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Evolution of Gravity Flap Structures in the Southern Central Atlas of Tunisia. Example: Northern of Orbata Anticline (Ben Zannouch Structure)

Authors : Soulef Amamria, Mohamed Sadok Bensalem, Mohamed Ghanmi

Abstract : Several works found in the fold-and-thrust belt area of the southern central atlas of Tunisia, which were often related with tectonic shortening, are, in fact, related to superficial gravity structures. These gravitational collapse structures have developed in the northern flank of jebel Orbata. These include rock-slides, rock falls, wrinkle folds, slip sheets, and flaps. The Gravity collapse structures of ben zannouch are parallel to the major thrust of Bou Omrane between Orbata and El Ong structures. The thrust activity of Bou Omrane associated to the important paleo-slope to the south and plastic lithology (incompetent marly and gypsum layers) facilitates the development of the Ben Zannouch Flap structure. The definition in the first time of gravitional collapse structures in Tunisia, particularly in the northern flank of Jebel Orbata, is controlled by three principal structural conditions: the fragmentation of the landslide surfaces, the lithology, and the topography. Other regional factors can be distinguished in the southern-central Tunisian Atlas as the seismity activity of the Gafsa fault and the wetter conditions during the postglacial period.

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