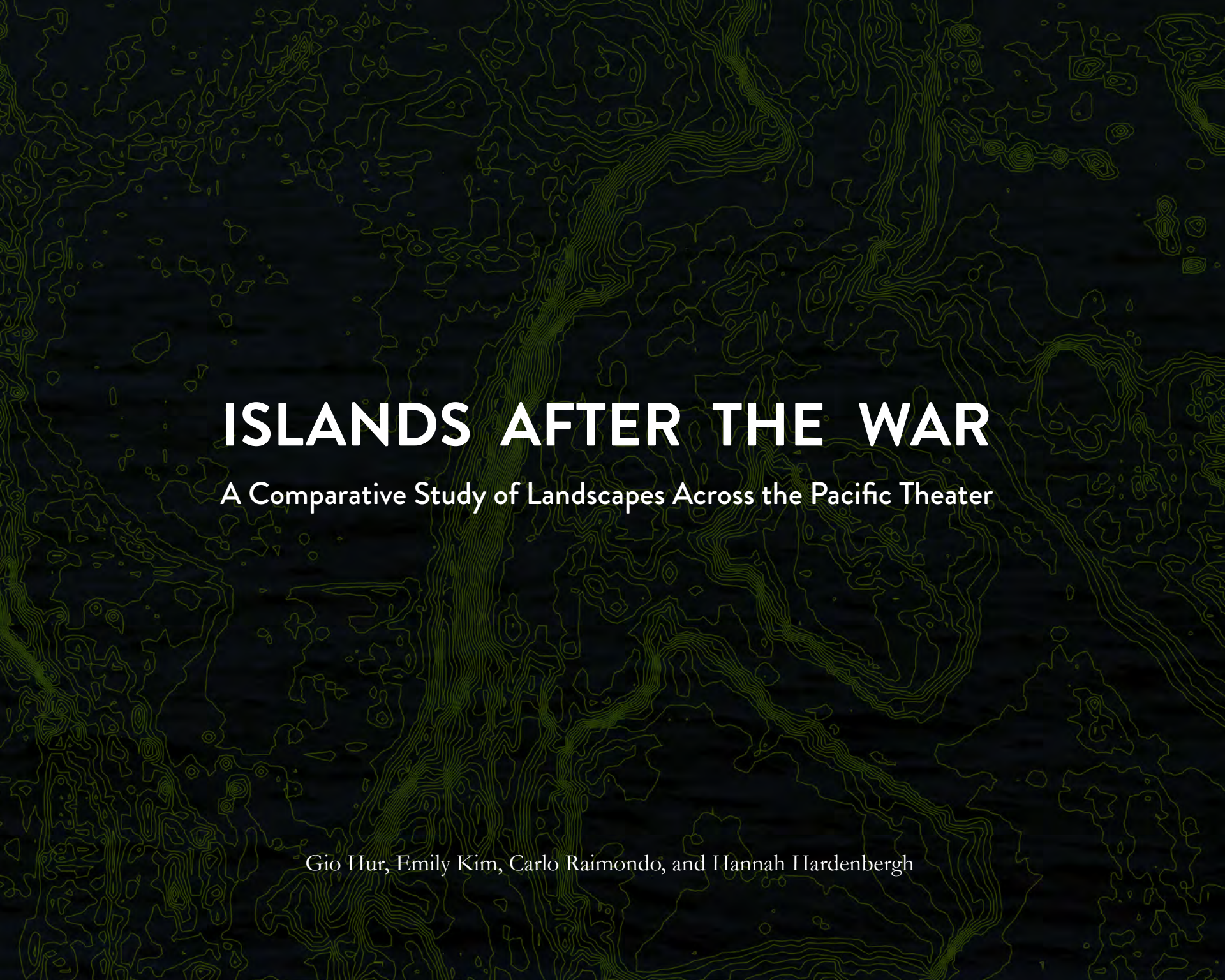


The background of the entire image is a dark, textured topographic map. It features intricate, light-colored contour lines that create a complex, organic pattern across the entire surface. The lines vary in density and thickness, suggesting different elevations and geographical features. The overall color palette is dark, with the map lines appearing in shades of light green or yellow against a black or very dark blue background.

ISLANDS AFTER THE WAR

A Comparative Study of Landscapes Across the Pacific Theater

Gio Hur, Emily Kim, Carlo Raimondo, and Hannah Hardenbergh

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patches of leather
splayed across green, near limp tires
swathed in vines birthed from
rust, housing insects of fire
and whispers of limestone dreams

*-rebirth by Maya Nena Desnacido Nanpei
(Storyboard 20: A Journal of Pacific Imagery)*

This project was carried out with deep respect for the lands and waters of the Mariana and Ryukyu Islands, and for the Chamorro (CHamoru), Carolinian, and Okinawan (Ryukyuan) people who have long stewarded and shaped them. Here, land is not just geography, it is history, identity, and kin. From the outset, we understood we were engaging with sites marked by colonization, war, and displacement, where the past is deeply embedded in both land and memory.

As none of us are of Chamorro, Carolinian, or Okinawan heritage, we do not claim to speak for, or on behalf of, these communities. Instead, our research is shaped by our training in landscape architecture, focusing on interpreting physical sites and materials through the lens of landscape, history, and design.

We hope this book reflects our commitment to learning with humility and listening with care. We are grateful to those who took the time to speak and share with us, and are dedicated to honoring this knowledge in every step forward.



Fig. A1. Peering back towards the entrance at Niya-Thiya Cave in Iejima.

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Fig. A2. The waters surrounding Tinian are so clear, remnants of Dump Cove are visible from above.

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PREFACE

I grew up swimming in some of the world’s most profound waters, along the western edge of the Mariana Trench. My family moved to Saipan, the largest island in the Commonwealth of the Northern Mariana Islands, when I was just a few months old. Drawn by the island’s reputation for some of the most beautiful waters in the world, they opened a new branch of their scuba diving shop to share their passion for exploring the ocean. Beyond its natural beauty, Saipan is a diverse, close-knit community where familiar faces are found everywhere and weekends come alive with beachside potlucks and barbecues, fostering a strong sense of belonging as locals build a vibrant, shared culture.

We were surrounded by a landscape shaped by World War II and the legacies of colonization. Rusted M4 Sherman tanks littered Beach Road. Off the coast, U.S. military vessels dotted the reefline. Growing up, I would stand at the edge of Banzai Cliff, staring out over the water’s horizon, quietly searching for sea turtles below, a place heavy with memory, where many lives were lost at the war’s end. I learned the islands’ history in school, heard pieces of it from elders, and passed by the memorials and plaques, but I wasn’t particularly interested. The remnants of war were just part of the backdrop. These sites had been folded into

our everyday experiences. That kind of quiet normalization can blur the line between familiarity and understanding. I rarely paused to consider what they signified, or what came before them.

As a kid, Saipan felt small. I wanted to leave, to find the bigger world. And eventually, I did. Eager to explore something different, I moved to Berkeley, California, for college, and then pursued a Master’s Degree in Landscape Architecture at Harvard’s Graduate School of Design (GSD). But after I left, I found myself thinking about home more than I expected. I realized that returning wasn’t just about visiting family and friends; it was also about viewing my home through the lens of the work I was doing, through the practice of my discipline. I wanted to understand the layers I had once overlooked, and to share the complexities of a place that shaped me.

The idea for this project came about after three friends and I attended the 2022 round of projects in the Penny White Research Exhibition, which featured student-led, travel-based work at the GSD. Each project centered fieldwork in a specific location and study through the lens of its landscape. I remember tossing out an idea: “What if the four of us explored Saipan together?”

What began as a casual suggestion grew into something more intentional. Soon, we started meeting regularly. We prepared grant applications, secured funding, and booked our flights. Our research didn’t begin with a clear question

Fig. B1. (Left) Looking up at the crumbling Air Administration Building on North Field.

or a polished pitch. It took time to shape what we wanted to explore.

We decided to compare four sites on Saipan and Tinian in the Mariana Islands to four sites on Okinawa and Iejima in Japan. Each location has a complex history, or layered histories. The structure of the Harvard Asia Center grant encouraged a comparative approach, prompting us to expand our focus beyond the Mariana Islands to include another site in the region. This framework led us to examine island landscapes across national boundaries and colonial histories. Through our investigation, we hoped to explore how cultural and wartime artifacts are preserved, how colonialism has shaped access to land, and how the memory of these events continues to impact communities.

In May 2024, we set out on a journey lasting just over three weeks.

Okinawa felt distant growing up, but as we explored the islands, I was struck by how closely their history intertwines with that of the Marianas. The rugged coastlines and visible scars of war and militarization echoed the stories I knew from home. Visiting those sites, both as an outsider looking in and as someone connected through a shared history, reminded me that these islands are linked in deep and nuanced ways. It was a chance to learn not just about Okinawa, but also to reflect on the Marianas through a new lens.

This project has allowed me to revisit the landscapes I thought I knew, and to fully notice what I had once taken for granted. It has also given me the chance to bring awareness to places like Saipan, which are so often left off the map yet hold stories that reach far beyond their shorelines.

None of this would have happened without the care, curiosity, and commitment of my collaborators Emily, Hannah, and Carlo, or the many others who supported us along the way. To travel together across the Pacific with some of my closest friends was something rare. It isn't easy to organize a trip that spans so many miles, time zones, and histories, and it's even harder to make something meaningful out of it. The journey gave us a chance to reconnect with communities in Saipan and Tinian, and to build new relationships in Okinawa and Iejima, some brief, some ongoing, all of them generous.

Of course, this book cannot hold everything we witnessed or felt, but we hope it offers a glimpse into the questions we carried, the landscapes we walked, and the stories that surfaced along the way. That complexity is what makes Saipan, and places like it, so powerful. And it's what we hope this project begins to reveal.

We're excited for what comes next.

Gio Hur



Fig. B2. View from above Garapan, Saipan, capturing U.S. military vessels, the reef flat, and a distant glimpse of Tinian.

CONTEXT MAP
of Saipan, Tinian, Okinawa, and Iejima



Taiwan

Philippines

Iejima

Okinawa

Saipan

Tinian

Fig. B3. Context map.





INTRODUCTION

The beaches of Okinawa Prefecture, Japan, and the Commonwealth of the Northern Mariana Islands (CNMI) know death and defeat. These islands sit along the western edge of the Pacific, shaped by volcanic forces and edged with coral reefs and white sand. During World War II, they became critical sites of military strategy and human suffering. Okinawa Prefecture witnessed one of the war’s deadliest battles in 1945, where entire communities were devastated. In the CNMI, islands like Saipan and Tinian were seized by U.S. forces and transformed into bases that launched the final, catastrophic attacks on Japan. Beneath the calm of these shores lie layers of violence, resistance, and survival.

Allied forces arguably won WWII due to the strategic planning and capture of the CNMI, a landscape that brought mainland Japan within reach and enabled the delivery of two atomic bombs in August of 1945. Over time, the islands have been transformed, sought after, won over, burned, and re-seeded, their historic significance preserved, to varying degrees. We set out to ask, how do present-day ecologies hold stories? Why are secluded limestone cave hideouts now tourist attractions? Why do some sites get historic landmark distinctions, while others do not?

In May of 2024, our team of four landscape architecture students sought to answer some of these questions by embarking on a comprehensive exploration of eight diverse sites crucial to WWII, both terrestrial and submerged, spanning four islands in Japan and the CNMI. This extensive undertaking was driven by our collective interest in different aspects of landscape architecture, with each member contributing a distinct perspective to our research. We compared the sites in pairs, creating a framework that enabled us to view the archipelagos in dialogue with one another while maintaining their disparate parts. Each chapter synthesizes ideas around preservation, ecological systems, access, ruination, and spirituality by comparing two sites, one from Okinawa Prefecture and one from the CNMI. This framework allows for new ways to interpret the sites’ historical contexts, spatial forms, and presence within urbanized contexts. The sites are:

The Former Japanese Navy Underground Headquarters (Okinawa, Okinawa Prefecture): A subterranean bunker dug deep into a mountain to withstand unrelenting bombing by Allied Forces, this site provides insight into the military infrastructure established by Japanese forces during the war, highlighting the strategic importance of these islands.

Last Command Post (Saipan, CNMI): Situated on the northern end of Saipan—settled in a matrix of memorials to the events and consequences of

Fig. C1. (Left) Looking out over Tinian on the 10-minute flight back to Saipan.



Fig. C2. Map of visited sites across Okinawa and Iejima.

the war—along the road. The site houses a staged collection of artifacts from the war and comes to symbolize the end of formal battle on the island.

Shuri Castle (Okinawa, Okinawa Prefecture): A symbol of Okinawa's resilience, Shuri Castle's reconstruction following its leveling during the war represents the enduring cultural identity of the Ryukyu Kingdom.

Japanese Jail (Saipan, CNMI): Located in Saipan, this site reflects the harsh conditions of wartime imprisonment, the preservation of ruins by the local government, and the complex interactions between occupying forces and local populations.

Niya-Thiya Cave (Iejima, Okinawa Prefecture): Also known as *Sen-nin Gama*, this cave on Iejima served as a shelter for locals during intense bombing raids, symbolizing the intersection of survival and spirituality in Okinawan culture.

Dump Cove (Tinian, CNMI): Located on Tinian, this underwater site is a repository of discarded wartime materials, now transformed into a marine sanctuary. The cove illustrates the blend of history and natural reclamation.

Iejima Auxiliary Airfield (Iejima, Okinawa Prefecture): A military airfield built during WWII,

this site on Iejima played a key role in the U.S. military's operations in the Pacific.

North Field (Tinian, CNMI): Located on Tinian, North Field was the departure point for the B-29 aircrafts that dropped the atomic bombs on Hiroshima and Nagasaki. This site underscores the far-reaching consequences of the war and its role in shaping modern history.

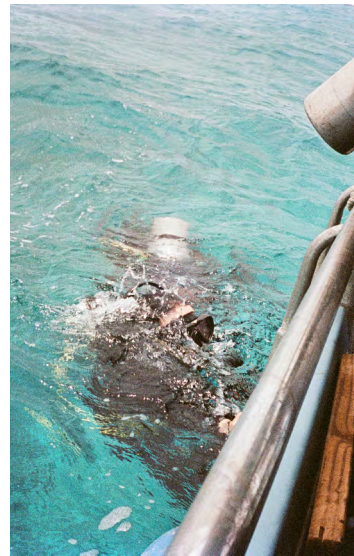
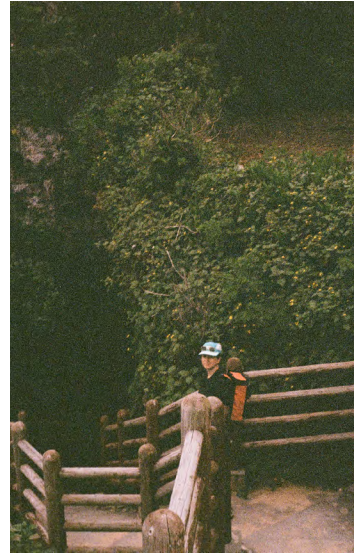
These sites provide a descriptive lens into some of the Pacific Theater's landscapes, each offering unique insights into the complexities of war and the ways in which history is preserved and remembered. While we focused on these regions due to their critical role in the outcome of WWII, they all have long and complex colonial histories that both precede the war and bleed into its legacies.

Okinawa Prefecture, once the independent Ryukyu Kingdom, was annexed by Japan in 1879. After WWII, it was placed under U.S. administration as part of the United States Civil Administration of the Ryukyu Islands (USCAR). The Okinawa Reversion Agreement, signed in 1971, marked the end of the U.S. administration and the repatriation of Okinawa Prefecture to Japanese sovereignty. This agreement aimed to address various issues related to U.S. military presence and local governance, including the reduction of U.S. military operations on the island.

Saipan, the largest island in the Northern Mariana Islands,



Fig. C3. Map of visited sites across Saipan and Tinian.



Figs. C6-13. Photos of team members engaging in various fieldwork activities across the archipelagos.

was first colonized by Spain in the 16th century. In 1899, it was transferred to Germany following the Treaty of Berlin. After World War I, the islands came under Japanese control via the South Seas Mandate. Following WWII, the U.S. administered the Northern Marianas as part of the Trust Territory of the Pacific Islands until 1978 when they achieved Commonwealth status. Tinian, another key island in the Northern Marianas, shares the same colonial history. Despite their seemingly peripheral position and minute scale, the CNMI and Okinawa Prefecture were vital for the U.S. military's victory in the Pacific Theater.

Because Okinawa underwent extensive reconstruction after WWII while development projects on Saipan and Tinian were limited to military bases, we hypothesized we would find a different relationship between the sites and their urban contexts on each archipelago. While the two archipelagos were connected through geopolitical moves at the end of WWII, we wanted to explore how material discrepancies reflected the divergent but related social realities that emerged after the war. Our initial goal was to examine how postwar landscapes are active in shaping the contemporary social fabric of the islands and the spatial ties that knit them together.

As a group, we documented sites through photography, 3D scanning, sketches, and audio recordings. We cataloged plant communities, site materials, and boundaries. The content of this anthology is the result of our personal and collective experiences of the landscapes we visited. We

shared sketchbooks and ideas as we traveled. Each chapter combines our findings from the field with historical context to build a framework and narrative to understand the contemporary states of each site.

This work is not a comprehensive comparison of the two overall archipelagos. Instead, we have chosen to focus on two sites across each island, utilizing them as an optic that offers a glimpse into the complicated and diverse postwar milieus of the Pacific. By comparing seemingly distant locales, we try to draw new understandings of what postwar landscapes are and how they operate.

The gravity of the sites we visited are not forgotten, and the histories they hold palpable. We orient our description and analyses of these places according to the stories that were shared with us by locals and acknowledge the limitations we have as visitors. Given the subject matter, some written and visual content in this book may be difficult or emotionally charged, especially for those with personal or ancestral ties to these places. While we approach this history with care and respect, we do not shy away from its complexities. Our intention is to present these landscapes and their layered histories as they are, recognizing that war, occupation, and survival leave lasting marks that continue to shape daily life. We strove to select content that was both truthful and respectful, avoiding the dangers of both aestheticized fetish and the sanitization of history. Our work—a deep digestion of place, preservation, empire, and conflict—is ongoing.

A TIMELINE OF RUINATION
across Saipan, Tinian, Okinawa, and Iejima

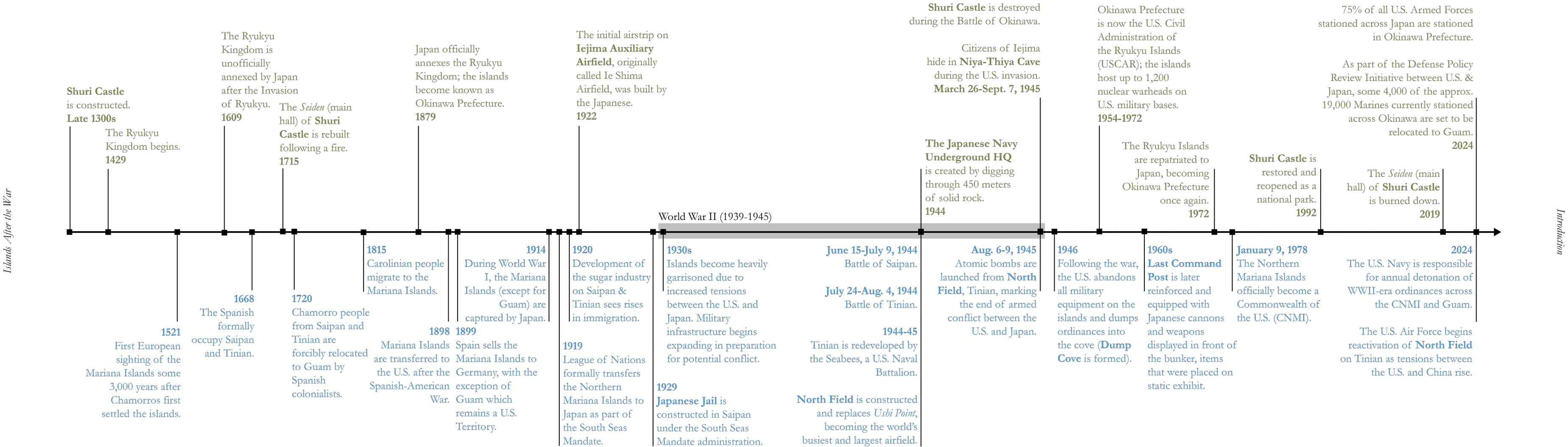


Fig. C4. Split timeline looking at the Mariana Islands and Okinawa Prefecture beginning in the late 1300s.

