

BOOK REVIEWS



The Wet and the Dry: Irrigation and Agricultural Intensification in Polynesia. Patrick V. Kirch, University of Chicago Press, 1994. 385 pp., 113 figures, 13 tables, 1 appendix, glossary, notes, and index.

Reviewed by THOMAS J. RILEY, *North Dakota State University*

Patrick Kirch is as near the complete anthropologist as any scholar working in the Pacific today. He is an archaeologist-prehistorian, a cultural ecologist, and cultural anthropologist. The work that he presents here on Futuna and Alofi was begun as dissertation research conducted while he was at Yale University in the mid-1970s. He has continued it over the years since then, and it has more recently been informed by the scholarly style of Bloch and Braudel and the insights of the *Annales* school of French integrative social sciences. It is fair to say that his proficiency in French and his longstanding friendship with Marshall Sahlins has contributed to Kirch's adopting this approach to the data that his fieldwork generated over the years.

The initial field effort leading to this volume was conducted as Kirch's dissertation research back in 1974. At that time he was a young scholar thoroughly inculcated in the natural history mode of research. Kirch had been to the Loyalty Islands when he was in high school in the 1960s, and he knew well that traditional lifeways were still to be found in certain parts of the Pacific. He had studied with Bill Davenport and Ward Goodenough as an undergraduate at the University of Pennsylvania, where he had been imbued with their sense of cultural ecology and field method. At Yale, Kirch had been influenced by Hal Conklin, whose work on the Hanunoo

shifting agriculture and on the evolution of irrigated agricultural systems in the Philippines lives on long after his active presence in the field ended. More importantly, though, Kirch had been a pupil of Douglas Yen for many years through working together in the field and through their association at the Bishop Museum.

Kirch first went to Futuna and Alofi as an ethnoarchaeologist to tease out the details of the first settlement of the western edge of Polynesia from this outlier and to tie it into present patterns of human behavior. Kirch knew in the 1970s that he could wrest patterns from the lives of people, and that the archaeological data that they left behind them over the years could serve to test the hypotheses that he abstracted from what he saw about him and read or had examined in the dusty laboratories of the Bishop Museum and other dark mausolea of esoterica.

In the years that have followed, Kirch, like the rest of us, has matured.

This volume deals with the dynamics of shifting cultivation and irrigated agriculture on the islands of Futuna and Alofi, two islands now in Vanuatu and which are at the border of Melanesia and Western Polynesia. Polynesian in culture, Futunans are closer to Samoans than they are to Fijians to the south and west. The particular fabric of the agricultural systems of Futuna and Alofi, where dryland agriculture is practiced in one district and irrigated agriculture dominates the other, is complex and has led to much more effort in the inten-

sification of the dryland systems than in the initial labor intensive construction and massively increased yields of the irrigated systems.

Kirch is expansive in detailing the nature of these systems, and then he takes three other cases—Mangaia, the Hawaiian Islands, and Tikopia—to show that on the one hand each island group goes through its own history that burdens it in the ethnographic present, but that there are significant regularities that cross each society and that can provide a meaningful understanding of the processes leading to differentiated social structures of various kinds. Kirch does not doubt for a minute that predatory chiefdoms in Polynesian systems are generally located in dryland shifting agricultural systems. Expansion captures irrigated systems where capital, in the form of the stored energy and increased yields of intensive irrigated systems, is ripe for the taking and important to defend. While this does not explain competition in Polynesian social systems—we must look to principles of primogeniture and tension between chiefs of different rank and relationship for that—it does suggest regularities in the development of complexity based on the differing nature of dryland and irrigated agricultural systems.

This sounds rather cut-and-dried and rather traditional in its approach, but that is not the case. Kirch explores the wonderful richness of Futunan society and history, and he is careful to point out that we are dealing with a particular society that has undergone a significant historical trajectory that is important in its own right.

