REGIONAL VARIATION AND LOCAL STYLE: A NEGLECTED DIMENSION IN HAWAIIAN PREHISTORY

Patrick V. Kirch University of California at Berkeley

This article states a case for the significance of a fundamental yet neglected aspect of Hawaiian prehistory and anthropology: the substantial degree of local and interisland variation in Hawaiian culture, including its material manifestations. Given the geographic extent of the Hawaiian archipelago, and the size of its indigenous population at the time of European contact, significant cultural variability should come as no surprise. The eight major inhabited islands span a total distance of more than 350 miles, and turbulent open channels up to seventy-five miles wide separate individual islands. Despite substantial local and some interisland mobility, it is likely that most precontact Hawaiians lived out their lives within a relatively small geographic sphere. Certainly the political organization of the archipelago in the late eighteenth century is indicative of strong boundaries separating four or five major sociopolitical groups. These were the more-or-less independent chiefdoms of Kaua'i, O'ahu, Maui, East Hawai'i, and West Hawai'i. (Smaller islands such as Moloka'i, Lana'i, and Kaho'olawe were variously under the sway of one or another of the larger hegemonic chiefdoms.) Not only did these chiefdoms operate as independent political units, but indications in the ethnohistoric literature suggest that each group maintained and expressed its own identity through ideological and ritual differences (see Valeri 1985: 184-185).

While geographic scale in and of itself is not a determinant of cultural

Pacific Studies, Vol. 13, No. 2--March 1990

diversity, a comparison between Hawaii¹ and other Polynesian cultures of comparable size reinforces the likelihood that we should expect to find substantial regional cultural variation in the Hawaiian case. Diversity among the New Zealand Maori is certainly the best documented within Polynesia, beginning with the pioneering studies of Skinner (1921, 1974), augmented by more recent work. Although the Maori population was smaller than that of Hawaii, the vast geographic scale of New Zealand assured isolation-by-distance of local communities, leading to distinctive regional styles of art, patterns of settlement and architecture, subsistence, and even linguistic differentiation. Some differences in Maori culture, of course, reflect the environmental gradient from subtropical north to temperate south. But distinctive forms of carving, and other artistic expressions, as well as dialectical variation in language, resulted from other processes of sociocultural differentiation. Archaeologists have demonstrated that these regional variations have a substantial antiquity in New Zealand prehistory, in some cases extending well back into the Archaic Period (Prickett 1982).

In other Polynesian archipelagoes more geographically compact than either New Zealand or Hawaii, cultural variation is also evident. In Samoa, the Manu'a group is distinctive in certain patterns of social organization and religion (Mead 1930), and Manu'ans proudly hold themselves apart from other Samoans. Some scholars have attempted to account for these differences between Manu'an and western Samoan culture in terms of successive migrations, while Mead (1930:9) pointed to the more likely role of geographic isolation and differences in population size. In the Society Islands, the windward and leeward groups display cultural differences, a point emphasized by Emory (1933) in his classic study of marae forms. The Marquesas Islands, too, illustrate cultural variation within an archipelago much smaller than that of Hawaii (the straight-line distance from one end of the Marguesas to the other is only about one-half that of the Hawaiian Islands). Northern and southern variants of Marquesan culture have long been noted (Handy 1923; Linton 1925), extending to such domains as the local folk taxonomy of fishes (Lavondes and Randall 1978), and to dialectical variation in general (Green 1966; Elbert 1982).

In short, a survey of intra-archipelago cultural variation in Polynesia provides sufficient reason to anticipate substantial regional differences and local styles in Hawaiian culture. Thus it is all the more surprising that so little attention has been paid, either by ethnographers or archaeologists, to the evidence for regional variation in Hawaii. To be sure, differences have occasionally been noted, especially the distinctive artifact types (pounders, grinders) associated with Kaua'i Island (Bennett 1931). The dominant approach in Hawaiian anthropology, however, has been to treat the culture normatively, as if regional variation were insignificant or nonexistent. The issue of cultural variation within the archipelago has been a "non-problem" of Hawaiian anthropology.

