FINAL TECHNICAL REPORT— Archaeological Inventory Survey of Lot 3412-1-1-2 and 3412-1-1-5 in Chalan Pago-Ordot (Chålan Pågu-Otdot) on the Island of Guam

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March 2024

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PROJECT INTRODUCTION

Keala Pono Archaeological Consulting conducted an Archaeological Inventory Survey (AIS) of Lots 3412-1-1-2, and -1-1-5 for the proposed construction of a small development of eight single-family homes. This AIS report was prepared in compliance with Guam Historic Research Division (GHRD) Certificate of Approval 2021-0501 and Review and Compliance numbers 2021-0625 and -0626. The project area is located in the village of Chålan Pågu-Otdot (Chalan Pago-Ordot), in the municipality of Chålan Pågu (Chalan Pago), on the island of Guam. Planned ground disturbance for the project will likely consist of excavations and grubbing.

Possible Latte ceramics were found on the surface in the project area, necessitating the AIS. Aside from these potential finds, no other archaeological sites or studies have occurred within a quarter mile of the project area. In addition to possible Latte ceramics on the properties, the historic route connecting Hagåtña (Agana) and Pågu (Pago) runs adjacent to the project area, raising the possibility of encountering Spanish period archaeological material during excavations.

Pedestrian survey was completed for the 1.0 hectare (2.5 ac.) project area. A series of 12 Shovel Test Pits (STPs) across the properties, placed at 30 meter intervals, crossing all eight house footprints. Throughout the project area, stratigraphy consisted of three natural layers of Pulantat clays. Artifacts were found on both the surface and the subsurface components of the survey. The surface scatter distributed throughout the project area had two distinct concentrations, designated as Site 66-01-2989, on the eastern parcel. The subsurface artifacts were spread throughout the project area and were less common than the surface artifacts. A tumbled Latte set was also encountered near the eastern roadway and designated as Feature 3 of Site 66-01-2989. The Latte set appears to have been destroyed during the road construction and has likely lost its integrity.

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INTRODUCTION

At the request of Blue Pacific Realty on behalf of landowner, Shuming Ge, Keala Pono Archaeological Consulting conducted an Archaeological Inventory Survey (AIS) of Lots 3412-1-1-2, and -1-1-5 in Chålan Pågu-Otdot (Chalan-Pago Ordot), Guam. This AIS report was prepared in compliance with Guam Historic Research Division (GHRD) Certificate of Approval 2021-0501 and Review and Compliance forms 2021-0625 and -0626. The objective of the survey was to identify and record any significant historic properties that may be present in the project area.

This report is organized into four chapters: the background, methods, results, and a concluding chapter. The background covers the environmental, historical, and archaeological setting of the study area. The methods and results chapters outline the research objectives, field methods, as well as fieldwork and laboratory results. The concluding chapter summarizes the main points of the background research and the results of the AIS and provides recommendations for the project. Appendices at the end of the document present the Archaeological Data Summary form (Appendix A) and data for all collected artifacts (Appendix B). 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 Lots 3412-1-1-2, and -1-1-5, together forming a 1.0 hectare (2.5 ac.) parcel in the village of Chålan Pågu-Otdot, in the municipality of Chålan Pågu (Chalan Pago), on the island of Guam (Figures 1–4). The Area of Potential Effect (APE) is the entire 1.0 hectares of the two lots. The parcels are currently owned by Shuming Ge, who plans to develop the lots with eight single-family homes (Figure 5). Construction plans have been drawn up for Lot 3412-1-1-5 (Figure 6). The construction of each house in the proposed development will likely involve significant ground disturbing activity, to include excavations for each house's foundation and utilities, as well as any prerequisite grubbing and clearing activities.

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

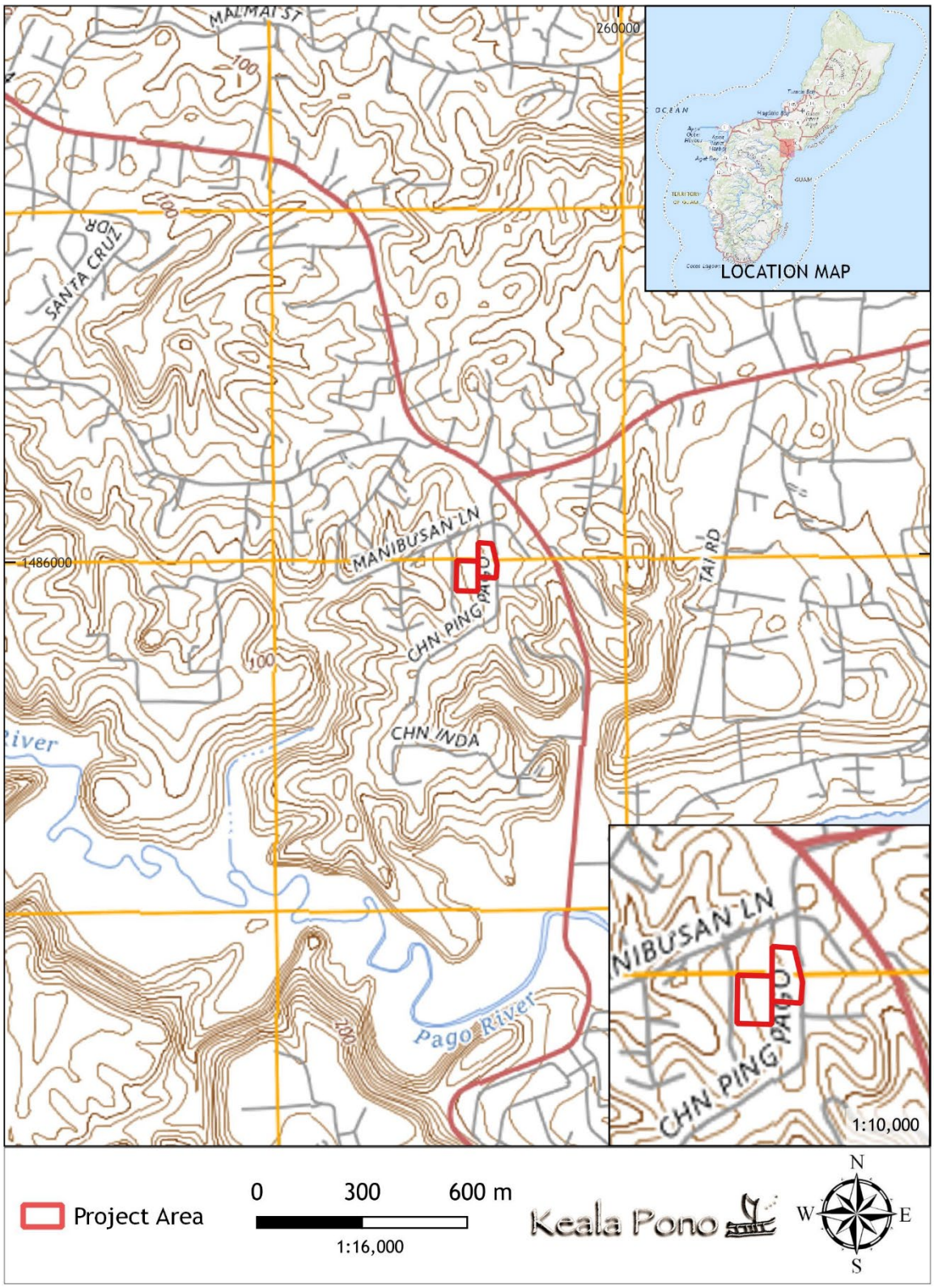

Figure 2. Closer view of the project area on a topographic map (NGP 2022).

Figure 3. The project area on a 1:24,000 aerial image (Bing n.d.).

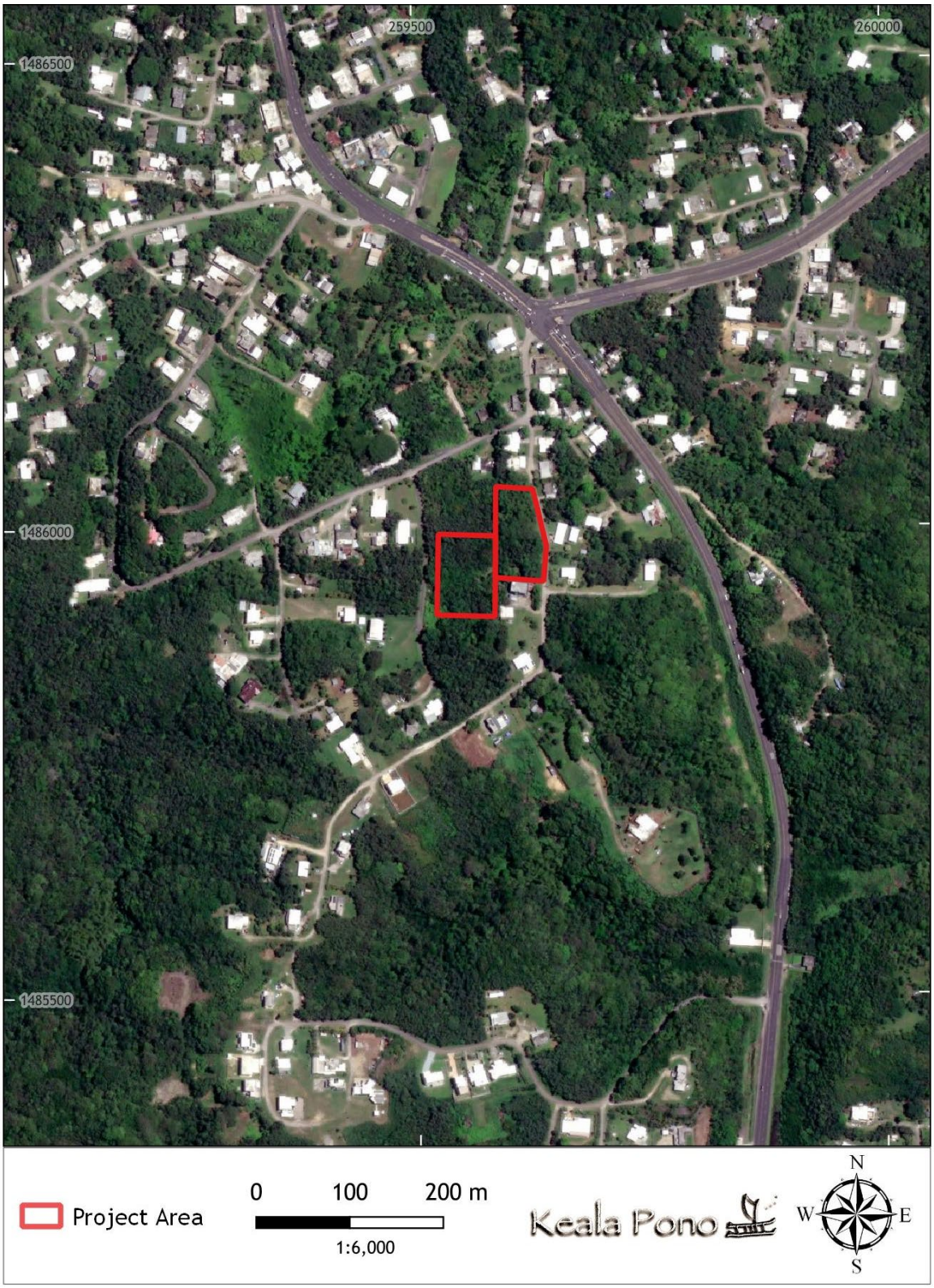

Figure 4. Project area on a 1:6,000 aerial image (Bing n.d.).

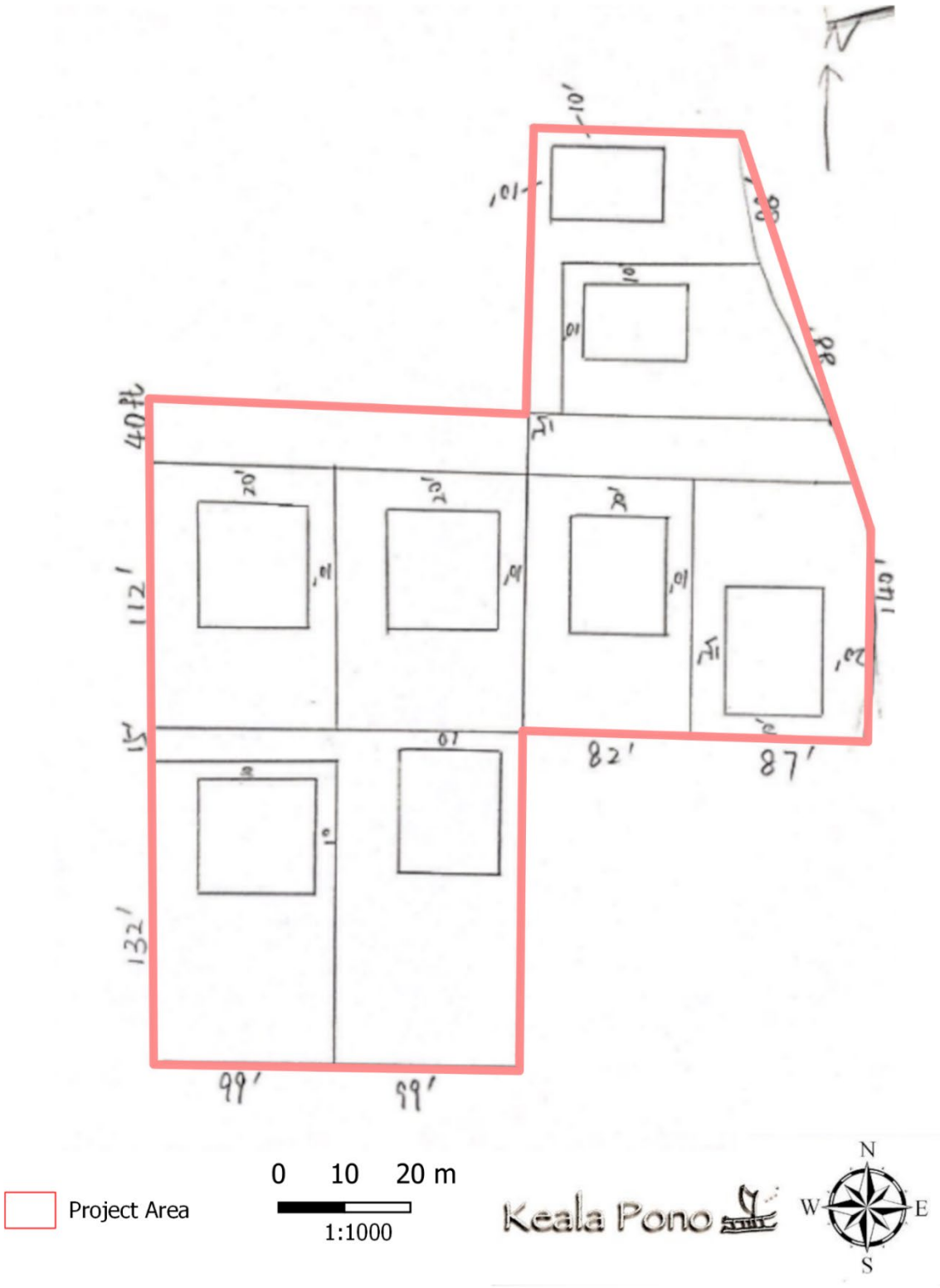

Figure 5. Sketch of the layout for the proposed single-family home locations.

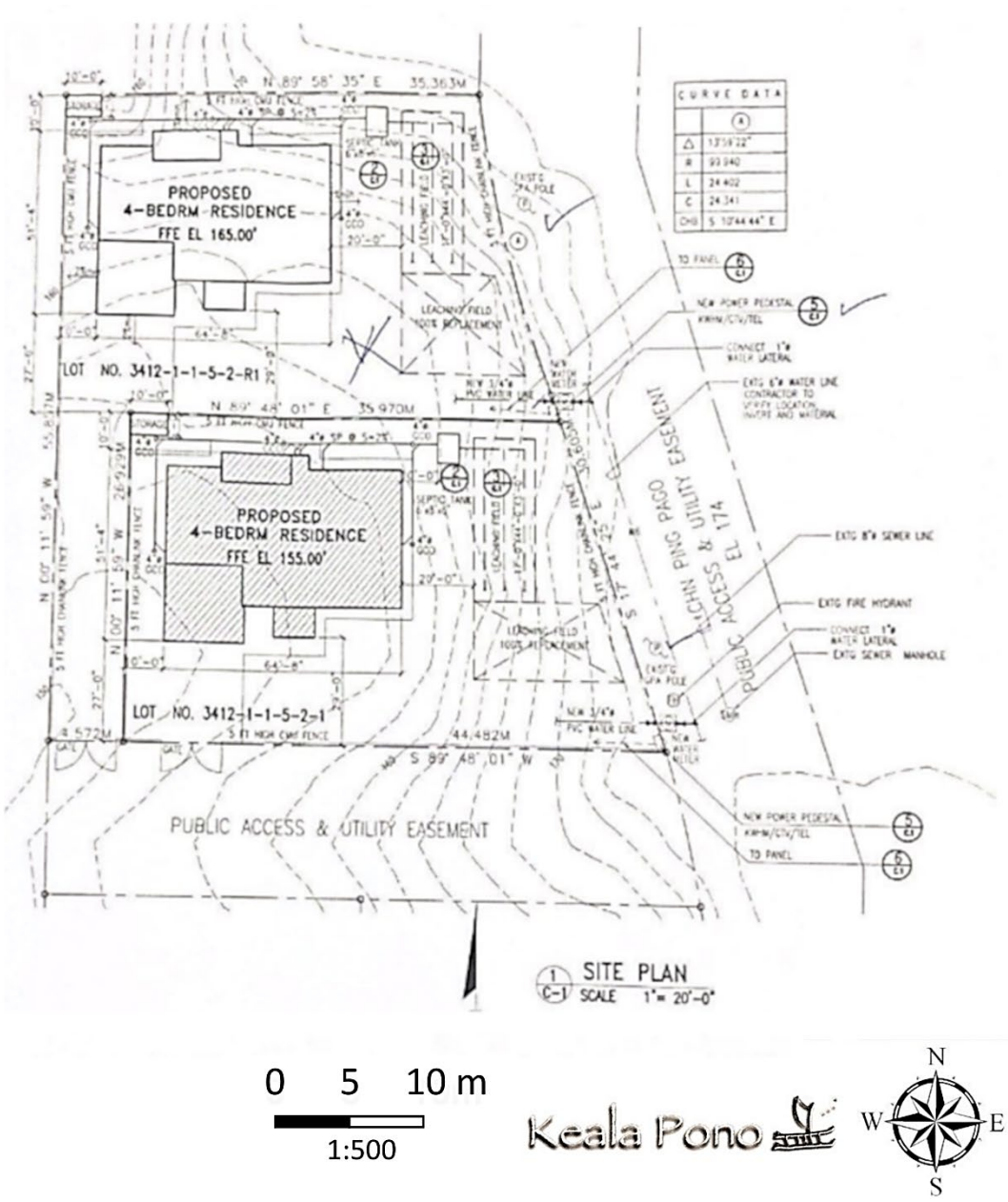

Figure 6. Construction Plans for the two northern proposed homes in the project area.

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 AIS.

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).

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 Chålan Pågu-Otdot (Chalan Pago-Ordot), on the island 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). The town of Chålan Pågu-Otdot is located along the faultline itself on the road linking Hagåtña (Agana) and Pågu Bay (Pago Bay). In specific, the project area is just south of the intersection of Routes 4 and 10, roughly 1.3 km northwest of Pågu Bay. Chålan Pågu-Otdot experiences a tropical rainforest climate with an average monthly rainfall ranging from 17.4 mm (0.7 in.) in March to 234 mm (9.3 in.) in August.

Soils in the project area consist entirely of Pulantat clay (Figure 7). Pulantat clays are permeable, well drained soils located on the upland hills of Guam. These soils are typically found in a shallow deposit over limestone bedrock (USDA 2022). Vegetation in the project area is typical of limestone forests in southern Guam consisting of mainly of ipil (*Intsia bijuga*), dugdug (*Artocarpus mariannensis*), yoga (*Elaeocarpus joga*), and various species of ficus.

Cultural-Historical Context

This cultural history is a synthesis of various archaeological and historical studies of Guam and the Marianas. Included in these references are several books that 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). In addition to these sources, peer-reviewed research has been referenced where necessary to further explore Latte and Pre-Latte sites in the general area of the project.

The current boundaries of Chålan Pågu-Otdot place it in the municipality of the combined villages of Chålan Pågu (Chalan-Pago) and Otdot (Ordot). The municipality runs along the road connecting Pågu Bay and Hagåtña, and was first officially recognized in 1956 (Clement 2021a). To the southwest of the project area lies the Pågu River basin, where some of the earliest archaeological sites in the Marianas occur (Kirch 2017). The nearby Pågu Bay to the southeast is home to the ancient village of Pågu, which was one of the eight resettled villages from the Spanish *reducción* era (Rogers 2011) and was occupied between 1670 and 1850 when a tsunami destroyed the village.

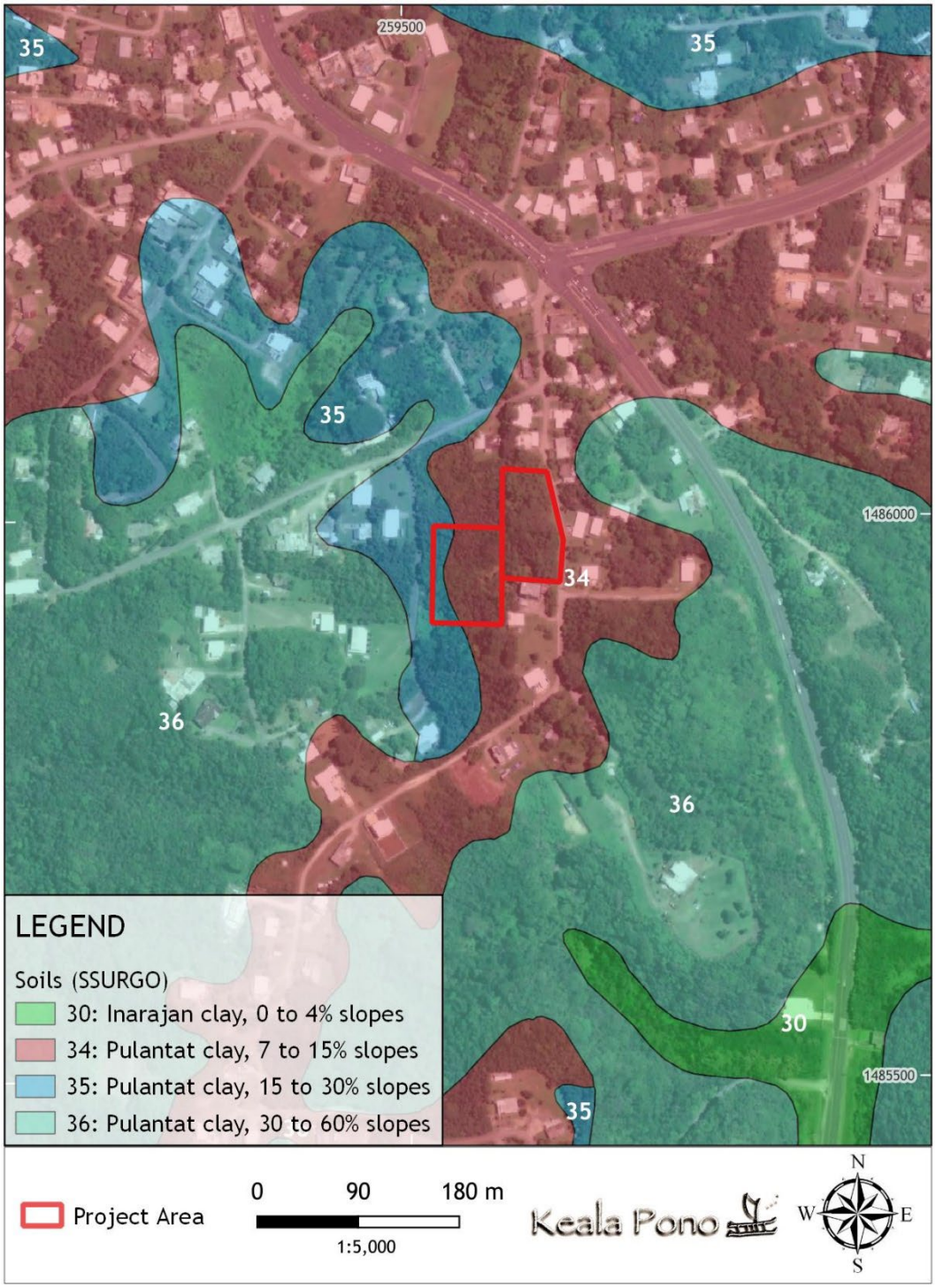

Figure 7. SSURGO soil map of the project area.

(Clement 2021b). In sum, Chålan Pågu-Otdot area has likely been occupied throughout the human occupation of the Marianas, becoming increasingly significant in the Spanish, and the American eras

Archaeology in Guam has traditionally been broken into three major periods, punctuated by short transitions, with the first period being that of Initial Settlement, which 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 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 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

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	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, carcinated bowls. Vessels small (20 cm or less). Fine-line incision and impressing Achugao and San Roque types. 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. Settlement Patterns: Coastal settlements with marine subsistence focus.
Middle Pre-Latte	1000–500 BCE	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. Other Artifacts: Beads are courser 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. Settlement Patterns: Coastal settlement focus, but archaeological and paleoenvironmental evidence for inland activities.
Late Pre-Latte	500 BCE.–500 CE	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. Other Artifacts: Large unpolished beads and bangles. Settlement Patterns: Coastal settlement focus with expansion along river valleys.
Transitional Period	500–800 CE	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. Other Artifacts: Can include types found in the Late Pre-Latte Periods and Early Pre-Latte Periods. 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 *latte* stone structures.

Table 2. Cont.

Historic Period	Dates	Diagnostic Artifacts/Historical Events
Early Latte	800–1000 CE	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. Other Artifacts: *Latte* structures, caves and rock shelters, *lusong* and slingstones appear as well as curved bone spear points, beads and large pendants. *Tridacna* adzes become more common. Settlement Patterns: Settlement across all islands.
Middle Pre-Latte	1100–1350 CE	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. Other Artifacts: *Latte* structures, *lusong,* slingstones and *Tridacna* adzes common. Also includes curved bone spear points, beads, and large pendants. Settlement Patterns: Marine subsistence focus with major expansion into inland areas.
Late Pre-Latte	1350–1521 CE	Ceramics: Marianas Plain Type B body (no slipping and minimal decoration). Similar to middle period. Higher proportion of very thick rims. Other Artifacts: Similar to Middle Pre-Latte with higher proportion of very thick Type B rims. Settlement Patterns: Dense *latte* villages along coasts and suitable interior areas with highly developed agriculture and arboriculture. Continued marine focus.
Pre-Colonial European Trade Period	1521–1668 CE	Period begins with Magellan's landing in 1521 and ends with the start of more concerted missionary efforts Ceramics: Indigenous material appears to have remained largely unchanged. Foreign ceramics may appear. 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. Settlement Patterns: Village settlement and subsistence remains similar to preceding period.
Spanish Missionization Period/Chamorro Spanish Wars	1668–1700 CE	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. 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. Other Artifacts: Metal, glass, and other historic materials. Settlement Patterns: Spanish authorities from settlements, churches and missions. Chamorro population reduced in number through Spanish conflict and introduced disease.

