



Structural study and Miocene exhumation of the Cycladic Blueschist Unit rocks of Northeast Attica (Greece)

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Northeast Attica (Greece) is situated at the northwestern part of the Attic-Cycladic Crystalline complex. It comprises metamorphic rocks that underwent HP/LT metamorphism during early Cenozoic subduction and were later exhumed in the Oligo-Miocene during post-orogenic extension as a result of slab retreat.

Early studies assigned the rocks of Northeast Attica to the Basal Unit of the Attic-Cycladic complex due to the proximity to the Basal Unit Almyropotamos but more recent studies tend to consider them as part of the Cycladic Blueschist Unit.

The metamorphosed rocks of Northeast Attica are divided into two units: the Upper Unit which preserves blueschist facies minerals and the Lower Unit in which early HP/LT fabric is almost everywhere overprinted by the greenschist-facies assemblages. The main foliation is a penetrative greenschist facies coarse grained foliation which is accompanied by a NE-SW stretching lineation, subparallel to isoclinal folds in all scales. The kinematic data are sparse and ambiguous.

Zircon (U-Th/He) thermochronometric study of the lower unit rocks yielded mid to late Miocene age indicating that the rocks of Northeast Attica followed similar but not identical to published ages from central Attica (Hymittos mt) and southeastern Attica (Lavrion peninsula).

By combining the structural data thermochronometric ages from this study with existing P-T data from the literature an attempt is made to correlate the units of Northeast Attica with the units of Lavrion peninsula and locate the exact position within the greater CBU domain.