

**REVISED DRAFT—Research Design for an Archaeological
Inventory Survey of Lot M02-082 in Hågat (Agat) on the Island of
Guam**

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MANAGEMENT SUMMARY

At the request of private landowner Donald Henderson, Keala Pono Archaeological Consulting intends to conduct an Archaeological Inventory Survey (AIS) of Lot M02-082 for the proposed demolition and construction of a single-family home. This request is in compliance with the Certificate of Approval (2018-0371) and the Review and Compliance (2018-0060) forms approved by GHRD (Guam Historic Research Division). The project area is located in the town of Hågat (also known as Agat), in the municipality of the same name, on the island of Guam. Planned ground disturbance for the project will consist of excavating a footprint for a retaining wall, and a utility trench for a new sewer and waterline. The remainder of the proposed work will take place in four feet of fill added to the property after the retaining wall is constructed.

Multiple historic sites are known in the immediate vicinity of the parcel. Of particular importance, the Togcha-Hågat Mortuary Site, a site containing multiple Latte-era human burials, lies just a few meters outside the lot on its southeast corner and likely extends into the project area. This part of the larger Old Hågat Village Site. Furthermore, the parcel is within the boundaries of the Agat Invasion Frontlines, which surrounds the entire town. And finally, it is theorized that a historically significant Spanish roadway, *El Camino Real*, passes through this parcel. Considering the multiple significant historical sites from different periods in the vicinity of the project area, we propose four Shovel Test Pits (STPs) along the proposed footprint of the retaining wall. These locations were chosen because they will be representative of the extent of native ground disturbance during the project. Any ground disturbing work in the area during construction would likely require archaeological monitoring by a qualified archaeologist, or the excavation of additional STPs before work could proceed.

CONTENTS

MANAGEMENT SUMMARY	i
FIGURES.....	iii
TABLE.....	iii
INTRODUCTION	1
Description of the Project	1
BACKGROUND	7
Environmental Context.....	7
Cultural-Historical Context	10
Pre-Latte Period (1500 BCE–500 CE) and Transitional Period (500–800 CE).....	10
Latte Period (800–1521 CE).....	16
Pre-Colonial European Trade Period (1521–1668 CE)	17
Spanish Missionization Period/CHamoru-Spanish Wars (1668–1700 CE).....	18
Spanish Colonial Period (1700–1898 CE).....	18
First American Territorial Period (1898–1941 CE).....	19
World War II/Japanese Military Occupation Period (1941–1944 CE).....	22
Battle of Guam.....	24
World War II/Second American Territorial Period (1944–1950 CE).....	24
Organic Act/Home Rule/Economic Development Period (1950–Present).....	28
Archaeological Context	28
Previous Archaeological Studies	28
Price 1977 (0.5 km north / 0.9 km south)	28
Hunter-Anderson and Moore 1987 (0.5 km north)	35
Craib and Schilz 1993 (0.9 km north).....	35
Moore et al 1995 (adjacent)	35
Hunter-Anderson 2002 (adjacent).....	35
Dixon et al 2004 (1.0 km north).....	36
Craft and Denardo 2014 (Whole Island).....	36
Craft 2017 (Adjacent)	36
Defant and Cabrera 2018 (1.7 km south).....	36
Moore et al. 2018 (1.2 km northeast).....	36
Ongoing Projects.....	36
Archaeological Sites	37
Agat Invasion Beach (66-02-1054).....	37
Tijera Subsurface Deposit (66-02-1357).....	37
Old Hågat Village / Togcha-Agat Mortuary Area (66-02-1660)	37
El Camino Real (66-01/02/03-2832).....	38
Agat Invasion Frontlines (66-02-2572).....	38
Old Hågat Cemetery	38
Summary.....	38

Contents

PROJECT DESIGN	39
Research Objectives and Archaeological Expectations	39
Project Personnel	39
Field Methods	39
Post-Fieldwork Analysis.....	40
Radiocarbon Dating	40
Faunal Analysis	40
Artifact Analysis	41
Curation	41
Technical Report	41
SUMMARY AND CONCLUSION.....	42
REFERENCES CITED	43

FIGURES

Figure 1. The project area, located within the Western Pacific and on the Island of Guam.....	2
Figure 2. Closer view of the project area on a 2000 USGS map.....	3
Figure 3. The project area on a 1:6,000 aerial image.	4
Figure 4. Project area on a 1:2,000 aerial image.	5
Figure 5. Proposed construction plan, with proposed Shovel Test Pits.	6
Figure 6. Soil map of Guam (USDA 1985).....	8
Figure 7. Zoomed in soil map of the project area (PacIOOS 2022).	9
Figure 8. A portion of the 1832 Villalobos map of Guam (Tomonari-Tuggle et al. 2018).	21
Figure 9. Portion of a 1914 Army Corps of Engineers map (Sturdevant 1914).	23
Figure 10. Japanese Invasion of Guam map (Rogers 2011).	25
Figure 11. Portion of a 1944 Japanese topographic map of Guam (Tomonari-Tuggle et al. 2018).	26
Figure 12. Battle of Guam map (Army Map Service 1944).	27
Figure 13. Portion of a 1944 Army Map Service topographic map Army Map Service 1944).....	29
Figure 14. Portion of a 1955 Army Map Service topographic map (Army Map Service 1955).	30
Figure 15. Portion of a 1965 USGS map of Guam (USGS 1965).	31
Figure 16. Portion of a 1978 USGS topographic map of Guam (USGS 1978).	32
Figure 17. Previous archaeological studies in the vicinity of the project area.	33
Figure 18. Historic sites in the vicinity of the project area.....	34

TABLE

Table 1. The Mandatory 14 Period Context Imposed by GHRD (from Alvarez 2022)	11
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INTRODUCTION

At the request of the private landowner, Donald Henderson, Keala Pono Archaeological Consulting intends to conduct an Archaeological Inventory Survey (AIS) of Lot M02-082 in Hågat, Guam. The objective of the survey will be to identify and record any significant historic properties that may be present in the project area. This research design is organized into three chapters: the background, the project design, and a concluding chapter. The background covers the environmental, historical, and archaeological setting of the study area. The project design outlines the proposed research objectives, field methods, post-fieldwork analyses, and standards for the preparation of a technical report. The concluding chapter summarizes the main points of the background research and the stipulations for the AIS. The results of this investigation are intended to aid in the preparation of an Archaeological Monitoring Plan (AMP) to guide monitoring during ground disturbance for the proposed work on the property.

Description of the Project

The project area is located on lot M02-082, a 0.1 hectare (0.25 ac.) parcel in the village of Hågat, in the municipality of the same name, on the island of Guam (Figures 1–4). The Area of Potential Effect (APE) is the entire 0.1 hectare lot. The parcel is currently owned by Donald Henderson. The proposed project involves the demolition and removal of the existing structure on the lot, followed by the construction of a new single-family home and the addition of new water and sewer lines. The building currently residing on the lot does not appear to be historical, it has not been mentioned in previous archaeological reports in the area (Craft and Denardo 2014), and does not appear on USGS maps before the year 2000. The proposed footprint for the new house will be above flood level. This will be achieved by building a single retaining wall along one side of the lot and backfilling the remainder of the lot. Excavations for the retaining wall will extend to 0.9 m (3 ft.) below grade, and excavations for the sewer and water lines will slope from above grade to approximately 1.3 m (4 ft.) below grade. The plan is to raise the level of the lot by 1.3 m (4 ft.) with off-site fill. Because of this, the only native ground disturbing work during the project will be the grubbing and clearing of the lot, the excavation of the footprint for the retaining wall, and the excavation of utility trenches for new water and sewer lines (Figure 5). The project area is located within the boundary of two known archaeological sites, including the Tocha-Agat Mortuary area, a prominent burial feature of the Old Hågat Village site, as well as the Agat Invasion Frontline site. In addition, the El Camino Real may cross the property. With this in mind, the project will require an archaeological inventory survey, and will likely require archaeological monitoring.

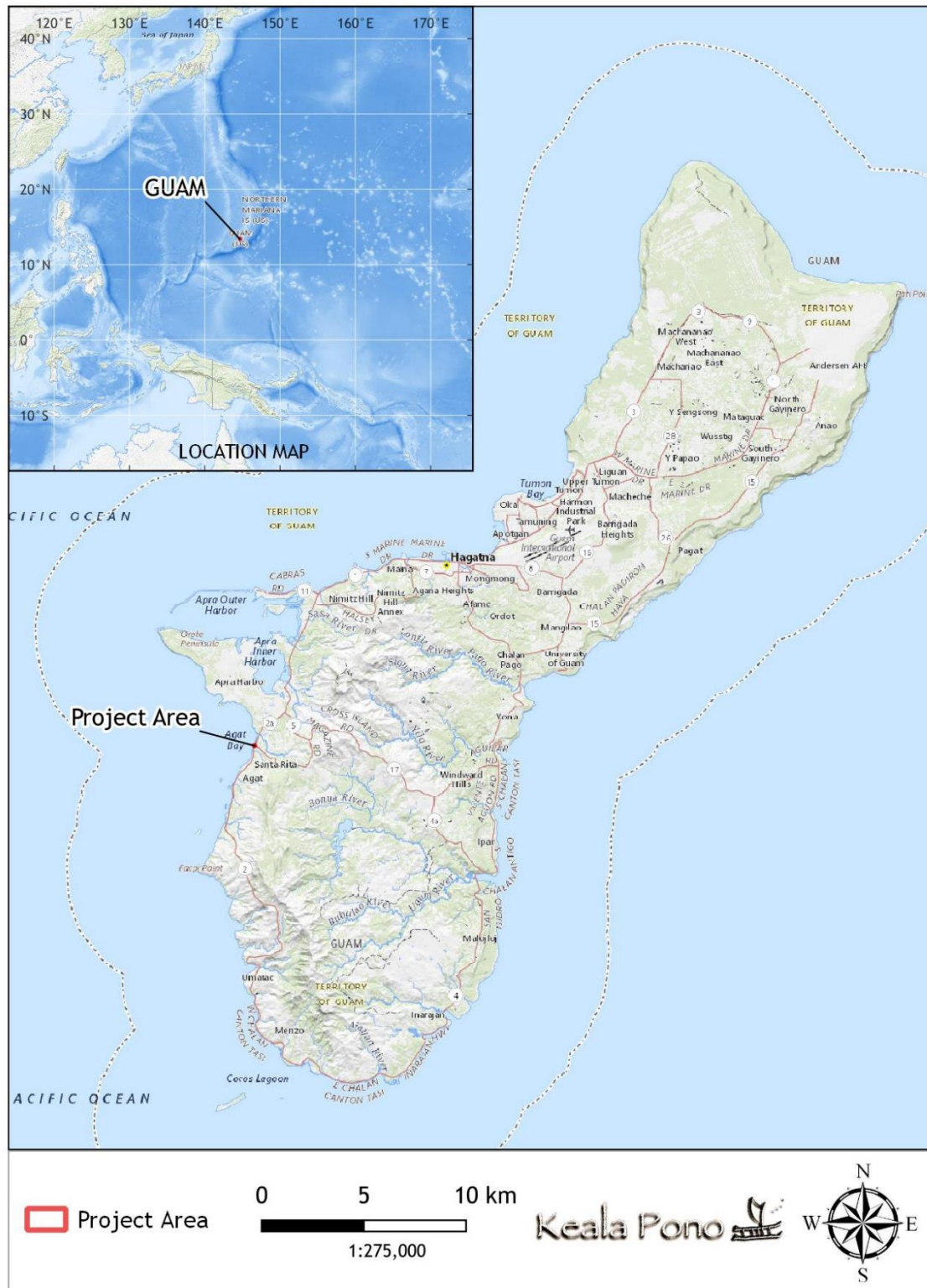


Figure 1. The project area, located within the Western Pacific and on the Island of Guam.

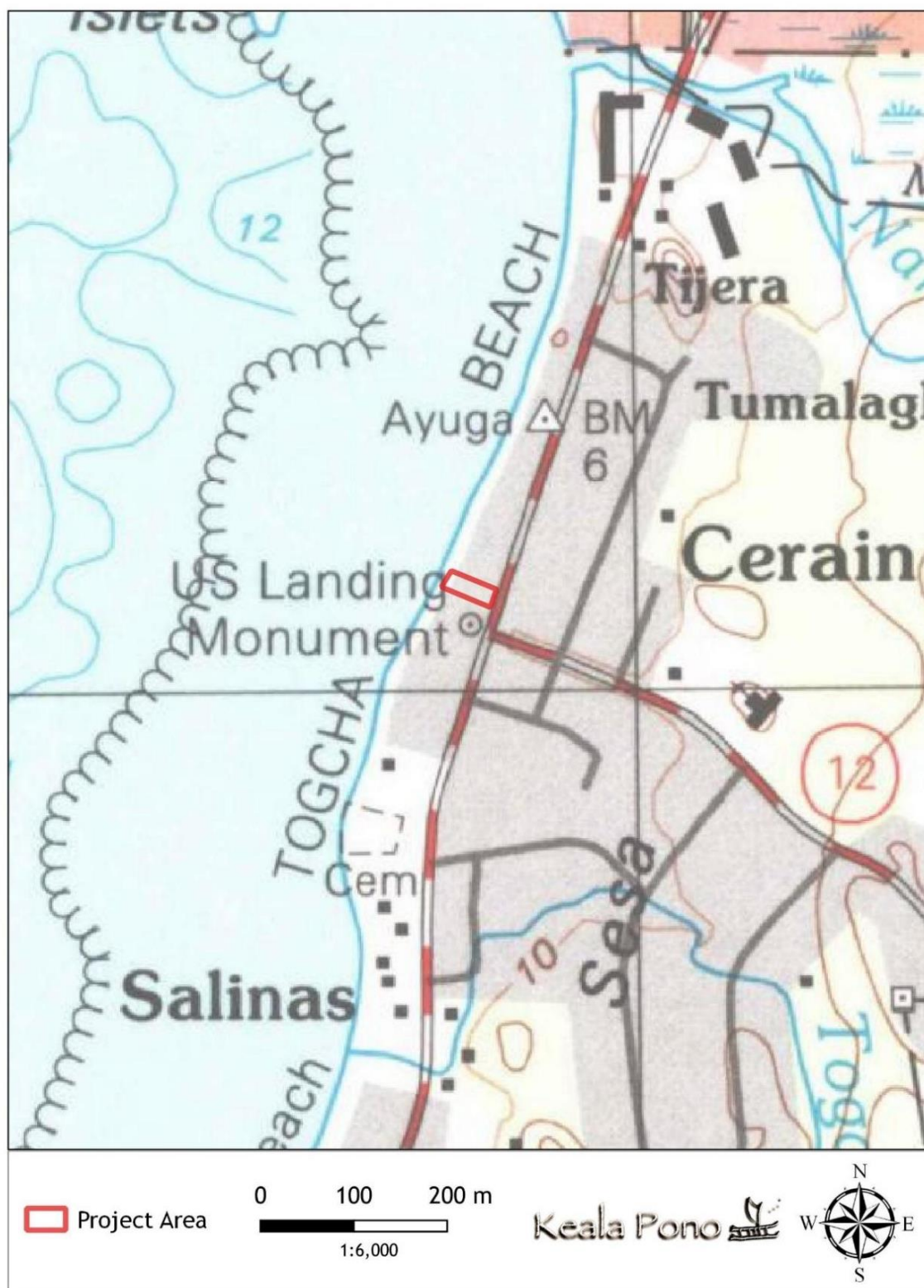


Figure 2. Closer view of the project area on a 2000 USGS map.