Table 3. Cont.

Historic Period	Dates	Diagnostic Artifacts/Historical Events
Spanish Colonial Period	1700–1898 CE	Starts with this institution of Spanish gubernatorial rule. Ends with the coming of U.S. administration following the Spanish-American War. Ceramics: Archaeological assemblages include the same materials from previous periods. Historical artifacts change over time and non-indigenous ceramic types become progressively more common. Other Artifacts: Non-indigenous artifact types become progressively more common. 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.
First American Territorial Period	1898–1941 CE	Begins with the institution of U.S. administration of Guam following the Spanish-American War. Ends just before Japanese military began in 1941. 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. 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. 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. 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).
World War II/Japanese Military Occupation	1941-1944 CE	Begins with Japanese military rule in 1941. Ends after the recapture of Guam by American Forces and the subsequent close of WWII. 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. 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. 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.

Table 4. Cont.

Historic Period	Dates	Diagnostic Artifacts/Historical Events
Post-World War II/Second American Territorial Period	1944-1950 CE	Begins at the end of WWII and continues until the establishment of the Organic Act in Guam in 1950. 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. 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 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) (USDC 1950).
Present, Political and Economic Development Period	1950-Present	Begins with the establishment of a local territorial government and is still ongoing. 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. 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. 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 is 2020. Although this is a very small amount of growth over ten years, this is a 161.831% increase in population since 1950.

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 2012a, 2016). Vilar et al. (2012) state 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).

Pre-Latte sites are rare on Guam, with only 80 known sites across the island (Figure 8). Notably, none of these sites, or concentrations thereof are within a quarter mile of the project area (Tomonari-Tuggle et al. 2018).

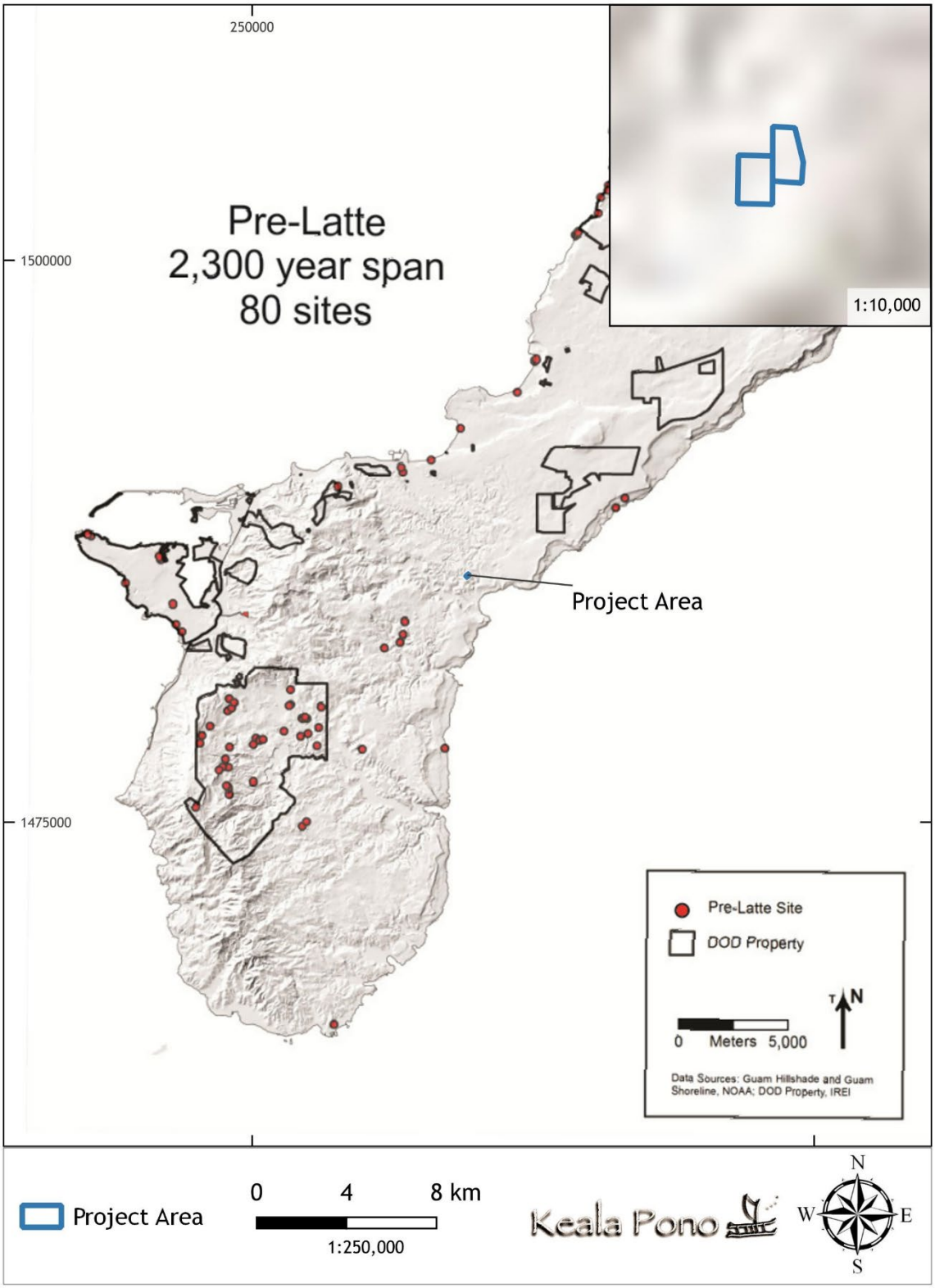

Figure 8. Pre-Latte sites on Guam (Tomonari-Tuggle et al. 2018).

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 2012a). 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 tools. 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 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).

This AIS was requested when possible Latte ceramics were encountered during a preliminary survey of the property. As of the drafting of this report, no archaeological sites from the Latte Period have been found in the vicinity of the project area (Figure 9). This could be a product of a lack of archaeological studies conducted in the area, or that the ceramics found on the properties may be indicative of an unknown Latte site.

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 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).

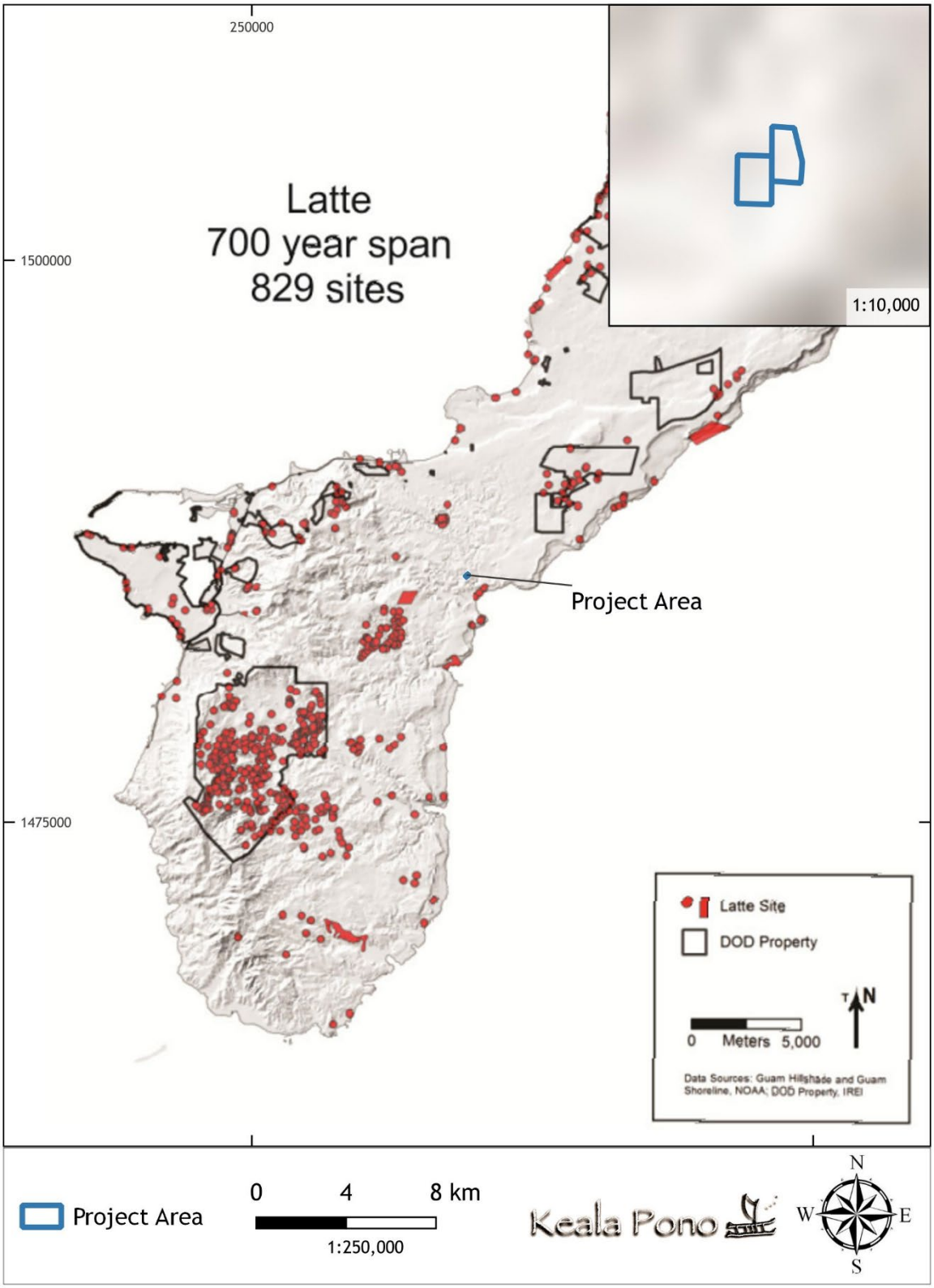

Figure 9. Latte sites on Guam (Tomonari-Tuggle et al. 2018).

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).

During this period the project area remained relatively far removed from any known archaeological sites. The primary trail connecting Hagåtña and Pågu was located to the south during this period, with only minor trails passing through the project area (Figure 10). A dense concentration of Latte villages existed to the east as well, but the concentration did not extend within a quarter mile radius of the site (Tomonari-Tuggle et al. 2018).

The Spanish Era (1668–1898 CE)

The Proto-Historic Period ended with the arrival of Jesuit Father Diego Luis de San Vitores, who established the first mission and fortification in Hagåtña. It was at this time that the archipelago

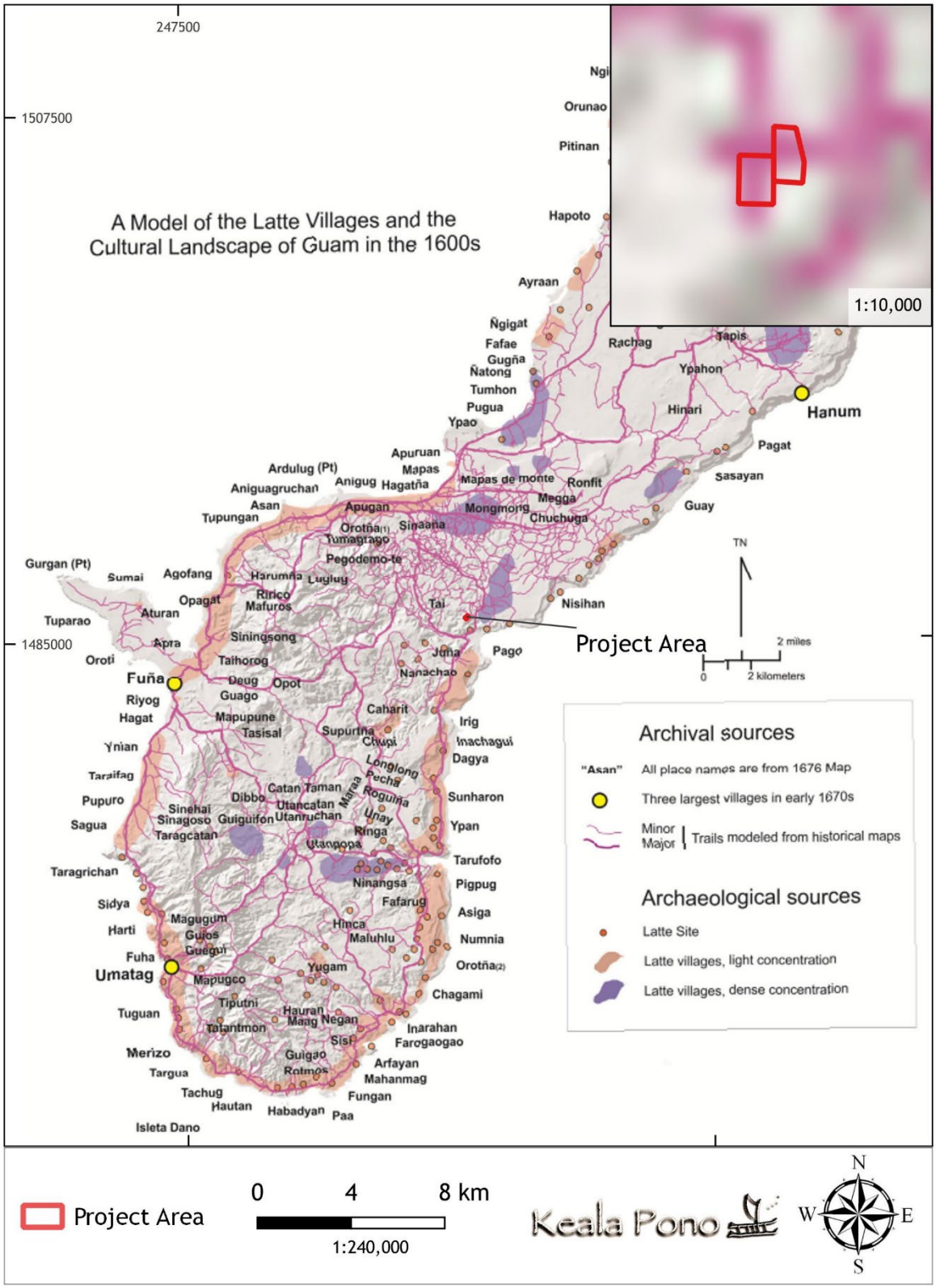

Figure 10. Cultural landscape of Guam in the 17th century (Tomonari-Tuggle et al. 2018).

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 is thought to have supported 30,000–45,000 native people in 180 settlements. The CHamoru village 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, Inapsan (Jinapsan), Pågu, 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 *lånchos* (ranch-farms), growing crops (corn, sweet potato, rice, and fruit trees) and raising animals (pigs, chickens, cattle). These CHamoru would work the *lånchos* during the week, returning to their district villages to attend weekend religious services (Bayman and Peterson 2016, Hezel 2021).

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 to galleon anchorage at Humåtak (Bayman and Peterson 2016, Alvarez 2022). The road connecting Hagåtña to Pågu was also likely built in this time period (Figure 11).

The historic maps from this period consistently show a route connecting Hagåtña and Pågu. This road is likely the namesake of Chålan Pågu, which can be literally translated to "Pago Road" (Clement 2021a). The road is depicted on most maps of Guam, including the earliest primary-source map discussed here, Freycinet's 1819 map of the Marianas. Each map is discussed in more detail below. Freycinet's 1819 map clearly marks several routes linking the eastern and western coasts of Guam together with the route connecting Hagåtña and Pågu being one of two prominent passes over the southern mountains (Figure 12). Two towns are marked on the map along this route, "Wdeod" and "Topheod." These are probably phonetic spellings of Ordot and Tachogna which were both established in the 1700s as agricultural areas to support the mission system elsewhere on the island (Clement 2021a).

Similarly, on the 1832 Villalobos map, the road connecting Hagåtña and Pågu is clearly visible on the (Figure 13). Unfortunately, it appears the Villalobos map becomes quite inaccurate in this section of Guam with the actual shoreline diverging dramatically from the recorded one. Correspondingly the roads also appear to be quite far to the north of the project area.

The final map of 19th century Guam is the inscrutable 1852 Coello map (Figure 14). With overlapping topographic lines, rivers, roads, shorelines, and labels, the map is complicated to decipher, but upon close inspection a road connecting Hagåtña and Pågu is identifiable. Additionally, several labeled settlements along the route are visible, if not legible.

Together these maps point to the clear existence of a road connecting Hagåtña and Pågu at least as early as 1819. This road appears to run very close to the project area, and apparently had several

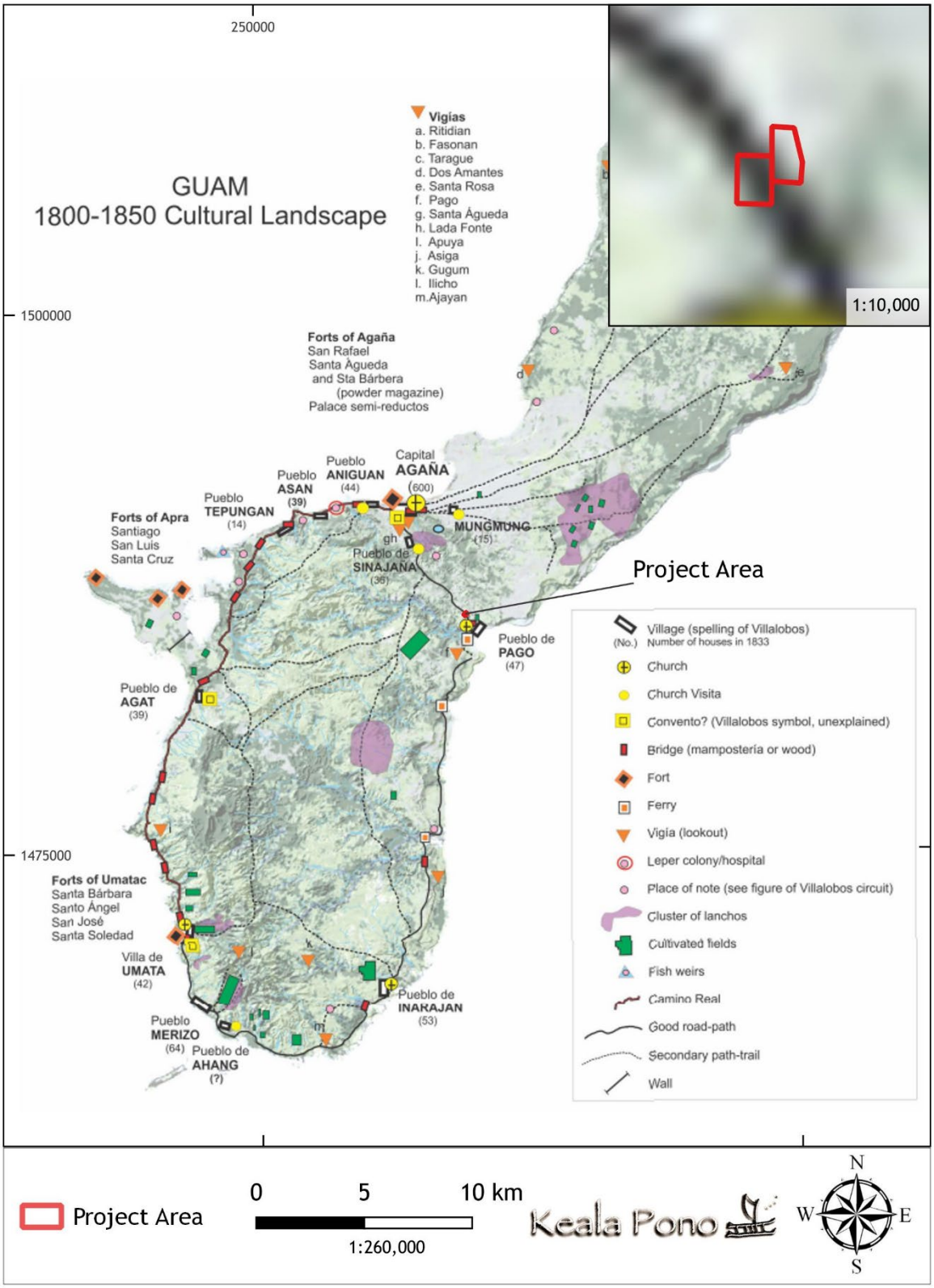

Figure 11. 1800–1850 Cultural Landscape of Guam (Tomonari-Tuggle et al. 2018).

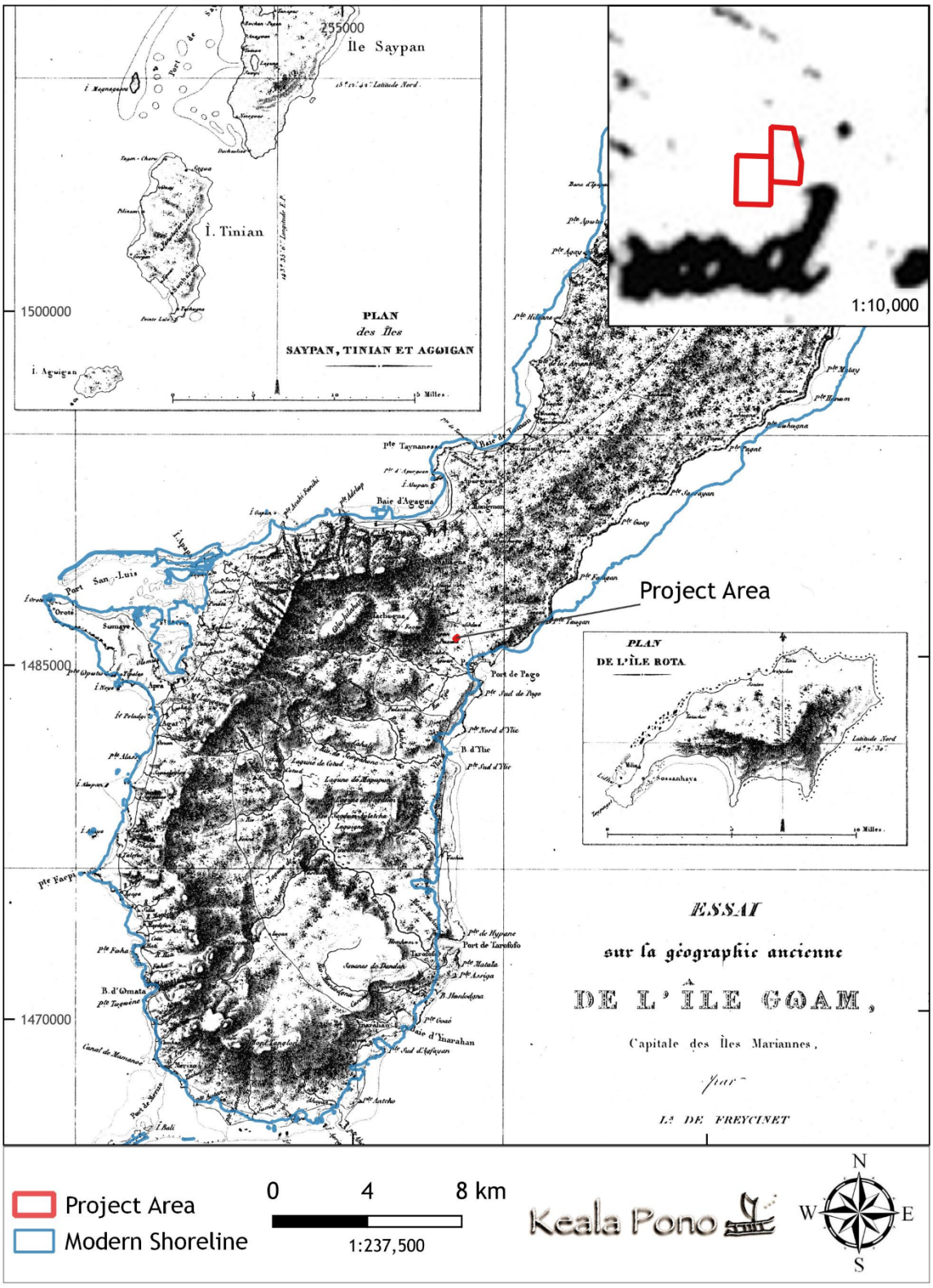

Figure 12. 1819 Freycinet map of Guam (Freycinet 1819).

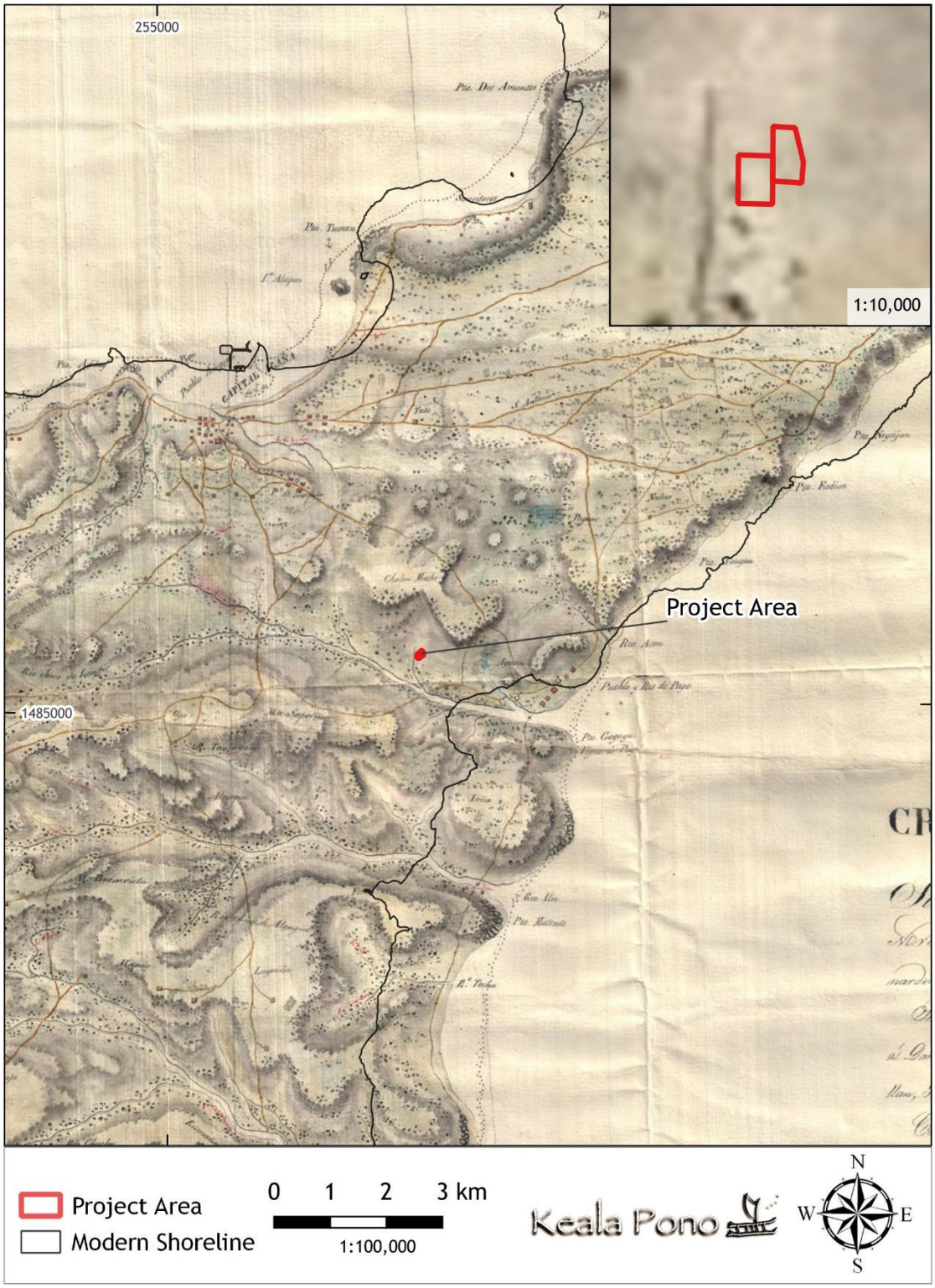

Figure 13. Portion of the 1832 Villalobos map of Guam. Note the innacuracies in the shoreline and the location of the roads (Tomonari-Tuggle et al. 2018).

