

# Rediscovering Heritage through Artefacts, Sites, and Landscapes:

Translating a 3500-year Record  
at Ritidian, Guam

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Access Archaeology



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## Preface

This book is based on research since 2005 at Ritidian in Guam, synthesised here with all of the most current information and building substantially on prior published work. In April 2015 at the meeting of the Society for American Archaeology in San Francisco, Richard Pettigrew advised that I needed to explore more about the oldest site layers, and accordingly now more information is available. Meanwhile, the research expanded to cover more of the geographic extent of Ritidian. In August 2016 at the World Archaeology Congress in Kyoto, Jim Specht recommended for me to work on a comprehensive summary of all of the site findings, noting that many aspects needed to be articulated more clearly. The research findings indeed have been complex, and I am grateful for the opportunity to offer this book as a way to communicate the results.

External funding was granted by the Guam Preservation Trust (2008–11) and by the Chiang Ching-kuo Foundation (2015–16). Meanwhile, the requisite research permits were organised with the U.S. Fish and Wildlife Service (USFWS). Most recently, the studies at Ritidian have been accommodated within my assigned scope of work at the Micronesian Area Research Center (MARC), University of Guam (UOG), with special thanks owed to MARC Director Monique Storie, UOG President Robert Underwood, and UOG Senior Vice President Anita Borja-Enriquez.

I am indebted to the many professionals at Guam National Wildlife Refuge (GNWR) who have strengthened the research program and who have worked exhaustively with me in the field. In particular, Brian Leon Guerrero was intensively involved in the research, and Emily Sablan breathed life into the practical public outreach. Further support at Ritidian came from Steve Abele, Chris Bandy, Laura Beauregard, Matt Brown, Jeried Calaor, Jorie Clark, Jennifer Cruce, Gabe Cruz, Ryan Deregner, Gerry Deutscher, Chris Eggleston, Joey Flores, Larisa Ford, Lauren Gutierrez, Latasha Hawk, Kyle Ngiratregd, Spencer Reardon, Ashley Riedel, Mariana Sanders, and Joe Schwagerl.

Several colleagues have offered insights, encouragement, and inspiration throughout the years of investigations. I was fortunate to work in the field with Hiro Kurashina and Dick Randall, whose prior research in many ways created the foundation of the work presented in this book. Additionally, Hsiao-chun Hung provided ongoing guidance, and she participated in an excavation session during May–June 2016. Further influential colleagues have included Vic April, Rosanna Barcinas, Jim Bayman, Lon Bulgrin, John Castro, Jeremy Cepeda, Bill Dickinson, Boyd Dixon, Judy Flores, Fran Hezel, Leonard Iriarte, Maria Kottermair, Patrick Lujan, Rita Nauta, John Peterson, Joe Quinata, Clynt Ridgell, Ben Santos, Rlene Steffy, Rebecca Stephenson, Brett Storie, and Dominica Tolentino. Numerous students from University of Guam, University of Hawai‘i, and elsewhere hopefully have retained fond memories of Ritidian, and ideally many more people yet will share in similar experience.





# Chapter 1

## Life, Lore, and Landscape of a Stirring Place

Ritidian or Litekyan is known as a place where people can engage first-hand with a unique landscape that has evolved through thousands of years of inter-related natural and cultural history, but how did this extraordinary landscape come to exist as it does today? The current work here concentrates on the contributions of archaeology for learning about the landscape heritage at Ritidian, while multiple perspectives and lines of evidence must be acknowledged as building a sense of what this special place means to people today. Beyond appreciating Ritidian as a complex site in itself, extensive research now has revealed the entire scope of cultural presence in the larger region, in essence constituting the framework for discovering or rediscovering an impressive depth and breadth of heritage.

In the northwest tropical Pacific, at the north end of Guam, Ritidian embodies the stories of the many people who have lived, worked, and visited here over the course of more than 3500 years (Figures 1 through 3). Their stories encompass the first footsteps on these remote shores, construction of a complex village, entanglements with foreign imperial powers, and much more. Their episodes of creativity, triumph, and heartbreak are embedded in the landscape itself, as witness to Guam's treasures of cultural and natural history.

Ritidian contains tangible material evidence from every time period of human presence in the Mariana Islands, all preserved in one place and providing a complete narrative of how people have lived in this remote corner of Pacific Oceania. These exceptional qualities make Ritidian ideal for learning about a deep heritage. The different pieces of information, however, are not all immediately accessible or comprehensible today, and hence this book offers a way for people to engage with the invaluable records of the past.

