experience, which, though at many points more suggestive than definitive, must be taken into account if the best possible policies and practices are to be adopted in early intervention against atherosclerosis and hypertension.

Much remains to be learned in this important area, and anyone proposing to contribute significantly to further research, at the community level in particular, will profit substantially from study of this book.

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Vertebrate Paleontology

Aspects of Vertebrate History. Essays in Honor of Edwin Colbert. LOUIS L. JACOBS, Ed. Museum of Northern Arizona Press, Flagstaff, 1980. xx, 408 pp., illus. Cloth, $22.50; paper, $9.95.

It is entirely appropriate that this well-written, up-to-date, and diverse collection of essays be presented to E. H. Colbert on the occasion of his 75th birthday. "Ned" Colbert has the distinction of having worked on the paleontology of both mammals and reptiles, and, in addition to over 175 strictly scholarly publications in his field, has written an even greater number of works designed to be accessible to the interested nonprofessional and to students and children. He has had more influence on the public than any other paleontologist of his generation.

This festschrift consists of 22 papers, including Colbert's bibliography. Fifteen are concerned with lower vertebrates and six with mammals. No theme unites them except Colbert's wide-ranging interests, but he has worked on nearly every group or facies mentioned. Five new taxa are described. Two of them are named in Colbert's honor: G. Haas contributes a Cretaceous ophiomorph from Israel with both lizard-like and snake-like features, and A. W. Crompton and K. K. Smith describe a crocodilian braincase from the Kayenta Formation of Arizona. The first known trackway of a prosauropod dinosaur is illustrated and explained by Donald Baird; from A. J. Charig comes the first record of diplodocid sauropod dinosaurs from Europe; and from Heinz Tobien comes a description of a new Miocene mastodont from the island of Chios. Six papers center on faunal correlations and stratigraphy. Four of these concern lower vertebrates of the Upper Triassic and Jurassic, the fifth, by M. C. McKenna, is on an important and still poorly understood Cretaceous-Tertiary contact in northwestern Wyoming, and the sixth, from E. H. Lindsay, N. M. Johnson, and N. D. Opdyke, is a stratigraphic correlation of the famous Siwalik faunas of Pakistan. There are also several varied and perceptive essays on particular aspects of vertebrate paleontology.

The book is heavily weighted toward Mesozoic reptiles, as one might expect. Almost coincidentally, several papers form a reasonable synthesis of our knowledge of vertebrate faunas and biogeography at the time of the rise of the dinosaurs (Late Triassic–Early Jurassic). P. E. Olsen compares the Triassic-Jurassic transition in two basins of the Newark Supergroup of Eastern North America, a region that is now proving to be a much richer piece of the Mesozoic terrestrial puzzle than was suspected earlier, and one that provides an intriguing contrast to the contemporaneous horizons of the Southwest. The latter region is represented by a study of the vertebrates of the Upper Triassic Chinle Formation by L. L. Jacobs and P. A. Murry. Though there is considerable faunal overlap between East and West, many important differences remain to be considered in conjunction with future sedimentologic and paleoecologic studies. The descriptions of these promising horizons are enriched by reviews of Jurassic tetrapod discoveries in South America (from J. F. Bonaparte) and of the fauna of the Lower Jurassic Kota Formation of India (from S. L. Jain). Much of the South American Jurassic is Middle to Upper Jurassic, and most of it is unstudied. The relatively well-known Kota Formation, on the other hand, provides much important biogeographic evidence of Laurasian-Gondwanan relationships in the Late Triassic and Early Jurassic. The next decade should witness a dramatically deeper understanding of this most interesting stage of vertebrate history.

In other papers on lower vertebrates, J. T. Gregory analyzes the taxonomic meaning of the otic notch in metoposaurid labyrinthodonts; E. C. Olson discusses the North American Seymouriidae; E. Kuhn-Schnyder reviews the traditional criterion for the classification of reptiles, the temporal openings of the skull; J. H. Ostrom supplies an inventory of the (sometimes synonymized) theropod dinosaurs *Coelurus* and *Ornitholestes* and shows that they are different; Timothy Rowe redescribes the dicynodont *Geikia*; and D. A. Russell discusses how to approach what dinosaurs were and what they may mean to us. In the single paper on fishes, Bobb Schaeffer and K. S. Thomson consider monophyly in vertebrates, cyclostomes, and gnathostomes and conclude that fossil agnathans do not provide critical information to test hypotheses of agnathan-gnathostome relationships.

The shorter mammalian segment of the book begins with an appreciation by G. G. Simpson of Colbert's contribution to the study of fossil mammals. There follow three papers mentioned earlier and two others. The penultimate, by L. G. Marshall, reviews many past ideas about the geographic origin and spread of marsupials. Though thorough in coverage, it may be unfair to those workers who have modified their views since the advent of vicariance biogeography, and the essay comes to no real conclusion. The final paper, by T. A. Vaughan, describes how woodrats have shaped the vegetative character of the Southwest by selectively pruning junipers—the perspective of neontology in a closing note.

On behalf of all of us who, as children, read Colbert by flashlight under the covers after bedtime and later grew up to use his valuable professional papers, the authors and editor are to be thanked for a fine tribute to a seminal figure in vertebrate paleontology, who mastered and taught the field before it grew too large for one person, however accomplished, to do so. His like, as the Aran poet said, will never be again.

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Cosmology

Ninth Texas Symposium on Relativistic Astrophysics. Munich, Dec. 1978. JÜRGEN EHLERS, JUDITH J. PERRY, and MARTIN WALKER, Eds. New York Academy of Sciences, New York, 1980. xvi, 600 pp., illus. $105. Annals of the New York Academy of Sciences, vol. 336.

The wayfaring Texas Symposium assembled in Munich in 1978 for a six-day review of the state of high-energy astrophysics and relativity theory. Given the diverse group of scientists the symposium attracts, the approach has traditionally been to review the progress of the previous two years and to develop a prospectus for the next five or ten. This