Proterozoic, which, as is usual in China, is defined to exclude the rocks of the Sinian system (younger than 850 Ma and older than the Cambrian). Older Proterozoic rocks include arc rocks and ophiolitic rock types, but by medial Proterozoic times the North China, Yangzi, and Tarim blocks were established as continental objects. Later Proterozoic and Sinian sediments are widely developed in platform facies, although some thick Proterozoic sequences appear to have been deposited in rifts striking at high angles to the margins of the major continental blocks. The Sinian system (also discussed by Wang Hongzhen) is widely distributed in southern China, but mainly around the edges of the North China block as well as at a number of localities over a large area in western China. Sinian stromatolites and tillites, which have long been famous, are widely distributed.

Yang Zunyi is responsible for 11 highly condensed chapters on the Phanerozoic, each of which includes a brief introduction identifying platform, mobile, and transitional areas and maps of China showing the distribution of outcrops of the age under consideration. There are correlation charts with formation names and faunas for about ten localities, which are linked to a set of columnar sections showing lithologies. I found it necessary to turn back and forth between the map, the correlation chart, and the stratigraphic columns; this information might have been presented in a more convenient way. Altogether the stratigraphic chapters are substantial. They include regional descriptions with faunal lists and brief discussions of paleoenvironments and stratigraphic boundary problems. Referencing is uneven.

The chapters by Cheng Yuqi on magmatic rocks and magmatism and on metamorphism and metamorphic belts contain more discussion of environments than do the preceding stratigraphic chapters. I would have preferred to have this material more closely integrated with the last two chapters, by Wang Hongzhen, on tectonics. Plate tectonic explanations have been used by Chinese geologists for many years to explain the evolution of China. Wang interprets China's geological history in terms of his own related concept of "development stages," which envisages crustal development as a continuous process in which the main changes are accomplished in rapid episodes. Wang's is a thoroughly mobilist approach involving interpretation of the evolution of China in terms of such elements as volcanic arcs and marginal seas. It is disappointing that numerous cross sections in these chapters are rather generalized and difficult to use critically.

In the final chapter Wang distinguishes megastages, stages, and lesser movements in the crustal development of China, very much in the manner of Hans Stille. He addresses specific problems clearly, though in a condensed style. For example, there is currently some international disagreement as to whether North and South China were sutured together along the Qinling range as early as the Devonian or as late as the Triassic. Wang's discussion summarizes the problem, explaining that the absence of marine Triassic rocks in the Qinling east of west Hunan has led some to the idea of closure in the "Late Hercynian" but that others interpret the occurrence of Middle Triassic ammonites along strike in the western Qinling as indicating that a seaway leading to the Pacific existed between the two continents in Triassic times.

The book closes with 19 plates showing many fossils, thin sections of rock, and outcrops along with 11 double-column pages of references indicating those available in English as well as in Chinese. Important sources, such as the provincial stratigraphic correlation tables published by the Geological Publishing House, are fully cited, but the foreign references are incomplete. For example, there is no reference to Molnar and Tapponnier's seminal paper on the collision of India with Asia published in *Science* in 1975. The book ends with a stratigraphic index in Pinyin and Chinese and a seven-page, three-column index.

In summary, this is a book whose authors have attempted to cover a tremendous range of topics. Their success has been uneven, but the effort has been worthwhile because the book has much to offer the determined reader.

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Some Other Books of Interest

Defining Biology. Lectures from the 1890s. JANE MAIENSCHEIN, Ed. Harvard University Press, Cambridge, MA, 1986. xiv, 337 pp., illus. $25.

Shortly after the founding of the Marine Biological Laboratory at Woods Hole, Massachusetts, in 1888, Charles Otis Whitman, its first director, inaugurated a series of evening lectures in which biologists who were active at the laboratory were to expound their research interests in a way that, Whitman hoped, would lead to a unification of biological science as a cooperative endeavor. In the 1890's a total of some 110 lectures were delivered, some but not all of which were published at the time. This volume reprints a selection of ten of the lectures that, according to the editor, "demonstrate the gropings of an important group of scientists at a critical time of change." The lecturers represented are Edmund Beecher Wilson, Henry Fairfield Osborn, Wilhelm Roux, Edwin Grant Conklin, Cornelia Maria Clapp, William Morton Wheeler, Whitman, Herbert Spencer Jennings, Thomas Hunt Morgan, and Jacques Loeb. Each lecture is preceded by a one-page introduction and a photograph of the lecturer. In addition, the editor, a historian and philosopher of science, has provided a 48-page general introduction that recounts the establishment of the Marine Biological Laboratory, outlines the biological issues that were of concern at the time ("a complex of related problems of heredity, individual development, and evolution"), and gives a chronological summary of the content of the lecture series in the decade covered. The volume also includes a foreword by Ernst Mayr, a complete list of the lectures, some early photographs of Woods Hole facilities and workers, and an epilogue by Paul R. Gross.—K.L.