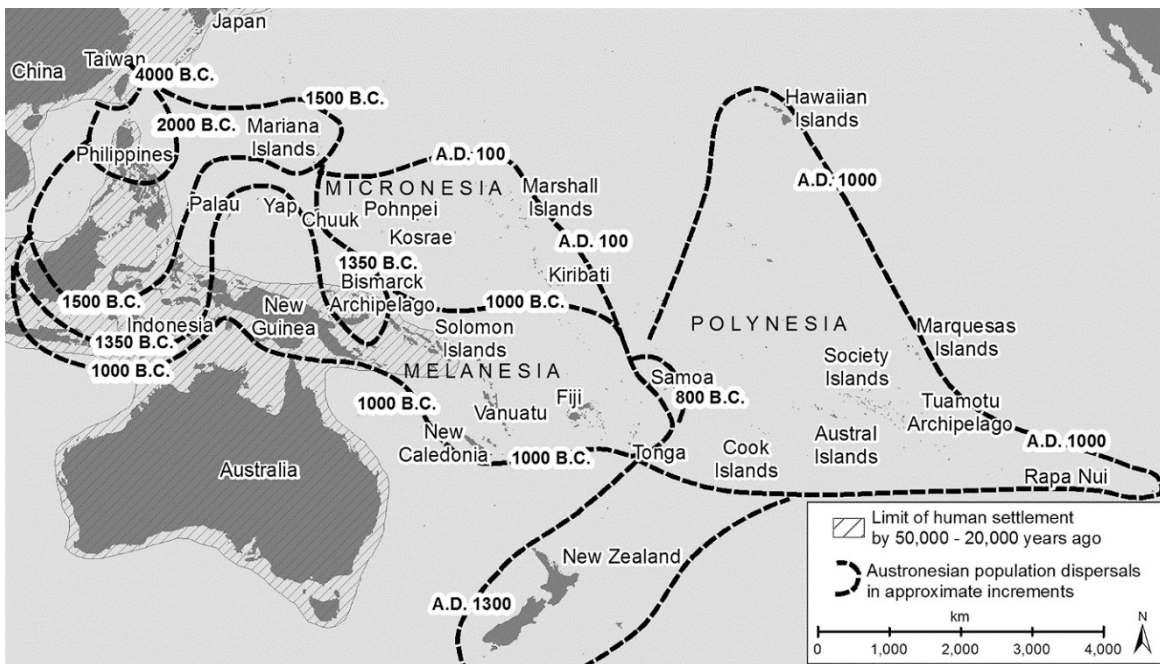


FIGURE 1. CULTURAL SETTLEMENT CHRONOLOGY OF THE ASIA-PACIFIC. THE REMOTE OCEANIC REGION IS EASTWARD (OUTSIDE) THE REGION INDICATED AS THE "LIMIT OF HUMAN SETTLEMENT BY 50,000–20,000 YEARS AGO".