Stemming from this normative approach has been the implicit assumption that ethnographic or archaeological observations made in any particular locality are valid for any other locality in the Hawaiian archipelago, at least for the same time period. This is true not only in popular summaries of Hawaiian culture (for example, Handy et al. 1933), but in major syntheses of Polynesian anthropology in which "the Hawaiian case" is uniformly presented as if every island population and local chiefdom were structured identically (Sahlins 1958; Goldman 1970). This has led to some rather misleading or erroneous conceptions of Hawaiian culture, for example, the view that intensive irrigated cultivation of Colocasia taro provided the dominant subsistence base on all islands. This particular view was reinforced by Earle's (1978) important study of the Halele'a District of Kaua'i Island and of the role that irrigation played in Hawaiian sociopolitical evolution. Unfortunately, Earle did not sufficiently emphasize that the Halele'a District is not at all representative of other parts of the archipelago, such as east Maui or west Hawai'i, which virtually lack irrigated taro systems, and thus nonspecialist readers of Earle's important theoretical arguments may be misled as to the real complexity of the Hawaiian case.²

The fallacy of assuming cultural uniformity throughout the archipelago is nicely illustrated archaeologically by early attempts to develop an islandwide relative fishhook chronology (Emory, Bonk, and Sinoto 1959). The deep and well-stratified South Point sites on Hawai'i Island revealed a stylistic sequence in fishhook form (especially in the relative dominance of notched and knobbed two-piece hooks) that would (it was initially hoped) provide a dating yardstick for any assemblage of fishing gear excavated elsewhere in the islands. Unfortunately, subsequent excavations on other islands in the 1960s and 1970s failed to replicate the South Point fishhook sequence, indeed engendering debate on the age and relationships of some of the early assemblages. The problem, of course, lay in the original assumption that the South Point sequence would be representative of the chronology of fishhook types throughout a large archipelago. Twenty-five years of excavations have now demonstrated that the fishhook sequence of South Point is, in fact, highly localized, and that the distinctive notched form of two-piece hook that dominates the early South Point assemblages was a local style restricted

to a small group of fishermen inhabiting the southwestern part of Hawai'i Island.

The potential significance of regional variation in Hawaiian culture goes beyond the role of simply avoiding pitfalls such as that just mentioned. We have yet to exploit the evidence for regional differentiation and local style for what it may reveal concerning the dynamics of Hawaiian cultural change. Regional variability in Hawaiian archaeological assemblages is in itself a topic worthy of investigation. The following examples are only a preliminary effort--based on available literature and personal experience--to highlight the potential significance of regional variation in two aspects of prehistoric Hawaiian culture. A full exploration of the subject remains for the future.

Regional Variation: Some Archaeological Examples

Material Culture

Both because they are relatively ubiquitous in coastal sites, and because they exhibit substantial temporal and stylistic variation, fishhooks have played a major role in Hawaiian archaeological studies, beginning with the first stratigraphic excavations in the early 1950s by Emory and his colleagues. Emory et al. (1959) pointed to local differences in the dominant materials used for hook manufacture (mammal bone, pearl shell, turtle carapace, and so forth), correctly inferring that these differences reflected geographic variation in the availability of raw materials, especially the preferred pearl shell. At the level of hook morphology, however, little attention was paid to the possibilities of local stylistic variation, leading to the problem with the two-piece fishhook chronology discussed above. A thorough study of geographic variation in fishhook morphology has never been undertaken, despite the availability of eight thousand or more excavated specimens in the collections of the Bishop Museum and other organizations. A brief review of the Bishop Museum collections carried out in 1983 as an aspect of research for a synthesis of Hawaiian prehistory (Kirch 1985a) revealed several distinctive fishhook forms that are almost certainly local "geographic styles." The multiplenotched, two-piece hook point of South Point, Hawai'i, has already been mentioned. On Kaua'i Island, a one-piece rotating hook with double inner (point and shank) barbs was locally very popular (Kirch 1985a: 104-106, fig. 85). On Lana'i Island, the single stratigraphic excavation by Emory at Ulaula Cave yielded a collection of bone trollinglure points with distinctive distal lugs or protrusions on the base (Kirch

1985a:141, fig. 120), a form apparently unique to Lana'i. Another class of fishing apparatus displaying geographic variation is the octopus-hook sinker; Kaua'i Island sites and surface collections are notable for the high frequency of sinkers made of red hematite (Kirch 1985a: 106).

