

PALEOPROTEROZOIC ACCRETIONARY EVOLUTION IN THE NORTHERN RIBEIRA BELT, BRAZIL

1COSTA, A. G., 1ROSIÉRE, C. A., 2EBERT, H. D., 3FISCHEL, D. P., 3FUCK, R. A., 3PIMENTEL, M. M. 1CPMTC-IGC/UFMG, Belo Horizonte, Brazil; 2UNESP, Rio Claro, Brazil; 3 UnB, Brasília, Brazil.

The Transamazonian evolution of the northern segment of the Ribeira Belt in eastern Minas Gerais is characterized by the accretion to the Paramirim Plate of a tholeiitic juvenile magmatic arc and a continental terrane. This consists of a continental plutonic granitic arc and terrigenous metasediments of continental margin. The occurrence of a metasedimentary gneiss belt (Paraíba do Sul Complex) at that margin, composed of shallow to deep marine clastic lithologies as well as metavolcanic and metaplutonic mafic rocks, is interpreted as the remnants of an extensional back-arc setting. Lithic fragments of volcanic origin have been identified and are interpreted as an evidence for an island-arc. Parts of the Juiz de Fora Complex represent that Tholeiitic Transamazonian Arc. The petrological, structural and geochemical data of metamorphic and magmatic suites are typical for the evolution of an accretionary orogen. After the evolution of an island-arc and a back-arc basin, by rifting of a continental margin without spreading, during eastward subduction, the island arc was accreted onto a continental margin. Further subduction beneath it and flattening of the slab inclination gave origin, eastwards, in a compressional environment, to a granitic continental-arc. This is represented by tonalitic gnaisses of calc-alkaline composition which occur further east of the Manhuaçu region.