Centennial Field Guide. Vol. 6, Southeastern Section of the Geological Society of America. THORNTON L. NEATHERY, Ed. Geological Society of America, Boulder, CO, 1986. xx, 457 pp., illus. $40.50.

To celebrate its centennial the Geological Society of America has undertaken, in its Decade of North American Geology project, to produce a "suite" of some 70 books, maps, and transects. (For a review of the initial, historical volume see *Science* **232**, 1279 [1986].) The present volume is the first to appear of the six projected volumes of the Centennial Field Guide. It includes descriptions of 100 localities each of which, according to the editor, "illustrates an important geologic relation of regional significance or an outstanding example of basic geology." The descriptions are arranged under three headings: Interior Low Plateaus and Appalachian Valley and Ridge (43 examples, from "Selected exposures of Pennsylvanian rocks in western Kentucky" to "Birmingham anticlinorium in the Appalachian fold-thrust belt, basement fault system, synsedimentary structure, and thrust ramp"); Blue Ridge and Piedmont (26 examples, from "Harpers Ferry water gap" to "Olistostromal unit of the Silurian-Lower Devonian Lay Dam Formation, Talladega

Slate Belt, Chilton County, Alabama"); and Atlantic and Gulf Coastal Plains (31 examples, from "Mesozoic and Cenozoic compressional faulting along the Coastal Plain margin, Fredericksburg, Virginia" to "The Bayou Lafourche delta, Mississippi River delta plain, Louisiana"). An index and a list of "topical cross-references" are included.

—K.L.

The "Discovery" of Sudden Infant Death Syndrome. Lessons in the Practice of Political Medicine. ABRAHAM B. BERGMAN. Praeger, New York, 1986. xiv, 239 pp. $42.95.

This volume is a memoir, written by a former president of the National SIDS Foundation, of the campaign to obtain recognition of sudden infant death syndrome as a disease entity warranting a federally supported research effort. The book includes accounts of the experiences of parents of SIDS victims who became active in the campaign, efforts to enlist the support of such personages as Mary Lasker, Warren Magnuson, and Lola Redford, and attempts to utilize the media and penetrate federal bureaucracies. Written in an informal style, it also reports on uncertainties, frustrations, and irritations among the activists themselves. The author, who admittedly writes from an advocacy position and lays "no claim to scientific objectivity," views the book as "a cookbook for other neglected health problems or social causes." Readers who are interested in the SIDS campaign as a case study in the making of medical research policy might be interested in reading it in conjunction with two other accounts of concern with the problem: M. P. Johnson and K. Hufbauer, "Sudden infant death syndrome as a medical research problem since 1945" (*Social Problems* **30** (no. 1), 65 [1982]), and K. Hufbauer, "Federal funding and sudden infant death research, 1945–80" (*Social Studies of Science* **16**, 61 [1981]).—K.L.

Perspectives in Behavior Genetics. JOHN L. FULLER and EDWARD C. SIMMEL, Eds. Erlbaum, Hillsdale, NJ, 1986. xii, 278 pp., illus. $36.

The purpose of this volume, the editors write, is to meet "a need for people who have planned and executed long-term research programs [in behavior genetics] to summarize and comment on the results." In an opening chapter Fuller and Simmel trace the development of behavior genetics over the last quarter-century as evidenced by the number and character of publications in the field. The subsequent chapters report on the Colorado Family Reading Study (De Fries, Vogler, and Labuda), the genetics of audiogenic seizures in mice (Henry), the role of heredity in visual preference and perceptual imprinting in Japanese quail (Kovach), classical conditioning experiments in two dipteran species (Ricker, Hirsch, Holliday, and Vargo), and genetic factors in human reactions to alcohol (Stabenau). The volume includes an author index and a brief subject index.—K.L.

Books Received

Condensed Matter Theories. Vol. 1. F. B. Malik, Ed. Plenum, New York, 1986. xii, 342 pp., illus. $59.50. From a workshop, San Francisco, Aug. 1985.

Conduction of Heat in Solids. H. S. Carslaw and J. C. Jaeger. Clarendon (Oxford University Press), New York, 1986. x, 510 pp., illus. Paper, $32.50. Reprint, 1959 edition.

