

The Commonwealth of the Northern Mariana Islands

Final Watershed Plan

APPENDIX E

Cultural Resources Analysis

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**US Army Corps
of Engineers** ®
Honolulu District



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1 Cultural Resources Existing Conditions

Cultural resources is a term used to describe the places, objects, sites, oral histories, and traditional practices that have historic or cultural significance to local individuals, communities, or even a nation. They can be viewed within watershed planning as a key component of resilience for a community by bringing together a sense of place or reflecting a people's cultural identity. An assessment of the Commonwealth of the Northern Mariana Islands watersheds and resources would be largely incomplete without addressing the myriad of cultural resources present throughout the landscape and its surrounding waters.

Typical inventories for cultural resources focus on preserving tangible properties such as sites, buildings, structures, objects, or districts under state, territorial, and federal historic preservation law. This watershed assessment must also consider intangible cultural resources, which play an important role for cultural identity across the territory today. The sections below summarize the human history of the Commonwealth of the Northern Mariana Islands, organized according to archaeologically-defined temporal periods. These temporal periods help contextualize certain cultural resources and how they are significant to the territory.

1.1 Summary of Prehistoric Cultural Resources

The "prehistoric" period is understood by studying the physical evidence of human activity left behind by a cultural group who did not have written records. The Northern Mariana Islands prehistoric period can be reconstructed through archaeological research and the sharing of oral histories, which has occurred for more than a century on the islands. Through a combination of archaeological research, ethnographic interviews, oral traditions, and historic documentation by Europeans during contact, a framework to understand the prehistoric temporal periods of the Northern Mariana Islands has been established.

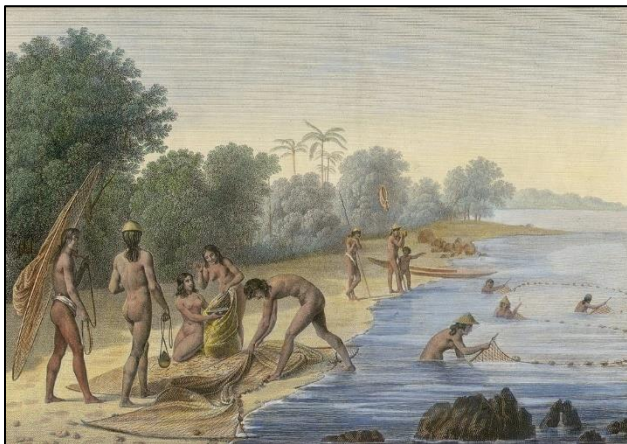


Figure 1-1. Historic depiction of precontact fishing activities in the CNMI before European contact.

The early settlement of the Northern Mariana Islands began around 4,000 years ago, extending from circa 2,000 BCE (Before Common Era) to 1668 CE (Common Era). Prehistoric seafaring explorers arrived from Southeast Asia bringing ceramics, canoes, domesticated animals, and cultivated crops such as banana, taro, sugarcane, breadfruit, and coconuts. These ancestors are believed to be related to the modern-day Chamorro people (CNMI HPO, 2011). A simple two-part chronology, consisting of the Pre-Latte Period and the Latte Period were established by archaeologists based on the location of prehistoric sites, settlement patterns, artifact

typologies, changes in subsistence, and architectural features.

The Pre-Latte Period, ranging from circa 3500 to 1600 years before present, is subdivided into four subperiods based on pottery styles. The subperiods include: 1. Early Unai (1500-900 Before Common Era (BCE)) containing highly decorated dentate-stamped pottery known as Lapita



ceramics, 2. Middle Unai (900-400 BCE) characterized by bolder lines imprinted onto ceramics, 3. Late Unai (400 BCE- 400 CE) with large thick-walled ceramic vessels, and 4. Huyong (400-1000 CE) with pottery defined by flat-bottomed pans, rounder bases, and incurved rims.

Sites from the earliest period of settlement in the Pre-Latte Period (2000 BCE to 1000 CE) are generally uncommon often poorly preserved. Pre-Latte Period sites are usually situated along coastal beach environments as well as inland rock shelters or caves. It is believed that Chamorro communities lived in villages by these coastal areas for the first 3,000 years of settlement along the southern larger islands. This coastal settlement pattern supported easy access to marine resources within the coastal lagoon habitats.