In the late 1960s and the early 1970s, the archaeological endeavor as written in America was often cloaked in the veneer of science. The end product of our research was the elucidation of laws of human behavior, or if that could not be accomplished, at least generalizations that had some statistical backing to them. The particular was there to reflect the universal, and people's lives were led in order to exemplify laws of human behavior that were an immutable part of the evolutionary process. In the particulars that were its

data, the study of prehistory and ethnohistory assisted in this generalizing endeavor or they were useless. This was a kind of scholasticism reminiscent of the Middle Ages when Thomas Aquinas could claim that the order of the universe was the reflection of God's perfection, its ontology only a congeries of accidents.

The realities that those of us who worked in Oceania saw before us were quite different from the theoretical stance that we were asked to take by the paradigm then in vogue. Nevertheless, around us were social and political systems, some whole and others apparently remnant, each of them unique, but all sharing significant features with one another. The naturalist's approach to them was the easiest, and it was also productive of ideas of stability and change over time.

Charles Darwin on H.M.S. *Beagle* noticed the same things in the coral reefs of South America and of Mo'orea. He documented fringing reefs and full barrier reefs, and by the time he saw Mo'orea he could imagine uniformitarian biological, physical, and climatic dynamics that would produce atolls as an intermediate product. In the end, Darwin did not have to see a true atoll to develop a theory of the natural dynamics that created them, and his theory of atoll development has stood the tests of time and withstood efforts designed to negate the theory.

Even as we became aware of the epistemological dangers of having people exemplify natural history in Oceania, it was also clear that there were regularities that worked themselves out quite differently and uniquely in the different island groups that we were fortunate enough to be able to study. It was also clear, however, that each island had its unique history and traditions, and it was these that we failed to do justice to in our writings of that decade.

We were not the first of the anglophone anthropologists to simplify and sterilize the variety of human experience that each oceanic culture represented. The generations before us had produced different tropes, different metaphors, and different screens that simplified the wonderfully rich daily

life of societies that we were privileged to be able to watch and in which we were asked to participate. The Handys, Burrows, and Mead had done their best at "ethnographic reconstruction," while Malinowski presented the ethnographic present in a halo of needs and reciprocities that represented the sociology of his own age. Firth did the same in Tikopia, but his work is exceptional. The decades that he spent in Tikopia made it possible for him to present Tikopia and Tikopians with such intensity and wonder that secondary researchers can tear his metaphors to pieces and start again, safe in the knowledge that Firth's vantage point is now one of an elder in Tikopia.

In this volume Kirch has attempted with some success to encompass both the partic-

ular and the general in his approach to agricultural intensification in Polynesia. Kirch has invigorated a "natural history" approach to Polynesian regularities, but he has managed to make it clear that the regularities that we see are imprinted in the unique histories of each island. What could be, in less skilled hands, a stilted natural history is, under Kirch's pen, a delightful exploration of the agriculture of a particular island cluster. Kirch deserves his status as one of the finest anthropologists working in the Pacific today.

I recommend this book for the professional and for the classroom as well, where it can serve to enrich seminars in the nature of agricultural intensification as well as broader studies of political economy.

Archaeology of a Coastal Exchange System: Sites and Ceramics of the Papuan Gulf. David Frankel and James W. Rhoads, eds. Research Papers in Archaeology and Natural History No. 25. Canberra: Division of Archaeology and Natural History, Research School of Pacific and Asian Studies, Australian National University, 1994.

Reviewed by CHRIS GOSDEN, *Pitt Rivers Museum, University of Oxford*

The south Papuan coast was connected by a large and well-known trading expedition, the *hiri*, which operated until the Pacific War and whose antecedents go back into prehistory. The *hiri* is unusual in that it has been investigated both anthropologically and archaeologically, and considerable attempts have been made to tie the two bodies of information together. This book fills in a gap, in providing hard evidence from the Papuan Gulf region, which was the destination of many of the items traded from the Port Moresby region, but it also suffers from gaps itself, being insufficiently tied together into the larger body of work.