Connective Tissue. Biological and Clinical Aspects. K. Kühn and T. Krieg, Eds. Karger, Basel, 1986. x, 486 pp., illus. $194.50. Rheumatology, vol. 10.

Conscious and Unconscious Programs in the Brain. Benjamin Kissin. Plenum Medical, New York, 1986. xxii, 384 pp., illus. $45. Psychobiology of Human Behavior, vol. 1.

Environmental Magnetism. Roy Thompson and Frank Oldfield. Allen and Unwin, Winchester, MA, 1986. xii, 227 pp., illus. $50.

Enzyme Immunodiagnosis. Edouard Kurstak. Academic Press, Orlando, FL, 1986. xii, 235 pp., illus. $34.95.

Free Radicals, Aging, and Degenerative Diseases. John E. Johnson, Jr. *et al.*, Eds. Liss, New York, 1986. xvi, 588 pp., illus. $140. Modern Aging Research, vol. 8.

A Functional Biology of Nematodes. David A. Wharton. Johns Hopkins University Press, Baltimore, 1986. x, 192 pp., illus. $30.

Fundamental Astronomy and Solar System Dynamics. Invited Papers honoring Prof. Walter Fricke on the Occasion of His 70th Birthday. R. L. Duncombe, J. H. Lieske, and P. K. Seidelmann, Eds. Reidel, Dordrecht, 1985 (U.S. distributor, Kluwer, Norwell, MA). x, 349 pp., illus. $47. From a meeting, Austin, TX, March 1985. Reprinted from *Celestial Mechanics*, vol. 37, no. 3.

H. G. Wells. Desperately Mortal. A Biography. David C. Smith. Yale University Press, New Haven, CT, 1986. xviii, 634 pp., illus. $29.95.

High Technology Medicine. Benefits and Burdens. Bryan Jennett. 2nd ed. Oxford University Press, New York, 1986. xii, 317 pp., illus. Paper, $14.95. Oxford Medical Publications.

Higher Learning. Derek Bok. Harvard University Press, Cambridge, MA, 1986. xii, 206 pp., illus. $15.

The Hippocampus. Robert L. Isaacson and Karl H. Pribram, Eds. Plenum, New York, 1986. Vol. 3. xviii, 438 pp., illus. $59.50. Vol. 4. xxiv, 374 pp., illus. $57.50.

International Reference Ionosphere–Status 1985/86. K. Rawer and Y. V. Ramanamurty, Eds. Published for the Committee on Space Research by Pergamon, New York, 1986. vi, 131 pp., illus. Paper, $52. Advances in Space Research, vol. 5, no. 10. From a workshop, Louvain-la-Neuve, Belgium, Oct. 1985.

Introduction to Optical Mineralogy. William D. Nesse. Oxford University Press, New York, 1986. x, 325 pp., illus., + pull-out chart. $39.95.

Ion Formation from Organic Solids (IFOS III). Mass Spectrometry of Involatile Material. A. Benninghoven, Ed. Springer-Verlag, New York, 1986. x, 219 pp., illus. $44.60. Springer Proceedings in Physics, vol. 9. From a conference, Münster, FRG, Sept. 1985.

Knowing Levels and Developmental Stages. Robert L. Campbell and Mark H. Bickhard. Karger, Basel, 1986. xii, 148 pp. $24.50. Contributions to Human Development, vol. 16.

Lampbrush Chromosomes. H. G. Callan. Springer-Verlag, New York, 1986. x, 254 pp., illus. $110. Molecular Biology Biochemistry and Biophysics, 36.

Land Clearing and Development in the Tropics. R. Lal, P. A. Sanchez, and R. W. Cummings, Jr., Eds. Balkema, Boston, 1986. xii, 450 pp., illus. $60. From a conference, Ibadan, Nigeria, Nov. 1982.

The Laser Guidebook. Jeff Hecht. McGraw-Hill, New York, 1986. xii, 381 pp., illus. $49.50.

Lead Toxicity. History and Environmental Impact. Richard Lansdown and William Yule, Eds. Johns Hopkins University Press, Baltimore, 1986. x, 286 pp., illus. $35. Johns Hopkins Series in Environmental Toxicology.

Learning About Energy. David J. Rose. Plenum, New York, 1986. xxii, 506 pp., illus. $59.50. Modern Perspectives in Energy.

The Lectins. Properties, Functions, and Applications in Biology and Medicine. Irvin J. Goldstein, Eds. Academic Press, Orlando, FL, 1986. xviii, 600 pp., illus. $72.50. Molecular Biology.