Archaeological fieldwork has identified a variety of features and artifacts at Pre-Latte sites, including hearths, postholes, cooking debris containing large amounts of shellfish and reef fish ecofacts, food storage features, pot sherds, and lithic debitage from tool making activities. The abundance of fish remains indicates that the Pre-Latte people relied heavily on marine resources, particularly nearshore reefs, for subsistence. Evidence of bird hunting and the collection of edible plants were sometimes documented at Pre-Latte sites. The manufacture of lithic tools and ceramics, seafaring technologies such as canoes, and ornaments from stone, bone, and shell are common items associated with the Pre-Latte Period's material culture. (Reinman, 1977; Kurashina and Clayshulte, 1983; CNMI HPO, 2011).

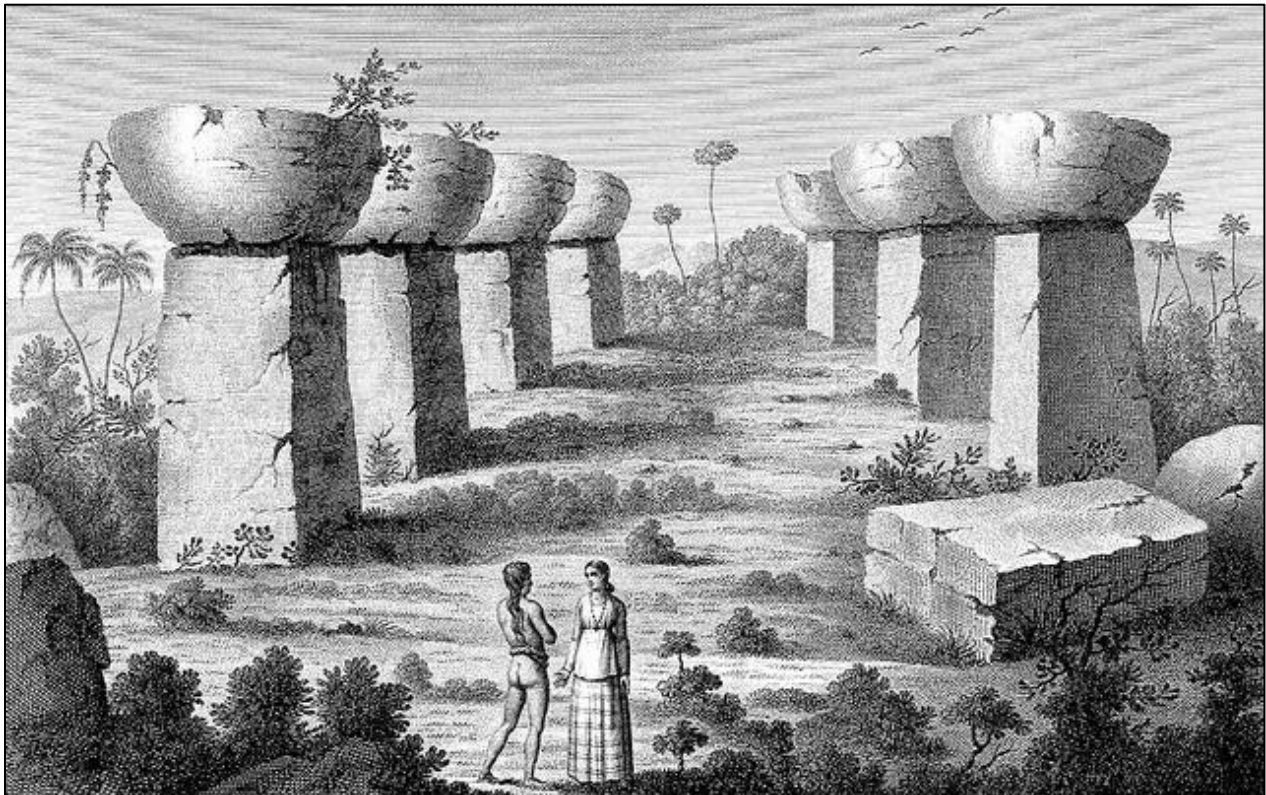


Figure 1-2. Historic depiction of a Tinian latte site.

