

# THE HERCYNIAN TECTONIC STRUCTURES IN PALEOZOIC FORMATIONS OF AHNET AND BLED EL MASS AREAS (NW. HOGGAR, CENTRAL SAHARA, ALGERIA).

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The Ahnet and Bled El Mass domains, in NW part of the Hoggar schield (central Sahara), are good examples to observe the relationships between a relatively rigid panafrican basement and a "plastic" cover during the Hercynian event : ENE-WSW transpressive deformation provokes the remobilization of the panafrican faults in the basement, and involves the "decollement" of the paleozoic cover and his flattening.

These process appear by formation of NW-SE folds in the first time, which are reoriented and parallelized with the sub-meridian faults in the last time, associated to intra bedded shear-zones. Flanks and periclinal closures react differently : the flanks are very upright again, the beds are thinned down, stretched and boudinated corresponding to the manifestation at the surface of the deep faults ; the periclinal closures generally with quadrangular forme in which the beds are also verticalized appear to correspond to the south and north limits of the blocks, and react in overlapping structures.

The circular structures are frequent in this part of the central Sahara : they are due to the rolling up of the paleozoic cover above the deep faults ; this phenomenon is facilitated by the presence of competent and incompetent alternating beds. They can initiated between "*en echelon faults*" with the apparition of compressive zones (reverse faults), which provokes the mobilization of clays to the upper.

As well as in the Ahnet or the Bled El Mass, the Silurian or the Famenian clays take place in the middle of these structures, and show verticalized beds and disharmonic folds.

They correspond to the flow of competent formations to the upper in the *argilokinesis* conditions, and which slip on to a rigid basement.