

UC Merced

Journal of California and Great Basin Anthropology

Title

Robert L. Bettinger: Orderly Anarchy: Sociopolitical Evolution in Aboriginal California

Permalink

<https://escholarship.org/uc/item/3f47578v>

Journal

Journal of California and Great Basin Anthropology, 36(2)

ISSN

0191-3557

Author

Codding, Brian F.

Publication Date

2016

Peer reviewed

indigenous heritage. A chapter on indigenous watercraft provides a useful summary of the many different kinds of aquatic transportation used by California's pre-Hispanic coastal residents. Chapters on ritual traditions and rock art draw on both ethnohistory and archaeology to discuss sacred traditions in both northern and southern California. A discussion of shell beads, one of the most emblematic trade goods of coastal Californian traditions, also provides an excellent overview of the importance of wearable wealth for coastal peoples. Additionally, a chapter on controlled burning emphasizes the fact that native populations have been actively managing their landscapes for thousands of years, while also highlighting the importance of working together with modern-day descendant communities in order to preserve and understand California's heritage.

Like many other recent volumes dealing with coastal California archaeology, there is a noticeable focus on the archaeology of the northern Channel Islands. This is unfortunate, but is probably unavoidable considering that this is where the majority of recent research has taken place. It is noteworthy that this emphasis is not as heavy as it has been in many other volumes, and much effort seems to have been made to include chapters on areas from up and down California's coast. Additionally, while the volume is focused on the coast, the book might have been improved with a greater discussion of coastal people's relationships with adjacent regions and other areas of California. This is especially true for discussions of trade and exchange, where the majority of shell beads,

for example, were traded to non-coastal regions. An absence of in-text citations is also sometimes frustrating, but was probably a practical decision that will enhance the volume's appeal to a non-academic audience. Finally, in an effort to make the book's language as accessible as possible, some familiar technical terms have been changed to more general-usage words. This is most apparent in the repeated use of "window screen" to refer to archaeological sifting screens. Again, this was done to increase the accessibility of the volume, but a section introducing the reader to the techniques of archaeological science at the start of the volume might have served a similar purpose.

It is hard to put together a book that is both accessible to the public yet of scholarly interest to practicing archaeologists. In *First Coastal Californians*, Lynn Gamble and the various chapter contributors have certainly succeeded in this task. Although readers who have been following the archaeological literature in California will be familiar with many of the themes presented, the chapters present informative and up-to-date summaries of a wide range of important subjects that should be of interest to any archaeologist working with hunter-gatherer populations or coastal environments. Most importantly, this volume makes California coastal archaeology both exciting and accessible to a wide range of both specialists and non-specialists. Hopefully, this book will allow many different readers to gain a deeper insight into and appreciation for California's fascinating archaeological past and rich indigenous present.



Orderly Anarchy: Sociopolitical Evolution in Aboriginal California

Robert L. Bettinger
Berkeley: University of California Press, 2015,
312 pages, ISBN: 9780520283336,
\$70 (hardcover).

Reviewed by Brian F. Coddling
Department of Anthropology, University of Utah

This book offers one of the most significant theoretical contributions to California and Great Basin anthropology since Steward's (1938) ambitious explanatory project. As the title suggests, the central theme of this work is focused on understanding the formulation of 'orderly anarchy.' While many unilinear evolutionary thinkers believed some form of anarchy was the foundation from which other political organizations emerged, Bettinger is perhaps the first to illustrate that orderly anarchy is itself an evolutionarily stable adaptation to particular social and environmental circumstances, not merely

a starting point. Kropotkin (1898, 1902), who argued for constructive anarchism through mutual aid, would be pleased. Far from nineteenth century evolutionary thinking, Bettinger's arguments are structured by twentieth and twenty-first century frameworks, including Cultural Ecology, Behavioral Ecology, and other Neo-Darwinian approaches such as Dual-Inheritance Theory. Sure to become known as a classic application of the U.C. Davis school of evolutionary anthropology, these theoretical approaches give Bettinger the tools needed to offer a truly novel and powerful explanation for California and Great Basin sociopolitical organization.

The central question guiding this inquiry asks why California and Great Basin aboriginal societies trended away from hierarchical structures. On my read, the central explanation can be summarized as follows: the chance introduction of the bow and arrow increased men's hunting success; with fewer acquisition failures per capita, fewer individual hunters could acquire and share enough food to provision families through a pattern of risk-reduction reciprocity. These conditions allowed smaller groups of more closely related individuals to function relatively autonomously.

Eventually, individuals in these small groups experienced declines in their encounters with high-value prey items. While men may have continued to search for larger game, women responded adaptively by broadening their diet to include lower-value plant resources. Because individuals in these small groups were closely related, they avoided the collective action (or free-rider) problems associated with low-profitability but storable resources: while free-riding family members still might burden producers, the lost food went to related kin, thereby increasing the harvester's inclusive fitness.