By 1,000 CE, archaeological evidence from the Latte Period (1000 CE to 1668 CE) signified an increase in the prehistoric population, which was followed by settlements expanding onto the islands of Rota, Tinian, Saipan, and Aguiguan (CNMI HPO, 2011). This major shift in settlement was also followed by subsistence adaptations, as evidenced by a high density of marine resources found at Latte Period sites. Terrestrial faunal remains are also identified at Latte sites, including birds, bats, lizards, turtles, and snails. Cultivation of trees, root crops, rice, and fishing were also prevalent during this later period of settlement.



Figure 1-3. Remnants of a village site listed as the Laulau Kattan Latte Site on the island of Saipan.

The introduction of megalithic architectural features known as *latte* are characteristic of the eponymous Latte Period. Latte consist of large pillars and capstones fashioned from limestone and arranged parallel rows. Latte can be found across the coastlines of the Northern Mariana Islands, as well as at inland sites. They served as foundations for Chamorro residential and communal houses (CNMI HPO, 2011) and signify the presence of a village. Material culture associated with the Latte Period include basalt grinding stones, lithic artifact scatters, quarries, water wells, rock art, caves, and Chamorro ancestral burials, which are often found beneath or adjacent to latte. By the time of European contact, the Chamorro people and latte culture existed on all of the islands in the territory (CNMI HPO, 2011)

1.2 Summary of Historic Period Resources



Figure 1-4. Postcard of Saipan dated to 1909. Provided by Governor Joseph Ada.

The historic era for the Northern Mariana Islands begins at around 1668 CE, although written records from the Spanish Magellan expedition documented exploration of the islands as early as 1521, with the Spanish crown making formal claims in 1565. Spanish exploration in the 16th century, however, had little to no impact on Chamorro lifeways. It wasn't until the establishment of a Jesuit mission on Guam in 1668 that European contact with the Northern Mariana Islands became culturally meaningful (CNMI HPO, 2011).



Efforts made by the Spanish to colonize the Chamorro people were met with resistance at Saipan and Guam, until in 1694 when a four year *reducción* program was implemented which restricted Chamorro's to settlements on Guam, Saipan, and Rota (Rogers, 1995). The early 19th century also introduced Carolinian refugees who migrated to Saipan after devastating storms destroyed their homes in the Caroline Islands. Historical inventories have documented Spanish mission structures, villages, remnants of buildings, archaeological deposits, and shipwrecks associated with this early period of Iberian contact and colonization.

Following the end of the Spanish-American War, the Northern Mariana Islands were purchased by Germany in 1898. Germany intended to create an agricultural economy for the territory based on copra export. The Germans developed infrastructure across the territory until 1914. Very few German Period sites exist today due to major development and construction during the following Japanese Period, as well as disturbances associated with World War II.

The Japanese Navy took control of the Northern Mariana Islands in 1914. A Japanese civilian group known as the South Seas Bureau was established in 1922 and created extensive sugar cane plantations, thereby boosting economic development (CNMI HPO, 2011). Beginning in the late 1930s the Japanese began to fortify the islands, and by 1941 had constructed major airfields and naval stations in preparation for war. Historic resources from the era of Japanese control include farmsteads, roadways, factories, agricultural buildings, mining sites, hospitals, stores, administrative buildings, cisterns, Japanese Shinto shrines, and midden.



Figure 1-5. World War II photograph of the Battle of Saipan taken around 1944.

The Pearl Harbor attack on December 7, 1941 pushed the Japanese to fortify their hold of the Northern Mariana Islands. More Japanese personnel and citizens were relocated to the island. By 1944, the majority of the population were Japanese citizens and not Chamorro or Carolinian individuals (Bowers, 1950). Large-scale destruction occurred in 1944 due to U.S. aerial and naval

bombardment conducted in anticipation of U.S. marine landings. Once the islands were in American control, airfields and military bases were established to support war operations in the Pacific and the strategic push toward the Japanese mainland. World War historic resources make up the largest percentage of sites in the Northern Mariana Islands (CNMI HPO, 2011), ranging from airfields, hospitals, defensive gun stations, officer housing, tunnels, caves, ammunition storage areas, equipment dumps, surface and buried scatters of military equipment, shipwrecks, plane crashes, and mass grave sites (McKinnon, 2014; Mckinnon, 2015).

