stantial portion of his essay to expressing his personal guilt and regret at the treatment of the Aborigines by the European settlers, contributes a bit of misinformation and a more serious source of confusion to the debate. The misinformation concerns the diet of the !Kung hunter-gatherers of southern Africa, which Hetzel describes as composed largely of mongongo fruit porridge and ants, an unrecognizable representation of the varied foods of the !Kung. A more serious matter lies in Hetzel's association of precontact Aboriginal diet (good) with the mortality levels of the present-day Australian European population (also good), in contrast with the poor diet and mortality levels of present-day Aborigines living on government stations. It is almost surely the case that the mortality levels of precontact well-nourished Aborigines were worse than those of either the present-day European or Aboriginal populations, as distressing as the conclusion may be to those who romanticize the hunting and gathering way of life. It may be true that Aboriginal mortality will improve over current levels if traditional sources of protein and nutrients are returned to the diet, but only if the existing levels of public health and treatment medicine are maintained.

The papers in this book are clearly intended for working purposes more than for presentation to a non-Australian audience. Indeed, some are hardly more than lists of agenda topics with a few sentences of discussion of each, and the editors provide a minimum of integration and overview of the issues. But the problems raised are intrinsically interesting, and the volume is both a minor contribution to the solution of those difficult problems and a status report for the 1970's.

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Mathematical Physics

Fundamental Problems in Statistical Mechanics IV. Proceedings of a school, Jadwisin, Poland, Sept. 1977. E. G. D. COHEN, W. FISZDON, and A. PALCZEWSKI, Eds. Polish Academy of Sciences, Warsaw, 1978. 542 pp., illus. Zl 130.

Fundamental Problems in Statistical Mechanics IV is another valuable addition to the series edited by E. G. D. Cohen. As is characteristic of the series, the volume provides comprehensive coverage of the currently active areas in statistical mechanics. While such fundamental and long-standing problems as those associated with the Boltzmann equation are treated (in chapters by Cercignani, Mika, and Fiszdon and Herczynski), there are many chapters about relatively recent developments in statistical mechanics. There is a chapter by Case on solitons and one by Kac on the inverse methods for nonlinear systems. Chapters by Ernst and by van Leeuwen deal with static and dynamic critical phenomena, including details for spin systems. Various applications for stochastic processes to the study of critical phenomena, chemical reactions, and plasmas are found in chapters by Mazur and van der Zwan, van Kampen, and Klimontovich. Chapters by Cohen and de Schepper, Piasecki, Résibois, and Sjölander on the kinetic theory of dense gases and fluids bring the reader up to date in this subject, which has figured prominently in all four volumes. There is also a chapter by Kuščer concerning gas-surface interactions, and chapters by Bogolubov and by Kurbatov on mathematical statistical mechanics and modeling. H. B. G. Casimir presents a tantalizing account of Nernst's theorem. Casimir writes in the opening paragraph, "The following considerations are quite elementary and in no way original. . . . There are two reasons to present them here. The first one is, that many textbooks, and even textbooks by reputable physicists, contain erroneous statements on the statistical basis of Nernst's theorem. The second one: I have a hunch that someone commanding the right kind of mathematics might be able to give a more general proof along the lines I indicate."

A chapter by Ernst is one of the highlights of the volume. It reviews static as well as dynamic aspects of critical phenomena. A review of classical ideas is followed by accounts of mode coupling theory, universality, the scaling hypothesis in both its static and its dynamic forms, the dynamic renormalization group approach, and stochastic kinetic equations for critical dynamics. Nonspecialists should find this chapter very useful.

It becomes clear from reading the book that modern statistical mechanics is a highly mathematical discipline and that the high quality of many practitioners' work is matched by their expository skills. The volume maintains a high standard of quality throughout.

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Advances in Energy Systems and Technology. Vol. 1. Peter Auer, Ed. Academic Press, New York, 1978. x, 388 pp., illus. $32.50.

Advances in Laser Chemistry. Proceedings of a conference, Pasadena, Calif., Mar. 1978. A. H. Zewail, Ed. Springer-Verlag, New York, 1978. x, 464 pp., illus. $29.80. Springer Series in Chemical Physics, vol. 3.

Advances in Modern Toxicology. Vol. 1, New Concepts in Safety Evaluation, part 2. Myron A. Mehlman, Raymond E. Shapiro, and Herbert Blumenthal, Eds. Hemisphere, Washington, D.C., and Halsted (Wiley), New York, 1979. xvi, 192 pp., illus. $24.50.

Advances in Nuclear Science and Technology. Vol. 11. Ernest J. Henley, Jeffery Lewins, and Martin Becker, Eds. Plenum, New York, 1979. x, 566 pp., illus. $45.

Advances in Organometallic Chemistry. Vol. 17, Catalysis and Organic Syntheses. F. G. A. Stone and Robert West, Eds. Academic Press, New York, 1979. xii, 512 pp., illus. $49.50.

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The AEE Directory of Energy Professional, 1979–1980. Association of Energy Engineers, Atlanta, 1979 (distributor, Fairmont Press, Atlanta). vi, 280 pp. Paper, $24.50.

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Bessel Polynomials. Emil Grosswald. Springer-Verlag, New York, 1978. xiv, 182 pp. Paper, $9.80. Lecture Notes in Mathematics, vol. 698.

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The Biochemical Functions of Terpenoids in Plants. Papers from a meeting, Jan. 1978. The Royal Society, London, 1978. viii, 162 pp., illus. £13.15. First published in *Philosophical Transactions of the Royal Society of London*, series B, vol. 284.

The Biochemical Genetics of Man. D. J. H. Brock and O. Mayo, Eds. Academic Press, New York, ed. 2, 1978. xvi, 832 pp., illus. $62.

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