métadiorites et contenant localement des corps de serpentinites et d'éclogites. Elle est interprétée comme les termes de transition d'une plateforme vers une croûte plus amincie, partiellement océanique, prise dans une ambiance d'arc (Masta-Arda<sub>1</sub>-Arda<sub>2</sub>).

- Des orthogneiss plus ou moins alcalins, des paragneiss et une très épaisse série massive de marbres qui pourraient représenter une seconde plateforme épicontinentale (Asenica-Rhodopes du Nord).

- Une unité complexe caractérisée par de gros corps (parfois plusieurs Km<sup>2</sup>) de métaophiolites (Kroumovitsa).

L'unité supra-rhodopienne, épizonale, dans laquelle ont été décrits des fossiles jurassiques a été charriée vers le sud, après métamorphisme sur l'ensemble de ces 4 unités (Mandritsa-Makri).

La structure des Rhodopes s'interprète en deux étapes tecto-orogéniques. La première, vers 100 Ma, est l'histoire de fermeture de bassins marginaux avec chevauchements ductiles vers le sud aux dépens d'une marge active. La seconde, crétacée à paléocène, superpose l'ensemble supra-rhodopien aux Rhodopes métamorphiques déjà érodées, et est responsable de charriages froids qui accentuent les superpositions précédentes. Une histoire distensive commence alors pour atteindre un paroxysme à l'Oligocène, avec un important magmatisme ignimbritique et rhyolitique.

## NEOTECTONICS AND STRUCTURAL EVOLUTION OF THESSALY (CENTRAL GREECE)

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In the frame of a more complete structural investigation of Thessaly, which is still in progress, we present the quantitative tectonic analysis of the meso-structural data only.

Faults, deformed pebbles and extensional joints have been considered, from which, using different methodologies of structural analysis we estimated the directions of the three principal axes ( $\sigma_1$ ,  $\sigma_2$ ,  $\sigma_3$ ) of the stress field.

The existing stratigraphical data and the newly obtained ones are not discussed here but only briefly mentioned. They have been correlated to the structural data to separate the tectonic events and to date them.

Three main tectonic phases have been distinguished from Miocene to Present.

A first compressional phase ( $f_1$ ), with  $\sigma_1$  trending ENE-WSW. It was active during middle-late Miocene times. It could be considered as a late Alpidic phase and tentatively correlated to the active and coeval tectogenesis of the external Hellenides.

The second phase ( $f_2$ ), clearly recognized by the structural analysis, is characterized by an extension ( $\sigma_3$ ) trending nearly NE-SW. It was probably active during late Miocene-Pliocene and reactivated older alpidic structures, mainly trending NW-SE. This phase contributed to the evolution of the western Karditsa Basin, generated the eastern Larissa Basin and, consequently, the Central Hills were formed.

The third tectonic phase ( $f_3$ ) which affected the study area is still extensional but with the  $\sigma_3$  trending between N-S and NNE-SSW. As it is well proved by the active seismicity of the area, the upper temporal limit is open; while, in the Upper Pleistocene deposits exists evidence of syn-sedimentary tectonic structures belonging to this phase.

The tectonic evolution of Thessaly during Miocene to present is also briefly discussed and a new detailed map of the stress pattern is presented.

## THE STATE OF THE TECTONIC STRESSES IN THE AREA OF THE EASTERN CORINTH GULF EARTHQUAKES OF FEBRUARY – MARCH 1981

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On February and March 1981 the easternmost part of the Gulf of Corinth suffered damaging seismic activity. During the three major earthquakes of magnitudes  $M_s$  6.7, 6.4 and 6.4 normal fresh faulting appeared on land. Surface breaks with a northward-dipping slip vector were noticed on the southern side of the Gulf following the first and second shock and other such with a southward dip appeared later on the northern side of the Gulf, as a result of the March 4 shock.

In this paper a mean state of stress have been computed by the slip vector measured on a) recent neotectonic faults, b) reactivated faults and c) seismic faults provided from focal mechanisms. A notable feature of these analyses is that the tensional directions  $\sigma_3$  deduced from the deviatoric tensors computed by all the faults are nearly the same.

Furthermore, the mean tectonic stresses tensor have been computed by the faults provided from focal mechanisms and the depth of the three main shocks and 18 aftershocks. This tensor has a main tensional component of 0.45 kbars on direction that is near the  $\sigma_3$  directions of all deviatoric tensors.

After all those, security coefficients for all the faults have been computed and analogous diagrams have been made.