The significance of such local geographic styles in fishhooks (or, for that matter, in other items of material culture), lies in what they may reveal of patterns of interisland and intergroup communication or, conversely, isolation. Since these morphological variants are presumably stylistic, and not functional (see Dunnell 1978), they reflect shared mental concepts among a group of fishhook makers about how a particular kind of hook should be shaped. There are, however, a number of alternative explanations for why distinctive patterns of fishhook manufacture should have been restricted to small local groups. One explanation stresses geographic isolation of local communities; a stylistic innovation did not spread beyond a local area because there was little communication between fishhook makers on different islands. An alternative explanation would lie in the *conscious* production of stylistically distinctive hook forms in order to emphasize local group differences. Mead (1967) pointed to just such a pattern of elaboration of minor cultural differences as a mechanism for the generation of cultural heterogeneity in Melanesia.³ Were the Hawaiians of the late prehistoric era consciously attempting to create local group identities through the production of distinctive artifact styles? If so, why? These are provocative questions that Hawaiian archaeology has yet to consider,

Probably the best-known examples of geographic style in Hawaiian artifact classes are the "ring" and "stirrup" poi pounders of Kaua'i Island (Brigham 1902; Stokes 1927; Bennett 1931). The Kaua'i population also used the typical conical *poi* pounder found throughout the other islands. Why three distinctive forms of food pounder, all evidently equally suited to the functional task of reducing taro corms to the *poi* paste, should have been retained on a single island is an intriguing problem that has inspired a variety of explanations. Most of these explanations are historical, in which the ring and stirrup forms are regarded as "archaic" survivals of an earlier period of Hawaiian culture. Given the absence of such forms from other East Polynesian artifact assemblages, however, this appeal to historical explanation is hardly satisfactory. It seems equally plausible that these forms represent local styles invented and elaborated on Kaua'i. But why three distinctive forms of a single functional class within a single island community? Is it possible that we are dealing with an artifact that was elaborated locally to reflect status or rank differences among its users, similar to the way in which feather cloaks and helmets were visual markers of status among ruling chiefs? It may never be possible to pose definitive archaeological tests for such hypotheses, but this should not constrain us to limit our explanations for stylistic variability to simple historical scenarios of the survival of an archaic "Menehune culture" on Kaua'i.

Local or regional stylistic variation is also apparent in the wooden and stone images used on temples and shrines and in various rituals. In their comprehensive study of Hawaiian sculpture, Cox and Davenport point to "considerable diversity in sculptural style" including local differences (1974: 104). Two geographic variants are particularly evident. The first of these is the slab type of temple image, unique to the northwesterly islands of O'ahu and Kaua'i. Citing the belief of Emory and others that slab images are an "archaic" Polynesian form, Cox and Davenport opine that "the northern end of the chain . . . especially Kauai, was more conservative and retained some of the more ancient forms of the culture" (1974:68). The other very distinctive type of temple image is referred to by Cox and Davenport as the "Kona-style," a complex of wooden images from the western part of Hawai'i Island characterized by distinctive mouth, nostril, and headdress patterns (see item nos. T3, T4, T5-8, K2-3, and K21 in the Cox and Davenport catalog; see also Buck 1957: fig. 308). (The "Kona-style" is essentially that which has been widely copied and promoted by the Hawaiian tourist industry as a public relations logo for Hawaiian culture.) The existence of a very distinctive style of temple image in the West Hawai'i region is provocative in light of other evidence for the emergence in this area of a hegemonic polity in late prehistory (Kirch 1984:253-257; Kirch 1985a). Valeri points provocatively to evidence that the emphasis on the god Ku in the luakini po'okanaka rituals has been especially strong on Hawai'i Island, becoming generalized throughout the archipelago only with Kamehameha's conquest (1985: 184-185). "Some traces of a different system exist, especially on the island of Kaua'i" (Valeri 1985:185), where the *luakini* temples appear to have been consecrated more often to Kane or Kanaloa, and not to Ku. Maui Island, likewise, had "temples for human sacrifice whose main god was Kane" (Valeri 1985:185). Did the "Kona-style" serve as an ideological symbol of the politically ascendant Kalaniopu'u-Kamehameha lineage, and of its aspirations of conquest and expansion out of West Hawai'i? Were the distinctive slab images of the O'ahu and Kaua'i chiefdoms also the product of a deliberate social production of a symbolic identity? Regarding the diversity of image forms represented in the Hawaiian sculptural corpus, Cox and Davenport suggest this reflects "a period of cultural change, a re-forming of ideas, particularly concerning religion, that may have been taking place just prior to the discovery of the Islands by Europeans" (1974; 104). These are provocative ideas, indeed, which should inspire us to examine the archaeological data on geographic variability with new insight.

