Patrick Vinton Kirch. *On the Road of the Winds: An Archaeological History of the Pacific Islands before European Contact*

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The South Pacific is a geographical concept conventionally embracing the chains of tropical Pacific islands on both sides of the Equator from the Tropic of Cancer to the Tropic of Capricorn. It is also a state of mind. Since the first reports of Captain James Cook’s voyages reached Europe in the mid-18th Century, Europeans of all nationalities have invested these isles and their surrounding seas with the mythic significance of a dreamscape. Blue lagoons, densely forested volcanic peaks, sandy beaches fringed with palms, deep valleys with waterfalls tumbling into pellucid pools, the fragrance of frangipani, hanging vines laden with lush fruits, clear nighttime skies spangled by stars, warm but never searing winds, and always the surrounding warm waters of a gently swelling Pacific—such were the elements of a singularly coherent and singularly consistent image of a remote tropical paradise that soon came to be lovingly maintained by the denizens of the North Atlantic nations’ gloomy farmlands, chilly bogs, and industrializing cities.

These happy Pacific isles were understood to be lightly populated by an innocent, brown-skinned race of muscular sailors and voluptuous women whose eagerness to give themselves sexually to visiting Westerners became legendary. Their inhabitants knew nothing of the dark undercurrent of slavery that from the outset of European contact had clouded the West Indian sunshine. All that was lacking in overly sophisticated, socially stratified, perpetually conflictual, deracinated Europe, all that Europeans had never experienced but passionately desired, they confidently located amid these idyllic antipodes.

Thus, in short order, the South Pacific became a sacred landscape. Thereafter, it became carefully tended on these terms. Much like Tibet a century later (as Peter Bishop—from whom I have borrowed this term—has shown in his fascinating The Myth of Shangri-La), but with less imaginal complexity, the South Pacific remained sufficiently remote, sufficiently unvisited, to offer a free field for the ripest metaphors of Western longings.

Herman Melville inducted Americans by adding fictionalized romances to explorers’ narratives; Omoo and Typee, selectively read, told Western readers what they wanted to hear about innocence and evil in paradise. Many decades later, Paul Gauguin provided an eagerly awaited visual dimension to Western fantasy; beyond that, his defiant
break with the fetters of European society, his highly purposive and self-conscious relocation on the idyllic Marquesas, displaced the working-holiday sailors’ tales with a model of idealized escapism to match his brilliant colors and primordial imagery.

Colonial occupation imposed further cultural definitions of native traditions. In the 20th Century it then became the anthropologists’ turn, from Malinowski to Margaret Mead, to assure Europeans in soberly detailed scientific prose that sexual mores in the South Pacific were as different from those of the industrialized West as the purveyors of imaginary romances had hinted. For a brief interval, during World War II, certain corners of this enchanted seascape became hellholes of pestilent swamps and murderous beach assaults. But the musical South Pacific, despite its unsettling sub-theme of inter-racial love and death, restored the desired equilibrium by establishing that in the land of sunsets over Moorea, enchanted evenings were forever.

Sacred landscapes are not inherently false constructions. They would soon lose their grip on the imagination if their variance from observation too conspicuously persisted. Fortunate vacationers to the South Pacific do find much of what they pay for. What is rather more at issue is the quotient of imagination to observation, the precise dividing line between the two, and the degree to which that line is acknowledged. James Michener’s avidly-read Tales of the South Pacific was only one of many writings to pose these questions. A further characteristic of sacred landscapes, again particularly evident in the case of the South Pacific, is that remaining deviations are characteristically “corrected” through adjusting social reality to the expectations that tourists import with them.

As jetliners and higher incomes have brought the Pacific islands within ready reach of large numbers of short-term Western visitors, the entire region, from “Bali H’ai” to Bora Bora, from Easter Island and “storied Mangareva” to New Guinea’s Sepik River, has been retailored to assure that tourists will experience the “long houses,” the stone faces in the jungle, the sunset cruises, and the torchlit dances they have learned to associate with their “South Pacific”.

But perhaps most notable is that this creation of the South Pacific has been guided throughout by Western concerns. Even within academic circles, the pre-history of a South Pacific untouched by contact with the West has aroused little interest. The University of California’s ninth campus at Santa Cruz, finding all other regions of the non-Western world parceled out among the previously founded eight cam-
pus, established a South Pacific Studies Center, only to see it die of academic and financial inanition within the new campus’s first dozen years.

