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Environmental Cartographic Models for the Region on the Troitza village, Shoumen Plateau (Bulgaria)

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The Shoumen Plateau is situated in Northeast Bulgaria. It is a residual karst plateau of an inverse relief, compared to the tectonics. Its formation has started after the appearance of the Atian tectonic phase. During the different Neogene/Quaternary stages it was involved into differentiated vertical and horizontal movements taking place along diverse faults, striking basically NE-SW and NW-SE. Vertical movements along the Southern edge of the plateau show the greatest values (+200, up till 280 m), occurring at the Neogene/Quaternary boundary. Current vertical movements amount to +2 mm/year, while horizontal movements are 0.8 mm/year. A paleoseismic dislocation has been registered at the Pleistocene/Holocene boundary. It can be traced to the North of the Troitza village, hanging left significant relief deformations of seismogravitational type. During the Vrancea (Romania) earthquakes on 4 March 1977 and on 10 November 1990 fault became active in SW-NE direction. Relief deformations have been registered on the surface, as well as damages of buildings in the town of Shoumen and surrounding villages (Divdyadovo, Osmar), destruction of artifacts and spring capacity reduction. seismicity of anthropogenic origin has also been registered in the region of the village. Troitza region, induced by powerful explosions in the nearby limestone quarry. All naturally occurring processes: tectonic, erosion, gravitation, accumulative and karst processes, accompanied by destruction of soil and anthropogenic natural hazards. For the study purposes are prepared different types of specialized and assessment maps.