

PREFACE

This special edition is a contribution to the IGCP Project nº 257 "Precambrian Mafic Dyke Swarms" (UNESCO-IUGS) resulting from the activities of the Brazilian Working Group (BWG) during 1990. The BWG held the II Workshop on Mafic Dyke Swarms of Brazil, August, 1990 at the Instituto de Geociências of the Universidade de São Paulo (IG-USP) in São Paulo, Brazil. More than 30 participants attended the 3-day session which was followed by a field trip to the Precambrian mafic dykes of the Lavras-Bom Sucesso area, Minas Gerais State. The II Workshop also evaluated the activities of the BWG since its creation during the I Workshop in August, 1989 (see Boletim IG-USP, Série Científica, vol. 20, 1989, for the extended abstracts of this meeting).

The emphasis of the II Workshop was on the characterization of the Precambrian dyke swarms of Minas Gerais, southern São Francisco Craton, although ongoing research on the Ilhéus-Olivença and Uauá swarms (northern São Francisco Craton) was also presented. Additionally, papers were contributed on the geochemistry and geochronology of the Uruguayan Precambrian dyke swarm as well as on the knowledge and tectonics of Proterozoic and Mesozoic dykes of the Amazon Craton. Other presentations in the workshop referred to the paleomagnetism of Mesozoic dykes both in northeast Brazil (Ceará-Mirim swarm) and in southeast Brazil (Ponta Grossa Arch) as well as to Paleogene tectonics associated with dykes intrusive in the Resende and the Volta Redonda basins, Rio de Janeiro State. Overall, 20 talks were presented and their extended abstracts published together in a special volume in Portuguese. The significant progress achieved in the II Workshop is here summarized in the form of 16 extended abstracts which illustrate the variety of integrated studies presently underway on dyke swarms in several portions of South America.

Apart from this, six contributed papers and a report of the activities of the BWG were also presented in the Second International Dyke Conference held in September, 1990, in Adelaide, Australia. Two of these contributions have been published in their entirety in the proceedings volume of the Conference ("Mafic Dykes and Emplacement Mechanisms"; Parker, Rickwood, Tucker, eds.; Balkema, 1990). As a further contribution of the BWG to IGCP Project 257, Brazil will host the "International Symposium on Mafic Dykes" to be held in September, 1991, in São Paulo, which will be another important step of the BWG research program towards better publicizing Brazilian studies in this field and consequently strengthening the cooperation with foreign colleagues and institutions.

Finally, the extended abstracts published here were carefully reviewed for content

and correct English usage by the editors, W.Teixeira and T.R.Fairchild of the IG-USP and E.P.Oliveira of the Instituto de Geociências of the Universidade Estadual de Campinas. Minor changes and corrections have been introduced in the texts for uniformity of language use and for the sake of clarity without changing the original ideas of the authors.

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