

**The Cambridge Dictionary of Scientists, by David, Ian, John and Margaret Millar, Cambridge University Press, 1996. ISBN 0-521-56718-1 , price not stated.**

One of the striking features of the intellectual landscape today is the increasing importance of science as opposed to literature or philosophy. Science and scientists are at the center stage of intellectual debates on wide ranging topics from the nature of the mind to that of the universe. This is in sharp contrast to earlier periods in history where the classics and humanities formed the core of what was expected to be known by an intellectual.

In 1963 C.P. Snow introduced the term "third culture" as a bridge between the literary intellectuals and the scientists. In recent years, one has seen scientists writing books about their works which have become instant best-sellers. Starting with S. Weinberg's "The First Three Minutes", we have had Hawking's "A Brief History of Time" and more recently Penrose's "The Emperor's New Mind" to name a few. These books have contributed to a better public understanding of the work done by scientists in as diverse fields as cognitive sciences or cosmology and have made some of these scientists into household names, if not cult figures.

This renewed interest in science as a field of human inquiry has also brought about an interest in the works and lives of the practitioners of science. We have had biographies of scientists like John Gribbins' book on Hawking and Kameshwar Wali's outstanding work on Chandrasekhar. The Cambridge Dictionary of Scientists is the latest addition to the growing literature on the lives of scientists.

As a reference book with biographical entries on over 1300 scientists, it claims to be an invaluable research tool for anyone interested in the world's leading scientists, past and present. The book covers many diverse fields, from astronomy to botany, from computer science to geology and from mathematics to zoology.

An interesting addition to the earlier version of the book is the inclusion of 32 panels on different topics which summarize the major areas in science as well as some topics of current interest. Apart from having information on scientific areas like the three forms of carbon, there are also interesting discussions on topics like the history of scientific societies, Mnemonics and even the exploration of Australia! Written in a very accessible style, these form the most interesting part of the book.

Another noteworthy thing about the book is the inclusion of a large number of women scientists who have contributed immensely to the growth of sciences. There is a discussion of the lives and works of more than 70 pioneer women scientists. The difficulties faced by women in entering the "northern European male" dominated scientific professions make for fascinating reading.

Having said this, there is a fundamental problem with the book. With all the self-proclaimed sensitivity that the authors have for the inclusion of women in the list of great scientists, they have an amazingly Eurocentric perspective towards the history of science. In the whole book, one could only find three entries on Indian scientists. (five if one includes naturalized Americans like Chandrasekhar and Hargobind Khorana). The Chinese and the Middle Easterners don't fare any better. It is amazing, for instance not to have any mention of the contributions of the ancient Indian Mathematicians to the development of arithmetic or astronomy. To have an entry for Empedocles (of Acragas, 490-430 B.C.) and not have one on Charak or Susrut seems odd. In the history of medicine, there is no mention of either ayurveda or acupuncture and Chinese medicine. Clearly, for the authors, science started in ancient Greece, prospered in Renaissance Europe and reached its pinnacle in post World War II United States. What the other 80% of the world's population, most of it having more than 3 millennia of continuous civilization, does not qualify as science. Surely, Joseph Needham will be turning in his grave! Even among the contemporary scientists, it is strange to note the inclusion of Neil Armstrong but the exclusion of great scientists like Ya Zeldovich of the Soviet Union or John Bell of England. Though there is always going to be some degree of arbitrariness in the selection of "great" scientists, there will probably be a consensus on the relative contributions of these scientists viz. a viz. Armstrong.

The book is well produced and has an easy to read style. The information given is certainly useful for reference purposes. For the next edition, it would be nice for the authors to try and explore the practice of science by non European cultures. This would not only make the book more complete but also may open up new horizons in the history of science.