



ROTA SPECIAL RESOURCE STUDY





CNMI Historic Preservation Office staff inspect one of the large latte capstones at As Nieves Quarry. Photo: NPS.

ROTA SPECIAL RESOURCE STUDY

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ACRONYMS AND ABBREVIATIONS

AAPI	Asian Americans and Pacific Islanders
CE	Categorical Exclusion
CFR	Code of Federal Regulations
CNMI	Commonwealth of the Northern Mariana Islands
DFW	Department of Fish and Wildlife
DLNR	Department of Lands and Natural Resources
DPL	Department of Public Lands
ENSO	The El Niño/Southern Oscillation
FUDS	Formerly Used Defense Sites
GIS	Geographic Information System
HPO	Historic Preservation Office
LWCF	Land and Water Conservation Fund
MARS	Micronesian Archaeological Research Services
MCCA	Mariana Crow Conservation Area
MVA	Marianas Visitors Authority
NEPA	National Environmental Policy Act
NKK	Nan'yō Kōhatsu Kabushiki Kaisha (South Seas Development Company)
NHA	National Heritage Area
NHL	National Historic Landmark
NHP	National Historical Park
NMD	Northern Marianas Descent
NNL	National Natural Landmark
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRHP	National Register of Historic Places
SGCN	Species of Greatest Conservation Need

SRS	Special Resource Study
TCP	Traditional Cultural Properties
UNESCO	United Nations Educational, Scientific, Cultural Organization
U.S.	United States
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
UXO	Unexploded Ordnance
WWII	World War II

A photograph of a tropical forest with ancient stone ruins covered in moss and surrounded by fallen leaves. The scene is lush and green, with a prominent tree trunk in the center and various palm trees in the background. The ground is covered in a thick layer of brown, fallen leaves. The text "EXECUTIVE SUMMARY" is overlaid in white, bold, uppercase letters across the upper middle of the image.

EXECUTIVE SUMMARY



Mochong Latte Village Complex, on Rota. Photo: NPS.

EXECUTIVE SUMMARY

INTRODUCTION

On December 19, 2014, President Barack Obama signed into law the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015. The act authorized the National Park Service to conduct a special resource study of the “prehistoric, historic, and limestone forest sites on the island of Rota, Commonwealth of the Northern Mariana Islands” to evaluate the national significance of the sites and the feasibility of designating them as a unit of the national park system (P.L. 113-291, Title XXX, §3051; see Appendix A). The Rota study authorization was based on legislation that was originally introduced in the House in 2013 as H.R. 674, by Congressman Gregorio Kilili Camacho Sablan of the Commonwealth of the Northern Mariana Islands (CNMI).

RESOURCE OVERVIEW

Rota (*Luta* in Chamorro) is one of 15 islands in the Mariana archipelago of Western Micronesia. The majority of land area in the Marianas is found in the four southernmost islands of Guam, Rota, Tinian, and Saipan. Guam is politically distinct from the remaining 14 islands, which comprise the Commonwealth of the Northern Mariana Islands (CNMI). The CNMI is a United States territory (see Map 1: Mariana Islands).

Rota has a land area of 33 square miles (85 square kilometers) and is the fourth-largest island of the archipelago. Rota’s native limestone forest still covers a large proportion of the island, totaling 52% of the island’s area. The 10,943 acres of forest on Rota continue to exist in comparatively large and intact stands that have only been minimally impacted by human activities and invasive species. Rota’s forests exhibit a dense and varied structure that supports numerous endemic plant and animal species. While other examples of this rare forest type are found on Guam, Saipan, and Tinian, the ecosystems on these other islands have been compromised by invasive

species such as the brown tree snake (*Boiga irregularis*) and have been impacted by human clearing for agriculture and development. Unlike Rota, the other large islands were the sites of major World War II battles, which also resulted in the destruction of limestone forest resources.

Rota’s limestone forests are important culturally as well as ecologically, comprising an integral part of the homeland of the Chamorro people, who are the indigenous people of the Marianas. The forests contain ancestral settlements and burial sites revered by the people of Rota, past and present. They also support the perpetuation of cultural practices such as traditional horticulture, hunting, crafts, and medicinal plant collection.

In addition to its highly intact limestone forest ecosystems, Rota is rich in cultural resources. The Rota study area contains a diverse collection of well-preserved archeological sites associated with the ancestral Chamorro culture of the Mariana Islands. Rota’s Chamorro archeological sites include coastal and inland village sites, a quarry for latte (or ancient stone house supports), rock art sites, artifact scatters, and other site types reflecting a record of continuous habitation dating back at least 3,500 years. Many Chamorro regard these archeological sites and their surrounding landscape settings as sacred places inhabited by taotaomo’na, or ancestral spirits.