FIELDWORK ITINERARY
across Saipan, Tinian, Okinawa, and Iejima

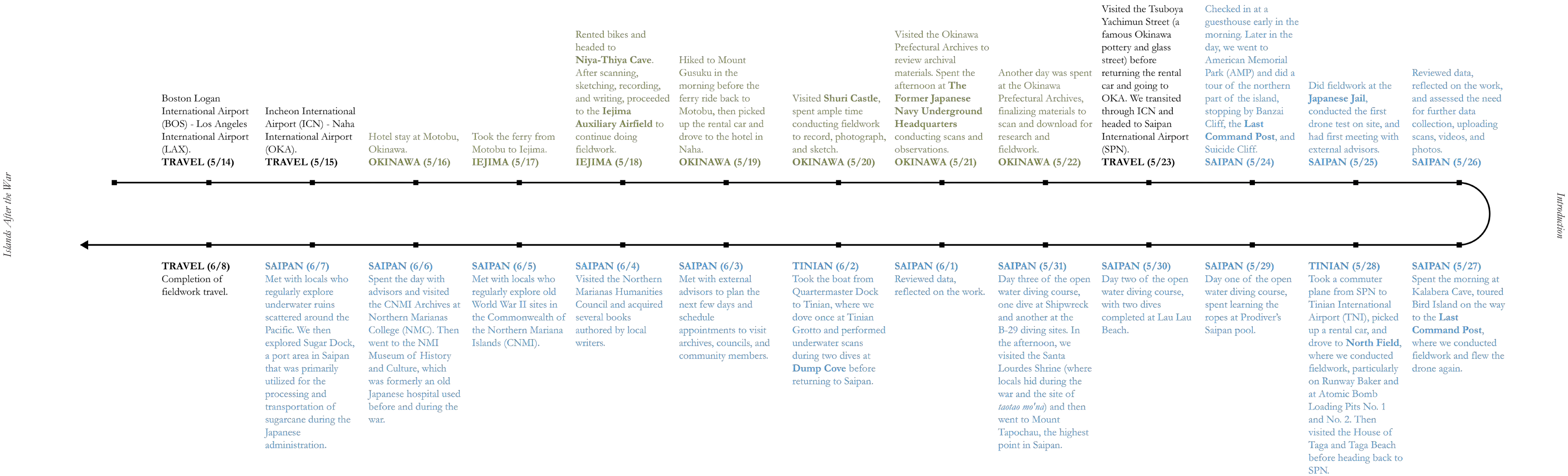


Fig. C5. Itinerary of our fieldwork from May-June 2024.



CHAPTER 1: BUNKER DOWN

By Carlo Raimondo

This chapter juxtaposes two remnants of Imperial Japanese military infrastructure built during World War II: the Former Japanese Navy Underground Headquarters on Okinawa and the Last Command Post on Saipan. As components of Japan’s military build-up during the war, both sites offer distinct expressions of repurposing in their contemporary contexts. While each retains symbolic associations with the conclusion of official armed conflict on their respective islands, their current roles as historic war sites prompt critical questions about how, what, and where history is told.

Contrasting their intended military use with an emergent postwar memorialization, the sites are utilized as case studies through which postwar realities on both islands can be examined. Using their juxtaposition to explore discrepant responses to the effects of the war waged, the pairing of these sites functions as a binocular through which the concept of postwar landscape vernaculars

can be identified and explored. This chapter examines the relationship between modes of a broader postwar development project in the Pacific, as it relates to the register of ruins across these islands. Seeking to contextualize them, the chapter draws discrepancy between the historical production of a landscape as postwar and its contemporary operation as such.

The Production of Ruins: Okinawa

Codenamed Operation ICEBERG, the land-based assault on and of Okinawa by Allied forces commenced on April 1st, 1945 and lasted 85 days (see Figure 2). One of the bloodiest and most destructive battles during the Pacific Theater, there were a reported 100,000 Japanese and 50,000 Allied casualties. Stuck between warring sides, an additional one in four Okinawans were victims of the crossfire.¹

Leading up to the initial amphibious assault, continuous shelling and aerial bombardment by Allied forces between March 21st to 31st—a ten-day period known by Okinawans as the *Tetsu no Bōfū* (“Typhoon of Steel”)—was aimed at softening the coastal defenses of the Japanese Imperial Army (see Figure 3).² Saturating the island edges with destruction, the Allied forces launched up 25 rounds per 100 yards² (83.61 m²) of ground as far as half a mile (804.7 m²) inland, reducing much of the coasts to a pockmarked, rubble-laden landscape (see Figures 4 & 5).³

Fig. 1. (Left) View of Last Command Post from a drone flying above displays a seemingly lacking curation of post war remnants.



Fig 2. Map displaying the successional encroachment of Allied Forces following the initial invasion of Okinawa.

Camouflaged subterranean shelters and bases were built in response to these assaults, by soldiers and civilians alike, as much of the existing infrastructure and shelter had been decimated. Constructed not only to avoid, but endure, the aerial assaults of Allied planes, military infrastructure like the Underground Japanese Navy Headquarters drew out the conflict on the southern end of Okinawa. The headquarters, located in *Tomigusuku*, operated as the Stronghold of Rr. Admiral Ota and the 4,000 Japanese naval officers who sought to defend the southern peninsula of Oroku from American encroachment in the final days of battle on the island.⁴

Dug from soft limestone geology in 1944, the excavated tunnels reach 65.62 ft (20 m) deep and 1,476.38 ft (450 m) long (see Figure 6). Strategically situated on *Hibanmui*, where a fire beacon for incoming ships during the Shuri Dynasty was located, the headquarters provided a tactical overlook of the coast and bay and allowed for the defense to the Oroku Naval Airfield below. Seeking to defend the southern peninsula of the island from capture by Allied Forces, the naval base was one of the final strongholds of Japanese forces. As the fighting dragged on many officers died in the tunnels of illness and injuries sustained during the bloodshed. Following the surrender of Imperial Japanese forces in Okinawa, Rr. Admiral Ota and many of his remaining men committed suicide in the tunnels.⁵

After the war ended in 1945, General Douglas MacArthur led the U.S. occupying forces in the enormous task of



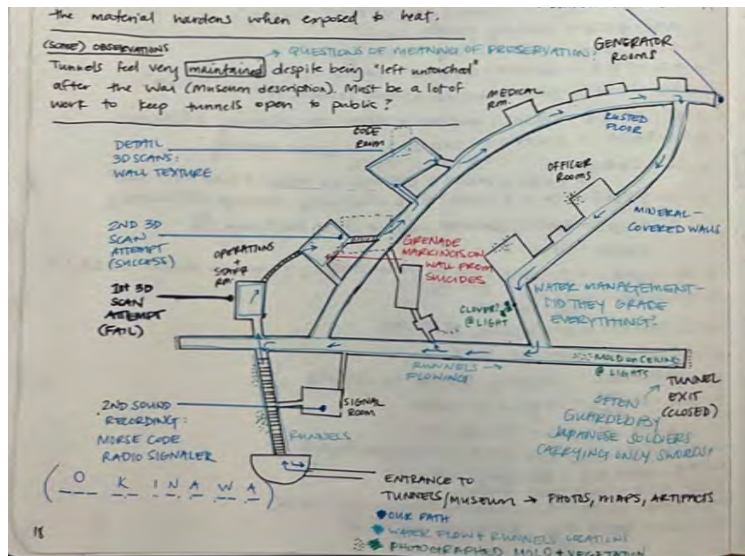
Fig. 3. (Above, left) B-29 planes from the 500th BG dropping bombs on Japan.

Fig. 4. (Below) The crater laden landscape, made by unrelenting Allied bombing, fills with water after monsoon rains.



reconstructing both the Ryukyu Islands and Japan as a whole. The U.S. confiscated from Okinawan landowners approximately 42,000 acres of land, without compensation, to house an extensive military buildout. Due to this destruction and dispossession, thousands of Okinawan refugees were relocated to military-run camps for the first year and a half following the war.⁶ Many of the interred served as a labor force for the reconstruction project and were paid in rations of food, medicine and clothing (see Figure 7). Notably, an economic crisis in the aftermath of the war ignited new concerns about the emergence of communism in the area, and as a result, efforts to jumpstart the Japanese economy became a major focus of the redevelopment project.⁷

Fig. 5. (Above, right) American Soldiers bathe in a water-filled crater, created by artillery fire.



Amidst this, Okinawans abroad, particularly in Hawai'i, Southern California, and South America, partook in extensive crowdsourcing initiatives, gathering money, clothing, medicine, supplies, and even livestock to aid in the reconstruction process.⁸ To fulfill their own goals, the U.S. occupiers capitalized on this movement by providing means to transport the supplies from Hawai'i and the continental U.S. to Okinawa (see Figure 11). Goodwill efforts like this were part of a soft power initiative that helped ease public opinion of American military presence in Okinawa and assisted in the prolonged U.S. Cold War operation in the region.⁹ This networked movement reinvigorated a cultural identity for Okinawans abroad seeking to reconnect with their cultural homeland. Such drives for

Fig. 6. (Above) Annotated sketch of the subterranean corridors of the former naval headquarters.

cultural reconnection, in the wake of Japanese assimilation practices, also served Okinawa's colonial occupiers both past and present.

Utilizing Okinawa as a sort of territorial casualty, both the U.S. and Japan accentuated the cleaved relationship between Okinawa and its colonial mainland as justification for the continued American occupation of the Ryukyu Islands following the San Francisco Deal of 1951. Decreasing concerns of a remilitarized Japan saw the re-establishment of Japanese sovereignty and the easement of U.S. occupation, as American imperial presence receded to Okinawa and a few remaining military bases on Japan's mainland.¹⁰



Fig. 7. An Okinawan woman named Yukiko (seated) works at a refugee camp registering civilian women.



As a result, the U.S. military established the United States Civil Administration of the Ryukyu Islands (USCAR) to govern and help develop the economic and social well-being of the Ryukyu Islands, including Okinawa, back to its prewar state. The standard of this redevelopment, however, was defined and set by the limitations of military need, and by extension, was not supposed to bring financial burden to mainland U.S. While USCAR sought to develop democratic American tenets by establishing the Government of the Ryukyu Islands (GRI) in 1952, consisting of legislative, administrative, and judicial branches, the administrative authority of said government was superseded by the discretion of the U.S. military (see Figure 10).¹¹ In turn, initiatives that promoted facets of indigenous Okinawan

Fig. 8. (Above) "Who Will Rebuild Japan?" propaganda leaflet. These leaflets were air dropped over Japan to pacify soldiers, while centering the Japanese public as the main prospective labor force during reconstruction.



Fig. 9. "Road to a New Life" propaganda leaflet, features an illustration of a Japanese family looking on at a rebuilt Japan, with war paraphernalia discarded behind them.



culture, like music and dance, were used to reinspire an embodied distinctness amongst a public that preferred repatriation to Japan over U.S. military occupation.¹²

The emergence of Okinawan and Okinawan-American identities in the postwar period were significantly informed by these supposed goodwill efforts that enabled the continued presence of U.S. forces in the Pacific (see Figure 11), who had become concerned with an outward expansion of communism in the Asia-Pacific region. This cultural diplomacy was utilized by the U.S. to minimize the explicit irony of an American Imperial presence that was interested in promoting the tenets of democracy against an encroaching Red Scare.¹³

Fig. 10. (Above) The early onset reconstruction of Awase Airfield on Okinawa, reflected the political and military priorities of American occupiers more than Okinawan resident.



Fig. 11. The USS Owen transports pigs to Okinawa. Okinawans in Hawai'i raised more than \$50,000 within six months, shipping 550 pigs from Omaha, Nebraska.



Fig. 12. Collection of military visitor handbooks on Okinawa. Red (1958), Yellow (1961), White (1953-1955).

The task of promoting American ideals in the Asia-Pacific region centered on the Americanization of these newfound territorial economies, through the development of a tourism industry as a mode and means to reconstruction. Postwar American military enlistment became an initial means to jumpstart this economy. Through circulated pocket guides (see Figure 12), the Department of Defense advertised military service in the Pacific as a form of tourism on the government's dime.¹⁴ The opportunity to become a world traveler allowed for the conflation of military service as a working holiday. However, social, and economic realities born from the war contrasted with military marketing, as the conflict-torn islands lacked any amenities or leisure opportunities (see Figure 13).



Fig. 13. A man sows fertilizer in a sweet potato field in front of Sugar Loaf Hill, Okinawa. Behind him an abandoned tank sits in the field.

The condition and appearance of Okinawa began to change following the establishment of USCAR, which mandated the economic and political improvement of the island. Military veterans and their families became the first demographic of potential tourists advertised too.¹⁵ The establishment of GRI marked a shift in the expansion of tourism beyond military personnel, their families, and other social clubs.¹⁶ Efforts by the GRI and U.S. military were taken to accentuate not only significant sites of the battle, but the other natural and cultural assets as well.¹⁷

Amid this push for an infrastructural restoration of the island, efforts to clean Former Japanese Navy Underground Headquarters, which had remained untouched since the war, began in 1956 with the removal of human remains and wartime refuse. Opened to the public in 1970 as a museum and monument dedicated to world peace and the “futility of war,” it endeavors to express the cost put upon the Okinawan people during the battle, one that is still felt to this day.¹⁸

While formal U.S. governance of Okinawa lasted until 1972, upon its reversion back to the now sovereign Japan, a lasting and extensive U.S. military presence speaks to a continued legacy of American occupation of Okinawa (see Figure 14). This continued presence has caused a shift in Okinawan perspective as the tourism industry no longer registers contemporary military sites as attractive components of the island. Many Okinawans remain

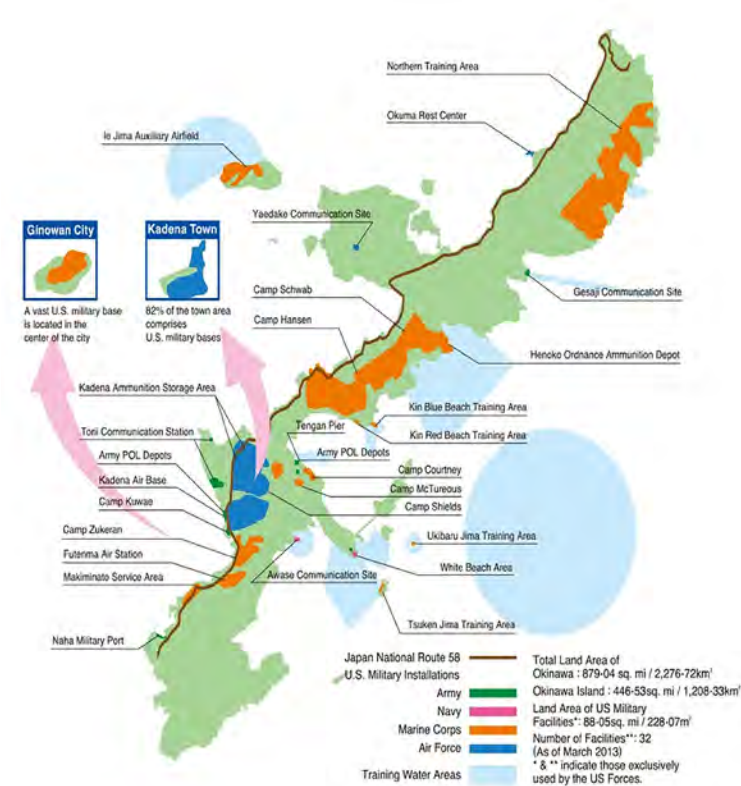


Fig. 14. U.S. militarization of Okinawa.

antagonistic towards American presence due to the crimes committed by the U.S. personnel and their dependents.¹⁹ The prevalence of American military operations on the island worries residents, who are concerned that the continued militarization of the island makes it a target for future war.

...and Saipan

Starting on June 15, 1944, 127,000 armed U.S. soldiers brought conflict to the shores of Saipan (see Figures 16 and 17). Lasting until July 9, the battle over the island was a key component of Operation FORAGER, a U.S. Military campaign which sought the capture of the Japanese-occupied Mariana Islands (see Figure 15).²⁰ Caught between warring sides, Chamorro (CHamoru), Carolinian, Korean, and Okinawan civilians struggled to survive during the onslaught (see Figure 18). After one of the most violent battles during the Pacific Theater, the Allied force’s capture of the Mariana Islands marked a turning point in the war against the Japanese Empire. Allied occupation of Saipan, and the neighboring Tinian, signified the penetration of Japan’s external defense. Now within the range of strategic aircraft bombing, the mainland of Japan experienced extensive bombardment with 27,621 B-29 raids occurring.²¹ The atomic bombs, which were responsible for the surrender of Imperial Japan, would eventually be launched from Tinian in August of 1945. The Last Command Post,

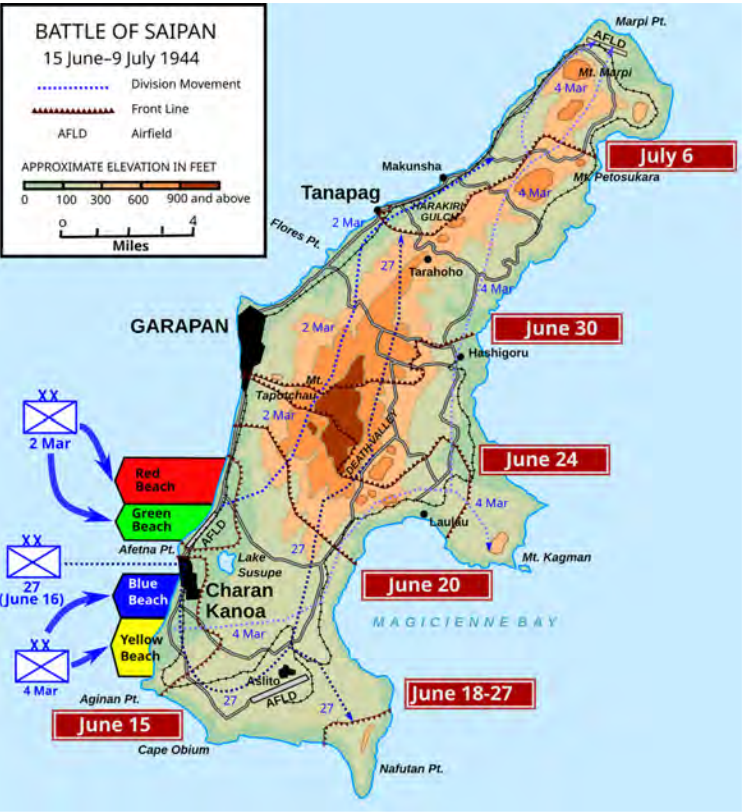


Fig. 15. Map detailing Allied Invasion of Saipan.

a defensive bunker, located in what would later be called Marpi Point (see Figure 20), marks the site of multiple formative events following the battle.

While not definitively the true final point of Japanese defense on Saipan, the Last Command Post is in fact an artifact of the final pockets of the Imperial Japanese resistance on the northern point of the island prior to its complete capture. Expanded from a natural cave, this structure represents a grander vernacular of shelter that civilians and soldiers alike relied on during the war. Located just off Route 30 (see Figure 25), the defensive bunker was an infrastructural feature of a larger airfield complex that was still under construction upon Saipan’s



Fig. 16. (Below, left) Decimated beach following amphibious assault of Saipan.



Fig. 17. (Above) Coast guardsmen recoils from an explosion going off during invasion of Saipan.
Fig. 18. (Below, right) Okinawan civilians leave a cave, led by U.S. Marines.

