

TECTONOTERMAL EVOLUTION OF THE COSTEIRO COMPLEX (SÃO SEBASTIÃO - BERTIOGA; SE BRAZIL) - II TECTONIC REGIME

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The tectonic regime the "Costeiro Complex" in the Neoproterozoic Ribeira Fold Belt (SE Brazil) was studied at São Sebastião - Bertioga area. Deformation is dominated by transpression, producing a flower structure with its axis extending from Marisco Complex to Boiçucanga beach; the regional foliation in subvertical, oriented ENE-WSW with subhorizontal stretching lineation and dextral shear in high-grade metamorphic conditions. The syntectonic Bairro do Marisco Complex of mafic rocks is located in this axis, suggesting deep faulting of the entire crust. In the NW branch of the flower structure (Juqueí Bertioga) thrusting to NW in low-middle grade metamorphic conditions is superimposed on the previous subvertical foliation. The Juqueí - Bertioga granite intrudes at about 630 Ma and it is affected by ductile thrusting but not by dextral shear. In the SE branch of the flower structure thrusting to SE is pervasive; ductile thrusting at Toque-Toque Pequeno is expressed by duplication of the metamorphic pile and the São Sebastião leucogranite probably follows another thrust at a lower structural level. The SW branch differs from the NW branch in the following aspects: no evidence of a previous subvertical foliation and dextral shear was found; the thrusting regime is at higher grade and the thrusting is more intense because there is complete reorientation of fold axis in the transport direction and sheath-fold generation across the main ductile thrust planes. These observations support a subduction-collision origin for the Ribeira - Damaran Neoproterozoic orogen with continued westward subduction and continental under thrusting of the Damaran branch below the Ribeira branch as already reported.