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If none of the projects reported in this book are directly related to your own geographical or temporal area of interest, then I recommend this text as a source of inspiration. As a prehistoric Greek archaeologist, two chapters are relevant to my specialized field (Burke et al. and Morrison et al.), but I found myself considering the projects undertaken by other authors and using them to expand my own research questions. This is the mark of a useful text. The editors have successfully demonstrated the value of petrography—that it doesn't matter where your artifacts are from or what other analyses you pair

your study with—petrography is flexible and enduring enough that it will always be an important tool for understanding past cultures.

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The Archaeology, Ethnohistory, and Environment of the Marismas Nacionales

Michael S. Foster (ed.),
Salt Lake City, Utah: The University of Utah Press, 2017,
600 pp., ISBN 978-1-607815-617, \$70.00 (hardcover).

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The Archaeology, Ethnohistory, and Environment of the Marismas Nacionales is the synthesis of both published and unpublished data from eight years of archaeological survey and excavation, beginning in 1965, in the coastal region of West Mexico. The Marismas Nacionales ecoregion is a section of estuarine mangroves that borders the Pacific Ocean just south of the Gulf of California. The geographic area may not be well known to archaeologists who work in the western United States. This gap in knowledge is to be excused, as Northwest Mexico specifically and the Pacific Coast of West Mexico north of Oaxaca in general are relatively underrepresented in the archaeological literature. This volume represents an excellent step towards remedying that fact.

In Chapter One, Stuart D. Scott describes the modern history of the region, discusses the ecologically-focused theoretical framework within which the project was conceived and carried out, provides a summary

of the work done, and describes the resultant theses and publications that have emerged from the SUNY Buffalo Marismas project. Like other contemporaneous projects (MacNeish's research in the Tehuacan Valley and Flannery's in the Valley of Oaxaca come to mind), the Marismas Nacionales project was comprehensive and multidisciplinary, and included work by geomorphologists, physical anthropologists, and historians. The underlying focus tying these diverse threads of research together was the place humans occupied in the rich but often inhospitable ecology of the swamps and estuaries that straddle the border between the modern Mexican states of Sinaloa and Nayarit.

Chapter Two is a summary by the editor of the volume of the non-anthropological data, which potentially have broad applications for extra-disciplinary research in West Mexico. Foster's summary covers the geophysical history of the West Mexican Coastal Plain since sea level began to rise around 14,500 B.P.; modern floral, faunal, and climatological profiles in the region; and a more fine-grained paleoclimatic analysis of the last 9,000 years, as inferred from palynological data from sediment cores that represent "the oldest record of Holocene sediments along the West Mexican Coastal Plain yet identified" (p. 27).

Foster and Scott revisit the chronology of the region, which was previously accounted for by Classic and Postclassic occupations. Data from 37 previously unreported radiocarbon samples refine the existing

chronology and add an earlier “Costañero” period to the local sequence, representing the manifestation of the Late Archaic and Formative period occupation of Marismas. In addition to the radiocarbon dates, obsidian hydration analysis was applied to the lithic material. The results were mixed, and the dates obtained from obsidian hydration were often thrown out in favor of those inferred from the ceramic sequence.

The authors’ summary of the sites and excavations is exhaustive and is accompanied by an impressive array of figures. Photographs, site maps, and detailed drawings of features and profiles all complement the thorough descriptions of the sites and material culture. Large shell mounds seem to be the main site type encountered. Oysters of various species and clams of the genera *Tivela* and *Anadara* are the dominant organisms represented. The project’s painstaking excavation and recordation of the shell mounds in the region may be of particular interest to those interested in comparative studies of Pacific coastal economies south of the Tropic of Cancer.

A large portion of the book deals with the 248 individual burials encountered in the mounds. George W. Gill, the project’s physical anthropologist, delivers a brief but comprehensive review of the practices of cranial and dental modification in the project area, and discusses how they indicate cultural connections between Marismas Nacionales and other important sites in the region (such as Guasave to the north). Gill also describes some of the few uncontested cases of tuberculosis in a Pre-Colombian population. Additionally, he uses the declining frequency of heritable, discrete, non-metric skeletal traits (e.g., sternal foramen, olecranon foramen),

which occur in frequencies far greater than those in the global population, to demonstrate gene flow into the region around 800 cal B.P. Admittedly, the number of individuals in which it is possible to observe these traits is small ($n=15$ for the sternal foramen), but the 33.3 percent frequency observed in the Marismas population versus the 1.0 percent frequency observed in white populations in the U.S. (p. 325) is a compelling indication of limited gene flow amongst small populations. A principal components analysis by Gill and Henry W. Case, drawing from both craniometrics and odontometrics, shows the early Marismas population to be more similar to populations from the American Southwest than to those of Central Mexico. In the late Postclassic, after 800 cal B.P., the high frequency of these heritable traits decreased, and the affinity of the population shifted away from Puebloan populations and towards contemporaneous Aztec populations. In the penultimate chapter, project historian Patricia Kay Scott discusses archival accounts of the conquest of the region, and describes the role that the area played in the trade routes of the Pacific portion of the Spanish Empire, shipping estuarine resources like oysters and shrimp to Spanish ports as far away as the Philippines.

While the original work represented in this book took place over 50 years ago, the information represented by these data is not dated in the least. The volume is, of course, particularly interesting to those studying the prehistory of West Mexico, but its real strength lies in its holistic and ecological focus, and in recognizing the irrelevance of modern political boundaries for understanding the archaeological past.