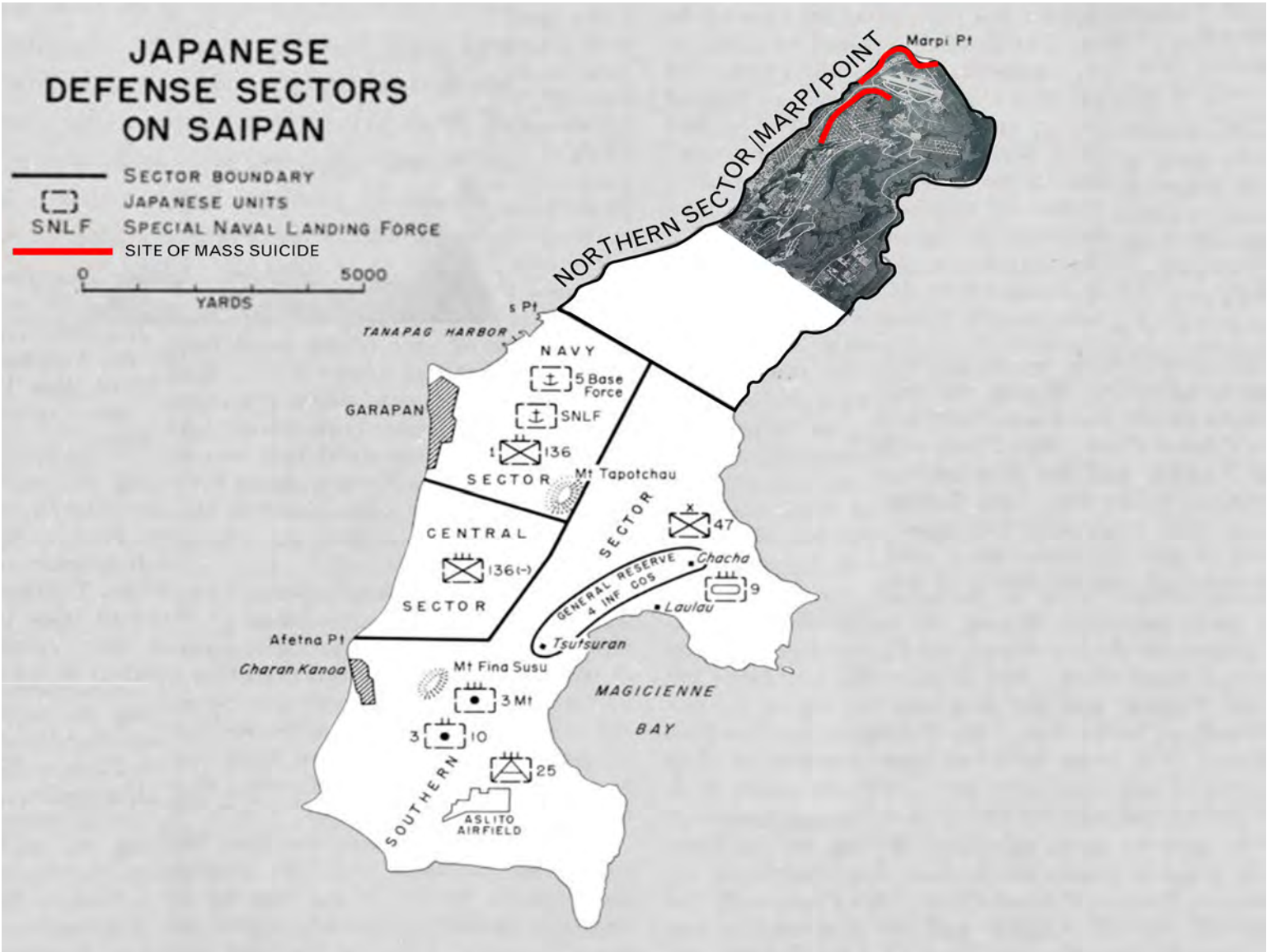


Fig. 19. Map of Japanese Defense Sectors. Overlaid with aerial imagery of Marpi Point, highlighting the documented sites of mass suicide located at the northern tip of the island.

assault and capture by Allied Forces. During this initial occupation, the incomplete airfield and adjacent infrastructures made Marpi Point a sensible focal point for Allied military operation. Capitalizing on this existing Japanese infrastructure, the 51st Naval Construction Battalion (Seabees) rebuilt many of the Japanese airfields, like Marpi Point (see Figure 19), from which the lethal U.S. B-29 bombers took off from.

Now overgrown, the connection between the bunker and a larger airfield infrastructure goes unseen (see Figure 21). The site is now flanked by multiple memorials that mark the extreme loss of human life during the fighting, including a mass suicide that punctuated the capture of



Fig. 20. Commemorative Plaque marking Emperor Akihito's visit to the Island. Poems dedicated by the Emperor and Empress honor the Japanese lives lost.



Saipan by Allied Forces. Following days of gruesome battle, Japanese soldiers, losing ground, circulated propaganda pamphlets that detailed the torture and dehumanization that island residents would face under the eventual control of American troops. Many Japanese soldiers, Okinawan farmers, and indigenous residents, fearing this outcome, leapt from the overhanging cliffs on the northern tip of the island (see Figures 19 & 22).²² The memorials dedicated to them mark the ground where many leapt from.

Three years after the battle's conclusion, a United Nations charter afforded a trusteeship of Micronesia to the United States (see Figure 24) under the agreement that it would help further the political and economic development of

Fig. 21. (Above) Abandoned Marpi Airfield overgrown with vegetation.
Fig. 22. (Right) Suicide Cliff at Marpi Point.





Fig. 23. Destroyed sugar factory following the battle of Saipan. During Japanese occupation of the island sugar was the dominant economy.

of an American character and livelihood, which the U.S. recognized as the arbiters of modernity.²⁴

Multiple projects were designed to jumpstart the agricultural sector of islands like Saipan to various but mostly unsuccessful results. Where an imported labor force of Okinawan farmers fueled much of the Japanese agricultural success in the islands, their eventual repatriation after the war prompted an absence of labor that could not be filled by the indigenous residents. The priorities of Chamorro people at the time conflicted with the American tenet of capitalistic growth. This attempt at agricultural industrialization conflicted with the priorities of a demographic still recovering from the violent bombardment of their homeland.²⁵ Additionally, while initial cleanup efforts relied on interred Okinawan, Japanese, and Korean people, their eventual repatriation resulted in a lack of available labor for the cleanup process.²⁶

Central to the redevelopment project, the cleanup and revitalization of the island facilitated the replacement of one military presence (Japanese) with another (American). The establishment of the Trust Territory of the Pacific (1947–1990) by the United Nations consolidated the Mariana Islands—along with other Pacific Islands incorporated into the Japanese South Seas Mandate (1919–1947)—under the authority of the U.S. Department of the Interior.²⁷ In 1952, Washington leveraged the strategic value of Saipan, Tinian, and the northernmost islands (see Figure 19) to reinstate naval rule over the

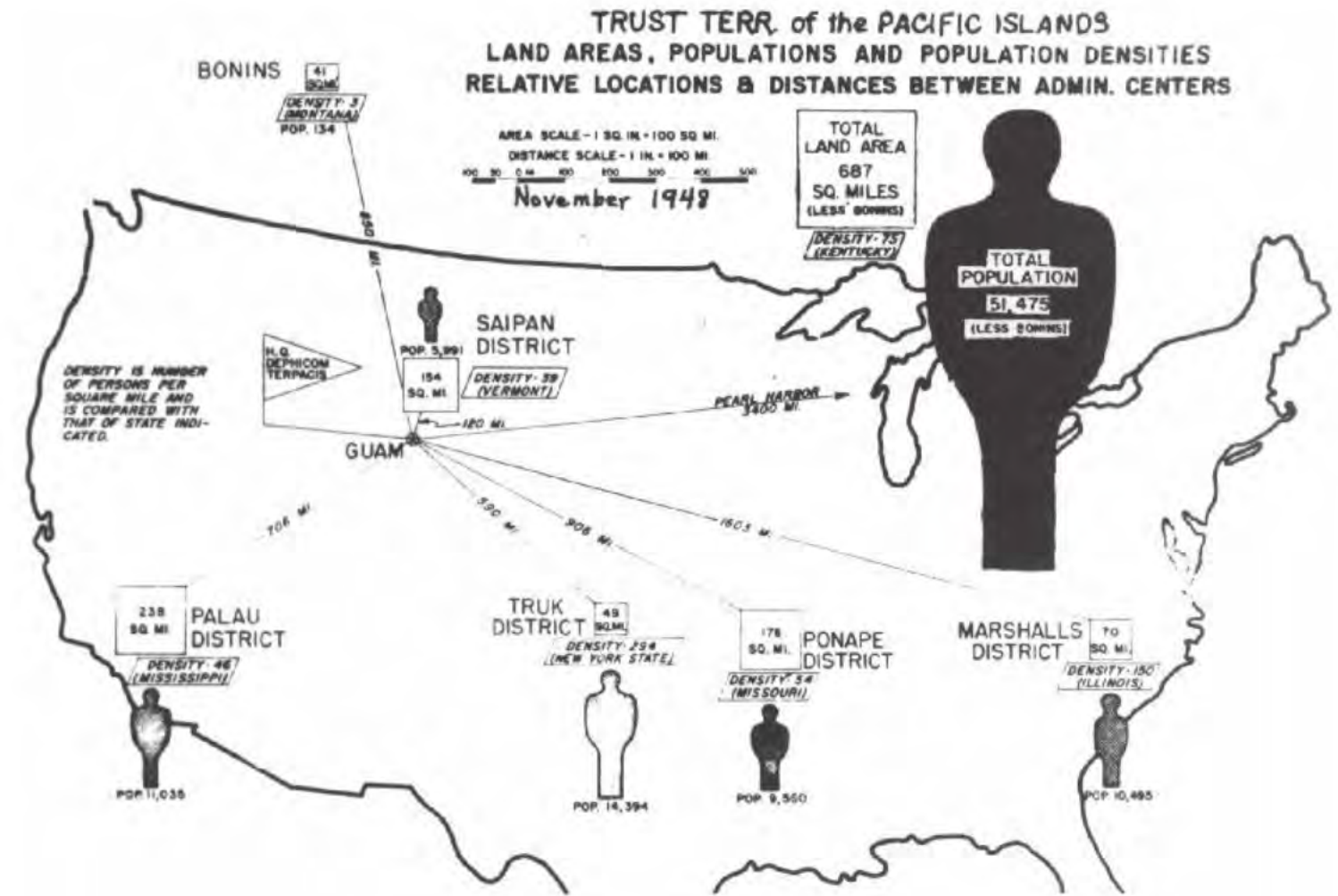


Fig. 24. Utilizing the U.S. mainland as a spatial delineation of scale, this map demonstrates the expansiveness of the newly acquired Trust Territories of the Pacific despite the islands' small terrestrial footprint.

Marianas.

The former Imperial Japanese military facilities at Marpi Point were then repurposed to house the Navy's Technical Training Unit (NTTU).²⁸ Operated by the CIA, the NTU served as a covert training facility for intelligence tradecraft, communications, counterintelligence, and psychological warfare. Tasked with priming anti-communist spies and guerrilla operatives as part of the CIA's Cold War operations in the "Far East," one of the facility's main objectives was to aid in the overthrow of the Chinese Communist Party and reinstate exiled president Chiang Kai-shek. When this plan was ultimately deemed unviable, the NTU was quietly decommissioned in 1962.²⁹

Due to the facility's secretive nature, stringent access controls were enforced throughout its operation. Visits to Saipan were restricted to those with security clearance, and the northern end of the island—where the NTU was located—was rendered completely inaccessible to residents. Nonetheless, residents of Saipan found ways to resist this social and spatial severing of the island. Surplus military munitions, artillery, and equipment stockpiled at Marpi Point gave rise to informal salvage economies, as residents snuck into the restricted area to harvest bronze, copper, and other scrap metal from the remnants of war.³⁰ This scavenging proved hazardous, however, as many died after accidentally triggering unexploded ordnances left behind after the war. With the return of public access to Marpi Point, a different form of postwar extraction emerged:

Japanese bone-collecting missions began retrieving remains from the caves along Saipan's northern coast for repatriation and funerary services.³¹ Today, the material legacy of this historical isolation remains visible in the stark contrast in infrastructural development between Marpi Point and the rest of the island.

After the NTU was decommissioned, the administrative authority reverted to the Department of the Interior, and the Trust's governing operations were subsequently transferred from Guam to Saipan, as the now-vacant naval facilities became the headquarters for the Trust Territory. As a result, Saipan was designated the provisional capital and political hub.³² This shift in the location of governance led to greater economic development of Saipan in contrast to the other incorporated islands. As byproducts of the NTU operation, larger military populations, paired with arrival of Peace Corps volunteers in the 1967, brought forth more thorough importations of American worldviews to the island. This took the form of redevelopment and educational projects that Chamorro and Carolinian residents, many of whom would later serve as middle managers and administrators in the Trust government, initially welcomed. Following the Covenant between Saipan and Washington D.C., which secured U.S. citizenship and political-economic association for Saipan's indigenous residents in 1975, a new government for the Commonwealth of the Northern Mariana Islands (CNMI) began operations in 1978. Incorporating Tinian and Rota, the agreement ensured that indigenous residents retained



Fig. 25. (Above) Overlooking war memorials and the Last Command Post—now part of a larger Peace Park dedicated to those who died during the war—that flank the cliff side. Fig. 26. (Below) Ground view of Last Command Post.

sole land ownership rights, while the U.S. government was given access and use rights of any islands it deemed essential to regional defense operations.³³

From 1978 to 1999, a tourism boom primarily fueled by Japanese visitors prompted the extensive construction and establishment of hotels, golf courses, restaurants, dive shops, and duty-free stores.³⁴ The establishment of war memorials that continue to frame the Last Command Post—dedicated to the Japanese, Okinawan, and Korean people who lost their lives on Saipan during the battle—demonstrates the power behind East Asian tourism during this period. In contrast, the first American monument for the war would not be established until fifty years after its conclusion.³⁵ Numerous global and regional crises such as the Japanese economic collapse of 1997, the Asian Economic Crisis of 1997, and the Covid-19 pandemic, have prompted a long successive decline of tourism on Saipan, that has had grand implications for the island's economy.³⁶

Geologies of War

Located 1,346 miles (2,195 km) apart, the islands of Okinawa and Saipan are small landmasses within larger island arcs that frame the northwestern and eastern edges of the Philippine Sea (see Figure 27). These arcs—comprising the Ryukyu and Mariana Islands—mark the boundaries of the Philippine Sea Plate. Both island chains are the surface expressions of underwater ridges formed through tectonic convergence, a geological process known as subduction, in which a denser oceanic plate is forced beneath a lighter one. This collision creates an arc-trench complex, characterized by volcanic island arcs and deep-sea trenches.³⁷ As one plate descends into the mantle, it forms deep oceanic trenches that run roughly parallel to the island arcs. Among the most significant of these is the Mariana Trench, located within the Mariana arc, which contains the deepest known point on Earth.³⁸ This subduction also contributes to the fragmentation of larger tectonic plates, giving rise to smaller ones. The Ryukyu Islands emerged from the subduction of the denser, older Philippine Sea Plate beneath the lighter Eurasian Plate, a process that also led to the formation of the Okinawa Plate.³⁹ In contrast, the Mariana Plate is believed to be a fragment of the Philippine Sea Plate that broke off due to volcanic activity caused by the Pacific Plate's subduction.

Despite their distance, Okinawa and Saipan share striking



Fig. 27. Geological context of the Mariana and Ryukyu Islands.

geological similarities. Both archipelagos consist largely of limestone formed by the accumulation of dead coral and other marine organisms over millions of years, during periods of higher sea levels (see Figure 29). This pervasive limestone substrate not only defines the physical character of the islands but also informs their material cultures. In Okinawa, limestone was used extensively in the structures and retaining walls of Shuri Castle. In the Marianas, it was used to carve *latte* stones—megalithic pillars central to traditional Chamorro architecture.

The islands' shared tropical climate and limestone composition have also produced similar karst landscapes, marked by the presence of caves and subterranean formations throughout both archipelagos. These geological conditions profoundly shaped the conduct of WWII in the region. The abundance of limestone provided a relatively soft and workable material that enabled the excavation and concealment of defensive infrastructure (see Figures 28 & 29). In this way, geology acted as an enabling force—facilitating both the construction of wartime installations and the prolonged nature of the conflict. Defending Japanese forces constructed concealed bunkers and bases, camouflaged by these islands' natural, rocky facades. Both the Last Command Post and the Former Japanese Navy Underground Headquarters tunnels demonstrate a formalization of the bedrock once jagged and porous in its natural state—now smoothed, buttressed, and built out with concrete and wood (see Figures 30 & 31). Excavated with only pickaxes and farm tools, the extensive



Fig. 28. One of the many side entrances of Rr. Admiral Ota's underground headquarters.

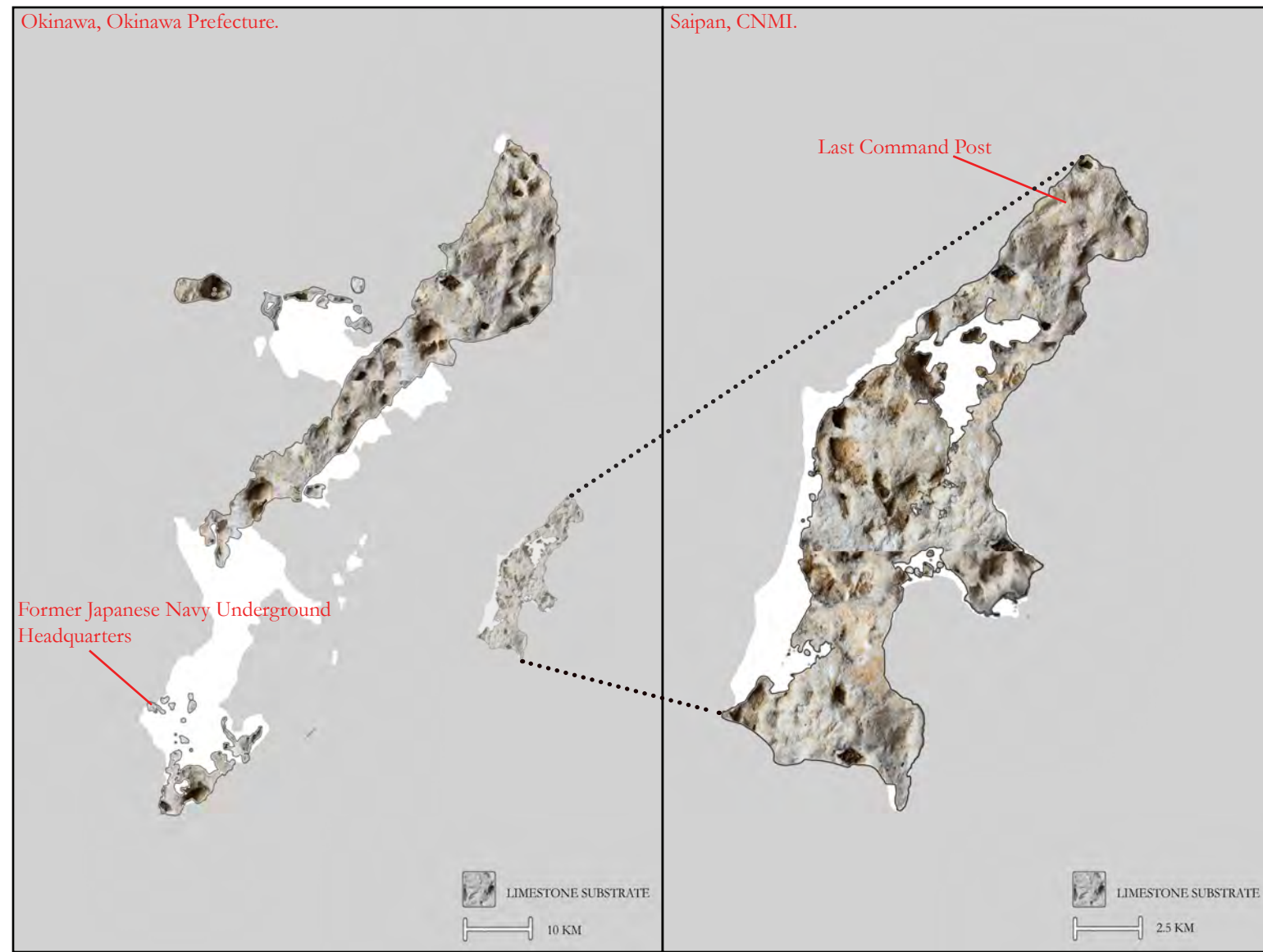


Fig. 29. Map of the dominant limestone geology across the islands of Okinawa (left) and Saipan (right).

construction of the tunnels on Okinawa exemplifies this malleability at its most extreme. Constructed to withstand Allied bombardments coming from the recently captured Saipan and Tinian, the material composition of the land allowed for the excavation of this extensive piece of infrastructure in a relatively short amount of time. Descending 65.62 ft (20 m) down from the peak of the hill it is located on, The Former Japanese Navy Underground Headquarters is made of a network of rooms and circuitous corridors spanning 1,476.38 ft (450 m) (see Figure 6), many of the walls and ceilings of which retain the cross hatched patterning of the tools that dug them. With carved steps, runnels, and smooth curved ceilings, the facility possesses a degree of intricacy that would seem indulgent had the material in question been harder to excavate. While bomb-proof infrastructure was certainly a necessity for war, the means of achieving and securing this provision seems entirely contingent on the material reality of the island.

