

## **Seismically Appeared Graben-like Structures in Southern Bulgaria**

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The 1928 Southern Bulgarian earthquakes ( $M=7.0$ ) were the last strong seismic manifestations in the country during the 20 century. They were well studied. Now a new modification of structural interpretation could be proposed.

The 14, 18 and 25 April 1928 Southern Bulgarian earthquakes had provoked the block fragmentation in a central sector of the Upper Thracian depression and the visible vertical movements between the towns of Plovdiv, Chirpan and Dimitrovgrad. The deformed area is placed on the right and on the left coasts of the Maritsa River, also in their surrounding. The seismic active faults are with NW-SE, E-W and NNW-SSE directions. The vertical block displacements were well fixed by leveling documentation. There were horizontal displacements too. The land subsidence and local uplifting are also presented.

The synthesis of the data for the block fragmentation and the displacements permits to conclude that the 1928 earthquakes had provoked the formation of the Chirpan and the Popovitsa graben-like structures between the towns of Plovdiv, Chirpan and Dimitrovgrad and the local reactivation of the Sokolitsa graben in a small sector to the E of the town Galabovo. The cited structures are with subequatorial direction.

The new formed and the reactivated structures followed the general subequatorial direction of the Upper Thracian depression. The above mentioned structures are situated mainly in the middle southern part of the Upper Thracian depression. The depression represents a recent active unit of the Balkan Peninsula.