

TAKING THE HIGH GROUND:
THE ARCHAEOLOGY OF RAPA, A FORTIFIED
ISLAND IN REMOTE EAST POLYNESIA
Edited by Atholl Anderson and Douglas J. Kennett, 2012.
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Taking the High Ground brings together diverse datasets to construct a preliminary prehistory of Rapa Island. Separated into fourteen chapters authored by thirteen individuals, the volume presents the results of a single season of fieldwork addressing issues surrounding the timing of island colonization, paleoenvironmental change, and the origins and development of fortified villages (pp. 17–19). The volume has many positive elements, even though the authors realize the limitations of their data, which are made explicit in the introduction (pp. 19). Above all, this volume illustrates the potential for archaeological research on Rapa and the interesting prehistory of the island; providing a firm foundation from which future research can proceed.

The volume begins with a short introduction and a well-written and informative ethnohistory in Chapters 1 and 2. In these, the reader finds a summary of the limited archaeological research that has been conducted on the island, as well as a justification for the present work. The discussion of ethnohistory in Chapter 2 is particularly important because various authors in the volume revisit this dataset in interpreting their findings.

The results of extensive investigations of the coastal flats and interior uplands are presented in the remaining chapters. Using data gathered from these two locations, authors attempt to identify and explain patterns in Rapan prehistory with multiple lines of evidence and methodological techniques; a major strength of the volume.

Chapter 3 (Archaeology of Coastal Sites) and Chapter 12 (Archaeology of Rapan Fortifications) provide detailed information about each area investigated. The reader should keep in mind that this study was extensive, geared toward documenting the temporal and spatial variability of archaeological remains across the entire landscape. As such, the detail included is somewhat restricted but builds upon previous research. Some readers will likely be interested in additional information that is missing from this volume, such as artefact counts, additional data on radiocarbon dates (e.g., date ranges), and metric attributes of individual features (e.g., terraces, pondfields). Nevertheless, these chapters, generally, contain data needed to understand the results and assess the interpretations of analyses presented in subsequent chapters.

A cultural chronology for the island, based on an im-

pressive corpus of 65 radiocarbon dates, is presented in Chapter 11. The authors use Bayesian techniques to model important cultural phases in Rapan prehistory: colonization, coastal expansion, initial fortification construction, and two phases of fortification expansion. For the most part this is done well and the results of the Bayesian analysis appear valid; though, there may be some potential issues. The use of unidentified wood charcoal could lead to inaccurate probability distributions of individual dates and phase boundaries. Inbuilt age of dated wood may reflect the death of the wood as much as 200–300 years before the archaeological event thought to be dated (Allen and Huebert 2014; Allen and Wallace 2007).

The inclusion of certain determinations within the colonization phase is also questionable. The determinations placed in this phase are from the lowest cultural deposits of Tanagrutu, but the inclusion of all dates from basal deposits may be unwarranted given the stratigraphic complexities of the rockshelter (pp. 53–63). It seems reasonable only to include the two deepest determinations in this phase, UCIAMISS-14769 and ANU-11850, with all other determinations marking expansion and continued use in the rockshelter. This would reduce the size of age distributions for boundaries, the present width of which is identified as problematic by the authors (pp. 196). This, though, is a question of semantics, as the term colonization can be defined in many ways and is a process (Graves and Addison 1995), and my questions may reflect a definitional bias. The modelled dates of initial human use of the rockshelter and the island seem valid on present evidence. One caveat, dated material in association with *Colocasia* pollen in a coastal marsh reported in Chapter 10 suggests a slightly earlier colonization than modelled (pp. 180).

The results and implications of the analyses of varying amounts of mammal, bird, reptile, fish, and marine mollusc remains are presented in Chapters 6–9. The bulk of faunal material was collected from the Tangarutu rockshelter site, with much smaller and temporally restricted assemblages from other rockshelters. Using this limited dataset, some temporal patterns are identified and discussed in Chapter 7 and 8, and a very interesting and thought-provoking argument for changing patterns of marine resource exploitation based on algae growth and marine ecology is posited in Chapter 9.