In contrast to the tunnels, which are entirely excavated, the Last Command Post integrates a pre-existing geological formation—extending and formalizing a natural cave set into the base of a limestone cliff (see Figure 32). Entering through a low opening, visitors crouch beneath the rock before emerging into a larger, concrete-walled chamber. While its original, prewar condition can only be speculated upon, the space—whether the interior itself or an adjoining structure—was clearly designed to remain concealed. The gray concrete blocks, likely



Fig. 30. The tunnel walls in the Former Japanese Navy Underground Headquarters retain signatures of the labor that was needed to excavated them.



composed of the same local limestone, are crafted to visually merge with the surrounding rock. Narrow on the interior and widening outward, the square window slits were engineered to maximize outward visibility and firing range while minimizing the exposure of those inside. The roof is further camouflaged by brush and small trees growing directly atop it, blurring the distinction between natural terrain and human-made construction. Vegetation adapted to porous cliffs and karst outcroppings does not differentiate between natural limestone and concrete made to imitate it.

The prevalence of these caves allowed Japanese holdouts to remain hidden from U.S. forces even after WWII had officially ended (see Figure 32), with some Japanese soldiers on Saipan surrendering as late as three months after the formal surrender on September 2, 1945.⁴⁰ Caves were also used as shelters by civilians caught between warring sides, many of whom remained hidden long after the battle ended. Both Kalabera Cave on Saipan and Niya-Thiya Cave on Iejima sheltered hundreds of people during the fighting. While these geological formations safeguarded many, their indistinct appearance within the landscape meant that hostile forces—regardless of allegiance—could be lurking just out of sight. As a result, many civilians and soldiers alike met their end in these caves, often indiscriminately.

Today, many of these said caves operate as repositories of the battle. Individuals caught or killed within them were often left behind, their remains, if found, repatriated only

Fig. 31. Collage incorporating 3D scan and photography that shows the material, spatial, geological, and historic condition of Last Command Post.



much later. Many personal effects belonging to soldiers and civilians—ammunition, medicine, pottery, and other supplies—are still be observed inside these geological cavities across both the Mariana and Ryukyu Islands. The pervasiveness of these caves means that lost memories of a brief, yet traumatic chapter of these islands' histories are constantly being uncovered. Almost as if staged, the caves preserve scenes from the war, frozen in time. And yet, the continued presence of active explosives (see Figure 33), in particular, signals a lingering hostility that remains very much alive—one responsible for both the razing and the remaking of these islands.

War possesses its own geological signature. As humans

Fig. 32. (Above) U.S. Marines use mobile public address system to coax Okinawan civilians and Japanese Officers out of hiding on Tinian.

have become geological agents themselves, it is the exercise and performance of war that exert profound and lasting effects on the planet. The choreography of battles and other events in the Pacific Theater plays a significant role in the geological history of humankind. The culminating act of this war—the U.S. bombings of Hiroshima and Nagasaki (see Figure 34)—marks a public recognition of the transformation of human activity into a geological force, ushering in a new epoch: the Anthropocene.⁴¹ The devastation inflicted upon many Pacific islands, and the developments that followed, signal the emergence of a new geological condition. War and its instruments function as geological agents, reshaping land in ways comparable to the tectonic forces that gave rise to these islands millions of



Fig. 33. EODMU 5 Detachment Marianas helps dispose of ordnance found in cave in Saipan. (The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.)



Fig 34. Detonation of the atomic bomb over Nagasaki, Japan (1945), marked a global public recognition of humans as a geological force.

years ago. The bundled events of extinction, disturbance, reorientation, and introduction—across cultural, social, ecological, material, economic, and infrastructural dimension—carry geological implications that continue to unfold, still in a kind of infancy. As a result, these small, seemingly distant islands have become reconnected into a new landscape defined by war and its spectacle.

Field Notes: The Road to Laulau Leads to Lessons

Our second day of scuba diving starts early. After packing our dry bags with towels and fieldwork supplies, we exit the front of the house and are greeted by heavy, humid heat that seems inappropriate for the early hour. Today marks the first of seven dives we will complete in the surrounding waters of Saipan and Tinian to attain our certification. Uncles Jeon and Dong are prepping the equipment. Their almost identical pickup trucks are filled to the brim with oxygen tanks, wet-suits, snack-filled coolers, and water. These provisions signal the arduous but rewarding day ahead. The destination is Laulau Bay. Located on the eastern side of the island, this dive represents a first for many in the group, exploring the colorful reefs that encircle Saipan.

After driving for about 20 minutes, the asphalt turns to dirt, the road narrowing to a single lane as we descend toward the ocean. Emerging onto the beach, the truck rambles over

sand and rocks to an adjoining road leading back up away from the ocean. To access the dive point, we cut through the forest; the eroded and overgrown road here is almost indistinguishable to my unfamiliar eyes. As time passes, the drive becomes more abrasive. Tree branches reach out in front of the truck, scraping against the roof and windows. Large rocks and potholes jostle us in our seats, causing our heads to bob with the bumps, as soft Korean pop music plays from the radio. After driving parallel with the water for some time, we begin our descent again, the ocean now in view. Suddenly, and without warning, we came to an abrupt. Nowhere near the water, we look around confused. Is there something in the road?

A pointed finger directs our attention to the dry forest brush on our left. There, among the thicket of thin trunks, a concrete structure emerges. The remnants of an air raid bunker, now overtaken by the jungle, become distinct. What once could have been mistaken for a large boulder suddenly comes into focus. Uncle Jeon tells us a story of Japanese soldiers who hid there during the battle and the women who were held against their will. The brief anecdote leaves us wondering, and worrying, about what had taken place behind those cracked walls. His story reminds us that we packed our field notebooks for a reason. Despite the day being dedicated to the scuba diving certification process, we are still in the field. Contemplating this violent history and the remnants that conjure it, we continue our way to Laulau.



Aware of our research interests and goals, Uncle Jeon offers a different perspective on the island's landscape, one that, perhaps, he is attentive to when the need arises. I wonder how many times he has driven past the structure without much thought. Or about all the other divers who have made their way to Laulau along this road, did they notice it, or had it become so commonplace that it was invisible? If so, at what point did it sink into the background? And conversely, how and when does it make its presence known again? Was the bunker a landmark that helped divers like him know where they were going? Who knows. What it does reveal, however, is the commonplace quality of these ruins. Structures like this bunker exist in plain sight; they are not visually disruptive. The land itself houses many

Fig. 35. (Above) Dirt road framed by subsuming vegetation on Saipan.

bunkers, both literally and metaphorically. Their presence and the stories they contain come into focus only for those who know how and when to look for them.

Just off the Road

As symbols that embody the culmination of official armed conflict, the respective orientation and resultant choreographies of both the Last Command Post and the Former Japanese Navy Underground Headquarters demonstrate different responses to the events of the war and its retelling. In its most succinct sense, there is a superficial discrepancy between the hyperformalism of the Naval Headquarters that now operates as a museum, that contrasts the chaotic and dilapidated condition of the Last Command Post, which is a simulated scene of war and its aftermath. This discrepancy embodies divergent trajectories of postwar development between two islands with, not simply similar, but deeply interrelated wartime legacies.

The American novelist P.F. Kluge offered a striking description of Saipan's material reality during his time on the island as a Peace Corps volunteer in the 1960s. In a speech given at the 60th anniversary of the Battle of Saipan, he described the lingering presence of war in the landscape as being “just off the road,” waiting to be revealed by a storm's strong winds or by the curious observer who looks beyond the island's subsuming

vegetation.⁴² While Kluge's true intent is uncertain, the casual tone of his comments seems to resonate with many of the sites on the island. This quality—the presence of these remnants and detritus of the war—is not indicative of disregard or a downplaying of the conflict's impact. Rather, it suggests a kind of embodied mundanity.

Due to the sheer volume and range of wartime debris scattered across the island and in its surrounding waters, these remnants have become a naturalized feature of the landscape rather than discrete, extractable objects. Importantly, this sense of normalcy is not necessarily a sign of apathy, but rather a reflection of the social reality for the island and its residents. Years of monsoon rains and high humidity have left much of the material residue of war in a corroded, half-dissolved state. Entangled in jungle and vibrant vegetation, these artifacts melt into the landscape.

Acknowledging Indigenous cosmologies of the island—the inhabitation of *taotao mo'na*, or the spirits of Chamorro ancestors that reside in the landscape—may give insight into understanding the teetering condition of visibility and obscurity that postwar ruins possess.

As a spiritual feature and figure of the landscape, the *taotao mo'na* informs the means and mode of movement and access across the island. Their presence and participation in contemporary life demonstrate a confluence of present and past that contrast's notions of linear time. A sensitivity to the dead and their role in traditional Chamorro life is made



Fig. 36. Toki Sumang sitting on a cannon at Last Command Post in the 1970's following reinstatement of open access to the north end of the island.



Fig. 37. Repainted artillery features at Last Command Post begin to rust and chip in 2016.



Fig. 38. Weathered tank and artillery at Last Command Post during the summer of 2024. The cannons have undergone at least one more repainting since 2017.

more salient when one considers the violence and death that occurred during the Battle of Saipan.⁴³ As a result, the detritus of war, as a feature of the landscape, retains a sort of spiritual charge and makes it understandably difficult to engage with. Ruins and refuse are not simply remnants of that violence and death, but continuations of it. With that in mind, this argument should not be taken as a strict conflation between the presence of the *taotao mo'na* and the spiritual or social register of ruins. Rather, the former gives context to how these ruins of WWII might fit into a social and cultural reality on the island. Thus, ruins and wartime detritus saturate the milieu that is the island in a manner that makes people implicitly conscious of their presence while also rendering them indistinct.

The Last Command Post relates intriguingly to the “just off the road” sentiment that characterizes many ruins on Saipan. Situated quite literally just off Route 30—a road that many visitors cross after parking in an adjacent clearing the site, despite its dilapidated appearance, is highly curated. This intentionality is reflected in how many locals and long-time residents offhandedly refer to the site as fake. P.F. Kluge himself gestures toward this fiction when he refers to it as the “so-called” Last Command Post.⁴³ While the scattered artifacts and ruins may give the impression of a scene from the war that one might casually stumble upon, the site is marked by infrastructural embellishments that set it apart from other wartime remains on the island.

Individually, the objects are remnants of active battle;



Fig. 39. (Above) Japanese tourists pray at Banzai Cliff, Saipan.

Fig. 40. (Below) Recently constructed Okinawan Peace Memorial, Marpi Point, Saipan.

collectively, however, their assemblage is not. Though this constructed nature appears widely acknowledged, the deliberate act of assembling a ruin—on an island already saturated with them, and which could arguably be considered a ruin itself—reveals a distinct and active engagement with these socially charged residues of war. Moreover, how does the simulative quality of the Last Command Post reveal, in turn, fiction that reside within the broader network of ruins on Saipan? How can we, as witnesses in and of the landscape, recognize the continued presence of wartime refuse as more than mere inert or naturalized objects—no longer beyond scrutiny, but instead demanding critical attention?

In part, the simulated character of the Last Command Post suggests a latent utility embedded within these ruins. While the widespread presence of wartime debris across the island may be attributed to prolonged, under-resourced cleanup efforts, it also prompts questions about how such remnants are—and can be—mobilized to tell a story: how they participate in the narrative spectacle of war for those who encounter them.

Located along Route 30, the site functions as a marker of the broader culmination of fighting between Allied and Japanese forces on Saipan. It serves as much a monument to Japanese resistance as it does to Allied victory. Framed within the larger Peace Park—which includes Okinawan, Japanese, and Korean memorials—the Last Command Post reflects the influence of East Asian tourism at the time of

its establishment. Its designation as a national monument in 1985 further institutionalized war as a shared heritage of the island, the region, and the nation that claims them.

Field Notes: Descending the Stairs

The wipers glide fervently across the windshield as we drive up the hill. The rainy season has just begun in Okinawa, and the overcast skies, thick humidity, and unrelenting monsoon rains have made our experience of Naha City a wet one. Winding our way up the road, we pass an integrated collection of public spaces, parks, playgrounds, as well as a sporadic collection of *kamekoubaka*, a distinct tomb structure that is widespread across the Ryukyu Islands. The Former Japanese Navy Underground Headquarters, which now function as a museum, lie below this coalesced network. Swaths of permeable land give way to emergent vegetation of trees and greenery that rise above the surrounding concrete sprawl.

After parking at the top of the hill, we make a mad dash through the monsoon rain to the museum entrance. Cramming into an old revolving door that ushers us into a musty glass room, our shoes have become completely waterlogged in the few seconds between the car and the museum. Now shielded from the weather, we catch a panoptic fogged-up glimpse of the city that this facility once strategically overlooked. In front of us, a video

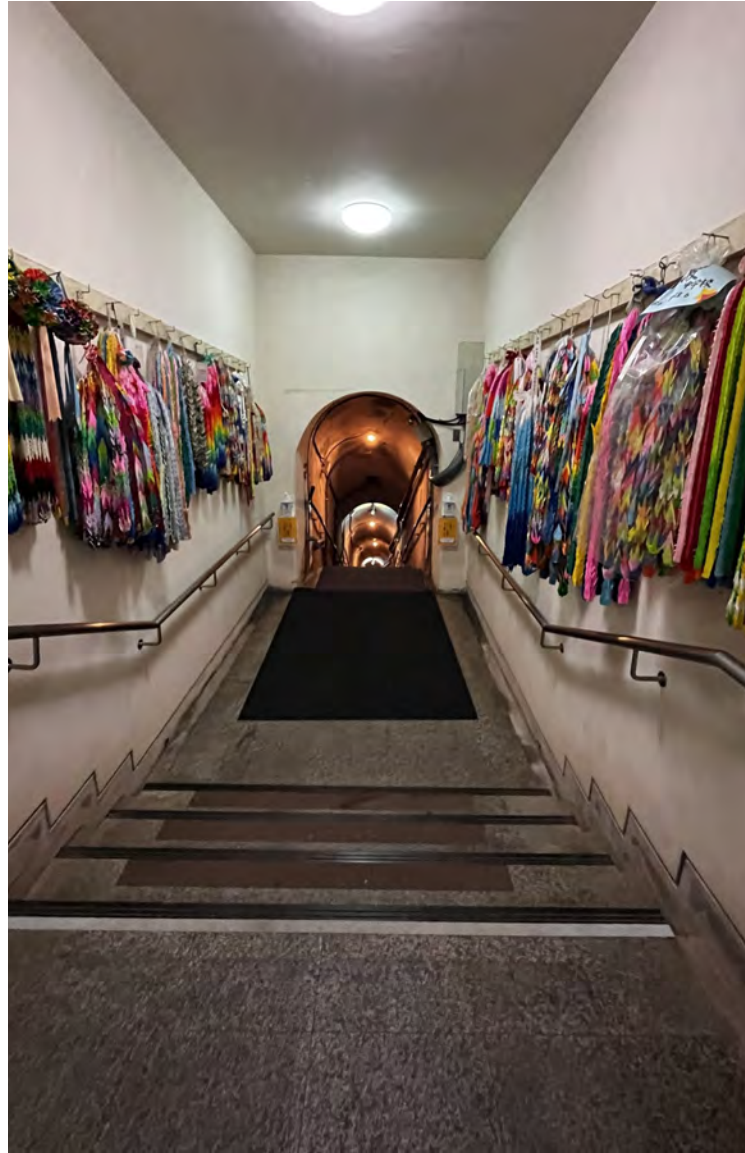


Fig. 41: Strung up paper cranes, commonly recognized as a symbol for world peace, hanging at the Former Japanese Underground Navy Headquarters Museum.

synopsis of the Battle of Okinawa is playing. Encircling the room, poster boards full of photos frankly display the hardened experiences of the island and its residents. As we descend the stairs, we are greeted by another video about Okinawan experiences during the war, this time without subtitles. Behind us, a young woman sits in a chair at the base of the steps, blow-drying her shoes and socks that were drenched. An older man stands with his sons, waiting for the rain to ease. They peruse the adjoining hall of artifacts which details the story of the tunnels and the experiences within them. Military uniforms and rifles pair against postcards and wedding photographs, the cumulative tone of the war, and the battles that were waged for it, as a singular event contrasts with the day-to-day life of the soldiers who resided here once.

Strings of paper cranes line the walls. Now a symbol synonymous with world peace, they suggest a more implicit political message of hope for permanent peace. Reflecting on the history presented to them, visitors write sentiments on paper and hang them from cardboard trees, which become a cumulative call for peace.

A table adjacent to the welcome desk displays assorted refuse from the tunnels: toothbrushes, eyeglasses, medicine bottles, combs, and other fragments lie neatly in piles, tinged from sitting in mud for years before the tunnel's cleanup. The volume of these pieces offers a glimpse into the crowded and dirty life in the naval base during its brief operation, as trash, belongings, and bodies accumulate in



Fig. 42. Descending stairs leading into the tunnels.

the tunnels amidst the armed conflict.

After paying a small fee, we descend into the adjoining circular room. Natural light penetrates from the skylight above and repositions us. The room itself operates as a shrine of sorts where museum goers pay a final solemn prayer, offer a thought, or donation before descending into the mountain. More strings of paper cranes are draped across the walls and altar. Notably, a collection of pickaxes stands out on the perimeter. Utilized in the excavation of the tunnels, the broken old tools are contrasted by a newer pickax; bright red, its handle points upwards as it stands on the floor, inviting you to try and lift it. The intention here is to place visitors in the shoes of those who dug the tunnels before them. Trying to lift the tool, your arms feel a fraction of the strain, labor, and strength it takes to create this infrastructure. Perhaps you are compelled to reflect on the impressive feats of those who built it, registering the size of the facility and the time it took to build.

The sound of dripping water echoes in the humid hall as the rain trickles through the pavement and rock above. A speaker blares inconsistently like a siren, narrating the history of the site in alternating languages as we descend a seemingly endless and steep staircase. Vibrant green patches of lichen dot the ceiling, gathering under the installed fluorescent lights. A change in the air reminds us of how far we have gone into the earth, as increased humidity and cooler temperatures intensify our descent into the tunnels.

due to its incorporation into a wider landscape of memorials along the stretch of road, the point of access and choreography through the Former Japanese Navy Underground Headquarters is far more controlled. Starting at the top floor, the collection of photos and video detail a more general history of the Battle of Okinawa. The specificity of the narrative homes in as you descend the stairs, with the second floor locating the role of the tunnels in the battle, as well as the people who used and resided in them. Descending once again to the tunnels themselves, you are confronted by a physical manifestation of that history that, while not a singularity on the island, is certainly distinct.

The tunnels present an interesting remnant in the wake of extreme reconstruction following the war. The contrast between the incorporated park above and the surrounding urban sprawl highlights a consideration of material aesthetics that is central to the register of a postwar reality for Okinawa. Where on Saipan a prevalence of wartime detritus across the surface of the landscape naturalizes it to the eye; an Okinawan context operates almost conversely. Redevelopment of the island has rendered the destructive impacts of war less visible if not completely obfuscated. The subterranean nature of the tunnels implicates how the signatures of war on the island are contrastingly embodied below said surface. War and its effects are internalized within the land rather than hosted explicitly on top of it. The Former Japanese Navy Underground Headquarters operates as a formal repository and reminder of a history



Fig. 44. The stark emptiness in the corridors today.



