Book Reviews

Earthworks and Archeologists

Mound Builders of Ancient America. The Archaeology of a Myth. Robert Silver-Berg. New York Graphic Society, Greenwich, Conn., 1968. xiv + 369 pp., illus. \$8.95.

It seems almost an anomaly that no professional archeologist has ever attempted to produce a thorough history of archeology in America. A few papers are published piecemeal in journals, and an occasional small book may document activities in a state university or large institution. It appears that a dedicated writer of Silverberg's quality will be the one to do the job. This author has already established himself as a popular historian of archeological subjects. He has made the stories of several ancient civilizations, of Asia, Africa, and Middle America, into lively and intellectually satisfying reading.

The present book goes far toward meeting our need for a history of American archeology. In a clear, interesting, understandable manner, the author recounts the historical development of the belief that the innumerable earth mounds that are scattered over much of the eastern United States were the remains of a mysterious, gifted extinct race. These great architects and statesmen were, it was thought, exterminated by the later rude and savage red men.

Silverberg shows that, from the time of DeSoto, in the 16th century, there was an awareness that even the great truncated pyramidal mounds were the work of Indians. Pyramidal mounds—usually called Temple mounds—are earthen foundations upon which sacred buildings were erected. Some of these tower 100 feet high, and their flat tops may be several hundred feet on each side. These mounds represent an enormous amount of manual labor.

It was the conical burial mounds that first attracted the attention of such notables as Thomas Jefferson and, later, the yet-to-be-president William Henry Harrison. The content of some of these mounds was so spectacular that it excited the imagination of layman and scientist alike in these early-19th-century days. It was the magnificent workmanship and rarity of the burial furniture that led archeologists and historians of the day to attribute this work to peoples other than pesky redskins. Israelites, Vikings, Atlanteans, and hordes of other lost peoples were resurrected and endowed with amazing peripatetic abilities.

The polemics engendered by the discoveries in various Ohio burial mounds are rather adroitly narrated by Silverberg. Because this phase of development of American archeology was largely dominated by several strong personalities, the author has been able to make this a personal history. The names of greats in the 19th century-J. W. Powell, Cyrus Thomas, Ephraim Squier, Dr. E. H. Davis, Caleb Atwater, and others-loom large in this giveand-take argument about the agents responsible for construction of the great mounds. It is very interesting reading for all, and especially enlightening and useful for the teaching archeologist.

The last third of the book shows a marked shift in emphasis, from personal documentation to the empiricism of modern archeology. The new approach is exemplified by the work of such as William S. Webb, who directed the archeological salvage in the Tennessee Valley Authority development of the 1930's. These remorselessly scientific men reduced the myth of a superior pre-red-man people to ashes and gave American archeological endeavors a new dimension. However, it is in this arena that the author slips a bit in the sands of time and does picadorian violence to modern knowledge, for example in assigning the famous Poverty Point and Tchefuncte sites of Louisiana to the late Temple Mound period (fig. 47). Both of these sites were probably abandoned 1500 years before Temple mounds reached their greatest development around the 14th century A.D. Actually, however, the author has a remarkably good grasp on the chronology of the prehistory of eastern United States. This may be attributed, in part, to the timely publication of the first volume of Gordon R. Willey's Introduction to American Archaeology in 1966.

After all, Silverberg, like all of us in archeology, is indebted to the scholars of the past, and he gives each his due. For example, he reminds us that Caleb Atwater was the first to try to derive mound building from Mexico. Today, a century later, Albert Spaulding is objectively furthering this same theory. Silverberg singles out the giants of the past and discerns their lineal descendants in modern times. The names he uses are names honored by the whole profession-William S. Webb, James A. Ford, James B. Griffin, Don Dragoo, among many others. This is a good book, one to be enjoyed by professionals and laymen as well.

WILLIAM G. HAAG

Department of Geography and Anthropology, Louisiana State University, Baton Rouge

The Physics of Gravitation

Relativity Theory and Astrophysics. Proceedings of the 4th Summer Seminar on Applied Mathematics, New York, July-Aug. 1965. JÜRGEN EHLERS, Ed. Part 1, Relativity and Cosmology, xvi + 289 pp., illus., \$9.40; part 2, Galactic Structure, viii + 220 pp., illus., \$8.10; part 3, Stellar Structure, viii + 134 pp., illus., \$6.70. American Mathematical Society, Providence, R.I., 1967. Lectures in Applied Mathematics, vols. 8, 9, and 10.

Of the four fundamental forces of nature (gravitation, electromagnetism, weak interactions, strong interactions), gravitation is the least emphasized in the education of a physics student. Typically he meets Newton's laws of motion during one or two lectures of his freshman physics course. He encounters Newton's gravitational field and is told of its similarity to the electric potential a little later. And that is the end-unless he becomes one of those rare graduate students who take a course in the general theory of relativity, or unless he trundles over to the astronomy department to take courses. Contrast this with the intense research interest in gravitation which has been generated among physicists in the last few years: The glamour of gravitation physics is beginning to approach that of elementary particle physics. Who has not been swept up in the