The *hiri* was a complex and fascinating institution that has raised many debates about the form of the exchanges and, more particularly, their motivation. The main structure of the *hiri* is simply stated. Motu-

speaking villages around the present-day Port Moresby area produced many thousands of pots (perhaps up to 30,000) for each expedition. These were taken by multihulled canoes (*lagatoi*) several hundred kilometers to the Papuan Gulf between October and November, where the crews stayed, rebuilding their *lagatoi*, until January, when they returned with many tons of sago. The sago was then redistributed to those within the village and surrounding area, providing food and enhancing the prestige of those who had organized, or taken part in, the expedition. Major questions surround how far these expeditions were motivated by the need for food in the relatively poor area in which the Motu lived, or whether prestige was a crucial motivation. If food is seen as central, then the Motu can be included within a class of specialist traders who were only able to inhabit Central Papua in any numbers because they were able to trade pottery for

sago. This in turn has implications for the history of the system as known mainly through archaeology. Jim Allen, based on his excavations at Motupore Island in the southern Motu area, has emphasized the need for food and has seen the Motu as only being able to live in this poor area because they already had some skill in trade when they arrived and they have built on this over the 700-year history of extensive and intensive trade. The great advantage of the *hiri* is that the major traded item of one of the exchange partners was pottery, which can be characterized and localized to source through an analysis of clays, and it can also help date the history of trade through changing sets of forms and decorations. Up until now, only the Motu end of the trade was known through published data.

Therefore, one of the explicit aims of this volume is to document the recipients of the Motu pots in terms of changing exchange links between people in the Papuan Gulf and different Motuan producers and the overall changes in form and decoration of the pottery. Unfortunately, the major item that the gulf villagers traded, sago, is archaeologically invisible. This volume is therefore mainly about pottery and the sites from which it comes. The volume is divided into two unequal parts, which each describe separately conceived and executed pieces of work. The first was carried out by Frankel and Vanderwal in the Kerema and Kinomere areas between 1979 and 1983; seven sites were excavated in all, six of these around Kerema (although only six sites overall were used in their analysis). The second was in the village of Popo, between Kerema and Kinomere, carried out by Rhoads in 1974 and 1976, the latter season as part of his Ph.D. work.

Each part of the book describes the sites, the history of their excavation, and the finds from the sites, with the major effort going into the analysis of form and decoration of pottery, on the one hand, and the clay composition of the pots, on the other. Most of the sites dealt with are thought to be the result of only relatively short-term occupation of a few generations spread out

over the last 500 years, or perhaps a little longer. The editors make the reasonable point that small, short-term occupations may be much more useful in building chronology than large complex sites, resulting from a mixture of occupations of varying types and periods. However, they also say that they feel the excavated samples from these sites are representative of each site as a whole, a much less justified conclusion on the basis of the evidence from small-scale excavations presented here. As they build their chronological schemes on the basis of the excavated evidence, this assumption has serious implications for their results as a whole. Larger-scale excavations would be needed from some of the sites to test whether the samples recovered in fact do encompass the variability to be found in the site as a whole, especially for those excavations which stopped at the water table, which may contain earlier remains further down.

The major failure of the volume comes in the conclusions, or rather, their lack. A twofold comparison between the aims of the volume and the results presented and the results and the wider literature on the *hiri* led to a double disappointment. The authors hoped to discover changing links between the gulf sites and the Motu pottery producing villages. In fact, little change is indicated, with much pottery coming into all sites from Bootless Bay, where Allen's excavations were situated and with a minor amount possible from the Taurama clays further up the coast. Overall, the analyses of form and decoration show a simplification of both through time, partly due to the increased efficiency necessitated by mass production, which has been noted by Allen in relation to Motupore. No one can be blamed for the nature of their results if they have been sensibly arrived at. However, there is greater complexity in the data both on sourcing and on form and decoration which does not fit these conclusions and which could only be discussed through a more detailed consideration of the results from the Motu areas. There are difficulties here in that Allen's material is not yet published in final form, but much

has been presented and discussed, especially on clay characterizations, which could have been included. Also, the volume as a whole lacks any final concluding statement, so that the parts never come together as a whole. Nor does the volume make the immediate contribution it might have done to studies of the *hiri*, as it is up to the reader to attempt some sort of synthesis with the wider debates. In particular, we get no sense of the motivation of the peoples of the gulf to take part in the trade. It is easy to see why the Motu, lacking in food, would want to trade with people with richer resources, and some hints drawn

from archaeology and/or from oral histories for the gulf would have added a new dimension to the debate.