Fig. 45. The lived condition of the Japanese soldiers that resided in the tunnels during the Battle of Okinawa.

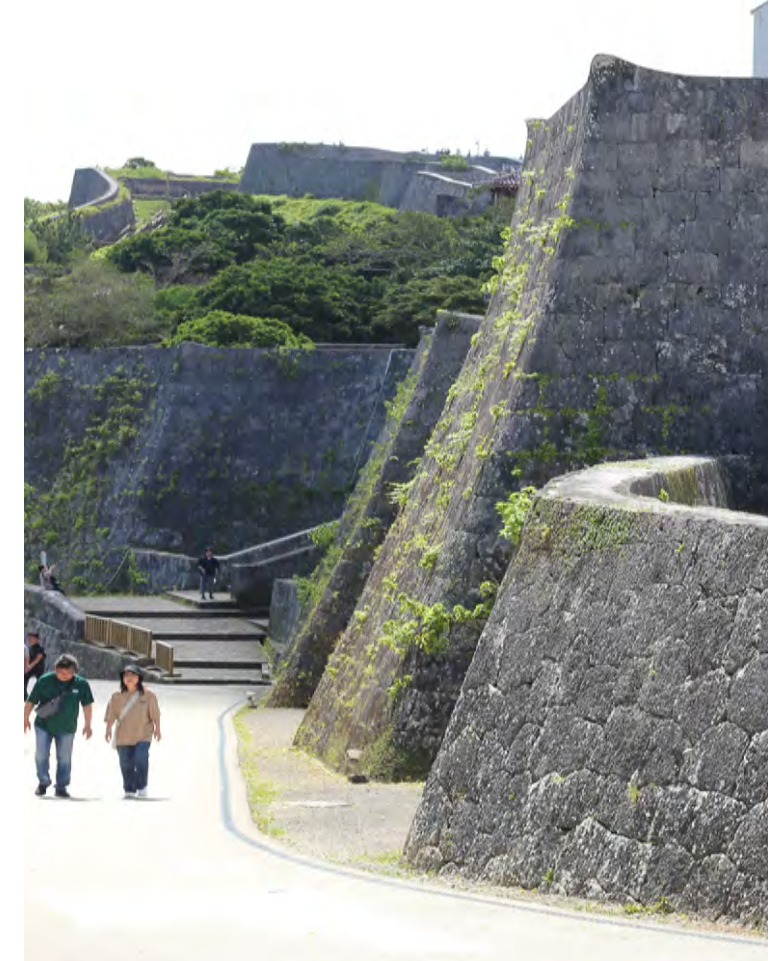


Fig. 46. A limestone wall located at Shuri Castle, perhaps, the grandest symbol of indigenous Okinawan culture on the island.

that has been physically obfuscated. U.S.-led reconstruction efforts in the wake of their occupation of the island mark the salience of this subsurface site and those like it. The measure of how war is told through these sites, that is, *where* it is told is important. What constitutes a postwar site, which ones remain, and what form they take reveals something about the impact of and response to the war. The fact that these tunnels are hidden from public sight seems to make their presence in a landscape oriented towards the obfuscation of war more palatable.

Situating the Former Japanese Navy Underground Headquarters within a broader landscape of cultural ruins on the island offers insight into the role of ruins at a larger scale. Once part of the Ryukyu Kingdom, Okinawa is home to a network of castles—or *gusuku* (*gushiku*)—that date back to the Shuri Dynasty (1469–1879). These sites serve as enduring markers of a distinctly Okinawan heritage, particularly in the wake of the island’s continued incorporation into the Japanese state. In this context, the tunnels function not only as remnants of war, but as part of a subsequent layer of wartime heritage—linked to the revitalization of Okinawan identity, both locally and abroad, after WWII.

The intertwining of cultural identity and war in Okinawa underscores the profound and lasting impact of conflict on the island’s landscapes—regardless of their appearance or the evolving sentiments of those who inhabit them. The scale and severity of the Battle of Okinawa, and

the disproportionate suffering endured by Okinawan civilians, remains distinct within the broader context of Japan’s wartime experience. As such, sites like the naval tunnels operate in tandem with more overtly cultural remnants, becoming embedded within the material and symbolic bedrock of contemporary Okinawan identity. The memory of war, in this sense, becomes a means through which Okinawans reaffirm their cultural and historical distinctiveness from mainland Japan.



Fig. 47. An Allied soldier looks out from a destroyed building in Naha, the city decimated by the war.

The War Never Ends

At its crux, the juxtaposition of these two sites—the Last Command Post and the Former Japanese Navy Underground Headquarters—reveals seemingly divergent postwar material realities. Okinawa, a rebuilt and urbanized island, evokes a sense of postwar resurgence that masks deeper-seated scars articulated through controlled grammar and syntax. In contrast, Saipan presents a seemingly unkempt scene of the war’s aftermath, which may distract from more significant subsurface implications and lingering dangers. While materially these sites exist at opposite ends of a spectrum of American occupation, their roles and operations point to something beyond simple postwar parallels.

Moreover, the vernaculars of Okinawa’s formal “curated history” and Saipan’s “found remnants” reflect material aesthetics that are the direct result of American regional occupation in the post-war Pacific. The prioritization of Okinawa—for the purpose of surveilling both mainland Japan and the broader East Asian region after WWII—can be understood as directly correlated to the apparent lack of redevelopment in the Mariana Islands. This strategic hierarchy, assigning greater military and cosmopolitical value to one island over another, connects these spatially

Fig. 48. (Following spread) View of Marpi Point, looking outward in the direction of the Ryukyu Islands.

distant bunkers within a larger political landscape, expressed visually through the islands themselves.

The bunkers mirror each other in their capacity to historicize the war and its imprint on the land. As symbolic manifestations of the end of armed conflict, both sites—though to varying degrees and through different curatorial strategies—frame the war as a thing of the past. Yet, when considered together, one begins to understand that while explicit armed conflict has ceased, the war itself has not truly ended.



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Fig. 2: Raimondo, Carlo. *Operation ICEBERG*. 2025. Digital drawing collage.

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Fig. 48: Hur, Gio. *View of Marpi Point, Looking Outward to the Ocean*. 2024. Color photograph.

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Fig. 49. (Right) Porous limestone and rusted metal: a material microcosm of Saipan.

Fig. 49: Kim, Emily. *A Material Palette of Saipan*. 2024. Color photograph.





CHAPTER 2: THE CASTLE AND THE JAIL

By Hannah Hardenbergh

Material remnants of war sit both in plain sight and hidden away in the Pacific Islands. Two artifacts of World War II—the hand-dug Japanese Naval Tunnels underneath the magnificent Shuri Castle in Naha, Okinawa and the crumbling concrete of the former Japanese Jail in Garapan, Saipan—become spatial evidence of ruination on two scales and within two uniquely urbanized contexts. This chapter investigates how contrasting states of deterioration and visibility of materials impact the way visitors move through space and relate to the history of WWII in Okinawa and Saipan.

For six centuries, the king of the Ryukyu Islands reigned from atop the highest point in Okinawa within the walls of Shuri Castle until 1609, when the Japanese empire invaded the islands. The Pacific War caused the complete destruction of the castle grounds in the 1940s. From Naha’s port, the Castle’s topography lent the Japanese Navy an upper hand during WWII, and after major losses at sea,

their units retreated inland and constructed a tunnel system underneath the castle for defense against Allied troops. The castle would ultimately be destroyed during the Battle of Okinawa in 1945. This history is not noticeable when visiting the castle, which is now a protected UNESCO World Heritage Site—the tunnels are blocked off and plaques border concrete sidewalks that meet the entrances.¹ In many ways, the visibility of battle is shielded from first-time visitors, tucked below a completely restored historic castle.² In 2024 the site was under construction because the Seiden (the main hall) burned to the ground in 2019.³

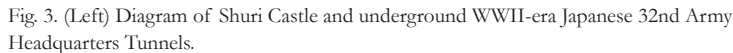
Across the Pacific, countless other WWII-era ruins—of buildings, barracks, and military outposts—sit in plain sight. 1,413 miles (2,274 km) southwest lies a ruin in the middle of an historic neighborhood district on Saipan in the Commonwealth of Northern Mariana Islands (CNMI). Among the single-family houses and modern thoroughways sits Japanese Jail, which once housed allied prisoners of war after the Battle of Saipan, and is now preserved as a heritage site by the local government in Saipan and the U.S. National Park Service. Today, the Northern Mariana Islands Museum of History and Culture works to maintain the history of the island, from prehistoric years to colonization and war via museum exhibitions, book publications, and by funding projects such as this anthology.

What follows is an exploration into how the landscapes of Shuri Castle and the Japanese Jail have been maintained, reconstructed, and preserved since WWII, and how

Fig. 1. (Left) *Sonohyan Utaki Stone Gate*, a historic landmark at the foot of Shuri Castle, accompanied by a small grove of sacred trees.

Fig. 2. (Following spread) *Rokokumon Gate* at Shuri Castle, with Naha Port in the background.





The organizing bodies behind these preservation efforts—the Japanese government in Okinawa and the U.S. National Park Service in Saipan—are equally part of the puzzle, though this comparison will only describe those relationships to the extent necessary. What this chapter does not cover: first, it is not an investigation into how historical sites embolden governments and city departments to hold postwar sites to a level of importance; and second, this is not a comparison between Okinawan and Chamorro (CHamoru) cultural and spiritual beliefs. It should be stated that very little literature exists about Pacific Islander cultures in English, and a burgeoning effort is being made by scholars, poets, and writers to help preserve these histories.⁴

Fig. 4: (Above) Application for Japanese Jail to be listed on the National Register for Historic Places with the National Park Service.

Fig. 5: (Below) Vegetation climbing the walls at the Japanese Jail.

The Castle and the Jail



Historical Background

Built in 1929, the Japanese military held many Allied prisoners of war here during the Battle of Saipan in 1944. What remains are three buildings and a one-foot-wide stone wall on three sides of the site (see Figure 6). Accessible from downtown Garapan, the site is a five-minute walk from the Northern Mariana Islands Museum of History and Culture, a building with its own history as the old Japanese hospital during the pre-WWII era.

When Japan extracted itself from the League of Nations in 1933, remote islands in the Pacific hung in the balance of world imperial powers because of their geopolitical value. Both Japanese colonies of the Okinawa Prefecture and the Mariana Islands provided something to the Japanese Empire that only land could offer during the Pacific Campaign of WWII: access and control. What remains of this narrative exists in the spatial preservation of postwar landscapes. The Japanese Jail and Shuri Castle both evolved into their current condition because they were preserved through official designations.

The U.S. Department of the Interior and the National Park Service allocated the Japanese Jail Historic and Archeological District as a U.S. National Register of Historic Places in 2011, choosing to maintain its ruined

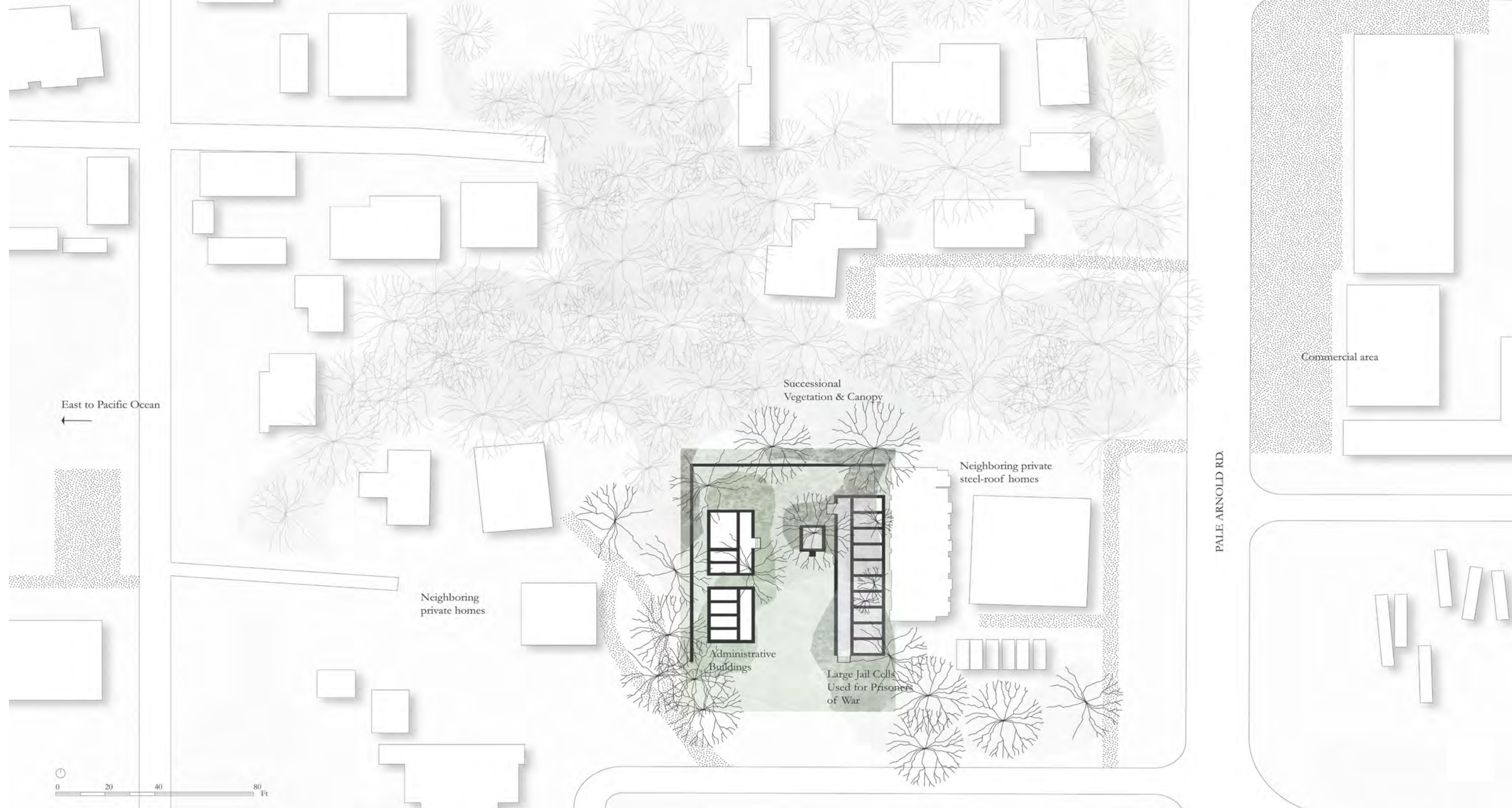


Fig. 6. Aerial view of the Japanese Jail.



state rather than reconstruct it.⁵ Knitted into residential parcels just south of Garapan, the ruins maintain a flat appearance, except for emergent vegetation sprouting from each jail cell. Considered haunted by island residents, the jail is now the final site along a heritage trail in Garapan, funded by a grant from the Northern Marianas Humanities Council intended to draw attention to the island's military history.

In Okinawa, the Japanese government now operates Shuri Castle Park, designated as a state park in 2019 (just before the burning of the *Seiden*). Its latest restoration project is set to be completed in 2026. During WWII however, the castle was decimated and its power as a cultural emblem eliminated. While Okinawa was under U.S. control between 1945 and 1971, it is unclear whether any efforts for restoration were made. After the 1971 Reversion Agreement, which handed over governing control of the islands to the Japanese, the *Seiden* was rebuilt, and the perimeter walls were later reconstructed from Ryukyu limestone (see Figure 13).⁶ It was established as a UNESCO World Heritage Site in 2000.⁷

Shuri Castle conceals its wartime past through preservation efforts, while the Japanese Jail is a ruin left in plain sight. In contrast to the Former Japanese Navy Underground Headquarters, too, a contemporary museum built on top of the hand-dug tunnels that effortlessly shares the severity and abysmal levels of despair brought on by war, Shuri Castle is instead honored for its cultural heritage

Fig. 7. (Left) Image of a reconstructed path and landscape just outside the original preserved outer walls of Shuri Castle.



Fig. 8. (Above) Wartime photograph of Shuri Castle after the complete destruction of the castle during the Battle of Okinawa in 1945.

Fig. 9. (Below) Aerial photo of where Shuri Castle once stood, 1945.



Fig. 10. Detail of visitors climbing the slanted stair treads at *Zuisenmon*, one of the grandest gate entrances along the castle walls to access the *Seiden* above.



Fig. 11. Detail of a tree trunk along the pathways to the *Seiden* at Shuri Castle.

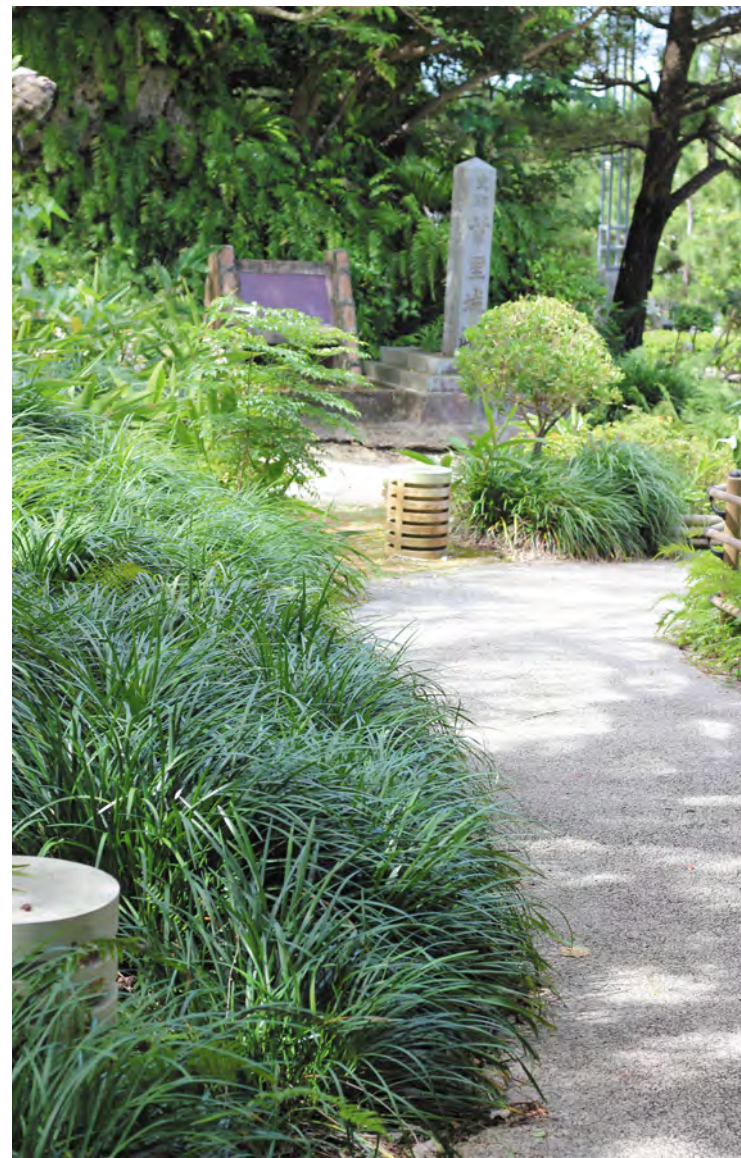


Fig. 12. The pathways in front of the Visitor's Center at the castle are meandering and textured with dense plantings. Small shrines line the border of the path.



Fig. 13. Old Ryukyu limestone is met with newer blocks at one of the gates to the castle. This process was explained in videos and exhibitions on site for visitors to digest.

and significance as a place of power for Okinawa prior to Japanese annexation of the islands in 1879. Its positioning and decimation during the Pacific War go generally unmentioned to visitors. This essay is an investigation into how and why the spatial orientation of each site influences who has access to them. Emerging, then, is a framework that helps analyze how wartime narratives are perpetuated spatially in each archipelago. The grounds on which to compare their contexts, topographies, and how they are circulated originate from understanding that the Japanese army militarized each site and each site's military history is now being preserved in entirely opposite manners.

