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# The Island Chumash, Behavioral Ecology of a Maritime Society

Douglas J. Kennett. Berkeley and Los Angeles: University of California Press, 2005. 310 pp., 22 b/w photographs, 23 line illustrations, 15 maps, 20 tables, \$60 (cloth).

## Reviewed by Michael A. Glassow

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Douglas Kennett's *The Island Chumash* is an important contribution to our growing knowledge of the prehistory of the northern Channel Islands and will serve as a basic reference on the subject for many years to come. He has done an admirable job of compiling and integrating information from a large number of specific studies to produce a coherent, easy-to-read synthesis of the prehistory of these islands. The book is based on his doctoral dissertation (Kennett 1998), but in the book under review he has revised his set of theoretical arguments for interpreting the data patterning he identifies.

After a brief introduction to the archaeology of the northern Channel Islands, Kennett presents the theoretical perspectives derived from Human Behavioral Ecology (HBE) that he uses in developing explanations for different aspects of prehistoric cultural development on the islands. In the following two chapters, he summarizes knowledge of island environments and the status of archaeological research in the region, and in the next chapter presents an analysis of the geographic context of ethnohistorically documented Island Chumash village locations. The next two chapters are the core of the book, in which he presents his analysis of Island Chumash prehistory. He divides the prehistory into three broad periods, Early, Middle, and Late Holocene, and discusses the processes of cultural change within each of these periods. The concluding chapter, entitled "Synthesis," includes an evaluation of cultural change with respect to the theoretical perspectives presented in the second chapter, although it is obvious that these perspectives also guided the analysis presented in the two core chapters. Overall, Kennett's study is well organized and clearly written.

There are some notable features of the book worth highlighting. First, Kennett's discussions of the theoretical perspectives he uses are more lucid than is often the case; they are straight-forward and not burdened with the jargon that sometimes pervades higher-level theoretical discussions. Second, he presents lists of radiocarbon dates and their site contexts that pertain to each of the three time divisions. The lists do not include every date obtained for northern Channel Islands sites, but they do include those associated with available site data. Significantly, many of the dates are a product of his own research on Santa Rosa Island and eastern Santa Cruz Island. Third, he includes a revision of the sea-surface temperature and marine productivity records presented in his dissertation. For the early and middle Holocene the new records are significantly different. These records will be of considerable interest to anyone concerned with environmental change along the California coast. Fourth, he includes a record of changes in shell fishhook design, which supports and adds a bit more detail to King's (1990:231-232) synopsis. Finally, although Kennett's book stands by itself as a significant contribution, those interested in the details of the data supporting some of his inferences will need to consult his dissertation. Kennett cites his dissertation frequently, so the instances in which the reader may find supporting data are clearly identified.

Kennett's use of theoretical perspectives from HBE, particularly aspects of Optimal Foraging Theory, is similar to, but more elaborate than, applications by other archaeologists working in coastal southern California and the Channel Islands. Changes in subsistence, for instance, are evaluated in terms of conformance to diet breadth and patch-choice expectations. However, he does not present the kind of quantitative analysis found in the more rigorous archaeological applications of theory derived from HBE (e.g., Broughton 1994a, 1994b, and Jones 2004). This observation is not meant to be a criticism of the book, as formal theory always should guide the identification and interpretation of data patterns, even if analysis does not entail formal quantitative evaluation of data in tests of specific hypotheses.

A confusing aspect of Kennett's theoretical stance, however, is his advocacy of a research focus on "individual behavioral strategies" (pp. 12–13). He states near the end of the book that his analysis "supports the conclusion that the social and political complexity evident at historic contact was ultimately a product of individual behavioral responses, both competitive and cooperative" (p. 236). Yet it is difficult to see in his

analysis consideration of the actions of individuals, and indeed the implication is that selective pressures such as environmental change are operating on populations. Only when discussing the rise of sociopolitical elites during the Late Holocene is there mention of individual action, even though little in the archaeological record actually reflects the specific actions of elite individuals. Indeed, it is difficult to see how his analysis differs from the kind he dismisses, which is concerned with "group adaptation and...direct (causal) associations between cultural and environmental structure" (p. 12).

Kennett's analysis sometimes neglects consideration of viable alternatives to his arguments. He asserts, for instance, that "maritime foragers tend to position themselves centrally and collect resources logistically" (p. 30), and he defines "logistical encampments" of the Middle Holocene as sites from which resources such as shellfish were acquired and processed and then brought to a primary residential base (p.144, see also p.129). Although it is true that some Middle Holocene sites appear to be residential bases at which people spent substantial portions of the year, the small, shallow sites classified as logistical encampments may simply have been residential bases occupied at times during the year when populations were more mobile than they were at other times (Glassow 2004, 2005). Indeed, if a population is depending on shellfish as a major food resource, it makes little economic sense to collect and process them for return to a central base. Kennett's interpretation is plausible nonetheless, but clearly alternative models of Middle Holocene settlement systems, still consistent with HBE theory, are possible and should have been considered.