These criticisms are a little ungenerous, in that at least the volume exists as an account of a piece of archaeology in what was previously *terra incognita*. Future work, either in the field or in writing the prehistory of the Papuan coast, can draw on this volume. However, it is a shame that the editors did not take the work a step further and make more detailed comparison with the evidence from the Motu area or really engage with the broader debates surrounding the *hiri* and its prehistory.

Pots and Palaces: The Earthenware Ceramics of the Noblemen's Quarter of Vijayanagara. Carla Sinopoli. Manohar, American Institute of Indian Studies, New Delhi, 1993. Pp. 243. 57 figures, appendix, bibliography, index.

Reviewed by MIRIAM T. STARK, University of Hawai'i.

It is a rare and wonderful thing for an archaeologist to publish a monograph devoted exclusively to earthenware ceramics anywhere in the world. It is apparently rarer still that an archaeologist should focus on medieval ceramics from Hindu sites, since most studies of this period concern urban planning and architecture. So it is with great pleasure that readers should greet Carla Sinopoli's *Pots and Palaces: The Earthenware Ceramics of the Noblemen's Quarter of Vijayanagara*. This monograph reports on the analysis of ceramics recovered through excavations undertaken by the Karnataka Directorate of Archaeology and Museums (DAM) since 1982. *Pots and Palaces* is one of the few book-length ceramic studies available in Asian archaeology that uses an anthropological archaeological approach.

Three central goals structure Sinopoli's volume: to present detailed typological descriptions of ceramic inventory from Vijayanagara; to offer interpretations of vessel use and function that are based on

direct evidence, analogy, vessel morphology, and technological attributes; and to examine the relationship between ceramics, behavior, and social organization. Sinopoli uses ceramic patterning to analyze activity distributions, social organization, and chronology to accomplish these goals. The study focuses on earthenware ceramics from three areas of the site of Vijayanagara and concentrates on the Noblemen's Quarter (hereafter NMQ). These three areas are all located within the main residential core of this urban capital, but all lie outside the city's royal administrative core. Ceramic patterning in NMQ is compared with patterning in the East Valley and Islamic Quarter in order to examine internal divisions and external bounds within the city.

Several aspects of Sinopoli's study make it unique in Asian archaeology; the first, of course, is that it focuses exclusively on earthenware ceramics. As Sinopoli notes, "most ceramic remains, particularly from Hindu sites such as VJ are . . . simple, plain, and taken individually, quite uninspiring" (p. 1) in contrast to architecture, literary inscriptions, sculptures, and paintings from this period. Her selection of non-elite

areas for study and her use of quantitative archaeological approaches produce new and important findings about the non-elite world of Vijayanagara. *Pots and Palaces* exemplifies a growing intellectual fusion that blends Old World (and art historical) approaches with anthropological archaeological methods of ceramic analysis. Sinopoli's book follows Old World archaeological convention in presenting ample illustrative material, which is so necessary for comparative research. Her book also includes attribute definitions, data tables, and statistical analyses that provide models for future work in the area.

The book contains seven chapters and an appendix (the appendix includes data tables and vessel profiles from NMQ compounds). Chapter 1 reviews anthropological approaches to ceramic analysis that Anglo-American archaeologists commonly employ. In this framework, ceramics are useful not only for developing chronologies; quantitative studies of ceramic patterning can also inform on activity area distributions, on social organization, and on aspects of economic organization such as the scale of production and the nature of distributional systems. Chapter 2 introduces architectural patterning in three areas of Vijayanagara whose ceramics are analyzed: NMQ, the East Valley, and the Islamic Quarter. The NMQ sample includes material from 11 excavated compounds that vary in shape, degree of preservation, and internal organization but share some features. Detailed descriptions of each compound are accompanied by plan views. Sinopoli concludes this chapter by explaining how her ceramic study contributes to broader research on the urban planning and economic structure of this medieval imperial capital.