From the Bottom Up, the Outside In

The topography of both the Castle and the Jail become important to their legacy as sites that both connect and disengage islanders from wartime narratives. The Castle is situated on the highest point of southern Okinawa, with direct lines of sight to the Former Japanese Navy Underground Headquarters and to Naha port. The Japanese Jail sits within the residential fabric of Garapan, nestled between the bay and the hillside. Aerials of the site by drone reveal its closeness to water and its seemingly integrated position within the neighborhood that surrounds it. While the ascents at Shuri Castle tend to leave behind its history as a postwar site and instead herald an homage to Ryukyuan culture, the flattened, horizontal nature of the



Fig. 14. (Above) Aerial drone photos looking towards the west, to the Pacific Ocean.
 Fig. 15. (Below) Aerial drone photos looking towards the southeast, to Mount Tapochau.



Fig. 16. Detail of slanted stairs at one of the gates at Shuri Castle.

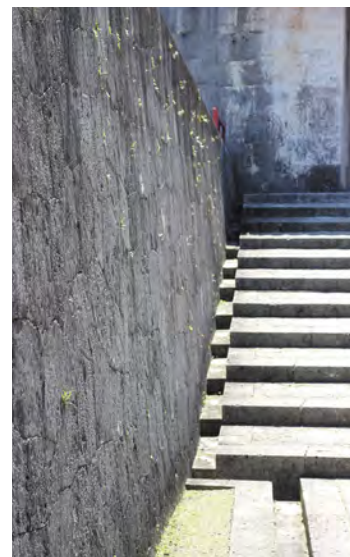


Fig. 17. (Above, left) A constructed runnel at *Rokokumon*. Fig. 18. (Above, right) Fern species along the Visitor's Center. Fig. 19. (Below, left) Hibiscus in bloom along the paths. Fig. 20. (Below, right) Detail of Ryukyu limestone stairs at *Rokokumon*.

Japanese Jail emphasizes the site's accessibility to visitors. These topographic differences are innately part of each site and have become part of the narrative of how they were preserved after the war.

From Garapan, just shortly after passing the NMI Museum of History and Culture, a quick right off Pale Arnold Road onto Ghiyobw Street brings visitors to the parcel on which three structures sit—one long, thin perimeter wall, and within it, one larger administrative building and one long stretch of old jail cells. Residential parcels surround the ruins on three of its four sides. The structures are one story high and presumably made of 1930s limestone concrete. The jail's low profile makes it feel hyper-accessible to visitors, as if its history were hidden in plain sight. One large flame tree (*Delonix regia*) sits almost directly in the middle of the site, while several ferns, multi-stem trees, and vines spring from each jail cell. Thin, nimble tree branches stick out above the structure's walls, forming a whittled canopy above. Beyond the perimeter wall to the north, dense and forested plantings enclose the jail. Private homes to the east and west shoulder the site, while the southern entrance of the site remains exposed and less parceled off.

In contrast, most of the Shuri Castle entrances provide clear wayfinding and acknowledgment of the site's boundary for incoming visitors. The castle calls out most of its borders spatially using tall limestone walls, placards, signs, stone walkways, and vegetation. On the north side of the site, one can access a small pond at the base of the

castle walls behind the Okinawa Prefectural University of the Arts. The University entrance is not formally celebrated (such as an archway announcing the walkway), instead allowing visitors to meander through the site's water features and topography. Visitors are then confronted with the tunnel entrances at this approach to the castle, hidden the hill, overgrown with mosses and grass.

We entered Shuri Castle from the southern gate, parking our car just across the road in a public lot. We were immediately met with textured plantings, warm-yellow limestone walkways, and an incline. We slowly made our way to the *Seiden*, through several gates (used as checkpoints during the Ryukyuan King's rule) and up many varied staircases. One two-storied gate, *Rokokumon*, showcases the castle's unique water storage system with runnels located on each side of the staircase. The treads of the stairs are slanted, allowing runoff to reach the bottom landing efficiently.⁸ The staircases challenge accessibility. The preserved characters of the gates draw attention upwards towards the *Seiden*, and away from the tunnels below.

Preservation: Restored, Rebuilt, or Not at All

Graffiti scatters the walls of the jail, with dates, names, and other scribbles carved into the concrete. There have been few attempts to maintain the site beyond signage. The tree canopy takes over beyond the walls of each cell.



Fig. 21. Detail of a dilapidated metal plaque frame at the Jail. Most remaining signs were illegible or missing due to weathering and lack of upkeep.



Fig. 22. A view down the longest of the three ruins still standing at the Japanese Jail, with cell doors to the right and a wall with small windows facing into the main courtyard of the Jail to the left.



Fig. 23. *Tangantangan* grows freely at the Japanese Jail, often reaching tall heights with a wide spread from its multistem nature. View of inner courtyard with perimeter wall in the background.

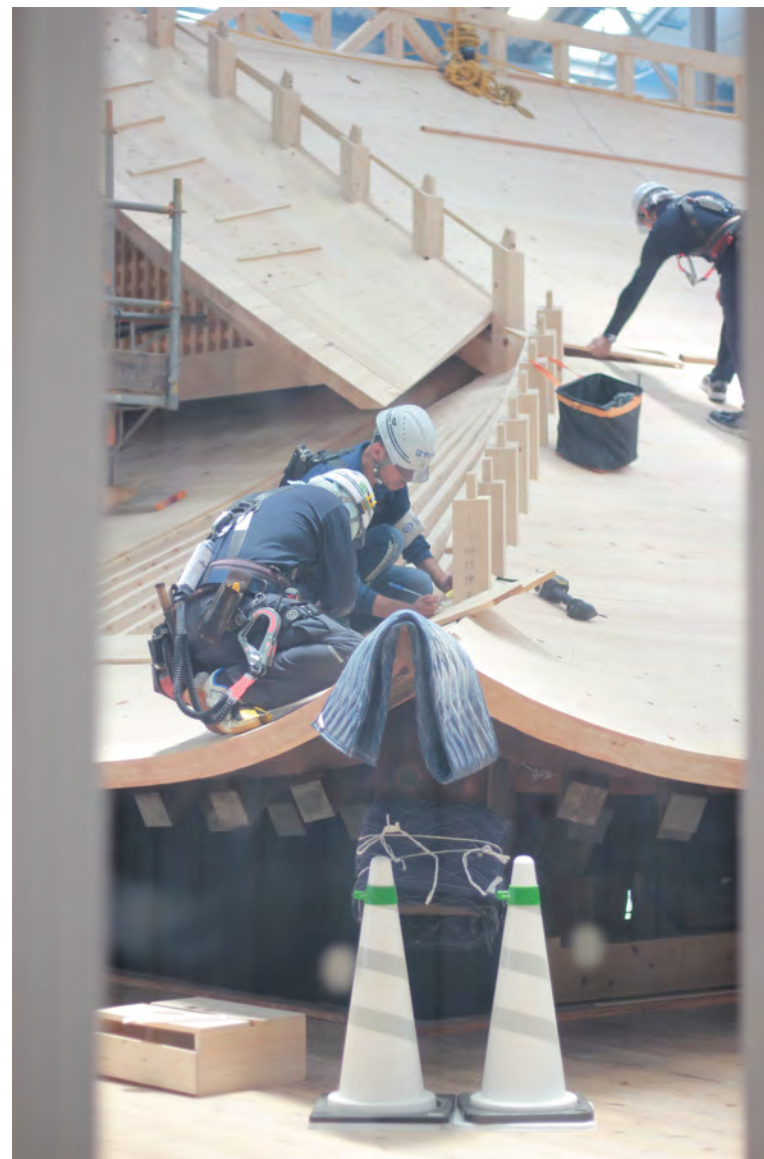


Fig. 24. (Left) Traditional roofing in front of the temporary building where construction teams work to restore the *Seiden* inside. Fig. 25. (Above) A view into the restoration project. Traditional Chinese and Japanese joinery techniques are used to maintain historic details.

species of geckos and spiders inhabit every crack, and birds fly above. The site is dismal and quiet, but peaceful. We are greeted by a group of tourists who take pictures in front of their convertible at the site's entrance. They take a moment to read the informational plaque, and then decide to leave. We witnessed similar visits at the memorials of the Last Command Post and Banzai Cliffs to the north of the island. Visits are short, and the site becomes a quick study. The method of letting the jail structures exist as they stand, without further preservation or restoration, enables this. Its preserved state combined with its urban context and small scale, the Japanese Jail feels part-and-parcel of a larger scattering of sites on Saipan that are easily accessible by foot and by car.

As we ascended from the gates, up the stairs, and to the entrance of the *Seiden*, we understood the state of the site was one of impermanence and repair, that we were witnessing a process of rebuilding and restoring a 14th-century wooden structure to its former glory. All around us, construction workers hammered and nailed.⁹ The *Seiden* was surrounded by a three-story steel structure designed to protect the ongoing reconstruction, with observation decks designed for visitors to witness the historic project.

The construction at Shuri Castle creates a sense of spectacle for visitors. The way the castle is being rebuilt intentionally allows visitors access to the inner construction of the *Seiden* while still enabling the construction team to complete the project. Being able to feel connected to the

Fig. 26. (Following spread) Aerial drone photograph of the Jail and its western edge, bordered by private structures and sheltered by thick vegetation.



site in this way is a unique approach that the park has taken that doesn't necessarily ensure profit but engages people with the site and ensures visibility. Additionally, visiting the site in this state brought to our attention the story behind sourcing the materials used, mainly different types of paint to color the *Seiden* exterior, the limestone to restore the main hall and castle walls brought to Okinawa from various islands within the prefecture, and the wood harvested from Yanbaru National Park to the north of the island.¹⁰ The rock used to restore the *Seiden* is a combination of Ryukyu limestone, sourced mainly on-island, and sandstone from Yonaguni, an island within the Okinawa Prefecture close to Taiwan. Before the stone left Yonaguni, locals held a festival to send off the stone with dancing, song, and gathering.

The extent to which the park has gone to promote its road to revival is extravagant.¹¹ The site is intentionally preserved to appear as it did during the Ryukyu Kingdom era. It begs the questions: is it merely about updating the site and restoring it to a symbol of political and cultural glory? Or are there more ideas around which parts of the castle's narrative the park is attempting to put forward, and equally parts of the site's story that are being subdued? Shuri Castle represents the sovereignty of the Ryukyu Kingdom and is one of the few sites that maintains a connection to an ancestral past for Okinawans. Thus, huge efforts to preserve its cultural value are essential and local government agencies have successfully developed a public park and heritage site that honors Okinawan history. In doing so, efforts to preserve the castle have taken attention



Fig. 27. View from within the Japanese Jail, looking north at a staircase to the cells.



Fig. 28. An inscription on one of the Japanese Jail walls reads, "L.A. Beiser... June 15 / 44."



away from the existing Japanese naval tunnels, which spatially represent the grim history of the war—and a part of the castle’s history left untouched.

Access and Permission

The Japanese Jail is haunted. “You didn’t take anything from there, right?” asked one local who was concerned our curiosity might have compelled us to take artifacts from the site. The interaction demonstrated to us an implicit social dynamic not only of accessing the site as outsiders but also the social and spiritual meaning that objects and places possess on Saipan. In addition, there is an agreed-upon understanding that one cannot visit sites such as the jail without asking permission from ancestral spirits, or *taotao mo’na*, first. While the *taotao mo’na* are part of Chamorro’s indigenous worldview, it could be presumed that the spirits that reside in the jail could be related to prisoners from WWII, potential armatures of foreign imperialism that to indigenous cultures could be seen as harmful. For outsiders, it is possible to visit the jail, the caves, and the jungle without asking for permission, however, it is often frowned upon. This drives questions around cultural access—who is allowed on the site? Who is *prohibited*? And how do organizing bodies and visitors remain culturally sensitive to these places and their stewards and ancestors, while surfacing that the maintenance of the sites themselves insinuate a longevity of imperial control and battle?

Fig. 29. (Left) Peering through one of the Japanese Jail cells.

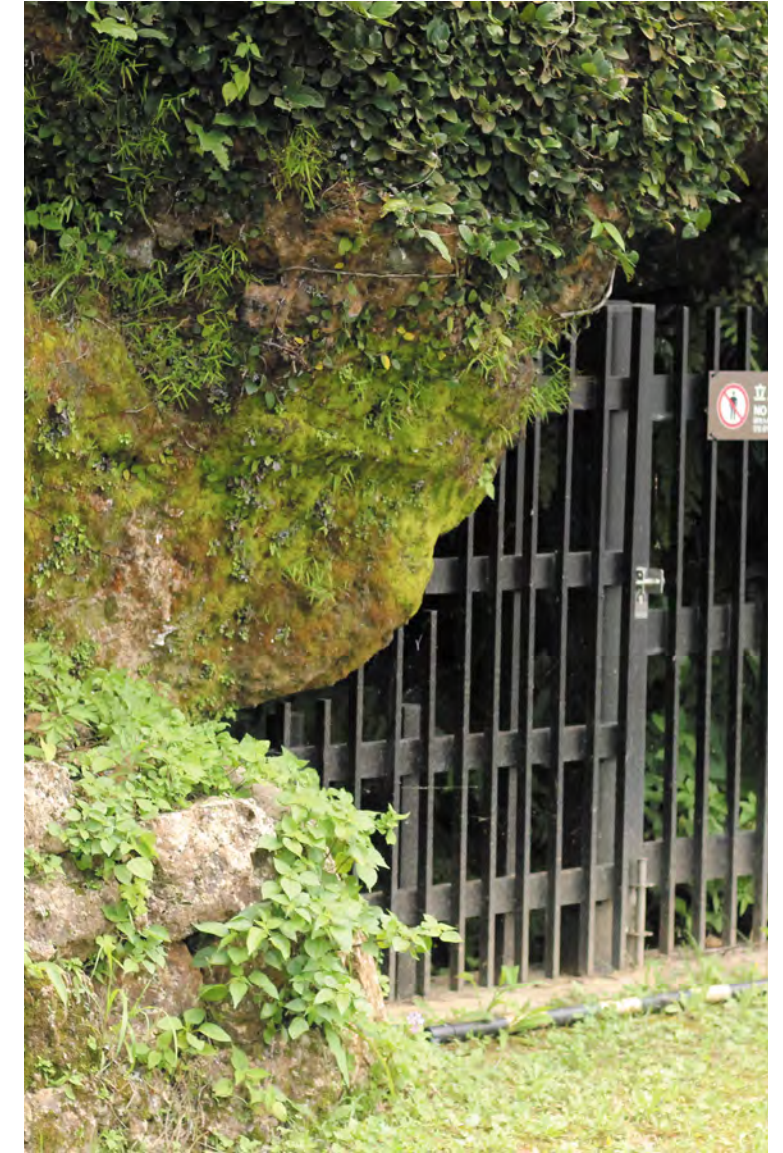


Fig. 30. (Above) View of the 32nd Army Headquarters Tunnel entrance to the north of Shuri Castle, outside its walls.

While we paid for a ticket to walk the grounds of Shuri Castle, we did not pass through any physical or monetary barriers to view the jail cells and walls. We walked the Jail's extents, took photographs and video, scanned the cells, and generally did not make any contact with others who were present. Residents were nearby on porches, listening to music leisurely. The levels of permission needed as an outsider are varied—at Shuri Castle, a mere ticket, and at the Jail, a lack of ancestral ties to the site. This is worth acknowledging as it informed our experience at all the sites in Okinawa and the CNMI.

Conclusion

Shuri Castle and the Japanese Jail exist at two extremes: their level of formality, cultural value, and spatial presence. While Shuri Castle has been maintained and rebuilt to reaffirm the pride for and cultural importance of the former Ryukyu Kingdom era for Okinawans, the Japanese Jail has been labeled and left for outsiders to photograph, for locals to share its perimeter edges, and for Indigenous groups to generally avoid. The maintenance of the two sites could not be more different—one is manicured, restored, and preserved to historical standards, the other has been placed on the U.S. National Register of Historic Places and maintained within a “leave it be” mentality. While Shuri Castle limits the visibility of its history as a wartime site and instead promotes the rich cultural heritage of Okinawa,

the Japanese Jail enables more visibility to a postwar ruin through decisions to preserve and not redevelop the site within its urban context.

Using these geographic, temporal, and cultural differences, comparing the Castle and the Jail incites a new lens of understanding to what extent postwar ruins have been rebuilt and preserved. The Castle's cultural heritage dominates the site's narrative over its status as a Japanese military stronghold that was overtaken during WWII. Through contrasting themes of access, cultural context and borders, verticality and flatness, and assemblage and remains, the Castle and the Jail begin to manifest themselves within a landscape typological framework of study in a postwar, contemporary lens.



Fig. 31. (Right) View from within the Japanese Jail's courtyard, a grassy open space.



Fig. 32. Looking up above the Japanese Jail cell walls.

Notes

- 1 This is in direct opposition to the way the Japanese Naval Barracks have been preserved as well. See Chapter One: Bunker Down.
- 2 Matthew M. Burke and Mari Higa, “Okinawa Plans to Preserve, Open WWII Tunnels beneath Shuri Castle,” *Stars and Stripes*, July 25, 2022, accessed February 4, 2024, https://www.stripes.com/theaters/asia_pacific/2022-07-25/shuri-castle-tunnels-wwii-restoration-6759213.html. There are signs of opening up the tunnels to the public in the coming years. This indication could alter the way visitors experience the park and Castle extents.
- 3 An accidental fire hit the *Seiden* on October 31, 2019. Interestingly, as part of the restoration process, historians and researchers synthesized a digital reconstruction of the castle through a 3D model using 80,000 photographs submitted by past visitors. See the project saved on Google Arts and Culture from an account named “Okinawa Prefecture” here: <https://artsandculture.google.com/story/LwUhIZnN4gaTJA>.
- 4 Evelyn Flores and Emelihter Kihleng, *Indigenous Literatures from Micronesia* (Honolulu: University of Hawaii Press, 2019), xxi-xxiii.
- 5 Most of what borders the Japanese Jail are modern roadways and private land holdings, according to the U.S. Department of the Interior’s National Register of Historic Places Application Form. The now-Secretary of the Department of Community and Cultural Affairs in Saipan, Melvin L.O. Faisao, submitted the form in January 2011, and it was approved in April

- of that year. Interestingly, the request was approved based on the number of “resources” on site and designated a state-level of recognition, as opposed to a national level.
- 6 Currently, visitors are allowed to view informative videos and exhibitions about the rebuilding of the walls, where the limestone is sourced from in the archipelagos, and even to view a partially exposed section of wall to understand its interior.
- 7 “Shurijo Castle as a World Heritage Site,” Shurijo Castle Park, accessed August 13, 2024, <https://oki-park.jp/shurijo/en/about/189>.
- 8 There are also suggestions of the slanted treads being constructed as a symbol of the social status of visitors—while the main stair treads at the center of the *Seiden* remain horizontal, where the king would ascend to hold meetings, the treads at either side of this stair and at all the gates remain slanted, denoting a lower social status for soldiers, governing officials, and visitors to the castle. Sources for this have yet to be incorporated into this work and the search for synthesizing these spatial details with historical context is ongoing.
- 9 Asuka Hata, “Reconstruction of Okinawa’s Shuri Castle Gains Pace,” *Nikkei Asia*, accessed August 26, 2024, <https://asia.nikkei.com/Life-Arts/Arts/Reconstruction-of-Okinawa-s-Shuri-Castle-gains-pace>. Shimizu Corp and Shajiken Co., the construction company and temple builders responsible for the restoration work, also restored the castle previously in the 1990s. Carpenters and craftsmen share a sense of pride for implementing fire-proof methods into their second construction design of the castle while maintaining historic details.

- 10 Information gathered from on-site exhibitions, visited on May 20, 2024.
- 11 See Chapter One: Bunker Down.



Fig. 33. Detail view of the Japanese Jail concrete ruins.

Image Credits

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Fig 1: Hardenbergh, Hannah. *View of Sonohyan Utaki Stone Gate, Shuri Castle, Okinawa*. 2024. Color photograph.

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Fig. 2: Hardenbergh, Hannah. *Rokokumon Gate at Shuri Castle, with Naha Port in the background*. 2024. Color photograph.

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Fig. 3: Hardenbergh, Hannah. *Shuri Castle and underground WWII-era Japanese 32nd Army Headquarters Tunnels*. 2025. Digital diagram.

Fig. 4: U.S. Department of the Interior, National Park Service. “National Register of Historic Places Registration Form.” National Park Service Archives. February 22, 2011. Accessed August 20, 2024. https://web.archive.org/web/20150615023321/http://www.nps.gov/nr/feature/weekly_features/2011/JapaneseJail_MP.pdf.

