

for the southern one; (d) the southern cluster shows a much larger dispersion than the northern one; (e) focal mechanisms for the northern cluster suggest a N105°E extension, whereas in the southern cluster compression of similar direction is also observed; (f) the hypocenters' projection on the vertical plane through the Kalamata Fault trace fall within the expected fault zone in the northern cluster, and most of them in the footwall in the southern cluster.

The study of the direction of the contact between the Tripolis unit Flysch and limestones and the Pleistocene sediments, the similar trend of the Pleistocene-Holocene sediments contact and the change of the flow direction of the Venitsa and Xarilas rivers at these contacts, along with some mapped faults of a general NW-SE direction and the change of the Kalamata Fault trend, suggest that the existence of a zone of NW-SE trending basement faults is probable to the NE of the Kalamata city. The same direction is also suggested by the co-planar ellipsoids of the southern cluster aftershocks.

It is believed that a major part of the aftershock activity in the southern cluster is due to movements along these NW-SE trending faults and even the largest aftershock may have occurred at the junction of the Kalamata Fault with these faults.

## PALEOMAGNETIC INVESTIGATIONS ALONG THE OPHIOLITIC BELT OF CHALKIDIKI

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Sampling was carried out in gabbros (10 sites) and more or less serpentinized peridotites (5 sites) located on the segment Elkarpas - Metamorphosis. The investigation aims to detect and identify different overprint phases as results from the multiphase tectonic history of the belt. Systematic measurements of anisotropy of susceptibility complete the informations on the tectonic environment of the paleomagnetic sites.

With exception of the components close to the present field direction, the demagnetizing process exhibits three groups of characteristic *in situ* directions:

- the NE directions with intermediate positive inclinations,
- the ENE directions with low positive or negative inclinations (and conversely),
- the NW directions with intermediate to low positive inclinations (and conversely).

The first group is consistent with the directions obtained on early Tertiary plutonics and volcanics from neighbouring areas. The other components are interpreted as Mesozoic-early Cenozoic in age, the north-westerly being the oldest. The tectonic implications of these different directions are discussed. At least two rotation phases of the whole belt, in opposite sense, are evidenced.