the debates surrounding education in India, it offers us an opportunity to reexamine the notions of access, enrolment and retention. Diversity, Ghai states 'is not just a reality to be tolerated, accepted and accommodated... it is a reality to be treasured' (p. 39).

Thorat and Kumar take the thread of critical inquiry further, keeping the focus on the ways in which the historical, cultural and economic forms of exclusion play out in formal education. Thorat begins the article with a conceptual discussion about caste and social exclusion, and goes on to show how structural inequalities influence educational access, experience and performance of students belonging to the scheduled castes. The twin forces of socioeconomic exclusion and discrimination play a central role in Thorat's analysis of employment patterns, land holding, hazardous labour markets and access to health and education. Ravi Kumar presents an incisive critique of the neoliberal approaches to education. Documenting a shift in the state's priority towards education, Kumar analyses larger economic doctrines that are increasingly becoming influential in contemporary education. As for education in India, the entry of unbridled private capital has coincided with the withdrawal of the state from its commitment to common school system.

The politics of textbook production in India and literacy practices receive considerable attention in the book. Shobha Sinha's article draws attention to the need to understand multiliteracies and imagining pedagogies that would also facilitate 'reading the world'. The reorientation of history textbooks makes for an interesting narrative of the regime of colonial, nationalist and more recently, the Hindutva ideologies that have identified the school curricula to be an important field of action. While Narayani Gupta looks at how national pride (in its explicit form) found its way into Indian textbooks, Teesta Setalvad analyses how the multidimensional, multilayered and contradictory nature of history gets cleansed off in order to produce homogenous and uncomplicated narratives of textbook history.

Sadhna Saxena offers an engaging account of one of the innovative and progressive literacy campaigns organized by Jan Shikshan Abhiyan. Narrating her experience with the project that aimed to impart literacy skills to children who were first-generation learners, Saxena looks at art, language, symbols and comprehension as these relate to both, the questions of acquisition as well as structural reality. Shifting from the politics of formal education to that of the questions of knowledge, Janet Chawla traces mothering practices in tribal communities and their interpretation in current medical terms. N. Radhakrishnan articulates the visions of ethical education that are not simply instrumental in achieving all round development, but are also a way of life. Central to Radhakrishnan's formulation are Gandhian concepts of self-sufficiency, non-violence and child-centred nature of education. In the same vein, Satish Kumar explores the complicated nature of identity and citizenship in the context of global interdependence. Drawing on the Kantian notion of moral cosmopolitanism, Kumar reiterates the need to develop global consciousness and global collectivism. Finally, Mirbagheri presents a philosophical analysis of Islamic thought (focusing on epistemic and jurisprudential strands) that explores the notion of liberal peace.

The text includes contributions focusing on a wide range of questions. While some articles directly engage with the conceptual/historical/empirical issues concerning 'education for sustainable development', others examine educational issues at large. A thorough analysis of sustainable development approaches and an inclusion of case studies would have added to the strength of the book. This is an important intervention, no doubt; however, more work remains to be done.

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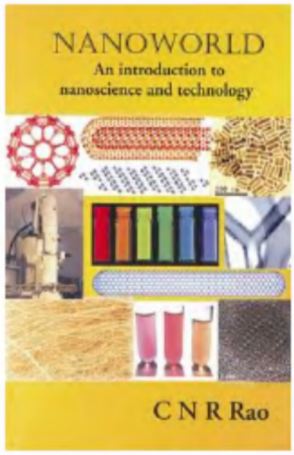


Nanoworld – An Introduction to Nanoscience and Technology. C. N. R. Rao. Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur P. O., Bangalore 560 064. 2010. 95 pp. Price not mentioned.

Chintamani Nagesa Ramachandra Rao, known as the 'Father of Indian Nanotechnology', has authored yet another book after writing and editing over 40 books in chemistry. This time he has not written a textbook for scholars or a book for specialists, but an introductory handbook on nanoscience. The target readership of this handbook, less than a 100 pages long, includes students and teachers who are beginners in the subject. 'This is obviously not a text book', says the author in the foreword. After reading, I could not resist the desire to write a review of, I would say, a book that introduces nanoscience in the simplest possible way.

