



Depauperate or Not? Examining Marginality in Island Environments

Reviewer: Jacob Warner

An Archaeology of Abundance: Reevaluating the Marginality of California's Islands.

Edited by: Kristina M. Gill, Mikael Fauvelle, and Jon M. Erlandson. University Press of Florida, 2019.

Keywords: Archaeology, Historical Ecology, Islands, California, Environment

Are the islands off the coast of California “marginal” environments? How could seemingly “depauperate” places have sustained human settlements for thousands of years? In *An Archaeology of Abundance: Reevaluating the Marginality of California’s Islands*, edited by Kristina M. Gill, Mikael Fauvelle, and Jon M. Erlandson, archaeologists and other scholars argue that our understanding of the resource bases of the California islands is biased by years of Euroamerican impacts. By integrating archaeological and ethnohistoric data with paleoecological reconstructions, the authors reexamine life on these islands before European contact and subsequent environmental degradation.

As an edited volume compiled from a Society for American Archaeology conference session, the assembled authors assume that the reader knows archaeological history and theory. Spanning ten chapters, *An Archaeology of Abundance* addresses a wide range of subject matter related to the islands. Historical ecological changes, paleogeography, resource availability, and human mobility surface as critical themes. Chapter 1 jumps directly into discussing the history and peoples of the California islands with almost no introduction, and someone with limited knowledge of these complex societies could require more background and contextual information. In the subsequent two chapters, the native people of the islands feel distant, both through the reality of the subject (temporal and cultural distance between late Pleistocene/Early Holocene Native Americans and modern populations) and through the goals of the volume (a focus on island resources and the discourse around marginality). A review of current knowledge on California indigenous coastal societies would alleviate disassociation. Despite the lack of background discussion, the authors of the first three chapters do an excellent job of describing the evidence for the longevity and intensity of human occupation on these islands, as well as the changes in ecology, geography, and climate that accompanied both the Pleistocene-Holocene transition and later European colonization. This background information sets the tone of the following chapters.

Modern archeological techniques are rapidly increasing our understanding of how humans and plants interacted in the past. A key point illustrated in Chapter 4 is that, while there is as of yet no evidence of plant domestication on the California islands, there is extensive ethnohistoric and paleoecological evidence for human management of various plant communities. Previous researchers comparing island and mainland plant communities saw the former as less rich. Still,

analysis suggests a high degree of plant biodiversity, especially when considering that comparing with mainland California means comparing with one of the most biodiverse plant assemblages in the world. Geophytes, particularly the corms of certain species, stand out as a resource undervalued in previous research that in reality, had a crucial role in island subsistence and economy.

In Chapter 5, the authors continue to critique the idea that the California islands were deficient by examining the potential use of seaweed, seagrasses, and other marine plants. The chapter discusses not only the biology, ecology, and nutritional value of these plants around the north Pacific basin, but also evidence of their use by various cultures. Many marine plants do not preserve well in the archaeological record, but new perspectives and techniques are generating a growing body of evidence for their use. Identification of “vitreous slag” as evidence for carbonized seaweed, rare well-preserved examples in desiccated or inundated environments, and seaweed-associated mollusks as indirect evidence all stand out as ways to track the use of ocean flora in archaeological contexts.

Chapter 6 switches the focus towards minerals found on the islands. While previous researchers suggested that the islands had little in the way of tool making minerals, or other important inorganic resources (such as asphaltum/tar used to seal boats and containers), recent work resurveying many of the islands has found considerable mineral resources. Outside of utilitarian artifacts, the authors point out the importance of *toshaawt*, or naturally occurring iron concretions that are used in various rituals. *Toshaawt* are found on the island of San Nicolas, the remote location of which compared to the other islands could have imbued them with extra significance, adding another dimension to the idea of geographic marginality posited earlier in the volume.

Chapter 7 extends the discussion of the previous three chapters by analyzing the systems of trade between the islands and with the mainland. This analysis is based around shell, lithic, plant, and bone resources, reemphasizing their use not only as utilitarian goods but as elements of political and religious economies. Discussion delves into the importance of value-added goods in economic exchange, highlighting items like baskets as a way to convert raw materials into economic agents. The researchers also highlight the importance of shell as a worked material,

particularly Olivella (*Callianax biplicata*) bead currency, around which entire systems of production and exchange were based.

In Chapter 8, the authors discuss the population densities of both island and mainland coastal communities, as previous research has claimed that the limited resource bases of the islands could not sustain populations comparable to those of the mainland. Using mission era (AD 1697–1769) and historic period population data alongside radiocarbon dates as proxies for fluctuations in settlement density, the authors find that the Alta California Channel Islands indeed had lower population densities than the adjacent mainland (though higher than other areas of North America at the time), but that this pattern is reversed for Isla Cedros and adjacent Baja California. Radiocarbon results suggest that the population fluctuated much more in the islands than the adjacent coast, likely reflecting shifts in resource availability (including freshwater). As the authors note, lower population densities did not mean lower quality of life or richness of social interaction, as islanders participated in the complex religious and economic networks previously highlighted.

Chapter 9 turns to the questions of whether and why Native Americans introduced certain species of plants and animals. The authors combine archaeological, paleontological, genomic, and geochemical data to discuss the timing of the arrival of a variety of animal and plant species to the islands, and then tie them to cultural and economic roles in indigenous coastal societies. Particularly interesting are the potential human introduction of skunks to the islands related to ethnographically reported skunk dances, and the possible introduction of cacti and elephant trees to Gulf of California islands in relation to placental rituals. Both examples highlight that subsistence or economic factors were not the only drivers of indigenous transformations of island ecosystems.

Chapter 10 is a critique of previous perspectives on islands and coastal environments as marginal and maritime adaptations as later advances in human history. Reexamining the various chapters of the book, the authors suggest that if not complete utopias, islands like those off the coast of California were more productive environments than previously thought. They provide comparisons with other parts of the Pacific basin, East Asia, the Mediterranean, and the Caribbean. Key themes are the temporal depth of human occupation on islands, the impact of changing sea levels on-site preservation and settlement patterning, island ecosystems as

variously productive, and the impacts of human-introduced animals and plants on island ecosystems. The authors conclude the volume by inviting readers to reconsider islands as marginal environments by default, a reasonable request that is well supported by the assembled research.

This book is an essential resource for scholars of island and coastal archaeology, or those interested in deeper perspectives on coastal environments and historical ecology. While it would be appropriate in a classroom setting focusing on the archaeology of the California Islands or advanced discussions of broader topics such as human-environment interactions, its lack of background information limits its use in introductory settings.

Jacob Warner is a PhD candidate in the Department of Geography and Anthropology at Louisiana State University. His dissertation research focuses on paleoclimate reconstruction, climate change, and human-environment interactions in coastal Peru. He is particularly interested in geoarchaeology, sclerochronology, and invertebrate zooarchaeology.



© 2020 Jacob Warner