Figure 14. 1852 Coello map of Guam (Coello 1852).

settlements along its length. This road is likely the precursor to the modern Route 4, the primary artery of Chålan Pågu today.

Due to the project area's proximity to the road, there is a significant probability of encountering archaeological sites or materials from this period during excavations in the project area. Of particular interest to archaeologists would be evidence of the intra-island trade of agricultural products that were required to support the mission system on the island present throughout the Spanish Period.

The American Era (1898 CE–Present)

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). With this statement, 230 years of Spanish control and influence in Guam came to an end.

The Americans, however, did not support the independence of Guam and the Marianas. Rather, they instead opted to establish the island as an unincorporated territory separate from the remainder of the Marianas, and with no possibility of achieving statehood. Once more, Guam's strategic position in the Pacific cemented it as a pawn of global politics, a position that it is still mired in to this day.

The American Era is typically split into four periods: the First American Territorial Period, the Japanese Occupation, the Second American Territorial Period, and the Organic Act Period. While historically, these periods are all clearly distinct from each other, in terms of archaeology, they are largely undetectable. This is a product of the extremely short duration of some of the periods. Nevertheless, each period is discussed in depth below, in addition to the Battle of Guam.

First American Territorial Period (1898–1941 CE)

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 *lånchos* 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).

Two maps are presented below to show the landscape of Guam during this period. Figure 15 shows the roads, trails, and structures identified across Guam between 1910 and 1913, while Figure 16 is a portion of a 1914 Army Corps of Engineers map of Guam. Together these maps show that not

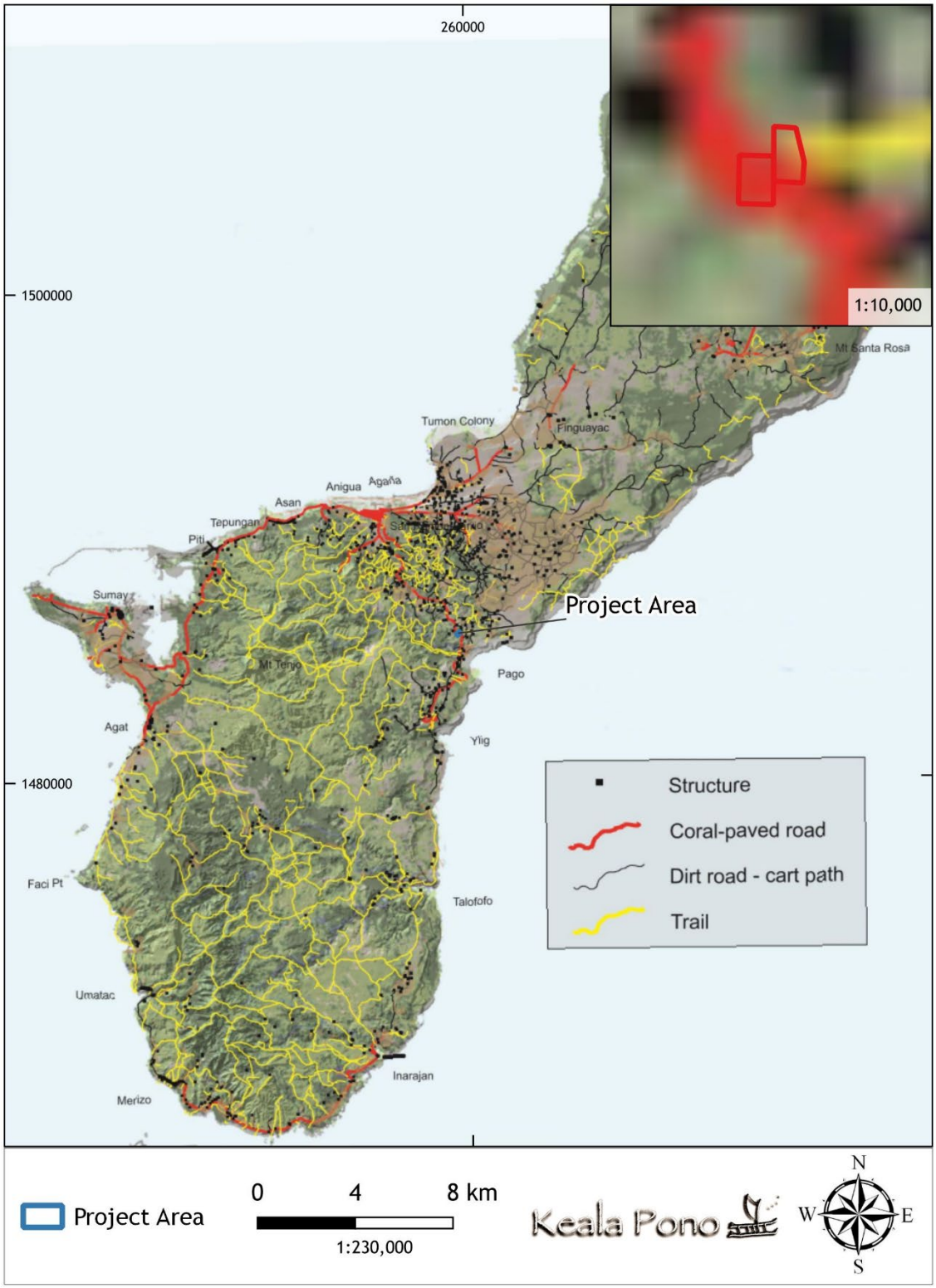

Figure 15. Cultural landscape of Guam 1900–1913. Note the presence of the coral-paved road linking Yano and Agana (Tomonari-Tuggle et al. 2018).

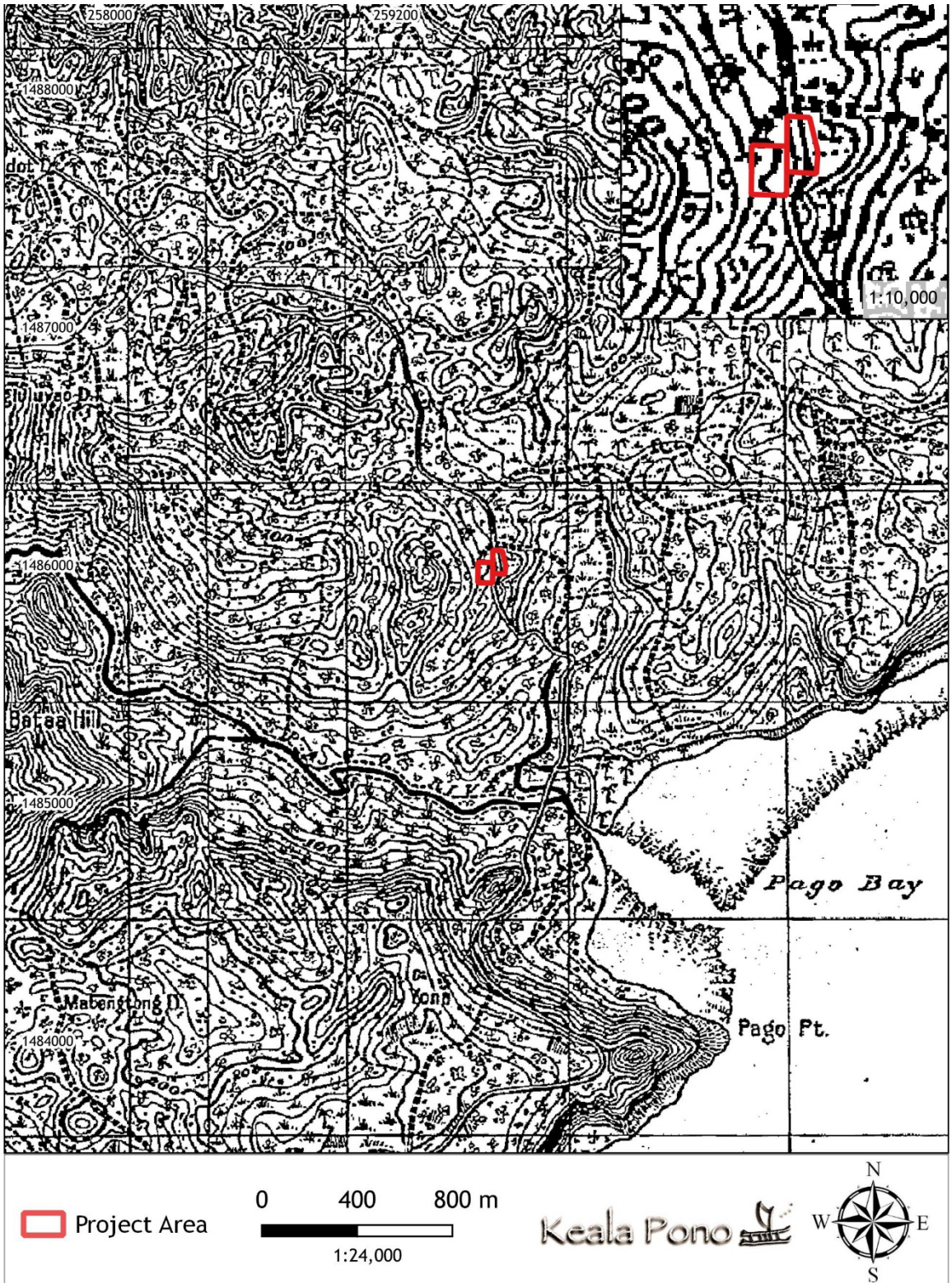

Figure 16. Portion of a 1914 Army Corps of Engineers map of Guam. Note that the road appears to pass directly between the two parcels in the project area (Sturdevant 1914).

much had changed around Chålan Pågu in this period. This suggests minimal American development in the area. Consequently, archaeological structures/material from this era are unlikely to be encountered during any excavations.

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 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 Edwardo 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 lost (Figure 17). 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).

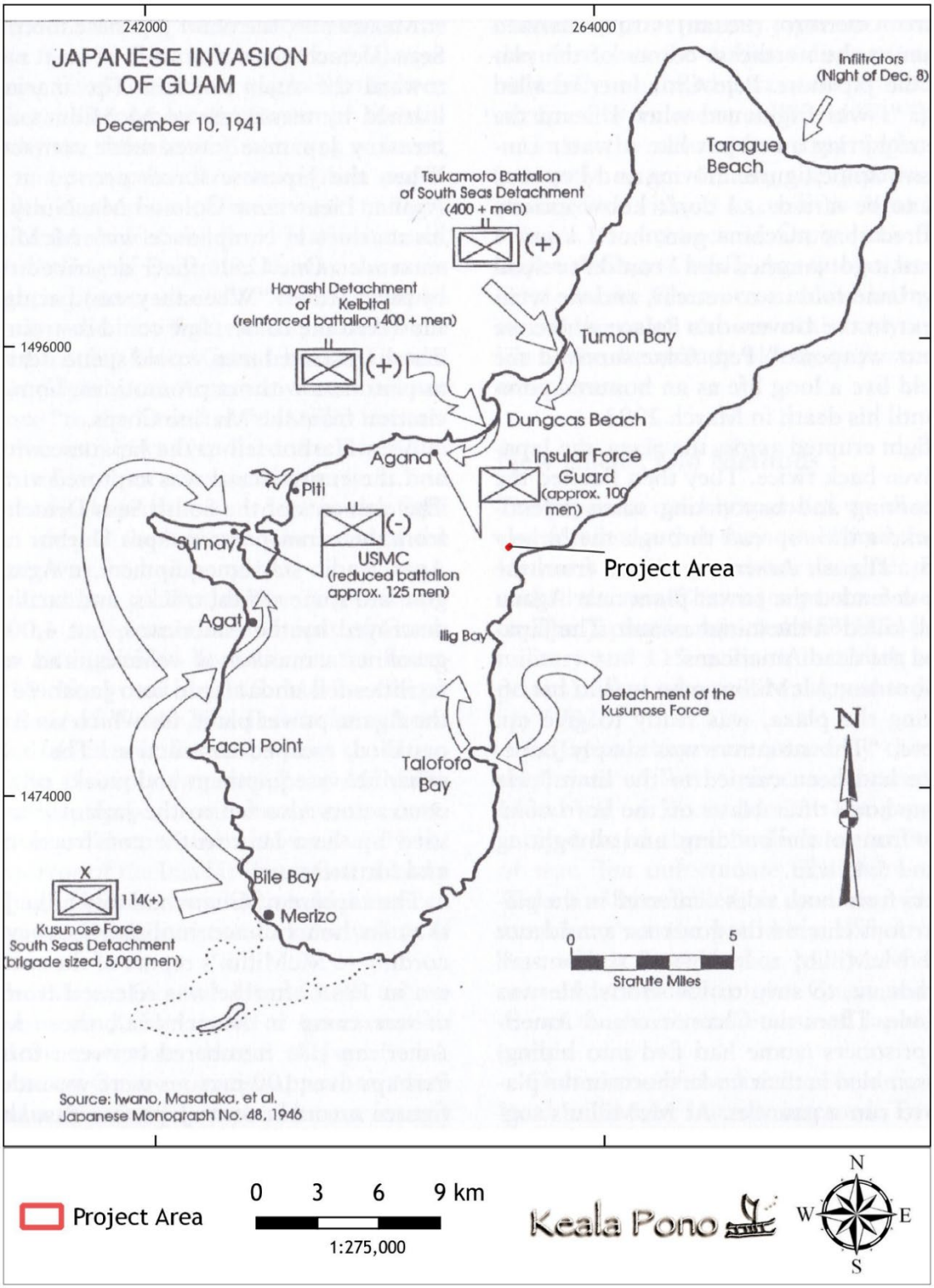

Figure 17. Map of the Japanese invasion of Guam. Note the relative unimportance of the area in the overall battle plans (Rogers 2011).

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 years old 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).

Maps from the Japanese Occupation do not highlight Chålan Pågu in any strategic or tactical manner (Figure 18, see Figure 17), and the village is only mentioned in passing in oral histories discussing the occupation. Even so, the road itself connecting Hagåtña and Pågu was likely considered a strategic asset, and there is the possibility that Japanese defenses could be found in the vicinity of the artery. Overall, however, there is a low likelihood of encountering Japanese sites or material within the project area.

Battle of Guam (1944 CE)

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. By July 29th the 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). As mentioned above, it would appear that Chalan Pågu was largely spared from the fighting.

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,

Figure 18. Portion of a Japanese topographic map of Guam, made during the occupation (Tomonari-Tuggle et al. 2018).

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 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).

A 1944 Army Map Service topographic map of Guam is the first relatively detailed depiction of the roads around the project area (Figure 19). From this map, it can be seen that there is some limited development around the project, but most of the buildings in the area are relatively far away to the north. At this point, the vicinity of the project area appears to be relatively undeveloped.

Organic Act/Home Rule/Economic Development Period (1950 CE–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 20–23).

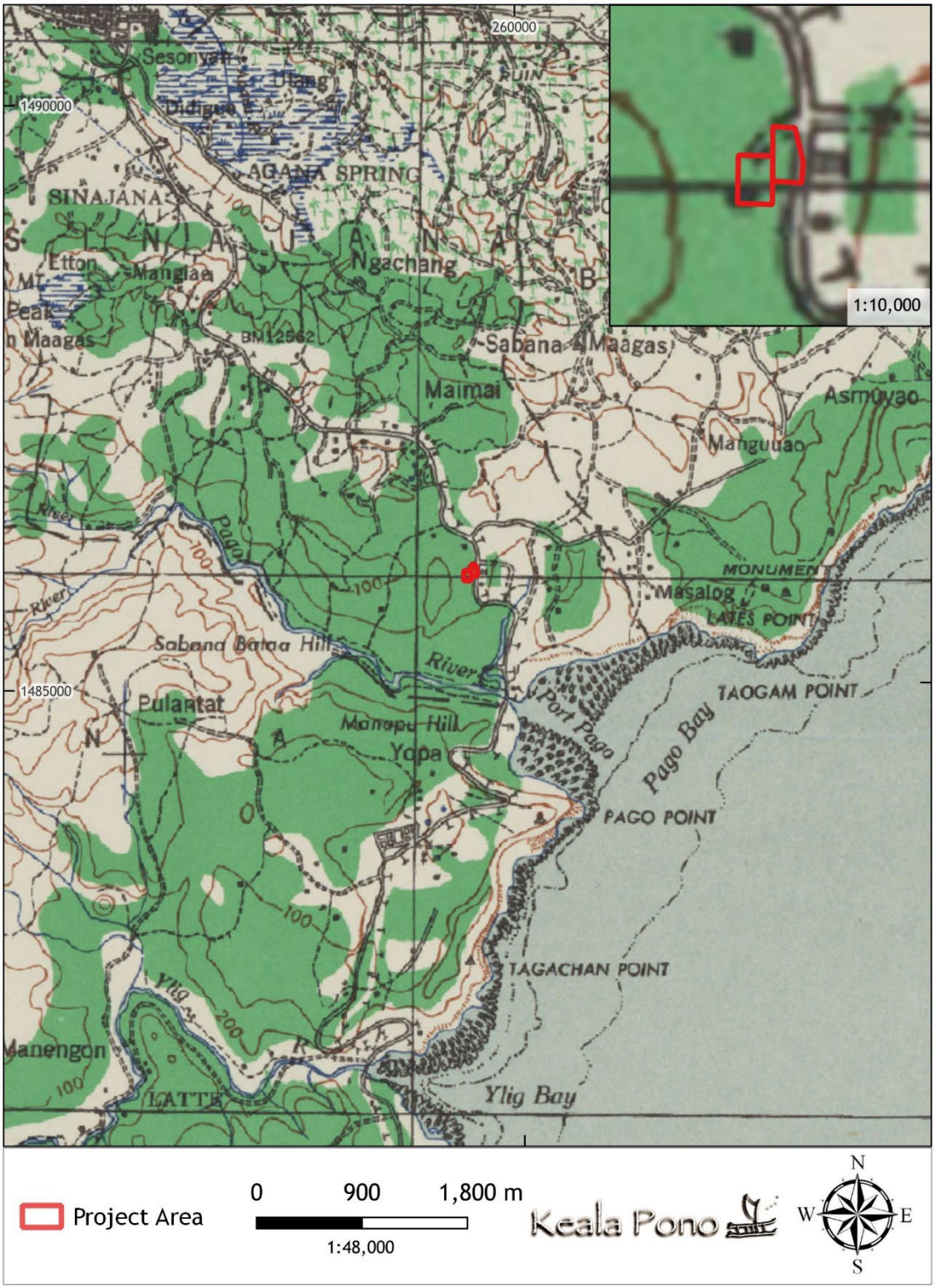

Figure 19. Portion of a 1944 Army Map Service topographic map of Guam (Army Map Service 1944).

Figure 20. Portion of a 1955 Army Map Service topographic map of Guam (Army Map Service 1955).

Figure 21. Portion of a 1965 USGS topographic map of Guam (USGS 1965).

Figure 22. Portion of a 1978 USGS topographic map of Guam (USGS 1978).

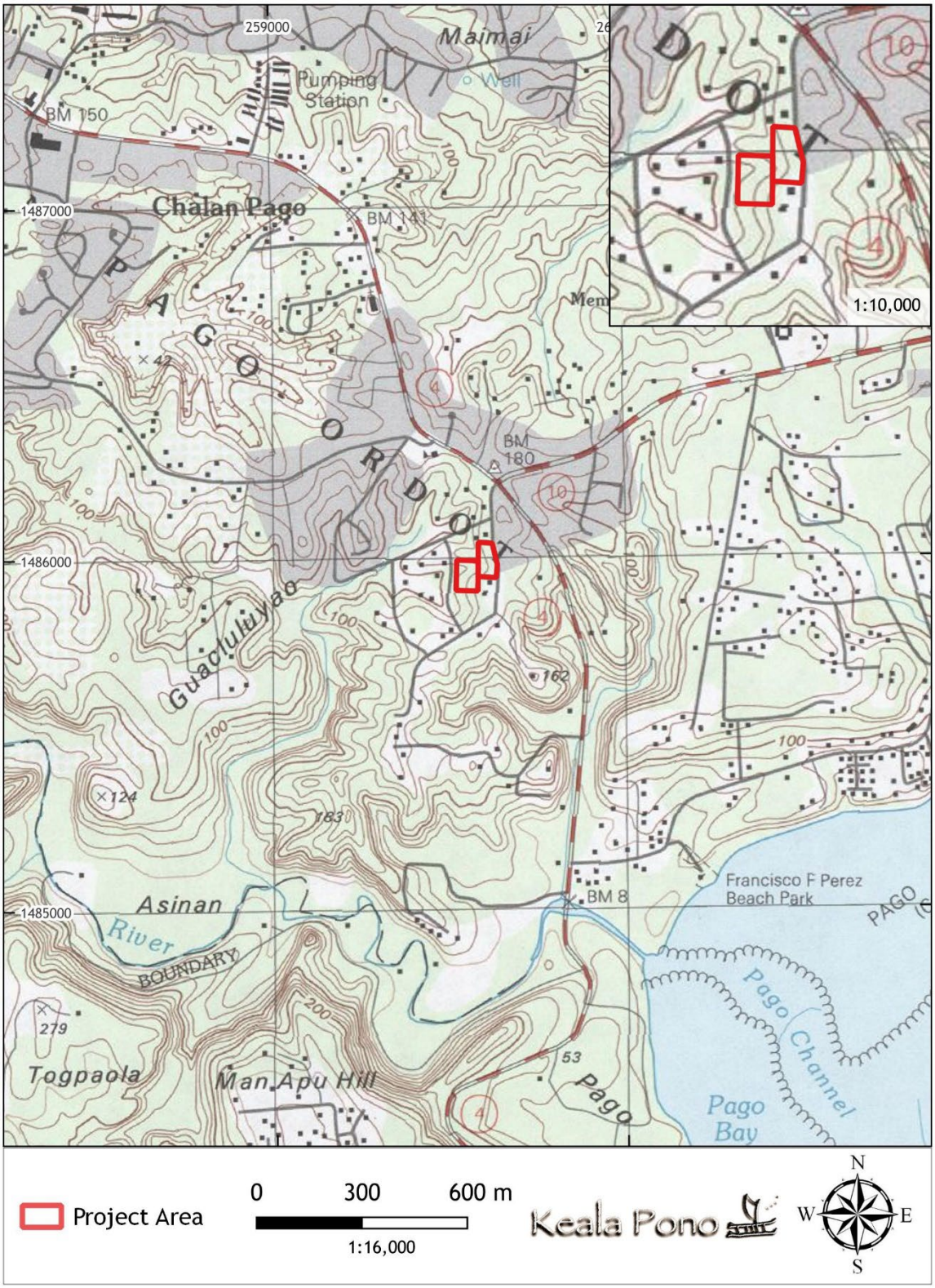

Figure 23. Portion of the 2000 USGS topographic map of Guam (USGS 2000).

The maps in this period become much more accurate and show the development of this portion of Guam over the last 50 years. On the 1955 Army Map Service map (see Figure 20), it can be seen that little has changed in the 11 years since the 1944 map (see Figure 19). This is juxtaposed by the 1965 USGS map in which Route 4 appears to move to the east away from the project area. This is either the product of error in the earlier maps, or road maintenance in the ensuing decade (see Figure 21). Additionally, more residential roads and structures have begun to be constructed around the project area. This continued development is reflected in the 1978 USGS map of the area (see Figure 22), with even more structures built in the surrounding landscape. And finally, on the 2000 USGS map the neighborhood is more or less in its present configuration in terms of residential roadways and surrounding structures (see Figure 23).

From these maps, it is evident that the majority of development around the project area has been in the last 57 years. As anything over 50 years old is considered historic, this does mean that there is the potential for historic structures and materials to be encountered during excavations on the project area. With that being said, these parcels appear to have not been affected by historic and modern development in the area and could possibly be relatively pristine in terms of their surface and subsurface archaeology.

Archaeological Context

This AIS was primarily motivated by the discovery of possible Latte ceramics by GHRD during a pedestrian survey of the parcel. In addition to these latte ceramics, a single archaeological study has been conducted within a quarter mile of the project area at the "Thomas Property" in Chålan Pågu (Figure 24). The survey was a joint effort between the Guam Preservation Trust (GPT), and Micronesian Archaeological Research Services (MARS). The project took place throughout 2006 and encountered a significant Latte cultural layer (Moore and Amesbury 2007).

This cultural layer was assigned a GHPI number: 66-01-2989, and has been temporarily titled the Thomas Site. The cultural layer is an 18–20 cm thick "dark brown soil" that sat above a sterile "light brown gravelly clay." The dark cultural layer contained shell and fire cracked rock, and the

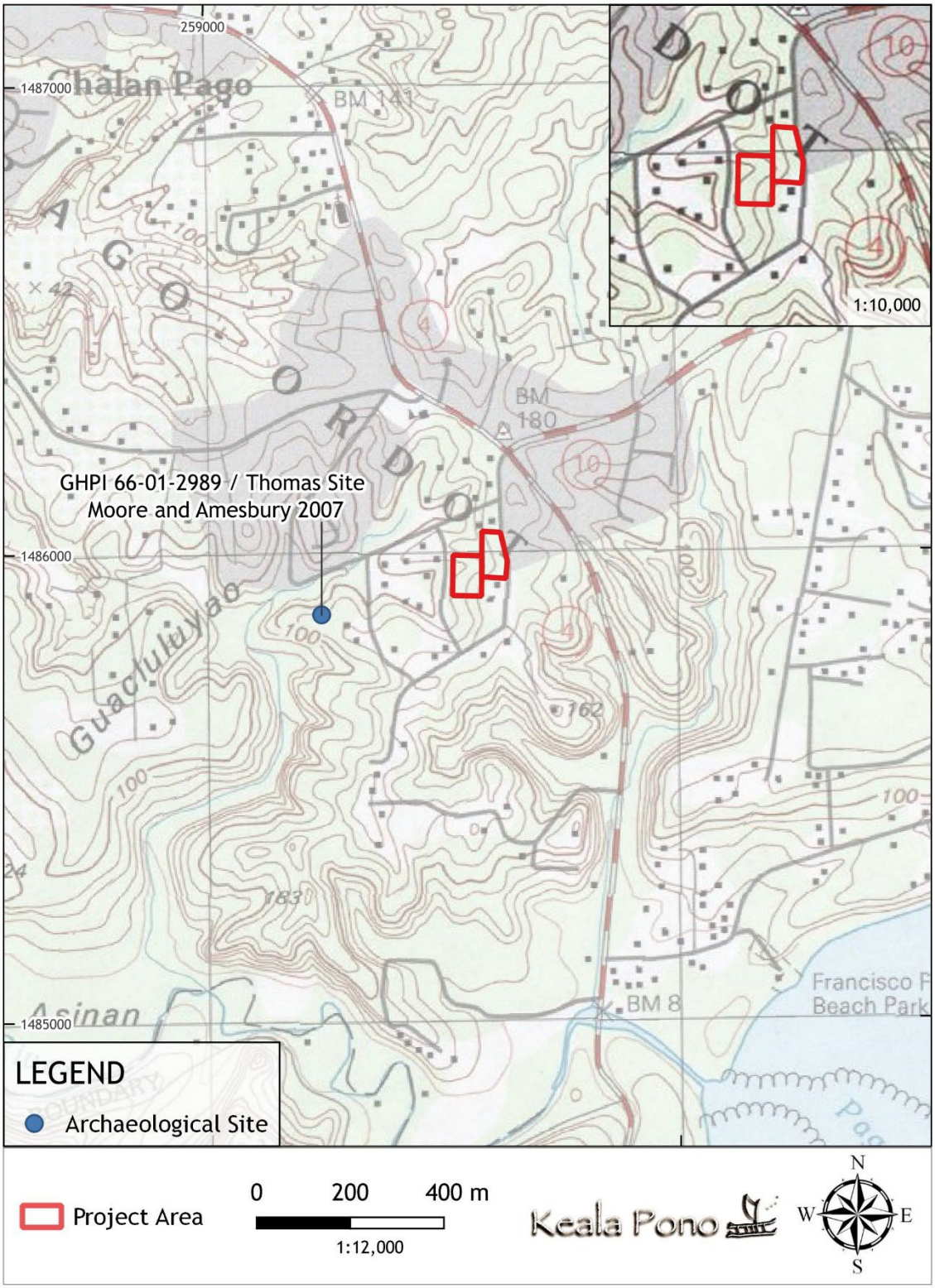

Figure 24. Previous archaeological studies and historical sites in the project area, projected on a 2022 USTOPO map.

surface in the area of the excavation contained ceramics and culturally modified lithics. Radiocarbon dating of charcoal found during the survey returned a bimodal sequence of CE 1430–1520 or 1580–1630, indicating that the site is likely from the Latte Period.