Agricultural Systems

Nothing was more basic to traditional Hawaiian life than the systems of intensive cultivation upon which society was dependent for production and reproduction. Yet even in this realm, the classic ethnographic texts tend to downplay the significance of regional variation in cultivation systems and to ignore the implications of such variation for society itself (for example, Handy 1940; Handy and Handy 1972). One of the main contributions of Hawaiian archaeology in the past two decades has been the documentation of the range of local and regional variability in the physical remains of prehistoric agricultural activity (Kirch 1985a:216-236; Kirch 1985b). A large number of field studies leave no doubt that cultivation systems varied substantially along two major geographic axes: (1) on individual islands, a gradient from windward systems dominated by valley-bottom taro irrigation integrated with shifting cultivation, to leeward systems dominated by dryland forms of intensified shifting cultivation; and (2) a gradient from northwest to southeast along the Hawaiian chain, in which the dominance of irrigation progressively gives way to a dominance of dryland intensive field systems. This second gradient is largely a reflection of basic geological trends in island age, degree of erosion and dissection, and consequent availability of suitable terrain for irrigation. While irrigation, shifting cultivation, and intensive dryland field cultivation were components found in all local Hawaiian agricultural systems, the dominance of particular components varied enormously. Thus, for example, on Kaua'i and O'ahu islands, taro irrigation was clearly the main focus of agricultural activity, even in many leeward valleys (such as Manoa and Nu'uanu on O'ahu). In striking contrast is the West Hawai'i case, where pondfield irrigation was an extremely minor cultivation type in vast leeward-slope field systems (Kirch 1984: 181-192).

While archaeologists have made major strides in documenting the field evidence for such significant differences in local agricultural systems, the implications that this variation entails for the structure of Hawaiian society, and for the internal dynamics of sociopolitical change, have hardly begun to be explored. Elsewhere (Kirch 1984), I

have argued that the particular ecological and agronomic conditions of West Hawai'i were fundamental in the late prehistoric sequence of chiefly competition and conquest leading ultimately to the hegemony of the Kalaniopu'u-Kamehameha group. In my view, it is no mere coincidence that the most powerful and aggressive political leaders in protohistoric Hawaii (along with their particular emphasis on the Ku cult) arose in a region characterized by already-intensified dryland field cultivation, and not in the northwestern islands of Kaua'i and O'ahu where taro irrigation had not begun to approach its potential limits of intensification.

I cannot here review in detail the sociopolitical implications of regional variation in Hawaiian agricultural systems, but to merely suggest the kind of fundamental social distinctions that may have been correlated with agricultural variability, I will draw attention to a passage from Kamakau's *Ruling Chiefs of Hawaii*, pregnant with unexplored significance:

All the work outside the house was performed by the men, such as tilling the ground. . . . This was the common rule on Kauai, Oahu, and Molokai, but on Maui and Hawaii the women worked outside as hard as the men, often cooking, tilling the ground, and performing the duties in the house as well. At the time when Kamehameha took over the rule from Hawaii to Oahu it was not uncommon to see the women of Hawaii packing food on their backs, cooking it in the *imu*, and cultivating the land. . . . On Maui the men showed their wives where their [garden] patches were and while they went to do other work the women brought the food and firewood from the uplands. . . This is why the chiefs of Hawaii imposed taxes on men and women alike and got the name of being oppressive to the people, while the chiefs on Oahu and Kauai demanded taxes of the men alone. (1961: 238-239)