A small band of dedicated anthropologists to one side, what has fascinated the West has never been the peoples of the South Pacific in and of themselves; rather, it has been the reactions transmitted by the happy few from the West on first encountering its atolls and in its lagoons. The natural ecology and indigenous social institutions of the South Pacific have merely supplied the raw materials that European imagination has fused into a coherent paradisiacal image.

Apart from their intrinsic nature, these raw materials have proved the more malleable to the uncritical creation of a tropical idyll of *dolce far niente* in this region in that the small size of the islands, the absence of a vast hinterland of indigenous peasant cultivators, and the lack of large-scale, complexly organized, resource-rich, and defiantly alien religious and political hierarchies, has given the correspondingly high-ratio European-indigenous interactions a far greater consequence than could ever be the case in Western contacts with the outer margins of Chinese and Indian civilizations.

Tellingly, it is on the huge, mountainous, and formidably forested island of New Guinea alone that Europeans have never claimed to find the lineaments of a tropical Eden. Elsewhere, the West has so completely succeeded in projecting its needs and fantasies onto Oceanic tropical ecology and insular culture that disentangling indigenous social reality from Western fantasies now constitutes a metaphysical quest without reliably objective correctives.

Archaeological anthropologist Patrick Kirch of the University of California at Berkeley has sought to avoid the entrapments of this metaphysical hall of mirrors by bypassing it altogether. His handsome new volume of some 400 double-columned pages, “On the Road of the Winds,” is dedicated to presenting a comprehensive panorama of the prehistory of Oceanic societies.

Using multiple techniques of quantitative and imagistic presentation to complement the text, it distills into coherent patterns a formable array of raw data generated through the application to the Pacific islands of new research techniques. These techniques were developed over the past two decades in the fields of linguistics, biological anthropology, archaeology, physical ecology, demography, and ethnography. Peter Bellwood in 1979, and before him Douglas Oliver, each undertook a one-volume conspectus of similar geographic scope concerning this region. It is a measure of the striking recent methodological break-
throughs in the scholarly understanding of the South Pacific's pre-history that these fine works should now be so completely superseded by Kirch's survey.

But while Kirch's book is impressive for its scope, the sophistication of its analytic precepts, and the vigor of its arguments, it is equally striking for the sources he deliberately eschews. In a methodological proclamation at its outset, he declares that our understanding of the Pacific islanders' preliterate past has been distorted as much by uncritical reliance on retrospective indigenous myths and epics as by fanciful Western efforts to derive an unchanging past from a romanticized version of the societies that the European explorers first contacted.

Neither procedure, he argues, is now necessary. "[A]s the human sciences have matured in the twentieth century," he writes, "we have developed sophisticated methods for extracting historical information from diverse sources lying outside the boundaries of either traditional oral or written histories, sources that open windows on the deep past of 'the peoples without a history'" (3). These methods include such techniques as measuring the rate of diffusion of a language, studies of long-term geological processes, inferences from the evolution of stone and shell tools, evidence concerning the spread of plants, demographic extrapolations in relation to known sources of food, and the like. Such data are more reliable, he argues, than fallible, ethnically biased, romanticized, or topically limited human memory; and they permit more statistical sampling over much longer periods throughout much broader areas. Since no oceanic society was literate before the arrival of the Europeans in the mid-18th century, they are in any case what archaeologists and anthropologists have to work with. It is out of such findings and analyses that his "pre-history" is constructed.

The domain of his study is broad indeed. It extends from the Hawaiian Islands to New Guinea, from Micronesia to Easter Island, though not (despite some scholars' arguments for doing so) to pre-colonial Australia. He does not include the islands immediately offshore from the Asian mainland (e.g., Taiwan and the Philippines) within its ambit, nor any part of Indonesia west of New Guinea despite the cultural and historical connections of the indigenous peoples within that archipelago to Oceanic societies. In the case of Australia, the radically different ecology of its huge desert heartland, effectively isolating its inhabitants from the life of the sea, appears to have been the operative consideration. Exclusion of the East Asian islands seems warranted by their early subjection to mainland Asian cultural influences, of
Indonesia up to the Moluccas by a similar emanation of strong cultural influences from the Indian sub-continent.

