Introduction

Mine is the migrating bird winging afar over remote oceans, Ever pointing out the sea road of the Black-heron—the dark cloud in the sky of night.

It is the road of the winds coursed by the Sea Kings to unknown lands!

POLYNESIAN VOYAGING CHANT, in J. F. STIMSON, Songs and Tales of the Sea Kings (1957)

N MARCH 1896, AN ENGLISH gentleman-adventurer by the name of F.W. Christian arrived at a place called Madolenihmw, on the southern coast of Pohnpei Island in Micronesia. Having spent some years in Samoa (where he was a neighbor of Robert Louis Stevenson), Christian had heard from that equally famous teller of South Sea tales, Louis Becke, that there existed on Pohnpei "an ancient island Venice shrouded in jungle." Relating his first visit to the Nan Madol ruins at Madolenihmw, Christian wrote, "Passing the southern barricade of stones, we turned into the ghostly labyrinth of this city of the waters, and straightaway the merriment of our guides was hushed, and conversation died down to whispers" (1899:78). The immensity of the ancient town and its stonework, laced with canals, overwhelmed him: "Above us we see a striking example of immensely solid Cyclopean stonework frowning down upon the waterway, a mighty wall formed of basaltic prisms" (79).

Uncertain what to make of these vestiges of the "long, long ages," Christian evoked comparisons with "the semi-Indian ruins of Java, and the Cyclopean structures of Ake, and Chichen-Itza in Yucatan" (80). Almost a century later, archaeological excavations at Nan Madol would reveal a story of the rise and fall of an island civilization.

Although one of the largest and most dramatic archaeological sites in the Pacific, Nan Madol is not the most famous; the gargantuan statues of Rapa Nui (Easter Island) would surely claim that distinction. They too testify to the rise of another island civilization, one whose fate has been hotly debated in recent years—whether Rapa Nui stands as a testament to "ecocide" or to adaptability and resilience. Other Pacific archaeological locales, while known primarily to scholars, are no less significant on the scale of world history. Kuk, a stratified succession of clay layers in the swampy floor of a New Guinea Highlands valley—the

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antithesis of an impressive stone construction like Nan Madol—has produced clues to some of the earliest horticultural activities anywhere in the world, at about 7000 B.C. And at Matemkupkum, a limestone rockshelter on New Ireland, fishbones and shellfish dating back 35,000 years testify to some of the earliest exploitation of coastal marine resources by modern *Homo sapiens*.

These examples hint at the diversity and richness of the Oceanic archaeological record, a legacy that only began to be thoroughly explored, studied, and interpreted in the second half of the twentieth century. In the process, questions that scholars have posed and puzzled over for two centuries and more—Where did the Pacific islanders come from? How did they discover and settle the thousands of islands? Why did they build great constructions like Nan Madol, or carve the Rapa Nui statues?—are finally being answered. This book chronicles the efforts of archaeologists to discover and understand the archaeological record of the Pacific islands and offers a synthesis of what we have found.

My title—On the Road of the Winds—is meant to evoke the countless voyages that underwrote the discovery and settlement of the myriad Oceanic islands. Some voyages were short, others of great duration and hardship, most often made toward the east, hence upwind along countless trackways stretching off into the dawn. Ultimately, the origins of the Pacific islanders trace back to the west, to a period tens of thousands of years ago when cyclically rising and falling ice age seas wrought great changes in the coastal configurations of the Southeast Asian and Australian continents. Much later, other voyagers followed, propelled in their outrigger canoes with sails of woven mats across previously untracked seaways, ultimately to reach the shores of South America. Then too my title invokes not just voyages undertaken by Oceanic peoples themselves—whether by raft, dugout, or double-hulled sailing canoe-but also another kind of voyage: the intellectual voyage of exploration and discovery of the Oceanic past. For this is a past encoded not in written texts but in potsherds and stone tools unearthed from island soils, in the relationships among Pacific island languages, in the cultural and biological variation of hundreds of Oceanic societies and populations dispersed over one-third of the earth's surface, from New Guinea to Rapa Nui, from Hawai'i to New Zealand. Both kinds of voyages—the real voyages of history and the intellectual voyages of the mind—are the concern of the chapters to follow.

