



Vignettes: Sportstech

Such sports as mountaineering, sailing, skiing, scuba diving as well as traditional bat-and-ball games have all been subject to technological improvement. Whether these advances have added to the pleasure derived from such activities may be doubted and it is also doubtful if they have had any beneficial effects outside the individual sports in question. Sports technology does not seem to be a strategic technology.

—Donald Cardwell, in *The Norton History of Technology* (Norton)

Let me . . . make this modest proposal: an artificial indoor ski area in downtown Los Angeles. What would it look like? You may have seen in a sporting goods store the moving carpets that are mounted like large tilted conveyor belts and allow a skier to ski down the incline so that the skis sliding down and the carpet moving up roughly balance and, to a stationary observer, the skier stays in place. In addition to boots, skis, and poles, the skier is given a pair of goggles (skiers are used to these) where the lens is replaced by two microtelevision screens. The rest of the story tells itself. We play on those screens moving scenes of ski slopes that are coordinated with the varying speed and pitch of the conveyor belt carpet. Everything else is a matter of technological refinement: blowers to simulate the rushing of the wind, a harness to suspend the wayward or crashing skier, and more. And let me briefly extol the virtues of the new kind of skiing, the reduction of gasoline consumption and automobile pollution, the infinite variety of conditions and terrains, the instant, continuous, and wide availability of skiing, and the supreme safety of the sport.

—Albert Borgmann, in *Reinventing Nature? Responses to Postmodern Deconstruction* (Michael E. Soule and Gary Lease, Eds.; Island Press)

closely identified with the moral character that entitled scientists to that professional autonomy which has allowed systems of peer review to flourish in most walks of scientific life. In the 19th century the ammeter or the calculating machine could be seen to pose a threat against this still budding self-sufficiency, because these devices seemed to dislocate mastery over nature and control over the values of precision from the scientist to the manufacturer of instruments.

Why, then, has precision had such a strong impact on Western culture? At the end of the book, Wise addresses this interesting question, and he rightly points to a general tendency to pursue unity, apparent also for example in the centralization of nation states and international commerce. Wise sees scientific conventions, such as standards, as both "agents of unity and products of agreement." This is in fact how scientists at the turn of the century liked to view the matter: international commerce and international science would create unity between nations and ensure peace. But history has corrected that optimistic view. Several essays in this book do in fact emphasize that unity and agreement on standards often emerge only after acrimonious disputes. Therefore, when unity has been achieved someone has lost out; the smooth

surface of standardized science also hides the ragged edges of discontent.

Sven Widmalm
Department of History and
Philosophy of Science,
University of Cambridge,
Cambridge CB2 3RH, UK

Reprints of Books Previously Reviewed

The Hubble Wars. Astrophysics Meets Astropolitics in the Two-Billion-Dollar Struggle over the Hubble Space Telescope. Eric J. Chaisson. HarperPerennial, New York, 1995. Paper, \$15 or \$C21. Reviewed 265, 1743 (1994).

A Natural History of Shells. Geerat J. Vermeij. Princeton University Press, Princeton, NJ, 1995. Paper, \$14.95 or £12.95. Reviewed 264, 295 (1994).

The Quantum Theory of Motion. Peter R. Holland. Cambridge University Press, New York, 1995. Paper, \$39.95 or £24.95. Reviewed 263, 254 (1994).

The RNA World. Raymond F. Gesteland and John F. Atkins, Eds. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1995. Paper, \$45. Reviewed 264, 1479 (1994).

Books Received

Alcohol and Hormones. Ronald R. Watson, Ed. Humana, Totowa, NJ, 1995. xii, 339 pp., illus. \$89.50.

Drug and Alcohol Abuse Reviews, vol. 6.

American Women Afield. Writings by Pioneering Women Naturalists. Marcia Myers Bonta, Ed. Texas A & M University Press, College Station, 1995. xviii, 248 pp., illus. \$35; paper, \$15.95. Louise Lindsey Merrick Natural Environment Series no. 20.

Biologic. Designing with Nature to Protect the Environment. David Wann. 2nd ed. Johnson Books, Boulder, CO, 1994. xviii, 285 pp., illus. Paper, \$14.95.

The Biology of the Southern Ocean. George A. Knox. Cambridge University Press, New York, 1995. xiv, 444 pp., illus. \$130. Studies in Polar Research.

