Intraplate Neotectonics in Southeastern Brazil

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Investigations about Neotectonics in Southeastern Brazil had shown great importance of basement reactivation in the control of formation, preservation or deformation of shallow sedimentary covers, in the control of drainage pattern and landforms development and in the control of the rocks weathering profile. Great drainage lineaments striking EW represent transcurrent systems, followed by set of drainage lineations of first order. Those domains includes minor transpressive and transtensive compartments like pull-apart, releasing bends and sigmoidal zones. Several NW-SE distensive systems control low relief regions and Holocene sedimentation zones developing local sites of erosion/deposition by tilting of faulted blocks, with associated minor transcurrent and compressive segments. Transpressive systems striking NE-SW showing strong control in relief anomalies reaching over than 2.000m, including Precambrian rocks thrusting Tertiary sediments and gentle folds with great wavelengths on the youngest sediments. The Neotectonic evolution requires strong strain partitioning associated to basement anisotropies and can be interpreted resulting of a transcurrent dextral vertical shear binary striking EW that promotes compressive segments along NE-SW, distensive ones along NW-SE, associated with the migration and rotation of the South American Plate towards West.
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