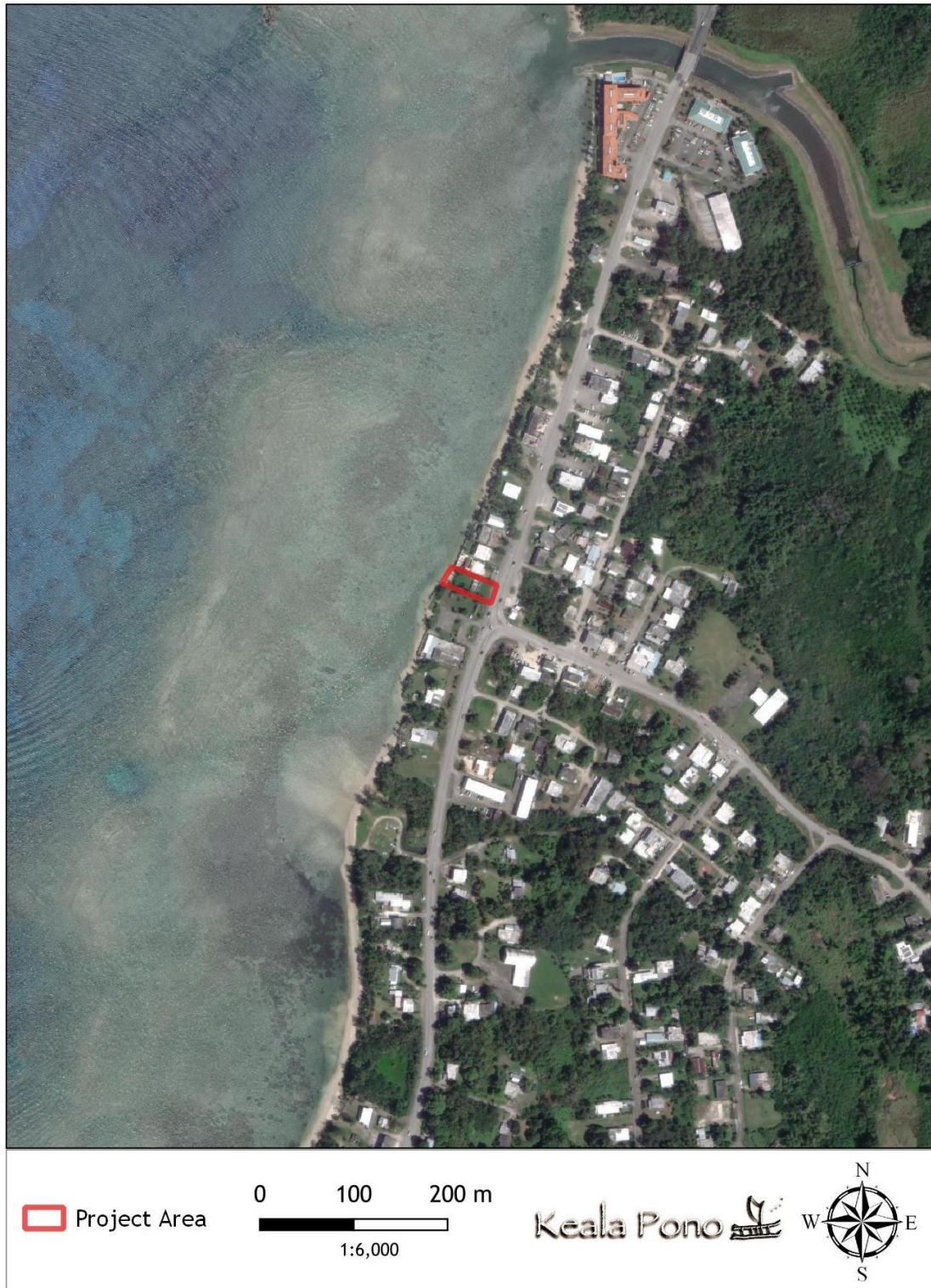


Figure 3. The project area on a 1:6,000 aerial image.



Figure 4. Project area on a 1:2,000 aerial image.

BACKGROUND

The background information presented below provides an environmental, historical, and archaeological context for the project area. This information is important for generating research objectives and archaeological expectations for the project.

Environmental Context

Located in the Western Pacific, the Mariana Islands are roughly midway between Japan and New Guinea and the first major landfall between Hawai'i and Island Southeast Asia (ISEA). At 13 degrees north latitude and 144 degrees east longitude, Guam is a tropical marine climate that is typically hot and humid throughout the year. Precipitation averages from 216–292 cm per year (85–115 in.) (Gingerich 2003:1), with the wet season ranging from July to December and the dry season ranging from the January to June, although seasonal differences are slight (Gingerich et al. 2015).

The islands are the product of millions of years of tectonic activity caused by the collision of the Pacific and the Philippines plates. These collisions eventually, over millions of years, resulted in both the subduction of the Marianas Trench and the uplift of the Mariana Islands. This took place over two punctuated periods, the first of which started roughly 42 million years ago, followed by the second phase 8 to 10 million years ago, which continues to the present day. The island chain runs from north to south and forms a double arc, a direct product of the two volcanic phases. The geologically older islands of Guam, Luta (Rota), Aguijan (Aguiguan), Tinian, and Saipan, lie to the south, with the smaller younger islands of No'os (Farallon de Medinilla), Anatahan, Sarigan, Guguan, Alamagan, Pagan, Agrihan, Asuncion, the three Ma'ok (Maug) Islands, and Farallon de Pajaros, lying to the north. Of these islands, only several of the southern islands are inhabited today, with most of the population living on Guam (168,801) and Saipan (43,385) as of the 2020 census.

The project area is located in the town of Hågat on the western coast of Guam, the largest and southernmost island in the chain. Guam forms the natural economic center of the region, boasting both the largest population and geographic area in the island chain. The terrain in Guam can be separated into two distinct regions, separated by the Pago-Adelup Fault line: a limestone plateau bounded by sea cliffs to the north and volcanic hills with ravines and protected embayments to the south (Carson 2016:43). Just west of Mount Alifan on the western coast of the southern highlands lies the town of Hågat, within which the project area is located at the intersection of Highway 2 and Highway 12. Hågat experiences a tropical rainforest climate with an average monthly rainfall ranging from 15 mm (0.6 in.) in March to 239 mm (9.4 in.) in August.

While the portion of Hågat where the project area is located is typically dominated by Inarajan volcanic silty clays (Figures 6), the old town of Hågat itself is largely dominated by Ustorthants Urban land complex soils (Figure 7). Urban soils are defined as “a soil material having a nonagricultural, man-made surface layer more than 50 cm thick that has been produced by mixing, filling, or by contamination of land surface in urban and suburban areas” (Craul 1992). This is reflected in a recent soil survey of the parcel found that the area is at least partially covered by loose sand instead (Rayo 2017). The Inarajan soils found in the surrounding area are a type of silty volcanic clays found in this area. They are formed in alluvium and typified by a dark gray clay surface layer with many fine red mottles and a moderate medium subangular blocky structure. Slopes are 0–4%, and the soil color changes from dark gray to dark yellowish-brown beyond 25 cm (9.8 in.) in depth. (Guam Coastal Management Program 2016). In contrast, as mentioned above, the limited soil survey of the lot demonstrated that the first approximately 200–400 (5–13 ft.) of the stratigraphy was a loose silty sand (Rayo 2017). Below this sand, the geotechnical survey encountered a coral shelf, which continued down 975 cm (32 ft.) before hitting a silty clay. The water table was encountered at 158 and 183 cm (5.2 and 6 ft.). The loose sand found on the

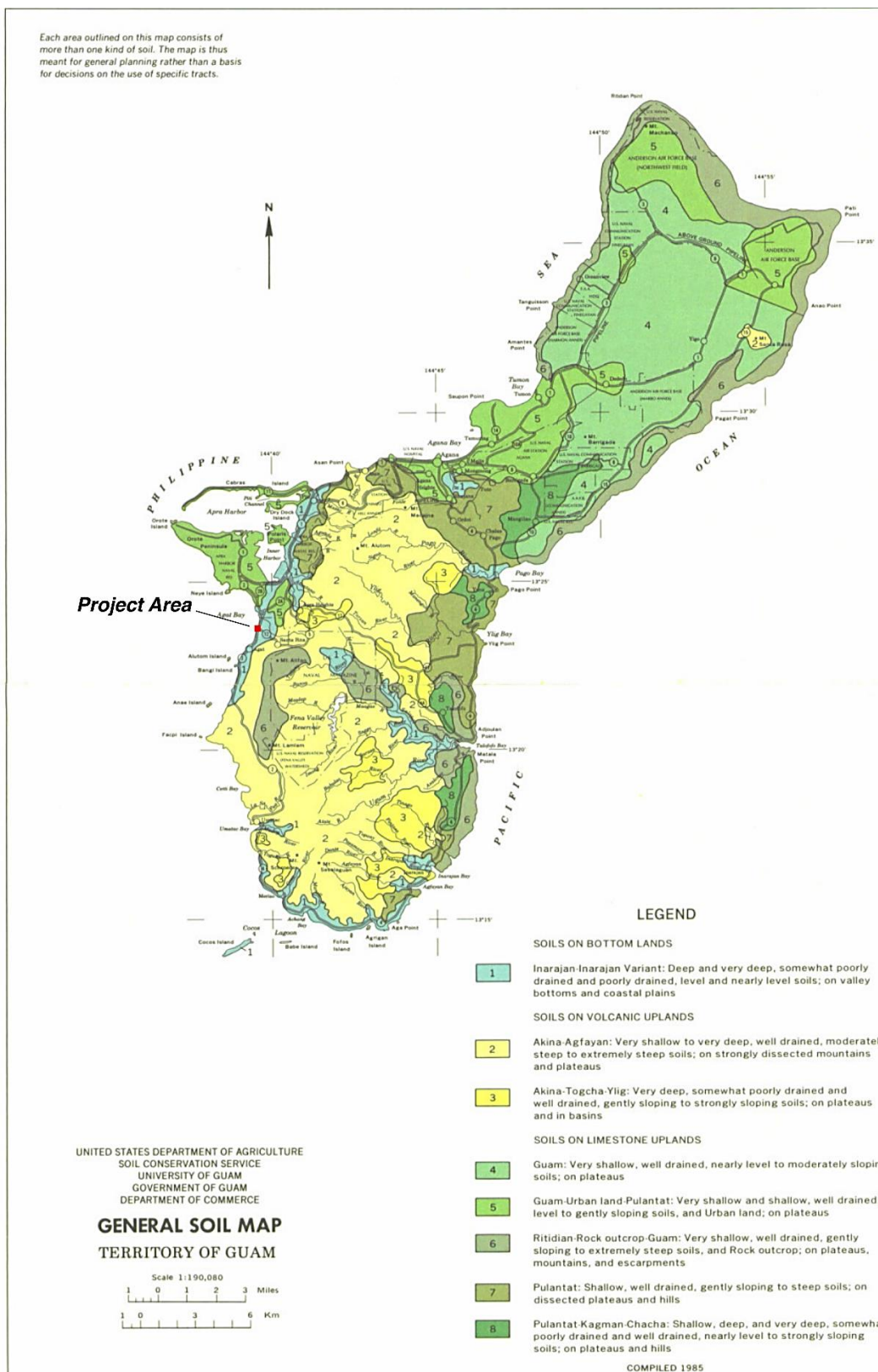


Figure 6. Soil map of Guam (USDA 1985).



Figure 7. Zoomed in soil map of the project area (PacIOOS 2022).

surface of this lot is a possible indication that the parcel has been cleared and replaced with fill. However, as the survey was quite limited, consisting of only two bore holes, further inspection is required to fully determine this possibility.

This environmental context should facilitate a relatively uncomplicated excavation process. The project area is located on an easily accessible coastal parcel in Hågat, within a tropical rainforest climate that is intermittently rainy. Soils in the area are likely loose silty sand and are possibly an anthropogenic fill. Loose sandy soils are typically easy to dig through and often allow precise excavations. Altogether, the environmental aspects of this project should not cause any undue difficulties during excavation, barring any unforeseen circumstances.

Cultural-Historical Context

The known cultural history of Hågat is unfortunately intermittent through the collected history of the Marianas. This is especially true in terms of the entire pre-colonial period. Several books have been written about the history of the Marianas and Guam, such as *Archaeological Landscape Evolution* Carson (2011) and *Destiny's Landfall* Rogers (2011). Additionally, while difficult to access, the *Guam Synthesis* is an excellent well-researched volume of the island's archaeology (Tomonari-Tuggle et al. 2018). And finally, Guampedia, a website moderated by and for the community of Guam, hosts peer-reviewed entries and media highlighting the heritage and history of the CHamoru (Guampedia 2022). While all of these references are useful in recounting the overall history of Guam and the Marianas, none of them focus on Hågat. What data they do have on the village is from the colonial era, beginning in the Spanish Missionization period, and continuing forward to present day. Very little information is available on Latte or Pre-Latte Hågat. Online sources assert that the original clan of Hågat was headed by Chief Coroo who was popular with his people and divided the village into different families (Babauta 2021). Very little else is mentioned of this Chief in other sources, so it is difficult to further build upon this lead as of now.

