

## THE CHROMITE OCCURRENCES IN THE ULTRABASIC ROCKS OF SOUTHERN PILIO (CENTRAL GREECE)

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The Pre-Upper Cretaceous nappe (Eohellenic nappe) in the southern Pilio region occupy a large area. They have a total thickness up to 600m and overlay the Pelagonian Pre-Cretaceous formations which occur in the area of High Pilio, to the north and in the region of Trikeri, to the south.

The ophiolitic rocks, mainly serpentized ultrabasic rocks, as well as, gabbros and diabases are intensely fragmented and occur tectonically above the volcanosedimentary formations of the nappe.

The ultrabasic rocks, harzburgites and dunites, are serpentized, tectonized and partly oxidized and silicified. They can be recognized mainly as non-continuous bodies having a thickness up to 200 m. They occur in synclinal structures of NE-E axial direction, as well as, along areas of upthrusting in the Pre-Upper Cretaceous nappe.

The dunites are found in the upper horizons of the harzburgite bodies. In some cases, the dunites have greater extension than the harzburgites as it happens in the areas of Kala Nera, Neochori, Argalasti and Ag. Georgios villages of southern Pilio.

The dunites of Kala Nera region have been mentioned by other scientists as Upper Cretaceous limestones of the Lechonia nappe or as Triassic Pelagonian dolomites and ankerites.

Chromite occurrences in the dunitic bodies of southern Pilio were recognized in the areas of Kala Nera, Neochori, Argalasti and Ag. Georgios.

The study of the chemical composition of the chromites showed the following:

- a) The chromites show remarkable constancy to the values of the ratios  $Cr/Cr + Al$  and  $Mg/Mg + Fe^{+2}$  which fall within the range 0.76-0.88 and 0.51-0.56 respectively.
- b) They are «alpinotype» Al-chromites with high Cr/Al values ranging from 3,17-3,55 which characterizes them as Cr-rich chromites.
- c) They can correspond to the chromites of Vourinos, Vermion, W. Chalkidiki and E. Thessaly (Mavrovouni and Kato Olympos) while they differ from those in Othrys and Skyros.