While this explanation is certainly a viable hypothesis, it is difficult to fully evaluate given the lack of faunal material from locations apart from the Tangarutu shelter. Complexities of site chronology within the Tangarutu deposit are another limiting factor, and a discussion of how patterns of marine fauna exploitation fit within the absolute chronology of the site is not attempted. On their own, readers are likely to have difficulties correlating the discussion of spits and levels with radiocarbon dates because of the apparent overlap between dates from marked-

ly different stratigraphic contexts (Chapter 11: pp.193, Table 11.1). For instance, dates from 23–25 cmbs (UCIAMS-14768; Level I?) and 123cmbs (UCIAMS-2197; Level III?) in E2 are indistinguishable. An analysis of these faunal assemblages based on arbitrary splits or cultural levels can be useful for illustrating patterns, but the explanation of these patterns is dependent on more precise rates of the change that inform on the persistence of exploitation strategies. In reading, I often questioned whether it was possible that patterns reflect changes in site use more than changes in marine ecology. Still, the authors should be commended on creating interesting and testable hypotheses.

Paleobotanical studies are presented in Chapters 4 and 10. The recovery of a paleobotanical record is one of the strengths of this project and these chapters are valuable, but they should be read in conjunction with a more comprehensive study published elsewhere (Prebble *et al.* 2013). Of particular interest is the documentation of *Colocasia esculenta* in wetland environments dating to the colonization era (Chapter 10). The cultivation of starches may have been essential for survival upon colonization, as has been argued by others.

The late pre-contact population size on Rapa is estimated based on the distribution of irrigated pondfields in Chapter 13, the extent of which was defined using high resolution satellite imagery. In general, the authors do well to make their assumptions clear, creating a useful, though in my opinion quite conservative, population estimate. According to my reading of the methods, areas of former and modern cultivation were outlined based on visual inspection of the satellite imagery. A discussion of the explicit criteria used to identify the modern and pre-contact extent of these systems, with accompanying figures, would be useful, though some preliminary statements are provided (pp.238). The pre-contact population estimate is built on the assumption that wetland taro production generated 80% of the subsistence economy (pp.239). This assumption may overestimate the importance of wetland cultivation compared to other strategies of cultivation, such as shifting cultivation conducted on the dryland slopes. The underestimation of 'less intensive' cultivation techniques is a known issue in the examination of Pacific production systems (Leach 1999), and this is recognized by the authors (pp.242, 244).

An important feature of the archaeological record of Rapa is the presence of organic artefacts (Chapter 5). While this organic assemblage, which includes unique fishhooks constructed of candlenut shell (Chapter 9: pp.146–149), is small, analysis begins to address the ethnobotany of pre-contact Rapan society.

The final chapter of the volume is a synthesis that provides a working prehistory of Rapa Island. Much of the chapter summarizes and expands on arguments developed throughout the volume, while one section, 'The subtropical depriment' provides a more general argument about the island's prehistory. The authors illustrate the difficulties

involved in making a living on the island, and provide a reasonable explanation for the proliferation of conflict and competition suggested by the construction of fortified villages. However, it is important to point out, as the authors likely recognize, that the island also possesses attributes that enhance human settlement and productivity, such as the zones within which irrigation could be practiced. This too, though, creates an environment conducive for the evolution of competitive behaviour since these zones are highly circumscribed.

The overall goal of the volume was to assess how a group of Polynesian colonists adapted to and developed within the constraints, and opportunities, dictated by a subtropical environment. The authors have succeeded in accomplishing this goal. Readers could question some interpretations or be interested in additional detail, but this does not, and should not, detract from the importance of the volume in providing a valuable contribution to Pacific archaeology and a baseline from which future research on Rapa may proceed.

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KUA'ĀINA KAHIKO – LIFE AND LAND IN
ANCIENT KAHIKINUI, MAUI

by Patrick Vinton Kirch

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Not your typical archaeology text, *Kua'āina Kahiko – Life and Land in Ancient Kahikinui, Maui* is an account of 17 years of fieldwork in the rugged backcountry of Maui in the land division of Kahikinui in the Hawaiian Islands. *Kua'āina* translates to 'hinterlands' or 'countryside,' and *nā kua'āina* were the inhabitants of this harsh, windswept region, around which the book is centred. The author takes us on his journey to delve into the history of Kahikinui, providing a step-by-step narrative of how his research unfolded and the many twists and turns of archaeological discovery. Woven into this saga are the data and empirical evidence that archaeologists crave, as well as the story of a parallel struggle that was taking place amongst the grass-roots community organization, Ka 'Ohana o Kahikinui.