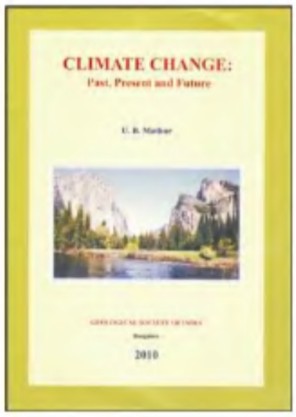
The reason behind writing this book, explains the author, is to acquaint the readers with the fundamentals of a science that has gained significance in the past couple of years. If read by specialists in the field (not the target readers), the concepts highlighted will sound familiar but fun to read. The book is small and succinct and one can finish reading at one go. Text is supported by colour pictures and cartoons of instruments used, and of nanomaterials as seen under the electron microscope.

The author begins with explaining the use of nanomaterials by the Romans and Mayas, and the story of Damascus sword. This was the time when the understanding of nanoscale dimensions was lacking. Later, he talks about Michael Faraday, Richard Feynman, Gordon

Moore, and Eric Drexler and their contributions. He explains the properties of nanoparticles and the experiments for synthesizing carbon nanotubes, zinc oxide nanowires, nanofilms and gold nanoparticles. Additional information is enclosed in boxes throughout the book. What I find most interesting about the book is the section on applications of nanoscience that covers a wide area of research ranging from use in therapy and drug delivery to use in cosmetics, textiles and computers.

The author has not touched upon the subject of the ill-effects associated with the use of nanomaterials; reason I assume is it would require the readers to have an understanding of complex biological phenomena and may not be suitable for a handbook like this, meant for beginners. Nevertheless, he does conclude by saying that 'there is a crucial need to investigate the toxicological effects of nanomaterials'.

RICHA MALHOTRA



Climate Change: Past, Present and Future. U. B. Mathur. Geological Society of India, No. 63, 12th Cross, Basappa Layout, Gavipuram, Bangalore 560 019. 2010. 48 pp. Price: Rs 200/ US $20.

Climate change has been happening ever since the earth formed; the mean global surface temperature, 125 to 65 million years ago, was probably higher by 6–8°C than it is today. That increase in greenhouse gases leads to warming of the atmosphere has been proved from the study of drilled cores from Antarctic and Arctic ice. Furthermore, little or no correlation has been found to exist between atmospheric carbon dioxide and temperature in studies of the deep geological past. However, a strong relation between the two has been found in recent times. A non-specialist reader would be left perplexed by these reports.

This book of under 50 pages is third in the 'Popularization of Science Series' produced by the Geological Society of India. The author gives a clear, realistic picture of the two contradictory findings on climate change – on one hand, there are reports that ring an alarm over anthropogenic global warming and on the other there are reports that deny such a connection. The role of palaeoclimatic studies in (a) predicting abrupt climate changes and their severity in the past and (b) understanding present climate and predicting future climate has been emphasized in the book.

Climate Change: Past, Present and Future serves the purpose for which it has been written, as stated by Harsh Gupta (President, Geological Society of India) – 'to promote a better understanding of the processes of climate change and its consequences'. Gupta reasons that the book is 'a very timely publication' because of the worldwide concern 'over the ill-effects of global warming'. It is also timely because of the recent furore over errors in the Climate Panel (IPCC) 2007 report.

For a book of this size, there are too many spelling errors and typos. Even the 'Foreward' (sic) has not been spared. If a 50-page book can have several errors, can one not expect to see some in the 1000-plus-page IPCC report! The IPCC 2007 report famously overestimated the melting of Himalayan glaciers. And Mathur's book has a table (figure 43) with a puzzling entry for retreat of the Pindar glacier (1945–1966, 121 years, 2840 metres). Timely indeed! Many of the figures and tables are reproduced from the IPCC 2007 report; but it is to be noted that the table where this mistake occurs may not be from the IPCC report because it is not referenced. Page number 26 is printed as 25 and vice-versa. A former English language consultant, who has been acknowledged for 'meticulously editing at the final stages of the manuscript' seems to have missed grammatical errors.

How the eccentricity of earth's orbit, and the tilt and wobbling of its axis affect the climate over a long term have been described. The role of water vapour as the biggest contributor to global warming, and the El Niño and La Niña phenomena are also mentioned. Reading the book evoked nostalgia, a sense of reading a school geography book. This is reinforced by the revision questions and glossary at the end. Still, the book seems like a good attempt to explain the fundamentals of the complex science of climate change.

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