

Indo-Antarctic Correlation: A metamorphic perspective

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Recently obtained geochronological and petrological data on the Eastern Ghats Granulites provide much better constraints on the reconstruction of the geological history of this area and its erstwhile neighbour, East Antarctica. Broadly, the Eastern Ghats Belt shows two contrasting tectonometamorphic provinces separated by the Godavari Rift. The area to the north shows imprints of granulite facies polymetamorphism (Paleoproterozoic and at 1000 Ma) and a weak Pan African (500 Ma) amphibolite facies metamorphism. The area to the south shows single granulite facies metamorphism prior to 1000 Ma. The two segments record contrasting P-T trajectories of metamorphism as well. Remarkable similarity in the metamorphic histories between the Napier Complex and the southern Eastern Ghats Belt and between the Rayner Complex and the northern Eastern Ghats Belt are noteworthy. On the basis of available evidence, a new correlation between the Eastern Ghats Belt and parts of East Antarctica is proposed.