Fig. 5: Raimondo, Carlo. *Vegetation Climbing the Walls at the Japanese Jail, Saipan*. 2024. Color photograph.

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Fig. 6: Google Earth Imagery. accessed August 19, 2024.

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Fig. 7: Raimondo, Carlo. *View of a Reconstructed Path & Landscape at Shuri Castle, Okinawa*. 2024. Color photograph.

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Fig. 8: ———. Wartime photograph of Shuri Castle after the complete destruction of the castle during the Battle of Okinawa in 1945. 1945. Black and white photograph. Urthman’s Genealogy Blog. <https://urthgen.blogspot.com/2014/03/shuri-castle-okinawa-in-1945-and.html>.

Fig. 9: U.S. Army. Aerial of Castle grounds where the Seiden once stood. 1945. Black and white photograph. Urthman’s Genealogy Blog. <https://urthgen.blogspot.com/2014/03/shuri-castle-okinawa-in-1945-and.html>.

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Fig. 10: Raimondo, Carlo. *Visitors climb the Slanted Stair Treads at Zuisenmon, Shuri Castle, Okinawa*. 2024. Color photograph.

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Fig. 12: Raimondo, Carlo. *Meandering Paths to the Visitors Center at Shuri Castle, Okinawa*. 2024. Color photograph.

Fig. 13: Kim, Emily. *Limestone Walls, Shuri Castle, Okinawa*. 2024. Color photograph.

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Fig. 14: Hardenbergh, Hannah. *Aerial Drone Photograph from Above the Jail, Looking West*. 2024. Color photograph.

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Fig. 16: Hardenbergh, Hannah. *Slanted Stairs, Shuri Castle, Okinawa*. 2024. Color photograph.

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Fig. 17: Hardenbergh, Hannah. *A Constructed Runnel at Rokokumon, Shuri Castle, Okinawa*. 2024. Color photograph.

Fig. 18: Raimondo, Carlo. *Fern Species at the Visitor’s Center, Shuri Castle, Okinawa*. 2024. Color photograph.

Fig. 19: Raimondo, Carlo. *Hibiscus in Bloom, Shuri Castle, Okinawa*. 2024. Color photograph.

Fig. 20: Kim, Emily. *Ryukyu Limestone Stairs at Rokokumon, Shuri Castle, Okinawa*. 2024. Color photograph.

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Fig. 21: Raimondo, Carlo. *Dilapidated Metal Plaque Frame at the Jail, Saipan*. 2024. Color photograph.

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Fig. 22: Hardenbergh, Hannah. *Jail Cells, Saipan*. 2024. Color photograph.

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Fig. 26: Cho, Hyungyu. *Aerial Drone Photograph of the Jail and its Western Edge, Saipan*. 2024. Color photograph.

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Fig. 28: Raimondo, Carlo. *An Inscription on One of the Jail Walls Reads, “L.A. Beiser...June 15 / 44.”* 2024. Color photograph.

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Fig. 29: Raimondo, Carlo. *Peering through a Jail Cell, Saipan*. 2024. Color photograph.

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Fig. 30: Kim, Emily. *View of the 32nd Army Headquarters Tunnel Entrance, Shuri Castle, Okinawa*. 2024. Color photograph.

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Fig. 32: Hardenbergh, Hannah. *Zuisenmon Gate, Shuri Castle, Okinawa*. 2024. Color photograph.

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Fig. 33: Kim, Emily. *Jail Ruins, Saipan*. 2024. Color photograph.

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Fig. 34: Kim, Emily. *Old Limestone Meets New at Shuri Castle*. 2024. Color photograph.



Fig. 34. Old limestone meets new at Shuri Castle.



CHAPTER 3: BETWEEN CAVE AND COVE

By Gio Hur

Niya-Thiya Cave and Dump Cove are two secluded sites in the western Pacific whose landscapes continue to bear the weight of World War II.

Located on the island of Iejima, just off Okinawa's northwest coast (see Figure 2), Niya-Thiya Cave served as a refuge for civilians during the final stages of the 1945 Battle of Okinawa. For many, it was a site of desperation, where families sought shelter from bombardment, where rumors of brutality shaped impossible decisions, and where memory still lingers in the silence of the cave walls.

Thousands of miles to the southeast, Dump Cove lies off the coast of Tinian in the Commonwealth of the Northern Mariana Islands (CNMI) (see Figure 3). After the island was transformed into a massive U.S. airbase and the launch site of the atomic bomb missions, it became a dumping ground. In the postwar years, the U.S. military discarded equipment and machinery into the cove, forming an underwater

archive of material remnants that testify to the scale and aftermath of the war effort. Visiting each site requires time and intention, and these journeys are more than just physical, they are immersions into landscapes that hold deep historical significance.

These two sites embody distinct ways in which the war is inscribed into place. They offer glimpses into how remembrance, silence, and interpretation take shape, and how people's relationships with these places continue to evolve across cultural and geographic contexts.

Visitors to Niya-Thiya Cave tread carefully, aware of the sacred nature of the space, shaped by its use as a shelter and its significance in Okinawan spiritual traditions. In contrast, divers at Dump Cove navigate the unsettling underwater landscape, confronting the physical debris of war, now encrusted with marine life, and reflecting on the ephemeral nature of human conflict and the lingering imprint of its consequences.

On the sandy shores of Niya-Thiya Cave, footprints left by visitors mark a temporary yet meaningful connection to the past. Similarly, in the underwater expanse of Dump Cove, each kick of a diver's fin stirs the sand, creating temporary clouds that slowly settle back into place. This movement of sand represents a delicate balance between disruption and stillness, reflecting the ongoing presence of both the physical and emotional remnants of the war.

Fig. 1. (Left) View overlooking Taga Beach, Tinian, CNMI.

The sand, whether on land or underwater, is a visual and material record, shifting with currents and footsteps, yet always present. It serves as a metaphor for the passage of time and the constant interplay between absence and presence, void and fullness. These layers of disturbed sediment not only echo historical depth but also represent the accumulation of memory, as events and emotions are continually layered onto the landscape.

War, in its reshaping of landscapes, creates new spaces like Dump Cove and redefines established ones like Niya-Thiya Cave, altering the way we interact with and remember these sites.

When visiting Dump Cove and Niya-Thiya Cave, we approached these sites through a lens of deep cultural sensitivity and respect, mindful that neither was a direct battlefield where lives were lost. Yet, each site reveals a powerful emotional resonance. Our exploration focused on the stories and physical remnants at these sites, revealing how the landscape has been shaped by the passage of time and the impact of conflict. Memories persist in the scars etched into the earth, where silence carries the weight of suffering and survival. The artifacts we encountered, whether in the cave's shadows or the cove's depths, offered a poignant window into the past, weaving together tangible traces and the profound human experiences rooted in these places.

Taotao Mo'na and Kami

Spirits are deeply woven into many Pacific landscapes, shaping how people connect with land and kinship. In the CNMI and Okinawa, the presence of the *taotao mo'na* and *kami*, ancestral and spiritual beings rooted in Indigenous cosmologies, offers a way of understanding places like Dump Cove and Niya-Thiya Cave beyond their wartime pasts. These spirits are not just remnants of cultural memory; they remain active agents in the landscape, and acknowledging them allows us to see how histories of violence, displacement, and survival continue to ripple through both material and spiritual worlds.

Taotao mo'na refers to ancestral spirits in Chamorro (CHamoru) culture, the Indigenous people of the Mariana Islands. Translating to “people of before” or “ancient people” in the Chamorro language, *taotao mo'na* are believed to dwell in places such as banyan trees, caves, and old village sites, where they serve as guardians of the land and its people (see Figure 4).¹ Both deeply respected and sometimes feared, the *taotao mo'na* are acknowledged by Chamorro people and local communities alike. Many take precautions to avoid offending these ancestral spirits by seeking permission before entering certain spaces and performing rituals to show respect.² Encounters with *taotao mo'na* may result in illness or misfortune if they are disregarded, but they are also known to offer protection and blessings to those who honor them.



Fig. 2. Okinawa area map highlighting the distance to Iejima (Ie Shima).



Fig. 3. Map of Saipan, Tinian, and Aguijan, all part of the CNMI.



Fig. 4. Sacred banyan trees like the ones pictured here at Santa Lourdes Shrine in Saipan are believed to be inhabited by the *taotao mo'na*.

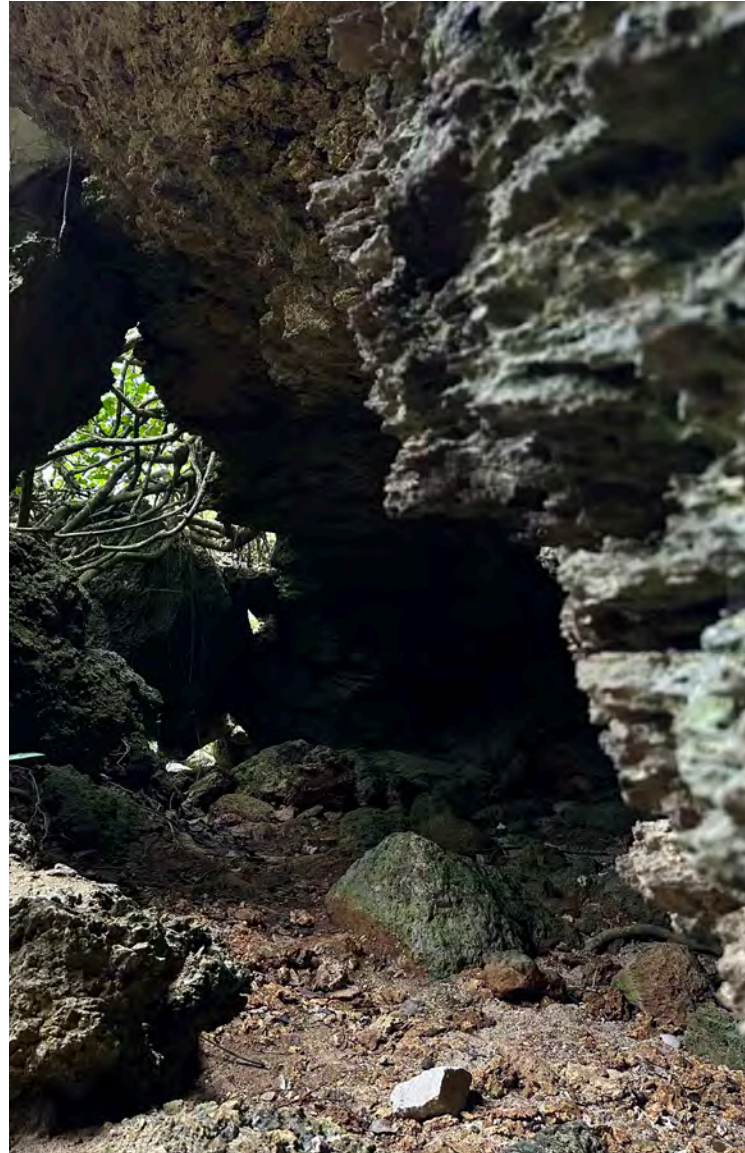


Fig. 5. Rocky wall of Niya-Thiya Cave in Iejima, with similar banyan tree branches visible in the background.

In the Mariana Islands, this belief system continues to shape local relationships with the land. Despite centuries of colonial disruption, both Chamorro and Carolinian cultural practices persist as vital forms of care for the land and its spirits.³ Extending beyond entry rituals, this ethic of care encourages people not to disturb or take from the land.⁴ In doing so, the practice becomes a form of land recognition that affirms Indigenous authority, even in landscapes marked by war and occupation.

In Okinawa, respect for the environment and its spirits is deeply rooted in Ryukyu Shinto, an indigenous belief system shaped by animism and ancestor worship. While it shares many similarities with Shinto, it reflects the distinct spiritual worldview of the Ryukyu Islands. Natural features like forests, mountains, and waters are seen as sacred and inhabited by *kami*, or local deities.⁵ Disturbing or removing objects from these areas without proper permission is also believed to bring misfortune.⁶ The spiritual worldview of Okinawa emphasizes the landscape as alive with presence, where *kami* are active forces that shape well-being and the natural world.

Kami may manifest as elements of the landscape, forces of nature, or ancestral beings that express the character of place.⁷ Revered through rituals and offerings at shrines, they are thought to influence health, prosperity, and natural phenomena. Communities sustain a continuous, reciprocal bond with the *kami* through everyday care and attention. This understanding fosters a commitment to protect

and restore the land, especially in the wake of wartime destruction, framing care for the environment as an act of cultural survival and healing. In this way, the landscape itself becomes a testament, not just to what has been lost, but to the enduring connection between people and place.

The concept of *onarigami*, the spiritual power of women, also plays a significant role in maintaining harmony with these forces. In traditional Okinawan culture, women are believed to possess divine authority and are often seen as mediators between the human and otherworldly realms.⁸ The banyan trees in Okinawa, locally known as *gajumaru* (*Ficus microcarpa*), hold particular religious significance, as they are believed to be home to spirits or elves called *kijimuna*. These trees are considered sacred, and their spiritual inhabitants are respected within the community.⁹ Such elements in Okinawan culture underscore the necessity of nurturing a reciprocal relationship with the environment through practices that invoke guidance and protection from the *kami*.

The role of landscapes as spiritual residences across these islands compels us to see how war's violence, inscribed in the environment, carries spiritual consequences. Recognizing the ongoing presence of entities like the *kami* and *taotao mo'na* means acknowledging them as both part of these places and victims of WWII's violence. Therefore, reading Pacific postwar landscapes calls for reckoning with postwar spirits.



Fig. 6. Japanese civilians emerge from a cave to surrender on Tinian, July 1944.

A Sacred Shelter: Niya-Thiya Cave

Reaching Niya-Thiya Cave begins with a ferry ride from mainland Okinawa to the small island of Iejima, a journey that distances visitors from the familiar and ushers them toward the cave's hidden, somber setting. With limited public transportation on the island, our team rented bikes and made our way over bumpy, slightly hilly roads, passing through fields of crops with distant views of the ocean. We barely saw any traffic lights, and cars were few and far between, adding to the quiet, open feel of the ride as we approached the level ground near the cave entrance. We descended a flight of stairs in order to access the cave, which is primarily composed of coralline limestone and features a rugged interior shaped over time by rainwater, groundwater, and the erosive force of nearby ocean waves (see Figure 7). This proximity to the ocean highlights the cave's notable location and geological context.

Niya-Thiya Cave, also known as *Sen-nin Gama*, which translates to “Cave of a Thousand People,” reflects its multifaceted role during WWII as both a sacred site and a wartime refuge. During armed conflict on the island, the cave became a shelter for hundreds of Okinawan civilians, mostly women and children, fleeing the relentless U.S. bombardment in 1945.¹⁰ Archival records and oral



Fig. 7. Base of the stairs within Niya-Thiya Cave.

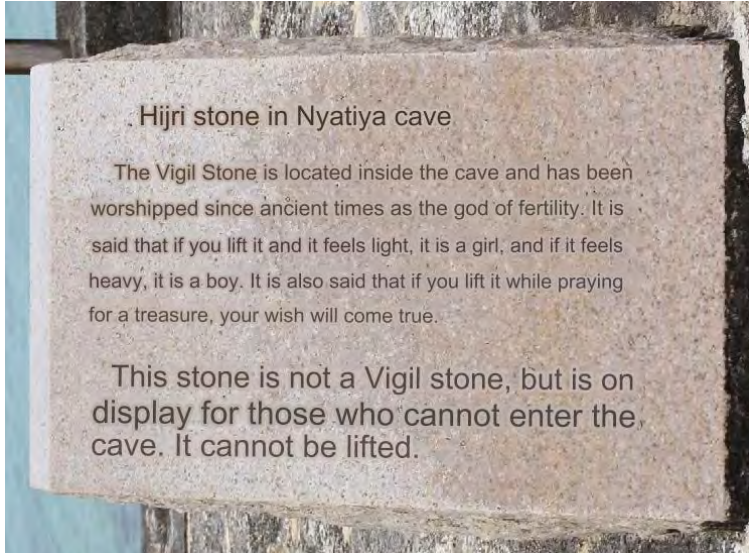


Fig. 8. (Above) Informational plaque at the entrance of Niya-Thiya Cave, with Google Translations on the right.
Fig. 9. (Below) Vigil stone located inside Niya-Thiya Cave, surrounded by piles of other rocks.



Fig. 10. The vast emptiness of Niya-Thiya Cave, with Carlo (left) and Emily (right) for scale.

Cross-Section

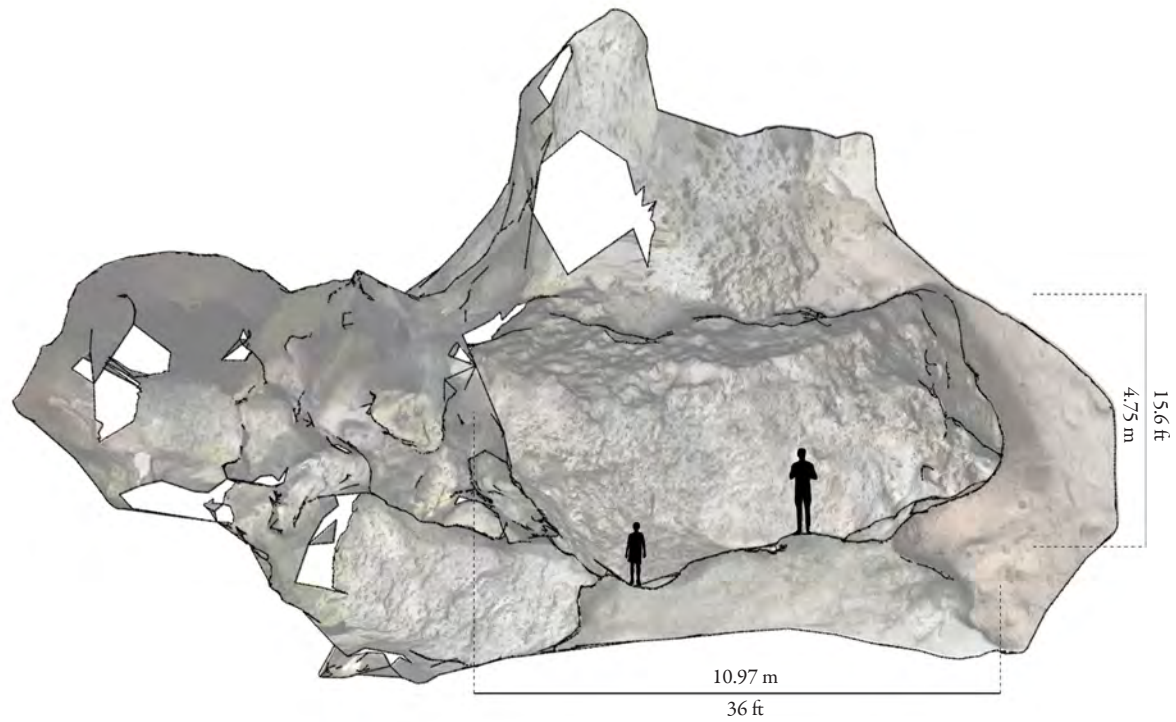


Fig. 11. (Above) Sectional part of Niya-Thiya Cave, highlighting material layers, scale, and atmosphere.

Fig. 12. (Right) Section and plan views of Niya-Thiya Cave, showing full scale with three detailed cuts from 3D scans.





Fig. 13. View of Niya-Thiya Cave looking out toward the stairs.



Fig. 14. View of Niya-Thiya Cave looking inward from the stairs.

histories describe how people crowded into the dark, humid space with little food or medical care, enduring fear and uncertainty amid rumors of atrocities committed by advancing troops.¹¹ While mass suicides tragically occurred in several other caves across Okinawa during this period, such events are notably absent from Niya-Thiya's history, making its story one of silent endurance amid immense hardship. It was common for civilians across Okinawa and other Pacific islands, including Saipan and Tinian, to seek shelter in caves, both naturally formed and those created or expanded by bomb blasts, as a means of survival during intense wartime bombardment. The name *Sen-nin Gama* may be symbolic rather than literal, but it reflects the weight of the stories and fears carried within its sacred walls.