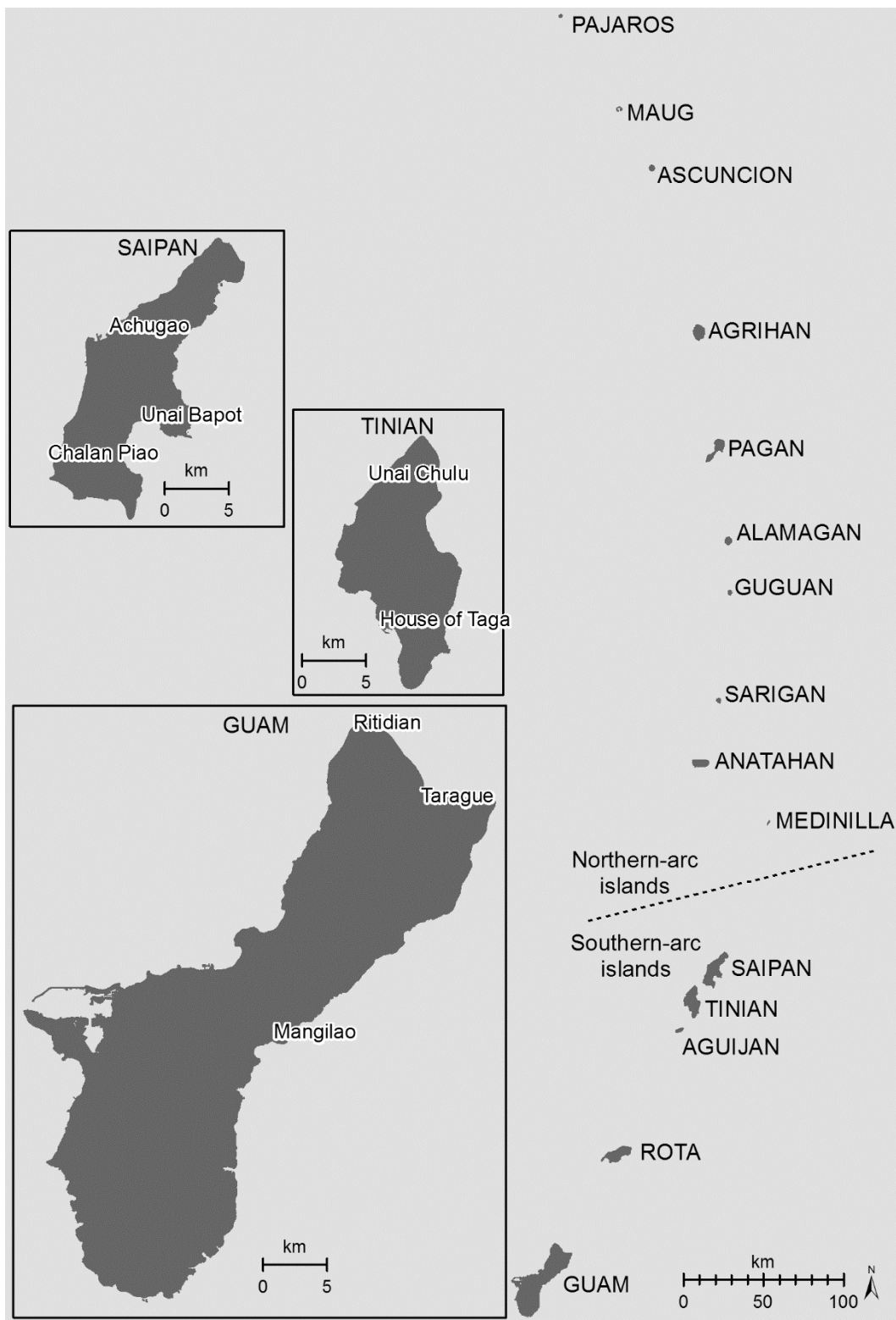


FIGURE 2. RITIDIAN AND OTHER KNOWN EARLIEST SETTLEMENT SITES OF THE MARIANA ISLANDS.

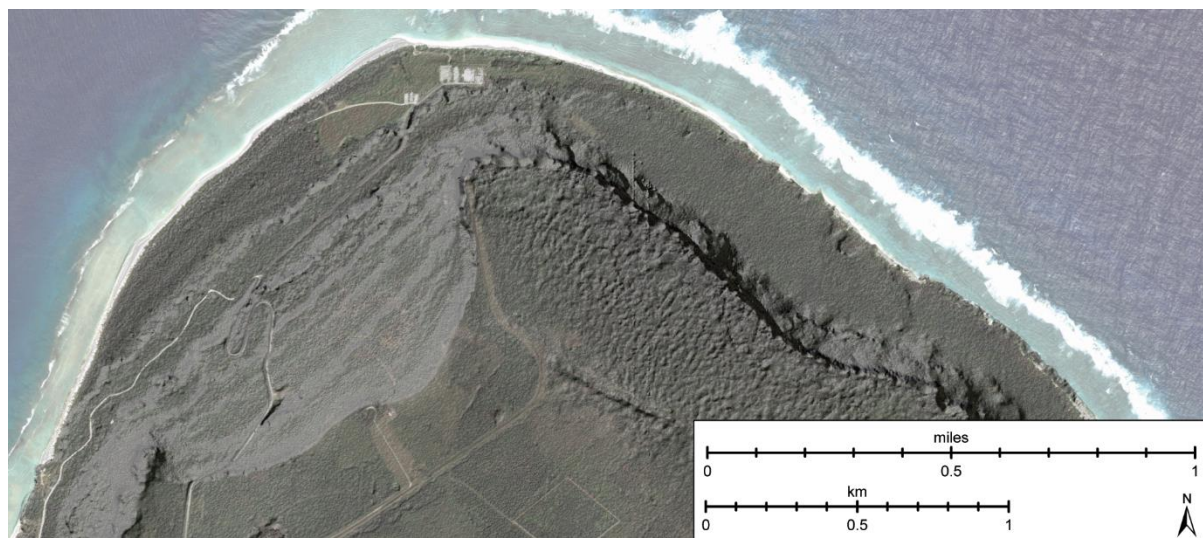


FIGURE 3. MODERN SITUATION OF RITIDIAN AT THE NORTHERN END OF GUAM.

The represented time range at Ritidian transcends periods of significantly different climate, sea level, coastal ecology, forest composition, slope erosion and deposition patterns, and dynamic cultural behaviours and expressions within those ever-changing contexts. This scope is true for the Mariana Islands overall, wherein the Ritidian Site has provided substantial supporting datasets. By presenting the evidence from Ritidian in a thorough sequence, the results here can clarify how people have inter-related with their landscapes through varied settings.

Ritidian has gained or regained a name of Litekyan, literally meaning “stirring place” in today’s understanding of the Chamorro language. The stirring in this case may refer literally to the meeting of ocean currents, creating Guam’s most dangerous offshore waters (Figures 4 and 5). Figuratively speaking in modern-day perception, Ritidian or Litekyan stirs the mind and the soul of everyone who comes to this enchanted place.

At present, the Ritidian Unit of Guam National Wildlife Refuge welcomes more than 90,000 visitors every year (Figure 6). People admire natural wonders, engage in scientific studies, and rediscover a profound and diverse heritage (Figure 7). This single place means so many things to different people, offering a precious experience to learn how this beautiful landscape has evolved and will continue to do so.

