to the need for new laws of physics. Because very few of these questions are brought up in the other recent cosmology books on the market, it is very nice to see them all gathered together in one place. However, there is a danger that if somebody only reads this book and not any of the other cosmology books, he would end up getting a distorted view of how the majority of astronomers and astrophysicists feel about many basic questions. Very few cosmologists still consider the major question in cosmology to be the resolution of the debate between the Big-Bang theory and the steady-state theory. Most are reasonably well convinced that the universe did undergo some sort of Big Bang. There is of course a danger in science of a "band-wagon" effect carrying people over objections when the facts are not really there; however, one has to work pretty hard to get around, simultaneously, the microwave-background observations, the universal helium abundance, the deceleration-parameter observations and the current radio-source counts.

Many of the questions brought out in the book would have been standard if the book had been written in the 1960's when these matters were much debated, but for a book published in 1977 it is somewhat unique.

In summary I would not recommend this as a first book in cosmology (or for that matter even a second). However, for someone who has read and enjoyed *The First Three Minutes* this might make an interesting and extended counter point showing that even in 1977 not quite everyone is completely enthralled with the "conventional wisdom."

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new books

Crystallography, Low-Temperature and Solid-State Physics

Liquid Crystals. S. Chandrasekhar. 342 pp. Cambridge U. P., New York, 1977. $38.50

Viskoelastizität und Plastizität: Thermomechanisch Konsistente Materialgleichungen. P. Haupt. 208 pp. Springer-Verlag, Berlin, 1977. DM 32.00 ($14.10)

Diffusional Creep of Polycrystalline Materials. B. Burton. 119 pp. Trans Tech, Bay Village, Ohio, 1977. $26.00

Solid State Devices 1976 (Papers presented at the 6th European Solid-State Device Research Conf., held at the Technische Universität, Munich, September 1976). R. Müller, E. Lange, eds. 140 pp. The Institute of Physics, London, 1977. £13.00 ($25.00)

Radiation Effects in Semiconductors 1976 (Papers presented at an Int. Conf. held in Dubrovnik, Yugoslavia, September 1976). N. B. Urli, J. W. Corbett, eds. The Institute of Physics, London, 1977. £22.00 ($42.00)

Astronomy, Cosmology and Space Physics

Space Chemistry. L. Nikoaev. 198 pp. Mir, Moscow (US distributor: Imported Publications, Chicago), 1976 (Russian-language edition, 1974). $2.00

Bicentennial Space Symposium (Advances in the Astronautical Sciences, Vol. 35). W. C. Schneider, ed. 229 pp. American Astronautical Society, San Diego, 1977. $25.00

The Inner Planets. C. R. Chapman. 170 pp. Scribner's, New York, 1977. $7.95

Apollo Soyuz Mission Report (Advances in the Astronautical Sciences, Vol. 34). C. M. Lee, ed. 322 pp. American Astronautical Society, San Diego, 1977. $35.00

Supernovae (Astrophysics and Space Science Library, Vol. 66—Proc. of a special IAU session, Grenoble, France, September 1976). D. N. Schramm, ed. 192 pp. D. Reidel, Boston, 1977. $22.00

CNO Isotopes in Astrophysics (Astrophysics and Space Science Library, Vol. 67—Proc. of a special IAU session, Grenoble, France, August 1976). J. Audouze, ed. 195 pp. D. Reidel, Boston, 1977. $22.00

The Moon Book: Exploring the Mysteries of the Lunar World. B. M. French. 287 pp. Penguin, New York, 1977. $4.95

This Fascinating Astronomy. V. Komarov. 346 pp. Mir, Moscow (US distributor: Imported Publications, Chicago), 1976 (Russian-language edition, 1972). $2.00

Theory and Mathematical Physics

Fractals: Form, Chance, and Dimension. B. B. Mandelbrot. 365 pp. W. H. Freeman, San Francisco, 1977. $14.95

Group Analysis of Classical Lattice Systems (Lecture Notes in Physics, Vol. 60). C. Gruber, A. Hintermann, D. Merlini. 326 pp. Springer-Verlag, New York, 1977. $13.70.

Thermodynamics in Geology (Proc. of a NATO Advanced Study Institute, Oxford, England, September 1976). D. G. Fraser, ed. 410 pp. D. Reidel, Boston, 1977. $36.50

Photon Correlation Spectroscopy and Velocimetry (Lectures presented at a NATO Advanced Study Institute held in Capri, Italy, July–August 1976). H. Z. Cummins, E. R. Pike, eds. 589 pp. Plenum, New York, 1977. $59.50

History, Philosophy, Society and Government

The Historical Supernovae. D. H. Clark, F. R. Stephenson. 233 pp. Pergamon, Elmsford, N.Y., 1977. $15.00 clothbound, $7.50 paperbound

Perception, Theory and Commitment: The New Philosophy of Science. H. I. Brown. 203 pp. Precedent, Chicago, 1977. $15.95

Science and Technology in East Asia. N. Sivin, ed. 260 pp. Science History (Neale Watson), New York, 1977. $9.95 clothbound, $5.95 paperbound

Student Texts and Popularizations

From Quarks to Quasars: An Outline of Modern Physics. E. Thomas. 294 pp. Athlone U.P., London (US distributor: Humanities, Atlantic Highlands, N.J.), 1977. $8.00

Physical Science: An Inquiry Approach. J. Monroe, B. Jackson. 605 pp. Canfield (Harper and Row), Scranton, Penna., 1977. $14.95

Butter Side Up: The Delights of Science. M. Pyke. 223 pp. Sterling, New York, 1977. $7.95

Miscellany

Technical Report Writing, 2nd edition. J. W. Souther, M. L. White. 93 pp. Wiley-Interscience, New York, 1977. $9.95

INIS: Thesaurus. 702 pp. International Atomic Energy Agency, Vienna, 1977. (Available as IAEA-INIS-13 (Rev. 12) from Unipub, Box 433, Murray Hill Station, New York, N.Y. 10016 for $22.00)

99 Ways to a Simple Lifestyle. Center for Science in the Public Interest. 381 pp. Anchor-Doubleday, Garden City, N.Y., 1977. $3.50

Masters Theses in the Pure and Applied Sciences, Vol. 20. W. H. Shafer, ed. 293 pp. Plenum, New York, 1976. $25.00 □