

The first complete AMCG association of the Amazonian Craton- Coeval anorthosites, mangerites, charnockites and rapakivi granites in Roraima - Guyana Shield

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Typical rapakivi granites have been recognized in the Guyana shield since the seventies, but their genetic relation to charnockitic rocks and anorthosites has only recently been characterised. In Roraima State, Brazil, southwest of Boa Vista City, a Mesoproterozoic AMCG association including anorthosites (1,53Ga), mangerites-charnockites (1,56Ga) and rapakivi granites (1,54Ga), intrudes amphibolite facies orthogneisses (1.96-1.91Ga) of the NE-SW trending Central Guyana Belt. The main Mesoproterozoic rock bodies are elongated in the direction of the belt. The anorthosites of the Repartimento unit and associated gabbros crop out in the vicinity of charnockitic bodies of the Serra da Prata Suite, composed by mangerites, charnockites and enderbites displaying hypidiomorphic-granular to porphyritic textures. The Serra da Prata charnockitic rocks were interpreted in the past as granulites of the Kanuku Complex. The rapakivi granites of the Mucajaí Intrusive Suite are exposed in the proximity of the AMC plutons. Pyterlites and wiborgites similar to those of the classic Finland areas, as well as even-grained monzo- and syenogranite have been identified. The rocks of the AMCG association are locally affected by NE-SW shear zones characterised by greenschist facies mylonites. A steep NE-SW foliation (dipping NW) is associated to high rake lineation and cinematic indicators of dip movement (K'Mudku Episode). The studied complete AMCG association represents a unique example in the Amazon Craton and reinforces the previously proposed correlation between this craton and Laurentia-Baltica.