

at conferences supported by defense department funding? Most American specialists in sunrise industries agree that speed of information dissemination gives American science its vitality. To what extent are these programs and restrictions part of the "international ethos of science"?

Glenn Schweitzer, whose career in various government agencies gives him special insights into the politics of the exchanges, wrote *Technodiplomacy* with a broader audience than Rabkin's in mind. Schweitzer covers many of the same issues as Rabkin, but goes beyond exchanges to consider other aspects of scientific-technological cooperation and competition. Since he covers such diverse topics as military R&D, computers, and the educational system, he ought to have drawn more heavily on other literature. The anecdotal aspects of this book drawn from his own experiences are the most interesting.

In contrast to Rabkin, Schweitzer sees more good than harm in the past exchanges. He recommends less political interference in the running of the programs, noting that "enlightened leaders" in Congress and the Executive Branch have tried to convince the public that national security extends beyond the size and capabilities of military forces. He is also skeptical of government attempts to restrict the flow of certain kinds of information in the United States. He recognizes the important political symbolism of scientific cooperation for the United States and the importance of the exchanges for Gorbachev, whose policies involve outreach to the West for technologies to assist economic perestroika through joint ventures, licensing, and scientific exchanges. He notes that Soviet technology acquisition is an effort to compensate for the isolation of Soviet specialists, and he discusses the difficulties created by bureaucratic encounters. His study is also timely for drawing attention to some of the first reforms attempted in the administration of the Soviet R&D apparatus.

There are two problems with *Technodiplomacy*. First, the subtitle, "US-Soviet Confrontations in Science and Technology," is somewhat misleading. The book covers a number of topics only tangentially connected to that subject and provides a rather standard treatment of them. More systematic analysis of U.S. interests and competition among interested parties would have helped. Second, though the writing is generally accessible it is diffuse and ill organized, with a multitude of topics touched on in each chapter.

Both books could have benefited by recognition of the fact that the extent to which the Soviet Union ought to be more autarkic in the development of its science and tech-

nology or a part of the international scientific community has been an issue of debate by leading scientists and policymakers throughout Soviet history. And both authors fail to note the real problem facing Soviet science and technology, extreme poverty. It is to overcome this problem that Gorbachev supporters in the R&D apparatus have pushed Soviet policy irreversibly in the direction of opening the Soviet Union to the West.

Both *Technodiplomacy* and *Science Between the Superpowers* point to the areas having the greatest potential for future cooperation: such global problems as the environment, medicine, and "big" or expensive science and technology. They also call for cooperation on arms control, human rights, and regional issues. Though the rapid changes that have occurred under Gorbachev have dated certain aspects of their work, the authors raise issues that will have to be taken into account in evaluating the promise and problems of cooperation with the Soviets in science and technology.

PAUL R. JOSEPHSON

Science and Society,
Sarah Lawrence College, Bronxville, NY 10708,
and Harriman Institute,
Columbia University, New York, NY 10027

Some Other Books of Interest

Red Panda Biology. A. R. GLATSTON, Ed. SPB Academic Publishing, The Hague, 1989. xvi, 187 pp., illus. Paper, \$34. From a conference, Rotterdam, the Netherlands, Aug. 1987.

"With its chestnut and chocolate coloured pelage, its tear-streaked face and its waddling gait," the red or lesser panda, *Ailurus fulgens*, "is one of the most attractive and appealing mammal species," according to Glatston in the preface to this volume. Yet it has been the subject of relatively little scientific study, most of which has been based on captive specimens. This book brings together some of that research. The book opens with an account of the Nepal-Himalayas Red Panda Project, an ecological study funded by the World Wildlife Fund, and a history of the red panda in captivity. Of the subsequent papers, one deals with diseases; four with diet, one motivation for such studies being that the panda's natural dietary staple, bamboo, is in uncertain supply; and two with energetics, especially regarding thermoregulation and lactation. Research and management practice in various European and North American zoos are reported on in another five papers, and the three final papers consider the demographic development of the captive population since a study book was established in 1978 and issues of

genetic variance. The book begins and ends on a conservation theme. Both the panda's taxonomic position and its status in the wild are uncertain, but given that, with its possible relative the giant panda, it represents a unique carnivore adaptation, its loss would be "a disaster."—K.L.

Physiology of Cold Adaptation in Birds.

CLAUS BECH and RANDI EIDSMO REINERTSEN, Eds. Plenum, New York, 1989. x, 384 pp., illus. \$89.50. NATO Advanced Science Institutes Series A, vol. 173. From a workshop, Loen, Norway, June 1988.

In their preface the editors note that recent conferences on vertebrate thermoregulation have generally emphasized mammals and that "this book seems to be the first one ever published which solely deals with thermoregulation in birds," the mechanisms of which "are often different from those used by mammals." The papers in the volume are arranged under seven headings: Central Mechanisms of Thermoregulation (three papers), Mechanisms of Heat Production (five papers), Metabolic Adaptations (seven papers), Respiration and Circulation (nine papers), Physiology of Hypometabolism (six papers), Breeding and Incubation (four papers), and Adaptations to Cold in Chicks (five papers). Each group opens with a general consideration of its theme, the respective authors being E. Simon, E. Connolly *et al.*, W. R. Dawson and R. L. Marsh, J. Piiper and P. Scheid, H. C. Heller, J.-P. Robin *et al.*, and R. E. Ricklefs. The remaining papers are reports of laboratory studies on various species ranging from bantams and pigeons to Arctic terns. A subject index is included.—K.L.

Books Received

Acute Lymphoblastic Leukemia. Robert Peter Gale and Dieter Hoelzer, Eds. Liss (Wiley), New York, 1989. xx, 339 pp. illus. \$69.50. UCLA Symposia on Molecular and Cellular Biology, vol. 108. From a workshop, Tapatío Springs, TX, Nov.-Dec. 1988.

Biochemistry. Dawn B. Marks. Williams and Wilkins, Baltimore, 1990. x, 343 pp., illus. Paper, \$18.95. Board Review Series.

Chromatographic Analysis of Pharmaceuticals. John A. Adamovics, Ed. Dekker, New York, 1990. xii, 661 pp. \$125. Chromatographic Science, vol. 49.

Downstream Processing and Bioseparation. Recovery and Purification of Biological Products. Jean-François P. Hamel, Jean B. Hunter, and Subhas K. Sikdar, Eds. American Chemical Society, Washington, DC, 1990. viii, 312 pp., illus. \$69.95. ACS Symposium Series, vol. 419. From a symposium, Toronto, Ontario, June 1988.

Ecological Experiments. Purpose, Design, and Execution. Nelson G. Hairston, Sr. Cambridge University Press, New York, 1989. xiv, 370 pp., illus. \$52.50; paper, \$24.95. Cambridge Studies in Ecology.

The German Continental Deep Drill Program (KTB). Site-Selection Studies in the Oberpfalz and Schwarzwald. R. Emmermann and J. Wohlenberg, Eds. Springer-Verlag, New York, 1989. x, 553 pp., illus. \$79.50.