From this archaeological study, and the discovery of Latte ceramics on the property there is a relatively high likelihood of encountering archaeological resources from the Latte Period during this project.

Background Summary

In summary, both the historic background and the archaeological context of the project area are rather limited. There is a high-probability of encountering Latte sites or materials, and a moderate probability of encountering Spanish sites or material during excavations on the property. American activity before 1972 was present but relatively limited. It is difficult to offer more precise predictions, as only a single previous archaeological study has been conducted in the vicinity of the project area.

METHODS

An AIS was carried out between July 27 and August 5, 2022. The survey covered the entirety of Lots 3412-1-1-2 and -1-1-5 in the village of Chålan Pågu-Otdot (Chalan Pago-Ordot) on the island of Guam, and fully complied with the GHRD Certificate of Approval 2021-0501 and Review and Compliance numbers 2021-0625 and -0626. Fieldwork included a pedestrian and subsurface survey designed to determine the presence or absence of historic properties in the project area. Fieldwork took seven work days with two to four archaeologists. The fieldwork staff were Anthony Alvarez, MA; Windy McElroy, PhD; Inez Perez, MA; Max Pinsonneault, MA; and Kaya Taitano, with Pinsonneault designated as Field Supervisor. Windy McElroy, PhD served as Principal Investigator, overseeing all aspects of the project and assisting with fieldwork. Jacy Miller, MA, of Kleinfelder conducted the traditional ceramics analysis (meaning any ceramic sherds thought to be from the Latte period or older), while the remainder of artifact analysis was conducted by Pinsonneault.

The pedestrian survey consisted of a series of systematic north-south transects across the property, spaced at approximately 5 m intervals. The subsurface survey included twelve 50 x 50 cm shovel test pits (STPs) placed at roughly 30 m increments across the project area, with six STPs in each parcel. If an STP returned significant findings – left to the discretion of the onsite SOI qualified archaeologist – additional STPs would have been excavated in each cardinal direction at 5 m intervals to determine the extent of the cultural deposit. If a cultural deposit continued to the edge of the project area, it would have been marked as such to facilitate future surveys on neighboring parcels.

Vegetation in the project area was dense but not impassable (e.g., Figure 25), and most aspects of the project's research design were adhered to (Pinsonneault et al. 2022). The exception to this is the offset locations of STPs 6 and 8 from their planned locations, as shown in Figure 5 of the research design (Pinsonneault et al. 2022:6). STP 6 would have been located within a dense growth of bamboo (Figure 26), so it was moved to the southwest, and STP 8 would have been located on a slope and was moved to the south. Neither of these limitations resulted in reduced project area coverage for either the surface or subsurface surveys. All STPs were

excavated by hand with shovels and trowels in 10 cm levels within natural stratigraphic layers. No STPs returned significant findings, therefore no additional STPs were required. All excavated soil was screened through ¼ inch mesh, and all STPs were backfilled after completion. STPs measured 50 x 50 cm and were excavated to 100 cm below the surface (cmbs) where possible.

Representative profiles were drawn and photographed. A OnePlus 7 Pro Android camera with 3120 x 1440 pixels (515 PPI) was used to take digital photos of excavations, as well as various stages of the survey. Photo logs and bag lists recorded photo locations and information for collected cultural material. A daily log was drawn up at the end of each day by the field supervisor. Soils were described using Munsell soil color charts (Munsell 2010), a soil texture flow chart (Thien 1979), and the US Department of Agriculture soil survey manual (Soil

Figure 25. Typical field conditions showing heavy ground cover.

Science Division Staff 2022). GPS points were recorded using a Trimble Geo 7x GPS unit with sub-meter accuracy. The scale in all field photographs is marked in 10 cm increments. The north arrow on all maps points to magnetic north. Throughout this report, rock sizes follow the conventions outlined in Field Book for Describing and Sampling Soils: Gravel <7 cm; Cobble 7–25 cm; Stone 25–60 cm; Boulder >60 cm (Schoeneberger et al. 2002:2-35). All cultural material thought to be 50 years or older was collected. Collected materials are temporarily being curated at the Keala Pono storage facility in Tamuning until they can be returned to the landowner. No human remains were found and no items thought to be associated with human remains were collected.

Figure 26. Example of bamboo and leaf litter obscuring the ground surface.

RESULTS

An AIS was conducted off Manibusan Lane in Chålan Pågu-Otdot, on Lots 3412-1-1-2 and -1-1-5]. The survey was comprised of a surface pedestrian survey and subsurface testing. The pedestrian survey was largely unhampered by vegetation in some areas, and dense but not impassable in other areas. One archaeological site was encountered during the survey, consisting of an artifact scatter with two features, and a tumbled latte set (Figure 27). Additionally, the pedestrian survey encountered a variety of scattered, isolated artifacts, including historic artifacts and traditional lithics and ceramics. These discoveries extended into the subsurface survey, which revealed a relatively simple stratigraphy with two to three layers encountered in each STP.

Vegetation in the project area consisted of typical limestone forest cover, mainly consisting of ipil (*Intsia bijuga*), dugdug (*Artocarpus mariannensis*), yoga (*Elaeocarpus joga*), and various species of ficus, ranging from sparse to dense ground cover. Most of the pedestrian survey proved unhindered by the jungle, aside from a thick patch of bamboo that required several attempts to survey. In addition, a thin O-Horizon of decaying plant matter and a scatter of modern trash intermittently obscured the ground. The modern debris was concentrated enough to hinder the survey in places, varying in density from roughly one piece of trash per 10 m^2 to well over 100 pieces per m^2 (Figure 29). And finally, steep slopes marked the parcel's east and west sides, making surveys of the areas directly adjacent to the property boundaries more challenging. Despite these difficulties, the survey team eventually covered the entire project area.

Neighboring parcels are utilizing small portions of the property for yard space or gardens. These features appear to be modern and are still being utilized. Several dumps were also identified in the project area, particularly on the eastern lot. These dumps contained modern, historic, and traditional materials. They were identified as an archaeological site, labeled Site 66-01-2989, with two distinct scatters designated as Features 1 and 2. A tumbled Latte Set was identified off the roadway on the eastern parcel; this was labeled Feature 3 and was added

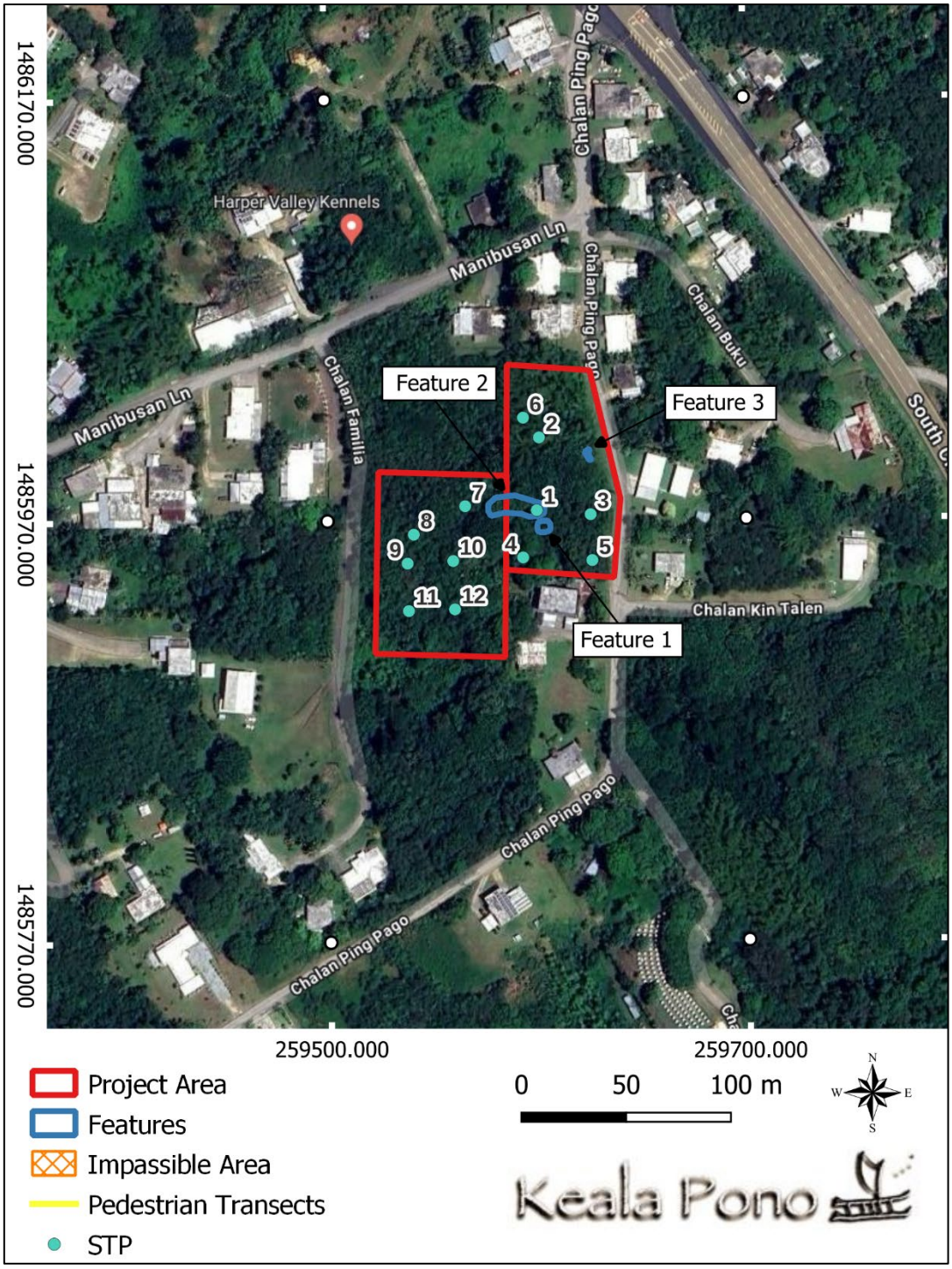

Figure 27. Location of STPs and archaeological features on Lots 3412-1-1-2 and -1-1-5. Note the tick marks at the western and southern ends of the map as well as datum points (6) at the intersections of tick marks. Street and kennel location information from Google Maps 2024. See Figure 28 for more detail and transects paths, below.

Figure 28. Zoom in map of location of STPs, survey transect paths and archaeological features on Lots 3412-1-1-2 and -1-1-5. Note the tick marks at the western and southern ends of the map as well as the white datum points (42) at the intersections of tick marks.

Figure 29. Example of dense modern debris obscuring the ground surface.

to Site 66-01-2989 as per GHRD recommendation. A few artifacts were found on the surface that were not associated with either Feature 1 or 2. These consist of three World War II era glass bottles and seven Latte period ceramic body sherds.

Site 66-01-2989

One archaeological site was encountered during the survey. Site 66-01-2989 includes a scatter of artifacts, mostly on the eastern lot as well as a tumbled Latte set found near the road on the east side of the eastern lot. This site has two surface concentrations of artifacts, labeled Features 1 and 2. The tumbled Latte set is Feature 3. This site is from the same period as the nearby GHPI site 66-01-2989, located on the "Thomas Property." This site is discussed in more detail in the Background section, possibly indicating that they are part of the same archaeological context and therefore the three new features are included with Site 66-01-2989.

Features 1 and 2

Features 1 and 2 are scatters of surface artifacts found throughout both parcels. The features are typified by a scatter of archaeological material, including lithic tools (n=4), Latte ceramics

(n=66), and historic glass (n=22). Modern debris was also observed throughout the site. Two surface concentrations of cultural material were identified, labeled as Features 1 and 2 of Site 66-01-2989. Any items thought to be more than 50 years old were collected. These features cover an area of 510.67 m^2 in total. Feature 3 was later added to Site 66-01-2989 at the recommendation of GHRD.

Feature 1 is an artifact scatter strewn with modern debris containing a historic glass bottles (n=3), Latte ceramics (n=8) (Figure 30). The feature is located on the southeastern portion of the eastern parcel; this feature covers an area of 223.54 m^2. Most materials observed in the scatter were modern plastic, metal, and glass food and beverage containers (e.g., Figure 31). These were noted but not collected. The historic bottles consisted of two Coca-cola bottles (Acc. 50, 54), and a perfume bottle (Acc. 57). The Coca-cola bottles both had Owens Illinois maker's marks on them, indicating that they were produced in Bridgeton, New York in 1943 and 1948 respectively (Lockhart and Hoenig 2018). The perfume bottle was clearly machine made, indicating it was produced after 1915, but did not present any further diagnostic traits. The Latte ceramics consisted of five rim sherds (Acc. 46-47, 49, 51, 53) and three body sherds (Acc. 45, 48, 56). While no definitive surface treatment was observed on any of the sherds, one of the rims may be a possible Transitional Pre-Latte sherd with a Robust Type B rim (Acc. 46).

Feature 2 is another artifact scatter that consists of less prevalent modern debris, and more prevalent historic bottles (n=18), and traditional materials, including Latte ceramics (n=58) and lithic tools (n=4) (Figures 31–33). This feature is located in the center of the eastern parcel extending across a 159.05 m^2 area. The historic bottles consisted of 12 beer bottles (all fragmentary), five soda bottles (one whole Coca-cola, four unidentified fragmentary), one food bottle, and one Clorox bleach bottle. Eleven of the bottle had maker's marks with production dates ranging from 1939 to 1950 and identified origins across the continental United States. The Latte ceramic sherds consisted of 9 rims, 10 bases, 37 body, and 6 indeterminate fragments. Of these sherds, 23 had surface treatments, with four being combed, and 19 being wiped/brushed. The lithic tools consisted of a pestle, an adze, a scraper, and a pre-form.

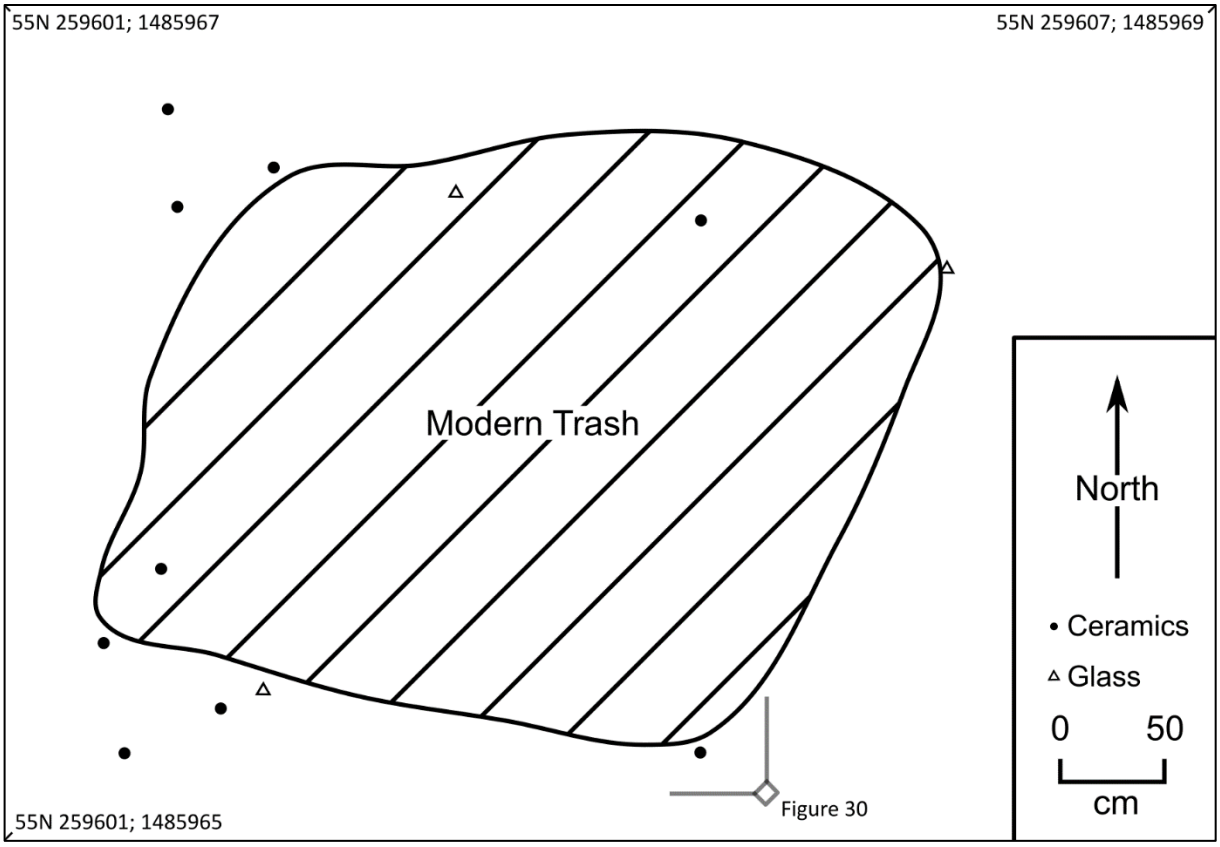

Figure 30. Plan view map of Feature 1. Note datum points (3) at the NW, NE and SW corners of the map (e.g. "55N 259601; 1485967" at the NW corner).

Figure 31. Example of material from the Feature 1 artifact scatter, facing northwest. A Latte ceramic sherd is shown in the center of the photo, surrounded by modern debris.

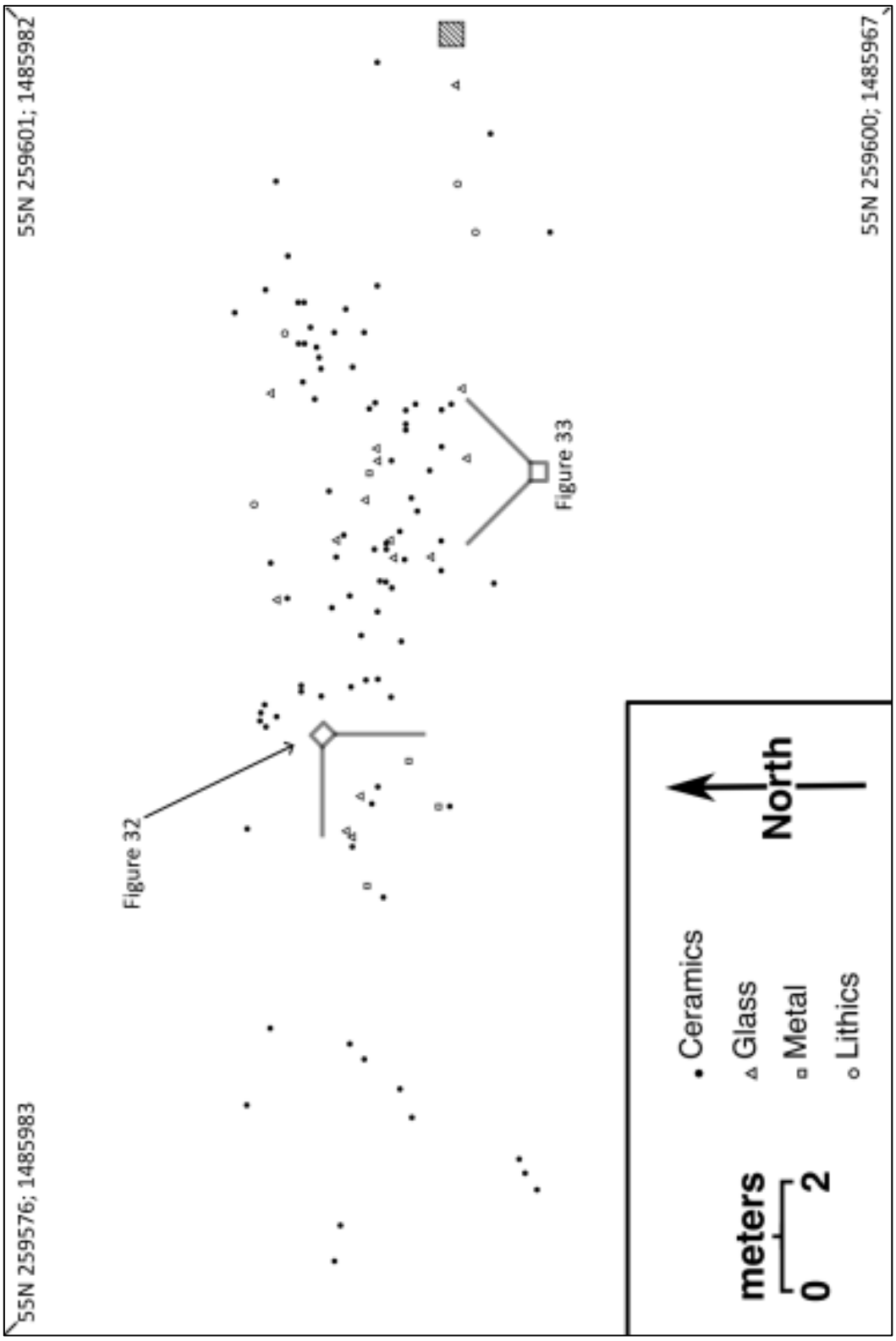

Figure 32. Plan view map of Feature 2 Note datum points (3) at the NW, NE and SE corners of the map (e.g. "55N 259576; 1485983" at the NW corner)..

Figure 33. A portion of the Feature 2 artifact scatter, orange tape marks ceramics, and pink tape marks glass. Facing southwest.

Figure 34. A portion of the Feature 2 artifact scatter, orange tape marks ceramics, and pink tape marks glass. Facing north.

Feature 3

Feature 3 is the pushed remains of a Latte set found near the edge of the eastern parcel (see Figure 5). The Latte stones appear to have been pushed here during the roadway construction (Figures 34–36). Three tasa stones were identified amidst a scattering of various smaller stones, possibly leveling stones. Modern debris is scattered around the stones. No historic or traditional materials were found on the surface in the immediate area. The site covers an area of approximately 8 m^2. No excavations were planned for this area (Pinsonneault et al. 2022), and none were added to this site because the Latte set does not appear to be in situ.

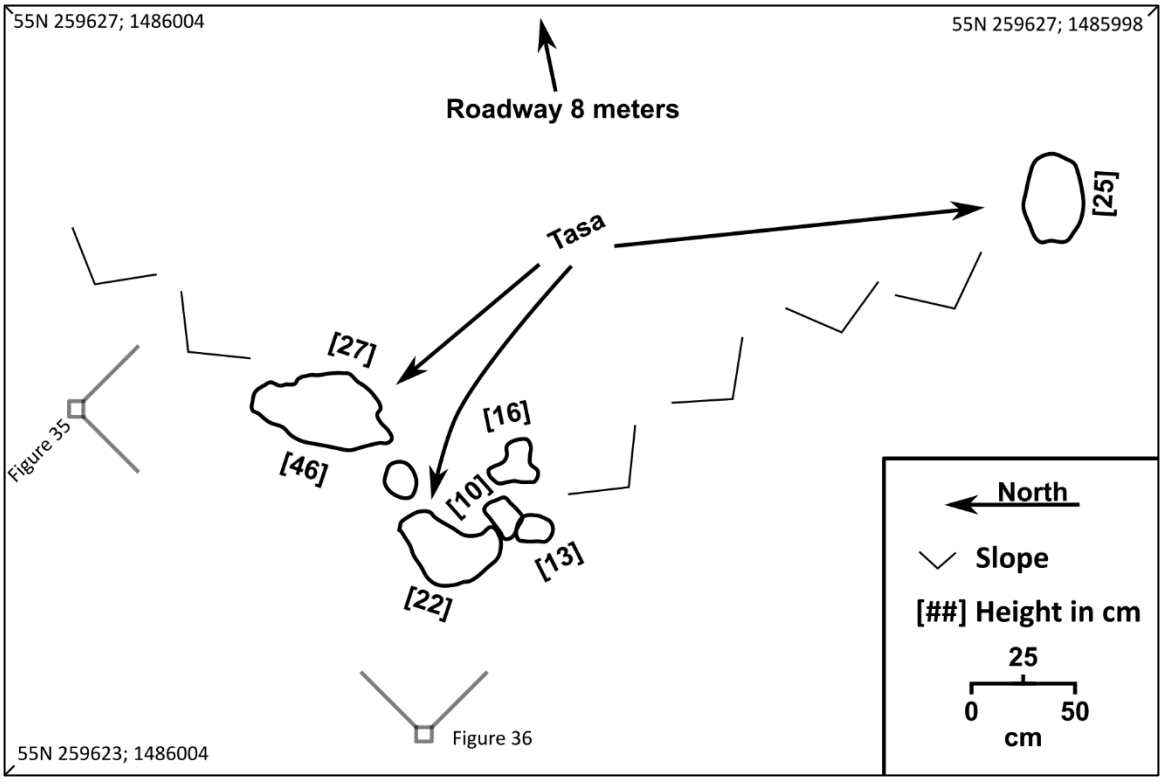

Figure 35. Plan view map of Feature 3. Note datum points (3) at the NW, NE and SW corners of the map (e.g. "55N 259627; 1486004" at the NW corner).

Figure 36. Feature 3 tumbled Latte set, northern portion of the site, facing east.

Figure 37. Feature 3 tumbled Latte set, southernmost tasa, facing north.

Stratigraphy

Subsurface testing provided the opportunity to determine the presence or absence of subsurface archaeological deposits or material and document stratigraphy across the parcel (see Figure 27). Stratigraphic profiles were drawn and photographed for each excavation. Soil descriptions were derived from the USDA NRCS Soils website (Soil Science Division Staff 2022). Individual profiles were organized by depth to form a site-wide Harris Matrix of the area (Harris 1989). This section describes each identified layer of the local Harris Matrix (Figure 74) and a discussion of the data in the survey's greater context.

