

STRUCTURAL FRAMEWORK OF RIO DE JANEIRO AS EXAMPLE TO UNDERSTAND THE PRECAMBRIAN CRATON TECTONICS.

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The rocky slopes of Rio de Janeiro hills, cut out in migmatites, expose evidences of a tectonics of low angle thrust faults, restructured locally by transcurrent and normal faults. The erosion, guided by this complex tectonic architecture, gave rise to the already known beauty of Rio's landscapes. Acting in deep crustal zones, thrusts and transcurrent faults reorganized the rocks by solid state flow, anatexis and metamorphic differentiation. The consequent reactions between minerals, associated with fluid percolation, produced new rock types or bands of enrichment of quartz, feldspar, garnet and calc-silicates close to fault zones. Folding in this bands denunciates the displacement between the fault blocks. Sometimes it does not represent the main but solely the last recurrent movement making difficult to reconstruct the tectonic sequence. 3D models showing scale shaped fault blocks in Rio de Janeiro, intricately arranged, can be compared with the architecture of the whole Brazilian Precambrian Craton, recognized in seismic profiles.