These values may become lost with impending plans for U.S. military use of the area, at the very least curtailing if not entirely eliminating public access (Figure 8). The place has changed through different hands of ownership, with different opinions of the legal issues that have accumulated over several decades. In any case, the lessons from Ritidian’s heritage are commemorated here.

Whether given the name of Ritidian or Litekyan, this preserved ecosystem has become known as a rare scene of nature’s raw power and elegance, matched with an equally magnificent cultural legacy of this unique place. As experienced today, this landscape continues to flourish independently apart from the modern world of high-density urban developments, instead still growing in its own ways and with its own long and complicated history. Clues of this inherited history are detectable in the natural setting, cultural traditions, written documentary archives, and archaeological remnants and ruins.



FIGURE 4. OVERVIEW OF RITIDIAN, JUNE 2017, LOOKING TO THE NORTH ACROSS THE CHANNEL TO THE NEXT ISLAND OF ROTA.



FIGURE 5. SEASHORE AT RITIDIAN, JUNE 2017, VIEW TO WEST.



FIGURE 6. PUBLIC ENTRANCE AT THE RITIDIAN UNIT OF GUAM NATIONAL WILDLIFE REFUGE, JUNE 2017.



FIGURE 7. GUIDED PUBLIC ACCESS AT THE LATTE VILLAGE COMPLEX IN THE EASTERN SIDE OF RITIDIAN, FEBRUARY 2016. DANIEL PANGELINAN STANDS AT THE STONE PILLAR WHERE HE HAD OFFERED A SHELL NECKLACE DURING A BLESSING CEREMONY AT THE INITIATION OF AN ARCHAEOLOGY FIELD SCHOOL SESSION IN 2009.

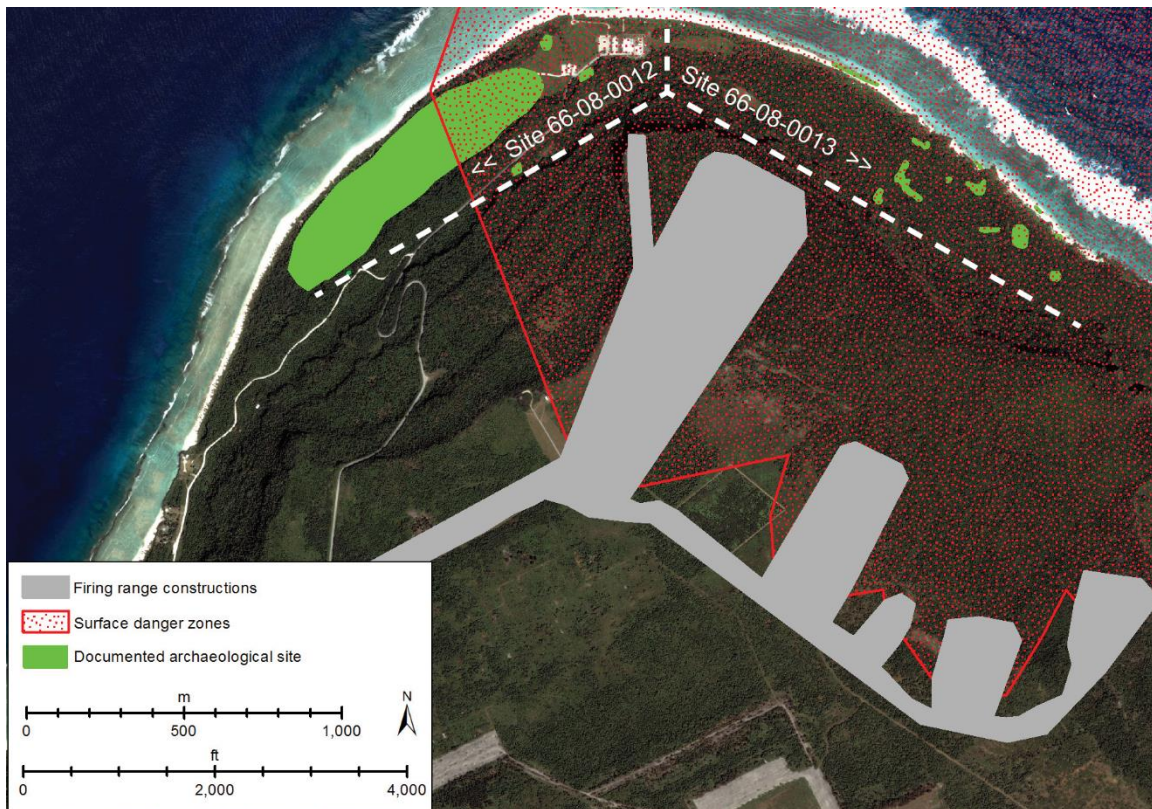


FIGURE 8. DOCUMENTED ARCHAEOLOGICAL SITE AREAS WITHIN THE RITIDIAN UNIT OF GUAM NATIONAL WILDLIFE REFUGE. THE SPECIFIED AREAS RELATE PARTIALLY TO SITES 66-08-0012 AND -0013 IN THE GUAM REGISTER OF HISTORIC PLACES. MOST OF THE RESOURCES ARE WITHIN THE “SURFACE DANGER ZONE” OF A U.S. MILITARY FIRING RANGE, CURRENTLY IN PREPARATION FOR CONSTRUCTION.

