ers the elegant work of the K. B. Krohn and J. L. Rhodes, who introduced the theory of semigroups into the more general analysis problem of machine decomposition.

The book is clear, concise, and well written and has a unified treatment uncommon in books of this nature. Despite the inclusion of several exercises, the work is more of a monograph than a text, in view of the relative narrowness of the topic. Further, I do not share the authors' view that their work will provide results that can be applied directly to the design of machines in any significant sense—and to try to make it fit such applications is to miss the more important theoretic ones. The work does provide excellent insight into the sequential decision problem and would be valuable for any researcher in that area. On the other hand, the absence of a treatment of regular sets and events, probabilistic automata, and the like limits the applicability of the work.

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Reactor Analysis

The Theory of Neutron Slowing Down in Nuclear Reactors. JOEL H. FERZIGER and P. F. ZWEIFEL. Pergamon, New York, 1966. 320 pp., illus. $12.50.

This is a well-written monograph covering the area described by the title with perhaps the main emphasis on the formalism. To workers engaged in the analysis of the behavior of neutrons in chain reactors, the book provides an opportunity to consider simultaneously in a common notation and in considerable detail a variety of approaches to the particular facet of their work involving the slowing down or moderation process. There is a rather nice balance between equations and discussion, with a sprinkling of perceptive insights. Graduate students of nuclear engineering and science will find the book excellent collateral reading; the mathematics will test the capability of those at the master's level. The practicing engineer whose main concern is with the design aspects of nuclear reactors might find interest in some of the finer details of the analytical formalism. Other applied scientists will find the necessary material to consider applications in their own fields of this extensive but rather specialized development of the ramifications of a linear Boltzmann equation. The aspects of this field currently receiving much attention, such as the use of thousands of groups for the generation of fast reactor constants or the implications of complex eigenvalues in certain slowing-down problems, are not well covered. However, this does not detract from the excellent presentation of the now classical methods of treating neutron slowing down essentially as they stood in 1962.

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The Maya

The Rise and Fall of Maya Civilization. J. ERIC S. THOMPSON. University of Oklahoma Press, Norman, 2nd ed., 1966. 344 pp., illus. $5.95.

The first edition of this book, published in 1954, has become a classic in the field of popular writing on archeology. The second edition, revised and enlarged, is basically the same book, incorporating information and ideas derived from excavation and surveys conducted by several institutions during the past ten years. A new subchapter on "Currency and commerce" has been added; otherwise chapter and subchapter headings remain as they are in the first edition. In all, 41 pages have been added, with eight new photographic plates and seven new figures in line-cut. With the exception of the new subchapter, which is only three and a half pages long, the new material is worked into the text, which has been revised in a number of places.

In the preface to this edition the author calls attention to the existence of new information from Mayapán and Dzibalchaltún in Yucatán, Palenque in Chiapas, Tikal and Altar de Sacrificios in northeastern Guatemala, the Belize River in British Honduras, and various sites in the Guatemala highlands. The preliminary reports of Richard S. McNeish on the work of the Tehuacán Archeological-Botanical Project, in the Mexican state of Puebla, have led to considerable revision (in the subchapter "Populating the New World") of Thompson's former views on the origins of native American agriculture. In short, although final reports on most of the excavations listed above are still in preparation, a great deal of important evidence on the development and decline of Maya civilization has been skillfully inserted into the new edition without changing the original flow of thought and style of the book.

For those who are not familiar with the old edition, it should be said that this is a book that could hardly be matched for readability. It is not a textbook in the usual sense. There are no references to the basic professional literature and no attempt at detailed summarization of architectural, ceramic, and other archeological and historical evidence. It *is* a book on the Maya as a people, written without a hint of pedantry, often with quiet humor, with strong emphasis on Maya character throughout history. For the reader who wants to know what the Maya were, and are, like, how they thought and acted, and what they achieved, it is worth more than all the textbooks put together.

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Book Received

Advances in Carbohydrate Chemistry. vol. 21. Melville L. Wolfrom and R. Stuart Tipson, Eds. Academic Press, New York, 1966. 584 pp. Illus. $19.50. Nine papers.

Advances in Chemical Physics. vol. 11. I. Prigogine, Ed. Interscience (Wiley), New York, 1967. 418 pp. Illus. $17.75. Six papers.

Advances in Food Research. vol. 15. C. O. Chichester, E. M. Mrak, and G. F. Stewart, Eds. Academic Press, New York, 1966. 373 pp. Illus. $15. Seven papers.

Aerodynamic Theory. vols. 1 to 6. vol. 1, *Mathematical Aids, Fluid Mechanics, Historical Sketch* (414 pp.); vol. 2, *General Aerodynamical Theory, Perfect Fluids* (377 pp.); vol. 3, *Theory of Single Burbling, Mechanics of Viscous Fluids, Mechanics of Compressible Fluids, Experimental Methods–Wind Tunnels* (371 pp.); vol. 4, *Applied Airfoil Theory, Airplane Body (Non-Lifting System) Drag and Influence on Lifting System, Airplane Propellers, Influence of the Propeller on other Parts of the Airplane Structure* (448 pp.); vol. 5, *Dynamics of the Airplane, Airplane Performance* (369 pp.); vol. 6, *Airplane as a Whole, Aerodynamics of Airships, Performance of Airships, Hydrodynamics of Boats and Floats, Aerodynamics of Cooling* (304 pp.). William Frederick Durand, Ed. Dover, New York, 1967. Illus. Paper, $2.25 per volume. Reissue of 1963 reprint, 1934–1936 edition.

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