

Christenson contributed a chapter on the history of the Rainbow Bridge-Monument Valley Expedition.

Lord 5 Flower's Family: Rulers of Zaachila and Cuilapan. JOHN PADDOCK. Vanderbilt University Publications in Anthropology, No. 29, Nashville, 1983. xx + 112 pp., tables, charts, illus., biblio. \$12.90 (paper).

Reviewed by Stephen Kowalewski, University of Georgia.

The object of this treatise is to re-evaluate the legendary history of the Valley of Oaxaca in light of new insights from the Lienzo de Guevea, a Zapotec document containing information about the rulers of Zaachila; the Codex Nuttall, which has a royal genealogy perhaps from Cuilapan; sixteenth- and seventeenth-century sources; and prehispanic stone sculpture, tombs, and settlement patterns. According to widely accepted history, Zaachila was the capital of the Valley Zapotecs and seat of the Zapotec kings. Paddock suggests that Zaachila was never a major capital, at least in the Late Postclassic period, and that the rulers of Zaachila and Cuilapan were actually the same (perhaps Mixtec, surely not Zapotec, but certainly Oaxacan upper caste) individuals. The Zaachila myth is interpreted as a nativistic reaction to foreign pressures on the Valley Zapotecs. This important work is the latest in the valuable, reasonably priced publication series commendably edited by Ronald Spores.

Archaeological Settlement Pattern Data from the Chalco, Xochimilco, Ixtapalapa, Texcoco and Zumpango Regions, Mexico. JEFFREY R. PARSONS, KEITH W. KINTIGH, and SUSAN A. GREGG. Museum of Anthropology, The University of Michigan, Technical Reports, No. 14, University of Michigan, Ann Arbor, 1983. vii + 222 pp., tables, maps, appendices, biblio. \$14.00 (paper).

Reviewed by Vincas Steponaitis, State University of New York, Binghamton.

Between 1967 and 1973, the University of Michigan carried out intensive settlement pattern surveys in the northern, eastern, and southern Valley of Mexico. In a concise, tabular format, this monograph summarizes many of the important data that these surveys yielded. Among the kinds of information presented for each site are its precise location (in UTM coordinates), surface area, inferred function, estimated population, elevation above sea level, physiographic setting, average annual rainfall, soil depth, erosion, and modern land use. The tables are accompanied by explanatory text as well as by a set of maps showing the locations of sites for each major period. Appendices contain source code listings for various computer programs designed to operate on these data, including one to generate

maps and another to perform nearest neighbor analysis.

It should be noted that most of the sites (except for those from Zumpango) have already been described in print elsewhere. The main value of this book, therefore, is as a compendium that brings together information from disparate sources and presents this information in a consistent format. As such, the book will be useful to anyone working with the Valley of Mexico settlement data, which remain to this day unparalleled in their quality, comprehensiveness, and thoroughness of regional coverage.

Les Harpons Magdaléniens. XVIII^e Supplément à "Gallia-Préhistoire." MICHÈLE JULIEN. Centre National de la Recherche Scientifique, Paris, 1982. 291 pp., annexes, biblio., figures, charts, tables, plates. 235 FF (paper).

Reviewed by Anta Montet-White, University of Kansas.

This volume is devoted to the exhaustive study of a single category of artifacts, the antler barbed points or harpoons, of the late Magdalenian phases (13,000-9000 B.C.). Some 2,000 of these tools are known from across Europe; 90% of them come from the Franco-Cantabrian area. Julien was able to study 850 complete specimens and 800 fragments, seemingly a large sample of bone tools, yet quite small when considering the geographic area and the time span involved.

Traditionally, harpoons have been divided into two types, one with a single row of barbs generally considered to be earlier—Breuil's fossil index of Magdalenian V—and the other with two rows of barbs—Breuil's fossil index of Magdalenian VI. On the basis of gross size measurements, however, Julien is able to recognize four morphological types. They include two types of double row harpoons and one type of single row points that are closely related; the fourth type, a group of single row harpoons, is more distinct. The use of multivariate comparative statistics would have strengthened the author's argument. A functional analysis of the tips, barbs, and stems supports the view that these tools were detachable projectile points used to spear pike and salmon. The series of straight or curved lines, circles, and squares that decorate the antler harpoons are shown to be examples of designs adapted to a functional shape. There appear to be no regional concentrations of particular kinds of designs.

The volume's last section is devoted to interpretative models. Processes of manufacture are described and then presented in the form of a sequential behavioral model. The hunting and fishing economy of late Magdalenian groups is discussed as it relates to the functional interpretation of the harpoons. Series of C-14 dates place the development of harpoons between 12,800 and 9000 B.C., a time period that encompasses several episodes of the Tardi-Glacial. In addition to presenting an exhaustive compilation that makes it a reference book, this volume is an excellent illustration of a systematic method of analysis applicable to any category of tools.