While little is known of pre-colonial Hågat, the history of Guam and the Marianas as a whole is better understood. Archaeology in Guam has traditionally been broken into three major periods, punctuated by short transitions, with the first period being that of Initial Settlement – this encompasses all Pre-Latte contexts – followed by the Latte Period, and finishing with the Historic Period (Rainbird 2004). More recent work has refined this chronology. Some authors have attempted to better correlate changes in climate and landscape use with sequences noted in the material cultural record, especially for Pre-Latte Periods (Carson 2016), while other authors argue that these changes should reach into the 21st century and that the Historical Period can be better understood as the Colonial Period, wherein the CHamoru have been under foreign control for over 300 years (Rogers 2011). While the specifics of the timeline are largely contested, the general shape of the regional chronologies can be understood through the 14 period historical context mandated by the Guam Historical Resources Division (GHRD), presented in Table 1 below.

Pre-Latte Period (1500 BCE–500 CE) and Transitional Period (500–800 CE)

The Pre-Latte Period is broken into the Early (1500–1000 BCE), Middle (1000–500 BCE) and Late (500 BCE–500 CE) periods. The first settlement of the Marianas is triangulated through several different lines of evidence. Linguistic evidence of CHamoru, spoken in Guam, and Palauan, spoken in the Republic of Palau, suggest that their ancestors entered the region as part of the earliest migration in a three-part sequence of regional settlement in Micronesia. It appears that the Austronesian ancestors of the CHamoru speakers arrived in the Marianas directly from northern Island Southeast Asia, most likely the Philippines, before the movement of Austronesians out of southern Island Southeast Asia (Spriggs 2011, Kirch 2017). Paleoenvironmental information, despite various difficulties with radiocarbon dating, from Tipalao Marsh and Pago Valley in Guam suggest possible human arrival as early as 1600 BCE, with classic signs of

Table 1. The Mandatory 14 Period Context Imposed by GHRD, with Date Ranges, Diagnostic Artifacts, and Historical Events (from Alvarez 2022)

Historic Period	Dates	Diagnostic Artifacts/Historical Events
Early Pre-Latte	1500–1000 BCE	<p>Ceramics: Thin walled, calcareous sand-tempered (CST) red-slipped pottery (Marianas Red). Lips same thickness or thinner than vessel wall (type A rims). Also small numbers of sherds decorated with geometric designs. Vessel types include rounded jars, shallow bowls, carinated bowls. Vessels small (20 cm or less). Fine-line incision and impressing Achugao and San Roque types.</p> <p>Other Artifacts: Flaked or ground stone items (often made of chert), bone and shell implements, and cut and polished ornaments including beads, disks and rings. No surface structures, but possible post holes.</p> <p>Settlement Patterns: Coastal settlements with marine subsistence focus.</p>
Middle Pre-Latte	1000–500 BCE	<p>Ceramics: Continued Marianas Red pottery, with vessels that are slightly larger and walls that are slightly thicker than previous period. Achugao and San Roque incised absent. Exteriors plain, slipped and occasionally burnished and polished. CST still most common temper, but mixed calcareous and volcanic sand (MST) occur. Bold line, lime filled Ipao stamped decoration. Other decorations include scrape marks or impressions parallel to the rim on interior or exterior, fingernail impressions, dots, and ridges.</p> <p>Other Artifacts: Beads are coarser and less defined than earlier. Shell ornaments and very small, polished shell beads of earlier phase, as well as the use of chert for adzes disappear. Caves and rock shelters appear to have been occupied.</p> <p>Settlement Patterns: Coastal settlement focus, but archaeological and paleoenvironmental evidence for inland activities.</p>
Late Pre-Latte	500 BCE.–500 CE	<p>Ceramics: Thick-walled sherds from large, robust vessels. From very large, shallow, flat-bottomed bowls or pans. Vertical slightly flaring rims with thinned Type A lips. Ipao Stamped bowls occur but are not common. Most common temper CST and MST.</p> <p>Other Artifacts: Large unpolished beads and bangles.</p> <p>Settlement Patterns: Coastal settlement focus with expansion along river valleys.</p>
Transitional Period	500–800 CE	<p>Ceramic: No distinctive marker of ceramic technology or decoration. Transition between unthickened Pre-Latte (Type A) and thickened Latte (Type B) attributes. Flat bottom pans disappear early. Lime-filled impressed and incised decorations no longer found. Pots thinner walled; rims range from unthickened to slightly thickened with simple decorations. Tempers include CST and MST as well as volcanic sand temper (VST) that characterizes the Latte Periods.</p> <p>Other Artifacts: Can include types found in the Late Pre-Latte periods and Early Pre-Latte Periods.</p> <p>Settlement Patterns: Settlement extends to rock shelter sites along coasts and interior. Agricultural soils dated to this period. End of the period marked by the appearance of <i>latte</i> stone structures.</p>

Historic Period	Dates	Diagnostic Artifacts/Historical Events
Early Latte	800–1000 CE	<p>Ceramics: Marianas Plain. Type B body (no slipping and minimal decoration) with thickened rims relative to the body. Generally thicker, larger vessels. Pre-Latte pottery still common, but usually plain with trailing, combing, or whipping. Similar distribution to transitional phase. Difficult to distinguish from Middle Pre-Latte.</p> <p>Other Artifacts: <i>Latte</i> structures, caves and rock shelters, <i>lusong</i> and slingstones appear as well as curved bone spear points, beads and large pendants. <i>Tridacna</i> adzes become more common.</p> <p>Settlement Patterns: Settlement across all islands.</p>
Middle Pre-Latte	1100–1350 CE	<p>Ceramics: Marianas Plain Type B body (no slipping and minimal decoration) with thickened rims relative to body. Larger pots, pots with thicker conical bases, exceedingly thin incurving rims. Impressions of rice grains, charred rice residues occasionally found.</p> <p>Other Artifacts: <i>Latte</i> structures, <i>lusong</i>, slingstones and <i>Tridacna</i> adzes common. Also includes curved bone spear points, beads, and large pendants.</p> <p>Settlement Patterns: Marine subsistence focus with major expansion into inland areas.</p>
Late Pre-Latte	1350–1521 CE	<p>Ceramics: Marianas Plain Type B body (no slipping and minimal decoration). Similar to middle period. Higher proportion of very thick rims.</p> <p>Other Artifacts: Similar to Middle Pre-Latte with higher proportion of very thick Type B rims.</p> <p>Settlement Patterns: Dense <i>latte</i> villages along coasts and suitable interior areas with highly developed agriculture and arboriculture. Continued marine focus.</p>
Pre-Colonial European Trade Period	1521–1668 CE	<p>Period begins with Magellan’s landing in 1521 and ends with the start of more concerted missionary efforts</p> <p>Ceramics: Indigenous material appears to have remained largely unchanged. Foreign ceramics may appear.</p> <p>Other Artifacts: Indigenous material still appears to have remained unchanged. Foreign material like iron and glass become available in limited quantities as did foreign animals.</p> <p>Settlement Patterns: Village settlement and subsistence remains similar to preceding period.</p>
Spanish Missionization Period/Chamorro Spanish Wars	1668–1700 CE	<p>Begins with the arrival of Jesuit missionaries and soldiers that arrive to convert the local indigenous population to Christianity. This interaction leads to conflict between indigenous people and Europeans. Ends just after the end of the Chamorro Wars.</p> <p>Ceramics: Foreign ceramics become more common including materials from Europe, Asia, and the rest of the world. Recognized as “kiln-fired” pottery/ceramics. Ceramics might include porcelain and other kiln-fired types.</p> <p>Other Artifacts: Metal, glass, and other historic materials.</p> <p>Settlement Patterns: Spanish authorities from settlements, churches and missions. Chamorro population reduced in number through Spanish conflict and introduced disease.</p>

Historic Period	Dates	Diagnostic Artifacts/Historical Events
Spanish Colonial Period	1700–1898 CE	<p>Starts with this institution of Spanish gubernatorial rule. Ends with the coming of U.S. administration following the Spanish-American War.</p> <p>Ceramics: Archaeological assemblages include the same materials from previous periods. Historical artifacts change over time and non-indigenous ceramic types become progressively more common.</p> <p>Other Artifacts: Non-indigenous artifact types become progressively more common.</p> <p>Settlement Patterns: Subsistence economy transformed to provision galleons and other ships. Maize introduced as a staple crop. Catholicism and the church become fundamental structures for social life and organization.</p>
First American Territorial Period	1898–1941 CE	<p>Begins with the institution of U.S. administration of Guam following the Spanish-American War. Ends just before Japanese military began in 1941.</p> <p>Ceramics: Ceramic types are often still of external manufacture, but the external sources are different than in the previous period. Ceramic types should be more in line with American sources (U.S., Europe, etc.). Ceramics might also include electrical insulators and other industrial trade wares. All of these should have their origins identified so that Terminus Post Quem (TPQ) dates can be established.</p> <p>Artifacts: Historical artifacts should provide TPQ dates that fall after 1898. A lack of artifacts with TPQ dates after 1941 will also help establish assemblages from this period. Glass bottles produced for reuse during this time often include maker's marks and other markings that can help establish tight dates for the bottle's manufacture.</p> <p>Assemblages might also include other materials such as rubber, plastics and other more modern materials with varying documentation of their source and date of manufacture.</p> <p>Settlement Patterns: Guam was considered a remote transportation and communication hub and fueling site by the U.S. There was minimal defensive development of the island. The first U.S. census of Guam in 1920 put the population of Guam at 11,806 in 1910 and 13,275 in 1920 (USCB n.d.). In 1940, the last census completed during this period noted the population of Guam to be 22,290 (USDC 1950).</p>
World War II/Japanese Military Occupation	1941-1944 CE	<p>Begins with Japanese military rule in 1941. Ends after the recapture of Guam by American Forces and the subsequent close of WWII.</p> <p>Ceramics: A very short period that should be difficult to identify archaeologically. Some specific ceramics of Japanese manufacture, especially those with Japanese writing/notation should offer some evidence of this period. However, Japanese (and other East Asian) ceramics have been part of trade since before the Spanish Colonial Period and would require TPQs of a sufficiently late date as well as other associated artifacts to be determined to be from this period.</p> <p>Other Artifacts: Japanese artifacts found to date most often include military objects. These include military structures like pill boxes and fortifications as well as weapons, canteens, and other implements that were used for military applications. Artifacts might also include personal items of a unique Japanese design.</p> <p>Settlement Patterns: The Japanese military cause numerous movements of the local population through coercion (forced movement), persuasion (attempts to convert local populations to Japanese culture) and several other means. Methods to identify these movements archaeologically are still under investigation. Many of the artifacts of this period can be expected to include object produced during the preceding cultural periods.</p>

Historic Period	Dates	Diagnostic Artifacts/Historical Events
Post-World War II/Second American Territorial Period	1944-1950 CE	<p>Begins at the end of WWII and continues until the establishment of the Organic Act in Guam in 1950.</p> <p>Ceramics: Artifacts from this period include various identifiable types of ceramics including, but not limited to hotel ware, stone ware, earthen ware, foreign trade wares, European, Asian, Southeast Asian and other ceramics. Ceramics might also include electrical insulators and other industrial trade wares. Ceramic origin and types will need to be identified to produce TPQs.</p> <p>Other Artifacts: Other artifacts will include all of those from the preceding two periods as well as even earlier periods due to factors like curation. As U.S. military forces were prominent during this period, there should be a greater abundance of artifacts that served a military function than in the earlier First American period. This period will include several unique artifacts, for instance the first artifacts produced with transistors that were invented in 1947</p> <p>Settlement Patterns: Substantial military build-up of offensive and defensive abilities took place in Guam during this period. As the island was administered by the U.S. Navy little commercial development took place during this time. The 1950 Guam Census conducted by the US Department of Commerce noted that the population of Guam had grown by 163.6% (from 22,290 in 1940 to 58,754 in 1950) (U.S. Department of Commerce 1950).</p>
Present, Political and Economic Development Period	1950-Present	<p>Begins with the establishment of a local territorial government and is still ongoing.</p> <p>Ceramics: Nearly any ceramic imaginable could reasonably be found during this period. Advanced ceramics including oxides (alumina, zirconia), non-oxides (carbides, borides, nitrides, silicides) and composites (particulate reinforced, combinations of oxides and non-oxides) are being produced as are non-kiln fired ceramics and other types for practical, artistic, and other purposes (Taylor 2003). Decorations, finishes, methods of firing, design, ductility/elasticity, and other ceramic traits are myriad and can be used to identify modern ceramics. The goal is to identify a TPQ to identify any given site or collection of artifacts fall within the dates of historical significance.</p> <p>Other Artifacts: Artifact types are myriad and are in a similar situation to ceramics above. Ultra-modern materials are produced along sited materials produced with the earliest known production techniques. For instance, blacksmiths still hand forge horseshoes out of hammered iron (Blacksmith Code 2020), while dozens of plans can be found for 3D printing horseshoes using silicon mold injection process to create a shoe with a perfect fit (Morgan 2020). Once these artifacts fall within the window of historical significance, new methods of identification will need to be developed.</p> <p>Settlement Patterns: Commercial development is expanding as well as military development as part of the current military build-up. The 2020 Census of Guam produced by the Government of Guam Bureau of Statistics and Plans puts the total population of Guam at 159,358 in 2010 and 153,836 in 2020. Although this is a very small amount of growth over ten years, this is a 161.831% increase in population since 1950.</p>

anthropogenic disturbance underway by 500 BCE (Kirch 2017). Currently there is no firm archaeological record for human occupation of the Marianas before 1300 BCE. If the earliest date of 1600 BCE is taken, this would indicate a Marianas settlement contemporary with, if not prior to, the Lapita-associated Austronesian settlement of western Remote Oceania. A complicated settlement pattern that included separate “swarm migrations” has been suggested. The current consensus appears to be that Marianas regional archaeology is anomalous throughout its entire sequence when compared to other Pacific Islands (Carson 2012, 2016).