But of greater interest to Kirch than where to draw the external boundaries of Oceania is how best to partition it internally for purposes of further study. Traditionally, Oceanic society has been sub-divided into Polynesia, Melanesia, and Micronesia—a categorization first proposed by the French naval captain Dumont d’Urville in 1832 on the basis of the generally darker skin color of the “Melanesians” and the ethnic diversity of Micronesia. But Kirch promptly poses the question of the empirical support for this still generally accepted partitioning—and he finds very little.

To be sure, the Polynesian people do share sufficient racial affinities and linguistic similarities to form a meaningful unit for cultural and historical analysis: in Kirch’s words, they are a “robust phyletic unit” (5). Micronesia lies somewhere in between. But the peoples of “Melanesia”, whether viewed in terms of language, human biological variation, or culture, are “among the most diverse and heterogeneous to be found in any comparably sized geographic space on earth” (5). Attempts to compress their varied societies into a single category on grounds of racial, linguistic, or cultural affinities cannot withstand the most elementary critical scrutiny.

This very diversity suggests an alternative categorization to Kirch that he will thereafter use throughout the book. “Near Oceania” includes, for him, New Guinea, along with the Bismarck and Solomon Islands and certain others in what used to be called the New Hebrides before it became independent Vanuatu. This sector is characterized by extraordinary linguistic and biogeographical diversity. He proposes the term “Remote Oceania”, within which only Austronesian languages are spoken, for the remaining islands of traditional Oceania north, east, and southeast of “Near Oceania”.

This dual partitioning has the added advantage, Kirch notes, of distinguishing New Guinea and its nearby islands, which have known human occupation since the late Pleistocene Era some 40,000 years ago, from islands that archaeological research shows to have been settled no earlier than 1500 BC and in some cases as recently as 1000 AD. Kirch’s terminology may well create, for many readers, the problem that what “Near Oceania” is “near” is not self-evident (one must assume he means Australia). Be that as it may, Kirch thereafter makes use of these dichotomizing categories throughout his book.

The issue of partitioning settled, Kirch turns to methodology. Here
he is at some pains to dissociate himself at the outset from the more extreme "positivism" of a "New Archaeology" insofar as its proponents sought, in the 1960s and early 1970s, to institutionalize a "predictive" archaeology modeled on the experimental natural sciences. Kirch affirms, on the contrary, the obvious point that archaeology and historical anthropology are historical sciences [his italics]: they retrodict rather than predict, and they take into account contingency and chance in human behavior (10).

Kirch's act of dissociation does not strike this outsider as especially fruitful. Surely retrodiction is nothing more than prediction with the arrow of time reversed insofar as it seeks to validate a small set of guiding explanatory hypotheses by showing that their predictions of what should be found is consistent with what is found, and that alternative explanations either do not lead investigators to anticipate the same findings or to do so less efficiently. The role of contingency—of simplifying counterfactual conditional assumptions that may or may not be present in concrete empirical instances—is widely recognized in positivist economic theory; "chance" either refers to events excluded by the purported explanatory domain of the theory or else may be incorporated, as in (positivist) quantum theory in physics, in the form of statistical rather than determinist formulations of a law.

The value of retrodiction as a guide to research first came to the intellectual historian R.G. Collingwood as he was digging amid Roman ruins in Britain in the hope of reconstructing hill-top forts from that long-gone era (cf. Collingwood's Autobiography of an Idea, 1943). Similar arguments have been developed in multiple social and historical contexts by the great Austro-British philosopher Karl Popper. For perfectly good reasons, an investigator may wish to construct a richer narrative of the past than any available hypothetico-deductive model permits. That preference, however, raises issues no different from those that separate "thick-texture" anthropologists and historians from rational-choice theorists in their studies of contemporary society. Those who seek to reconstruct the past are entitled to make a case for an acceptable sacrifice of simplicity and generality of explanatory model to fidelity in accounting for complexly textured observations of fact; but the issue here is one of choice and its costs, not of right methods vs. wrong.

Kirch himself half seems to concede as much in concluding his preface with the thought that "generalization and comparison are also valid aims" (10). And certainly the validity of key conclusions in his subsequent chapters depend on the very retrodiction he repudiates in his
preliminary remarks.