Pacific islanders possess their own indigenous forms of history, accounts of ancestors passed down through chants, songs, and oral traditions.1 These oral narratives also speak of voyages, many of epic proportions. There is, for example, Rata, whose great double-hulled canoe, The-Cloud-Overshadowing-the-Border, carried him and his mother. North Tahitiafter many harrowing adventures—back home to Great Vava'u in Upper Havaiki. Or the famous canoe Lomipeau, which transported the massive limestone slabs from 'Uvea Island to Tongatapu, where they were used to build Paepaeotelea (the tomb of Telea). The atoll dwellers of Kiribati recount stories of the voyages of "the tropic bird people" led by Koura, in the canoe Te-Buki-ni-Benebene (The-Tip-of-a-Coconut-Leaf). Such indigenous traditions provide one source of knowledge regarding the Oceanic past, offering insights into cultural motivations. It is an insider's history. Western scholars have long drawn on the historical traditions of Pacific islanders; indeed these offered primary evidence for many late nineteenth- and early twentieth-century syntheses.² But as the human sciences matured in the twentieth century, they 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 history." This book offers an explicitly anthropological history that privileges the archaeological record of human material culture and culturally altered landscapes. It is a history that also draws as appropriate upon the evidence of historical linguistics, comparative

ethnography, and biological anthropology. Let us call it, then, an archaeological history that is equally informed by its sister anthropological disciplines.

Using an elegant metaphor of history as a ceaseless progression of waves of different amplitude, the French historian Fernand Braudel (1980) called the longest of these the longue durée. The "long run" of history, of deep time, tracks the underlying rhythms of economic production, the fundamental structures of society, the seemingly imperceptible fitting of culture to nature, and the manipulation of nature to reproduce culture. In writing his famous opus on another ocean, La Méditerranée, Braudel followed the lead of his mentor Marc Bloc by incorporating nondocumentary sources of evidence, arguing that the history of the longue durée is as much inscribed in the very fabric of the land, and in the patterns of culture, as it is in the written word. Many archaeologists, myself among them, have come to view our work as the writing of such long-term histories, the unearthing of the longue durée.

The deep, strong currents of the longue durée are akin to the great transoceanic swells that sweep the Pacific Ocean from continent to continent. To take the measure of their wavelength requires that we move beyond the constraints of a narrow documentary history, or even of a particularistic archaeology. A *holistic* perspective is called for, one that brings to bear the clues derived as much from the study of *synchronic* linguistic, cultural, and biological variation as from the direct, materialist, properly *diachronic* evidence of archaeology.

Modern archaeology is still less than a century old in the Pacific, but the islands have begun to take their rightful place in the annals of world history. Their longue durée is a rich story, one that our narratives are only beginning to describe—fascinating in its own right but also replete with plots and themes whose historical significance resonates beyond local place and specific time.

This is where I would now take you, on a voyage to the islands of history.

DEFINING OCEANIA

Vasco Nuñez de Balboa gazed out, in 1513, across the Pacific Ocean; Ferdinand Magellan crossed it in 1520-21. By the late sixteenth century the Spanish were annually sailing from Acapulco to Manila and back to New Spain via the North Pacific, yet Europeans had little real knowledge of the Pacific or its thousands of islands until nearly two centuries later, when the epic voyages of Captain James Cook (1768-80) disproved the theory of a great Terra Australis, a southern continent. Cook for all intents and purposes created the modern map of the Pacific. Moreover, he and the gentlemen-naturalists who sailed with him (Joseph Banks, Sydney Parkinson, Daniel Carl Solander, Johann Reinhold Forster, and George Forster) initiated serious ethnographic inquiry into the peoples and cultures of the Pacific islands. These European explorers—part of the great intellectual movement we call the Enlightenment-were amazed to find the islands of the "Great South Sea" well populated by indigenous peoples, many (but not all) of whom spoke related languages. Moreover, these islanders were expert sailors and navigators. Tupaia, a Tahitian priestnavigator interviewed by Cook, named no less than 130 islands to which he knew the sailing directions and relative distances.3 Thus, long before the Spanish and later the French and English, other peoples had explored the vastness of the Pacific, discovered virtually every single one of its habitable islands, and founded successful colonies on most. These island societies-of which "Otaheite" (Tahiti) was the sine qua non-intrigued and tantalized Enlightenment savants, including Jean-Jacques Rousseau and Denis Diderot, who mined the explorers' journals for evidence to support their provocative theories of the human social condition.