Stratigraphy Results

A total of twelve exploratory shovel test pits were excavated throughout the project area (see Figure 27). Overall stratigraphy is discussed in the Results chapter of this report, where a site-wide Harris Matrix is presented. All trenches are individually described in Table 5 and discussed in more detail below. Each STP was a square excavation measuring 50 cm on a side, dug in 10 cm levels within stratigraphic layers. Photos and drawings were taken for each STP, which are presented below. As discussed earlier, three distinct layers were encountered during the project, consisting of the A, Bt, and Cr horizons of the natural Pulantat clays found in the project area. These were labeled Harris Layers I, II, and III, respectively.

STP-1 was excavated on the western center portion of the eastern parcel (see Figure 27). This STP was located on the periphery of Feature 2, a surface scatter on the western edge of the eastern parcel containing Latte ceramics and lithics intermixed with modern and historic materials (Acc. 58–75, 79–84, 97–154). The STP was excavated to 60 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 53–55). The stratigraphy of the excavation consisted of Harris Layer I (0–25 cmbs) over Harris Layer III (25–60 cmbs), with an organic root inclusion separating portions of Layer I (18–45 cmbs) from Layer II, and a clay lens (43–47 cmbs) found within Layer III. A single latte ceramic was found within the upper 10 cm of Layer I (Acc. 1). The remainder of the excavation was sterile.

Table 5. Individual STP Stratigraphy

Profile	Harris Layer	Depth (cm)	Roots	Rocks	Boundary Character / Distinctness	Contents
1	I	0–25	2%	0%	Smooth / Diffuse	Latte ceramic (Acc. 1); Modern trash
	Lens	18–45	5%	40%	Smooth / Clear	-
	Lens	43–47	0%	0%	Smooth / Abrupt	-
	III	25–60	0%	0%	Base of Excavation	-
2	I	0–25	25%	10%	Smooth / Clear	Latte ceramics (Acc. 9–17)
	III	25–45	5%	0%	Base of Excavation	-
3	I	0–15	2%	50%	Smooth / Clear	Latte ceramics (Acc. 18–19); Modern trash
	II	15–30	2%	20%	Smooth / Clear	Latte ceramics (Acc. 21–24)
	III	30–50	2%	5%	Base of Excavation	-
4	I	0–10	5%	10%	Smooth / Gradual	Modern trash
	III	10–30	5%	50%	Base of Excavation	-
5	I	0–10	5%	20%	Smooth / Gradual	Modern trash
	II	10–20	1%	10%	Smooth / Gradual	Latte ceramics (Acc. 25–27)
	III	20–40	1%	50%	Base of Excavation	-
6	I	0–20	60%	4%	Smooth / Clear	Latte ceramics (Acc. 28–30); Modern rubbish
	II	20–40	10%	5%	Smooth / Gradual	-
	III	40–60	2%	3%	Base of Excavation	-
7	I	0–20	7%	7%	Smooth / Clear	Latte ceramics (Acc. 31–34)
	III	20–35	2%	60%	Base of Excavation	-
8	I	0–5	5%	30%	Smooth / Gradual	-
	III	5–20	0%	80%	Base of Excavation	-
9	I	0–30	7%	7%	Smooth / Gradual	Latte ceramics (Acc. 35–36)
	III	30–50	7%	1%	Base of Excavation	-
10	I	0–10	5%	10%	Smooth Clear	Latte ceramics (Acc. 39)
	III	10–30	5%	55%	Base of Excavation	-
11	I	0–30	10%	10%	Smooth / Gradual	Latte ceramics (Acc. 41–42) Historic Glass Containers (Acc. 43)
	III	30–50	5%	5%	Base of Excavation	-
12	I	0–10	5%	5%	Smooth / Gradual	Latte ceramics (Acc. 44)
	III	10–30	2%	10%	Base of Excavation	-

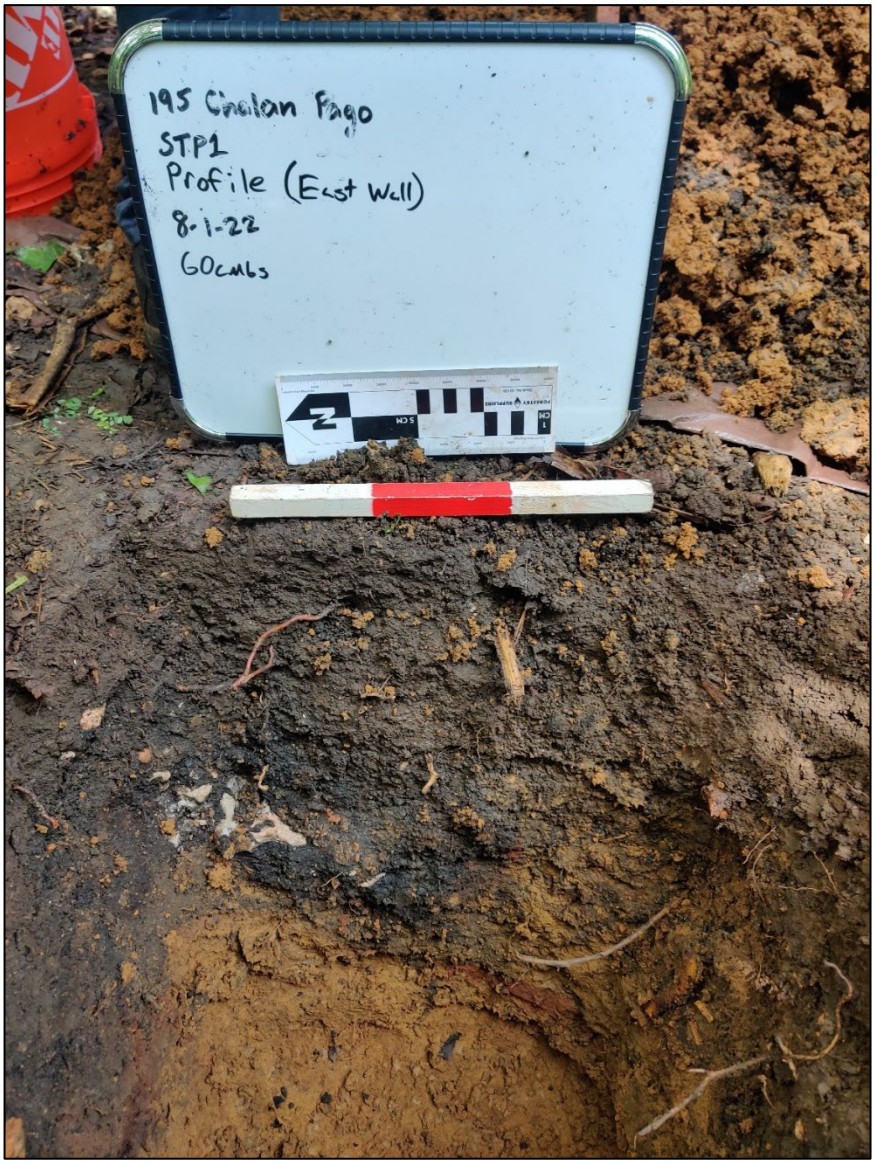

Figure 38. Profile photo of STP-1, facing east.

Figure 39. Plan view photo of STP-1.

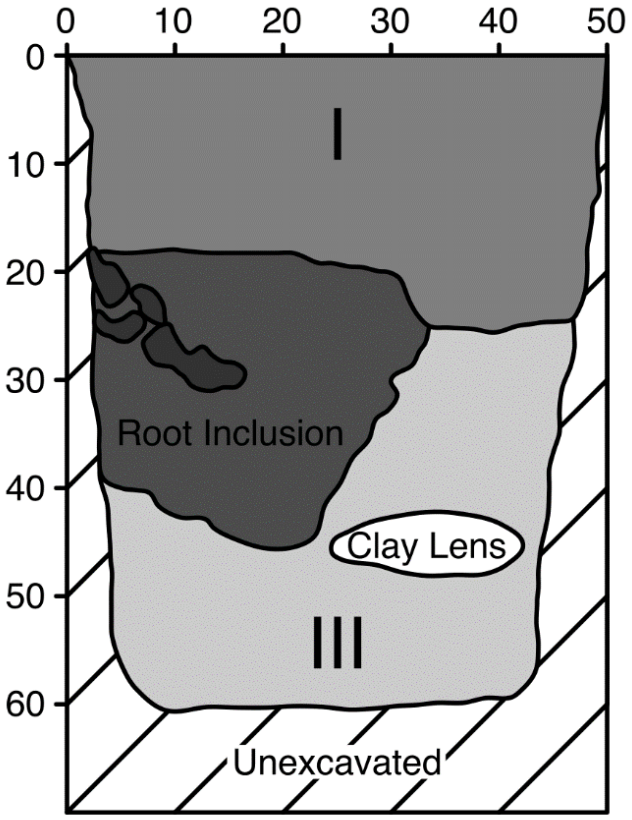

Figure 40. Profile drawing STP-1, facing east. The scale is marked in 10 cm increments.

STP-2 was excavated 30 m north of STP-1, also in the western center portion of the eastern parcel (see Figure 27). A small scatter of Latte ceramics was found nearby (Acc. 2–8). The STP was excavated to 45 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 56–58). The stratigraphy of the excavation consisted of Harris Layer I (0–25 cmbs) over Harris Layer III (25–45 cmbs). Nine isolated Latte ceramic fragments were found throughout Layer I (Acc. 9–17). The remainder of the excavation was sterile.

Figure 41. Profile photo of STP-2, facing east.

Figure 42. Plan view photo of STP-2.

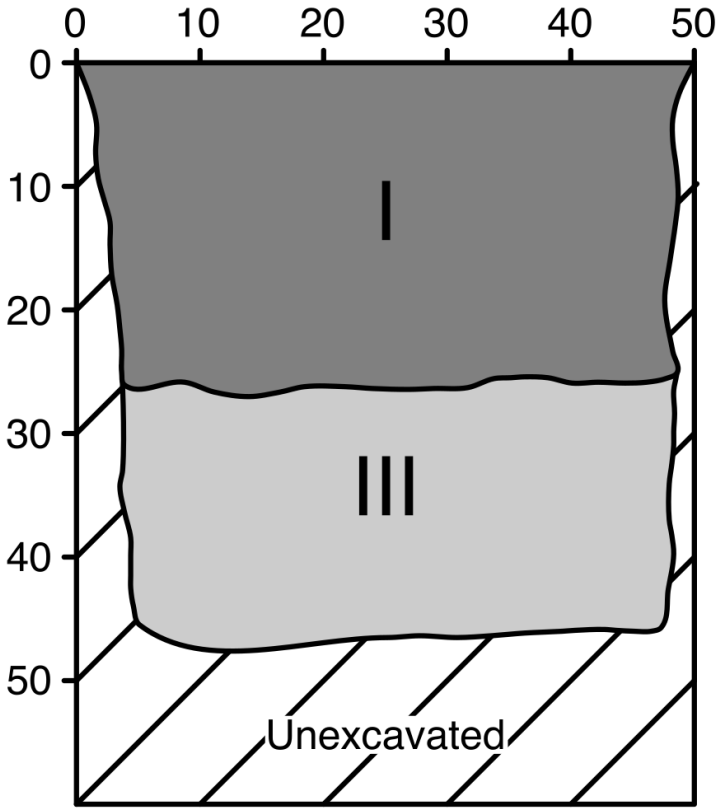

Figure 43. Profile photo of STP-2, facing east. The scale is marked in 10 cm increments.

STP-3 was excavated 30 m east of STP-1, on the eastern center of the eastern parcel, just off the upper roadway (see Figure 27). The STP was located downslope from Feature 3, a tumbled Latte set, likely displaced when the road was constructed. The STP was excavated to 50 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 59–61). The stratigraphy of the excavation consisted of Harris Layer I (0–15 cmbs), over Harris Layer II (15–30), over Harris Layer III (30–50 cmbs). A single historic ceramic was found in the upper 10 cm of Layer I (Acc. 18). Four isolated Latte ceramic fragments were found throughout Layer II (Acc. 21–24). The remainder of the excavation was sterile.

Figure 44. Profile photo of STP-3, facing east.

Figure 45. Plan view photo of STP-3.

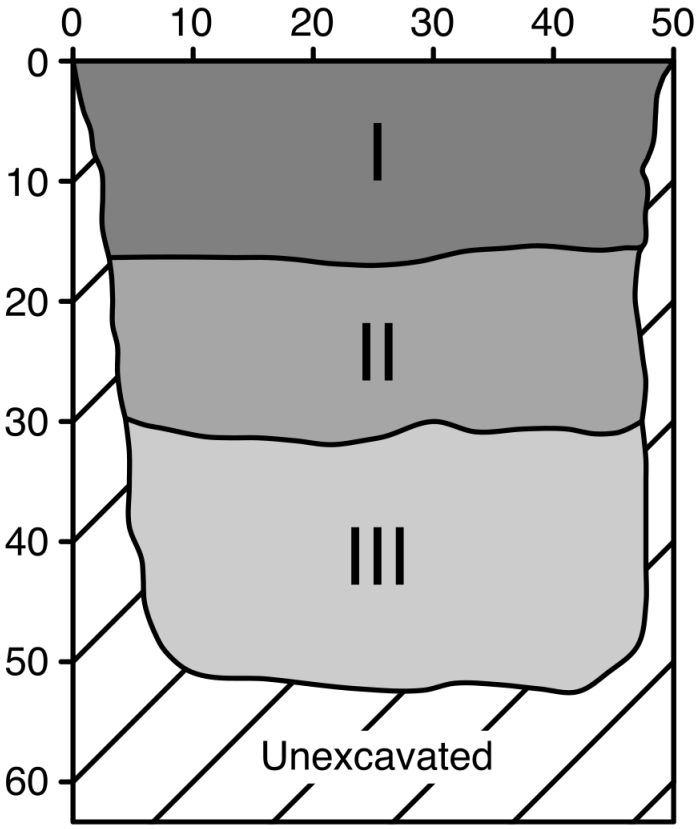

Figure 46. Profile drawing of STP-3, facing east. The scale is marked in 10 cm increments.

STP-4 was excavated 30 m south of STP-1 on the southwestern center portion of the eastern parcel (see Figure 27). The STP was located close to Features 1 and 2. The STP was excavated to 30 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 62–64). The stratigraphy of the excavation consisted of Harris Layer I (0–10 cmbs) over Harris Layer III (10–30 cmbs). The excavation was sterile.

Figure 47. Profile photo of STP-4, facing east.

Figure 48. Plan view photo of STP-4.

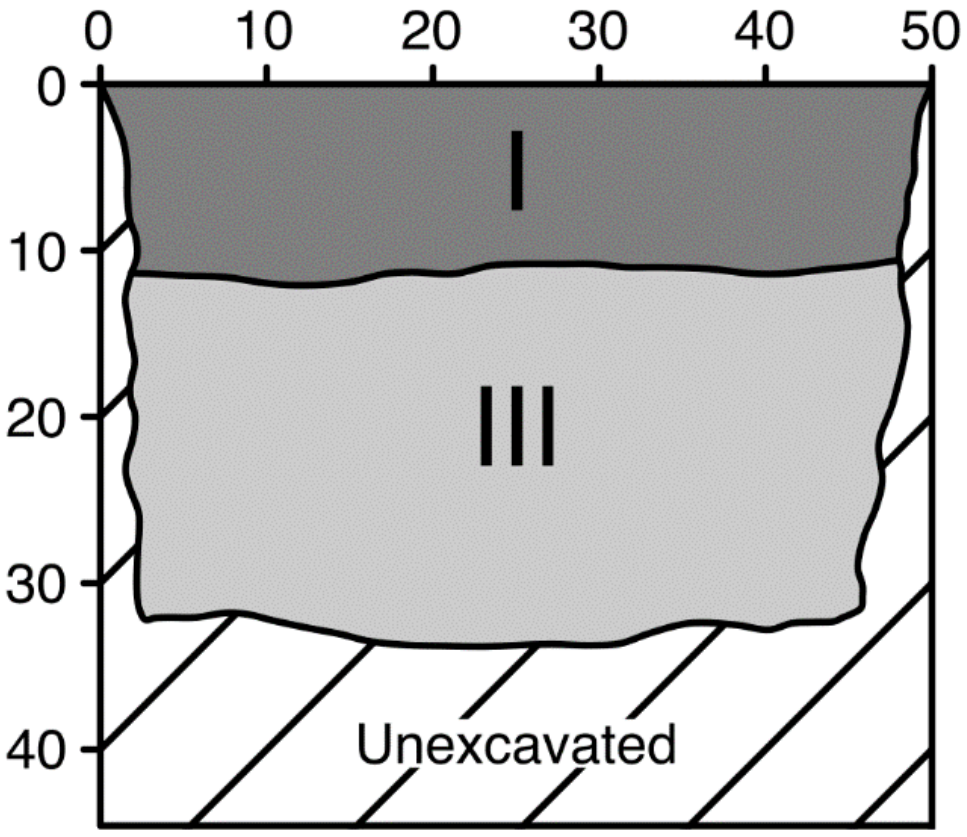

Figure 49. Profile drawing of STP-4, facing east. The scale is marked in 10 cm increments.

STP-5 was excavated 30 m south of STP-3, and 30 m east of STP-4, on the eastern corner of the eastern parcel, just off the upper roadway (see Figure 27). The STP was located above the rest of the project area on the upper slope. It was excavated to 50 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 65–67). The stratigraphy of the excavation consisted of Harris Layer I (0–10 cmbs), over Harris Layer II (10–20), over Harris Layer III (20–40 cmbs). Three fragmentary isolated Latte ceramics were found in Layer I (Acc. 25–27). The remainder of the excavation was sterile.

Figure 50. Profile photo of STP-5, facing east.

Figure 51. Plan view photo of STP-5.

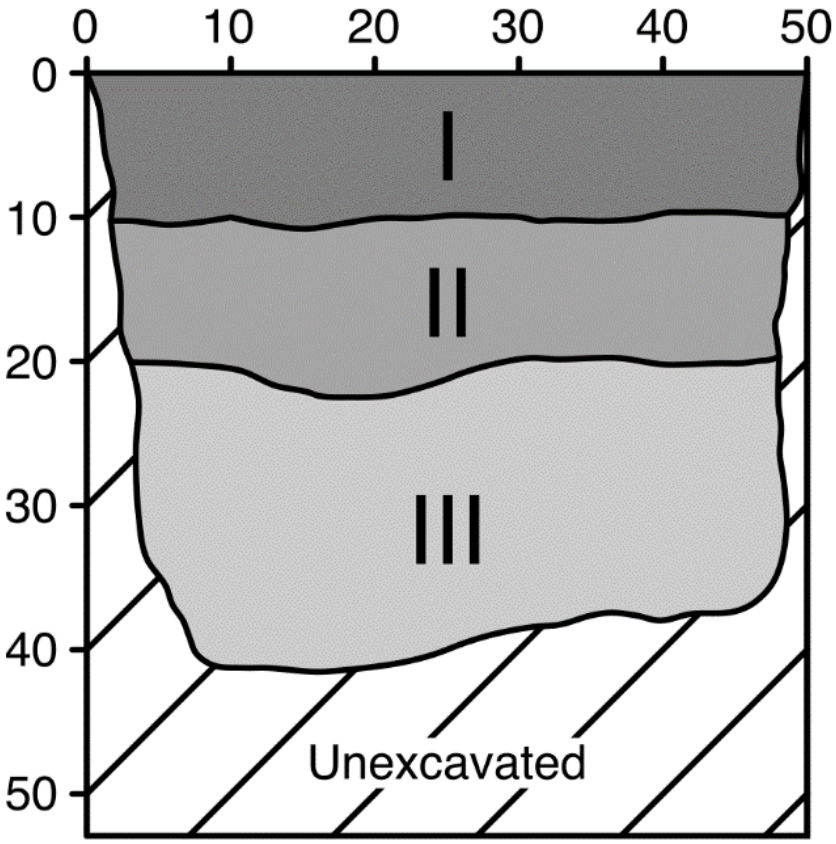

Figure 52. Profile drawing of STP-5, facing east. The scale is marked in 10 cm increments.

STP-6 was excavated roughly 30 m north-northwest of STP-2, offset slightly from its intended location by an impassable bamboo growth (see Figure 27). The STP was excavated to 50 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 68–70). The stratigraphy of the excavation consisted of Harris Layer I (0–20 cmbs), over Harris Layer II (20–40), over Harris Layer III (40–60 cmbs). Three isolated fragmentary latte ceramics were found in Harris Layer I (Acc. 28–30). The remainder of the excavation was sterile.

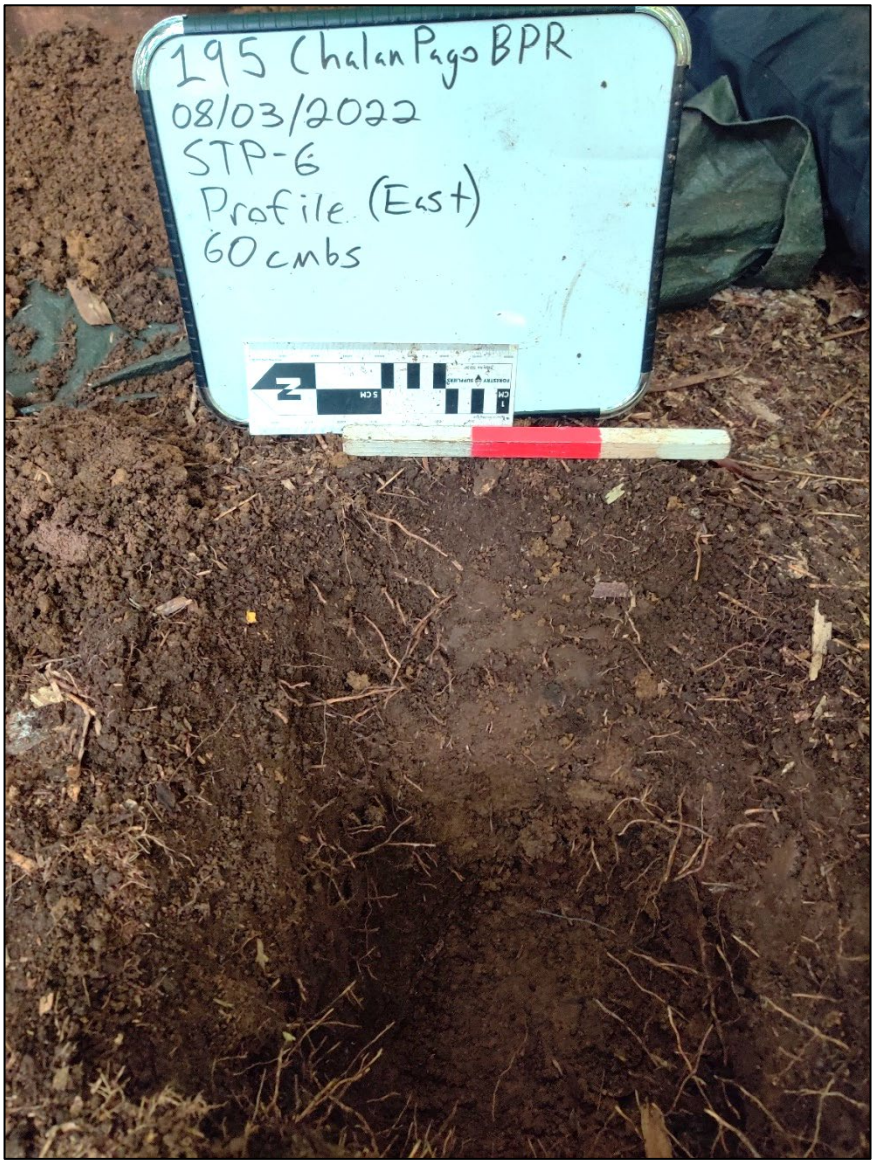

Figure 53. Profile of STP-6, facing east.

Figure 54. Plan view photo of STP-6.

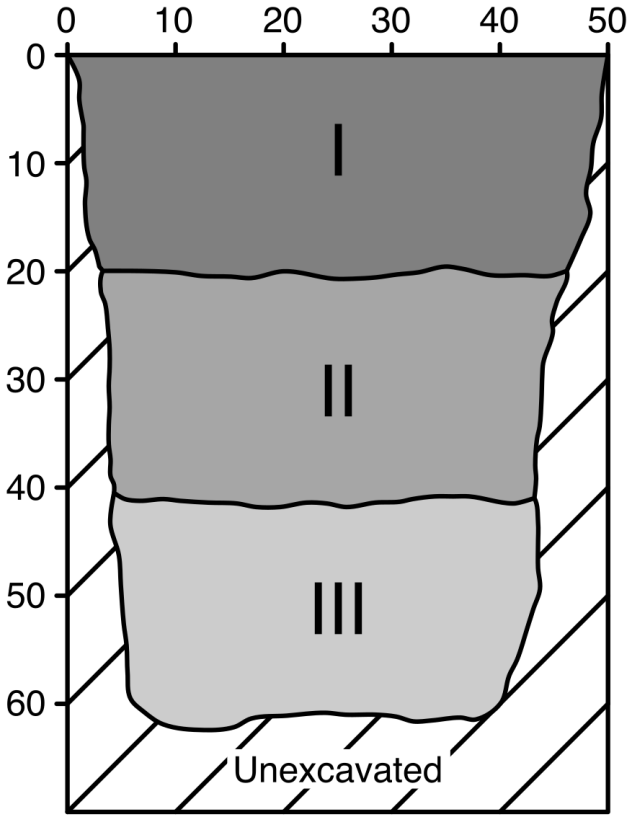

Figure 55. Profile drawing of STP-6, facing east. The scale is marked in 10 cm increments.

STP-7 was excavated 30 m west of STP-1, on the northeastern corner of the western parcel (see Figure 27). The STP was located on the western boundary of Feature 1. The STP was excavated to 35 cmbs before hitting refusal upon striking a coral boulder in the sterile C-horizon (Figures 71–73). The stratigraphy of the excavation consisted of Harris Layer I (0–20 cmbs) over Harris Layer III (20–35 cmbs). Four isolated Latte ceramic fragments were encountered in Layer I (Acc. 31–34). The remainder of the excavation was sterile.

Figure 56. Profile photo of STP-7, facing west.

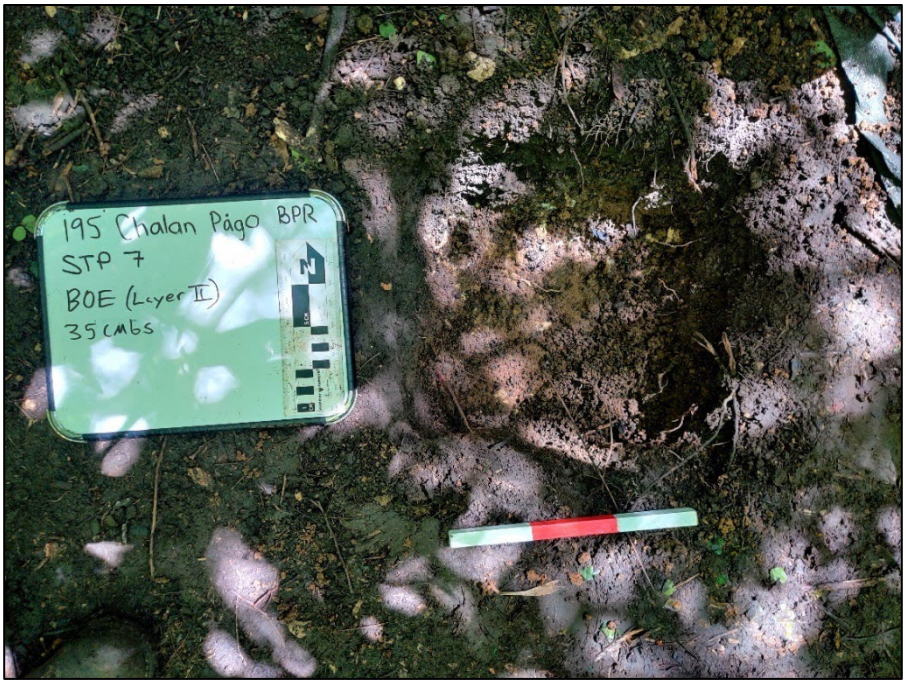

Figure 57. Plan view photo of STP-7.