Miguel Vilar states that 92% of Chamorros belong to haplogroup E, that is found in Island Southeast Asia (ISEA) but is rare in Oceania. The most numerous E lineages are identical to those found in Indonesia while the remaining E lineages differed by only one or two mutations that were unique to the Marianas. This pattern suggests a small founding population reached and settled the Marianas from ISEA by 2000 BCE, then was followed by a second migration from ISEA around 1000 CE that introduced the *latte* pillars, rice agriculture, and the homogeneous minority B4 lineage (Vilar et al. 2012).

Excavations dating from the Early Pre-Latte Period confirm the importance of marine resources to human subsistence during initial settlement of the Marianas, with the local diet including shellfish, in-shore fish, as well as the occasional turtle or shark. There is no evidence for the importation of animals, but birds and fruit bats were part of the diet. Native coconut and a local seeded breadfruit were present and presumably utilized, as were other as-yet-unspecified starchy root and tree crops, although the evidence for this is still sketchy (Rainbird 2004, Carson 2016). There is ample evidence for interisland seafaring during the Early Pre-Latte, not the least of which is the homogeneity of early ceramics across the southern Marianas. During the Intermediate Pre-Latte Period ceramics become less complex and were made with different forms, many of which were more suitable for larger community gatherings. Then, during the Transitional Period there was a coexistence of Pre-Latte and Latte Period settlements, sometimes on the same sites, which can make chronological boundaries between these two periods difficult to identify (Rainbird 2004).

One of the most ubiquitous artifact types associated with this period is pottery. Pottery made before 500 BCE often have globular shapes with a restricted mouth and a recurved, thickened rim and calcareous sand temper with a red slip finish. Although their use is not clear, the most plausible current thinking is that they may have served as cooking pots. Some pots have open mouths with flaring side walls and rounded bottoms and, although their function is not certain, may have been used for display or ceremonial purposes. A small number of these open pots are decorated with lime-filled impressions and incisions (Moore 2021).

Pottery made after 500 BCE often had flat bottoms with short vertical side walls. They are often associated with fire-altered rocks and charcoal and appear to have been used for frying, roasting, and/or steaming. Residue analysis revealing taro starch, *Cordyline* (ti), fish scale fragments, and bits of marine shell suggest these ceramics were used to prepare such foods (Moore 2021).

Over time, designs seem to move from more complex to more simple patterns and by 500 CE decorated pots are no longer found in the ceramic sequence. Studies of clay suggest that pots on a single site were made from different clay sources. Temper inclusions, especially quartz, have been used to investigate interisland and intra-island pottery exchange and suggests that pottery did move between islands, but that trade of pottery for the majority of Guam was infrequent, or at least not systematic. Currently, the buried cultural deposits containing the earliest pottery are not found inland, although this might be due to sampling, as sites from this period are often deep below the modern surface (Moore 2021).

Several other kinds of artifacts are associated with this period, including shell bead necklaces, shell bracelets, stone and shell adzes, stone pestles, shellfish gorges, stone and shell net sinkers, and fishhooks. The largest and best-preserved early mortuary population yet identified in Micronesia was found during

excavations in 2007 at Naton Beach. Excavation here revealed Pre-Latte burials that were consistently interred in a fully extended, supine position, with arms at the site, with a tendency to point the feet towards the sea. Burials from the Fiesta Resort Guam site in Tumon had different placement, with the four burials in a seated or reclining position with their legs crossed. These burials had Latte and Pre-Latte sherds nearby, which made the age of the burials uncertain (Eakin 2021).

Latte Period (800–1521 CE)

The Latte Period is associated with different ceramics and architectural forms and is broken into the Early (800–1100 CE), Middle (1100–1350 CE), and Late (1350–1521 CE) periods. The Latte Period is characterized by an overall shift in material culture, settlement pattern, and the land use system (Carson 2016). The term *latte* refers to megalithic structures that included sets of limestone or basalt pillars, comprising *haligi* (uprights) with associated coral or basalt *tasa* (capstones), arranged three to four meters apart in two rows of three to six paired sets. According to both Spanish historical documentation and archaeological investigation, *latte* sets likely represent the foundations for houses built of perishable materials. The exact form of these buildings is not certain, but they likely employed a modified A-frame technique, which was utilized in much of the Marianas Islands (Graves 1986).

This period is firmly established by 1000 CE and corresponds with overall climate stabilization, warmer temperatures, greater rainfall, and more steady and predictable conditions worldwide that accompanied the Little Climatic Optimum. Although this would end with the Little Ice Age around 1300 CE, this climatic change appears to have had little effect on the Marianas. During this period there were high rates of interaction among communities and between islands (Peterson 2012). This is the first period where weapons like slingstones and spearpoints appear. Pottery has been generally glossed as ‘plainware’ and had a simpler form than before (Rainbird 2004, Carson 2016).

Rice was widely used as a medium of exchange, evidenced in pottery with rice impressions and phytolith analysis (Carson 2012). No agricultural features indicative of intense rice production have been located archaeologically that date earlier than late prehistory, suggesting rice might have served a limited role as a valued food for special occasions. It is noteworthy that the Marianas are the only islands in the Pacific where there is evidence of rice production prior to the arrival of Europeans (Graves 1986, Rainbird 2004).

Archaeologically, this period is most distinguished for two types of cultural material, *latte* stones and pottery. *Latte* stones are composed of a hemispherical stone cap (known as a *tasa* or cup) and a rectangular or trapezoidal stone pillar (known as an *haligi*). *Latte* stones are arranged in pairs and often include four or five pairs of stones, but there have also been two, three, and six pair sets discovered. In Guam the *latte* stones range in height from a couple of feet to almost seven feet and are usually between four and six feet tall. These pillars served as foundations for wooden and thatched roof A-frame houses (Cunningham 2021).

Pottery during this period included rounded vessel shapes, volcanic temper inclusions, crudely formed walls, and incurved rims. These pots appear to have been used for boiling foods like taro, yams, breadfruit, and rice, preparing soups, making salt, making coconut oil, and making sugar or syrup from sugarcane. Residue analysis has identified starch (from the roots) and raphides (from the leaves) of taro plants (*Colocasia esculenta*), indicating both the root and leaves were used. Rice impressions have also been identified, although no rice starch has yet been identified. Starch and raphides from the ti plant have also been identified. Angular, fractured bits of marine shell show that shellfish were prepared, kept, and served in these pots as well. Strong associations between surface treatment and function have not yet been established, but it is possible that surface treatment may have been indicative of what was stored and prepared in pottery. Many vessels have a very large capacity, and some have grooves that suggest pots could be suspended, might have had a secure lid for storage, and/or might have had handles for carrying and/or pouring. During the late Latte Period a pot with a thickened, everted rim developed and spread

across the island. Although finishes are considered similar for pottery from this period, there are different finish categories including plain, rough, combed, trailed, and wiped (Moore 2021).

Other artifacts from this period are extremely varied and include various lithic, shell, and other types of artifacts. Stone was used for scrapers, knives, hammerstones, mauls, anvils, adzes, axes, hoes, drills, chisels, sinkers, and slingstones that appear to have been introduced to Guam shortly before the Latte Period. The *poio* was a spherical stone sinker that had a coconut shell lure filled with coconut mash attached to the top, which would be lowered into deeper water and used to draw fish closer over the course of days or weeks so they could be more easily caught with a net. Large stones could be shaped into mortars (*lusong*), pestles (*lommok*) and grindstones (*guasa'on*) for grinding, crushing, and plant processing. Mortars and pestles were generally made of basalt, but might also be made of limestone, sometimes with wooden pestles (*fayao* or *falu*). Mortars might be a single stone with a single hole or depression or could be part of larger cave or rock shelters and have several depressions (Tolentino 2021).

Bones could also be used to make lures, needles, awls, and (barbed) spear tips. As there were no large mammals native to the Marianas, human bones were utilized to make certain implements. Shell was fashioned into adzes, fishhooks, jewelry, scrapers, and rice harvesting implements. Although various types of wood and plant fibers were utilized, these materials do not preserve well in the archaeological record. However, based on archaeological inference and historical documents, these would have included tool handles, cultivating and food processing implements, bamboo for various implements (knives, water containers, construction material), coconut leaf thatching, lashing or cords, nets, wide mouth gourds, and many, many others. Latte-Period CHamoru also wove items like baskets and mats from organic material, including infant cradles and *hagug* (a large woven basket shaped like a case used to carry food reserves and war supplies). There were a variety of baskets of various sizes used for storage and transportation of materials (Tolentino 2021).

The oldest site in the project area is from this period. The Togcha-Agat Mortuary Area, a historic site containing at least two burials, is directly adjacent to the project area. Consequently, any excavations in this parcel have a high probability of encountering artifacts, sites, and burials from this period.

Pre-Colonial European Trade Period (1521–1668 CE)

The indigenous CHamoru of Guam first came into contact with the Spanish Empire in 1521, when Magellan dropped anchor off the coast during his circumnavigation of the globe. These Europeans took special note of the remarkable outrigger canoes they called *proas*, which nimbly darted around Magellan's clumsy ships. Magellan's lieutenant, Pigafetta, wrote that the *proas* were like "dolphins which leap in the water from wave to wave" (Pigafetta [1524/1525] 1906: 95). These vessels were beautiful and highly practical, like those made by other peoples in the Pacific. They were noteworthy, however, for their refinement, arguably the most technologically sophisticated of all sailing canoes in Oceania. Observers estimated that the ships appeared able to run 20 miles in an hour. Later, when the Spaniards were subjugating the Marianas, they compelled all CHamoru to live on Guam or Rota and prohibited sailing beyond the reef without the permission of Spanish authorities. By all accounts, the original CHamoru *proas* had disappeared by the 1780s (Rogers 2011:7, 13)

Although Magellan and his accompanying crew were the first Europeans to encounter Guam, there was a long period between that contact and the more intensive colonization efforts of the Spanish. This span of time between initial contact in 1521 and a more permanent colonial presence, from 1668, is often referred to as the Proto-Historic, or Prelude Period. For some 150 years the islands were rarely visited, except for the infrequent stops of a few Manilla-bound sailors and a handful of English and Dutch privateers. Spanish accounts of this initial contact stated that the CHamoru had a strong desire for iron and other non-local goods. Spanish-CHamoru interactions were often volatile, and trade was undertaken at a physical distance by raising and lowering baskets along ropes from Spanish ships down to CHamoru

canoes (Rogers 2011:38). Even this minimal contact impacted local society in Guam. By the 17th century, villages like Litekyan (Ritidian) appear to have been composed of economically integrated households made up of multiple functionally unique buildings, possibly representing a gendered division of labor. This increasing differentiation in the use of space coincided with the appearance of Western trade goods in the archaeological record of this indigenous village on the north shore of Guam (Bayman et al. 2012a and 2012b). At this time there were still only a few westerners who had ever spent extended time on any of the islands of the Marianas. A shipwreck survivor named Gonzalo de Vigo was stranded in 1568, as were a Franciscan friar and two soldiers in 1596. In 1601, a Franciscan Father named Juan Pobre de Zamora and two fellow Franciscans established a mission on Luta (Rota) that survived for just two years (Skowronek 2009).

This Proto-Historic Period ended with the arrival of Jesuit Father Diego Luis de San Vitores, who established the first mission and fortification in Hagåtña (Agana). It was at this time that the archipelago was renamed for Queen Mariana of Austria, the wife of Felipe IV of Spain (Skowronek 2009). Missionization was accompanied by intensive military efforts to pacify and subjugate the CHamoru. This included *reducción*, which began in the late 1600s and was complete by the 1730s (Hezel 2021). The CHamoru population was estimated, at the time of contact, to number in the tens of thousands. Guam alone supposedly supported 30,000–45,000 native people in 180 settlements. The CHamoru settlement of Hagåtña that existed in what would later become the Spanish capital of Agaña consisted of over 200 native structures as late as 1668 (Skowronek 2009). Little archaeological research, outside of that undertaken at Litekyan (Ritidian), has systematically examined the traces of CHamoru lifeways during either the Proto-Historic Period or following *reducción* (Bayman et al. 2012a, 2012b).

Spanish Missionization Period/CHamoru-Spanish Wars (1668–1700 CE)

After three decades of violent conflict throughout the Islas Marianas, Spanish governors were finally able to enact formal *reducción* between 1697 and 1698. By the 1730s colonial soldiers and Jesuit missionaries had succeed at forcibly relocating the native CHamoru populations of the Marianas into centralized villages on Guam and Luta (Rota). The official population centers on Guam corresponded to six new colonial administrative districts— Hagåtña (Agana), Inapsan (Jinapsan), Pāgu (Pago), Hågat (Agat), Humåtak (Umatac), and Inalåhan (Inarajan). Although the CHamoru were not expected to pay tithes or taxes, they were drawn into *alcalde*-administered agricultural production and ranching, which relied on the labor of landless native households. Some CHamoru retained rights to ancestral lands that they worked as *lānchos* (ranch-farms), growing crops (corn, sweet potato, rice, and fruit trees) and raising animals (pigs, chickens, cattle). These CHamoru would work the *lānchos* during the week, returning to their district villages to attend weekend religious services (Bayman and Peterson 2016, Hezel 2021).

Hågat first appears in the historical record during this period when Jose de Quiroga designated the town as a compulsory settlement after the CHamoru civil war between 1680 and 1684. This coincided with the construction of the first church in Hågat in 1680 (Babauta 2021). As the project area is located within the limits of the old village of Hågat, there is a moderate possibility of encountering artifacts from this period during the project.

Spanish Colonial Period (1700–1898 CE)

The 18th century saw the introduction of many new aspects of material culture from Spain, the New World, and Southeast Asia to Guam. Traditional *latte* buildings were still in use when the Spanish began colonizing the island in the second half of the 17th century but were abandoned as a consequence of *reducción*. Local agriculture continued to include traditional CHamoru crops like breadfruit, bananas, and rice, while expanding to include maize, sweet potato, and cassava. Wooden plows, pulled by Spanish cattle and Asian water buffalo (carabao), began to replace digging sticks for field preparation. New tool technologies were promoted through the importation of craftsmen, like blacksmiths, at the behest of the

governor of Guam beginning in 1771. In the late 1700s the construction of roads and bridges began, including a royal road (*El Camino Real*) that would eventually connect the capital at Hagåtña (Agana) to galleon anchorage at Humåtak (Umatac) (Bayman and Peterson 2016, Alvarez 2022). From the 1832 Villalobos map, it would appear that this route originally passed directly through Hågat, and possibly the project area (Figure 8). As with the Spanish Missionization Period, there is a moderate possibility of encountering material or structures from the Spanish Colonial Period during this AIS. Of considerable interest to the authors of this Research Design, is whether the route of *El Camino Real* passes through the project area itself, as well as if cultural material from the Spanish occupation of Hågat occurs within the project area.

