Book Reviews

Palestinian Archeology

Palestine Before the Hebrews. A history from the earliest arrival of man to the conquest of Canaan. Emmanuel Anati. Knopf, New York, 1963. xxxviii + 441 pp. Illus. $8.95.

The intense archeological scrutiny given to Palestine has uncovered in this relatively small land a vast amount of data on the cultural history of man, which reaches as far back as 600,000 years. Anati has brought together this evidence for the first time in a book-length panorama that is both scientifically reliable and readable.

Anati begins with the Pebble-culture sites of Ubaidiya and Khirbet Maskana in the Jordan Valley, from an age which he assigns to the Grand Pluvial of the Quarternary era (about 600,000 to 300,000 years ago) and charts the course of man's cultural achievements through the Middle and Upper Paleolithic, the Middle and Late Stone Ages, and into the rapidly accelerated developments of the Bronze Ages. In addition to the widely known materials from the caves of Mount Carmel and the remarkable urban culture of Neolithic Jericho, the author weaves into his story the more recently discovered remains of early man found at a score of sites in Israel and other Near Eastern countries.

Although this work is primarily a synthesis, one excellent chapter, "The artists of the desert," is a report on the author's own exploration of the Negev. Anati classifies the remarkable rock drawings made by nomads through millennia from the Stone Age down to modern times according to seven styles and establishes a chronological order for each style, largely on the basis of the shades of patination on various layers of engravings found on the same surface.

The author's control of the rapidly growing mass of archeological reports, and even of material not yet fully published, is impressive—and so is his facility for making the material comprehensible to the layman by using charts, maps, and a wealth of photographic illustration. While the history of Palestine after the coming of the Hebrews is more richly documented, the long stretch of prehistory from the Age of Hunting and Gathering—a period that covers 98 percent of the time since man has become a toolmaker—into the times when man built the first walled cities and developed the city states of Canaanite times is no less fascinating. Specialists will debate many of the author's generalizations and conjectures, but they cannot but be grateful for this pioneer synthesis of what is currently known.

JAMES B. PRITCHARD
University Museum,
University of Pennsylvania

Geology of North Africa

The Geology of Egypt. Rushdi Said. Elsevier, New York, 1962. xv + 377 pp. Illus. Plates. $27.50.

In this volume a professor of geology at Cairo University gives us a valuable summary of a century or more of scientific investigations—a summary that will be welcomed by all who are interested in the geology of Egypt and nearby countries. Recent studies by the author and others have obviously contributed much to present knowledge.

Said divides Egypt into four geologic provinces: the Arabo-Nubian massif, the Stable Shelf, the Unstable Shelf, and the Gulf of Suez. The Arabo-Nubian massif of ancient granitic and metamorphic rocks lies chiefly on the Sinai Peninsula and between the Nile and the Red Sea. Its quarries and mines have supplied a variety of building stones and other mineral products, some of them for thousands of years. Bordering on parts of the massif is the Stable Shelf province, an area of minor faulting and doming where the Nubia (=Nubian) Sandstone and overlying rocks accumulated in shallow seas during Cretaceous and early Tertiary times. Beyond this, mostly within 150 miles of the Mediterranean Coast, is the Unstable Shelf province where greater subsidence, accompanied by folding, resulted in the accumulation of sediments ranging in age from at least the Carboniferous to the Miocene, in places over 14,000 feet thick. Of interest in the two Shelf areas is the evidence that sedimentation throughout a large part of northern Egypt was influenced by an ancient river, of which the present Nile is "a much diminished representative." Here also are the great depressions that have been excavated hundreds of feet by wind, some of them to below sea level. The other province, the Gulf of Suez Taphrogeosyncline (graben), has undergone intensive and irregular block faulting that has permitted the accumulation of great thicknesses of sediments ranging in age from at least the Carboniferous to the present. Facies and paleontologic studies of the sediments bordering and within the present somewhat narrower Gulf show the trough to have been an arm of the Tethyan (Mediterranean) sea, and not until Pliocene time was the present connection established with the Indian Ocean.

Many fold-in and other maps and diagrams add much to the book. These include geologic, tectonic, facies, and geophysical maps and cross sections, plus numerous columnar sections of outcrops and subsurface rocks as revealed by oil-test wells. A final section discusses the economic mineral deposits, with the disappointing exceptions of the famed building stones and the precious ground water that is so often considered a mineral resource. An appendix lists the names of formations and summarizes pertinent information concerning them. An index of localities, which gives the coordinates, is most helpful. Unfortunately, the scales on several maps (Figs. 2, 5, 32, and 35) are in error. Surprising is the statement (on page 8) that no place in Egypt is more than 300 km from the Nile, whereas in fact all the Libyan border is 550 to 650 km distant.

The author is to be complimented for an excellent summary of a large amount of information, generously documented, and the printers are to be commended for producing a most attractive book.

LOUIS C. CONANT
U.S. Geological Survey,
Washington, D.C.