The Rota study area also includes resources associated with the Spanish, German, and Japanese colonial occupation of the island, as well as Japanese military installations from World War II. Because Rota was not invaded during World War II, the island’s cultural resources have suffered less damage than resources on other islands that experienced active combat. Several of the cultural resources sites on Rota have been listed in the National Register of Historic Places, including Chamorro archeological sites, sites from the Japanese colonial period, and sites from World War II.

SUMMARY OF FINDINGS

This special resource study was prepared following the process established by the National Parks Omnibus Management Act of 1998 (54 USC 100507), Additional Areas for the NPS System, and addresses the criteria for new areas outlined in NPS *Management Policies 2006*. Under the law, a study area must meet all four criteria below to be recommended as an addition to the national park system.

National Significance

LIMESTONE FOREST

The national significance of Rota's limestone forests was evaluated using National Natural Landmark (NNL) criteria, which consider a natural resource nationally significant if it is one of the best examples of a biological or geological feature considered a characteristic of a natural region. The limestone forests on Rota meet the NNL criteria for national significance and are an illustrative example of a rare functioning ecosystem type that has been less disturbed than other limestone forests. The functioning limestone forest ecosystem on Rota retains notable levels of diversity and value for science and education that support a finding of national significance.

CHAMORRO ARCHEOLOGICAL SITES

The NPS used the National Historic Landmark (NHL) criteria to evaluate the national significance of Rota's ancient and historic sites. Among the Chamorro sites identified by the NPS, the Mochong Latte Village Complex, the Alaguan Latte Village Complex, and the As Nieves Quarry were found to rise to the level of national significance individually. The remaining sites rise to the level of national significance as part of a complex that is unmatched in terms of overall integrity, concentration of unique and individually nationally significant sites, diversity and density of sites, and potential to yield information regarding multiple aspects of traditional Chamorro history and culture.

WORLD WAR II JAPANESE DEFENSIVE COMPLEXES

The Ginalagan Defensive Complex and Chudang Palii Defensive Complex were found to meet NHL criteria for national significance. The World War II Japanese defensive complexes are outstanding examples of Japanese military fortifications designed specifically for the late-war defense-in-depth strategy. Extensive and well-preserved, Rota's defensive complexes have yielded and will likely continue to yield archeological and historical information about the evolution of the Japanese interior defensive strategy, as it was used on Rota and subsequently applied in pivotal World War II battles such as Peleliu, Iwo Jima, and Okinawa.

Suitability

To be considered suitable for addition to the national park system, an area must represent a natural or cultural resource type that is not already adequately represented in the national park system, or is not comparably represented and protected for public enjoyment by other federal agencies; tribal, state, or local governments; or the private sector.

LIMESTONE FOREST

Rota's limestone forests include examples of both lowland rain forest and montane rain forest. Lowland and montane limestone forests are not adequately represented elsewhere in the national park system, nor are there comparable sites which protect and interpret a similarly intact example of the limestone forest ecosystem. This is due to devastation of areas of native limestone forest on Guam during World War II, as well as the impacts of the invasive brown tree snake. The accidental introduction of the brown tree snake has virtually eliminated forest birds on Guam, resulting in a cascade of impacts to the food web and seed dispersal that will increasingly alter forest structure as time goes on. The limestone forests of Rota are therefore suitable for inclusion in the national park system because these forests protect the most intact example of this resource type in the United States and its territories, meeting the study criteria for suitability.



Aerial view of the island of Rota, looking toward the Taipingot Peninsular, also called Wedding Cake. Photo: NPS.



A view of the endangered tree, *Serianthes nelsonii*, in the limestone forest on Rota. Photo: Ann Marie Gawel.



The Mochong Latte Village Complex, a Chamorro archeological site identified as nationally significant during the study process. Photo: NPS.



Members of the NPS study team and CNMI Historic Preservation Office staff visit the Ginalagan World War II Japanese Defensive Complex. Photo: NPS.