One of the last of the naval commanders of this period of great exploratory voyages, the Frenchman Dumont d'Urville, in his "Notice sur les îles du Grand Océan" (1832), classified the peoples of the Pacific islands into three major groups. The first of these were the *Polyne*-

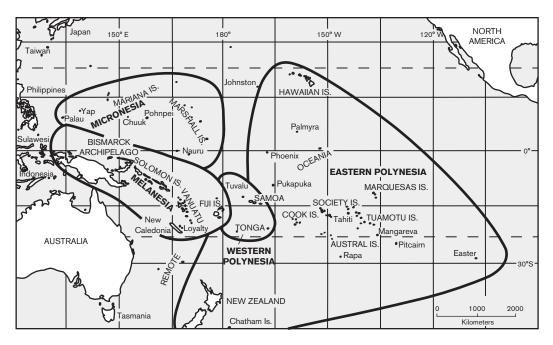
sians ("many islands"), ⁴ a light-skinned people spread over the islands of the eastern Pacific, including Tahiti, Hawai'i, Rapa Nui, and New Zealand. In the western Pacific north of the equator, Dumont d'Urville defined another major group, the *Micronesians* ("little islands"), many of whom occupied small atolls. His third group, whom he called the *Melanesians* ("dark islands"), consisted of the generally darker-skinned peoples inhabiting the large islands of New Guinea, the Solomons, Vanuatu (then the New Hebrides), New Caledonia, and Fiji.

Although based on a superficial understanding of the Pacific islanders, Dumont d'Urville's tripartite classification stuck. Indeed, these categories—Polynesians, Micronesians, Melanesians—became so deeply entrenched in Western anthropological thought that it is difficult even now to break out of the mold in which they entrap us (Thomas 1989; Tcherkézoff 2008). Such labels provide handy geographic referents, yet they mislead us greatly if we take them to be meaningful segments of cultural history. Only Polynesia has stood the tests of time and increased knowledge as a category with historical significance. Probably this is because the Polynesians were defined by Dumont d'Urville as much by their linguistic similarities as by perceived racial affinities. Hence, the Polynesians do form a meaningful unit for culture-historical analysis (see chap. 7).

The labels "Micronesia" and, most particularly, "Melanesia" imply no such culture-historical unity. Whether we are looking at language, human biological variation, or culture, the peoples of Melanesia defy categorization; they are among the most diverse and heterogeneous to be found in any comparably sized geographic space on earth. The historical processes underlying such great variety—which can only be disentangled through the holistic methods of anthropological history—are the subject of this book. Suffice it to say that when the terms Melanesia or Micronesia are used in the following pages, the reference will be exclusively to geographic regions, with no implied ethnolinguistic uniformity.

Dumont d'Urville's three groups, taken together, are generally understood to make up Oceania and usually exclude the islands of Southeast Asia (the Indonesian and Philippine archipelagoes in particular). In some usages (e.g., Oliver 1989), Oceania includes Australia, although that is not the sense here. Island Southeast Asia is usually also regarded as a distinct region from Oceania, even though there are close culture-historical relationships between the indigenous peoples of island Southeast Asia and the Pacific. For one thing, the great Austronesian language family spans both regions. However, island Southeast Asia has had a complex historical overlay of cultural influence from the Indian subcontinent, which is not shared with the islands east of the Moluccas in Eastern Indonesia; this has partly influenced the separateness of geographically focused scholarly traditions. For the purposes of this book, I largely confine my scope to Oceania as traditionally defined (excluding Australia and island Southeast Asia), although at times it will be necessary to look beyond its borders in order to understand fully aspects of Oceanic history and culture.