When this passage was first brought to my attention by Marshall Sahlins, I could not help but be struck by the obvious correlation between the role of women in cultivation on Maui and Hawai'i and the dominance on those islands of intensive dryland field systems. For reasons that cannot be detailed here, intensive dryland systems have much higher labor requirements for maintenance tasks such as weeding and mulching (see, for example, Yen's ethnographic study of the Anuta system, 1973). It is not surprising, then, that in the last few centuries prior to European contact, as the Hawai'i and Maui field systems were expanded and intensified and labor requirements rose substantially, women were increasingly pressed into garden work. (On a parallel argument involving a somewhat different kind of intensive agricultural system on Aneityum Island in Vanuatu, see Spriggs 1981.) On the northwesterly islands, however, the dominance of taro irrigation (in which the primary labor investment is in field and ditch construction) did not necessitate a similar commitment of both sexes to agricultural labor.

We have hardly begun to consider what other structural differences in late prehistoric Hawaiian society may have been associated with these contrasts in the sexual division of labor. Kamakau alludes to one: differential practices of chiefly taxation. There may well have been other, more fundamental implications, extending even to basic demographic parameters of fecundity in local populations where females were confronted with differential labor requirements. Such explorations must be left for the future, but we can surely conclude that a simple assertion of cultural or social uniformity within the Hawaiian archipelago is not only unsupported by the evidence, but obscures significant clues to Hawaiian sociocultural change.

Explaining Regional Variation in Hawaiian Culture: Preliminary Thoughts

In this article, I have attempted to provide some examples of regional variation and local style from the archaeological and ethnohistoric record, and to point out some of the significance of such variation for understanding prehistoric Hawaiian culture and society. To conclude, I will briefly review several major factors that have been or might be proposed to account for the existence of regional variation and local style. The list is by no means exhaustive, and is offered only as a starting point from which further explorations of regional variation may be made.

1. Certainly the standard explanation that has consistently been advanced to account for the existence of local styles is that of multiple origins or migrations. In this historical mode of explanation, differences are accounted for by tracing the origin of particular traits to this or that migrating group. Thus, for example, the stirrup and ring pounders of Kaua'i are said to be "archaic'" forms, survivals of an older population that inhabited the island prior to the arrival of newcomers who brought with them the common conical form of pounder. Bennett, for example, opined that features such as the block grinders and stirrup and ring pounders on Kaua'i "seem to indicate traces of an older Hawaiian culture which was covered by the later influx" (1931:96), although he did not wholly discount the possibility of local development. There is nothing intrinsically wrong with such historical explanations, but they have rarely, if ever, been put to empirical tests. It has yet to be demonstrated, for example, that ring or stirrup pounders predate the conical form in Kaua'i Island stratigraphic sequences. Such testing is essential if historical explanations are to be given any precedence over other equally plausible kinds of explanations.

2. The Hawaiian archipelago is reasonably diverse in its environmental characteristics, including basal geology and physical and biotic resources. As a consequence, a certain amount of regional variation evident in prehistoric material culture, resource exploitation, or subsistence practices can be traced directly to environmental factors. For example, as Emory rightly pointed out, the dominance of pearl shell in fishhook assemblages from Kaua'i and O'ahu reflects not so much the predilection of fishhook makers from these islands for shell as the greater availability of this superior material on the ecologically mature reefs of the older, northwestern islands. Similarly, the differential roles of irrigation and dryland field cultivation in the northwestern and southeastern portions of the archipelago reflect a broad geological agegradient of erosion, dissection, and terrain suitable for irrigation. In seeking explanations of regional variation and local style, such environmental correlates should always be sought and evaluated. Because a local pattern or style may prove to be environmentally constrained or determined, however, does not diminish its potential significance.