The Post-War Period saw regrowth and revegetation of large portions of the landscape which had been cleared during the war, and thus a return to thick sword grass, tangan-tangan, and tropical vegetation in many areas. Military infrastructure associated with Japanese control and World War II was largely abandoned. Chamorro communities returned to small-scale farming of the land, growing fruit trees, watermelon, tomatoes, tapioca, corn, sweet potatoes, and yams until the 1980's. Cattle ranching, originally introduced by the Spanish, resumed. In addition to small-scale farming and ranching, a tourism industry developed in the later part of the twentieth century and continues to the present. Churches, commercial buildings, districts, government buildings, and residences are some of the significant architectural historic resources dating to the Post-War Period (CNMI HPO, 2011).

1.3 Summary of Intangible Cultural Resources

Identifying and preserving intangible cultural resources can be a challenging, yet rewarding, endeavor. Defining the boundaries of intangible cultural resources is difficult, but should focus on discerning the area or natural feature which holds traditional significance. This requires intensive consultation with Chamorro cultural groups, who may be hesitant to divulge such potentially sensitive information. The National Park Service has defined a special category of protected intangible cultural resource known as a Traditional Cultural Property (TCP), which is described in National Register Bulletin 38. This guidance document defines a TCP as a property eligible for inclusion in the National Register of Historic Places because of its association with the cultural practices or beliefs of a living community, important for maintaining the group's cultural identity (Parker and King, 1990).



Figure 1-6. Chamorro and Carolinian dancers performing a traditional ceremony on Saipan. Photograph from Civil Beat and taken by Cory Lum.

Cultural sensitivity should always be considered when consulting with Chamorro cultural groups and preserving important intangible cultural resources. Examples of site or activities that might be associated with cultural practices or beliefs include traditional burials, ceremonial sites, traditional hunting areas, plant gathering areas, trails, cultural landscapes such as geological features which hold spiritual significance, and viewsheds from sacred locations (NPS, 1998).



Although few Chamorro TCP have been identified to date, such intangible cultural resources should certainly be considered. Threatened by economic and social change as well as land-use development (CNMI HPO, 2011), intangible cultural resources play a central role in the Chamorro community's practices and beliefs, which serve to maintain their cultural identity and provide a sense of place and historical continuity.

A collaborative approach and the formation of working partnerships will support a better understanding of which intangible cultural resources are most significant to Chamorros, and how traditional practices can be incorporated into the management of CNMI's heritage resources. This information can then be used to minimize and mitigate the ongoing impacts associated with economic development.

1.4 Cultural Resources Future Conditions

Future conditions for tangible cultural resources would include loss of research contributions to the archaeological and historic record for sites destroyed by coastal flooding, erosion, or RSLC. Economic growth through the tourism industry for tangible cultural resources is expected to decline from coastal flooding and erosion damaging the historic integrity of a cultural resource or inundation caused by RSLC making cultural resources inaccessible to cultural resource managers or the public. Intangible cultural resources are also expected to deteriorate in the future, with lack of access from coastal flooding, erosion, or RSLC altering cultural landscapes as well as keystone cultural species for the Chamorro and Carolinian people. The deterioration of CNMI's natural resources, such as coral reefs, would alter the indigenous people's social connection and traditional practices taking place across the land and its resources.

2 Cultural Resources Investigations Overview

To establish a baseline inventory for cultural resources within the study area, literature research was completed using site records, cultural resource inventories, academic archaeological reports, and resource management plans, all of which are readily available online.

USACE consulted with the Commonwealth of the Northern Mariana Islands Division of Historic Preservation (HPO) within the Department of Community and Cultural Affairs. The Northern Mariana Islands Historic Preservation Officer (SHPO) sits within the HPO and is responsible for the preservation and protection of cultural resources across the territory, including review of proposed undertakings under Section 106 of the National Historic Preservation Act, as well as other federal and territorial laws and regulations across the Northern Mariana Islands.

The CNMI Historic Preservation Plan, published in 2011, was consulted for this watershed assessment in order to better understand the territory's cultural resource aims.

Although the report was published several years ago, the preservation plan lays out specific historic preservation objectives and goals ranging from public participation, education, and outreach to updating methodologies for cultural resource surveys and inventories, economic development, and heritage tourism.

The HPO has completed systematic surveys and assessments of sites and features across Saipan, Tinian, Rota, and Aguiguan, conducted by both HPO staff and contracted professional archaeologists. These surveys are typically conducted in advance of government projects or commercial land-use development. Adequate funding as well as annual appropriations from the CNMI Legislature to promote historic preservation have been significantly reduced since the



2011-2015 Historic Preservation Plan was published, making necessary efforts to identify and evaluate significant cultural resources difficult. The 2011-2015 CNMI State Historic Preservation Plan also notes that survey and site data are often inaccessible to agencies, scholars, or the public due to a majority of the information remaining in paper format and undigitized.