Two other geographic terms require discussion, for these are relatively new concepts, although they are increasingly used by anthropologists and historians who work in Oceania. These are Near Oceania and Remote Oceania. originally proposed by Roger Green (1991b) in reaction against the historical sterility of the "Melanesia" concept. As seen in map 1, Near Oceania includes the large island of New Guinea, along with the Bismarck Archipelago, and the Solomon Islands as far eastward as Makira and Santa Ana. This is not only the region of greatest biogeographic diversity within Oceania but also that which saw human arrival beginning in the late Pleistocene (ca. 40,000 years ago; see chap. 3). Within Near Oceania, we find peoples who speak both Austronesian and Non-Austronesian (Papuan) languages. Remote Oceania includes all the Pacific islands to the north, east, and southeast of Near Oceania, yet its inhabitants speak exclusively Austronesian languages. The Remote Oceanic



MAP 1 Oceania, showing the traditional cultural regions of Polynesia, Melanesia, and Micronesia. The heavy dashed line indicates the boundary between Near Oceania (to the west) and Remote Oceania (to the east).

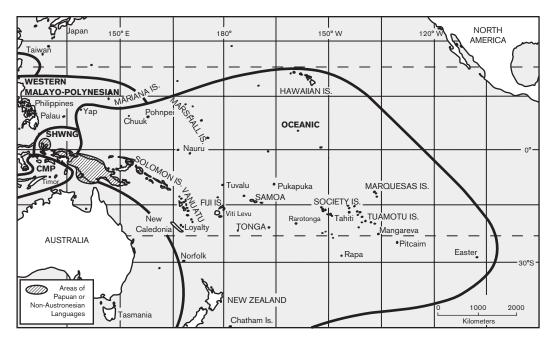
islands were not discovered or settled by humans until after about 1200 B.C., and in some cases as recently as A.D. 1000 (Green 1995). Thus the distinction between Near Oceania and Remote Oceania is not merely a geographic division, but one that encapsulates two major epochs in the history of the Pacific islanders.

LINGUISTIC, HUMAN BIOLOGICAL, AND CULTURAL VARIATION IN OCEANIA

While primarily a work of *history*, this book also seeks an anthropologically grounded explanation for—and understanding of—the synchronic cultural, linguistic, and human biological variation exhibited throughout the modern Oceanic world. Thus a brief introduction to the dimensions of such variation is essential.⁵ I begin with language. The indigenous peoples of Oceania speak roughly 1,200 extant or historically recorded languages. Of these, about 450 belong to the well-defined and geographically widespread *Austronesian* family (map 2). The Austronesian languages (which total

approximately 1,200) are found as far west as Madagascar, and include most of the languages of island Southeast Asia (including the aboriginal languages of Taiwan), the majority of languages spoken in Melanesia outside New Guinea, and all the languages spoken within Micronesia and Polynesia. Moreover, with few exceptions (specifically Chamorro and Palauan in western Micronesia) the Austronesian languages spoken in Oceania all belong to one particular subgroup known as *Oceanic* (Pawley and Ross 1995). This linguistic distribution pattern proves to be of great culture-historical significance, as discussed further in chapter 4.

On the large island of New Guinea, and in a few scattered locales elsewhere in Near Oceania (such as on New Britain and Bougainville Islands), the indigenous languages are *Non-Austronesian*, or, as they are sometimes called, *Papuan* (Foley 1986, 2000). There are an estimated 750 Papuan languages, but these emphatically do not form a single, coherent (i.e., "genetically related") language family, as with Austronesian. Rather, the linguistic



MAP 2 The distribution of the Austronesian and Non-Austronesian (or Papuan) languages in Oceania. The Non-Austronesian languages are situated in the shaded areas, while the heavy lines delineate several major subgroups of Austronesian languages. SHWNG, South Halmahera–West New Guinea; CMP, Central Malayo-Polynesian.

diversity encompassed within the Papuan group is enormous, and several family-level groups ("phyla") are included under this rubric. Many of the Papuan languages are nonetheless historically related (such as those of the Trans-New Guinea Phylum), even though not all of them may have descended from a common ancestral or proto-language. In contrast to the Austronesian languages, the Papuan languages display significantly greater variation and diversity, with profound historical implications. In particular, there had to have been a substantially greater time depth for the differentiation of the Papuan languages, correlating with the much deeper time span of human occupation of New Guinea and Near Oceania (see chap. 3).

