

Deformation Style, Sedimentology and Petrology of the Flysch of Tisirene Nappe and Internal “Dorsale Calcaire” in the Jebha Area (Jebha Sheet 1/50000, Central Rif) : A Preliminary Survey

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The Tisirene nappe belongs to the Mauretania Sub-domain. It starts with Middle Jurassic limestones to marls, followed by radiolarites, locally associated with Upper Jurassic remnant basaltic and doleritic rocks. Upwards, succession shows Thitonic-Berriasian marly–limestone alternations, jaspes, calcareous microbreccias and fine-grained limestones. The succession continues with about 2500 m thick Berriasian- Lower Aptian turbiditic sandstones with intercalations of calcareous sandstones and marly limestones. This work is aimed to evidence the structural analysis at micro- and macroscale, coupled with a detailed cartography at 1/10.000 in scale in order to highlight geometrical relations and geochronology of the observable structures.

The complexity of deformation style suggests a preliminary scheme with a polyphasic superposition of compressive and distensive deformation phases, observed within Lower Cretaceous deposits of Tisirene nappe and also within Upper Oligocene-Aquitania deposits of the Internal “Dorsale Calcaire” of Jebha area. Both show south and locally northward verging structures. Some southward verging structures display ramp and flat geometry, associated to fairly E-W oriented thrust planes; some decimetre-sized open and reversed folds indicating fairly N-S compression trend are also present. This deformation is overprinted by a distensive phase(s), represented by low and high angle normal faults, that seem to be parallel and orthogonal to the Mediterranean coast of the Central Rif belt.