The story begins in 1966 when the author celebrated his 16th birthday in 'Ulupalakua, Maui, one of the gateways to Kahikinui. Circumstances would have it that he would return to the region as an adult and befriend the leaders of Ka 'Ohana o Kahikinui, a group of Native Hawaiians striving to reclaim the lands of their ancestors. As he carried out his own research, Kirch was earnestly involved with the organization's efforts, attending countless meetings, including community members in fieldwork, sharing his maps and data, and ultimately playing a significant role in furthering their cause. In turn, the wisdom that was shared by the *kūpuna*, the Hawaiian elders, helped to unlock some of the mysteries he had been pondering for decades and factored into many of his interpretations. This approach of actively engaging with the community is so important in our line of work, though often overlooked or underappreciated by the practicing archaeologist.

The book is organized both topically and chronologically, taking us from the initial settlement of Kahikinui to its abandonment in the late nineteenth century. Areas of interest include dating methods in Chapter 6, subsistence practices in Chapter 8, habitation sites in Chapter 9, population studies in Chapter 11, religious/ceremonial architecture in Chapter 13, and interpretations of post-contact structures in Chapters 15–17. Conclusions are based on the documentation of more than 3,000 archaeological sites in a 25 square kilometre area, interdisciplinary research from fields as diverse as soil science and archaeoastronomy, as well as a corpus of more than 200 radiocarbon and U/Th dates from the Kahikinui region. Also included are valuable discussions of the traditional Hawaiian calendar and

indigenous view of time, Polynesian voyaging, astronomical observations, the history of war and conquest on Maui, as well as spiritual beliefs and practices of times past. The book is perfectly balanced between science and culture, and they work together to magically bring the ancient Kahikinui community to life.

One of the great strengths of *Kua'āina Kahiko* is its accessible, almost conversational style, while at the same time the presenting a great deal of scholarly content and little-known facts about Hawaiian archaeology. The reader shares in the excitement as Kirch enthusiastically described his discovery of a *pāmānā*, or notched wall used for navigational purposes, a site type never before documented in the archaeological literature. I felt his pain as he recounted trekking for hours over the thorny lantana-covered lava slopes, carrying heavy gear in the blazing heat. I smiled as he described all the characters he met throughout the years, from the tough, determined leader of the Ka 'Ohana group, to his vivacious archaeologist colleagues. I got chills as he reminisced of a moonless night spent camping within the ruins of an old church, witnessing one of the elders chanting fervently into the howling wind while the others were asleep. The quality of the storytelling served to virtually transport me from my stuffy office to Kirch's world of adventure and discovery.

To a fellow archaeologist of Hawai'i, the sheer volume of research undertaken and presented in this volume is extremely impressive. To survey vast expanses of rough terrain and map thousands of sites with a plane table and alidade is a feat in itself, not to mention the extensive excavations and subsequent laboratory work and data analyses that were conducted. To have completed this amount of work is an accomplishment that cannot be underestimated and the resulting publications have made a huge contribution to our field.

In sum, *Kua'āina Kahiko – Life and Land in Ancient Kahikinui, Maui* appeals to a wide audience and would be appropriate for the professional archaeologist, student, historian, or the broader public. It details the journey of one archaeologist as he embarks on a project of massive proportions, his findings along the way, and the concurrent efforts of Ka 'Ohana o Kahikinui to reconnect with the land of their ancestors. I appreciated the use of Hawaiian words interspersed throughout the text, and the glossary at the end is helpful for those unfamiliar with the language. Two useful appendices are also provided – a catalogue of historic maps of Kahikinui and a list of Hawaiian place names. The one thing I longed for was to see the beautiful photographs throughout the book displayed larger and in vibrant colour. But in all, *Kua'āina Kahiko* is an informative, entertaining, and thought-provoking contribution to the archaeological literature and a brilliant homage to Kirch's beloved Kahikinui. A final plus is the happy ending for the Ka 'Ohana group, as the Department of Hawaiian Homelands did eventually award leases to the Kahikinui families. Now the legacy of *nā kua'āina* will endure.