Perhaps to a greater extent than in any other major region of the world, in the Pacific archaeologists and historical linguists enjoy a fruitful collaboration. Our data and methods are different and our conclusions are derived independently, but both groups of scholars are concerned with cultural history (Blust 1995, 1996, 2013; Pawley and Ross 1993, 1995). Significantly, his-

torical linguistic work on Pacific languages utilizes the comparative method, a theoretically and empirically well-grounded set of techniques for establishing the "genetic" or historical relationships among a set of related languages, as well as for reconstructing the vocabularies (and associated semantic meanings) of various ancestral or proto-languages (Hoeningswald 1960, 1973; Trask 1996:202-40). Trask (1996:208) calls the comparative method "the single most important tool in the historical linguist's toolkit," and it must not be confused with other methods, such as lexicostatistics, that depend on crude statistical comparisons and may not yield accurate language family histories or relationships (e.g., Dyen 1965). As Pawley and Ross (1995:40-43) explain, the comparative method builds on rigorous comparison of extensive sets of words or morphemes in groups of languages hypothesized to be historically related (cognate sets), thereby determining patterns of regular sound correspondences. Only when such patterns have been carefully confirmed does the historical linguist turn to the task of generating a "subgrouping model" or "family tree" of relationships among the languages under consideration. With such a model in hand, in which branches of related languages are robustly marked by sets of shared innovations, one can begin to reconstruct ancient vocabulary sets and their cultural domains. In this book, I periodically refer to the subgrouping models of Pacific linguists, as well as to reconstructed proto-vocabulary, to assess independently how these stack up against the evidence of archaeology.

Recently, work on the historical relationships of Oceanic and other Austronesian languages has benefited not only from traditional comparative linguistic methods but also from the application of cladistic procedures derived from biology (Greenhill and Gray 2005; Gray and Jordan 2000; Hurles et al. 2003). Although these methods rely on statistical comparisons between word lists, the phylogenetic, or "family tree," relationships they reveal closely match those derived from classical linguistic methods.

Turning to human biological variation, it is risky to summarize the great diversity of Pacific human populations in a few short paragraphs. Earlier in this century, pioneering physical anthropologists sought to classify the diverse populations of the Pacific into a small set of "races," such as Negroid, Negritoid, Australoid, or Polynesian (the latter being regarded as a "mixed race").6 Modern biological anthropologists have shrived themselves of this kind of racial pigeonholing and endeavor to study "populations," using an array of both phenotypic (e.g., anthropometric, dermatoglyphic) and genetic (e.g., mitochondrial DNA, nonrecombining Y-chromosome DNA, blood polymorphisms) characteristics.

The peoples who inhabit Polynesia, while displaying considerable differences in body form, are a relatively homogeneous group when compared to other Oceanic populations. Along with the people of Fiji, the Polynesians generally link together robustly in statistical analyses. Populations distributed within Micronesia are somewhat more varied than those of Poly-

nesia. Most diverse of all, however—almost to the point of defying description—are the populations distributed within the geographic area of Melanesia. "Melanesian" human biological diversity is immense, once having been described by the Harvard anthropologist W.W. Howells (1970:192) as "so protean and varied as to resist satisfactory analysis." As with language, Melanesia (and particularly the part we call Near Oceania) proves to be the most diverse sector of the Oceanic world; this is again an observation with considerable historical significance, since diversity frequently implies great time depth.

Yet the immense biological diversity found within Near Oceania is neither wholly random nor unpatterned. Investigations of genetic variation in this region (e.g., Friedlaender, ed., 1987; Hill and Serjeantson, eds., 1989; Lum and Cann 1998; Merriwether et al. 1999) reveal strong correlations between certain genetic markers and populations as defined on the basis of linguistic criteria (especially the distinction between Austronesian and Non-Austronesian speakers). For example, J.W. Froehlich (1987) used fingerprints (dermatoglyphs), which are highly heritable characters, to look at phylogenetic patterns among Solomon Island populations. He found that "despite an accumulation of . . . local effects, and with local relationships sometimes obscured by sampling variance, the fingerprint gene pools still reflect a broadly geographical and presumably historical distinction between [Non-Austronesian-] and [Austronesian]-speaking people" (1987:206).

