

Book Reviews

INTRACONTINENTAL FOLD BELTS: CASE STUDIES IN THE VARISCAN BELT OF EUROPE AND THE DAMARA BELT IN NAMIBIA. H. Martin and F. W. Eder (Editors). Springer-Verlag, Berlin, Heidelberg, New York, Tokyo, 1983. pp. 945, Price: DM 120 00 (approx. U.S. \$ 47.70).

The book comprises a collection of papers presenting the results of the 12 interdisciplinary study under 'Sonderforschungsbereich 48-Göttingen', a special research programme at the University of Göttingen, West Germany. Launched in the year 1969 under the general title 'evolution, composition, and distinctive characteristics of the earth's crust particularly in geosynclinal regions', the programme envisaged exploration of the stages of development of two intracontinental fold belts: Variscan in Europe and Pan-African Damara orogen in central Namibia, from their geosynclinal stages to the completion of orogenesis. Evidently the aim was to get an insight into sedimentological, geochemical, magmatic, metamorphic, tectonic, geochronological, and geophysical features that contribute to the understanding of the geodynamic processes which controlled the evolution of the intracontinental orogens.

The volume is divided into two parts, dealing with the case studies in the Variscan belt and the Damara belt separately. In a brief but masterly comparison of the two orogenic belts, H. Martin and H. J. Behr list features which are common to both the orogens and also the major differences. In the Variscan part, there are several papers dealing with sedimentation pattern and tectonics. Some of the papers are very instructive, and provide useful information on sedimentary record and the tectonic framework of sedimentation. Unfortunately, there are many repetitions which could have been avoided through proper collation. The study on contemporaneous volcanics in the Variscan belt clarifies the tectonic environment during the depositional stage. There are some interesting papers on geodynamic models which certainly deserve careful reading.

The part on the Damara orogen is prefaced by an excellent review by Professor H. Martin. The geodynamic model proposed for the Damara orogen suggests control of non-contemporaneous and inactive rift systems. H. Porada's paper on the geosynclinal development is a lucid exposition of the stages of deposition in the Damara orogen. The development of different sedimentary facies has been related to the rate of subsidence along the rift structures. The papers on metamorphic studies are of fundamental importance. There are also a few papers on geochronology, cooling history, and deep seismic sounding. In brief, the treatment on the Damara orogen appears more comprehensive than that of the Variscan belt.

This is an offset printed volume. The letter size of the typescript is a bit too small, but it is hardly a major constraint. There are some minor mistakes. The figure caption on p. 406 does not match with the accompanying diagram. German language terms have been freely used to which the English knowing readers may not be very familiar.

The volume is a significant contribution to the understanding of intracontinental fold belts and would be of interest to geologists involved in multidisciplinary studies of orogenic belts.