

the present day technology for using solar energy. Israel, we are informed, has twenty per cent of its homes equipped with solar heating appliances, nearly saving 100,000 barrels of oil per year. The principle of flat mirror collector, solar cooler, solar furnace and solar cells are described.

We only wish the writing was more clear with more practical details. The telegraphic language used does not help understanding the subject clearly. The book is a good introduction to the tremendous possibilities that exist for the utilisation of solar energy in this country.

B. P. RADHAKRISHNA

**GEOSPHERE BIOSPHERE PROGRAMME : Activities of the Department of Science and Technology, its aided institutions and service organisations.** Dept. of Science and Technology, New Delhi. February 1991, 96 pp.

The Geo-Biosphere Programme is on the priority list of research in the fields of atmospheric chemistry, global ocean flux studies, sea level changes, global changes in terrestrial ecosystem and past environmental and climatic changes. D. S. T. has made an attempt at monitoring implementation of these activities. The present brochure is the outcome of a preliminary assessment of the work by different aided institutions in the above areas of investigation. Under each item, information is furnished on studies so far carried out, the observation network created and the nature of results obtained. Facilities available and to be created and a future plan are also given. The report is interspersed with informative illustrations and colour photographs.

Of particular interest to geologists is the palaeobiological investigations of graphite from Ganacharpura, Kolar Dist. Karnataka state, indicative of its biogenic origin. Coccoid and rod-shaped bacteria have been identified from the Archaean iron formation of Kudremukh (> 2600 Ma).

It is heartening to note that infrastructure has been created in several institutes and university departments. The agenda of work in these advancing fields of research is heavy and it will require the concerted effort of all the institutions to achieve significant results.

B. P. RADHAKRISHNA

## MINERAL INDUSTRY

The 104 elements of the periodic table, which are recovered from widely spaced—often remote—mineral deposits by dedicated people using a variety of complex mining and metallurgical techniques, form the foundation of modern society. They provide its heat, its light, its buildings and bridges, its transportation, and its communication. The standards of living achieved by industrial nations—which developing nations are striving to attain—are based on minerals, and societies could not continue on their present state without them.