A major breakthrough in our understanding of human biological variation in the Pacific came with advances in population genetics and molecular biology, especially through sequencing of mitochondrial DNA (mtDNA) and nonrecombining Y-chromosome (NRY) DNA (Boyce, Harding, and Martinson 1995; Hill and Serjeantson, eds., 1989; Friedlaender et al. 2008; Friedlaender, ed., 2007; Martinson 1996; Martinson et al. 1993; Melton et al. 1998). One of the first major discoveries was that Polynesians and island Southeast Asians shared a particular 9-base pair deletion in

mtDNA, sometimes called the "Polynesian motif" (Hertzberg et al. 1989; Lum and Cann 1998; Lum et al. 1998; Merriwether et al. 1999). This discovery strengthened the linguistic argument that Polynesian origins could be traced back to Southeast Asia, and more specifically to Taiwan. Subsequent work on NRY variation, however. showed that the dominant Y haplotype in Polynesians is likely to be of Melanesian (Near Oceanic) origin (Kayser et al. 2000; Hurles et al. 2002; Su et al. 2000). This apparent contradiction in the mtDNA and NRY evidence can be resolved through a model whereby "Polynesian ancestors originated from East Asia but genetically mixed with Melanesians before colonizing the Pacific" (Kayser et al. 2008:1362; see also Vilar et al. 2008). A period of sustained gene flow between ancestral Polynesian and Melanesian populations is also evidenced by the presence of an α-thalassemia deletion, which confers resistance to malaria. This genetic mutation must have been transferred to the ancestral Polynesian populations in Near Oceania before their dispersal to Remote Oceania, where malaria is generally absent (Hill et al. 1985; Martinson 1996).

The recent molecular research has also made significant contributions to understanding genetic diversity within Near Oceania. The various studies of mtDNA and NRY variation in northern Melanesia support an interpretation of great time depth in this region; microsatellite diversity gives estimated divergence ages of between 32,000 and 50,000 years for haplotypes that developed in Near Oceania (Friedlaender, ed., 2007:92). Moreover, Papuanspeaking language groups (typically inland populations) are genetically the "most distinctive" in island Melanesia (232). These findings correlate well with archaeological and linguistic models of Pleistocene settlement of Near Oceania by ancestors of Papuan-speaking groups, as discussed further in chapter 2.

Culturally, the peoples of Oceania also vary greatly, with similarities and differences that reflect patterns frequently cross-cutting the old categories Melanesia and Micronesia, although again Polynesia stands out as a robust group of closely related cultures. Many aspects of culture are widely shared throughout Oceania, such as a subsistence economy based on tropical root, tuber, and tree-crop horticulture, widely augmented by fishing. Yet within these broad similarities much variation persists: in the emphasis accorded particular crops, in the mode of agricultural intensification, and in fishing techniques. Another aspect of overall similarity is undeniably an emphasis on watercraft and open-ocean voyaging. Yet even here, on close inspection of technological details one finds amazing diversity in the distribution patterns of lashing methods, sail types, and outrigger forms, yielding hypotheses concerning the historical development of sailing traditions (Haddon and Hornell 1936-38; Horridge 1987). For example, the wide distribution of the Oceanic lanteen sail throughout the island Pacific strongly implies that this was the sail type used on the canoes of early Austronesian speakers when they rapidly dispersed into the islands of Remote Oceania beginning around 1200-1100 B.C. (see chap. 4). On the other hand, the restriction of the Oceanic spritsail to Eastern Polynesia shows this is a later, and independent, development. Thus in ethnographically documented patterns of culture as in language and biology—one may read fragments of the history of Pacific islanders.

Other aspects of Oceanic cultures are yet more varied, such as systems of kinship reckoning and descent, spiritual beliefs, and ritual practices. Descent reckoning, for instance, ranges from matrilineal systems, such as those found in parts of Melanesia (e.g., New Britain, New Ireland) and Micronesia (e.g., Truk), to patrilineal systems (e.g., southern Vanuatu and New Caledonia) to ambilineal or cognatic systems (which dominate in Polynesia but are also found elsewhere). A distinction between political organization based on principles of chiefship and those of "big man-ship" was at one time thought to distinguish Polynesian from Melanesian cultures definitively (Sahlins 1963). More ethnohistorically and ethnographically informed work now suggests that true "big man" societies are typical of the Papuanspeaking groups of New Guinea, whereas Austronesian-speaking island Melanesians characteristically had some form of hereditary leadership (e.g., Guiart 1963; Scaglion 1996). But this is not the venue to rehearse a litany of cultural traits and their distributions. Suffice it to say that the cultural patterns practiced by the varied peoples of Oceania are the products of history, a history whose outlines are finally emerging through the insights of archaeology and historical anthropology.