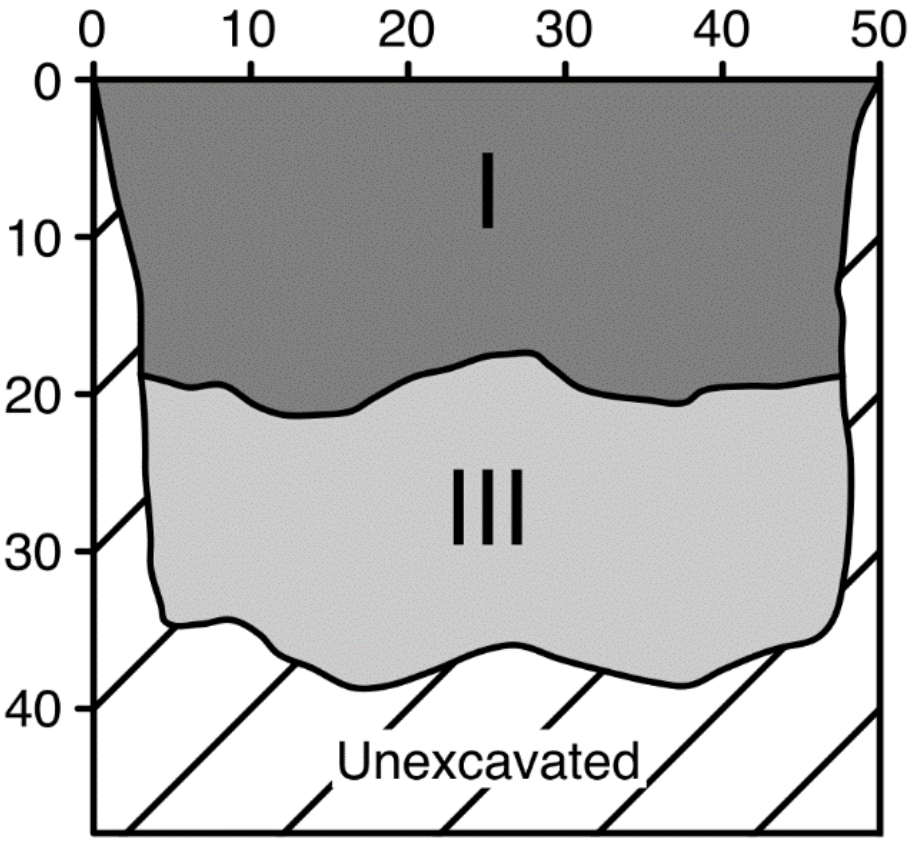

Figure 58. Profile drawing of STP-7, facing west. The scale is marked in 10 cm increments.

STP-8 was excavated 30 m west of STP-7, on the northwestern corner of the western parcel, above the steep slope down to the lower road (see Figure 27). The STP was excavated to 20 cmbs before hitting refusal upon striking another coral boulder in the sterile C-horizon (Figures 74–76). The stratigraphy of the excavation consisted of Harris Layer I (0–5 cmbs) over Harris Layer III (5–20 cmbs). The excavation was sterile.

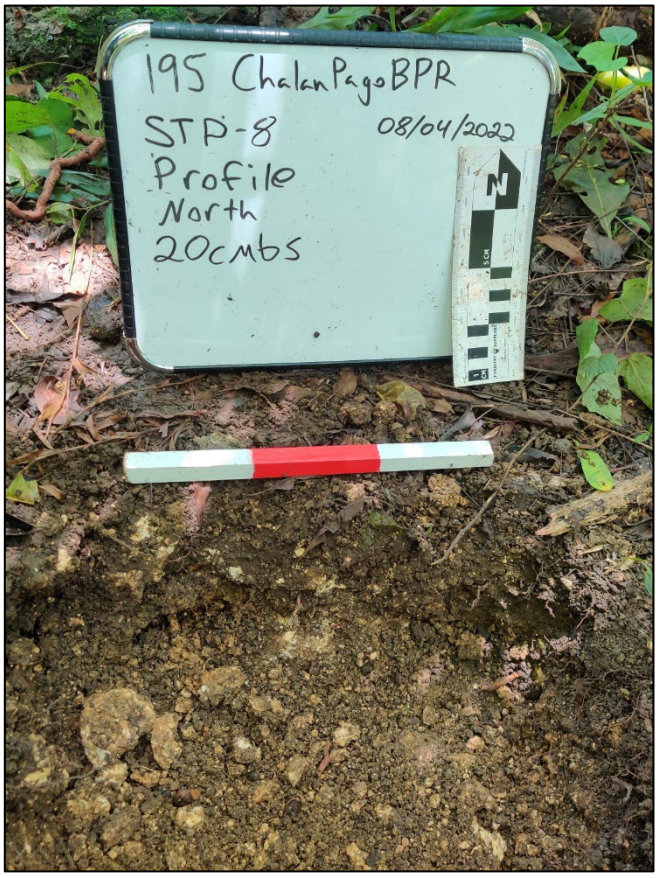

Figure 59. Profile photo of STP-8, facing north.

Figure 60. Plan view photo of STP-8.

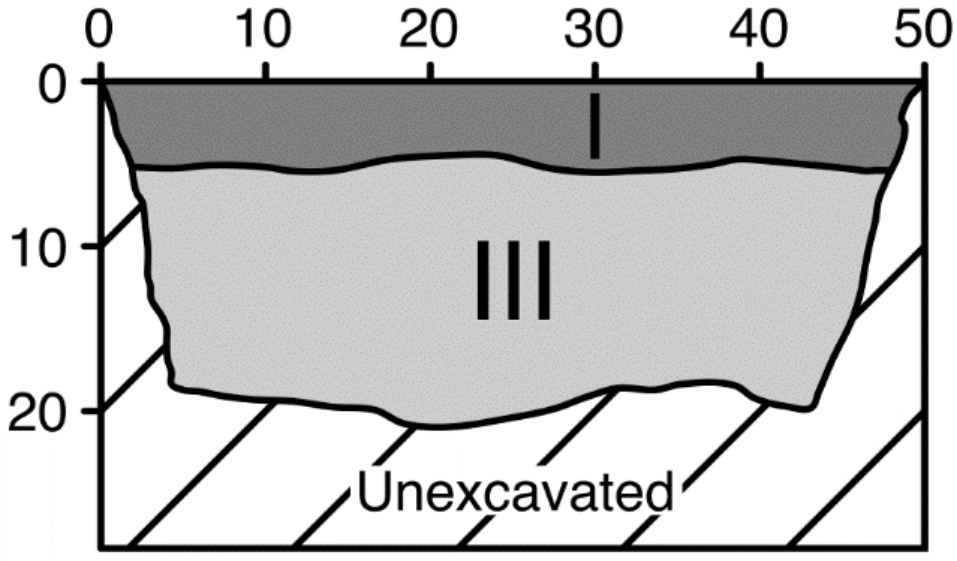

Figure 61. Profile drawing of STP-8. The scale is marked in 10 cm increments.

STP-9 was excavated 30 m south of STP-8, on the western center of the western parcel, above the steep slope down to the lower road (see Figure 27). The STP was excavated to 50 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 77–79). The stratigraphy of the excavation consisted of Harris Layer I (0–30 cmbs), over Harris Layer III (30–50 cmbs). Two isolated Latte ceramic fragments were encountered in Layer I (Acc. 35–36). The remainder of the excavation was sterile.

Figure 62. Profile photo of STP-9, facing east.

Figure 63. Plan view photo of STP-9.

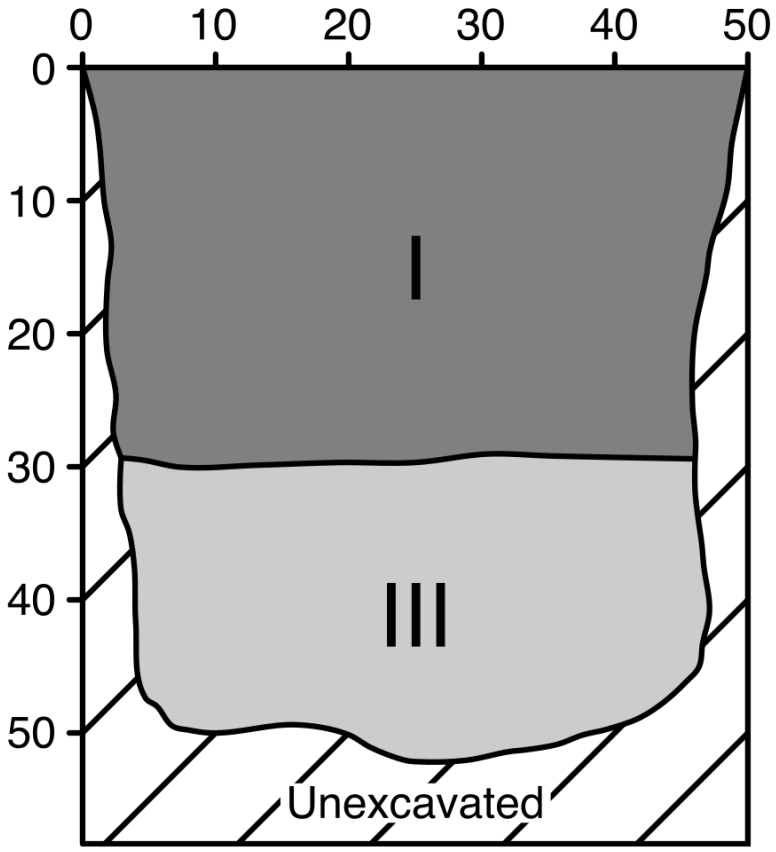

Figure 64. Profile drawing of STP-9, facing east. The scale is marked in 10 cm increments.

STP-10 was excavated 30 m east of STP-9, south of STP-7, and west of STP-4 (see Figure 27). This STP was located directly adjacent to an actively utilized fence. Two non-diagnostic Latte ceramic fragments were encountered on the surface near the excavation (Acc. 37–38). The STP was excavated to 30 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 80–82). The stratigraphy of the excavation consisted of Harris Layer I (0–10 cmbs) over Harris Layer III (10–30 cmbs). A single historic ceramic fragment was encountered in Layer I (Acc. 39). The remainder of the excavation was sterile.

Figure 65. Profile photo of STP-10, facing north.

Figure 66. Plan view photo of STP-10.

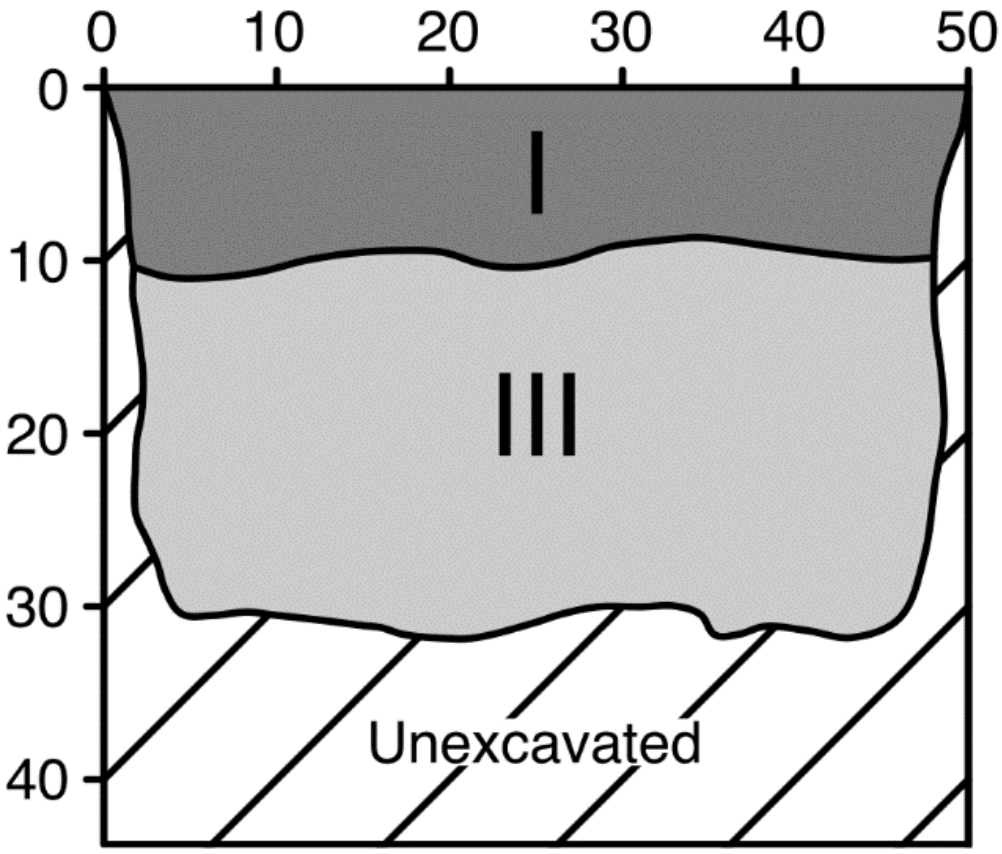

Figure 67. Profile drawing of STP-10, facing north. The scale is marked in 10 cm increments.

STP-11 was excavated 30 m south of STP-9, above the sharp slope down to the lower road (see Figure 27). A single Latte ceramic fragment was found on the surface near the excavation (Acc. 40). The STP was excavated to 50 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 83–85). The stratigraphy of the excavation consisted of Harris Layer I (0–30 cmbs) over Harris Layer III (30–50 cmbs). Two Latte ceramic fragments and a single historic ceramic fragment was encountered in Layer I (Acc. 41–43). The remainder of the excavation was sterile.

Figure 68. Profile photo of STP-11, facing west.

Figure 69. Plan view photo of STP-11.

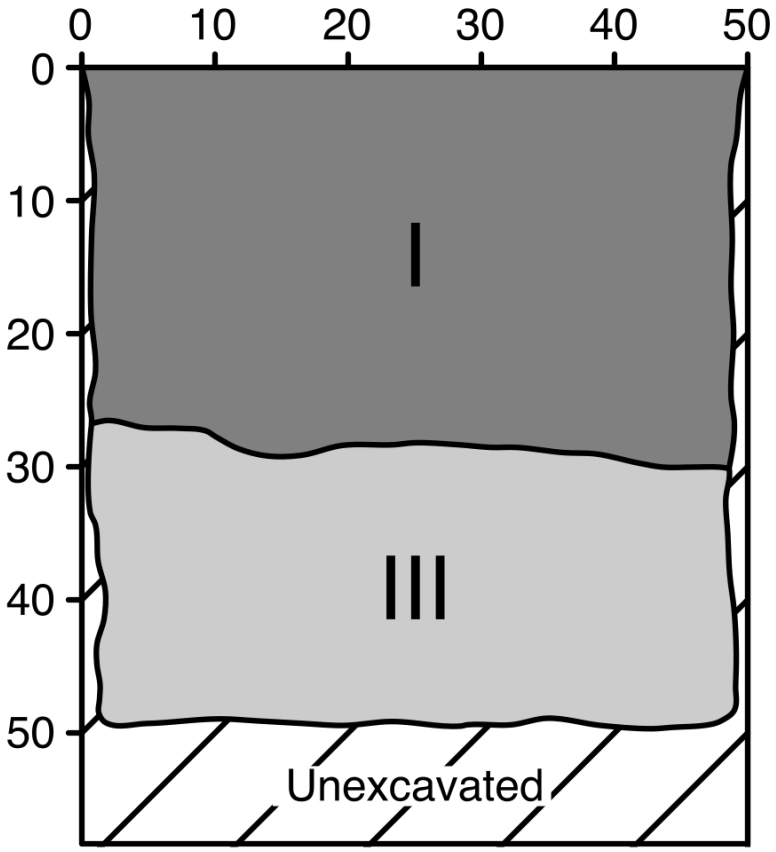

Figure 70. Profile drawing of STP-11, facing west. The scale is marked in 10 cm increments.

STP-12 was excavated 30 m east of STP-11, and 30 m south of STP-10 at the base of long, gradual slope, leading to the upper roadway (see Figure 27). A single Latte ceramic fragment was found on the surface near the excavation (Acc. 40). The STP was excavated to 30 cmbs after digging through 20 cm of a sterile C-horizon that was increasingly compact (Figures 86–88). The stratigraphy of the excavation consisted of Harris Layer I (0–10 cmbs) over Harris Layer III (10–30 cmbs). A single Latte ceramic fragment was encountered in Layer I (Acc. 44). The remainder of the excavation was sterile.

Figure 71. Profile photo of STP-12, facing west.

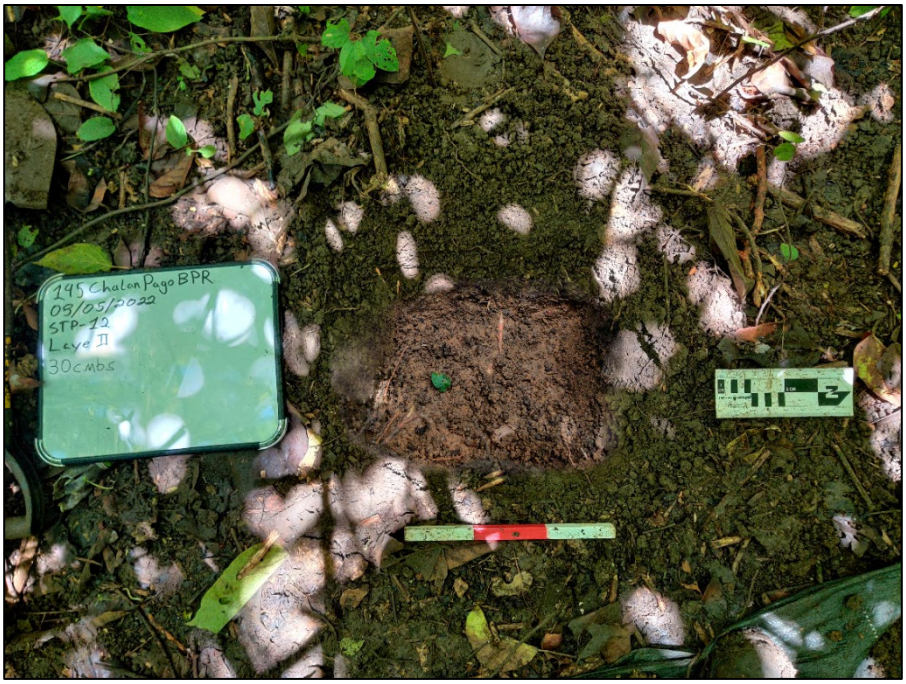

Figure 72. Plan view photo of STP-12.

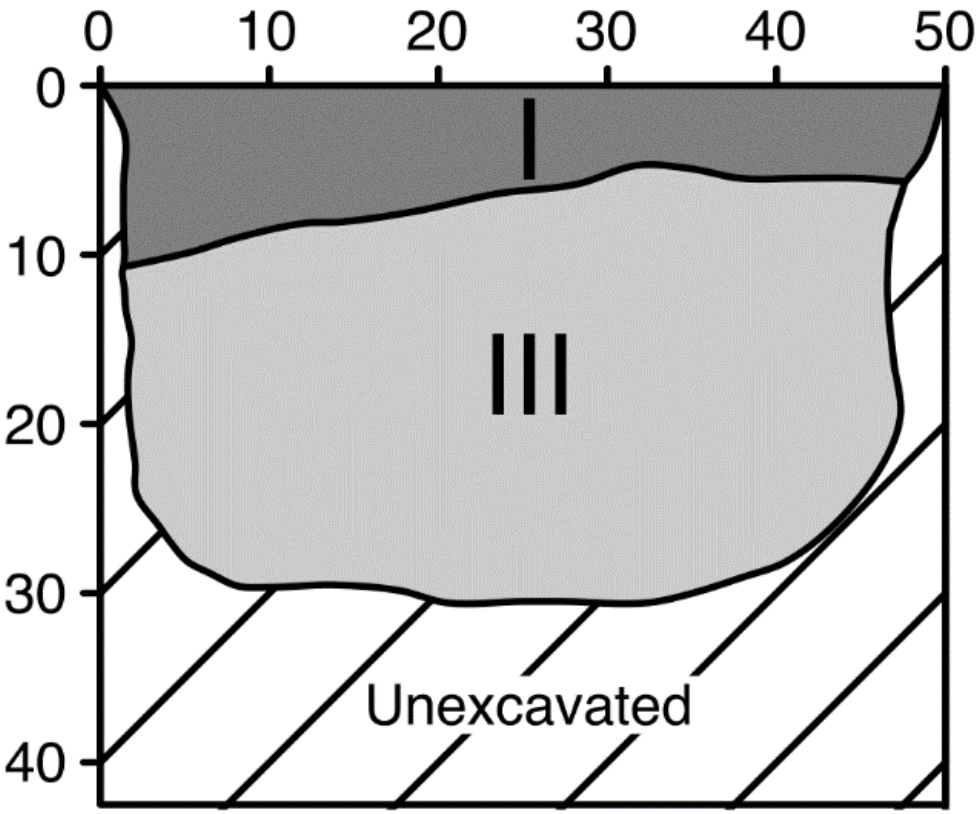

Figure 73. Profile drawing of STP-12, facing west. The scale is marked in 10 cm increments.

Stratigraphy Discussion

The subsurface testing portion of the AIS did not encounter any notable difficulties. Most of the STPS were excavated to less than 50 cmbs, as either solid coral or very compact, sterile clay was typically encountered at approximately 30 cmbs, precluding further excavation by hand. This compact clay deposit, later labeled Layer III, was an argillaceous limestone, indicating a natural, culturally sterile layer of degraded bedrock, a strong suggestion of a natural C-Horizon.

From this survey, we could catalog the upper 50–60 cm of the project area's stratigraphic sequence (Lots 3412-1-1-2 and -1-1-5) (Table 6). With a total of three stratigraphic layers identified across the 2.5-acre parcel, the stratigraphy in the area is relatively simple (see Table 6 and Figure 74). The entire subsurface sequence in the area is natural, with little evidence of artificial filling or leveling, and no evidence of a cultural layer or cultural features. This is in sharp contrast to the surface, which exhibited two large artifact scatters and the remains of a displaced Latte Set. While Layers I and III were found throughout the project area, Layer II was only found in STPs 2, 3, and 5, which all border the eastern edge of the project.

Excavations did not identify any additional archaeological sites or features. Ten of the twelve STPs contained isolated, scattered artifacts that were not part of a cultural layer or subsurface feature. The artifacts primarily consisted of 29 Latte ceramics, the majority of which were smaller than 3 cm (n=20). A total of nine Latte sherds larger than 3 cm were found during the subsurface survey, of which four displayed identifiable surface treatment (three wiped/brushed and one with random combing). Two historic ceramic fragments of a whiteware vessel were also collected. The density of ceramics in the excavations was low compared to the scatters visible on the surface (34 items were collected from excavations, while 135 items were collected from the surface). As the STPs were spread throughout the project area, it would appear that a low density of archaeological material may be found in the shallow subsurface throughout the project area, which could be possible evidence of a disturbed landscape, or the product of erosion.

Table 6. Harris Matrix Stratigraphy Throughout the Project Area

Harris Layer	Interpretation	Observed Depth / Thickness (cm)	Munsell Color	Description
Su	Pulantat Clay Oi-Horizon	0–2 / 0–2	-	Non-decomposed leaves, twigs, and tangantangan seed pods covering 20–80% of the surface. Contains historic glass containers (Acc. 50, 54, 57–79) and ceramic tableware (Acc. 80), as well as Latte ceramics (Acc. 2–8, 37–38, 40, 45, 47–49, 51, 53, 56, 97–154), one Transitional Pre-Latte sherd (Acc. 46) and lithic tools (Acc. 81–84).
I	Pulantat Clay A-Horizon	0–30 / 5–30	10YR 3/2 (Very Dark Gray Brown)	Wet, very plastic, very sticky clay that contains 2–25% fine to medium roots and 0–50% limestone gravel and cobbles, in addition to yellow and red coral, modern trash (ceramics, glass, metal, and plastic), asphalt, historic glass (Acc. 43), historic ceramics (Acc. 18, 39), and Latte ceramics (Acc. 1, 9–17, 19, 28–36, 41–42, 44). Bounded by the Surface O-Horizon in addition to Layers I and II.
II	Pulantat Clay Bt-Horizon	10–40 / 10–20	7.5YR 3/2 (Dark Brown)	Wet, very plastic, very sticky clay that contains 1–10% fine roots and 5–20% limestone gravel, in addition to yellow and red coral and Latte ceramics (Acc. 20–27). Bounded by Layers I and III.
III	Pulantat Clay Cr-Horizon	5–60 / 35+	10YR 5/8 (Yellowish Brown)	Wet, very plastic, very sticky clay that contains 0–7% medium roots and 0–80% argillaceous limestone in addition to a few pieces of yellow coral. Bounded by Layers I and II.

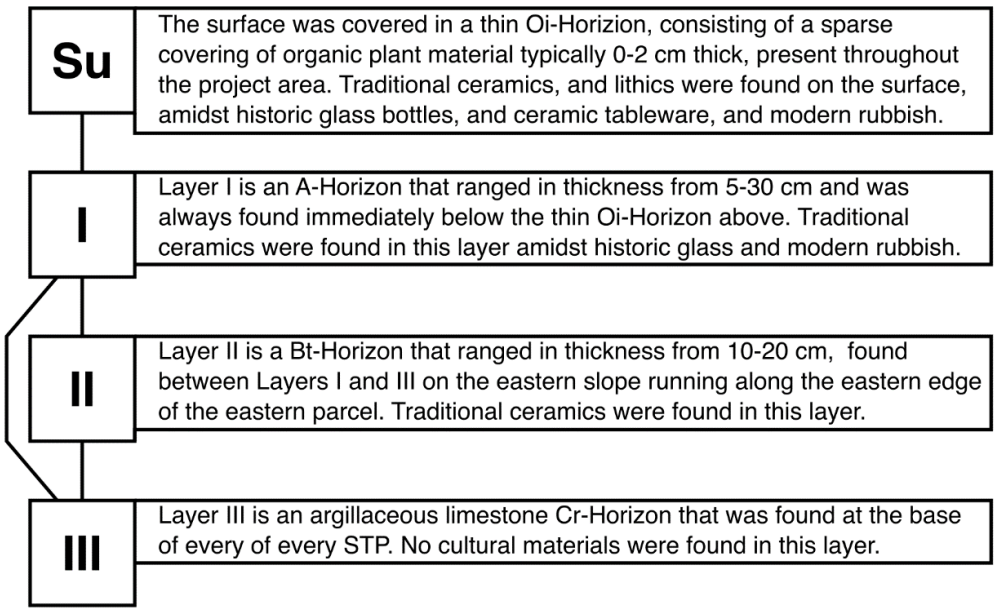

Figure 74. Harris Matrix of the project area.

