

Book review

J. Šesták, Heat, Thermal Analysis and Society, Nucleus Publishing House, Czech Republic, 2004, ISBN 80-86225-54-2, 400 pp., € 89, <http://www.nucleus.cz/>.

It is a daunting task for a single reviewer to attempt to review a book which the author himself suggests could have been published as several separate books. Those who know the author will recognize immediately the very personal nature of this view of his field by a controversial scientist. In addition to his scientific activities, which have resulted in 12 books, over 300 papers and several national and international awards, Šesták is a talented photographer and has also had political aspirations. All of these facets of his career are apparent in this unusual compilation.

The book is in a large A4 format with a striking cover also designed by the author. There are 370 numbered pages plus photographs and advertisements at the back. The paper and binding are of high quality so the price is very reasonable.

The preface is essential reading to be able to comprehend what is to come. The author explains his aims: "The text endeavours to elucidate a wide spectrum of scientific and philosophical problems from classical to quantum thermodynamics, from energy science to informatics or from Euclidian to fractal geometry including the general impact of power laws". He also pleads, in advance, for forgiveness for translation and spelling problems of which, unfortunately, there turn out to be very many.

The book is divided into five volumes:

Volume 1. Aspects of history and links to modern science—development of understanding.

Volume 2. Appreciation of heat and thermal physics.

Volume 3. Thermal treatment and methods of thermal analysis.

Volume 4. Thermal dynamics and non-equilibrium phenomena—state progression.

Volume 5. Society, science and ecology—progress against survival.

Each volume contains four chapters. The division of material amongst the volumes does not seem to form a totally logical system and some of the chapters within the volumes seem to be of the nature of essays, or the texts of speeches or individual lectures. There is an interesting table, accompanied by many small photographs, of selected personalities ranging from Agricola to Zu Chong-Zhi (an early Chinese astronomer).

Most of the chapters are followed by long footnotes in a smaller font. I found the footnotes more diverting than illuminating and it was difficult to get back to the theme of the chapter. A similar comment could apply to the interspersed photographs which, although mostly excellent in their own right, bear no relevance to the text and hence tend to cause more mental diversion. In contrast there are many good cartoons that illustrate parts of the text.

The greatest problem with the book lies in deciding what the anticipated readership was. It contains a lot of interesting material, particularly in the areas of the author's expertise, such as thermal analysis, kinetics, thermodynamics and glasses, but is neither a textbook nor a research monograph. It is too broad in its attempted coverage to fill either of these roles. It is too detailed and technical in places to be classified as "popular science" even though it attempts to penetrate interdisciplinary boundaries. It is also not a book that one could read with enjoyment from cover to cover, but on browsing through any of its sections, one is likely to encounter many thought-provoking ideas. Even if the reader's response is heated disagreement, analysis of the ideas can prove useful.

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1 October 2004

Available online 18 November 2004