Ceruzzi's theme of the alternating dominance of machines and theory sufficiently accounts for what happened. Highly informative, this little book is the provocative, promising first in a new series, Contributions to the Study of Computer Science.

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Cancer Genetics

Inheritance of Susceptibility to Cancer in Man. W. F. BODMER, Ed. Oxford University Press, New York, 1983. vi, 192 pp., illus. $26.95. Originally published in *Cancer Surveys*, vol. 1, no. 1.

At the level of the cell, cancer is a genetic disease; but, like many genetic diseases—even single gene traits—in human populations, it is not conspicuously familial, especially in these times of small sibships. Further, in a fine overview to this slim collection of eight highly specific chapters, Bodmer shows how a postulated gene for susceptibility to Hodgkin's disease that increases the risk of the tumor to 5 percent in heterozygotes and 100 percent in homozygotes would give a chance of only one sib in 400 being affected. Such a gene may exist. Dusset and co-workers propose a major susceptibility locus in the HLA region of human chromosome 6, labeled *R-HOD* (dominant resistance to Hodgkin's disease), that is analogous to the locus near murine H2 that alters susceptibility to virus-induced tumors. Their evidence is based on the frequent occurrence of HLA identity in sibs with Hodgkin's disease.

Not at all encyclopedic, the coverage has, nonetheless, the great strength of illustrating interdisciplinary approaches to the cancer problem. A paper by King summarizes preliminary segregation and linkage analyses of 15 large kindreds with breast cancer by a team of clinicians, epidemiologists, and geneticists. In 11 of the 15, the analyses suggest the action of a major dominant gene with possible linkage to the locus for the red blood cell enzyme glutamate pyruvate transaminase. (The final analyses, reported in *J. Natl. Cancer Inst.* **71**, 455 [1983], weakened the evidence for linkage but not the utility of the approach.) The two best chapters are critical summaries of the literature, as one might expect in a review volume. One deals with constitutional deletion of chromosome 13 with retinoblastoma and of chromosome 11 with Wilms's tumor and the other with the diverse cellular abnormalities in xeroderma pigmentosum and ataxia-telangiectasia, the classic genetic disorders that linked in vitro radiosensitivity and DNA repair to human carcinogenesis. Other chapters are much less critical, summarizing individual research programs on, for example, the genetic epidemiology of prostatic cancer in Utah, in vitro markers of the polyposis coli genes, and cancer in Danish twins.

The chapters touch on much of cancer genetics—but as it was in 1981, before the discovery of the human oncogene, which gets one page of speculation without specifics. Those who want to own this volume, or suggest it to their librarians, will be glad they passed up the first issue of the journal *Cancer Surveys* at $29. Except for soft covers, the journal issue contains the same papers and production errors as the book. Some unfortunate purchasers may not discover this marketing ploy until they have in hand a second copy of identical, somewhat outdated material.

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Reptilian Biology

Advances in Herpetology and Evolutionary Biology. Essays in Honor of Ernest E. Williams. ANDERS G. J. RHODIN and KENNETH MIYATA, Eds. Harvard University Museum of Comparative Zoology, Cambridge, Mass., 1983. xx, 725 pp., illus. $69.

Reading this festschrift is much like reading straight through half a dozen issues each of the *Journal of Herpetology* and *Evolutionary Theory*. The diversity of subjects with which authors chose to honor Ernest E. Williams must surpass even Williams's broad interests. Studies of systematics, morphology, zoogeography, ecology, behavior, evolution, and conservation are included for protozoans, insects, salamanders, frogs, turtles, rhynchocepalians, lizards, snakes, crocodilians, birds, monkeys, and bats. The majority of papers deal with amphibians and reptiles.

The introduction by P. E. Vanzolini captures the sense of Williams as a person and scholar and of the ideological framework of the times in which Williams has been and continues to be an active scientist, curator, and teacher. The tone set by the introduction is not consistently maintained in the rest of the book. Most of the papers are of interest only to specialists. From my bias as an anuran systematist, the papers of general interest are few and scattered. A good example of how detailed morphological analyses can be used to answer questions of relationships is presented in Peterson's study of toe pad structure of the lizard genus *Anolis*. Scientists interested in population dynamics and experimental zoogeography will profit from the following: the article on the annual cycle of a lizard by Rand, Guerrero, and Andrews; the report of experiments on lizard dispersal by Schoener and Schoener; the reassessment of *Anolis*-bird competition by Moermond; and the account of studies of the social behavior of *Anolis valencienni* by Hicks and Trivers. Two of the papers of general interest would not have appeared in their present form in a normally refereed journal. McDowell presents an interesting interpretation of penial function in pleurodire turtles, which is a good example of how ideas can be generated from morphological observations. His paper uses the rationale of hypothesis testing to avoid the examination of important additional specimens readily available to him. In spite of that and an unedited pontifical style, McDowell's paper is of interest in informing us of his conclusions; the scientific community is served by its publication. Estes's paper on fossil lizard distributions is of similar importance because it represents his current interpretations, just after a period of intensive review and examination of all fossil lizards. His cladogram of lizard familial relationships, critical to his zoogeographic scenario, would require precise documentation in a rigorously refereed journal. A festschrift has the option of capricious review, and the cases of the Estes and McDowell papers argue for the continuation of the tradition. The price paid for this latitude is, of course, marginal or outright lousy papers, and some of these also occur in the Williams festschrift. In terms of evenness, this festschrift is not a fitting tribute to a scholar whose work has been an example of consistently high quality.

Those who maintain general herpetological libraries will want to own the well-produced, attractive book. Those interested in a few papers will do better to ask their institutional libraries to order a copy, because the Museum of Comparative Zoology did not allow separates for authors.

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