Chapter 3 summarizes research goals of the study and focuses on the nature of the ceramic sample. Collection methods, depositional contexts of samples, and collection sizes are discussed, with a particular emphasis on the sample from NMQ because it constitutes the main focus of research. Because 1983–1986 excavations in this area focused on architecture, ceramic

collections derive primarily from compounds. The sample has its strengths: analysis of documentary data suggests that some of the NMQ compounds likely burned in A.D. 1565 when the city was sacked, and thereby left systemic (or undepleted) assemblages for analysis.

As is true in most other ceramic studies, this sample has weaknesses that result from excavation procedures over which ceramicists have little or no control. Sinopoli directly confronts and discusses these methodological problems. They include inconsistent data recovery procedures from one area of the site to another, variable depositional contexts (e.g., surface collections versus excavated materials), small sample sizes, and inadequate stratigraphic control in some of the excavations.

Chapter 4 presents an attribute-based ceramic classification of Vijayanagara earthenwares. Discussion focuses first on aspects of ceramic typology, such as definition of relevant variables, description of techniques used, and the presentation of final classification. Ware categories and vessel forms are then described, as is the method for determining vessel shapes using a series of metric measurements and angles. For other Indian ceramicists, this chapter is perhaps the most useful of the volume; it systematically describes attributes used in the analysis and includes numerous illustrations of vessel shapes and rim forms.

Chapter 5 examines the spatial distribution of ceramics within and between compounds in NMQ. Spatial and temporal comparisons are made using variations in overall ceramic densities, ware frequencies, frequencies of vessel-use classes, and rim forms. Sinopoli uses multivariate statistical techniques (such as K-means cluster analysis) to infer various activity areas in the seven compounds of the NMQ. Findings from the ceramic analyses suggest that these compounds served a variety of uses and were occupied for a considerable period of time. The fact that the technological earthenware tradition found in NMQ exhibits remarkable stability over more than two centuries makes seriation efforts frustrating. Some ceramic forms recorded

from the medieval period are, indeed, still found today among contemporary potting traditions.

Chapter 6 compares ceramic patterning between NMQ, the East Valley, and the Islamic Quarter to evaluate community structure at Vijayanagara. The city's ceramic inventory is rather homogeneous, and ware classes differ only slightly from one area to the next. However, variation in shape (called "vessel-use") classes distinguishes these areas from one another. Greater numbers of ceramics in NMQ apparently were used for preparing, serving, and storing large quantities of food than in the East Valley, for example. Differences in serving vessels in the Islamic Quarter might reflect different eating practices, such as the absence of ritual restrictions on using earthenware for dining (p. 122).

Chapter 7 summarizes the earthenware ceramic analysis and discusses the significance of (on the one hand) high technological diversity and (on the other hand) high spatial homogeneity within the NMQ. Sinopoli suggests that the technological variability might reflect ceramic production in small familial workshops rather than in large-scale factory-like operations. No major differences were found in the distribution of particular earthenware forms across NMQ, contrary to expectations.

Barring radical dietary differences across the NMQ, it is not surprising that we see such homogeneity in this suite of utilitarian vessels. Spatial comparisons of other classes of material culture (metal, architectural) might yield different results.

Pots and Palaces is a useful monograph, in the broadest sense of the word. It suffers from typographical problems (e.g., maps that lack symbols), and the lack of terminological definitions occasionally confuses a non-Indianist. These problems and quibbles that Western-trained ceramicists might raise concerning Sinopoli's theoretical approach are relatively minor. Moreover, her reliance on a suboptimal ceramic sample for analysis puts Sinopoli in the same league as the rest of us, who dream of future field seasons with better stratified deposits containing whole vessels. Sinopoli's book provides a clearly discussed rationale for anthropological approaches to ceramic studies and articulates ways in which ceramic analysis contributes to a broader understanding of ancient social and economic organization. Her monograph also provides methods and guidelines for undertaking systematic, attribute-based ceramic analysis. For these reasons alone, *Pots and Palaces* is a welcome addition to ceramic studies in Asian archaeology.