PRECAMBRIAN CRUSTAL PROCESSES IN EAST COAST GRANULITE-GREENSTONE REGIONS OF INDIA AND ANTARCTICA WITHIN EAST GONDWANA. Edited by A. T. Rao, S.R. Divi and M. Yoshida, Gondwana Research Group Memoir No.4, Osaka City University, 1998, 198p.

This compact paperback volume is an outcome of the "Symposium on India and Antarctica during the Precambrian and Granulite and Crustal Processes in East Gondwana" held in Andhra University, Visakhapatnam in December 1995. It is one of the major contributions to the IGCP Project 368 on "Proterozoic Events in East Gondwana" led by M. Yoshida and M. Santosh. The book contains 10 articles of which 7 deal with the Eastern Ghat Mobile Belt (EGMB) of southern India, 2 with Nellore Schist Belt (NSB) situated close to EGMB and one dealing with East Antarctica.

V. Divakara Rao and N.N. Murthy provide a cursory look into the evolution of EGMB based mainly on the geochemistry of granulites from Araku-Padua area. Khondalites (metapelites) are regarded by them as continental margin sediments derived from a proximal tonalite-trondhjemite-granodiorite (TTG) source. Following M.V. Subba Rao et al. (next paper), they describe intrusive bimodal volcanism characteristic of rifts. T.R.K. Chetty and D.S.N. Murthy reiterate their view that Sileru Shear Zone is a major suture zone between the craton and mobile belt. Anand Mohan describes decompression textures in Mg-Al granulites of EGMB which are attributed to a setting dominated by exhumation after crustal thickening, possibly by collision. A.T. Rao summarises the geochemistry of Kondapalli Igneous Complex and conjectures on a plate tectonic model for the greenstone-granulite terrain of southern India. A.T. Rao et al. provide detailed geochemical data on the carbonates of Borra and corroborate the recent view of their sedimentary origin as opposed to their earlier misidentification as carbonatites. In another paper A.T. Rao et al. describe the geochemical evolution of Chimakurthi anorthosite occurring at the junction of EGMB and NSB.

V.R.R.M. Babu gives a disjointed account of NSB in a lengthy paper. His excursion from the early history of the earth to the fragmentation of Gondwanaland affecting the NSB in many ways is highly speculative and masks the main evolutionary phase of NSB as a major supracrustal belt. R. Dhana Raju et al. describe the petrology and geochemistry of the anorthosites (Inukurti and Vorupalle) in NSB. In the final paper of the volume, Y. Tainosho et al. present Sm-Nd and Rb-Sr ages of granulites of a part of the Napier Complex, East Antarctica.

The usage of khondalite as pelitic gneiss with garnet and sillimanite (as opposed to its stratigraphic meaning encompassing pelitic gneisses, quartzites and calc silicates into Khondalite Group) and charnockite as an igneous differentiation series after Thomas Holland still survives in this book despite widespread clamour for change. Geochemical data forming the essential ingredient of most papers are presented in a single volume which is very useful and convenient for reference. Most papers are however, in the nature of perfunctory reviews following a beaten track. More stringent editorial scrutiny would have improved the loose organisation of some papers, cut down the flab, and eliminated many errors in spelling. Despite these lapses, the volume on the whole is a useful addition to our knowledge of the granulites of EGMB in southern India.

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