3. Yet another factor leading to regional differentiation was certainly geographic distance. The classic case of this is clearly Kaua'i Island; indeed, one might argue that Kaua'i's isolation alone is sufficient to account for the existence of so many unique local traits on that island (without having to invoke the old saw of multiple migrations and archaic survivals). Distance, however, can be a more or less powerful factor depending on other conditions, including the level of interisland contact and communication. Hawaiian archaeologists have yet to systematically explore the kinds of evidence that might provide indices of interisland communication over time (such as the frequency of artifacts made of materials traceable to particular local sources, that is, adzes, lava abraders, volcanic glass, etc.).

4. The most intriguing--and least explored--explanation for regional differentiation within Hawaiian culture is the *purposeful invention* or generation of local style and idiosyncrasy by a group of people in

Regional Variation in Hawaiian Prehistory

order to consciously distinguish themselves from other, culturally identical groups. As noted earlier, this is precisely the kind of mechanism that Mead (1967) suggested as accounting for much of the ethnic heterogeneity of Melanesia. As late prehistoric Hawaiian society became increasingly divisive and competitive, at least politically, is it not conceivable that attempts were made to draw distinctions between "us" and "them"? Were such phenomena as the "Kona-style" in temple images and the West Hawai'i emphasis on the Ku cult precisely such attempts at symbolic and ideological distinction? This would appear to be a most fruitful avenue for further research.⁴

In sum, the normative view of Hawaiian culture that has prevailed in ethnographic as well as archaeological studies ignores substantial evidence for regional variation and local style. It is essential to break out of this normative paradigm, and actively exploit the evidence of cultural variation for what it may reveal concerning social process in ancient Hawaii.

NOTES

I am grateful to Professors Valerio Valeri and Roger Green for their insightful comments on an earlier draft of this article.

1. For the sake of clarity, I follow the convention set by Marshall Sahlins of using the spelling "Hawai'i" (with glottal stop) to designate the "Big Island," and "Hawaii" to designate the archipelago as a whole.

2. Earle was clearly aware of the geographic differences in taro irrigation development, for in a subsequent paper (1980) he succinctly summarizes the evidence for local distribution of irrigation systems. Nonetheless, his major monograph (1978)--widely cited in the anthropological literature on chiefdoms--is quite misleading on this point.

3. It is interesting that this provocative paper contrasted the conscious social production of ethnic heterogeneity in Melanesia with the overwhelming cultural homogeneity of Polynesia. On a level of pan-Oceanic comparison, Polynesia does appear as a largely homogeneous unit, yet, as I stress here, it is too easy to overlook the evidence for significant and, possibly, temporally-increasing local group differentiation.

4. In a comment on an earlier draft of this paper, V. Valeri (pers. comm.) drew attention to the fact that any cultural item that differentiates "us" from "them" must be mutually understood as a sign by both parties, and thus "presupposes shared cultural schemes." Hence, the very existence of such differentiating signs demonstrates a certain cultural unity throughout the archipelago, but one that is situated "at a deeper level than the one commonly understood by Hawaiianists." I fully agree with Valeri that the whole question is a complex one, involving theoretical difficulties that should eventually be addressed.

BIBLIOGRAPHY

Bennett, W. C.

1931 Archaeology of Kauai. B. P. Bishop Museum Bulletin 80. Honolulu: Bishop Museum Press.

Brigham, W. I.

1902 Ancient Hawaiian Stone Implements. B. P. Bishop Museum Memoir 1 (4). Honolulu: Bishop Museum Press.

Buck, Peter H.

1957 Arts and Crafts of Hawaii. B. P. Bishop Museum Special Publication 45. Honolulu: Bishop Museum Press.

Cox, J. H., and W. Davenport

1974 Hawaiian Sculpture. Honolulu: University Press of Hawaii.

Dunnell, R. C.

1978 "Style and Function: A Fundamental Dichotomy." American Antiquity 43: 192-202.

Earle, T. K.

- 1978 Economic and Social Organization of a Complex Chiefdom: The Halele'a District, Kaua'i, Hawai'i. Anthropological Papers of the Museum of Anthropology, University of Michigan, no. 63. Ann Arbor.
- 1980 "Prehistoric Irrigation in the Hawaiian Islands: An Evaluation of Evolutionary Significance." *Archaeology and Physical Anthropology in Oceania* 15: 1-28.

