

Book review

**Jaroslav Šesták: Heat, Thermal Analysis and Society
NUCLEUS HK, Hradec Králové, Czech Republic, 2004**

This is an extraordinary book by an extraordinary author; an emblematic overture of the third millenary by one of the luminaries of the profession. But really, what is this book of imposing size (and weight), five volumes bound together, comprising four chapters each? A textbook of thermal sciences? A narrative history book? An illustrated collection of anecdotes? Flight of everything that occurs? Thumbing the book, the reader has got the impression that all these together! Just as reflected from the title. This is a multi-dimensional work of science, history, philosophy, culture with art photos and satirical sketches among the scientific figures. A life achievement of a colourful individuality.

Right the first Volume grasps a wide survey: Aspects of History and Links to Modern Science. It leads us from the first impression of warmness, through the mystery of fire, along the history of human civilisation, up to our present notions of coldness and warmness, heat, fire, and energy.

The second Volume is walking round the development of the basic rudiments of thermal physics such as temperature, heat transfer, heat equilibrium, going into the physical and chemical thermodynamics of homogeneous and heterogeneous systems in static and kinetic situations.

Volume 3 is approaching the proper main topics of the book, the measurement and control of thermal effects: temperature and heat. This leads us to the effects of thermal treatments on the materials and to the various aspects of thermal analysis and calorimetry.

The fourth Volume goes into the depth of complex situations of thermal events: dynamic and non-equilibrium conditions, intricate motions like vibration and multiple fluxes (both of materials and physical parameters), the thermal effects of physical and chemical changes in the materials, and several related aspects.

The title of Volume 5 is Society, Science and Ecology - Progress Against Survival. It returns to the problems of the human civilisation. The four chapters cover the environmental dilemma of the society in relation to the resources and production of energy as well as to the more and more special up-to-date materials. An interesting chapter shows how the laws of thermodynamics can be applied to the state, structure, motion, and even behaviour of the society and the economy and how they help in achieving survival and evolution of the mankind.

This comprehensive book is started with two essays named Preface and Introduction and is complete with an alphabetic list of the personalities mentioned, with a subject index, and with a layout of photos. Every Volume cites a great deal of literature.

A special merit of this book is to arise a lot of special aspects, sometimes extravagant and arguable ones, forcing us to meditate on the widest problems of science and society, history and present realities, and last but not least, development and survival. The most serious science is illustrated by interesting and pensive pictures reminding the reader to the real life once and again. It grasps all and loses very little.

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400 (A4 size) pages, printed on coated paper and hard bound cover designed by the author himself.

J. Simon