separated by prominent shear zones. The Central Zone, regarded as an exotic terrane, comprises quartzofeldspathic and supracrustal gneisses intruded by 3.2 Ga suite of tonalite gneisses, 2.7 Ga syntectonic Bulai gneissic batholith and Late tectonic Mokgware granite. The Southern Marginal Zone comprise Bandelierkop Complex supracrustals intruded by 2.9-3.3 Ga tonalite-trondhjemite, Haout River Gneisses, 2.7 Ga Late tectonic Matok granite. The latter comprises granitic and charno-enderbitic phases. In the Northern Marginal Zone, the supracrustal gneisses are intruded by the quartzofeldspathic gneisses. Magmatic charnockites and charno-enderbites occur as large homogeneous bodies. Syntectonic Mweza granite (2.6 Ga) forms a number of elongate bodies along the tectonic boundary of the terrain with Zimbabwe craton. According to widely accepted geotectonic model, the Kaapvaal Craton with already accreted Central Zone was thrusted over Zimbabwe craton at about 2.7 Ga. This resulted in crustal thickening responsible for granulite facies metamorphism. During subsequent decompression events, the rocks of the belt moved upward and spread out on to the neighbouring cratons along inward directed shear zones, creating pop-up structures. Recent isotopic dates however question 2.7 Ga for orogeny and suggest 2.0 Ga as age for granulite facies metamorphism.

There are two aspects that deserve all out commendation both to the author and to the publisher. First, the booklet provides a succinct summary of the very complicated orogenic belt in a simple and unambiguous fashion. A long list of references however benefits those readers who seek to have more information on specific subject. Second, the outstanding quality of presentation, especially the field photographs in colour provided for each of the important features described. These two aspects make the booklet a pleasant reading material. While browsing through the booklet, the reviewer felt the absence of three things. First, a simplified map to the page scale could have been included in the booklet. This could have been handy for a reader to cross check some of the important locations without going to the main map or if one has to read this booklet in the absence of the main map. Limpopo Belt contains some of the rare minerals of granulite grade metamorphism, such as sapphirine, kornerupine to name a few. Thin section photographs of these with typical mineral assemblage would have been useful addition. Third, there is no information about the economic mineral deposits of the area. These aspects could have enhanced the value of the booklet.

Publication of this map also brings forth the importance of publishing a geological map that is based on geological units in its entirety, disregarding the national or international boundaries. Despite the correlation problems faced by the compiler across and along international borders, the Limpopo map includes three countries and the utility of such a map for understanding its geotectonic development is far more than the piecemeal study of the maps separated by the international boundaries. In our country the publication of maps, strangely, are guided by the fragile State boundaries, like Geological Map of Karnataka, Madhya Pradesh etc. It is time that we bring out maps on geological units like Dharwar Craton, Eastern Ghat Mobile Belt etc. so that it helps in our understanding of the evolution of these belts on a more rational basis. The publication is available in the library of the Geological Society of India for consultation.

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CONTACT PROGRAMME CUM FIELD WORKSHOP ON STRUCTURE, TECTONICS AND MESOZOIC STRATIGRPAHY OF KACHCHH

A contact programme cum field workshop on "Structure, Tectonics and Mesozoic Stratigraphy of Kachchh" sponsored by the Department of Science and Technology (DST), New Delhi was organized at Bhuj by the Department of Geology, Maharaja Sayajirao Univeristy of Baroda, Vadodara from 14-20 January, 2002. Participants representing various universities and research institutions from all over the country attended the workshop. Dr. S.K. Biswas, Retired Director of KDMIPE was the Course Director. The course was mainly aimed at sharing the knowledge that Dr. Biswas has gained on the Geology of Kachchh with young geoscientists, so that they can then pursue state-of-art research in Kachchh. It was befitting the subject of geology that the knowledge generated so far is imparted in field itself. The programme was mainly restricted to the Mesozoic Geology of Kachchh, since a

large part of the region is occupied by rocks of this age. However, looking at the renewed importance of neotectonic and palaeoseismic aspects in the light of 26 January, 2001 earthquake, these topics were also included.

The programme was inaugurated by Prof. S.K. Tandon (former Chairman, PAC, DST-University of Delhi). Shri H.N. Chibber, Collector of Kachchh presided over the inaugural session. Prof. Tandon in his inaugural address stressed on the urgent need of the involvement of young geoscientists for taking up challenging research in the region, and hoped that they will contribute effectively to the developmental activities of the region, and ensure that the planners are made available with geoscientific data that will permit sustainable development and economic prosperity. Dr. K.R. Gupta, Adviser, ESS, DST, New Delhi in his address enlightened the participants with the activities of DST, and highlighted the thrust areas identified for challenging research in earth sciences. He hoped that the participants will be benefited from the course and will take up research on crucial aspects of the geology of Kachchh. The other faculty included eminent palaeontologist Prof. Jai Krishna of Banaras Hindu University, Varanasi, Dr. Bijai Prasad, Chief Palynologist, KDMIPE, ONGC Ltd., Dehra Dun and Prof. R.V. Karanth of Maharaja Sayajirao Univeristy of Baroda, Vadodara. All the lectures were delivered on the first day, which was followed by vigorous field work for the remaining days.

Dr. Biswas in his lecture briefed the participants on various aspects of the geology of Kachchh such as lithostratigraphy, depositional environments, structure, tectonics and tectonosedimentary evolution. Prof. Jai Krishna enlightened the participants on the high resolution biostratigraphic and chronostratigraphic aspects of Mesozoic playnology of Kachchh. Dr. Bijai Prasad presented high resolution data on Cretaceous palaeoenvironments. Prof. R.V. Karanth covered the palaeoseismic aspects of Kachchh. The lecture notes submitted by the resource persons were compiled in the form of a well-documented volume. The volume encompasses ten chapters on different aspects of the geology of Kachchh spread over 196 pages with an exhaustive list of references. The volume may serve as a guide for young researchers who wish to undertake advanced research in the area. The field training was the most important part of the programme and the participants were actually shown all the type sections and almost every part of the Kachchh basin was covered. One full day was devoted towards independent traverse mapping. The feedback from participants reflected an urgent need for conducting many such field-oriented courses on varying aspects of geology including specialized topics.

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TRAINING COURSE ON TOPOSHEETS AND AERIAL PHOTOGRAPHS

A four day course on "Geologic and Geomorphic Interpretation based on Toposheets and Aerial Photographs", was held at Mahabaleswar, *Sahyadri* between 7-10 April, 2002 under the auspices of the Geological Society of India. Fourteen participants from academic institutions and government departments attended the course. The participants were professionals, teachers and research scholars in the field of geology, geography and engineering from the states of Andhra Pradesh, Karnataka, Maharashtra and Gujarat.

The course was inaugurated by Sri A. B. Pawar, Secretary (Works), Govt. of Maharashtra, who dwelt on the importance of old and modern tools to understand the nature of land-forms and their development. He also emphasized the importance of sound knowledge about the terrain for engineers to accomplish major public works projects. Dr. J.C. Mohanty, Managing Director, Andhra Pradesh State Finance Corporation, highlighted the practical applications of Toposheets in rural sector by way of locating tanks, roads and other features of relevance in development planning.

The main emphasis of the course was to recognize different geomorphic features, such as glacial, fluvial, aeolian and coastal using Survey of India topographical maps representing different regions of the country. A similar exercise was also carried out for some American topographical maps. Aerial stereopairs of parts of some of the toposheets were also studied for recognition of landforms and geological structures. The participants were exposed to the utility of satellite imagery in the study of regional geomorphology *vis-a-vis* toposheets. The large amount of information that can be generated from the study