

## **Basement Blocks' Behaviour and Impact Upon the Hercynian Structuration of the Western Anti-Atlas (Morocco)**

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The basement/cover unit of the Western Anti-Atlas, in the Eastern part of the Kerdous inleer, is subjected to a NW-SE crustal shortening. This compression rejuvenates, by tectonic inversion, the former normal faults that limited the dislocated basement blocks of the West-African Craton.

The uplift of the basement blocks generates beds shortening and flexures at the cover sole. These tectonic behaviours lead to explain how the direction folds of the palaeozoic Anti-Atlas cover occurred on various trends: NS, NNE-SSW, NE-SW and E-W.

Within chronology, E-W folds are earlier and interact with the NS fold into domes and basins interferences system. These structures are interpreted here, as the result of an early northern compressive episode which introduces an uprising of the basement blocks. Thus induces a crumpling of the cover by "folds forced on accidents of the base" according to « Trishear fold model » (Erslev, 1991).

Major Subequatorial compression sets the NNE-SSW folding in the cover, as well as vertical and horizontal movements along E-W and NE-SW faults. This compression is controlled by the migration of the West-African Craton towards the West and with its Laurentia collision. This migration induces, in the Anti-Atlas, a dextral transpressif movement between the northern edge of the craton and the southern atlasic fault (Tizi-N-Test Fault).

Thus, the Eastern part of the Western Anti-Atlas is structured by tectonics inversion according to "Thick-skinned tectonics" style. Paradoxically, this contrasts with the "thinskin tectonics" tectonic, well developed in the southwestern part of the Anti-Atlas (Guelmim-Zemmour-Ouled Dhlil).

Key words: Tectonic inversion; basement blocks; folds forced, thickskin; West-African craton.

### **Bibliography:**

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