2.1 National Register-Listed Properties

Historic properties listed for the Commonwealth of the Northern Mariana Islands include prehistoric and historic buildings, structures, sites, and districts. Thirty-seven historic properties are currently listed in the National Register of Historic Places (NRHP) database, spread across Saipan, Rota, and Tinian. The database was last updated on December 30th, 2021 and was reviewed by USACE before plotting non-sensitive historic property locations onto a map.

Table 2-1. List of historic properties.

Historic Property	Property Type	Village	Island
Chugai' Pictograph Site	Site	Chugai'	Rota
Chudang Palii Japanese World War II Defensive Complex	District	Sinapalu	Rota
Commissioner's Office	Building	Songsong	Rota
Dugi Archeological Site	District	Songsong	Rota
Japanese Coastal Defense Gun	Structure	Songsong	Rota
Japanese Hospital	Building	Songsong	Rota
Mochong	Site	Songsong	Rota
Nanyo Kohatsu Kabushiki Kaisha Sugar Mill	Building	Songsong	Rota
Rectory	Building	Songsong	Rota
Rota Latte Stone Quarry	Site	Songsong	Rota
Isley Field Historic District	District	Chalan Kanoa	Saipan
Landing Beaches, Aslito-Isley Field, and Marpi Point	District	Chalan Kanoa	Saipan
Unai Obyan Latte Site	Site	Chalan Kanoa	Saipan
Waherak Maiher	Structure	Chalan Kanoa	Saipan
Chalan Galaide	Site	Garapan	Saipan
Japanese Jail Historic and Archeological District	District	Garapan	Saipan
Campaneyan Kristo Rai	Structure	Garapan	Saipan
Japanese Hospital	Building	Garapan	Saipan
Japanese Lighthouse	Structure	Garapan	Saipan
Managaha Island Historic District	District	Garapan	Saipan
Sabanetan Toro Latte Site	Site	Garapan	Saipan
Laulau Kattan Latte Site	Site	Kagman III Homestead	Saipan



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Historic Property	Property Type	Village	Island
Hachiman Jinja	Site	Kannat Taddong Papago	Saipan
Unai Achugao Archaeological Site	Site	Punton Achugao	Saipan
Sister Remedios Early Childhood Development Center	Building	Saipan	Saipan
Japanese 20mm Cannon Blockhouse	Building	Saipan Island	Saipan
Tachogna	Site	San Jose	Saipan
House of Taga	Site	San Jose	Saipan
Banzai Cliff	Site	San Roque	Saipan
Suicide Cliff	Site	San Roque	Saipan
Unai Laguna Japanese Defense Pillbox	Structure	San Roque	Saipan
Brown Beach One Japanese Fortifications	Site	Unai Laolao Kattan	Saipan
Magpo Valley Latte Sites District	District	San Jose	Tinian
House of Taga Boundary Increase and Additional Documentation	Site	San Jose Village	Tinian
Tinian Landing Beaches, Ushi Point Field, Tinian Island	District	Tinian Village	Tinian
Japanese Structure	Building	Tinian Village	Tinian
Nanyo Kohatsu Kabushiki Kaisha Administration Building	Building	Tinian Village	Tinian
Nanyo Kohatsu Kabushiki Kaisha Ice Storage Building	Building	Tinian Village	Tinian
Nanyo Kohatsu Kabushiki Kaisha Laboratory	Building	Tinian Village	Tinian
Unai Dangkulo Petroglyph Site	Site	Unai Dangkulo	Tinian





Figure 2-1. NRHP-listed historic properties for Saipan and Tinian.





Figure 2-2. NRHP listed historic properties for Rota.

Since publication of the 2011-2015 CNMI Historic Preservation Plan, the HPO has created and digitized a geospatial layer titled, “National Historic Landmarks and Sensitive Areas” covering the island of Saipan. This geospatial layer has helped inform the public, agencies, and land-use developers of the island’s culturally sensitive areas and National Historic Landmarks across the landscape. This information has helped agencies and developers assess the risk of impacting cultural resources early in planning.



Table 2-2. List of National Historic Landmarks and Culturally Sensitive Areas defined by the HPO for Saipan.

