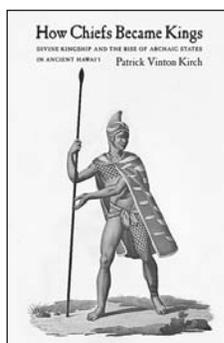


eyebrows. How does one reconcile the broken statues on the ramps of the *ahu* with that of proposed gentle handling? Cauwe introduces the concept of “flexion” or that of material stress and eventual fatigue as the head of the prone *moai* is elevated above the ground for a prolonged period before it simply drops off. A fuller argument with a consulting engineer will likely be required to convince a skeptical readership.

In the final section, the reasons for the demise of ancestor worship and its replacement with a more generalized religion are discussed. What role did deforestation and climate change play in this mostly peaceful revolution? While the interplay of events and the reasons for their occurrence still remain unclear, the change of several basic interpretations about what happened in prehistory will cause us to continue with a lively dialog.

Kirch, Patrick V. *How Chiefs Became Kings: Divine Kingship and the Rise of Archaic States in Ancient Hawai'i*.



Berkeley: University of California Press, 2010. 288 pp. ISBN 978-0-5202-6725-1. US\$39.95 (hardcover). E-book version available at www.ucpress.edu

Review by Timothy M. Rieth, *International Archaeological Research Institute, Inc.*

Patrick Kirch is in a select group that includes very few people who can boast of 40+ years of research and ponderings about the prehistory and history of the Hawaiian Islands and their context within Polynesia. *How Chiefs Became Kings* is a synthesis and culmination of themes and ideas, both methodological and substantive, that Kirch has been publishing on for decades: a holistic historical anthropology incorporating multiple approaches and data sets; delineation of an ancestral Polynesian baseline from which unique cultural innovations can be determined; the interaction between environmental variants and socio-cultural patterns; the development of monumentality; agricultural expansion and intensification, and its relationship with demography, and; Polynesian chiefdoms. As indicated by the book's subtitle, Kirch's stated objective is to overturn “received anthropological wisdom” that has classified Hawai'i as a complex chiefdom, and to present evidence supporting the thesis that by the late 19th century, just prior to Western contact, “Hawai'i

consisted of three to four competing archaic states, each headed by a divine king” (pg. 2). Although not the first to take this position (e.g., Hommon 1976), Kirch has produced the most comprehensive argument incorporating some of the latest archaeological data. As a whole, he presents a plausible argument for classifying pre-contact Hawai'i as a state (based on his stated criteria), and as such, will assuredly foster debate and continued analyses on this issue.

How Chiefs Became Kings is structured in five chapters, beginning with a definitive chapter on archaic states in general. This chapter also situates contact-era Hawai'i in relation to its phylogenetic predecessor, the reconstructed ancestral Polynesian society. Chapter 2 relies on the historical accounts of Hawaiian scholars, Western voyagers, Western missionaries and merchants, and ethnographic and historical scholarship to characterize Hawaiian society at the time of European contact. Chapter 3 uses traditional Hawaiian genealogies and traditions to trace the political developments in Hawaiian society for the centuries leading up to the late 19th century. Archaeological data are presented in Chapter 4 to reconstruct demographic trends, variations in agricultural systems and resource production, the development of religious and elite centers, and ultimately the emergence of archaic states. The chapters preceding Chapter 5, the final chapter, present evidence from multiple complementary approaches to create a narrative description of “how” and “when” archaic states developed in Hawai'i. The final chapter is Kirch's attempt to move beyond the historical description and provide an explanation (“why”) for Hawai'i's unique regional sociopolitical development.

The data presented in the first four chapters address the six criteria Kirch proposes for archaic states: 1) well-developed class endogamy; 2) ruling by kings, typically with godly ancestry; 3) central control of political economies by the king's bureaucracy; 4) state cults with a formalized temple system and full-time priests; 5) a kingly monopoly on force and retention of a standing army, and; 6) royal residences with privileges and luxury goods provided by full-time specialists. Based on these characteristics, Kirch provides a convincing compendium of data for the pre-contact development of archaic states in Hawai'i. Pulling from Hawaiian chiefly genealogies and traditions, historical accounts, and archaeology, evidence for each of these criteria is presented. In the end, it is clear how unique Hawai'i was from its Polynesian cousins in terms of complex social organization.