ABOUT THIS BOOK

I close this introduction by addressing what this book is intended to cover, what I have chosen to emphasize, and what I have had to leave out. I am painfully aware of how much simply could not be mentioned in a book that takes as its scope such a vast segment of the world, encompassing more than 40,000 years of human history, perhaps five thousand islands, and a panoply of peoples and cultures. How to reduce the subtleties of data and argument, the complexities of history that have required entire scholarly monographs, to a few succinct pages? Yet grand syntheses are valuable—arguably, essential—in an age of exponentially expanding information, not only in traditional print media, but in cyberspace as well. Only a few committed scholars and students can take the time to read and digest for themselves all the relevant articles, chapters, monographs, and books underpinning a work such as this.

In the end, my choice of what to include and what to ignore—or at best to relegate to a footnote—has been dictated by my own view of what is most interesting in Oceanic history. In this I have taken a broad, generalizing, and above all comparative perspective, for I believe that the long-term human history of Oceania, although inherently interesting in its own right, is worth studying for what it tells us more generally about the human career. My position has long been that archaeology and historical anthropology are *historical* sciences: they *retro-*

dict rather than predict, and they must take account of contingency and chance, as well as general principles and processes of human behavior and evolution. Thus our mode of explanation is properly the "historical narrative," guided by general principles of social science as constrained by empirical evidence (see Mayr 1982, 1997).⁷ But as in our sister historical disciplines, generalization and comparison are also valid aims and goals; we can aspire to more than the documentation of the particular and the contingent. "History matters," it has been said, and I take that simple phrase to heart in the multiplicity of its connotations.

Hence I have tried to keep my writerly vision on the far horizon while not neglecting too much the local particulars on which valid generalization and comparison must always build. This means, however, that some particulars, such as the details of artifacts and artifactbased sequences, will be touched on only lightly. Rather, I emphasize aspects of the archaeological record that I personally find of greater utility in comparative synthesizing: settlement patterns and their ideologically indexed architectural components, evidence for economic systems and their intensification, patterns of population growth, paleoenvironmental indications of land use and misuse, and material signals of interaction between island groups, whether over shorter or longer distances, to name a few.

The structure of this book and the coverage given to some regions and temporal periods also inevitably reflect the history and current state of archaeological research in Oceania. The Pleistocene period in Near Oceania, for example, has only been revealed through archaeological research since about 1985; the number of excavated and well-published sites still remains limited. Polynesia stands in striking contrast, because both surface and stratigraphic archaeology have a much longer history there, for which the published literature now runs to thousands of citations. Consequently, my treatment of the Pleistocene in Near Oceania is limited to a single chapter of modest length,

whereas Polynesia commands two chapters. Near Oceania is not less intrinsically interesting; it will simply require more decades of hard and concerted effort to build up an archaeological record comparable to that of Polynesia.

Such then are my biases, as well as the constraints imposed by the state of our knowledge. *Caveat lector.*

A NOTE ON DATES AND TIME

Professional archaeologists agonize over the complexities of radiocarbon and other techniques of "absolute" dating, painfully aware that the conversion of such "dates" into actual calendar years is not straightforward, and in fact often problematic. Because this book is intended for a broad audience, I generally avoid representing time in radiocarbon years, although in some cases it is necessary (or important) to do so. Whenever

radiocarbon years are given, these are "years before present" (B.P.), and a standard deviation is also provided if a specific age determination is being cited. It needs to be noted, however, that with radiocarbon dates the "present" in "before present" is standardized to the year 1950. In the tables of sites, time spans are also given as B.P. ages or ranges, since these are based on radiocarbon dates: the interested reader should consult the references provided in the tables for specific ¹⁴C dates and calibrated age ranges. Otherwise, I have used the more familiar B.C./A.D. system for general time periods. The reader should bear in mind, however, that such "calendar" dates have usually been derived from radiocarbon age estimates and their calibrations and therefore do not have the precision associated with dates derived from historical (written) texts. In most cases, general ages given for sites or phenomena have been rounded out to the nearest century.