Name	Category
Marpi Point	National Historic Landmark
Aslito/Isley Field	National Historic Landmark
Landing Beaches	National Historic Landmark
Fanonchuluyan Coastal Area	Culturally Sensitive Area
Kalabera Area	Culturally Sensitive Area
Laolao Bay Coastal Area	Culturally Sensitive Area
Obyan Coastal Area	Culturally Sensitive Area
Agignan Coastal Area	Culturally Sensitive Area
Western Coastal Area	Culturally Sensitive Area
Chalan Galaide Area	Culturally Sensitive Area
Akgak Area	Culturally Sensitive Area

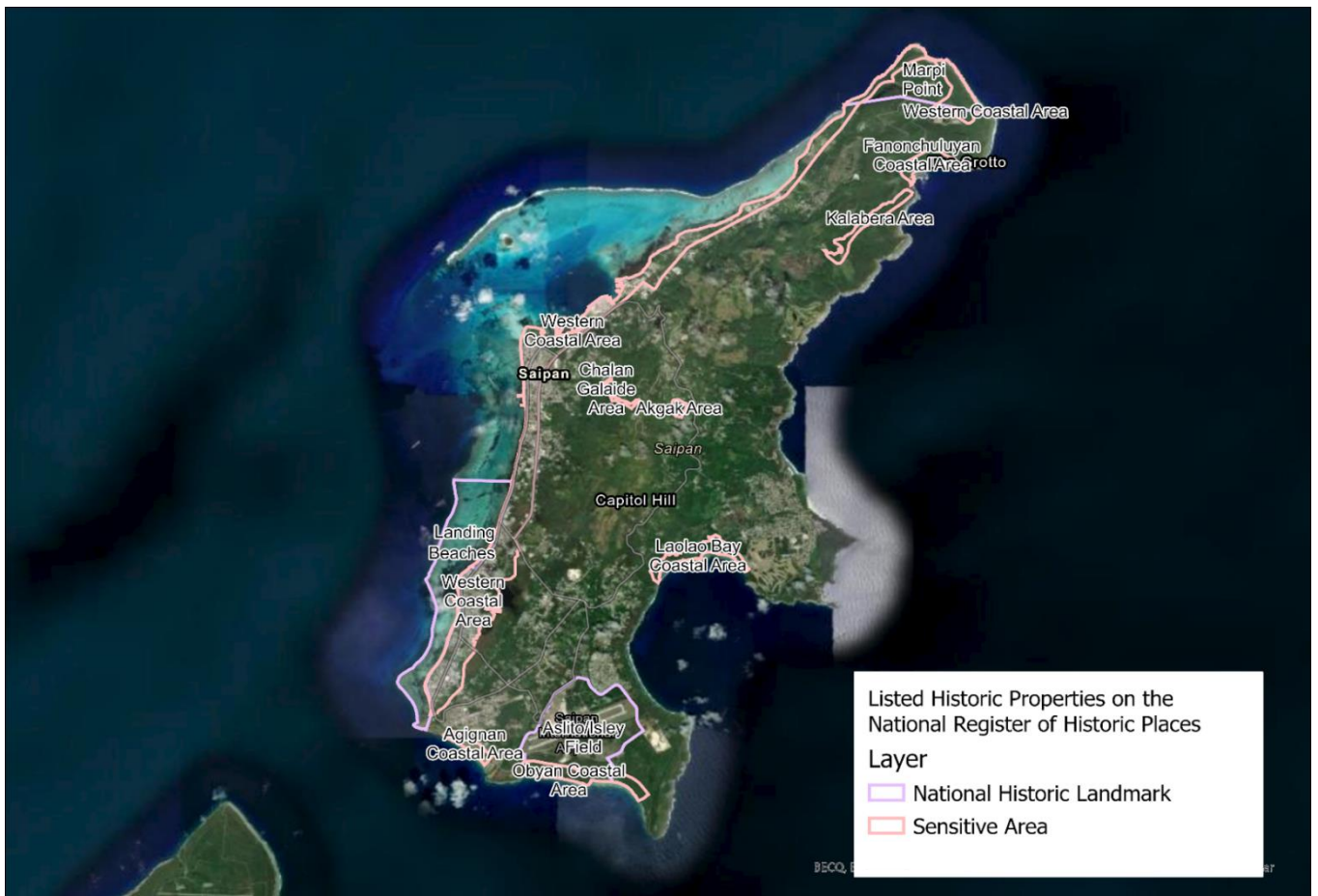


Figure 2-3. National Historic Landmarks and Culturally Sensitive Areas defined by the HPO for Saipan.