CHAMORRO ARCHEOLOGICAL SITES

Rota's Chamorro archeological sites include an assemblage of architectural, habitation, ceremonial, and spiritual features; unique structures; rich artifacts; and midden assemblages that contribute to understanding the more than 3,500-year evolution of the indigenous culture of the Mariana Islands. The Rota study area is distinguished from other archeological site complexes in the Marianas by its exceptionally high level of integrity, diversity and density of sites, and concentration of unique and individual nationally significant sites. Rota's significant archeological sites provide exceptional opportunities for interpretation, education, and enjoyment of ancestral Chamorro culture. Where Chamorro archeological sites are present in the national park system, the sites are fragmented, disturbed, or in small clusters. The Chamorro archeological sites on Rota are some of the best surviving examples of the unique and distinct culture of the Native people of the Mariana Islands; sites associated with the Chamorro people are not adequately represented in the national park system.

WORLD WAR II JAPANESE DEFENSIVE COMPLEXES

Many examples of Japanese military defensive sites are found in existing units of the national park system or as part of national historic landmarks. However, the Chudang Palii and Ginalagan World War II Japanese defensive complexes are the most intact and best remaining examples in the United States of Japanese inland defense structures constructed out of the natural landscape. Rota's defensive complexes provide a palpable illustration of daily life on a bypassed island during World War II and demonstrate the late-war shift to in-depth defense systems—themes that are not adequately represented in other comparably managed sites within the U.S. or U.S. territories. Rota's defensive complexes considerably broaden the interpretive potential of War in the Pacific National Historical Park, American Memorial Park, and the existing NHL sites by completing the story of the war in the Pacific.

Feasibility

To be considered feasible for addition to the national park system, an area's natural systems or historic settings must be of sufficient size and configuration to ensure long-term protection of resources and accommodate public use. The area must also have potential for efficient administration at a reasonable cost.

To be feasible, a national park unit on Rota would need to be supported by the CNMI government, as the CNMI is the primary landowner of the sites evaluated in the study area, and NPS ability to own and manage land in the CNMI is constrained by the 1975 Covenant that established the CNMI. The NPS would need to have some level of management authority over lands within the potential unit: this could be achieved through a management agreement with the CNMI government. The agreement would need to include a partnership or co-stewardship arrangement for management, and/or long-term leases, and/or limited acquisition of lands from willing sellers, consistent with the Covenant.

To be feasible, a national park unit would also be dependent on support from residents on Rota and in the CNMI. At this time, public support for a potential national park unit on Rota is varied. Based on public outreach conducted by the NPS in 2020, approximately half of those commenting favored the establishment of a unit. About one quarter of comments submitted expressed opposition to a unit, and another quarter requested more information about what an NPS unit on Rota would entail before forming an opinion. Individuals requested additional detail about local use and access, the management approaches for a potential park unit, the level of involvement of the CNMI government, and the potential economic impacts of a unit. Further description of an NPS unit proposal could address public questions and clarify the level of public support.

To be feasible, the budget for a national park unit on Rota would need to meet the operational requirements of a new park in a remote location. Rota presents unique

logistical challenges related to staffing and maintaining a national park unit on a remote Pacific island. Typically, a newly established park would be partially supported by staff from a nearby, existing park. For Rota, sharing resources with other national park sites would be difficult due to the isolated location and access challenges of the Mariana Islands. If the CNMI or other entities were to partner with the NPS and participate in a co-stewardship model, however, a new park unit would not be solely reliant on NPS operational funds and capacity. The operational costs of a national park unit on Rota could therefore be conditionally feasible dependent on adequate funding. One-time development costs for establishing a national park unit on Rota could be reasonable, provided the facility footprint is limited—such as for several trails, small parking lot and trailhead improvements, and a small, leased, administrative space.

There are exceptional opportunities for public enjoyment of the sites on Rota if safe public access can be provided. However, the limestone forest areas along the Sabana cliffs and the World War II Japanese defensive complex at Chudang Palii are not feasible for public access due to safety concerns associated with their challenging locations and rugged terrain. The defensive complex at Ginalagan is not feasible for public access due to the need to cross private lands.

An appropriate boundary configuration for a potential national park unit on Rota would encompass the limestone forest and Chamorro archeological sites listed below and surrounding area sufficient for resource protection and visitor facilities.

The following sites include resources with integrity sufficient for national park unit designation, and no current threats would preclude their management as a unit of the national park system: limestone forest along the south and east coasts, including the I'Chenchon Park Wildlife Conservation Area; Mochong Latte Village Complex; As Nieves Quarry; Alaguan Latte Village Complex; Måya Latte Site; Dugi Archeological Site (portions not designated as homesteads); Gampapa

Latte Village (portions not privately owned or designated as homesteads); and Chugai Cave.

