

## **Neotectonics of Somogy- and Zala Hills**

- morphostructural studies -

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This study summarizes the results of the morphostructural (morphotectonical) analyses of the geodynamical and neotectonical processes of the Zala and Somogy Hills (NW Hungary). The geological setting consists of Quaternary deposits laid over the 1000 m thick Pannonian s.l. sediments, favourable for researching the effects of neotectonic processes. The neotectonical and the geodynamical frame of the area is given by the movement and push of the Adria microplate towards the North. Under the force of the Adria microplate the ALCAPA unit and the NW segment of Tisza-Dacia microplate escapes in the ENE direction. The predominantly radial shaped morphology and water courses can be explained by the consequence of the rotating and escaping microplate fragments.

The separation of the uplifting and subsiding areas and the recent sedimentation process show an intensive uplifting of the Transdanubia while its surrounding areas (Little Hungarian Plain, Mura- and Dráva valleys and the Great Hungarian Plain) suffer an intensive subsidence. Morpho-structural observations suggest an inverse tectonic reactivation of the pre-existing structures of the Western part of the Pannonian basin.

The central part of the area called Inner-Somogy is a Quaternary tectonic trough, which was formed along the radial pattern. The trough separates the Western, gently folded Mura depression and Zala region, which generated by compression from the Eastern lying Outer-Somogy area affected by transpressional deformation style. Outer-Somogy region is characterized with having dextral transcurrent faults, due to the Mid Hungarian Line, where dextral transpressional dislocations produce the rotation of the surface formations and the uplifting of them, generating the meridional saw-tooth shaped valleys.