Figure 2-4. National Historic Landmarks and Culturally Sensitive Areas defined by the HPO for Tinian.





Figure 2-5. National Historic Landmarks and Culturally Sensitive Areas defined by the HPO for Rota.

3 Land-Use Reviews

Land plays an important role in the cultural and economic development of CNMI. Maintaining local Chamorro culture and control over land is established through Article XII of the CNMI Constitution which limits acquisition of real estate and property to those of Northern Marianas descent (CNMI HPO, 2011).

The HPO plays a crucial role in reviewing land-use projects, along with two other CNMI permitting agencies, under Public Law 3-39 which covers both private and public lands. Any large-scale projects undertaken within sensitive environmental areas require review by the Coastal Resource Management Program (CRM). CRM permits for large areas of land are subjected to systematic survey and mitigation efforts if significant cultural resources and adverse effects are identified. Local landowners have expressed concern in the past regarding historic preservation measures which would hinder use of the land to its full extent, as well as leases or sales to developers outside of CNMI who may be required to fund archaeological surveys or mitigation work (CNMI HPO, 2011).

4 Problems Identified for Cultural Resources

Background research identified several problems and uncertainties associated with cultural resources situated within the watersheds of the Northern Mariana Islands. The historic properties listed on the NRHP include sites from every temporal period discussed above and thus provide a solid backbone for historic preservation efforts. However, it is expected that



many, possibly most, archaeological cultural resources remain undiscovered and therefore not listed on the NRHP. These resources will remain unknown until ground disturbing activities expose them, likely inadvertently. The HPO is involved in the Division of Coastal Resources Management's One-Start Permit, requiring applicants to conduct surveys or have archaeological monitors present during ground disturbing work to minimize or avoid the impacts of any inadvertent finds.

Surveys and evaluations remain to be completed for much of the Northern Mariana Islands, including professional evaluations for intangible cultural resources whose historic significance has not been well defined. This is true especially for certain islands that are less developed and most likely have coastal cultural resources that are endangered by flooding, sea level change (SLC), and erosion. A proper cultural resource inventory, including ethnographic fieldwork to identify intangible cultural resources, should be required when selecting a project for implementation across the watershed. Traditional cultural properties and intangible cultural heritage are assumed to be an important resource for the island; however, a data gap remains on how they are defined. This includes natural features with potential cultural significance associated with traditional Chamorro legends or mythologies, as well as sites associated with traditional ecological knowledge or resource management strategies. An inventory of such resources, based on ethnographic interviews with cultural practitioners, will help agencies and organizations to understand the location, size, type, and function of CNMI's many cultural resources while contributing to the HPO's historic preservation goals.

The location of archaeological sites depends largely on habitation and settlement patterns, including proximity to marine or natural resources, as well as areas with traditional importance to the Chamorro people. A majority of the Pre-Latte Period sites documented in the past had relatively small site boundaries and were located along flat elevated coastal areas, in close proximity to coastal lagoons, or on low terraces above beaches. Few sites were recorded inland. These coastal sites would face issues related to SLC, flooding, and coastal erosion.

Tsunami damage would cause short-term permanent impacts to sites with the potential to expose buried archaeological deposits, exacerbate erosion, or completely destroy a sites integrity before it can be properly inventoried and studied. The location of Latte Period sites was noted in sheltered areas with reef or beach access, providing accessibility for marine resources. Few significant archaeological sites are located inland, although some do exist, thought to be associated with population increase which pushed settlements into upland areas (Reinman, 1977; Kurashina and Clayshulte, 1983).

USACE held a meeting with the CNMI HPO staff and presented the problems identified for the watershed in this study, as well as objectives for watershed assessment. The CNMI HPO staff noted that coastal erosion, SLC, and flooding posed the greatest threats to cultural resources for CNMI. A questionnaire was also sent the CNMI HPO. The results of the questionnaire identified ongoing challenges associated with changes in information technology and database management in particular. Attempts to minimize the effects of erosion-accelerating events (flooding, tsunami, sea-level fluctuation) should also incorporate advancements in the HPO's capacity to identify, track, and manage its tangible and intangible cultural resources.



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