

## **Neotectonics in the São João del Rei region, Minas Gerais State, Brazil.**

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Cenozoic alluvial fan deposits cover partially the Precambrian units of the São João del Rei region. These deposits are well exposed at the eastern border of the São José ridge near Prados. They record periodical uplift pulses of the ridge during the ?Late Tertiary-Quaternary. The first depositional event produced an at least 60m thick alluvial fan succession comprising poorly stratified proximal clast-supported breccias (fanglomerates), few conglomerates and an upper whitish stratified sandstone unit. The fanglomerates include angular pebbles and cobbles of quartzites and scarce pebbles of vein quartz and metapelites. The sandstones were later pedogenised and contain locally redish axial root imprints. Renewed tectonic pulses generated another thick alluvial fan succession constituted of intercalated coarse rudite and thick reddish massive sandstone beds. The rudites include angular to subrounded pebbles and large blocks of quartzites chaotically dispersed in a sandy matrix. This debris is also derived from the nearby ridge. The sandstones show up to 11 levels of paleosols with abundant axial roots, suggesting the existence of extended plains around the fan deposits. These deposits were later covered by an approximately one meter thick reddish massive and pedogenised sandy colluvium also containing abundant axial roots. Both alluvial and colluvial deposits are cut by normal and reverse faults. Isolated blocky debris flows and a series of orange-reddish weakly pedogenised colluvium cover the faulted Cenozoic units.