This book conveys a sense of the rich stories that have built Ritidian’s layered memories and meanings. Those stories are told not through ordinary words but rather through the artefacts, sites, and landscapes that can be observed, experienced, and interpreted. Whenever we encounter these kinds of clues today, we connect between past and present, in essence translating the ancient clues into a language that we can comprehend.

As a translation or visitor’s guide of the past, this book aims to give a voice to the past as a foreign place to speak for itself through hard data and visual representations. Ideally, multiple voices can account for the diversity of contexts over more than 3500 years in the Ritidian case. Although we always carry our modern bias and perspective, we can appreciate the past in its own terms if we are prepared to learn what those terms may have been. Much like when walking through a museum exhibit, the evidence from a multi-vocal and multi-layered past can be presented in chronological order, allowing visitors to make their own observations as well as to consider variable nuance and additional detail.

### Translating the Past

In this book’s representation of Ritidian’s past, individual ancient people naturally cannot offer their own words, but rather the collective material traces from their lives can be studied, appreciated, and interpreted in various ways. As shown in the following chapters, the findings from archaeological sites, geological layers, and other datasets can be presented as material objects reflecting past cultural context or action. This material basis is absolutely necessary in archaeology. The next challenge, however, is to bring those

objects to life in a way that speaks meaningfully to us today, while maintaining a firm link between the material evidence itself and the expanded interpretation or translation of its meaning.

Whenever we in the present day study the past, we combine two modes of representing the subject matter, known by social scientists as the *emic* (sometimes called an insider's view) and the *etic* (sometimes called an outsider's view) (Figure 9). The insider versus outsider dichotomy actually is misleading, and its origins are worth discussing. The linguist Kenneth Pike (1967) coined these terms, mirroring *phonemics* as the sounds of real speech belonging to a particular language group, concurrent with *phonetics* as the range of possible sounds produced by all language groups worldwide. Accordingly, *emic* referred to the actual expressions of a specific group of people, while *etic* referred to the potential scope of human behaviours in a general sense.

Following Pike's (1967) original formulation of *emic* and *etic* aspects, the individual artefacts of an archaeological site represent the *emic* expressions of the people who made those objects, but those cultural expressions can be described in analytic *etic* terms of how human beings behave in a general sense. A site inventory may include certain forms of pottery, stone and shell tools, remains of house structures, and discarded food all representing the past *emic* actions of the people who had lived at the site. Those individual *emic* expressions have varied from one site to another, but they all can be identified today within the broader scope of *etic* possibilities of human behaviours of creating artefacts.

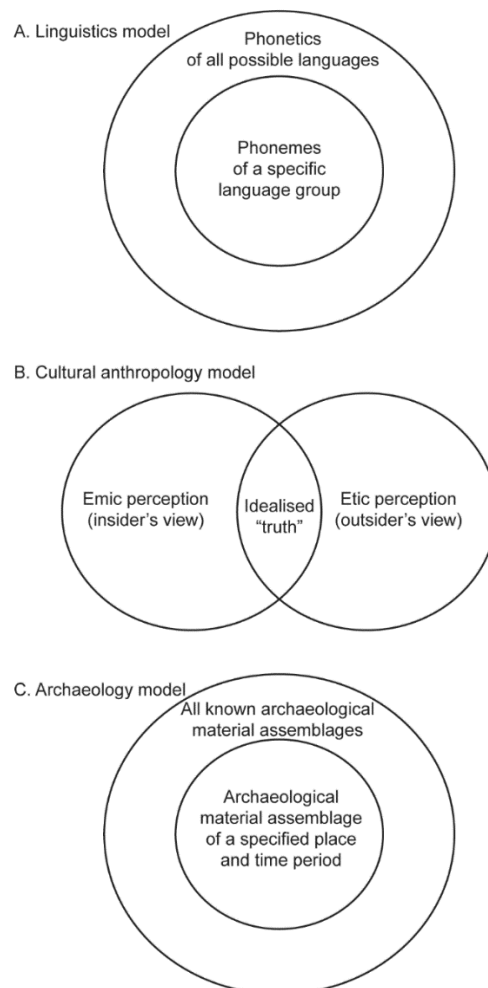


FIGURE 9. EMIC VERSUS EMIC MODELS, AS USED IN LINGUISTICS (A), CULTURAL ANTHROPOLOGY (B), AND ARCHAEOLOGY (C).