Kirch approaches his explanation for the development of archaic states in Hawai'i by discussing proximate and ultimate causes, citing Mayr (1997). He places proximate causation in the decisions, actions, and intentions of individual *ali'i* (kings), as they are recorded in genealogies and traditions. Ultimate causation

is posited to include demographic expansion, the environmental constraints on production systems across the islands, differences in production and intensification between wet and dryland agricultural systems, birth rank ordering, and sibling rivalry (the latter two being pervasive in Polynesian societies).

I feel that it is important to quote Mayr (1997:119) at length on the distinction between proximate and ultimate causation:

Proximate causations impinge on the phenotype, that is on morphology and behavior; ultimate causations help explain the genotype and its history. Proximate causations are largely mechanical; ultimate causations are probabilistic. Proximate causations occur here and now at a particular moment, at a particular stage in the life cycle of an individual, during the lifetime of an individual; ultimate causations have been active over long periods, more specifically in the evolutionary past of species. Proximate causations involve the decoding of an existing genetic or somatic program; ultimate causations are responsible for the origin of new genetic programs and their changes.

Following Mayr's definitions, it seems that Kirch's stated ultimate causative factors should be considered proximate causes. By definition, ultimate causation calls upon a (Darwinian) evolutionary explanation. The actions of individuals would also fall in this category, as Kirch states, but ultimate causation must explain why a particular behavior (e.g., increased social complexity, aggressive territorial expansion, etc.) is selectively advantageous. It is clear that the large dryland field systems on Hawai'i Island and eastern Maui required a significantly greater amount of labor investment than the wetland systems of the western islands, and that the per capita agricultural return for sweet potato was still less than wetland taro cultivation (and apparently diminishing through time). On top of these factors, the inherent risk and uncertainty for rain-fed agriculture was higher. But why did this lead to an increase in the scale of social organization? And why was aggressive behavior from leeward chiefs, so well attested in the oral traditions, advantageous. Why not cooperation? Certainly the costs of being aggressive and losing would have been of consequence (losing territory and resources or losing one's life), so why is there evidence for this behavior among the Hawai'i Island and eastern Maui *ali'i*, in particular, by late prehistory?

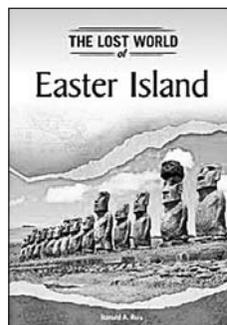
Setting aside what I feel are still-lingering questions, *How Chiefs Became Kings* is an incredibly important addition to the Hawai'i and Pacific anthropology/archaeology canon, as well as the larger literature on complex societies. As an archaeologist, I am excited at the prospect of the assessment of future archaeological data against Kirch's explanation. Assuredly there will be critiques of Kirch's work (see Dye 2011, for example), and that should be fostered as part of the scientific process. From that perspective, this book will be a contributing catalyst for future research that will further our understanding of Hawai'i's past, and perhaps the processes of prehistory in general.

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Reis, Ronald A.

The Lost World of Easter Island.



New York: Chelsea House/Infobase Learning, 2011. 116 pp., color and black/white photos, maps, index. ISBN: 978-1-60413-972-2 (hardcover). US\$35. Available from www.amazon.com.

Review by Georgia Lee,
Easter Island Foundation.

This book is written for “young adults” aged 11 and up. Reis devotes the first chapter to Polynesian Wayfinders, a nice introduction about Polynesian sailing and wayfinding. The following chapters describe Easter Island and its geology and resources, social organization, and ceremonial sites. A discussion of the collapse and the impact of Western cultures follows, and the book ends with “The Lost Century”, and “Research and Renewal”. A Chronology, Timeline, Glossary, and Bibliography are included.