First American Territorial Period (1898–1941 CE)

The Spanish-American War would have major consequences for Guam. During this globe-spanning war, the U.S. Navy eventually moved to invade the island. After a confused meeting between Spanish leaders in Piti, the colonial government in Guam surrendered to American forces on June 21, 1898. The local Spanish representatives had initially gathered in Piti to conduct regular customs and health inspection of foreign ships in the usual manner, and had been apparently unaware of the American's intentions. Faced with an overwhelming American force, Governor Juan Marina tendered a written surrender in which he stated, "I am under the sad necessity of being unable to resist such superior forces and I respectfully concede to your demands" (Rogers 2011).

After the war, the U.S. organized a peace commission in Paris with Spain, Germany, and Japan. The Treaty of Paris was signed by Her Majesty Maria Cristina, the queen regent of Spain, and the U.S. on December 23, 1898. Ratified in early 1899 by both governments, the treaty was proclaimed as law on April 11, 1899. Although America was offered the opportunity to acquire all of the Mariana Islands, by the end of these negotiations Guam found itself surrounded by German colonies. Notably absent from any of these negotiations were the CHamoru of Guam. Although the treaty acknowledged "native inhabitants," there were no stipulations regarding sovereignty or indigenous rights other than those then mandated by the U.S. Congress (Rogers 2011).

Even before the signing of the Paris peace treaty, the U.S. Navy was preparing to occupy and administer Guam. Under the recommendation of the U.S. Navy, President McKinley issued Executive Order 108-A on December 23, 1898: "The Island of Guam in the Ladrones is hereby placed under the control of the Department of the Navy. The Secretary of the Navy will take such steps as may be necessary to establish the authority of the United States and to give it the necessary protection and government." Captain Richard Phillips Leary was selected as Guam's first naval governor and would be responsible both for military command as well as civil administration. Per the instructions of the Secretary of the Navy, military concerns would take precedence over all others. However, for a time there were no American officials in Guam. Interim local governors were noted to drain away public funds for personal gain and to promote pro-Spanish individuals in positions of power (Rogers 2011).

The first resident U.S. Naval administration of Guam came with the appointment of Richard Leary as governor, which started in 1899 upon his arrival on Guam. Leary moved into the Governor's Palace in Hagåtña (Agana) after renovations, and set to work on Guam with his de facto Lieutenant Governor Lieutenant William Edwin Stafford. The governor focused on military matters, while it was the lieutenant governor who worked to reorganize civil authority on the island. Leary's executive orders on Guam tended to be arbitrary and the new naval government was generally unable to get locals to perform labor. As a result, much of the new civil and military construction of this period was done by U.S. military personnel. Notable changes during this time were the move from church schools in Spanish to secular public education in English, improvement in public works through the construction of drainage systems, the construction of a water distillation plant, and the construction of water storage tanks. Leary also instituted and enforced garbage collection and required outhouses as toilets in main villages. Leary also

installed Guam's first telephone system between Hagåtña (Agana) and Piti, and asked Washington to authorize a military commissary and post exchange (Rogers 2011).

In an eerily familiar colonial move, Washington, D.C. instructed U.S. Army transports steaming from San Francisco to the Philippines via Hawai'i to stop in at Guam on the westward leg of their ocean journey, to deliver people, mail, money, and supplies to Guam. Thus, every one to three months an army steamer would anchor about a mile outside of Apra Harbor, where it would be met by small boats launched from the shore. On the eastward-bound voyage from Manilla to San Francisco, these transports followed the shorter Great Circle Route directly across the north Pacific, along the same route followed by Spanish galleons in earlier centuries (Rogers 2011).

The local judicial system was initially left under Spanish laws and procedures, only replaced by measures based on American laws piecemeal, over time. With his last edict, Governor Leary made it illegal for males of the Caroline Islands to appear nude in public (apparently allowing women to continue to appear nude in public) and outlawed cockfighting. This edict, like most of his earlier ones, proved to be unenforceable. In July of 1900, Captain Leary was relieved as governor and as naval station commandant. Leary would be succeeded by Governor Seaton Schroeder who would oversee Guam during the unsuccessful Filipino war for independence. Under Schroeder, the first American census of Guam would be conducted in 1901, reporting a population of 14 American civilian citizens, 9,630 "citizens" of Guam, and 32 aliens (mostly Spaniards) (Rogers 2011).

By this time, local CHamoru feared that the naval government might become permanent, and they began the first in a long line of proposals seeking normal civil liberties and government representation for the people of Guam. The Navy's absolute authority was confirmed in 1901 by the Insular Cases, which stated that the U.S. Constitution did not apply in the insular territories as it did in the states. The reasoning for this might best be demonstrated by the opinion of Henry B. Brown, "If these possessions are inhabited by alien races, differing from us in religion, customs, laws, method of taxation, and modes of thoughts, the administration of government and justice, according to Anglo-Saxon principles, may for a time be impossible." Justice Edward D. White established a new territorial doctrine where the U.S. would make a distinction between "incorporated" and "unincorporated" territories, the former of which may someday become a state while the latter would not be considered an "integral part of the United States" and could not. The distinction was also made between "organized" and "unorganized." Organized territories were those that had received an "organic act" from the U.S. Congress to establish local self-government. Guam would remain an unorganized unincorporated territory until the 1950 Organic Act, but it remains an unincorporated territory to this day.

As Rogers explains, "Until World War II, the island would be administered as if it were a warship, the *USS Guam* with the governor as captain, American military personnel as crew, and the Chamorros as mess attendants" (Rogers 2011). Between 1899 and 1941, 32 naval officers reigned over Guam. These were autocratic tenures that were focused on benevolent assimilation, as originally established by President McKinley. Ultimately, the Navy viewed itself as a "parent," casting the CHamoru as in need of material and moral development. Reforms included the introduction of a cash-based economy, the imposition of gender restrictions for employment, promoting English-language public education over parochial instruction, and the celebration of American holidays, all in an effort to promote patriotism and English speaking. While *lānchos* were seen as important to CHamoru during this time, and they appeared to meet most, if not all, of the local demand for food, they were not producing enough surplus for the Navy. This led to additional administrative edicts to increase food production. Despite all of the above issues, the prewar period is not necessarily perceived as an oppressive, onerous time. It has also been argued that, rather than Americanization as a monolithic marginalization of the CHamoru culture, it may have been the Naval government that was appropriated and absorbed into the CHamoru cultural landscape (Hattori 2014).



Figure 8. A portion of the 1832 Villalobos map of Guam (Tomonari-Tuggle et al. 2018).

World War II/Japanese Military Occupation Period (1941–1944 CE)

Shortly after Japan declared war on Germany in World War I, German officials fled Saipan and soon after, the Japanese occupation began. The Japanese occupation of Saipan (as well as all other German possessions north of the equator) was sanctioned by the United Nations in 1914, and they would still be in control of the island of Saipan in 1941 (McKinnon et al. 2016). On December 8, 1941, timed to coincide with the Japanese attack on Pearl Harbor, Japan's invasion of Guam began. Japanese forces, numbering nearly 6,000, launched from Saipan and overtook the capital and other major villages. The Japanese took over all public buildings, including the cathedral and churches, to house their soldiers. The Kusunose Force South Seas Detachment invasion path crossed directly through Hågat (Figure 9) (Crowl 1993).

The Japanese Army's civilian affairs section, called the Minseisho, was responsible for organizing the civilian population, and distributed a piece of cloth with Japanese characters identifying the bearer. People were required to keep this pass on their person at all times until late 1942. Punishments for various infractions were swift and harsh, and many were forced to perform manual labor. By 1942 Japanese rule in Guam relaxed and, as the army left for war in other locales, civil administration was passed to the Japanese Navy's civil affairs section called the Minseibu (Rogers 2011).

People's lives were affected, often quite profoundly, by the relatively brief Japanese occupation of Guam. For instance, the 2,000 residents of the thriving commercial town of Sumai (Sumay) were evicted from their homes by the Japanese administration and had to move elsewhere. There were many instances of Japanese soldiers moving in and confiscating private homes without notice. There were also cases of rape and public executions. Three-quarters of the population of Hagåtña (Agana) left the city and went into hiding elsewhere. Local officials, including municipal and village commissioners and policemen, were ordered to return to work. Dozens were interrogated and beaten during the first few weeks of occupation. The Japanese military officials had the goal of reducing the influence of the U.S. on Guam, and immediately imprisoned Governor McMillin, other U.S. citizens, and some of the Spanish clergy, notably Bishop Miguel Olano and his assistant Fray Jesus. All Americans, excepting six sailors, were arrested and exiled to camps in Zentsuji, Japan. Of the six sailors only one, named George Tweed, survived the war, thanks to dozens of people who harbored him during the 31-month occupation (Palomo and Aguon 2021).

Throughout this time, there were attempts to convince the CHamoru of Japan's superiority over the U.S. Military parades were held for every conquest over the Americans in the Pacific and Far East. Two Japanese Catholic priests and Japanese school teachers were brought in, with their families, by the middle of 1942, although schools had very few attendees. Japanese authorities began training CHamoru to assist Japanese doctors and nurses to address a shortage of medical personnel on the island. In many of these cases, language differences lessened program effectiveness. The Japanese also attempted to change the local names, language, and customs of Guam. Local place names were changed; Asan became Asama Mura. The practice of bowing was instituted and strictly enforced. When public schools opened in 1942, students were required to bow to the emperor before class every morning. There was, however, an illicit underground radio network which many paid dearly for, including Father Jesus Baza Duenas and his nephew Eduardo Duenas, who were executed by beheading just nine days before the liberation of Guam by American forces. Although the success of these projects is debatable, it is clear that the Japanese made a concerted effort during this period to promote material and cultural change on Guam during their time in control (Palomo and Aguon 2021).

The Japanese in Guam found themselves under attack by American airplanes and submarines starting in January of 1943. By February, 1944 it was clear to the Japanese government that the Marianas would be invaded. Guam was 1,350 miles from Tokyo and the American B-29 super bomber had a range of 1,500 miles which meant that the island was part of the "Absolute National Defense Sphere" and could not be



Figure 9. Portion of a 1914 Army Corps of Engineers map (Sturdevant 1914).

lost (Figure 10). They attempted to construct fortifications, though Japan had not planned on this originally, and found they had neither the equipment nor the manpower needed to do so. The Japanese brought in hundreds of Koreans and Okinawans to supplement the Japanese engineering battalions and conscripted CHamoru (Rogers 2011).

In February of 1944 Americans launched carrier-based aircraft attacks island-wide in preparation for the invasion of Guam. Lieutenant General Takashina assumed command in March, 1944 and instituted harsh security measures through the Kempeitei military police rather than through a civilian affairs section. Forced labor for all CHamoru over twelve had been in effect since mid-1943 but intensified drastically for all CHamoru (including women) during this time. Most of this work was done without compensation, while those conscripted still had to supply their own subsistence needs. Despite intensification, food production proved insufficient, and malnutrition began to affect everyone on the island. By April of 1944 seaplanes and submarines were photographing the Marianas for targets in preparation for operation FORAGER, to retake the Marianas (Rogers 2011). A contemporary Japanese topographic map of Guam depicts a road in the same general area as coral-paved roads and trails in the First American Period (Figure 11). The coral-paved roads between Hagåtña (Agana) and Hågat appear to be marked as roads that were 3 m (9 ft.) wide or greater on this Japanese topographic map. The remaining southern portion of *El Camino Real* between Hågat and Humåtak (Umatac) – marked as trails in the First American Period – were delineated as paths for foot soldiers by the Japanese (Alvarez 2022).

While the Japanese Occupation period was brief, it is possible that the project area may contain some artifacts from this era, as the defensive build-up was partially centered around Hågat. Conversely, as discussed below, the area was heavily bombarded during the Battle of Guam, likely destroying any structures that would have been on the project area.

Battle of Guam

Between July 18 and July 21, 1944, the most intense bombardment of conventional firepower to date was trained on Guam by American warships and bombers. In particular, the U.S. Invasion of Guam was heavily fought in the area around Hågat, with Hågat beach being one of two landing beaches in the battle (Figure 12). By July 29th both beachheads had been taken and Orote Airstrip and Apra Harbor secured. American forces then paused to build up supplies and regroup before pursuing the remaining Japanese forces as they retreated north (Rogers 2011). While the project area is more than 400 m (0.25 mi.) from the invasion beach, the old town of Hågat was heavily bombed during the fighting, reportedly destroying all of the structures in the village (Babauta 2021).

World War II/Second American Territorial Period (1944–1950 CE)

Although stragglers from the Japanese Army remained (at least one until 1972), large-unit combat on Guam had ceased by August of 1944. All commands immediately prepared for the next major operations in the Pacific. Naval administration was re-established throughout Guam on July 21, 1944, which was designated Liberation Day. Admiral Nimitz asserted that all powers of government and jurisdiction on Guam were vested in him as admiral of the U.S. Navy, and that command of military forces there, as well as the duties of military governor, would be exercised through subordinate commanders at his direction. Nimitz went on to state, “No political activity will be permitted other than that authorized by me or under my authority.” U.S. forces would confiscate whatever land they needed and worry about ownership and eminent domain procedures later (Rogers 2011).