Although somewhat different from Pike's (1967) use of emic and etic, archaeologists can study individual artefacts as the emic expressions of a group's way of achieving a general task or goal as an abstract etic construct. If the generic goal was to boil water, then people could achieve such a goal in numerous ways with variable archaeological material signatures in the formats of hearths or other burning features, possible pottery or other containers, and other remnants that survive in archaeological layers. This concept can be applied to other cultural behaviours, such as building a house, making clothing, obtaining food to eat, or finding water to drink. The concept furthermore can be applied at other scales, such as studying a group's technology in terms of its repertoire of artefacts, and similar approaches could be devised for studying a group's economic practice and other necessary cultural functions.

Cultural anthropologists such as Marvin Harris (1976), Ward Goodenough (1970), and many others have explored how people view themselves in emic terms, while they are observed by outside examiners in etic terms. Both viewpoints are valuable, yet both inherently are biased in different ways. The insider and outsider positions should not be misconstrued as separate opposing forces, but more accurately they co-occur and indeed can make use of each other's views. Neither position can be purely objective, but the two together in theory can cross-check each other's subjective bias.

If the past can be accepted as a foreign place, then it can be viewed today only from an outsider's perspective. The "insiders" of the past no longer exist today, so they cannot personally share with us about their lives, except indirectly through the material records that they have generated in archaeological layers, artefacts, food remains, pictographs, and other traces. Most of the past's records at Ritidian, as in the Mariana Islands overall, refer to contexts pre-dating the availability of written documentation, so the individual voices of this ancient past are not immediately evident. Even in the cases of written texts and archives, such as from the A.D. 1500s and later in the Mariana Islands, those records need to be evaluated and interpreted.

As noted, this book offers a visitor's guide to Ritidian's past, organised in chronological order as a narrative of what happened here ever since the time of first human presence about 1500 B.C. if not earlier. This story has been assembled through multiple voices, accounting for the scope of different time periods, as well as for the varied lines of evidence pertaining to each of those time periods. The past does not have a literal "voice" per se, but rather it is given a set of metaphorical voices through the available evidence.

### **Situating Ritidian in Space and Time**

The long chronological record at Ritidian constitutes one of its main attractions for learning about the past, yet this same long-term record poses a challenge of how to represent its ever-changing contexts. The archaeological layers reveal thousands of years of changing natural environment and social setting, and each layer refers just to one segment of a long and complicated narrative. The findings at surface-visible residential housing complex of the late 1600s should not be conflated with subsurface archaeological layers dated a few hundred years older, and they most certainly should not be equated with broken pottery excavated from a deeply buried layer of first island settlement dated more than 3000 years earlier (Figure 10).

When situating the Ritidian site in a larger context, the site itself and the outside world both must be understood as evolving through time. Ritidian's physical position in mapping coordinates has remained fixed, but the conditions of the natural and cultural world most definitely have transformed (Figure 11). As shown in later chapters, the inhabited landscape at Ritidian evolved with changing sea level, coastal ecology, strategies of resource usage, and many other factors, simultaneously with ongoing change in the overall patterns of human settlement and cultural traditions of the Asia-Pacific region.



