

Vignettes: Research vs. Administration

Any experiment is spent 95% in the preparation and 5% in the doing. If you analyse your day, the majority of it is taken up with essentially non-productive activities. Consider then, if you also had to run the entire institute as well. Politics, seminars, hosting visitors, grant administration, personnel issues, etc. would ensure that you had very little time for experiments. Thus, in attempting to do experiments as well, at best all you could concoct would be a DIY approach to institute management (not being trained in the necessary areas) that would probably lead to an unsatisfactory administration and a lot of disgruntled colleagues.

—Neil F. Sullivan, in Technology Transfer: Making the Most of Your Intellectual Property (Cambridge University Press)

I was very romantic about physics when I first started. I came in through astronomy and the big bang theory, but actually, I was more drawn to the steady state theory. Studying physics was my method of contemplation. All through college and grad school, I put myself to sleep every night by imagining that the universe was inside my head, so vast and silent. I could lie there with my eyes closed and contemplate the universal darkness or, if I was in a different mood, I could contemplate the random scatterings of light. Darkness or light. Darkness THEN light. It worked. Every night I eased off into perfect rest, and slept eight productive hours. That was the point. I wasn't like some of the others, who really got excited devising experiments or arguing about strong force and weak force. Apart from getting to sleep, my only real interest was how Oppenheimer got all those warring personalities to live together in the desert. I didn't know a single other physicist who wasn't bored by just the idea of personality. I think that I've loved being an administrator after all.

> —A university provost, in Moo, a novel by Jane Smiley (Knopf; Fawcett Columbine paperback)

is no record of dinosaurs there (p. 154). But there is also no sediment in which such a record could have been preserved, and dinosaur skeletons do occur in sediments preserved in the continental interior of Asia (p. 153). Nonetheless, the extermination of the dinosaurs is linked to the reduction and fragmentation of coastal floodplains alone. In another case, a 10-million-year decline in dinosaurian diversity in the western interior of North America (p. 29) is implied to be global, although no other region of the world is cited wherein a similar decline occurs. Absence of evidence seems to have been interpreted ambiguously. The number of known dinosaurian species increases in the last part of the dinosaurian record in Mongolia, but in both Montana and Mongolia such trends may simply be the result of local environmental changes.

The book emphasizes noncatastrophic models, which are broadly popular within the paleontological community, and contains many interesting details and insights. The chapter entitled "Who's who of the late Cretaceous" is a concise and charming review of the vertebrate assemblages, accompanied by sketches of typical fossilsan approach worthy of emulation. The volume makes the telling point that the survival of stenothermic vertebrates does not support a catastrophic temperature decline, and underscores the need to link environmental stresses to the environmental requirements of different organisms through the extinction interval.

What caused the extinction of the dinosaurs? Evolution and Extinction (p. 427) concludes that "there has not yet been formulated a theory alternative to the [meteor] impact hypothesis that explains all—or even most—of the data as fully as [it] does." And in Dinosaur Extinction it is said of the impact (pp. 205–206) that "a literally earth-shattering event magnified the differences between species doing well and species doing not so well." Perhaps an often spirited controversy is gradually giving way to what Luis Alvarez, whose work helped spark the controversy, termed "a violent agreement."

Dale A. Russell

North Carolina State University and North Carolina State Museum of Natural Sciences, Raleigh, NC 27695–8208, USA The Great Dinosaur Extinction Controversy. CHARLES OFFICER and JAKE PAGE. Helix (Addison-Wesley), New York, 1996. xiv, 209 pp., illus. \$25 or C\$34.

Also Noteworthy

In this book Dartmouth geologist Charles Officer, who has been a vigorous opponent of the meteoroid-impact theory of dinosaur extinction, joins with a journalist to give his view of the controversy and its history. The account is written at the level of a lay audience, and along the way the authors are highly critical of Science in particular for its handling of the issue. Their conclusion is that "the Alvarez hypothesis has collapsed under the weight of accumulated geologic and other evidence . . . , as well as from an increasingly obvious absence of scientific evidence proffered in its support," and they regard the whole episode as a case of "pathological science."

Katherine Livingston

Books Received

Algal Ecology. Freshwater Benthic Ecosystems. R. Jan Stevenson, Max L. Bothwell, and Rex L. Lowe, Eds. Academic Press, San Diego, 1996. xxvi, 753 pp., illus. \$84.95. Aquatic Ecology.

Biological Membranes. A Molecular Perspective from Computation and Experiment. Kenneth M. Merz, Jr. and Benoît Roux, Eds. Birkhäuser, Boston, 1996. xiv, 594 pp., illus. \$99.50.

Chemical Modification of Enzymes. B. I. Kurganov, N. K. Nagradova, and O. I. Lavrik, Eds. Nova, Commack, NY, 1996. iv, 658 pp., illus. \$98.

Dealing with Risk. Why the Public and the Experts Disagree on Environmental Issues. Howard Margolis. University of Chicago Press, Chicago, 1996. x, 227 pp., illus. \$27.95 or £21.95.

Earth Processes. Reading the Isotopic Code. Asish Basu and Stan Hart, Eds. American Geophysical Union, Washington, DC, 1996. xviii, 437 pp., illus. \$65; to AGU members, \$45.50. Geophysical Monograph, vol. 95.

Geochemical Reaction Modeling. Concepts and Applications. Craig M. Bethke. Oxford University Press, New York, 1996. xviii, 397 pp., illus. \$50.

Holographic Interferometry. Principles and Methods. Thomas Kreis. Akademie Verlag, Berlin, 1996 (U.S. distributor, VCH, New York). 351 pp., illus. \$95. Akademie Verlag Series in Optical Metrology, vol. 1.

Introduction to Quantum Theory and Atomic Structure. P. A. Cox. Oxford University Press, New York, 1996. vi, 90 pp., illus. Paper, \$9.95. Oxford Chemistry Primers, 37.

Lost Crops of Africa. Vol. 1, Grains. Board on Science and Technology for International Development, National Research Council. National Academy Press, Washington, DC, 1996. xxii, 383 pp., illus. Paper, \$24.95.

Marginal Worth. Teaching and the Academic Labor Market. Lionel S. Lewis. Transaction, New Brunswick, NJ, 1996. viii, 162 pp. \$29.95.

Polymeric Systems. I. Prigogine and Stuart A. Rice, Eds. Wiley, New York, 1996. x, 742 pp., illus. \$130. Advances in Chemical Physics, vol. 94.

Virtual Auditory Space. Generation and Applications. Simon Carlile. Chapman and Hall, New York, and Landes, Austin, TX, 1996. xiv, 248 pp., illus. \$69.95. Neuroscience Intelligence Unit.

SCIENCE • VOL. 273 • 27 SEPTEMBER 1996