Fortunately, the soundness and rewards of Kirch’s sophisticated synthesis of research on the pre-history of the Pacific Isles does not depend importantly on the persuasiveness of his more generalizing methodological reflections. But it would be quite beyond the compass of a much longer review than this one to attempt to summarize even the leading findings of its many chapters. Perhaps a simple listing of the chapter headings will suffice to convey the impossibility of that undertaking.

His opening chapter reviews the record of anthropological investigations in the South Pacific from the notebooks of Enlightenment voyagers through the field reports of missionaries and colonists to the techniques of contemporary scientific research and the backlash among indigenous groups that it has sometimes provoked. Kirch then makes use of a rich array of photographs, geological cross-sections, distributional maps, bar graphs, climatic charts, microbiotic data, and ecological analyses of human impacts on the island ecosystems to characterize the Pacific Islands as a human environment.

After chapters on Pleistocene voyages to New Guinea and—very much later—the Austronesian expansion throughout “Remote Oceania”, he turns to densely complex expositions of the pre-histories of the “New” Melanesia, Micronesia, and Polynesia and how these differing historical trajectories were constrained by their natural ecologies. These chapters—the heart of his book—are followed by an evolutionary account of the social institutions of Polynesia chiefdoms and some concluding perspectives. A comprehensive bibliography of several hundreds of entries completes the work.

How does the “new archaeology” assist in reconstructing this past? Take the issue of trading networks and their density: recent developments in high-precision spectro-chemical characterization of stones now provides a more solid basis than folklore or mere stylistic similarity for establishing that the numerous basalt adzes used on Mangaia in the Cook Islands in the early years after its settlement could only have come from a specific quarry on Tutuila Island in American Samoa, 1,600 kilometers to the northwest (244).

Another measure of prehistoric human interaction in Eastern Polynesia has made use of comparison of mitochondrial DNA in populations of the Pacific Rat. Charting of the settlement of the Pacific Islands now depends, not on folk epics but on triangulation of independent lines of evidence developed from the diffusion of radio-carbon-
dated tools, linguistic glotto-chronology, and biological investigation of the cultivation of taro and breadfruit (215). Contemporary justification for regarding Polynesians as a “robust phyletic group” derives not solely from the traditionally well-attested historical unity of Polynesian languages but also from a high incidence of pentagonally shaped craniums throughout Remote Oceania, together with an extremely high frequency among all Polynesians of a characteristic 9-base-pair deletion in their DNA.

Moreover, these studies have further established that—contrary to the view of generations of scholars that a fully developed Polynesian culture was brought in to this region from an Asian or South American homeland—it in fact developed within a cultural “bottleneck” in the Fiji-Tonga-Samoa area c. 1000 BC before diffusing eastward (208-214). Perhaps most fascinating, however, has been the application of computer technology to resolve a debate over whether eastward Polynesian expansion occurred as a consequence of accidental drift or of purposive exploration.

Drawing on naval hydrographic records to construct a massive probability matrix of current and wind speeds for specific areas of the Pacific, a three-person team of geographers ran 101,016 simulated drift voyages from known settlements in Polynesia to establish that not one of 16,000 such computer trials from various starting points ended up in Hawai‘i. Only by following a course well to the north could voyagers have reached those islands—a finding strongly supporting the thesis of intentionality in seeking new lands.

Archaeological investigation by such means has also severely qualified any supposition that life in the South Pacific was a continuous idyll for its prehistoric inhabitants. On the contrary, Kirch repeatedly reverts to the demographic evidence regarding the over-population of its islands, the swift exhaustion of their resource base, and the social chaos that thereafter ensued. Numerous plants and animal species were wiped out by their human settlers long before the arrival of the Europeans. Deforestation and soil degradation became concomitants of periodic population explosions in the New Guinea highlands, where malaria no longer acted as a demographic control. The Polynesians’ and Micronesians’ remarkable voyages of exploration were almost certainly not fueled by abstract curiosity, nor even by the search for exotic new commodities with which to enrich their lives, but quite simply by the urgent need to find new living space as existing homelands became hopelessly overcrowded and environmentally degraded.
The closing of the open societies of Polynesia into highly stratified chiefdoms, severely governed through elite power, seems similarly explained through these pressures. Grimmer alternatives were likewise pursued. Warfare and cannibalism were endemic in Melanesia. And in recent years, curiosity about the extraordinary stone statues on Rapa Nui (Easter Island) has led, in turn, to the reconstruction of a nightmarish two centuries from about A.D. 1500 to 1722. This material was forgotten in folk memory but was signaled in middens of charred and fractured bones, depositories of vicious weapons for close combat, and heavily fortified lava tubes. As the island became denuded of trees and the soil exhausted by the large population required to excavate and erect the massive stone carvings, inter-tribal raiding, enslavement, unremitting conflict, and reigns of social terror became the concomitants of a society that had exceeded the carrying capacity of the land.