Multiphase Chemical Reactors. Theory, Design, Scale-up. Agostino Gianetto and Peter L. Silveston, Eds. Hemisphere, New York, 1986. xliv, 682 pp. illus. $110. Based on a course, Kitchener, Ontario, Oct. 1982.

Myocardial and Skeletal Muscle Bioenergetics. Nachman Brautbar, Ed. Plenum, New York, 1986. xiv, 678 pp., illus. $95. Advances in Experimental Medicine and Biology, vol. 194. From a congress, Los Angeles, Feb. 1984.

Nuclear Data for Basic and Applied Science. Philip G. Young *et al.*, Eds. Gordon and Breach, New York, 1986. 2 vols. lxxxvii, 1744 pp., illus. $380. From a conference, Santa Fe, NM, May 1985. Reprinted from *Radiation Effects*, vols. 92–96.

Origins of Life. Freeman Dyson. Cambridge University Press, New York, 1985. x, 81 pp., illus. $7.95.

The Origins of Maya Art. Monumental Stone Sculpture of Kaminaljuyu, Guatemala, and the Southern Pacific Coast. Lee Allen Parsons. Dumbarton Oaks Research Library and Collection, Washington, DC, 1986. x, 134 pp. + plates. Paper, $30. Studies in Pre-Columbian Art and Archaeology, no. 28.

The Oxford Companion to Medicine. John Walton, Paul B. Beeson, and Ronald Bodley Scott, Eds. Oxford University Press, New York, 1986. 2 vols. xxviii, 1524 pp., illus. $85.

Parapsychology. The Science of Psiology. Carroll B. Nash. Thomas, Springfield, IL, 1986. viii, 336 pp. Paper, $29.75.

The Periodic Table of the Elements. F. J. Puddephatt and P. K. Monaghan. 2nd ed. Clarendon (Oxford University Press), New York, 1986. x, 102 pp., illus. $27.50; paper, $10.95. Oxford Chemistry Series, 32.

Protein Secretion and Export in Bacteria. Henry C. Wu and Phang C. Tai, Eds. Springer-Verlag, New York, 1986. x, 211 pp., illus. $69. Current Topics in Microbiology and Immunology, 125.

The Semiotic Sphere. Thomas A. Sebeok and Jean Umiker-Sebeok, Eds. Plenum, New York, 1986. xiv, 647 pp., illus. $85. Topics in Contemporary Semiotics.

Sewall Wright and Evolutionary Biology. William B. Provine. University of Chicago Press, Chicago, 1986. xvi, 545 pp., illus. $30. Science and its Conceptual Foundations.

Stochastic Optimal Control. Theory and Application. Robert F. Stengel. Wiley-Interscience, New York, 1986. xvi, 638 pp., illus. $54.95.

Strength of Inorganic Glass. Charles R. Kurkjian, Ed. Plenum, New York, 1985. xiv, 643 pp., illus. $97.50. NATO Conference Series 6, vol. 11. From a workshop, Algarve, Portugal, March 1983.

Structure and Dynamics of Molecular Systems II. R. Dandel *et al.*, Eds. Reidel, Dordrecht, 1986 (U.S. distributor, Kluwer, Norwell, MA). viii, 308 pp., illus. $59.50. From a seminar, Paris, Oct. 1983–May 1985.

Studies on the Structure and Development of Vertebrates. Edwin S. Goodrich. University of Chicago Press, Chicago, 1986. xxxiv, 837 pp., illus. Paper, $30. Augmented reprint, 1930 ed.

Systems with Small Dissipation. V. B. Braginsky, V. P. Mitrofanov, and V. I. Panov. Kip S. Thorne and Cynthia Eller, Eds. University of Chicago Press, Chicago, 1985. xii, 145 pp., illus. $28; paper, $12. Translated from the Russian edition (Moscow, 1981) by Erast Gliner.

Technetium in the Environment. G. Desmet and C. Myttenaere, Eds. Elsevier, New York, 1986. xiv, 419 pp., illus. $90.75. From a seminar, Cadarache, France, Oct. 1984.

Teeth. Simon Hillson. Cambridge University Press, New York, 1986. xx, 376 pp., illus. $44.50. Cambridge Manuals in Archaeology.

Whales, Ice, and Men. The History of Whaling in the Western Arctic. John R. Bockstoce. Published in association with the New Bedford Whaling Museum, MA, by the University of Washington Press, Seattle, 1986. 400 pp., illus. $29.95.

The Wild Mouse in Immunology. M. Potter, J. H. Nadeau, and M. P. Cancro, Eds. Springer-Verlag, New York, 1986. xvi, 395 pp., illus. $67. Current Topics in Microbiology and Immunology, 127.