As outlined above, a natural stratigraphic sequence was encountered in every excavation throughout the project area, with an extremely thin Oi horizon (Layer Su) overlaying an A-Horizon (Layer I), a Bt-Horizon (Layer II) and a Cr-Horizon (Layer III). An O-Horizon is a thin surface layer primarily comprised of decomposing organic matter. O-Horizons are only found in forest soils; an "i" suffix in an Oi-Horizon indicates that the layer is largely comprised of minimally decomposed materials. An A-Horizon is the layer of minerals that forms at the surface below the O horizon and typically presents an accumulation of organic matter intermixed with the mineralized soils or evidence of anthropogenic disturbances such as cultivation. B-Horizons are layers of illuviation, dominated by the weathering effects of drainage, and are often an accumulation of clays or metals; a "t" suffix denotes that the layer contains an accumulation of silicate clay. C-Horizons are comprised of parent materials from an area's bedrock below. C-Horizons are typically unaffected by the above organic soil processes, with minimal root intrusion. Further, when C-Horizons have an exceptionally high quantity of rocks or corals, they are considered a Cr-Horizon, also called a soft or weathered bedrock. In this case, the stratigraphy in the area is a thin Oi-Horizon atop an A-Horizon, sometimes atop a B-Horizon, both of which overly a Cr-Horizon.

Overall, this is a typical stratigraphic sequence for a tropical rainforest. Of the identified layers, Layer Su (Surface) was by far the thinnest layer, typically less than one cm thick. As an Oi-Horizon, Layer Su is entirely comprised of decaying plant matter. While the layer was too thin to fully cover archaeological materials, 135 items were found during the surface survey, placing them in this layer. These artifacts included historic bottles, ceramics (historic and Latte), and traditional lithics, and a great deal of modern rubbish, all of which would have been on or within this shallow layer.

The next layer, by depth, is Layer I, an A-Horizon ranging between 5 and 30 cm thick. Layer I is a very plastic, very sticky, very dark gray brown clay. The layer contained 0–50% yellow and red coral gravel and 2–25% fine roots, in addition to modern trash, asphalt, and Latte ceramics.

Located beneath Layer I on the eastern side of the project area, Layer II is a Bt-Horizon ranging between 10 and 20 cm thick. Layer II is a very plastic, very sticky, dark brown clay.

The layer contained 5–20% yellow and red coral gravel and 1–10% fine roots, in addition to Latte ceramics.

And finally, the base of excavations throughout the subsurface survey was comprised of Layer III, an argillaceous limestone Cr-Horizon exhibiting a thickness of at least 35 cm (the full thickness is unknown, as the base of the layer was not encountered in many of the excavations). Layer III is a very plastic, very sticky, yellowish brown clay. The layer contained 0–80% yellow coral and 0–7% fine roots.

During the subsurface testing, two distinct stratigraphic sequences were observed in the project area (Figure 75). On the far eastern extent of the project area, STPs 3, 5, and 6 had a stratigraphic sequence comprised of the thin Layer Su (0–2 cmbs), over Layer I (0–20 cmbs), over Layer II (10–40 cmbs), over Layer III (20–60+ cmbs). The remainder of the project area consisted of Layer Su (0–2 cm), over Layer I (0–30 cmbs), over Layer III (5–60+ cmbs).

Laboratory Analysis

A sizable collection of artifacts was recovered during the archaeological survey, totaling 159 Number of Individual Specimens (NISP) but equating to as little as 64 Minimum Number of Individual items (MNI) (Table 7). Each object recovered in the field was assigned an accession number and later analyzed in the laboratory. Of the 154 accession numbers assigned, 110 were Latte ceramics, 26 were historic glass containers, 4 were traditional lithic tools, 2 were historic whiteware ceramic vessel fragments, and 14 were later determined to be modern. Data for all artifacts is presented in Appendix B.

Table 7. MNI and NISP of Recovered Artifacts

	Traditional Ceramics	Traditional Lithics	Historic Glass Containers	Historic Ceramics	Total
NISP	110	4	43	2	159
MNI	57	4	26	2	89

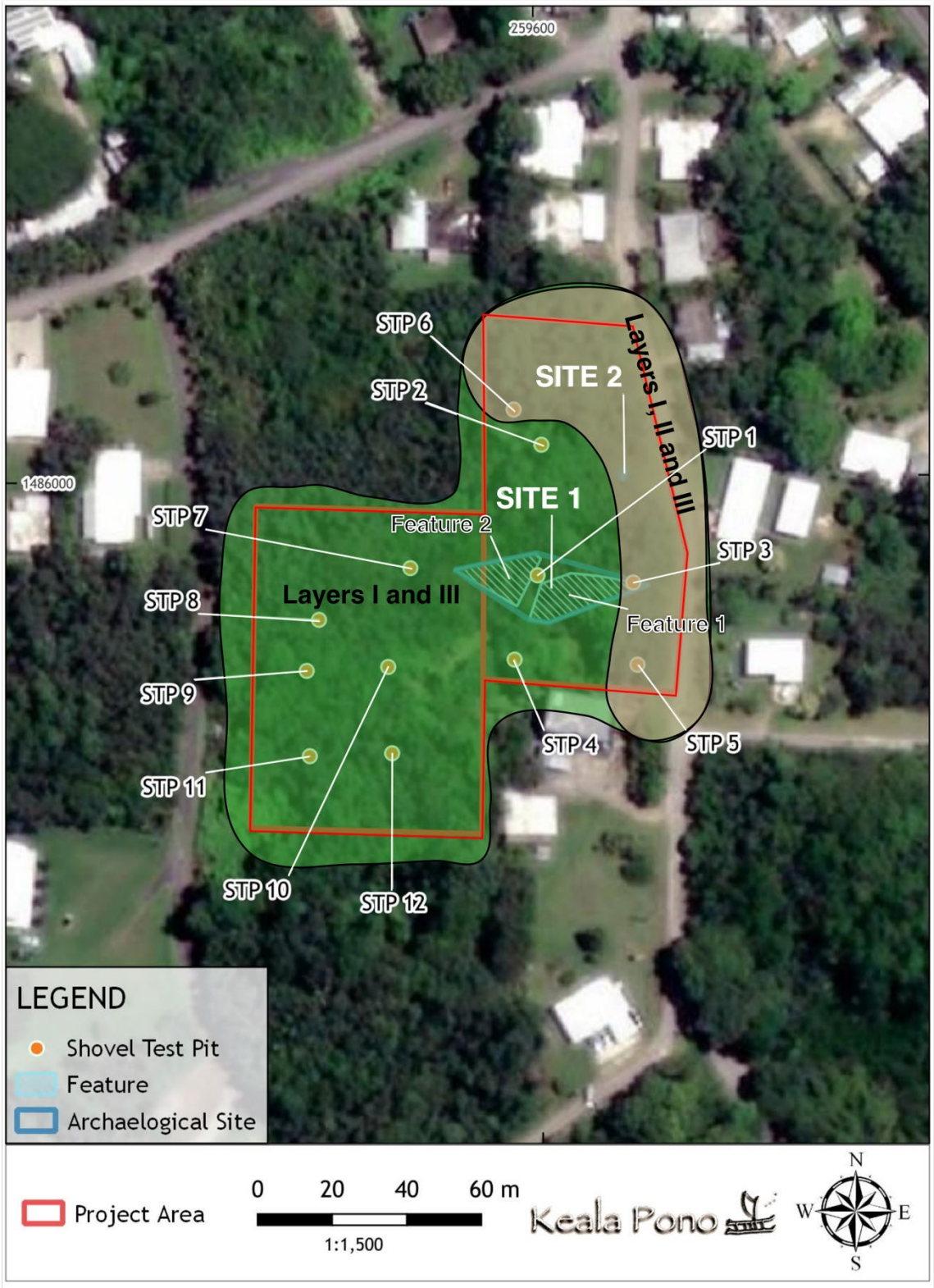

Figure 75. Distribution of soil sequences across the project area.

Un-differentiated artifacts from the same provenience were grouped into single accession numbers according to clear diagnostic traits. In this case, only two accession numbers were assigned multiple objects, Acc. 43 and 134. The first is a collection of 18 undifferentiated brown bottle glass body fragments from Layer I of STP 11. These were all found in direct association with each other and are almost certainly from a single glass container. The second is a collection of Latte sherds smaller than 2 cm along their longest edge found in Feature 1. In contrast, the MNI for the Latte ceramics was derived after the analysis according to visually and mechanically similar ceramic fragments found in proximity to each other.

A great majority of the artifacts encountered during the survey were found on the surface of the project area in Features 1 and 2 amidst a thin surface scatter of modern trash. These artifacts included 65 Latte ceramics fragments (Acc. 45, 47–49, 51, 53, 56, 97–154), 22 historic glass containers (Acc. 50, 54, 57–75,79), four lithic tools (Acc. 81–84), and one Transitional Pre-Latte sherd (Acc. 46). Several additional Latte ceramic fragments were found on the surface near STP-2 (Acc. 2–8), STP-10 (Acc. 37–38), and STP-11 (Acc. 40). Additionally, three bottles initially mis-identified as trash during the survey were later identified as historic (Acc. 76–78), these bottles have an unknown provenience.

In addition to the large assemblage of material found on the surface, a smaller assortment of artifacts was encountered in the upper two Harris Layers of the project area. Harris Layer I contained a total of 30 traditional ceramic fragments (Acc. 1, 9–17, 19, 21–36, 41–42, 44), a fragmentary brown bottle (Acc. 45), and two fragmentary pieces of whiteware ceramics (Acc. 18, 39). Harris Layer II contained just seven Latte ceramic fragments (Acc. 21–27).

Viewing the assemblage as a whole shows that artifacts from widely different periods are intermixed in the project area, both above and below ground. From the Transitional/Pre-Latte Period through the modern era. This wide range of dates indicates that the project area has seen multiple utilization periods over the last 1000 years and that there is a general lack of deposition over that period.

Pre-Contact CHamoru Artifacts

The traditional artifacts consisted of 109 Latte pottery sherds (Figure 76), four lithic tools, and a single Pre-Latte/Transitional Latte ceramic sherd. Of the Latte ceramics, 67 are body fragments, 18 are rim fragments, 10 are base fragments, and ten are indeterminate. In terms of size, 49 of the 110 ceramic sherds were smaller than 30 mm on their long axis, making them difficult to analyze as they are too small to make clear determinations, with the remaining 62 sherds measuring between 30 and 77 mm (Figure 77). As for surface treatments, 25 sherds were wiped/brushed, nine were combed, and one was burnished. Of these, 41 had a plain surface, 23 had a roughened surface, and 21 were burnt/darkened. The final 49 sherds were too weathered to identify. And finally, two different types of temper were utilized in the sherds, with 71 sherds using a volcanic sand temper and 33 a mix of calcareous and volcanic inclusions. Six sherds had indeterminate tempers. Of particular note in the assemblage, a single sherd from Feature 1 (Acc. 46) was identified as a Transitional Pre-Latte to Latte Period ceramic rim sherd with a plain exterior and a darkened interior. The presence of this sherd in the assemblage could indicate that the surface scatter on the project area may extend back to the earlier portions of the Latte Period. Aside from the information presented above, no finer identifications were made, as most of the sherds were small or weathered. However, from this analysis, we can say that the Latte ceramics were likely produced between 500 and 1000 years ago, sometime between CE 1000 and 1500 (Moore 2012, 2022, Carson 2012b).

In addition to the Latte ceramics mentioned above, four lithic tools were also recovered during the project. These artifacts consist of a pestle (Acc. 81, Figure 78), an adze (Acc. 82, Figure 79), an opportunistic scraper (Acc. 83), and an adze preform (Acc. 84). All of these were found on the surface amidst the Feature 2 surface scatter. These lithic tools appear to be made from basalt, one of the most common materials for these items. Additionally, the adze exhibits a groove for hafting the blade onto a shaft.

Figure 76. A selection of Latte ceramics recovered during the project (Acc. 97–102).

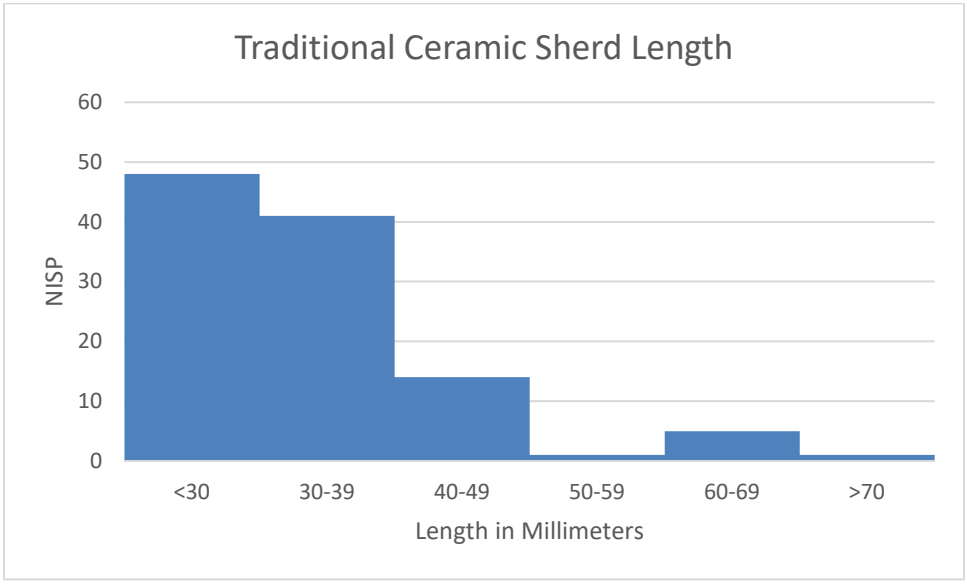

Figure 77. Chart depicting the length of traditional ceramic sherds found in the survey.

Figure 78. Adze from the Feature 2 artifact scatter (Acc. 82).

Figure 79. Pestle from the Feature 2 artifact scatter (Acc. 81).

The traditional artifacts within Harris Layers I and II show no clear differentiation from those found on the surface. This could indicate that taphonomic processes aside from deposition and erosion are affecting the cultural materials in the area. In this case, disturbance by roots and animals in the area cannot be ruled out. Whatever the reason for the lack of differentiation between the subsurface and surface artifacts, it would appear that the topography on the property is natural and has been unaltered by historic or modern mechanics.

Historic Artifacts

The historic artifacts consisted of 26 glass containers (e.g., bottles) and two ceramic whiteware fragments. All terminology used here to describe glass artifacts and determine their dates has been taken from *The Parks Canada Glass Glossary* (Jones and Sullivan 1989), in tandem with the *IMACS User's Guide* (1992a;1992b) maintained by the Department of Anthropology at the University of Utah and the "Historic Glass Bottle Identification & Information Website" (Lindsey 2022) maintained by Bill Lindsey. Of the glass bottles, six were undamaged (Acc. 50, 57, 76–79), thirteen were fragmentary bases (Acc. 54, 58–59, 62–71), and six were fragmentary finishes (Acc. 60–61, 72–75). The date, origin, manufacturer, and type of bottle were determined from these bottles and fragments. The whiteware fragments were conversely body portions and largely non-diagnostic.

Manufacturer marks located on the base and/or heel of mold-blown and machine-made bottles enable, when present, the pinpointing of a bottle's date of production. Variations in company names or logos and plant and date codes can narrow it down to the exact year a bottle rolled off the assembly line (Lindsey 2022, Lockhart et al. 2013, 2021, Lockhart and Hoenig 2018). While some glass bottle makers included the rare date code on bottles in the latter half of the 19th century, date codes only became the norm on soda and milk bottles around 1930. By 1934, federal law in the U.S. required date codes on liquor bottles. Subtle changes in the glass company names and logos, as well as manufacturing date codes on bottle bases, further refine the dating of bottles from the 1940s onward (Lindsey 2022).

A total of 15 bottles from the assemblage had manufacturer marks, noting that these bottles were produced by Anchor Hocking (Acc. 71, Figure 80), Brockway Glass (Acc. 59, Figure 81),

and Owens Illinois Bottle Company (Acc. 50, 54, 62–69, 76–77, 79). These glass manufacturers have well-documented maker's marks that can provide more specific information on glass plant locations. From this, nine of the bottles were identified to their state of manufacture, with three bottles made in New York, two made in Illinois, and one bottle each made in Pennsylvania, California (e.g., Figure 82), West Virginia, and Indiana (Figure 83). Further, the age of the bottles was marked, showing that the bottles with identified dates of manufacture ranged in age from 1939 to 1950 (Figure 84). And finally, the bottle types included in the assemblage consisted of twelve beer bottles, nine soda bottles (e.g., Coca-Cola, Figures 48–50), three household bottles (e.g., Figures 51 and 52), and a single food bottle. Notably, every bottle in the assemblage was traced back to American factories, ranging from 1939 to 1950, a strong indicator of the American influence during the first American period.

Summary of Results

Throughout the project area, stratigraphy consisted of three natural layers of Pulantat clays. Artifacts were found on both the surface and the subsurface. The surface scatter distributed throughout the project area had two distinct concentrations on the eastern parcel. The subsurface survey returned a very sparse assemblage of 33 historic and Latte artifacts spread across 10 STPs, 21 of which were found in the upper 10 cm, possibly representing intrusion from the surface. Even including these artifacts from the first level of the excavations, no significant artifact concentrations were encountered in any of the STPs during subsurface testing, with the most dense excavation being STP 2, containing nine Latte sherds, six of which were less than 3 cm along their longest axis. A pushed Latte set was also encountered near the eastern roadway (Feature 3). The Latte set appears to have been pushed from elsewhere and destroyed during the road construction and has likely lost its integrity. A total of 159 artifacts were recovered during the survey, of which 110 were Latte ceramics (one possible transitional Latte), four were lithic tools, 46 were historic glass bottles, and two were historic whiteware ceramics. The traditional artifacts largely date to the Latte Period, with one exception dating to the Transitional Pre-Latte Period. The historic artifacts are all 20th century in origin, with many produced between 1939 and 1950.

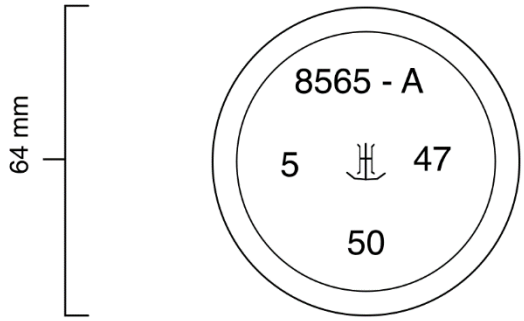

Figure 80. Base sketch of Acc. 71. From top: Mold number over factory code, Anchor Hocking logo and date code over an unknown number.

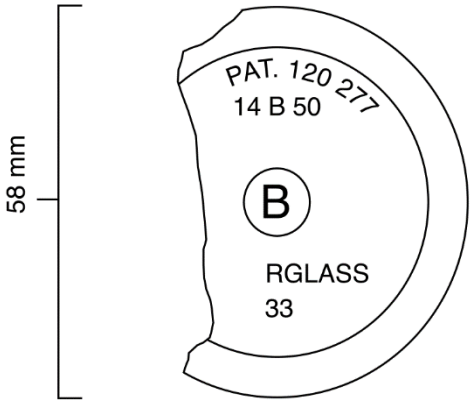

Figure 81. Base sketch of Acc. 59. From top: Patent number over factory code and date code over maker's mark, over "Duraglass" logo, over mold code.

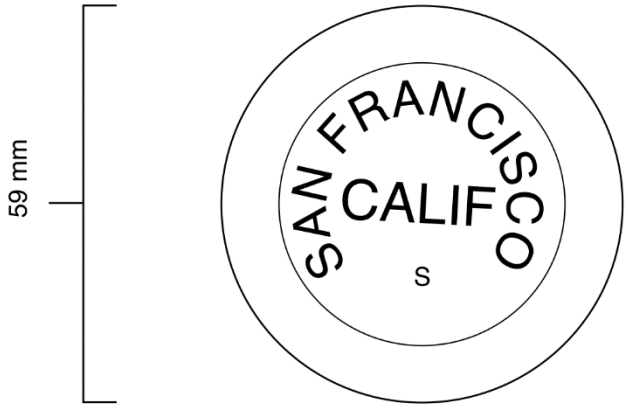

Figure 82. Base sketch of Acc. 54. From top: "San Francisco" over "Calif" over an "S", all indicating that the bottle was made in San Francisco, California.

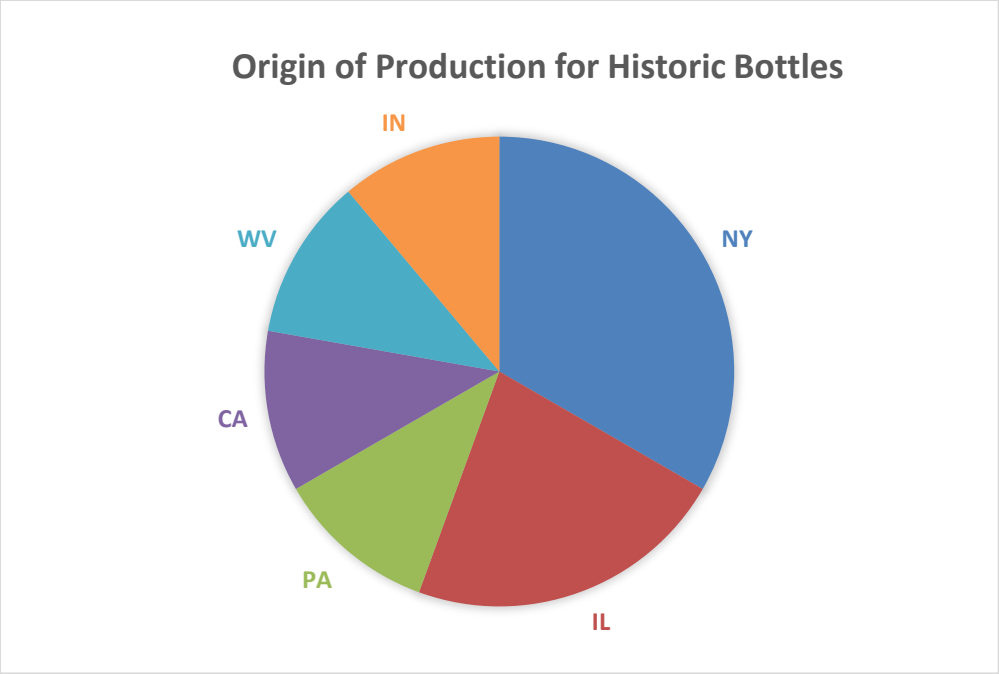

Figure 83. Identified origin of production of historic bottles by U.S. State.

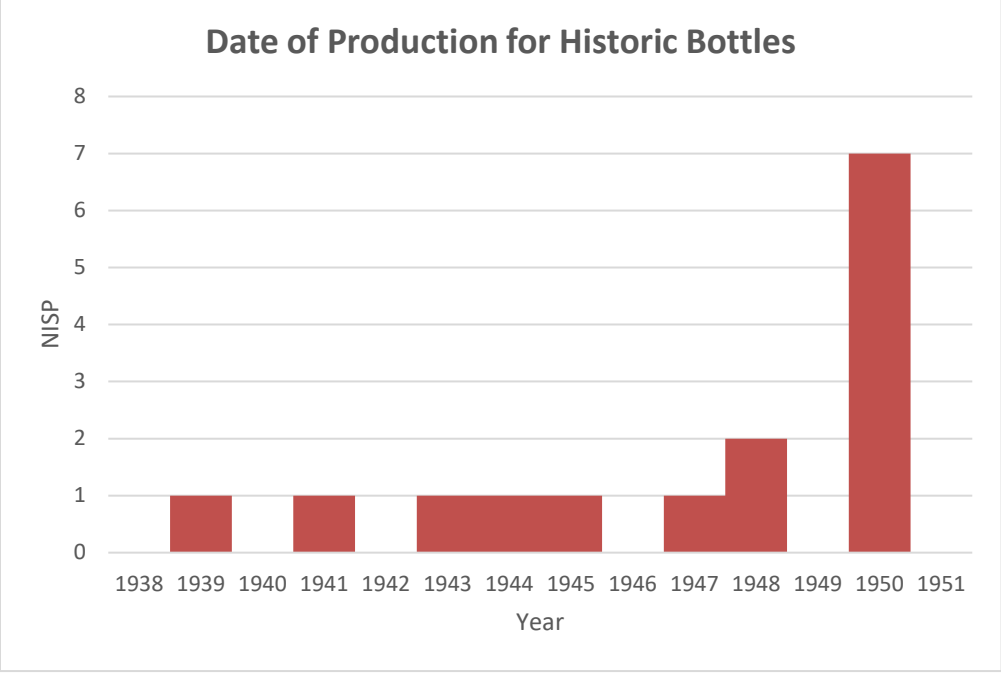

Figure 84. Identified age of historic bottles.

Figure 85. A Coca-Cola bottle retrieved from Feature 1 (Acc. 50).

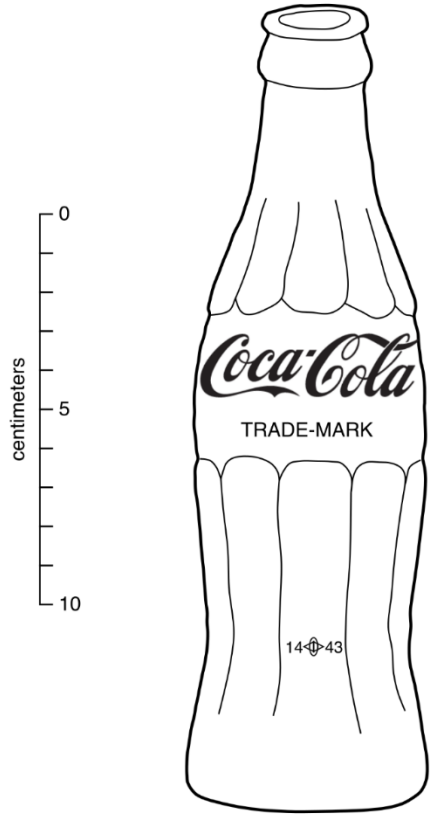

Figure 86. Sketch of Acc. 50. "Coca-cola" logo and trademark on body. Maker's mark on hobble-skirt: factory code, maker's mark, then date code.

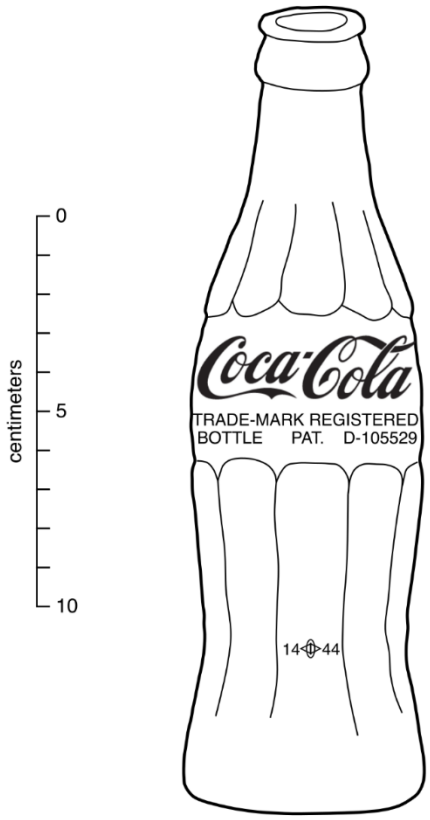

Figure 87. Sketch of Acc. 79. "Coca-cola" logo and extended trademark info on body. Maker's mark on hobble-skirt: factory code, maker's mark, then date code.