In a concluding chapter, Kirch responds to sociologist Charles Tilly’s call for attention to “Big Structures” and “Large Processes” to draw together the elements of his preceding account into a form inviting comparative analysis. When viewed from the perspective of Braudel’s longue durée, several major themes emerge from the thickets of sectoral exposition. In some ways most striking is simply the logarithmic expansion of knowledge over the past two decades about the prehistoric Pacific Islands (an impression fortified by the fact that over four-fifths of the entries in Kirch’s huge bibliography are dated from within the last quarter century).

There are, to be sure, continuing dark holes in that knowledge. Most notably, very few artifacts have so far been located on New Guinea to aid in reconstructing a complexly detailed portrait of the first 40 millennia of human settlement on that astonishing island. This is because its Pleistocene colonizers arrived (most probably on rafts and simple dugouts) from Indonesian islands to the west, over water gaps of 90 kilometers and more.

Nevertheless, the outstanding issues now seem to be less what happened in the South Pacific or when it happened than why—and research is already swiftly framing the alternative explanations even to such questions, definitely eliminating some and strongly confirming others. Archaeologists are still not sure why learning remained incubated for so long within the Near Oceanic “voyaging nursery” before the development of the sailing outrigger canoe around B.C. 2000 permitted transport of arkloads of animals and foodplants on order-of-magnitude greater voyages to unknown islands over the oceanic horizon. Nor are
they clear as to why a second lull of three millennia occurred before, c. A.D. 1000, a second burst of exploration and colonization brought the Polynesians to the Hawaiian Islands and Rapa Nui at the outer limits of their realm.

They are, however, now confident they have assembled an array of data and conjectures out of which a structured and generally persuasive explanation should soon emerge. Similarly, a vigorous disagreement persists as to the population of the Hawaiian Islands at the time of Cook’s arrival—was it a million people or a mere quarter of that figure—but the parameters have been established, the kinds of data for resolving such differences have been identified, and the very different ecological implications of each figure seem clear.

Elsewhere, consensus is already swiftly forming. Triangulation of inferences from multiple data-gathering techniques have established the inner unity of Polynesian language, human biology, and culture to the satisfaction of nearly all scholars. The role of demographic cycles of expansion to the limits of natural resources is now generally accepted as a central theme of Oceanic history; the contrast between the inherited-hierarchical statuses of Remote Oceania and the achievement-based “big men” of Near Oceania seems accepted, though the dichotomy is now no longer framed in terms of Polynesians v. Melanesians but rather as one dividing Austronesian-speakers from the somewhat more varied pattern of Papuan-speakers. Whatever the issues still open to debate, archaeological evidence has now established beyond controversy that throughout Oceania the image of a “static”, eternally unchanging primordial society must yield to one that explores the varied dynamic correlations arising from repeated human transformations of the natural ecology of this region.

Even in a work of such scope, such substance, and such analytic richness, it is hard not to regret the omission of themes left unmentioned or barely developed. Kirch nowhere refers to the hurricanes that establish a frightening natural rhythm to life on the sea-level atolls of this region. Nor does he tell his readers much about the astonishing navigational techniques required to steer by the stars in a featureless ocean—a feat of human aptitude so great that the Harvard psychologist Howard Gardner has identified the requisite pattern retention and inferences as one of seven basic forms of human intelligence (Multiple Intelligences, 1993).

Precisely because Kirch has painted on so broad a canvas in On the Road of the Winds, it is inevitable that readers should come to ask why
still more dimensions of human experience have not received attention. That too is one measure of what this remarkable volume has accomplished.

—George Von der Muhll