This shift occurred first with nuts, which have back-loaded processing costs. Because nuts can be stored with little processing, harvesters wouldn't lose much invested labor from stolen crops, further lowering the costs of freeloading kin. East of the Sierra Nevada crest, this process of intensification was focused on unreliable pine nuts, a circumstance to which individuals responded by forming highly mobile, bilateral family bands. West of the Sierra Nevada crest, diet broadening focused on more reliable acorns, which were acquired from productive groves that were worth defending, so that individuals responded by forming less mobile (initially patrilineal)

bands that aggregated into tribelets for the coordinated defense of men's hunting tracts.

As these patterns developed, continued competition for resources led small seeds to enter the optimal diet. These required more up-front processing prior to storage, which necessitated the development of institutions governing the privatization of collected goods in order to safeguard against the theft of labor by free-loaders, who could demand or steal processed seeds. These trends increased the proportional contribution of plants to the diet and made women's labor more important. While California tribelets formed where it was important to protect kin-group resources through patrilineal descent, the importance of women's labor led to a shift toward bilateral descent. These evenly distributed, autonomous, and self-sufficient populations found it in their best interest to engage in pro-social interactions, eventually facilitated by money, which produced an aversion to hierarchy and the emergence of orderly anarchy.

Despite the tremendous explanatory power this argument provides, it is not without its issues. Some may comment that Bettinger excludes populations that don't fit the model, such as the Chumash; however, Bettinger fully admits this limitation. Others may argue that his approach is too reductionist and quantitative, though I think these are some of its greatest strengths. For me, the issues that warrant attention center on some of the particular causal and explanatory mechanisms proposed.

First, the central role assigned to the bow and arrow relies on the assumption that it will be adopted wherever it is introduced, but the bow and arrow is not a superior technology for all forms of hunting and may provide an advantage *only* for the hunting of smaller prey (Tomka 2013). This suggests that hunters should only adopt the bow once they experience a decline in their encounters with larger resources. If this is true, the bow may be more a consequence of resource intensification than a primary cause, which may help explain variations in the timing of its adoption across California (Kennett et al. 2013).

Second, Bettinger suggests that increased hunting success should reduce the need for a large pool of hunters who reciprocally share game in order to lower the risk of shortfall. Ignoring the collective action problems inherent in such an argument (see Hawkes 1992), it is theoretically possible for sharing to reduce the risk of shortfall with high variance resources (Kaplan et al. 2012). However,

reciprocity has never been shown to explain food sharing unequivocally, despite extensive efforts to do so (e.g., Jaeggi and Gurven 2013). It seems more probable that smaller group sizes emerged as an adaptive response to individuals taking lower profitability food items, which are generally more abundant and more evenly distributed across the landscape.

Third, Bettinger may be correct that individuals living with closely-related kin might not suffer too much from free-riding relatives due to gains in inclusive fitness; however, a global analysis of hunter-gatherer co-residence patterns has recently shown that forager bands actually have a low degree of relatedness (Hill et al. 2011). If this was true in California, then individuals would still experience significant costs due to needy neighbors. The degree of in-group relatedness could become biased toward kin if either women or men gained more influence in selecting camp mates (Dyble et al. 2015), which may have happened as women's labor became more important, leading to a divergent division of labor and a need for increasing alloparental support (Coddling et al. 2011). But even if this were the case, there is a simpler solution: hunter-gatherer bands should be able to tolerate theft from a small proportion of scroungers (Blurton Jones 1984), producing similar outcomes as those proposed by Bettinger.

Finally, an empirical point: the particulars of this story require that human populations increase to a prehistoric maximum quite late in the record. However, archaeological proxies of human populations are known to systematically underestimate older dates (Surovell et al. 2009). Adjusting these estimates for such taphonomic loss reveals higher Mid-Holocene population levels than are typically expected in California (Chaput and Gajewski 2016). While Bettinger dismisses this, it may actually help his argument by providing a demographic driver for how this process began: i.e., through population-resource imbalances that encouraged resource intensification and the adoption of the bow and arrow. If this were true, then spatial variability in Mid-Holocene populations (which may have differentially responded to climatic variability east and west of the Sierra Crest) could help explain lags between the California and Great Basin records, although this needs to be examined in greater detail.

Despite these minor criticisms, none of these comments counter the overall thesis presented in this

volume. Further, these comments do not diminish the important and novel aspects of this argument. Particularly welcome is the attention to gender-specific variability in foraging, to intragroup dynamics that give rise to collective action problems, to explanations of the social institutions that arise within intensified economies, and to the exploration of pro-social behavior in prehistory.

These impressive leaps forward guarantee a central intellectual role for this work in North American anthropology. Indeed, the real impact of this work will be realized as future scholars confront these arguments with further theorizing and empirical data. Given the attention this work is already garnering from both supporters and detractors, I can say with confidence that it will stand the test of time and direct future research in California ethnography and prehistory for decades to come.