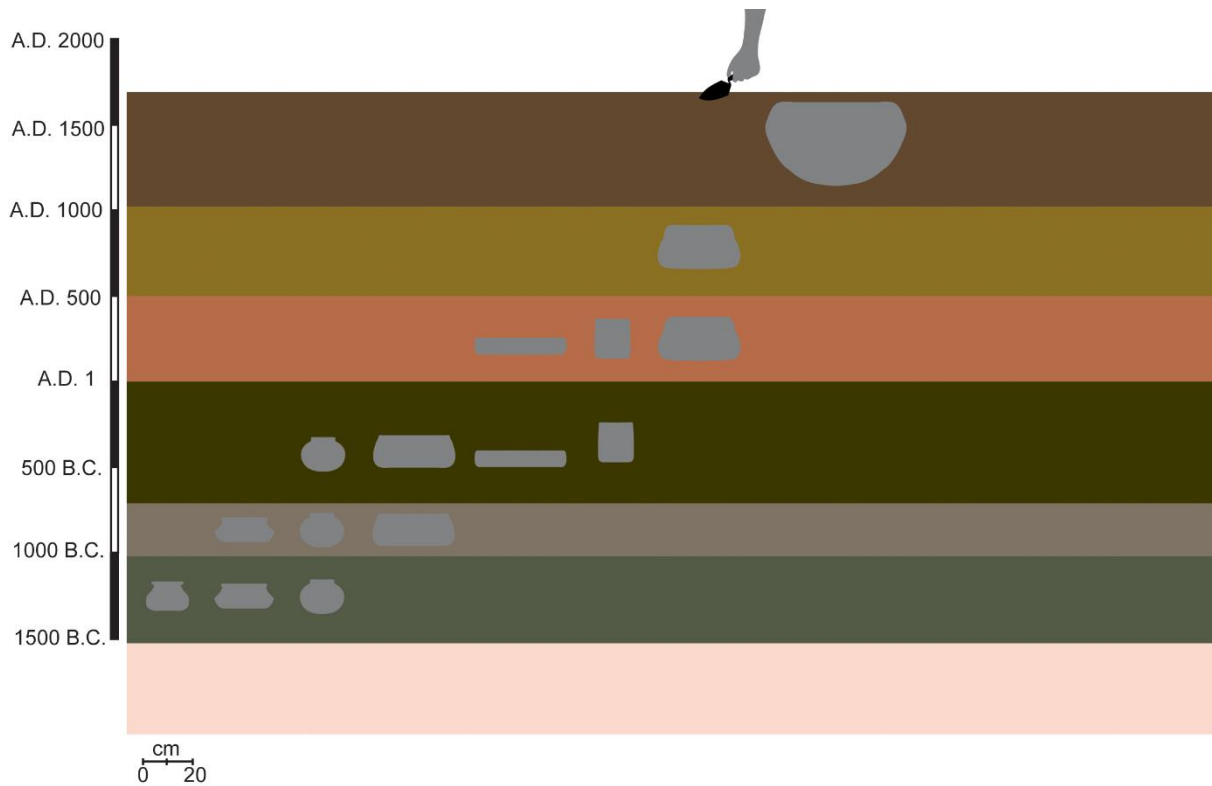


FIGURE 10. SCHEMATIC DIAGRAM OF ARCHAEOLOGICAL LAYERS IN THE MARIANA ISLANDS, PROGRESSIVELY OLDER WITH DEPTH AND EACH CONTAINING DIFFERENT MATERIALS AND REFERRING TO DIFFERENT CONTEXTS.

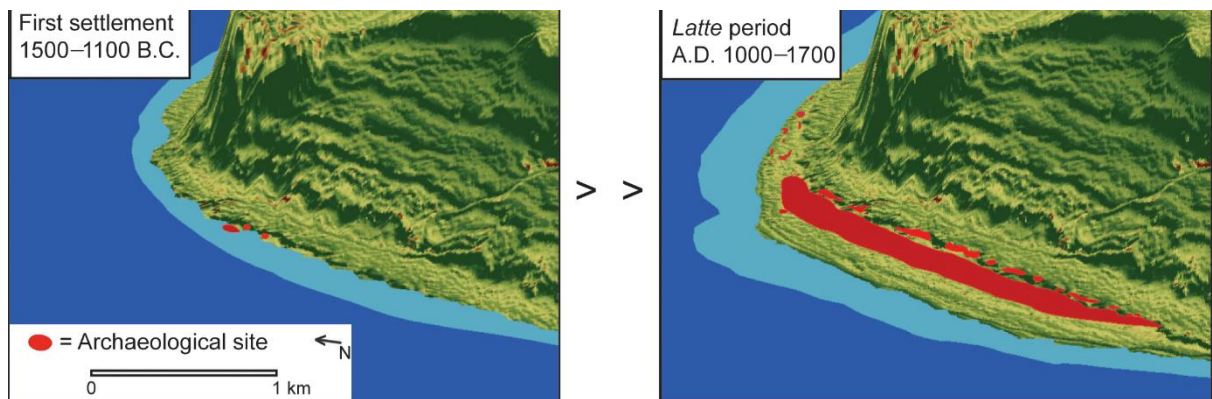


FIGURE 11. EARLIEST SUBSURFACE-DETECTABLE CONDITIONS VERSUS LATEST SURFACE-VISIBLE CONDITIONS AT RITIDIAN.

At any given point or interval in time, the Ritidian Site can be contextualised differently. Ritidian is among the rare sites confirmed as holding evidence of the initial human settlement of the Remote Oceanic region around 1500 B.C., prior to a series of other sea-crossing migrations that eventually resulted in the fully inhabited seascape of Pacific Oceania as known after A.D. 1000. While the overall picture of Asia-Pacific archaeology underwent significant transformations, the records at Ritidian can be articulated with these larger trends and patterns.

The chronological narrative begins with the world’s first effective long-distance sea-crossing migration into Remote Oceania about 1500 B.C., at its time setting a record for the longest such journey in the world, exceeding 2000 km. As will be detailed fully in Chapter 6, the distinctively decorated pottery and other artefacts of this earliest period can be traced to origins in Island Southeast Asia (Hung et al. 2011), confirming the picture as suggested through linguistics and genetics studies. The Chamorro language of the Marianas has retained archaic features in its phonology, syntax, and vocabulary that differentiate Chamorro from the Oceanic subgroup evident elsewhere in Remote Oceania (Figure 12), and hence Chamorro can be assigned to origins prior to the existence of the Oceanic group and instead most closely tied to older language communities in Island Southeast Asia (Blust 2000, 2009, 2013; Reid 2002; Zobel 2002). Likewise, DNA studies of modern-day Chamorro people have shown that the maternally inherited mitochondrial DNA (mtDNA) lineages belong to groups originating in Island Southeast Asia and separate from the lineages otherwise gaining prominence elsewhere in the Remote Oceanic islands (Lum and Cann 1998, 2000; Vilar et al. 2013).