Biomembranes. Vol. 3, Signal Transduction Across Membranes. Meir Shinitzky, Ed. Balaban, Brooklyn, NY, and VCH, New York, 1995. viii, 325 pp., illus. \$135.

The Black-Tailed Prairie Dog. Social Life of a Burrowing Mammal. John L. Hoogland. University of Chicago Press, Chicago, 1995. xiv, 557 pp., illus. \$90 or £71.95; paper, \$34.95 or £27.95. Wildlife Behavior and Ecology.

Brainmakers. How Scientists are Moving Beyond Computers to Create a Rival to the Human Brain. David Freedman. Touchstone (Simon and Schuster), New York, 1995. 215 pp. Paper, \$12 or \$C16.

Chemical Processing of Ceramics. Burtrand I. Lee and Edward J. A. Pope, Eds. Dekker, New York, 1994. xii, 554 pp., illus. \$165. Materials Engineering, vol. 8.

Coastal Evolution. Late Quaternary Shoreline Morphodynamics. R. W. G. Carter and C. D. Woodroffe, Eds. Cambridge University Press, New York, 1995. xxii, 517 pp., illus. \$79.95. A contribution to IGCP Project 274: Coastal Evolution in the Quaternary.

Coercion and Punishment in Long-Term Perspectives. Joan McCord, Ed. Cambridge University Press, New York, 1995. xiv, 392 pp., illus. \$59.95.

The Collapse of Chaos. Discovering Simplicity in a Complex World. Jack Cohen and Ian Stewart. Penguin, New York, 1995. x, 495 pp., illus. Paper, \$13.95 or £8.99 or \$C17.99. Reprint, 1994 edition.

The Collected Papers of Albert Einstein. Vol. 5, The Swiss Years. Correspondence, 1902-1914. English translation by Ann Beck. Princeton University Press, Princeton, NJ, 1995. xxii, 384 pp., illus. \$85; paper, \$29.95 or £19.50.

Colobine Monkeys. Their Ecology, Behavior and Evolution. A. Glyn Davies and John F. Oates, Eds. Cambridge University Press, New York, 1995. xiv, 415 pp., illus. \$79.95.

Colour. Art and Science. Trevor Lamb and Janine Bourriau, Eds. Cambridge University Press, New York, 1995. viii, 227 pp., illus. \$59.95; paper, \$24.95. Darwin College Lectures.

Combustion Efficiency and Air Quality. István Hargittai and Tamás Vidóczy, Eds. Plenum, New York, 1995. xiv, 289 pp., illus. \$85.

A Common Fate. Endangered Salmon and the People of the Pacific Northwest. Joseph Cone. Holt, New York, 1995. xii, 340 pp. \$25.

The Dictionary of Ecology and Environmental Science. Henry W. Art., Ed. Holt, New York, 1995. viii, 632 pp., illus. Paper, \$19.95 or \$C27.95.

Dictionary of Gene Technology. Günter Kahl. VCH, New York, 1995. xii, 552 pp., illus. \$90.

The Dilemma of the Fetus. Fetal Research, Medical Progress, and Moral Politics. Steven Maynard-Moody. St. Martin's, New York, 1995. xviii, 235 pp., illus. \$23.95 or \$C33.50.

The Dingo in Australia and Asia. Lawrence K. Corbett. Cornell University Press, Ithaca, NY, 1995. viii, 200 pp., illus. Paper, \$25.

Doctorate Recipients from United States Universities. Summary Report 1993. Delores H. Thurgood and Julie E. Clarke. National Academy Press, Washington, DC, 1995. viii, 101 pp., illus. Paper.

Eldoret. An African Poetics of Technology. Richard M. Swiderski. University of Arizona Press, Tucson, 1995. xvi, 229 pp., illus. \$35. Culture and Technology.

Electrochemical Process Engineering. A Guide to the Design of Electrolytic Plant. F. Goodridge and K. Scott. Plenum, New York, 1995. xiv, 312 pp., illus. \$59.50.

Electronic Processes in Catalysis. A Quantum Chemical Approach to Catalysis. Satoshiro Yoshida, Shigeyoshi Sakaki, and Hisayoshi Kobayashi. Kodansha,