REFERENCES

- Blurton Jones, N.
1984 A selfish origin for human food sharing: tolerated theft. *Ethology and Sociobiology* 5:1–3.
- Chaput, M. A., and K. Gajewski
2016 Radiocarbon dates as estimates of ancient human population size. *Anthropocene*. doi:10.1016/j.ancene.2015.10.002.
- Coddling, B. F., R. B. Bird, and D. W. Bird
2011 Provisioning offspring and others: risk-energy trade-offs and gender differences in hunter-gatherer foraging strategies. *Proceedings of the Royal Society of London B: Biological Sciences* 278:2502–2509.
- Dyble, M., G. D. Salali, N. Chaudhary, A. Page, D. Smith, J. Thompson, L. Vinicius, R. Mace, and A. B. Migliano
2015 Sex equality can explain the unique social structure of hunter-gatherer bands. *Science* 348:796–798.
- Hawkes, K.
1992 Sharing and collective action. In *Evolutionary Ecology and Human Behavior*, E. A. Smith and B. Winterhalder, eds., pp. 269–300. New York: Aldine de Gruyter.
- Hill, Kim R., Robert S. Walker, Miran Božičević, James Eder, Thomas Headland, Barry Hewlett, A. Magdalena Hurtado, Frank Marlowe, Polly Wiessner, and Brian Wood
2011 Co-residence patterns in hunter-gatherer societies show unique human social structure. *Science* 331:1286–1289.
- Jaeggi, A. V., and M. Gurven
2013 Natural Cooperators: Food Sharing in Humans and Other Primates. *Evolutionary Anthropology* 22(4): 186–195.

- Kaplan, H. S., E. Schniter, V. L. Smith, and B. J. Wilson
2012 Risk and the evolution of human exchange. *Proceedings of the Royal Society of London B: Biological Sciences*. DOI: 10.1098/rspb.2011.2614.
- Kennett, D. J., P. M. Lambert, J. R. Johnson, and B. J. Culleton
2013 Sociopolitical effects of bow and arrow technology in prehistoric coastal California. *Evolutionary Anthropology: Issues, News, and Reviews* 22(3):124–132.
- Kropotkin, P.
1898 *Anarchism: Its Philosophy and Ideal*. San Francisco: Free Society.
1902 *Mutual Aid: A Factor of Evolution*. London: William Heinemann.
- Surovell, T. A., J. B. Finley, G. M. Smith, P. J. Brantingham, and R. Kelly
2009 Correcting temporal frequency distributions for taphonomic bias. *Journal of Archaeological Science* 36(8):1715–1724.
- Steward, J. H.
1938 Basin-Plateau Aboriginal Sociopolitical Groups. *Bureau of American Ethnology Bulletin* 120. Washington, D.C.
- Tomka, S.
2013 The Adoption of the Bow and Arrow: A Model Based on Experimental Performance Characteristics. *American Antiquity* 78(3):553–569.



Loveliest of Places: A Study of the Pre-Mansion Historical Resources of Bidwell Mansion State Historic Park

Gregory G. White
Sacramento: California State Parks, Department of
Parks and Recreation, Cultural Resources Division, 2015
[*Publications in Cultural Heritage* 32].
ix, 121 pages

Reviewed by Sarah Peelo

Albion Environmental, Inc.
1414 Soquel Ave., Suite 205,
Santa Cruz, CA 95062

In this installation of California State Parks' *Publications in Cultural Heritage* series, Gregory G. White addresses a challenge faced by heritage managers world-wide; the author broaches the issue of managing and interpreting for the public a heritage site with multiple historical components and a diverse community of historical actors. White recommends a more holistic management and interpretive plan for the Bidwell Mansion, a Gold-Rush era rancho site located in Chico, California. Currently, the management program of this California State Historic Park narrowly focuses on one early California couple, John and Annie Bidwell, and the Victorian style mansion they had built at Rancho de Arroyo Chico between 1864 and 1868. Despite the current focus, Rancho de Arroyo Chico has a history more nuanced than just one of socially prominent Americans and their Gold Rush

fortunes. Specifically, White recommends expanding the interpretive program to include a focus on both the "Original" ranch (1849–1886), and the importance of the native laborers and communities at the ranch. This interpretative program recommendation is woven through chapters organized into four main sections: (1) Introduction and Context; (2) The Historic Evidence; (3) The Archaeological Evidence; and (4) Conclusions and Recommendations.

In the first section, "Introduction and Context," the author provides a general background of the site, including locational information, descriptions of the natural landscape, flora and fauna, and a summary of the ethnographic literature on the Valley Maidu tribe (Konkow). In "The Historical Evidence," the publication's second section, the author provides a detailed investigation of the historical documentation and photographic record of John Bidwell's Rancho de Arroyo Chico operation. This section makes outstanding contributions, identifying the deep history of this "frontier" community, highlighting the history of the Maidu peoples in this area and their complex associations with Rancho de Arroyo Chico, and describing the chronological development of the ranch between 1849 and 1868. It is in this section that the author identifies the research theme of the study: to describe the complex components, in time and space, of Rancho de Arroyo Chico.

In part three, "The Archaeological Evidence," the author summarizes the results of three previous archaeological investigations conducted by CSU Chico