Many areas of Guam were devastated by the war, and many CHamoru were living in makeshift refugee camps until June, 1946. By then there were still an estimated 10,000 CHamoru people living in temporary, government-provided housing. The Navy had an ambitious \$20 million rehabilitation plan that would

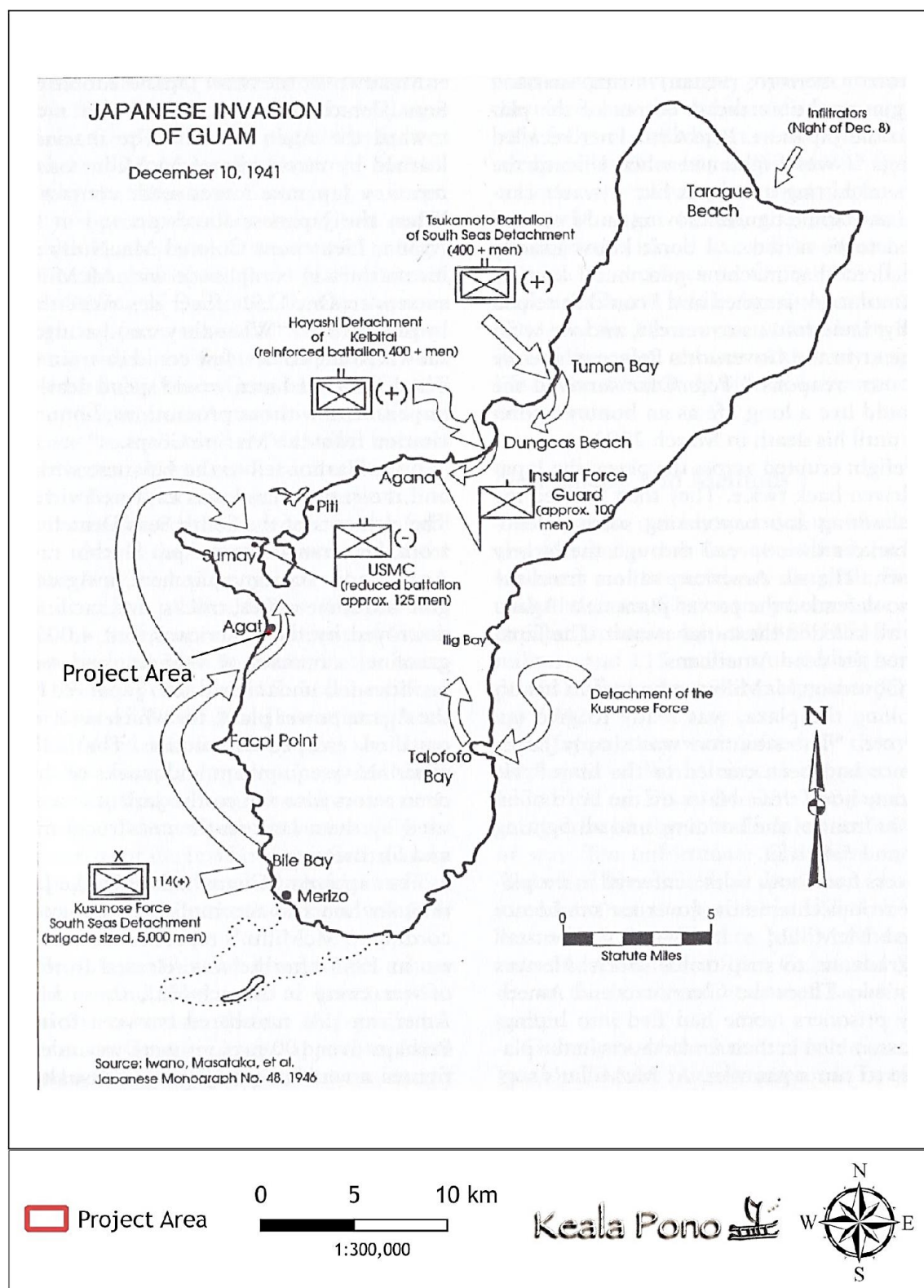


Figure 10. Japanese Invasion of Guam map (Rogers 2011).

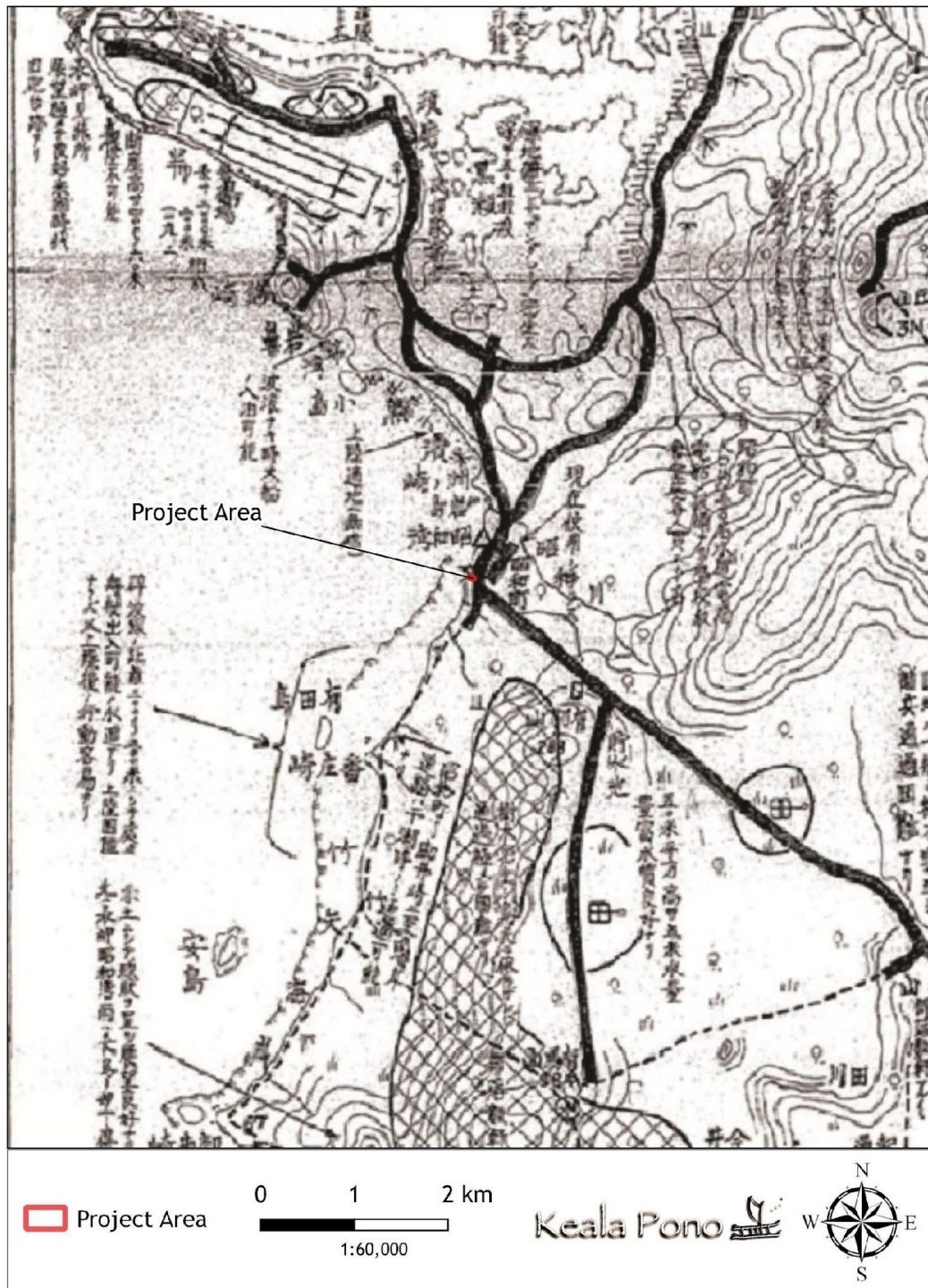


Figure 11. Portion of a 1944 Japanese topographic map of Guam (Tomonari-Tuggle et al. 2018).

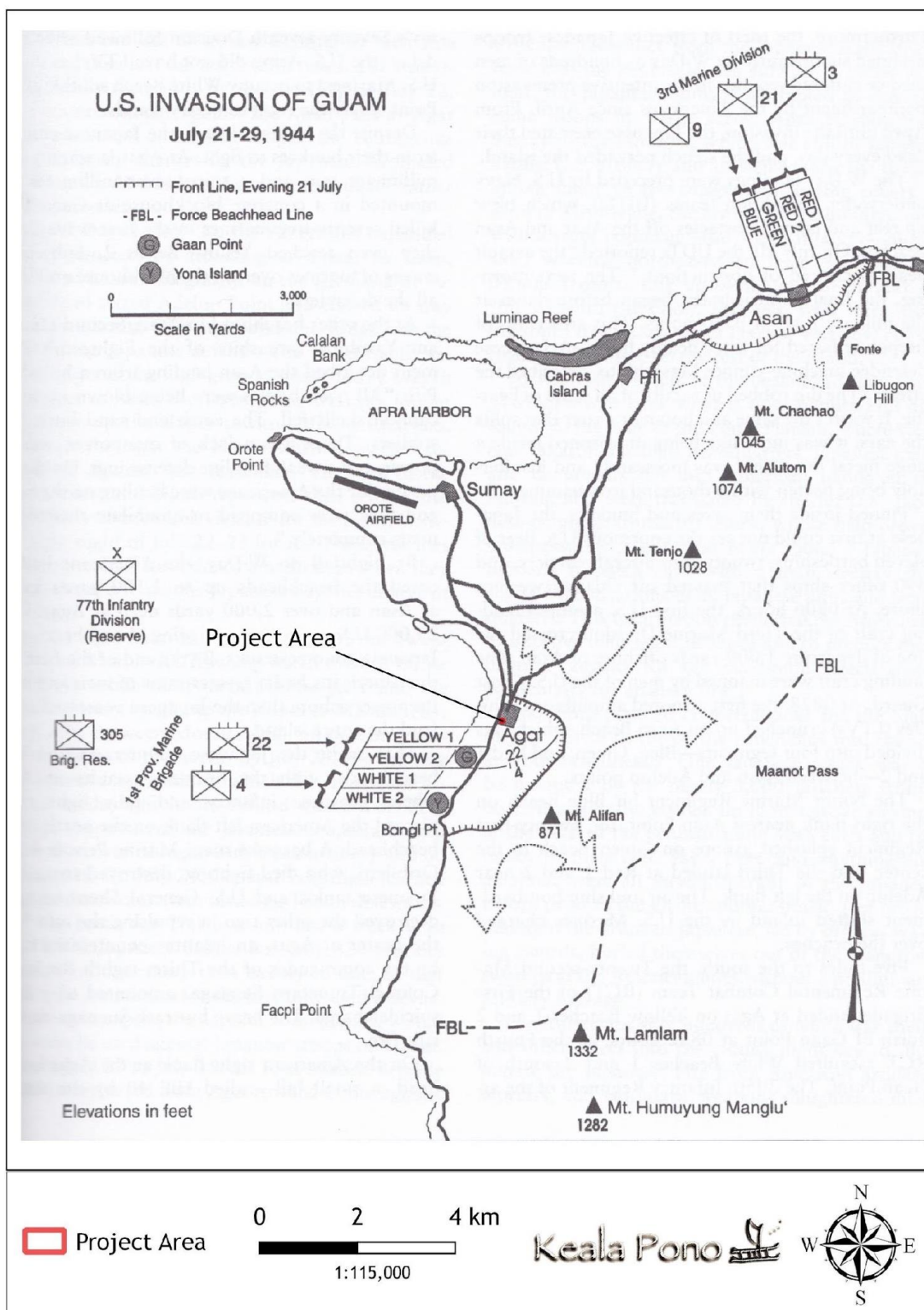


Figure 12. Battle of Guam map (Army Map Service 1944).

include five major civilian rehabilitation projects for the construction of new villages, as well as a general hospital. The U.S. Congress only appropriated \$6 million, however, which had all been spent by January, 1949. Nearly all of this went towards the paved roads, curbs, and street lights lining neat, new rectangular blocks in the “New Agana” (Rogers 2011).

In this period Hågat beach, was established as a refugee camp for CHamorus freed from Japanese-made camps. At least 18,000 people lived in the Hågat camp at its peak. After the Battle of Guam, the residents of Hågat found themselves largely homeless, reduced to living in temporary houses until a new village was established south of the old Hågat village. The new site was embraced by both the military government and CHamorus. Notably, as the project area is located on the southern edge of Old Hågat Village, it would be unlikely to encounter any material from this period during a survey there, as the town had been fully abandoned at the time (Babauta 2021).

Organic Act/Home Rule/Economic Development Period (1950–Present)

The passing of the Organic Act led to major transformations in Guam, one of which was the production of civilian maps produced by organizations like the United States Geological Survey (USGS). Although maps were produced by the USGS between 1950 and 2000, those maps are not available from the typical digital archives. Fortunately, some of those maps were archived and are available digitally from several university digital map archives (Figures 13–16). Looking at the 1944 and 1955 army maps of the area (Figures 13 and 14), it can be seen that the town’s situation has changed dramatically. This is, of course, because of the devastation wrought on the village during the Battle of Guam. In the ensuing eleven years after the battle, the process of rebuilding the village has begun, with a few structures visible around the intersection. Another decade later, in 1965, more buildings have visibly filled in the surrounding area, but the intersection still is noticeably less dense than New Hågat to the south (Figure 15). And finally, another 13 years later, in 1978, the area has approximately returned to its former density, although it is still dwarfed in comparison to its newer neighbor (Figure 16).

Archaeological Context

A total of 14 archaeological studies have been conducted within 2.0 km of the project area, documenting a total of six National Register of Historic Places (NRHP) eligible sites (Figures 17 and 18). These surveys and studies have encountered a variety of archaeological materials, sites, and burials spanning from the Latte Period to the Second American Territorial era. In particular, a large number of burials have been detected in the area immediately surrounding the project area, classified as the Togcha-Agat Mortuary Area.

Previous Archaeological Studies

Fourteen archaeological studies have been or are currently located within 2 km of the project area: an Archaeological Reconnaissance Survey (ARS), five Archaeological Inventory Surveys (AISs), an Archaeological Monitoring Report (AMR), an AIS/AMR hybrid, an unpublished Data Recovery Effort, an Architectural Survey (AS), a Burial Recovery, two Archaeological Monitoring Plans (AMPs), and a Research Design. Of the completed studies, three were conducted within 400 m of the project, all within the Togcha-Agat Mortuary Area. Additionally, a portion of an ongoing study of *El Camino Real* is within the project area as well. The following paragraphs provide summaries of the 14 studies and their distance from the current project area (also see Figure 17).

Price 1977 (0.5 km north / 0.9 km south)

The Pacific Studies Institute published a Cultural Resources Reconnaissance report (essentially an ARS) in 1977. This report details the search for alternative locations for the Hågat Small Boat Harbor along the



Figure 13. Portion of a 1944 Army Map Service topographic map of Guam (Army Map Service 1944).