Many of Rota's limestone forest areas and the majority of its Chamorro archeological sites are therefore conditionally feasible as an addition to the national park system, dependent upon support from the CNMI government and the development of a management agreement, support from Rota and CNMI residents, and sufficient funding for park operations.

Need for NPS Management

Under this criterion, management by public and private entities is evaluated to determine if these entities can effectively and efficiently provide long-term resource protection and visitor services or if direct NPS management is the optimal approach. If other entities can provide an equivalent or superior level of resource protection and visitor services, the National Park Service will determine that establishment of a national park unit is not needed, and other organization(s) should manage the area. To make this determination, existing management and several additional management frameworks are described and compared. These management frameworks include management by existing CNMI agencies with additional federal funding, designation as a world heritage site, designation as a national heritage area, designation as an NPS affiliated area, and CNMI and NPS co-stewardship of a national park unit.

The people of Rota have protected their resources for generations through cultural practices, local laws, federal financial assistance, and the dedicated efforts of CNMI agencies. The exceptional integrity of Rota's cultural and natural resources is evidence of the community's impressive and centuries-long tradition of stewardship. At likely NPS funding and staffing levels, the NPS contributions to existing management of Rota's significant resources would be limited. Similarly, NPS capacity to provide visitor services and facilities, interpretation, and educational programming would be limited given the expected budget and staffing levels

and logistical challenges of a new park unit on the island. Partnerships with interested organizations could provide additional capacity for research, interpretation, education, and visitor services under both NPS and non-NPS management.

The incorporation of Rota's significant sites into the national park system would provide an opportunity to represent the histories and heritage of the Chamorro people within a rare limestone forest ecosystem, which are underrepresented in the national park system. However, when compared against current management and other potential management frameworks, in light of the limited NPS financial capacity and the modest level of interest in NPS designation among the people and elected officials of Rota and the CNMI, NPS management is not needed at this time.

To enhance technical support and/or federal funding assistance for resources within the study area, Rota and the CNMI may choose to explore grants from the Land and Water Conservation Fund, the Office of Insular Affairs, and the Historic Preservation Fund and/or pursue world heritage site, national heritage area, or NPS affiliated area designation.

SPECIAL RESOURCE STUDY CONCLUSIONS

Based on the analysis performed through this special resource study, the National Park Service finds that the Rota study area does not meet all four criteria for inclusion in the national park system at this time. Resources within the study area meet established criteria for national significance and suitability, and a portion of the area is conditionally feasible for inclusion in the national park system, dependent on support from the CNMI government and the development of a management agreement, support from Rota and CNMI residents, and sufficient funding for park operations. However, analysis of existing management and several additional management frameworks does not demonstrate a clear need for direct NPS management at this time. The CNMI government is continuing a centuries-long tradition of resource stewardship while also providing visitor access and information about Rota's significant sites. Therefore, this special resource study concludes that Rota does not meet all criteria necessary to be considered eligible for designation as a new unit of the national park system.

A GUIDE TO THIS DOCUMENT

This special resource study is organized into seven chapters. Each chapter is briefly described below.

Chapter 1: Introduction provides a brief description of the study area and an overview of the study's purpose, background, and process. This chapter also summarizes the NPS findings on the special resource study.

Chapter 2: Context and Resource Description provides an overview and site description for the island of Rota (*Luta*). This chapter also describes the environmental, cultural, and historical contexts for Rota's limestone forest, Chamorro archeological, and World War II resources.

Chapter 3: Resource Significance describes the National Park Service analysis of nationally significant resources within the study area.

Chapter 4: Suitability describes the National Park Service analysis of whether nationally significant sites are suitable for inclusion in the national park system.

Chapter 5: Feasibility describes the National Park Service analysis of whether nationally significant and suitable sites are feasible as a unit of the national park system.

Chapter 6: Need for NPS Management and Study Conclusions describes the National Park Service analysis of whether direct NPS management is optimal when compared with other management options. This chapter also includes the overall conclusions from the special resource study process.

Chapter 7: Consultation and Coordination provides an overview of public and stakeholder outreach conducted as part of the study process.

Appendices include the legislation authorizing this special resource study, a description of a national park unit alternative analyzed during the study process, a list of selected limestone forest plants of Rota, descriptions of threatened and endangered species, descriptions of marine and submerged resources, references used in the study, and a list of study preparers.

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Members of the U.S. House of Representatives Committee on Natural Resources tour the As Nieves Quarry, February 2017. Photo: NPS.