Elbert, S. H.

1982 "Lexical Diffusion in Polynesia and the Marquesan-Hawaiian Relationship." *Journal of the Polynesian Society* 91:499-517.

Emory, K. P.

1933 *Stone Remains in the Society Islands.* B. P. Bishop Museum Bulletin 116. Honolulu: Bishop Museum Press.

Emory, K. P., W. Bonk, and Y. H. Sinoto

1959 *Hawaiian Archaeology: Fishhooks.* B. P. Bishop Museum Special Publication 47. Honolulu: Bishop Museum Press.

Goldman, I.

1970 Ancient Polynesian Society. Chicago: University of Chicago Press.

Green, R, C.

1966 "Linguistic Subgrouping within Polynesia: The Implications for Prehistoric Settlement." *Journal of the Polynesian Society* 75:6-38.

Handy, E. S. C.

- 1923 Native Culture in the Marquesas. B. P. Bishop Museum Bulletin 9. Honolulu: Bishop Museum Press.
- 1940 *The Hawaiian Planter.* B. P. Bishop Museum Bulletin 161. Honolulu: Bishop Museum Press.

Handy, E. S. C., et al.

1933 Ancient Hawaiian Civilization. Honolulu: Kamehameha Schools Press.

- Handy, E. S. C., and W. C. Handy
 - 1972 Native Planters in Old Hawaii. B. P. Bishop Museum Bulletin 233. Honolulu: Bishop Museum Press.

Kamakau, S. M.

1961 Ruling Chiefs of Hawaii. Honolulu: Kamehameha Schools Press.

Kirch, P. V.

- 1974 "The Chronology of Early Hawaiian Settlement." Archaeology and Physical Anthropology in Oceania 9: 110-119.
- 1984 *The Evolution of the Polynesian Chiefdoms.* Cambridge: Cambridge University Press.
- 1985a Feathered Gods and Fishhooks: An Introduction to Hawaiian Archaeology and Prehistory. Honolulu: University of Hawaii Press.
- 1985b "Intensive Agriculture in Prehistoric Hawaii." In *Prehistoric Intensive Agriculture in the Tropics,* edited by I. Farrington, vol. 2, 435-454. British Archaeological Reports, International Series 232. Oxford.

Lavondes, H., and J. E. Randall

1978 "Les noms des poissons marquisiens." *Journal de la Société des Océanistes* 34:79-112.

Linton, R.

1925 Archaeology of the Marquesas Islands. B. P. Bishop Museum Bulletin 23. Honolulu: Bishop Museum Press.

Mead, M.

- 1930 *Social Organization of Manua.* B. P. Bishop Museum Bulletin 76. Honolulu: Bishop Museum Press.
- 1967 "Homogeneity and Hypertrophy: A Polynesian-based Hypothesis." In *Polynesian Culture History: Essays in Honor of Kenneth P. Emory*, edited by G. A. Highland et al., 121-140. B. P. Bishop Museum Special Publication 56. Honolulu: Bishop Museum Press.

Prickett, N., ed.

1982 The First Thousand Years: Regional Perspectives in New Zealand Archaeology. Palmerston North: New Zealand Archaeological Association.

Sahlins, M.

1958 Social Stratification in Polynesia. Seattle: American Ethnological Society.

Skinner, H. D.

- 1921 "Culture Areas in New Zealand." Journal of the Polynesian Society 30:70-78.
- 1974 Comparatively Speaking. Dunedin: University of Otago Press.

Spriggs, M.

1981 Vegetable Kingdoms. Unpublished Ph.D. dissertation, Australian National University.

Stokes, J. F. G.

1927 "The Food-rubbing Stone of Kauai, in Connection with Culture Differences in Hawaii." In *Proceedings of the Hawaiian Academy of Science*, 22-23. B. P. Bishop Museum Special Publication 12. Honolulu: Bishop Museum Press.

Valeri, V.

1985 *Kingship and Sacrifice: Ritual and Society in Ancient Hawaii.* Chicago: University of Chicago Press.

Yen, D. E.

1973 "Agriculture in Anutan Subsistence." *Pacific Anthropological Records* 21: 112-149.

54