Figure 14. Portion of a 1955 Army Map Service topographic map of Guam (Army Map Service 1955).



Figure 15. Portion of a 1965 USGS map of Guam (USGS 1965).



Figure 16. Portion of a 1978 USGS topographic map of Guam (USGS 1978).

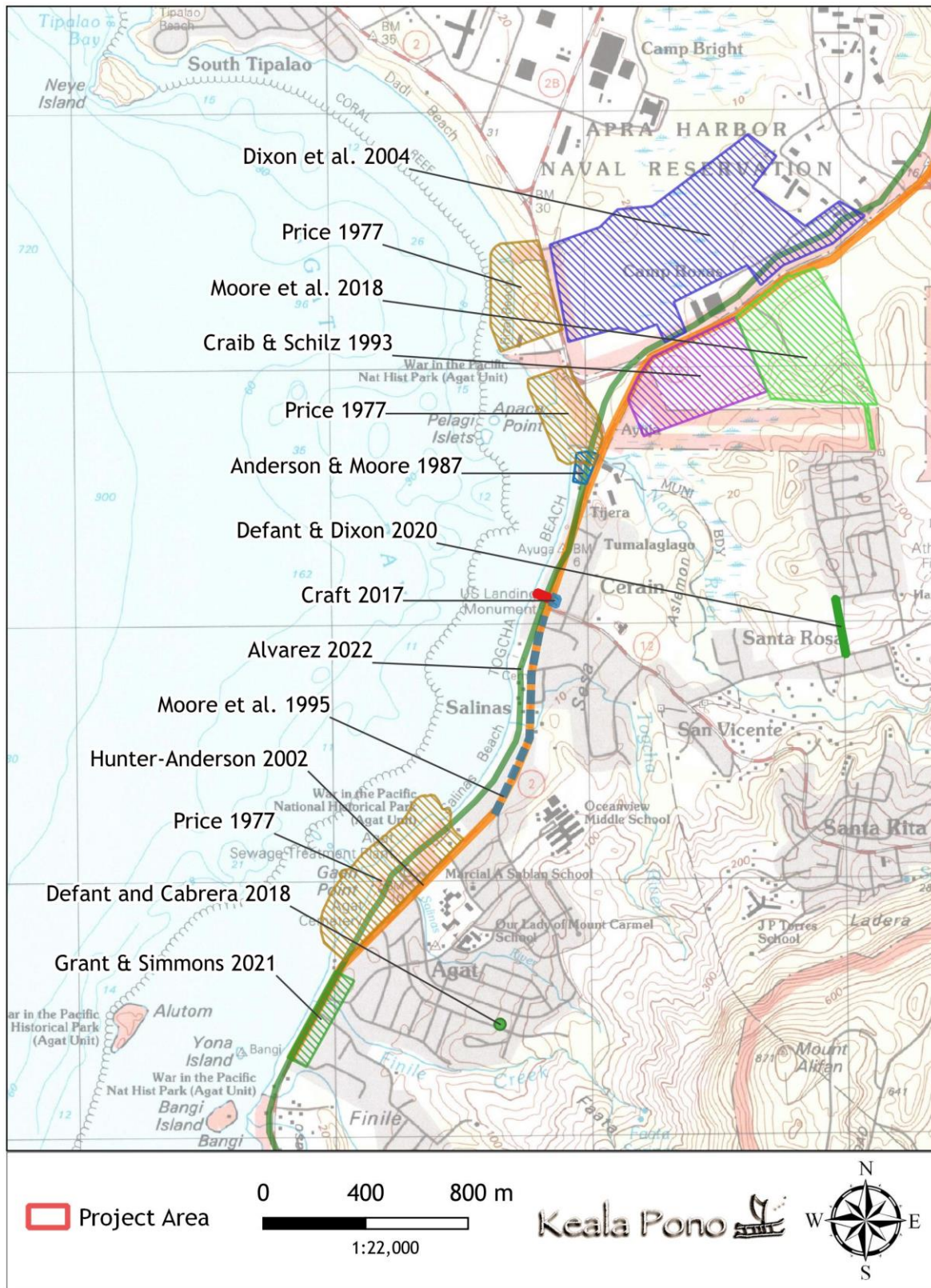


Figure 17. Previous archaeological studies in the vicinity of the project area.

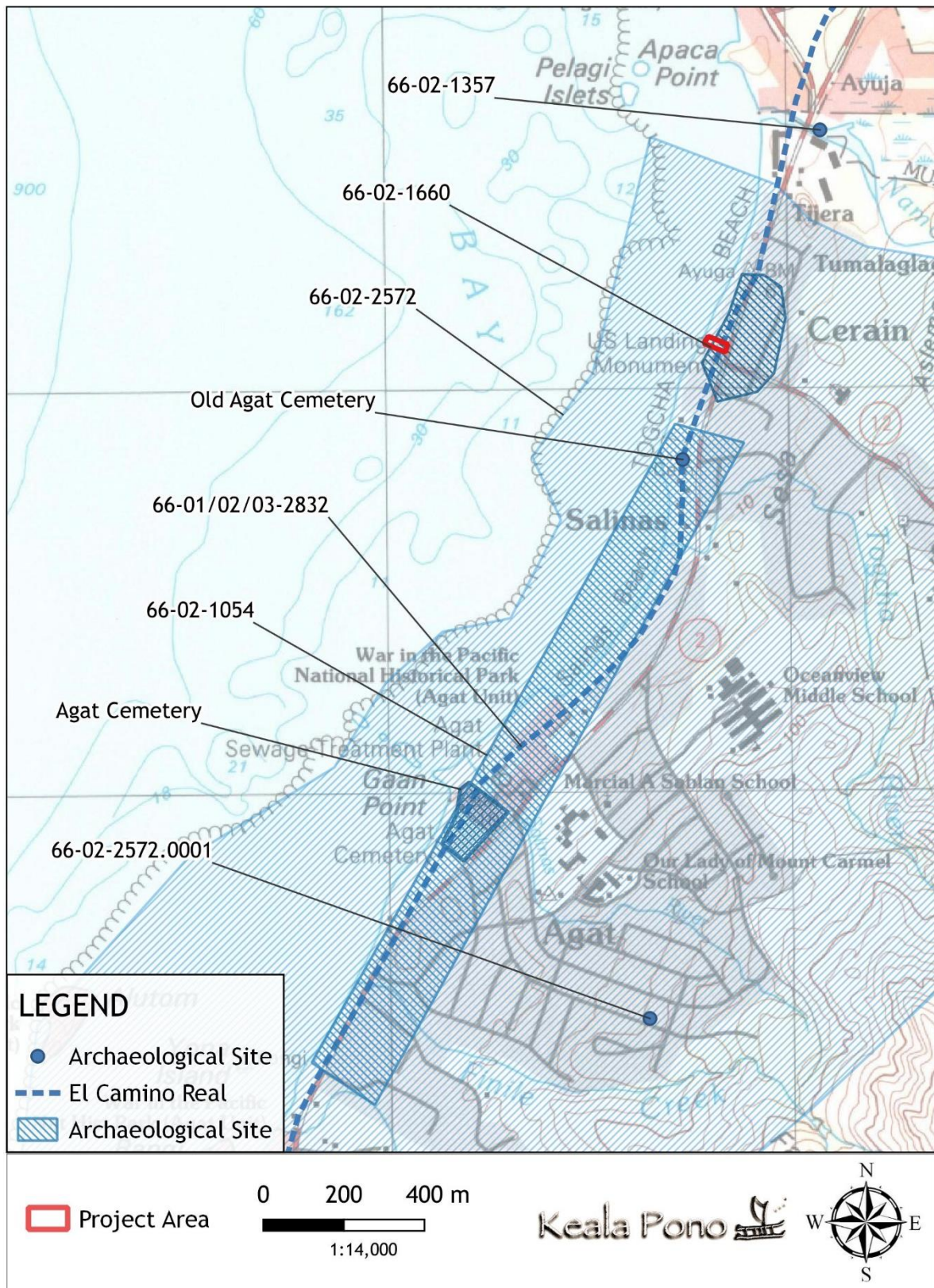


Figure 18. Historic sites in the vicinity of the project area.

shoreline of Hågat Bay. The nearest parts of this study were located a half-kilometer to the north, and 0.9 km to the south. These portions of the study encountered two pre-contact sites and eight historic features [part of Agat Invasion Beach (66-02-1054)]. Both pre-contact sites consisted entirely of scattered latte ceramics. The eight historic features were various Japanese defensive installations, spread along the Hågat shoreline. None of the sites or features documented during this survey are within 400 m of the project area.

Hunter-Anderson and Moore 1987 (0.5 km north)

An AIS was published for the Aston Inn on the Bay hotel in 1987. The survey was located roughly half a kilometer north of the project area along Route 2. Two trenches excavated during the AIS contained Latte ceramics and shell tools. This area would go on to be labeled the Tijera Subsurface Deposit (66-02-1357) in 1994. No burials were encountered, but it was suspected that burials may be nearby. Monitoring was recommended for any further work in the area (Hunter-Anderson and Moore 1987).

Craib and Schilz 1993 (0.9 km north)

Ogden Environmental and Energy Services conducted a series of surveys to the north of the project area (amounting to a large-scale AIS). The closest of these surveys was located 0.9 km north of the project. No archaeologically significant sites or materials were encountered during this portion of the survey (Craib and Schilz 1993).

Moore et al 1995 (adjacent)

Micronesian Archaeological Research Services (MARS) published an archaeological monitoring and burial recovery report for the Agat/Santa Rita waterline project in 1995. Multiple Latte deposits and two latte mortuary features were encountered along the 0.85 km project corridor. The mortuary features consisted of at least four burials: two sub-adults and a male and a female adult. The burials were located directly adjacent to the project area beneath the intersection of Routes 2 and 12. Radiocarbon dates of charcoal near one of the burials suggest the burials date to the late 18th or early 19th century. Materials found with the mortuary features ranged from modern to pre-contact. The style of the burials themselves appeared to be Latte, however (Moore et al. 1995). This report is the first recorded encounter with Togcha-Agat Mortuary Area, the dominant feature of Old Hågat Village (66-02-1660).

Hunter-Anderson 2002 (adjacent)

Roughly seven years later MARS further added to the literature on the Togcha-Agat Mortuary area when they published an Archaeological Study (essentially an AIS) outlining their continuing data recovery efforts of the site. The AIS was conducted for the Agat/Santa Rita Wastewater Facilities after they encountered burials during the project. A total of 17 burials were identified containing at least 20 individuals in the mortuary area, extending the Togcha-Agat Mortuary area north from the intersection. The burials found here have been identified as Latte burials with an early historic component (Hunter-Anderson 2002). Of note, within the background section of this report, the author discusses an additional unpublished data recovery effort that was undertaken between 1996 and 1998, first by MARS and later by Scientific Consultant Services (SCS). Within this report the area was described as a “dense burial zone” and was identified as an area roughly 20 m north to south that extended an unknown distance west from Route 2 towards Agat Bay. The area contains a variety of pre-contact pits and other features. Furthermore, the isolated burials were also encountered during the monitoring which extended south into New Hågat (Hunter-Anderson 2002:19–20). This is the second report detailing studies conducted in the Tocha-Agat Mortuary area, and the report concludes that the area likely extends west from Route 2 towards the ocean. This would strongly indicate that there are burials beneath the project area itself, and any excavations taken therein should be carefully monitored.

Dixon et al 2004 (1.0 km north)

Hawai'i Pacific Consulting Services prepared an AIS for the Navy, roughly a kilometer north of the project area just past the Seashore Drive and Route 2A intersection. The study determined that the entire area had been utilized and rebuilt by the military in 1946. No historic sites from before the Second American Territorial Period were identified (Dixon et al. 2004).

Craft and Denardo 2014 (Whole Island)

Garcia and Associates (GANDA) published a whole island architectural survey of Guam in 2014. While the report was extensive, only a single resource was identified in the vicinity of the project area, the historic Old Hågat Cemetery. While the report found that the cemetery was likely eligible for the NRHP under criterion D, it notes that due to its status as a cemetery it is currently not listed on the register (Craft and Denardo 2014).

Craft 2017 (Adjacent)

A third AIS was published on the Togcha-Agat Mortuary area in 2017. This time as a joint report between International Archaeological Research Institute, Inc. (IARII) and GANDA on Lot M02-84, directly across the street from the project area. One human burial was encountered in-situ with Latte ceramics in addition to a fire feature that was found nearby. This is the most recent report discussing the Togcha-Agat Mortuary area, and as with the other reports, recommendations included an AIS followed by monitoring for any further work in the immediate area (Craft 2017). While the earlier reports indicated that the burial area extends west from Route 2, this report found that the burial area likely extends east from the highway as well.

Defant and Cabrera 2018 (1.7 km south)

SEARCH Published a report outlining the recovery of several World War II Japanese bodies from a mass grave in Hågat in 2018. The mass grave was located roughly 1.7 km south of the project area and is the only major feature from the Agat Beach Frontline (66-02-2572) nearby. The burials were all Japanese, and date to the Battle of Guam. All of the burials were repatriated to Japan after they were exhumed (Defant and Cabrera 2018).

Moore et al. 2018 (1.2 km northeast)

MARS published an AIS/AMR for the Wastewater Treatment plant located roughly 1.2 km northeast of the project area. A total of 14 historic features were encountered during the AIS, amidst a light scatter of historic artifacts evenly distributed throughout the project area. Artifacts included historic bottles and ceramics. The bottles have maker's marks indicating production times in the early 20th century. No Pre-Spanish sites or artifacts were encountered during the study (Moore et al. 2018).

Ongoing Projects

In addition to the studies listed above, several ongoing archaeological projects are taking place in the vicinity of the project area. SEARCH submitted an AMP for a sewer line in Santa Rita in 2020, roughly 1.1 km east of the project area (Defant and Dixon 2020). IARII published an AMP for the installation of several powerlines along Route 2 by the Guam Power Authority. This project is focused in three locations along the highway, the northernmost of which was located roughly 1.7 km south of the current project area (Grant and Simmons 2021). And most recently, Anthony Alvarez MA has submitted a Research Design to investigate the presence of the *El Camino Real* (66-01/02/03-2832) along the western coast of

Guam as part of his dissertation research for the University of Hawai'i. The estimated route of the El Camino Real passes directly through the project area, following the seaward side of Route 2 through old Hågat (Alvarez 2022). All of these projects are ongoing, and as of now, no archaeological finds have been reported.

