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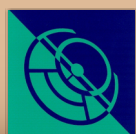
Abstract Book

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Ainsi, les valeurs de température de surface, obtenues, montrent l'effet du changement de l'utilisation du sol sur la température de surface. Ce changement est prouvé par la disparition et/ou l'apparition de la végétation dans certaine zone de la région.

Mots-clés: Landsat; NDVI; LST; Plaine de Souss; Maroc

Polyphased variscan deformation in the Rehamna massif (western Meseta – Morocco): strong strain partitioning in dextral transpression

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The Rehamna Paleozoic block is one of the major domains in the Moroccan Variscides. Although strongly studied since the classical fundamental works of Piqué (1972), Hoepffner (1974), Jenny (1974), and Michard (1976) there is no a geodynamical model able to compatibilize the observed deformation in all the Rehamna sectors. The three deformation phases recently defended (e.g. Chopin et al., 2014; Wernert et al., 2016) although explains the structural pattern of the meridional Rehamna sectors didn't fit well, either with the setentrional sector, or the Moroccan geodynamics, where a major N-S early compression is not common.

The available data concerning the D₁ structures shows that the NNE-SSW to N-S stretching lineations related to the D₁ southward thrusting, which is well expressed in the western sectors, have an E-W general trend in the East of the Palaeozoic massif (Chopin, et al., 2014). This pattern shows that the thrusting kinematics is only a localized feature at the Rehamna scale. Thus it is possible to propose that the general dextral transpression along ENE-WSW trend that have emphasize in other sectors of Moroccan Variscides (e.g. Houari & Hoepffner, 2000; Dias et al., 2011) could also explain the Rehamna complex deformation.

Due to a strong strain partitioning, the dextral kinematics tend to concentrate in the vicinity of major E-W to ENE-WSW (e.g. AïnMellah Fault) while in the adjacent blocks a pure shear dominated transpression dominate, explaining the NNE-SSW to N-S pervasive folding at the Rehamna scale. In such a model, the southward D₁ thrusting and the E-W D₂ folding (Chopin, et al., 2014; Wernert, et al., 2016) are the result of a corner effect related to space problems induced by the Neoproterozoic basement of Central Rehamna. Its stronger rheology give rise to a restraining problem leading the Ordovician of the Upper Metamorphic Unit to overlap the higher metamorphic southern sectors. The thrusting component decreases towards East where the sub-horizontal D₁ and D₂ mineral lineations predominate as expected in a dextral transpression.

This shows that the dextral oblique collision between Laurentia and Baltica during tardi-Variscan deformation (Arthaud & Matte, 1975) is a long lasting deformation in the Moroccan Variscides.

Keywords: Rehamna; Morocco; Paleozoic bloc; variscan deformation; dextral kinematics

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The Ras El Abiod granite (southern Rehamna - western Meseta Morocco)

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The relation between the D3 fabrics (i.e. S3 foliation and mesoscopic /macroscopic folds) and the Ras el Abiod variscan intrusion led to consider its syntectonic feature (Lagarde, 1987, Chopin et al., 2014). Indeed, they mostly wrap around the intrusion without clear cut relations, emphasizing that at least the latest D3 shortening post date the leucogranite emplacement.

Such relation is very different from Sebt-Brikiini intrusion that clearly cut the D3 fabrics showing it is a post-tectonic intrusion. This shows that in Rehamna the conditions to generate granitic magmas persist at least since the 268.8 ± 6 Ma (87Rb/86Sr, Mrini, 1985) until 285 Ma (40Ar/39Ar on muscovite of Ras el Abiod: Chopin et al, 2014). Such long temporal relation between magmatism and deformation give rise to complex structural fabrics in the vicinity of Ras el Abiod granite. Southeast of Douar Nechel the S1 cleavage is affected by two crenulations with clear relations with the overgrowth minerals of the aureole of contact metamorphism. Indeed an older NNE-SSW crenulation is cut by these minerals, while a younger NNW-SSE one is deformed around them. As the trends of both lineations are close to N-S and they are more intense near the granite they could be considered as D3 fabrics (L3A and L3B respectively). Near the intrusion the S1 cleavage have been folded during D3 presenting centimetric folds with subhorizontal axial planes and low dipping axes with a vergence towards the exterior of the intrusion. Such relations indicate they should be generated during the doming induced by the granitic intrusion.

Keywords: Rehamna; Ras El Abiod; syntectonic feature; variscan deformation

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