**DIAGNOSTIC FEATURES OF THE PRECAMBRIAN ALTEROZA PALEOSUTURE IN SOUTHEASTERN MINAS GERAIS/BRAZIL.**

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The northern border of the Guaxupé Syntaxis in the southern of the São Francisco Craton have been described as the boundary between two collided palaeocontinents: the upper São Paulo Block (SPB), in the south, consisting of granitic gneisses, garnet-sillimanite bearing metasediments and granulites, and the subducted Brasília Block (BB), comprising biotite-hornblende gneisses, amphibolites and medium grade metasedimentary rocks. The W-E trending Alteroza Suture Zone (ASZ), which bound these blocks, was investigated for its lithologic, metamorphic, structural and geophysical features. It mark the juxtaposition of a medium-pressure granulite belt, interpreted as the lower crust of the SPB, which was thrusted onto low to medium grade metasedimenty rocks of the BB to the north. Thrusted onto the southern border of BB there is a complex association of remnants of ophiolites, passive and active margin sediments and syncollisional granitoids. Along the ASZ deformed granites and garnet-kyanite gneisses of high amphibolite facies, high pressure metamorphism are remarkable. The high strain history of this crustal discontinuity is revealed by the Varginha Shear Zone, where steeply dipping gneissic and mylonitic foliation strikes between WNW-ESE and W-E and with WNW shallow dipping stretching lineation, and prolate L-type tectonites. Strike-slip shearing record the latest transpressional deformation in low-grade metamorphic conditions. The ASZ shows a strong increase in the gradient of aeromagnetics and gravity anomaly gradient, with mGal/Km reaching 2.0.