Figure 88. A perfume bottle retrieved from Feature 1 (Acc. 57).

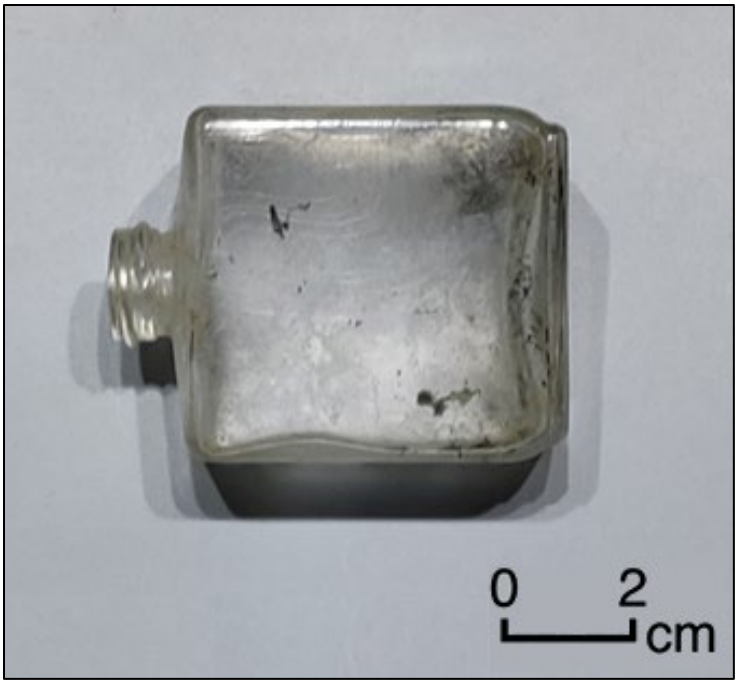

Figure 89. An Avon bottle retrieved from Feature 1 (Acc. 78).

SUMMARY AND RECOMMENDATIONS

An archaeological AIS was carried out between July 27 and August 5, 2022. The survey covered the entirety of Lots 3412-1-1-2 and -1-1-5 in the village of Chålan Pågu-Otdot (Chalan Pago-Ordot) on the island of Guam and fully complied with the GHRD Certificate of Approval 2021-0501 and Review and Compliance numbers 2021-0625 and -0626. Fieldwork included a pedestrian and subsurface survey and took seven work days with two to four archaeologists per day. Stratigraphy in the project area consisted of three natural layers of Pulantat clays, the A, B, and C horizons. Artifacts were found on both the surface and the subsurface, however many more artifacts were found on the surface. The surface scatter was dense enough on the eastern lot to justify a site designation (66-01-2989). The site consisted of two distinct surface artifact concentrations Features 1 and 2. A third feature was also encountered (Feature 3), a tumbled Latte set near the eastern roadway, likely disturbed during the construction of the road. A total of 159 artifacts were recovered during the survey, of which 109 were Latte ceramics, one was a Transitional Pre-Latte ceramic, four were lithic tools, 46 were historic glass bottles, and two were historic whiteware ceramics. The traditional artifacts largely date to the Latte Period, with one possible exception dating to the Transitional Pre-Latte Period. The historic artifacts are all 20th century in origin, with many produced between 1939 and 1950.

Site Integrity and Significance

The three features of the on archaeological site were evaluated for integrity and significance, following the criteria established by the National Register (Table 4). To be considered significant, a historic property shall possess integrity and shall meet one or more of the following criteria:

> Criterion “a”. Be associated with events that have made important contribution to the broad patterns of our history;
>
> Criterion “b”. Be associated with the lives of persons important in our past;

> Criterion “c”. Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value;
>
> Criterion “d”. Have yielded, or is likely to yield, information important for research on prehistory or history.

Integrity is defined as the authenticity of a property’s historic identity, as evidenced by the survival of physical characteristics it possessed in the past and its capacity to convey information about a culture or people, historic patterns, or architectural or engineering design or technology. The aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. Location refers to the place where an event occurred, or a property was constructed. Design considers elements such as plan, form, and style of a property. Setting is the physical environment of the property. Materials refer to the physical elements used to construct the property. Workmanship refers to the craftsmanship of the creators of a property. Feeling is the property’s ability to convey its historic time and place. Association refers to the link between the property and a historic event or person.

Site 66-01-2989 is a scatter of surface artifacts found throughout both parcels and a tumbled Latte set. The site is typified by a scatter of archaeological material, including lithic tools (n=4), Latte ceramics (n=66), and historic glass (n=22). Modern debris was also observed throughout the site. Two surface concentrations of cultural material were identified, labeled as Features 1 and 2. Any items thought to be more than 50 years old were collected. The site covers an area of 510.67 m^2 in total. The site was photographed and documented. This property does not have associative value (Criteria A and B) due to association or linkage to events (Criterion A) or persons (Criterion B) important to the past, nor does it have design or construction value (Criterion C) as it is not representative of manmade expression of culture or technology. Site 66-01-2989 does have information value (Criterion D), as it contains materials from an ancient culture, and furthermore the Latte Period is a relatively understudied culture, making artifacts from this era important. However, Site 66-01-2989 does not retain integrity, as the artifact scatter does not retain integrity of location, design, setting, materials, workmanship, feeling, or association.

Table 8. Recommendations for NRHP Eligibility

Site	Description	Function	Integrity	NRHP Criterion	Justification
66-01-2989	Surface and Subsurface Artifact Scatter; Tumbled Latte Set	Habitation	None	d	Site 66-01-2989 has information value and may yield additional information about the Latte Period.

Feature 3 is a pushed Latte set found near the edge of the eastern parcel. The Latte stones appear to have been pushed here during the roadway construction. Three tasa stones were identified amidst a scattering of various smaller stones, possibly leveling stones. Modern debris is scattered around the stones. No historic or traditional materials were found in the immediate area, and the stones appear to have been pushed to this location from elsewhere, perhaps the original ridgeline. This property does not have associative value (Criteria A and B) due to association or linkage to events (Criterion A) or persons (Criterion B) important to the past, nor does it have design or construction value (Criterion C) as it is not representative of manmade expression of culture or technology. Feature 3 does have information value (Criterion D) as it may yield additional information. Latte sets are culturally important to the CHamoru people and should be preserved whenever possible. However, as the site is out of context and pushed over it does not retain integrity of location, design, setting, materials, workmanship, feeling, or association.

And finally, it must be acknowledged that this site and all associated features are in relative proximity to the "Thomas Property," which lies approximately 300 m to the west of the project area. A cultural layer on this site was recently assigned the GHPI number 66-01-2989. This cultural layer is an 18–20 cm thick "dark brown soil" that sat above a sterile "light brown gravelly clay." The dark cultural layer contained shell and fire cracked rock, and the surface in the area of the excavation contained ceramics and culturally modified lithics. Radiocarbon dating of charcoal found during the survey returned a bimodal sequence of CE 1430– 1520 or 1580–1630, indicating that the site is likely from the Latte Period. In addition to their proximity, the site encountered during this survey appear to be from the Latte Period and present similar assemblages, with Site 66-01-2989 extending through time to the modern era. Following the

similarities between the site identified during the survey and GHPI66-01-2989, it is recommended to assign this site as features within this larger site.

In sum, one archaeological site was identified during the AIS on Lots 3412-1-1-2 and -1-1-5 in the village of Chålan Pågu-Otdot (Chalan Pago-Ordot). The site is not far from the "Thomas Property," where a Latte Period cultural layer was identified as GHPI 66-01-2989. It is recommended that the site found during the current AIS are subsumed under this GHPI number. The one site identified within the project area is not significant because they lack integrity. Nevertheless, archaeological monitoring is recommended during construction because of the density of cultural material on the lots and the likelihood of encountering cultural material during construction. An archaeological monitoring plan should be prepared in anticipation of construction on the property.

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APPENDIX A: ARCHAEOLOGICAL DATA SUMMARY FORM

FOR DPR-GHRD OFFICE USE ONLY		
RC No.		Draft:
Date:		
Reviewer:		
GIS: Ent. - Date:		Final
By – Staff:		
GHPI Site No.:		

DEPARTMENT OF PARKS AND RECREATION
Guam Historic Resource Division
(State Historic Preservation Office)
Archaeological Report Summary Form (ARSF)

Please print clearly when completing this form. Include completed (ARSF) forms in all reports being submitted to the Department, such as Draft and Final reports. This form may be downloaded or expanded as needed, but do not eliminate any fields.

1. Report Title: Archaeological Inventory Survey of Lot 3412-1-1-2 and 3412-1-1-5 in Chalan Pago-Ordot
2. Principal Investigator: Windy McElroy ☐ M.A. ☒ Ph.D./Firm or Institution Keala Pono Arch. Co.
3. Report Date: (01-06-2002) 11/30/2022 Number of Pages 142 Draft Report X Final Report _____
   Letter of Acceptance of Final Report _____
   Final Report: Two (2) spiraled-bound copies, 1 CD 2 and Shapefiles: Ⓨ / N
   Research Design: Yes X No ___ Scope of Work: Yes X No ___ RC # 2021-0625/0626
4. Type of Report: Terrestrial X Marine ___ Architecture: _____ Historic X Prehistoric X
   Type of Work: Identification X Evaluation ___ Data Recovery ___ Monitoring ___ Shapefiles Provided: Ⓨ / N
   Further work recommended Yes X No ___ What? Archaeological Monitoring Preservation Ⓨ / N
5. Agency/Lessees Name: Blue Pacific Realty Federal ☐ Guam ☐ Private ☒
   Company / Land Owner: Shuming Ge Lot No. (s): 3412-1-1-2; 3412-1-1-5
6. Project Area: Quad, Municipality, Village, Place Name/s:

Quad	Municipality	Village	Place Name
Hagåtña	Chålan Pågu	Chålan Pågu-Otdot	

7. Nearest Project Area Drainage (s): Pago River Distance from site: 836 Meters
8. Basic Field Information: Series of Soil: Pulantat Clay
   a. Area of Potential Effect (APE) / Project Area in Hectares: 1.0 Acres: 2.5
   b. Type of Proposed Project / Impacts: Residential Date/s of Field Investigation/s: 7/27 - 8/5/2023
   c. Closest Recorded Historic Property/ies to APE (GHPI Site No. and Name): 66-01-2989 Thomas Site
   d. Description of Field Conditions and Disturbance (wooded, previously cleared, bulldozed, untouched, etc.):
      Lightly wooded, undeveloped, intermittent modern trash dumps.
9. GHPI Site Numbers, if any: 66-01-2989 GHPI Data Form/s submitted: Yes X No ___
10. Number of sites "Meeting" National Register Criteria: 2 Guam Register Criteria 2
11. Number of sites "Not Meeting" National Register Criteria: 0 Guam Register Criteria: 0
12. Number of Sites with No Effect Determination 0 No Adverse Effect _____ Adverse Effect _____
13. Other documents issued / submitted / required: Certificate of Approval # _____ Notice of Violation # _____
    Memorandum of Agreement _____ Programmatic Agreement _____ Artifact Catalog # _____
14. Disposition of Artifacts / Stored With / Date: Poor - Good / Keala Pono Guam Storage / 11/29/2023

APPENDIX B: ARTIFACT DATA

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
1	STP 1; Layer I; Level 1; 0-10 cmbs	Latte Period ceramic body sherd with a wiped/brushed exterior and a darkened interior	1	8	30	24	8
2	Near STP 2	Traditional ceramic body sherd	1	4	24	26	6
3	Near STP 2	Traditional ceramic body sherd	1	7	33	25	6
4	Near STP 2	Traditional ceramic rim sherd	1	79	77	54	8–17
5	Near STP 2	Traditional ceramic rim sherd	1	95	67	60	14–24
6	STP 2; Surface	Latte Period ceramic body sherd with a rough exterior and a darkened interior	1	5	33	28	7
7	STP 2; Surface	Tiny Latte Period ceramic body sherd with a burnished exterior	1	3	21	17	8
8	STP 2; Surface	Latte Period ceramic body sherd with a wiped/brushed exterior	1	4	26	20	6
9	STP 2; Layer I; Level 1; 0-10 cmbs	Tiny Latte Period ceramic body sherd with an eroded exterior	1	2	18	16	7
10	STP 2; Layer I; Level 1; 0-10 cmbs	Tiny Latte Period ceramic body sherd with a rough (eroded) exterior	1	2	19	16	6
11	STP 2; Layer I; Level 1; 0-10 cmbs	Latte Period ceramic body sherd with a rough (eroded) waterworn exterior.	1	5	30	20	9
12	STP 2; Layer I; Level 1; 0-10 cmbs	Latte Period ceramic body sherd with a rough (eroded) waterworn exterior.	1	4	26	22	8
13	STP 2; Layer I; Level 1; 0-10 cmbs	Tiny Latte Period ceramic body sherd with a wiped/brushed exterior	1	6	32	19	8
14	STP 2; Layer I; Level 2; 10-20 cmbs	Tiny Latte Period ceramic body sherd with a wiped/brushed exterior	1	3	20	19	6

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
15	STP 2; Layer I; Level 2; 10-20 cmbs	Tiny Latte Period ceramic indeterminate sherd with an eroded exterior	1	2	19	16	6
16	STP 2; Layer I; Level 2; 10-20 cmbs	Latte Period ceramic body sherd with a wiped/brushed (eroded) exterior	1	11	40	29	10
17	STP 2; Layer I; Level 3; 20-25 cmbs	Tiny Latte Period ceramic sherd with an indeterminate exterior and a darkened interior	1	2	21	14	6
18	STP 3; Layer I; Level 1; 0-10 cmbs	Historic ceramic	1	19	75	35	4–9
19	STP 3; Layer I; Level 1; 0-10 cmbs	Tiny Latte Period ceramic body sherd with a plain exterior	1	7	33	24	8
20	STP 3; Layer II; Level 4; 25-30 cmbs	Natural rock mistaken for pottery; discarded	1	4	23	18	6
21	STP 3; Layer II; Level 4; 25-30 cmbs	Tiny non-diagnostic Latte Period ceramic body sherd with an weathered exterior	1	2	16	10	8
22	STP 3; Layer II; Level 4; 25-30 cmbs	Tiny non-diagnostic Latte Period ceramic body sherd with a plain exterior	1	3	21	16	6
23	STP 3; Layer II; Level 4; 25-30 cmbs	Tiny non-diagnostic Latte Period ceramic body sherd with an weathered exterior	1	2	16	16	8

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
24	STP 3; Layer II; Level 4; 25-30 cmbs	Tiny non-diagnostic Latte Period ceramic body sherd with a plain exterior	1	2	19	12	6
25	STP 5; Layer II; Level 2; 10-20 cmbs	Tiny non-diagnostic Latte Period ceramic body sherd	1	1	16	11	5
26	STP 5; Layer II; Level 2; 10-20 cmbs	Tiny non-diagnostic Latte Period ceramic rim sherd	1	3	20	13	8
27	STP 5; Layer II; Level 2; 10-20 cmbs	Tiny non-diagnostic Latte Period ceramic body sherd	1	3	20	17	10
28	STP 6; Layer I; Level 1; 0-10 cmbs	Tiny non-diagnostic Latte Period ceramic sherd	1	1	8	8	9
29	STP 6; Layer I; Level 1; 0-10 cmbs	Tiny non-diagnostic Latte Period ceramic sherd	1	4	16	14	8
30	STP 6; Layer I; Level 1; 0-10 cmbs	Latte Period ceramic body sherd with a wiped/brushed exterior	1	13	47	18	11
31	STP 7; Layer I; Level 1; 0-10 cmbs	Tiny non-diagnostic Latte Period ceramic sherd	1	4	20	17	11
32	STP 7; Layer I; Level 1; 0-10 cmbs	Latte Period ceramic body sherd with a random combing exterior	1	9	33	23	10
33	STP 7; Layer I; Level 1; 0-10 cmbs	Latte Period ceramic body sherd with a rough exterior	1	8	38	28	7
34	STP 7; Layer I; Level 2; 10-20 cmbs	Latte Period ceramic body sherd with a plain exterior	1	5	23	23	6

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
35	STP 9; Layer I; Level 1; 0-10 cmbs	Tiny non-diagnostic Latte Period ceramic body sherd	1	3	22	22	8
36	STP 9; Layer I; Level 1; 0-10 cmbs	Tiny non-diagnostic Latte Period ceramic rim sherd	1	6	27	21	9
37	STP 10; Surface	Tiny non-diagnostic Latte Period ceramic sherd.	**1**	2	18	14	10
38	STP 10; Surface	Latte Period ceramic body sherd with a plain exterior	1	12	32	31	9
39	STP 10; Layer I; Level 1; 0-10 cmbs	Historic ceramic	1	5	35	19	5
40	STP 11; Surface	Latte Period ceramic body sherd with a rough exterior	1	7	31	34	6
41	STP 11; Layer I; Level 1; 0-10 cmbs	Tiny non-diagnostic Latte Period ceramic sherd	1	3	21	18	7
42	STP 11; Layer I; Level 1; 0-10 cmbs	Latte Period ceramic body sherd with a rough exterior	1	23	48	45	8
43	STP 11; Layer I; Level 1; 0-10 cmbs	Brown bottle glass	18	95	10–40	10–40	3
44	STP 12: Layer I; Level 1; 0-10 cmbs	Tiny non-diagnostic Latte Period ceramic sherd	1	<1	20	15	6
45	Feature 1; Surface; Between STP 1 and 3	Latte Period ceramic body sherd with an eroded exterior	1	7	32	22	8
46	Feature 1; Surface;	Transitional Pre-Latte to Latte Period ceramic rim sherd with a plain exterior and a darkened interior	1	9	31	19	11

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
	Between STP 1 and 3						
47	Feature 1; Surface; Between STP 1 and 3	Latte Period ceramic rim sherd with a rough (eroded) exterior	1	19	43	24	12–21
48	Feature 1; Surface; Between STP 1 and 3	Latte Period ceramic body sherd with a plain exterior	1	13	39	34	7
49	Feature 1; Surface	Latte Period ceramic rim sherd with a rough exterior	1	72	60	62	12–19
50	Feature 1; Surface	Glass Coca-Cola bottle	1	400	196	60	3–5
51	Feature 1; Surface	Latte Period ceramic rim sherd with a rough (eroded) exterior	1	25	38	37	15–20
52	Feature 1; Surface	Historic ceramic sherd with a modern glazed exterior	1	126	77	52	21
53	Feature 1; Surface	Latte Period ceramic rim sherd with a weathered exterior	1	23	39	34	12–19
54	Feature 1; Surface	Glass Coca-Cola bottle base	1	119	41	59	7–9
55	Feature 1; Surface	Historic ceramic sherd with a modern glazed exterior	1	170	141	55	22
56	Feature 1; Surface	Indeterminate Latte Period ceramic sherd with a weathered exterior	1	7	29	22	11
57	Feature 1; Surface	Glass perfume bottle	1	139	135	28 x 37	3–9
58	Feature 2; Surface	Historic glass bottle base	1	42	37	71	3

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
59	Feature 2; Surface	Historic glass bottle base	1	70	55	58	6
60	Feature 2; Surface	Historic glass bottle finish	1	26	62	39	3–5
61	Feature 2; Surface	Historic glass bottle finish	1	26	57	37	4–5
62	Feature 2; Surface	Historic glass bottle base	1	77	17	86	4–5
63	Feature 2; Surface	Historic glass bottle base	1	36	58	24	3–7
64	Feature 2; Surface	Historic glass bottle base	1	55	35	67	3–6
65	Feature 2; Surface	Historic glass bottle base	1	58	35	66	4–5
66	Feature 2; Surface	Historic glass bottle base	1	53	20	68	4–6
67	Feature 2; Surface	Historic glass bottle base	1	39	23	66	2–5
68	Feature 2; Surface	Historic glass bottle base	1	34	28	66	3–7
69	Feature 2; Surface	Historic glass bottle base	1	30	17	66	4–6
70	Feature 2; Surface	Historic glass bottle base	1	32	44	58	3–6
71	Feature 2; Surface	Historic glass bottle base	1	37	15	64	4
72	Feature 2; Surface	Historic glass bottle finish	1	15	31	29	4

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
73	Feature 2; Surface	Historic glass bottle finish	1	25	50	45	3
74	Feature 2; Surface	Historic glass bottle finish	1	23	41	31	4
75	Feature 2; Surface	Historic glass bottle finish	1	32	49	36	4
76	General surface scatter	Glass Coca-Cola bottle	1	385	194	59	1-9
77	General surface scatter	Glass Coca-Cola bottle	1	386	194	59	1-9
78	General surface scatter	Glass Avon perfume bottle	1	84	68	53 x 32	2–4
79	Feature 2; Surface	Glass Coca-Cola bottle	1	394	194	59	1-9
80	Feature 2; Surface	Historic ceramic	1	6	37	26	5
81	Feature 2; Surface	Basalt pestle	1	255	106	35	NA
82	Feature 2; Surface	Basalt adze	1	178	117	53	18
83	Feature 2; Surface	Basalt opportunistic scraper	1	19	50	39	6
84	Feature 2; Surface	Basalt preform	1	330	87	66	39
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte; possible Acc 85 thru 96 is from one pot	1	64	81	29	19
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	64	59	52	19

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte, noticeable coil interior	1	92	91	45	17
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	63	83	40	20
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	135	98	71	17
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	156	101	72	20
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	144	93	61	18
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	128	74	66	19
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	135	109	69	20
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	250	155	87	19
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	139	112	83	19
-	Feature 2; Surface	Modern or historic stone/concrete planters pot; not Latte	1	445	162	102	22
97	Feature 2; Surface	Latte Period ceramic rim sherd with a weathered exterior	1	15	33	29	18
98	Feature 2; Surface	Latte Period ceramic rim sherd with a plain exterior	1	15	29	31	17
99	Feature 2; Surface	Latte Period ceramic rim sherd with a weathered exterior	1	23	33	35	16
100	Feature 2; Surface	Latte Period ceramic rim sherd with a combed (eroded) exterior	1	27	33	37	20
101	Feature 2; Surface	Latte Period ceramic rim sherd with a plain exterior	1	31	33	32	25
102	Feature 2; Surface	Latte Period ceramic rim sherd with a plain combed exterior	1	42	63	42	17

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
103	Feature 2; Surface	Latte Period ceramic body sherd with a plain exterior	1	59	65	60	9
104	Feature 2; Surface	Latte Period ceramic body sherd with an eroded exterior and a darkened interior (possibly burnt)	1	5	25	18	12
105	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a wiped/brushed exterior and a darkened burnt interior	1	4	25	21	9
106	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough (eroded) exterior	1	5	22	20	9
107	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a plain exterior	1	4	25	20	6
108	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a plain (eroded) exterior	1	6	30	18	8
109	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough (eroded) exterior	1	8	38	23	8
110	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a wiped/brushed exterior	1	7	33	22	8
111	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a wiped/brushed exterior	1	5	32	22	6
112	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough exterior and a darkened burnt interior	1	8	31	22	9
113	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough exterior	1	6	30	27	8
114	Feature 2; Surface	Latte Period ceramic body sherd with a plain exterior	1	8	32	27	9
115	Feature 2; Surface	Latte Period ceramic base sherd with a wiped/brushed (eroded) exterior and a burnt darkened interior	1	12	43	23	14
116	Feature 2; Surface	Latte Period ceramic body sherd with a rough exterior	1	11	36	34	8

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
117	Feature 2; Surface	Latte Period ceramic base sherd with a plain exterior and a burnt darkened interior	1	11	29	30	10
118	Feature 2; Surface	Latte Period ceramic base sherd with a rough exterior and a burnt darkened interior	1	18	43	30	11
119	Feature 2; Surface	Latte Period ceramic body sherd with a wiped/brushed exterior	1	15	50	33	9
120	Feature 2; Surface	Latte Period ceramic base sherd with a rough exterior and a burnt darkened interior	1	28	47	43	13
121	Feature 2; Surface	Latte Period ceramic base sherd with a rough exterior and a burnt darkened interior	1	31	49	45	11
122	Feature 2; Surface	Latte Period ceramic base sherd with a Wiped/Brushed exterior and a burnt darkened interior	1	43	60	50	11
123	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a wiped/brushed exterior	1	7	30	26	9
124	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a combed (eroded) exterior	1	9	35	25	8
125	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough combed (eroded) exterior	1	13	38	32	9
126	Feature 2; Surface	Latte Period ceramic body sherd with a rough exterior	1	7	36	17	9
127	Feature 2; Surface	Indeterminate Latte Period ceramic sherd with a wiped/brushed exterior	1	9	30	23	11
128	Feature 2; Surface	Latte Period ceramic base sherd with a wiped/brushed (eroded) exterior	1	11	33	27	10
129	Feature 2; Surface	Latte Period ceramic base sherd with a wiped/brushed (eroded) exterior	1	13	42	24	11
130	Feature 2; Surface	Latte Period ceramic body sherd with random combing on the exterior	1	17	48	28	10
131	Feature 2; Surface	Latte Period ceramic body sherd with random combing on the exterior	1	14	43	34	10
132	Feature 2; Surface	Latte Period ceramic base sherd with a random combing exterior and a burnt darkened interior	1	13	34	25	12

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
133	Feature 2; Surface	Latte Period ceramic body sherd with a wiped/brushed exterior	1	10	36	30	9
134	Feature 2; Surface	Multiple latte sherds that are < 3 cm in size; few with a wiped brush exterior	17	38*	<20	<20	5–11
135	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough (eroded) exterior	1	3	19	19	8
136	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough (eroded) exterior	1	4	23	18	7
137	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough (eroded) exterior	1	5	24	20	9
138	Feature 2; Surface	Latte Period ceramic body sherd with a plain exterior	1	6	35	23	6
139	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough (eroded) exterior	1	6	30	20	8
140	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough (eroded) exterior	1	6	28	21	8
141	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a wiped/brushed exterior	1	4	25	19	6
142	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a wiped/brushed exterior	1	3	26	19	7
143	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough exterior	1	7	27	24	8
144	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a plain exterior	1	6	26	26	7
145	Feature 2; Surface	Latte Period ceramic rim sherd with a rough exterior	1	8	28	27	12
146	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a wiped/brushed (eroded) exterior	1	4	25	21	8
147	Feature 2; Surface	Tiny Latte Period ceramic body sherd with a rough (eroded) exterior	1	7	29	21	10
148	Feature 2; Surface	Latte Period ceramic rim sherd with a wiped/brushed exterior	1	18	42	31	13

Acc.	Provenience	Description	NISP	Weight (g)	Length / Height (mm)	Width / Diameter (mm)	Thickness (mm)
149	Feature 2; Surface	Latte Period ceramic base sherd with a rough exterior and a burnt darkened interior	1	10	31	24	11
150	Feature 2; Surface	Latte Period ceramic body sherd with a wiped/brushed exterior	1	13	42	30	10
151	Feature 2; Surface	Latte Period ceramic rim sherd with a wiped/brushed exterior	1	16	33	30	15
152	Feature 2; Surface	Latte Period ceramic body sherd with a plain exterior.	1	13	37	28	11
153	Feature 2; Surface	Latte Period ceramic body sherd with a plain exterior.	1	11	34	29	10
154	Feature 2; Surface	Latte Period ceramic body sherd with a wiped/brushed exterior	1	20	43	35	9

* Bulk Weight