After A.D. 1000, by far post-dating numerous other developments across the Asia-Pacific region, the Pacific Oceanic world approached its fullest inhabited extent (see Figure 1), along with the emergence of formalised village structures, land-use patterns, and other cultural expressions linked with the traditions as known ethnohistorically and today (Figure 13). Within this later time range, the records at Ritidian depict the locally specific versions of the larger Pacific-wide patterns, as will be discussed in Chapter 11. These outcomes can be understood best when first knowing about the preceding several centuries of evolving natural and cultural history, as will be presented in the chapters of this book emulating the experience of walking through a chronologically ordered museum exhibit.

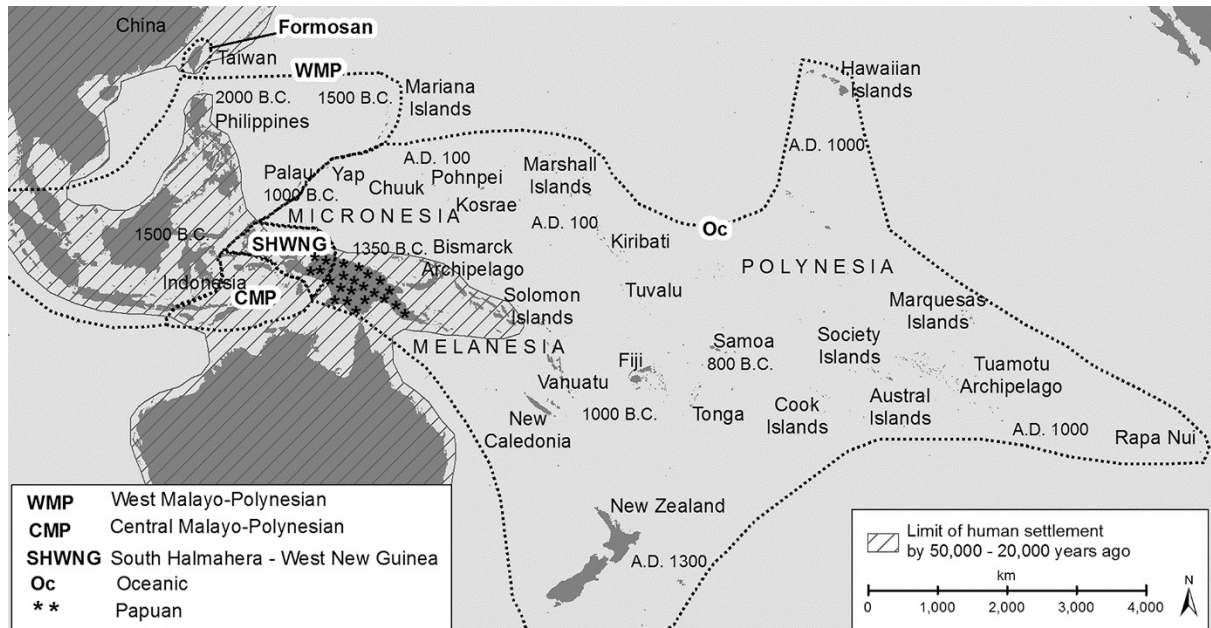


FIGURE 12. MAJOR LANGUAGE GROUPINGS OF PACIFIC OCEANIA, COORDINATED WITH APPROXIMATE ARCHAEOLOGICAL DATING OF FIRST CULTURAL SETTLEMENT IN EACH AREA. THE CHAMORRO LANGUAGE OF THE MARIANA ISLANDS IS CLASSIFIED AS PART OF “WEST MALAYO-POLYNESIAN”.



FIGURE 13. EXAMPLE OF *LATTE* RUINS AT THE EAST SIDE OF RITIDIAN, JUNE 2015, VIEW TO SOUTHEAST. THE PARTICULAR OCCURRENCE HERE WAS RECORDED AS PART OF FEATURE B OF SITE CLUSTER 05 IN THE EAST *LATTE* VILLAGE COMPLEX, VISIBLE ALONG A GUIDED-ACCESS HIKING TRAIL. SCALE BARS ARE IN 20-CM INCREMENTS.

### Structure of the Presentation

Ritidian's profound landscape heritage is befitting of a living museum, further effective when coordinated with the long sequences of continually changing artefact assemblages, ecological settings, and inhabited environments. Accordingly, this book aims to support the combined experience of visiting the landscape and viewing a curated exhibit. The pages of this book can serve as a guide to explore more than might meet the eye at first.

Following the present introduction (Chapter 1), the next chapters will consider Ritidian as it exists today, how the landscape has transformed through time, and how its heritage values continue to evolve. Chapters 2 through 5 consider the different ways of opening windows into the past, through observations and experience of the natural environment, cultural and historical setting, and archaeological findings. Chapters 6 through 11 collectively unpack more than three millennia of archaeological records, environmental history, and other lines of evidence in chronological order, from the moments of first human presence all the way through the time of Spanish missionary and military encounters. The concluding Chapter 12 captures a view of history-making in process by the people whose hearts are attached to Ritidian or Litekyan today.