Archaeological Sites

Six NRHP eligible sites have been identified near the project area (see Figure 18). These include a subsurface deposit, the Old Hågat Village/Togcha-Agat Mortuary Area, the estimated route of *El Camino Real*, the Agat Invasion Beach and Frontlines, and the Old Hagat Cemetery. The GHRD's Guam Historic Places Inventory (GHPI) site files were consulted to assemble this list of historic sites in the project area vicinity. The sites range in age from the pre-colonial Latte period to the modern era. Of particular note is the project's proximity to the Togcha-Agat Mortuary Area, and *El Camino Real*.

Agat Invasion Beach (66-02-1054)

The Agat Invasion Beach was added to the Guam Register of Historic Places in 1974 and is located approximately 0.5 km southwest of the project area. The prelude bombardment and ensuing battle both likely extended into the project area. Remains of the Japanese beach defenses still exist on the coast today, several of which were identified by Price in 1977. None of the Japanese structures are within 400 m of the project area. The site encompasses approximately 95 acres and consists of trenches, rifle and machine gun pits, pillboxes, and gun emplacements. If these kinds of features are within the project area, they would likely be subsurface. It is possible that historic artifacts or artillery remnants relating to the battle could also be encountered during the survey.

Tijera Subsurface Deposit (66-02-1357)

The Tijera Subsurface Deposit was added to the Guam Register of Historic Places in 1994, after the Aston Inn on the Bay AIS was published in 1987 (Hunter-Anderson and Moore 1987). The deposit was encountered roughly 600 m north of the project area, just south of the Namo River. The deposit was found to be as shallow as 40 cm below the surface (cmbs), and contained Latte ceramics, wood, charcoal, bivalves, and worked shell. While this site is relatively far away from the project area and will not likely be encountered on the property, it provides evidence that pre-colonial archaeological deposits exist in the immediate area.

Old Hågat Village / Togcha-Agat Mortuary Area (66-02-1660)

The project area is located on the southern edge of the Old Hågat Village, and immediately adjacent to the Togcha-Agat Mortuary Area. Old Hågat Village was added to the Guam Register of Historic Places in 1995, and the Togcha-Agat Mortuary Area is its primary archaeological feature. A total of four studies have been conducted on the feature, of which three were published (Moore et al. 1995, Hunter-Anderson 2002, Craft 2017). The site itself is subsurface, located beneath the roadway extending north from the intersection of Routes 2 and 12 at least 20 m and extending an indeterminate distance to both the east and west. Based on these indeterminate extents, the site very likely overlaps the project area. At least 25 individual burials have been encountered in the site. The closest of these were two intact burials and two incomplete burials detected roughly 10 m inland from the project area, with the intact burials occurring at approximately 90 cmbs. The site is thought to be from the Latte period, but the Old Hågat Village was under continuous occupation until its destruction in World War II. Because of the proximity of this site to the project area, it is likely that further burials will be encountered during excavations on the property.

El Camino Real (66-01/02/03-2832)

El Camino Real is the historic network road built by the Spanish during the Spanish Colonial era. Archaeological research on the road is currently ongoing (Alvarez 2022). Of particular note is the proximity of the road's estimated route, running directly adjacent to the project area. Any excavations along the inland portion of the project area should be done with this in mind, as portions of the road are

more than 300 years old and would be considered eligible for both the Guam and the National Register of Historic Places. While the precise nature of the road is currently unknown, if encountered it will likely be a subsurface crushed coral pavement, composed of angular or subangular coral, and possibly incorporating some larger coral paving stones. An important part of the AIS is to determine if the *El Camino Real* does pass through the project area.

Agat Invasion Frontlines (66-02-2572)

The Agat Invasion Frontlines site surrounds the entire town and area of both new and old Agat. Of particular note is the South Santa Cruz Street WWII Japanese Mass Grave, which was found roughly 1.5 km south of the project area. The mass grave was added to the Guam Register of Historic Places in 2018 and is the final resting place of 11 Japanese Soldiers, presumably killed during the Battle of Guam. As of today, it is believed that all of the skeletal remains have been recovered and repatriated to Japan (Defant and Cabrera 2018). While this site is quite far from the project, it is notable that mass graves have been found in the area, and this raises the possibility of encountering burials from the Battle of Guam.

Old Hågat Cemetery

Established in 1946, the Old Hågat Cemetery is located roughly 400 m south of the project area. The cemetery is on a 0.3 acre beachside parcel off Route 2. The cemetery was established at least as early as 1889, and continued in use until 1997. The cemetery was used during World War II after the Fena Caves Massacre, and it has been asserted that the cemetery is eligible for the NRHP because of this (Craft and Denardo 2014). However, the cemetery is quite far from the project area and will likely be unaffected by any work on the property. Also of note, the presently used Hågat Cemetery is located just over a kilometer south of the project area, and it is not eligible for the NRHP.

Summary

Taking into consideration the multiple archaeological sites in proximity to the project, any ground disturbing work in the area should be conducted with great care. Of particular concern to the archaeological survey is the Togcha-Agat Mortuary Area which encountered at least 25 burials in the vicinity of the project parcel. Additionally, it is of great interest to determine the presence or absence of *El Camino Real* in the project area, as this historic road is thought to have passed directly through or adjacent to the project.

PROJECT DESIGN

The project design details the research objectives and expected findings, and delineates the methods proposed to address the research objectives. Standards for post-fieldwork analysis and reporting are also described.

Research Objectives and Archaeological Expectations

The primary objective of this research design will be the identification and documentation of any historic properties that might be affected by the project in accordance with the Certificate of Approval (2018-0371) and the Review and Compliance (2018-0060) forms approved by GHRD (Guam Historic Research Division) for this project. Particularly, it is important to determine whether the subject parcel contains any material remains related to *El Camino Real* or the Old Hågat Village. A recent study by Alvarez (2022) has identified the portion of Route 2 that the parcel is fronting as a possible segment of the original Spanish *El Camino Real*. This route crossing from Humåtak (Umatac) in the south to Agana in the north has been identified as a critical historical feature throughout the colonial history of Guam, from its original use in the Spanish Colonial era, to its military value during World War II (Alvarez 2022). Old Hågat Village is one of eight municipalities first designated during the Spanish Colonial era, and originally housed one of the oldest churches in the Mariana Islands. This village was under intensive habitation through the first American era until the end of World War II, when the village was destroyed in the Battle of Guam. Today, the epicenter of the village has been moved south to its present location where it has grown into the commercial center of southern Guam. Material remains found on the project area could potentially inform us to the lifeways, consumption and trade patterns of the ancient and historic populations that occupied this location over the last 4000 years.

Project Personnel

A senior archaeologist, qualified under Secretary of the Interior (SOI) standards will serve as Principal Investigator for the project. The Principal Investigator will be responsible for overall project organization and management, will ensure high standards for field sampling and laboratory analyses, may conduct field visits and direct supervision of field personnel as appropriate, and will review the content of the AIS report. The archaeological Field Supervisor will be present for all AIS fieldwork. The Field Supervisor will have sufficient fieldwork experience in archaeology in the Pacific region or have completed sufficient college-level coursework in Anthropology and Pacific Archaeology.

Field Methods

Archaeological fieldwork will comprise both a pedestrian and subsurface survey designed to determine the presence or absence of historic properties in the project area. The pedestrian survey will consist of a series of systematic transects across the property spaced at approximately 5 m intervals. Archaeologists will walk these transects inspecting the ground surface for any cultural resources. Portable artifacts and non-human faunal remains will be documented, marked with a sub-meter accurate Trimble GPS, and collected for later analysis. Non-portable artifacts or structures will be fully documented in place. In addition to standard documentation this will include photographing, and producing hand-drawn maps of the artifact or structure. All photographs will be taken with a scale and north arrow where appropriate.

A series of four (4) approximately 50 x 50 cm shovel test pits (STPs) will be systematically placed along the route of the proposed retaining wall. These STPs will be spaced in roughly 15 m increments, and will be hand excavated with shovels and trowels in 10 cm increments to at least a depth of 100 cmbs unless obstructed or otherwise impractical. All soil in the STPs will be sifted through a 6 mm (1/4 inch) screen to recover minute archaeological material. If an archaeological feature is detected in one of the STPs, 3 mm (1/8 inch) mesh will be used. Field recording and sampling will include, but are not limited to, the

drawing of stratigraphic profiles, photography with a digital camera, and controlled excavation of exposed features. Soils will be described using Munsell Soil Color Charts (Munsell 2010), a soil texture flow chart (Thien 1979), and the U.S. Department of Agriculture soil manual (Soil Science Division Staff 2017). Stratigraphic profiles will be drawn, and soils described in locations where cultural materials or deposits are located as well as areas where no archaeological properties are found. Natural sequences considered representative of the various portions of the project area will also be profiled. The STP locations will be documented with sub-meter accurate GPS and plotted on a project area map to be included in the archaeological monitoring report. Accurate map locations of test units, stratigraphic profiles, and archaeological features, deposits, and artifacts will be maintained. Following documentation, all STPs will be backfilled.

In the event that cultural or human remains are encountered, work will be halted immediately, the location of the remains will be marked with a GPS unit and the area will be sectioned off from the rest of the worksite. If the remains are identified to be human, the archaeologist on site will follow local protocols for the discovery of a human body, following all metropolitan, territorial, and federal laws. During this process Keala Pono will begin preparing mitigation recommendations to submit to the Guam SHPO. These recommendations will attempt to include ways to avoid and/or protect the encountered archaeological site or burials. This could include changing the construction plans, emergency recovery, or archaeological monitoring. During this process, work will be stopped in the vicinity of the discovery. As always, any work or recommendations involving human remains will be conducted with full respect given to local cultural customs and practices of the individuals encountered.

In accordance with *SOI Standards and Guidelines for Archaeological Documentation* all sites encountered during the survey will be assessed for integrity and significance. This will involve fully documenting all archaeological sites and materials encountered in order to identify their age, cultural affiliation, integrity, and depositional history. Typically, this process involves plan-view and profile mapping any surface architecture that is thought to be more than 50 years in age, in addition to the standard documentation process listed above. Additionally, all artifacts that are thought to be more than 50 years old will be collected for later analysis. Standard site documentation forms, profile forms, and photo logs will be completed either on paper or in digital format. Both newly found sites, and features identified within known sites will be assigned temporary numbers upon their discovery and analysis, after which they will be assigned appropriate site/feature numbers following the standards set forth by the SHPO.

Post-Fieldwork Analysis

The nature and scope of post-field actions will vary according to the results of the fieldwork. At minimum, if no archaeological remains are discovered, a report documenting the negative findings will be produced and submitted to the GHRD. If archaeological remains are discovered, appropriate analyses will be conducted and reported. Laboratory analyses of cultural material and/or soils will be conducted in accordance with the stipulations of this Research Design. The specific procedures employed in laboratory analysis will vary according to the kinds of remains that are recovered, as outlined below.

Radiocarbon Dating

If charcoal suitable for dating is encountered, samples may be collected and submitted for radiocarbon dating, depending on funding. Prior to submission for radiocarbon dating, all samples will be submitted for wood taxa identification, as only short-lived species should be submitted for dating.

Faunal Analysis

Any collected vertebrate or marine invertebrate material will be weighed, counted, and taxonomically identified to the greatest level of detail possible. Ideally, faunal and marine shell analysis will be

conducted using a comparative collection, assuming that comparative samples are available. The method of analysis, laboratory results, and descriptions of identified species will be discussed in relation to the greater project in the AIS report.

Artifact Analysis

Artifacts will be cleaned, sorted, counted, and weighed individually or in bulk, where appropriate. Samples collected as part of this research are expected to date to a variety of periods ranging from the Latte Period to the modern era, although those earlier or later in date, as well as items that cannot offer a definitive date, might be encountered. Diagnostic artifacts will be measured, weighed, and either sketched or photographed. Ceramic cataloging and analysis will be conducted with the goal of identifying the composition, form, use, and chronology of artifacts. Diagnostic sherds of pre-contact pottery will be analyzed for temper, surface treatment, rim type, and morphological features. Any artistic motifs will be investigated and recorded as well. Historic ceramics will be identified and analyzed to professional standards. Lithic, shell, or other artifacts will be identified based on composition and form in order to infer age and function. Typological identifications of all other artifact types, and subsequent analyses, will conform to professional standards.

Curation

Materials not associated with human burials will be temporarily stored at the contracted archeologist's facility. Transportation of samples from the field to the laboratory will minimally involve labeling, isolation of samples into appropriate containers, and ensuring integrity of samples. The transportation of any materials off-island will only occur with the approval of GHRD, and for the minimal time required to complete analysis. All transported materials will be returned to Guam. Cultural material will be transferred to the Guam Museum as soon as they are able to receive the items, in accordance with Guam law.

Technical Report

Following the completion of all fieldwork and analysis, a technical report will be prepared to present the results of the archaeological investigation and laboratory analyses. The report will include a background section to provide context for the study, a discussion of methods used in the AIS, stratigraphic descriptions, laboratory results, and a discussion of all findings in the context of the specific project area and the larger Mariana Islands. Guam Historic Property Inventory (GHPI) numbers will be obtained and submitted for any newly recorded historic properties. Final deliverables will include two hard copies and one digital copy of the final report, as well as a PDF copy of the report and GIS shapefiles on CD.

SUMMARY AND CONCLUSION

An AIS will be conducted for Lot M02-082 in Hågat, Guam, where a single-family home is proposed. The objective of the survey will be to identify and record any archaeological resources that may be present in the project area. The island of Guam has a long and distinguished cultural history, and the project vicinity encompasses several archaeological sites that have provided significant information on Guam's storied past. Of particular note is the project's proximity to the Togcha-Agat Mortuary Area, where Latte Period human burials have been identified, and *El Camino Real*, which is a historic road built by the Spanish during the Spanish Colonial era. The project area is located within the boundary of the Agat Invasion Frontline site, as well. The AIS will determine the presence or absence of these and any other archaeological remains that might be affected by the project, and properly document them.

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