Kennett's analysis of the determinants of patterning in the distribution of historically documented Island Chumash village locations also leaves out alternative possibilities. He posits that "[t]he settlement data from the northern Channel Islands suggest that villages were strategically positioned to control vital island resources, particularly fresh drinking water, and that islanders developed varied and innovative ways of monitoring the region surrounding these primary villages" (p. 182). He argues that strategic positioning entailed locating villages at defensive locations; i.e., "on high seacliffs or on headlands" (p. 106). In fact, many historically documented Chumash village sites are not in such topographic situations; examples on Santa Cruz Island include Liyam, Xaxas, and probably Swaxil, all

located directly above a beach at the mouth of a canyon. Furthermore, those village sites on the island adjacent to sea cliffs do not appear to be in locations any more strategic than others nearby.

Although competition between villages undoubtedly was taking place, there are other factors that may have been of equal or greater importance than fresh water availability. For instance, the control of stretches of coastline that are productive with regard to fishing and shellfish collecting, or of lands from which terrestrial plant resources were collected, are other possible factors. An understanding of the relative importance of variables controlling the distribution of village sites around the islands will require attention to these additional factors, and perhaps others as well.

Using GIS software, Kennett performed viewshed analysis of named Chumash villages (p. 106) as an aid in identifying determinants of village location, but little insight seems to have been gained from the results. Given that villages are relatively evenly distributed around each island (for reasons other than view, no doubt), it is no surprise that they largely lacked intervisibility, and it is also no surprise that village locations on the coast had broad views of the surrounding ocean waters. The analysis indicates that villages had limited or no views of the interior, but in fact some villages, such as the two on western Santa Cruz Island, had excellent views of lands a kilometer or more into the interior.

Kennett should have given closer attention to the characteristics of his sample of recorded and dated sites, especially those dating to the Early and Middle Holocene. Although Kennett and others have undertaken a systematic survey and dating of sites in some watershed areas of the islands, many of the earlier sites included in his analysis are in areas where coastal lands are eroded; deposits therefore are exposed and have attracted the attention of archaeologists. The area near the mouth of Arlington Canyon on Santa Rosa Island is one such area. Kennett concluded that this area was an important "primary village location" during the Early and Middle Holocene (p. 226), and indeed it may have been. However, other, less eroded sections of coastline may have comparable records of occupation. As well, the sample of Middle Holocene sites, particularly in coastal settings, is influenced by high visibility resulting from the presence of large quantities of red abalone shells in middens of this age, but many stretches of coastline around the islands do not offer prime habitats to abalone, and Middle Holocene sites, if present, would not be so distinctive if their inhabitants were collecting mainly mussels.

Finally, several minor errors should be pointed out. The legend for the map on p. 65 lacks an identification of location 11, and location 10 is misplaced. The chronological chart on p. 81 has an erroneous placement of Arnold's Middle/Late Transition in relation to the beginning of King's Late Period. Kennett states that Late Holocene inhabitants of the islands used a toggling harpoon (p. 193); although they did have a harpoon, it was not of a true toggling type. He also states that "relatively high densities of island chert [microblade] cores were discovered in sites on western Santa Cruz Island," but in fact Arnold et al. (2001:121) report that virtually no microblade cores occur in the Late Period sites that Arnold and her colleagues investigated in this part of the island.

A few words ought to be said about the printing of Kennett's book. Most photographs are too small and are too poorly reproduced to be useful, and some maps also are so small that reading is difficult. As well, copy editing is not up to the standard expectable of a prestigious university press. Perhaps high publication costs are partly to blame for these shortcomings, but if this is the quality of book publishing we now can expect, one wonders whether digital publication of academic books ought to be considered more seriously.

In conclusion, despite my critical comments, I emphasize that Kennett's book is a significant contribution to our knowledge of northern Channel Islands prehistory. Not only has he brought together a substantial body of information, he has provided us with many worthy hypotheses that will help guide research on the islands over the next few decades. I truly enjoyed reading Kennett's book, and anybody interested in northern Channel Islands archaeology, and Santa Barbara Channel archaeology generally, should read it.

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# Survival Skills of Native California

Paul D. Campbell. Layton, UT: Gibbs Smith, 1999. xv + 448 pp., hundreds of photographs and text figures, maps, bibliography.

## Reviewed by E. N. Anderson

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This book is quite an amazing achievement. Paul Campbell brings together an encyclopedic amount of information on how native peoples of Alta and Baja California made houses, hunted game, prepared food, created baskets, played games, formed musical instruments, and made objects necessary to their ways of life. Most of the book deals with the food quest, especially hunting and fishing.

Campbell has combed the ethnographies, especially the classic older ones that gave detailed descriptions of material culture. He has followed up unpublished sources. Notable among these are the Harrington papers, which provide invaluable accounts of processes now long lost. Campbell has listened to rare tapes and found obscure displays. His own contributions, though, are far more important. Much of his work has been done in Alta California, where he seems to have been everywhere, but the most interesting and important findings are from Baja California. He has sought out surviving Kumeyaay, Tipai, Paipai, and Kiliwa people, whose elders still remember many skills long forgotten north of the border. Thus he can provide excellent photographic documentation of making and using rabbit-sticks, collecting and cleaning cactus fruits and pine nuts, catching and preparing pack rats for food, and details involving many other activities poorly described in the old ethnographies.

This has been real participant observation. Campbell is not interested in "trait listing," but in actually learning how to survive and live well in the wild. (He is not an anthropologist; he is simply interested in how people managed in the hunting-gathering days, and how they can manage in the wilderness today.) One result is to make him sensitive to the complexity of traditional resource management; he has kept up with the recent research on how thoroughly the California native peoples managed plant cover and animal populations.