Beyond its historical use as an air raid shelter, Niya-Thiya Cave holds profound cultural and sacred significance. In Okinawan folklore and Ryukyu Shinto beliefs, the cave is associated with fertility-related spiritual power. The distinct stones that rest on a base are believed to embody or channel this energy, and women seeking to conceive often visit the site to pray, touch the stones, or perform rituals to invoke blessings for reproductive well-being (see Figures 8 & 9). This connection is rooted in the Ryukyu Kingdom's spiritual practices, in which deities and goddesses played a central role. These sacred symbols underscore the intimate relationship between landscapes and human existence.

The echo of waves crashing against limestone and sand deepens the cave's spiritual atmosphere. This natural sound

amplifies the sensation of stillness and presence, inviting visitors to engage with its intertwined identities as both a wartime refuge and a sacred sanctuary. The significance of Niya-Thiya Cave extends beyond its walls, as the energy and spirit of the place continue to live on through the people who visit. Their presence and rituals breathe life into the cave, whose empty spaces reverberate with traces of past ceremonies, ensuring its spirit remains active and relevant across generations (see Figures 10-12).

Unlike many other WWII memorial sites in Okinawa and on Iejima, Niya-Thiya Cave remains quiet and uncommercialized, drawing primarily mainland Okinawan and Japanese visitors who seek something deeper than a historical marker. Its low profile reflects its continuing role in local spiritual life, where it is honored not as a destination but as a place of communion. The cave's secluded location on Iejima, framed by fields and ocean views, naturally filters out casual tourism and welcomes those who arrive with intention. A modest monument at the entrance quietly calls for reflection. As visitors descend the wooden stairs into the cave's cool, dim interior, the air shifts, thick with memory and layered with silence. Small shrines tucked into shadowed corners speak not only to the lives once sheltered here but to the resilience that remains. In this hushed space, footsteps resonate like quiet testimonies, urging visitors to listen to the land, its stories, and the presence that lingers in stone and stillness, a presence recognized by some as both remembrance and return (see Figures 13-18).



Fig. 15. View through a cave window to the ocean at low tide, with hanging roots and the rocky coast visible.



Fig. 16. View from the rocky coast into the cave window, where the limestone interior appears smooth and eroded by constant exposure to water.

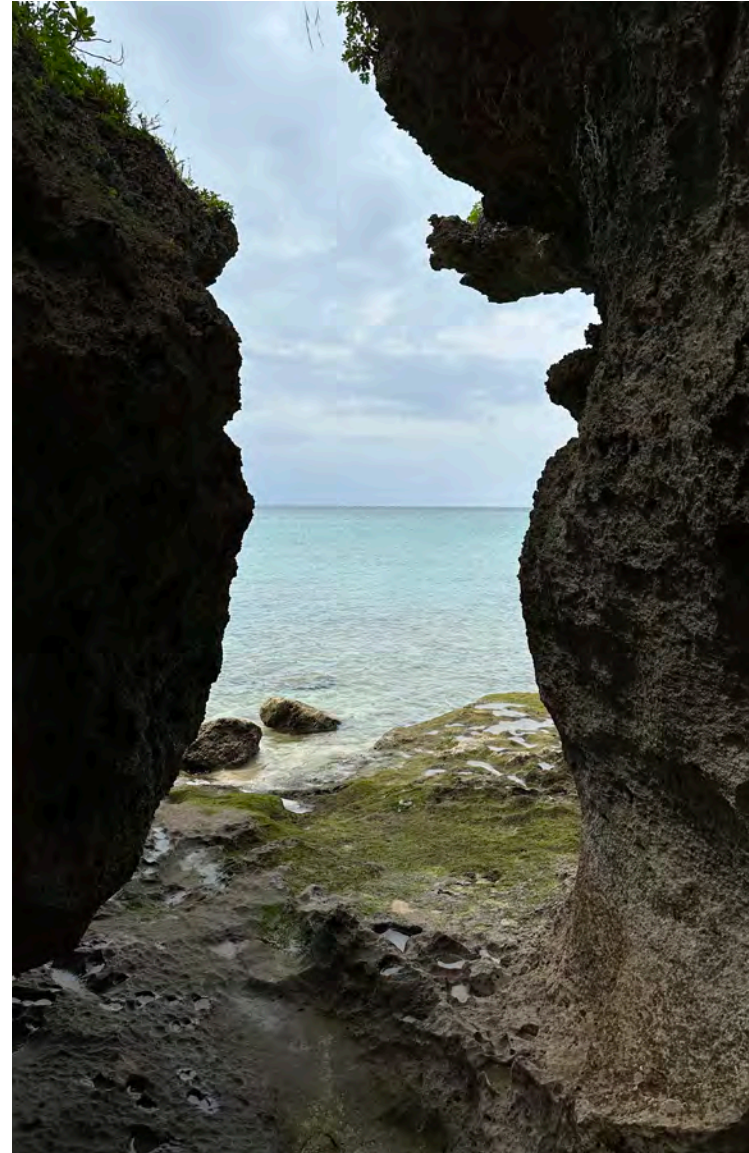


Fig. 17. Opening of Niya-Thiya Cave. The open area features marine vegetation growing along the rocks near the water.

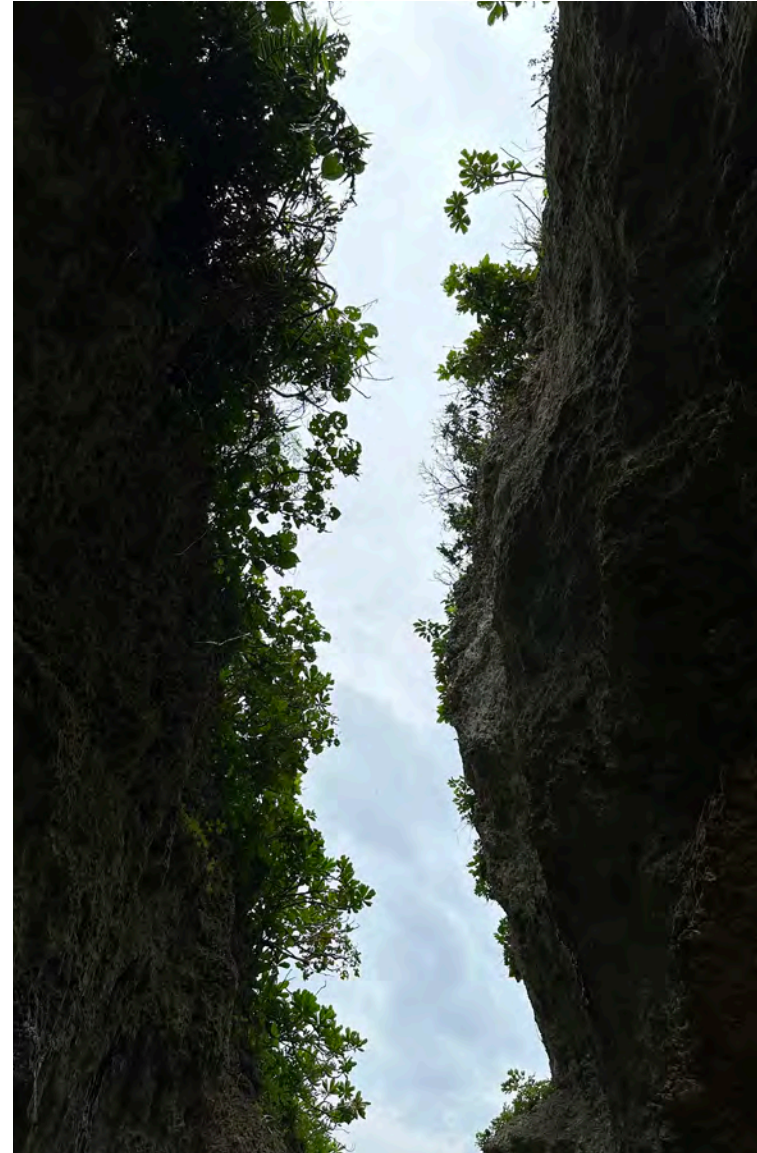


Fig. 18. Looking upward from the mouth of the cave, with plants visible growing on porous limestone.

An Unintended Archive: Dump Cove

Dump Cove, located on the island of Tinian in the CNMI, is a notable wartime disposal site, often referred to as “Dump Coke” due to the large quantity of Coca-Cola bottles found there (see Figures 30-33), reflecting a common practice of discarding surplus materials after WWII and other military conflicts (see Figures 21 & 28).¹²

In the aftermath of the war, the U.S. military deposited a variety of materials into the cove, including jeeps, tanks, parts of planes such as propellers, and an assortment of bombs and explosive cases (see Figures 19-26). The decision to dump these materials, rather than transport them back to the mainland U.S., was driven by the prohibitive cost.¹³ The water covering Dump Cove serves as a silent witness to the war, its depths concealing scattered debris that preserve a submerged archive of conflict and its enduring environmental and cultural impacts. The site, ranging in depth from 32 ft (10 m) to 98 ft (30 m), is accessible primarily by boat. While diving provides the best view of the submerged remnants, snorkelers can also catch a glimpse of the extensive collection of wartime debris from the surface.

Eighty years after these relics were discarded, Dump Cove



Fig. 19. (Above) War debris in Dump Cove, slowly overtaken by coral and sand.
Fig. 20. (Below) Unexploded ordnance piled across the site.



Fig. 21. B-29 scrapyard, Tinian, 1946.



Fig. 22. Research team diving at Shipwreck dive site, Saipan, a day before exploring Dump Cove.

Fig. 23. (Right) Annotated collage combining archival overlays and 3D scans to reconstruct site activity.





Fig. 24. Bangalore torpedoes, a type of pipe bomb, alongside piles of unexploded ordnance in Dump Cove.



Fig. 25. Detached propeller showing signs of new coral growth, surrounded by sand and marine vegetation.



Fig. 26. Hannah at the Shipwreck dive site in Saipan, alongside the B-29 cockpit frame during her practice dive.

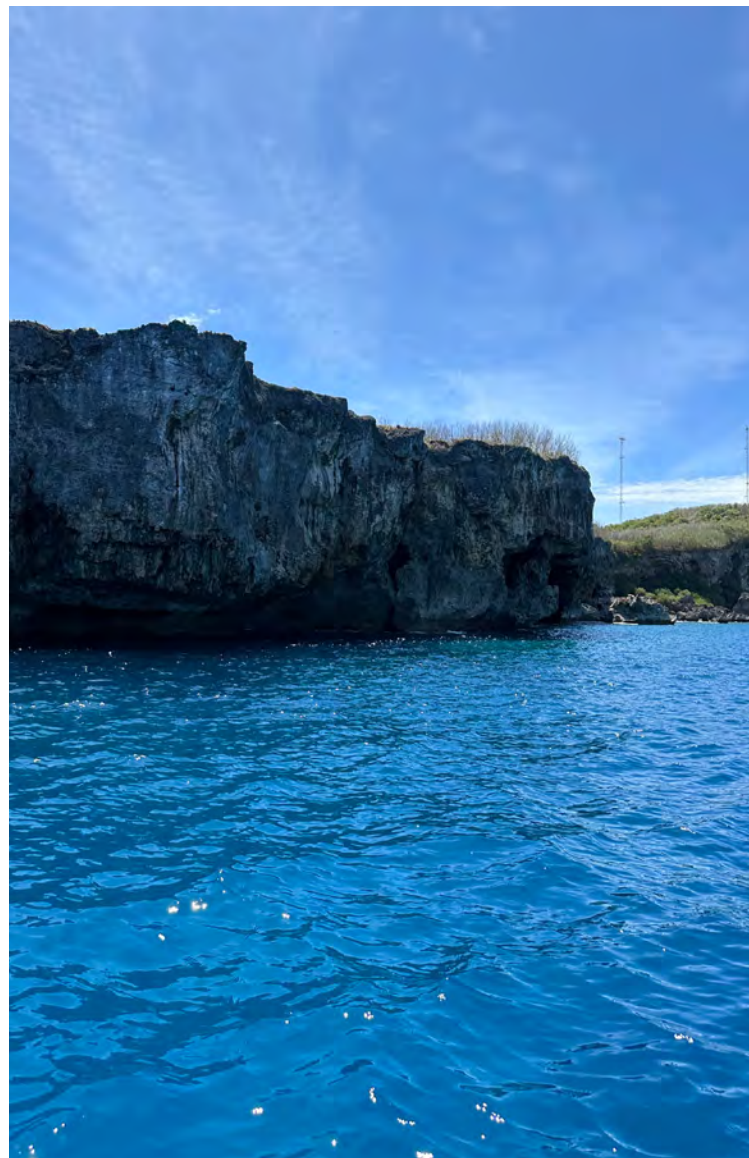


Fig. 27. Surface view of the coralline limestone cliffs along the coast of Tinian, taken from the diving boat.



Fig. 28. After WWII, members of the Royal Army Ordnance Corps (RAOC) at Cairnryan, Scotland, unload surplus ammunition by placing shells on gravity rollers, sending them into the sea. In the background, a man throws ammunition overboard.



Fig. 29. Turtle resting under a wing propeller.

has transformed into a postwar underwater landscape. The once-visible remnants of military vehicles and equipment are now partially covered by a thick layer of sediment and sand, with corals and marine growths colonizing their surfaces. This natural reclamation has turned the site into a vibrant marine habitat and sanctuary. Green sea turtles coast past rusted machinery, while stingrays and reef sharks weave through a terrain forged in violence (see Figure 29). The cove is also home to a diverse array of tropical fish, which find shelter and nourishment among the submerged artifacts. As described by the Marianas Visitors Authority in a post on their website, “the ocean wasteland has become an underwater museum where one can witness the relics of the war and is a haven for marine animals that reside in the coral reefs.”¹⁴ Man-made debris and marine life have created a complex underwater landscape where war remnants, once discarded and forgotten, now serve as unintended habitats. While military dumping may have aimed to conceal these remnants, the underwater environment instead preserves and quietly continues the story, revealing the lasting impact of war.

At Dump Cove, our team conducted two dives to document the site. Using a GoPro, we filmed videos and took photos of the area, surveyed marine organisms, and observed the wartime debris piled along the ocean floor. The water was relatively still and clear, typical for the start of diving season in Tinian, and from the boat we could already make out some of submerged objects below. After rolling backward off the boat, we slowly equalized



Fig. 30. (Above) Men of the 133rd Field Artillery Battalion enjoy bottles of Coca-Cola.
Fig. 31. (Below) Military police officers raise their bottles during conversation.



Fig. 32. Design Patent No. 48,160 for a Coca-Cola bottle, dated November 16, 1915.

(relieving pressure in our ears) and descended through the increasingly colder water in full gear, gently fin-kicking and adjusting our buoyancy to stay just above the seafloor. The only sounds were the steady pace of our breath through the regulator and the trail of bubbles rising behind us. We moved carefully through the site, navigating in slow arcs around rusted debris and coral-covered fragments, capturing footage and stills from multiple angles. The collected footage was later used to generate 3D models with an application called Polycam, allowing us to capture accurate dimensions and detailed digital representations of specific underwater objects. Videogrammetry, the process of reconstructing precise 3D models from overlapping video images, was the core technique behind this detailed documentation. These models were instrumental in producing the drawings featured in our exhibitions, two of which are shown in this chapter (see Figures 12 & 23).

Coca-Cola Bottles and Phosphorus

At the bottom of Dump Cove, Coca-Cola and Pepsi bottles given to soldiers during WWII lie as unexpected yet significant artifacts. These bottles highlight the soldiers' need for familiar comforts and reflect the global reach of American industry during the war (see Figures 30-32). They represent a momentary pause in the flow of everyday life, standing in contrast to the relentless passage of time and the gradual uncovering of history. Soldiers often discarded

bottles in the cove, and after the war, entire cases were dumped there.

Remarkably, some bottles still hold air and water sealed inside, preserving fragments of the past. Markings from multiple manufacturing regions provide a snapshot of wartime logistics, encapsulated in glass (see Figure 33).¹⁵ These relics offer insight into the personal experiences of soldiers and the cultural footprint of the U.S. military presence. Their survival as artifacts of the past adds a layer of allure and perceived value, turning them into objects of desire for collectors. Together, these bottles serve as tangible traces of material movement, allowing us to reconstruct the extensive supply networks that sustained the Pacific Theater during the war.

As Dump Cove has gained popularity as a tourist destination, many divers have begun collecting these artifacts, leading to a significant reduction in the number of bottles still present. Today, collecting these bottles is strongly discouraged, not only to preserve the site's historical integrity but also due to toxic materials. The submerged vehicles, machinery, and munitions in Dump Cove have accumulated white phosphorus residues over the decades. When exposed to oxygen, this substance can spontaneously ignite, posing serious risks to anyone who unknowingly disturbs it.¹⁶ The ongoing discovery of hazardous remnants underwater and on land reveals the unresolved entanglement local communities face in living with the war's aftermath.



Fig. 33. Coca-Cola bottle from WWII found in Dump Cove, Tinian.

Reclaiming the Remains

The sand found at Niya-Thiya Cave and so many other locations along Okinawa's coast gestures toward a deep material history embedded across the islands. In the postwar years, sand, abundant yet often overlooked, became an essential resource, shaping both the physical reconstruction of the islands and the rise of small-scale industries. One of the most enduring examples is Ryukyu glass, a craft that combined American military waste with local materials, transforming fragments of war into vessels of everyday life. After WWII, Okinawa faced a shortage of resources and materials, leading to increased orders for practical glassware and souvenirs for stationed military personnel and their families. To meet the demand, Okinawan glassmakers recycled discarded beer and soda bottles from the American military.¹⁷ They washed, melted, and molded these used bottles into new glassware, resulting in products with unique colors, minute air bubbles, and distorted shapes (see Figures 34-36). Since Okinawa's reversion to Japan, Ryukyu glass has gained fame as a distinctive souvenir, with artisans continually innovating and evolving their craft.¹⁸

In a different way, the waters of Dump Cove absorb and transform the material remnants of war, as discarded

machinery becomes encrusted with reef organisms. Still a vibrant marine environment, the cove bears layered traces of both natural ecosystems and wartime history. While archival photographs document the cove's landward areas cluttered with war debris, the submerged objects remain as haunting reminders beneath the surface, blurring the line between ruin and habitat as marine life weaves its presence over these imposed scars.

Each site, on land and underwater, offers a unique form of reclamation, one through craft and reinvention, the other through slow ecological integration, quietly reshaping the materials left behind by U.S. occupation into something living, layered, and ongoing.



Fig. 34. Okinawa's Ryukyu glassware.



Fig. 35. (Above) Okinawa's famous star-shaped sand (*Baculogypsina sphaerulata*).
Fig. 36. (Below) The sand imparts a unique texture to glass products.

Stillness and Submersion

Niya-Thiya Cave and Dump Cove offer opportunities for deep reflection on history, cultural memory, and environmental change, each embodying a distinct facet of WWII's legacy. The emptiness of Niya-Thiya Cave feels suspended in time, steeped in the hush of memory and the weight of what once was. In contrast, Dump Cove teems with life. Coral and other organisms now envelop the debris of war, transforming it into a living archive that merges the boundary between ruin and renewal. Despite their differences, both sites shaped by violence and endurance stand as lasting testaments to history's imprint, persisting with vital stories that demand recognition and reflection.

Niya-Thiya Cave's remote location on Iejima, reachable only by ferry, and Dump Cove's underwater setting, accessible exclusively to divers, invite a purposeful journey to places that embody the vast and lasting imprint of WWII across the Pacific's island landscapes (see Figures 37 & 38).¹⁹ This journey reflects a broader ethic of care rooted in cultural respect, where artifacts are left undisturbed to honor the sites' significance and maintain their integrity. In engaging with these landscapes, we participate in a careful balance between remembrance and preservation, recognizing the sacredness embedded in both. Here, human history

intersects with the more-than-human world as land and sea converge with war's remnants to form environments that are both fragile and resilient (see Figure 39). This dynamic relationship shaped by natural reclamation and mindful stewardship reveals the ongoing tension between honoring the past and the inevitable passage of time, allowing history's traces to survive through quiet persistence rather than loud spectacle.

This contrast between Niya-Thiya Cave and Dump Cove reflects the broader Pacific Theater's history and the diverse ways WWII's remnants are experienced today. Across the region, battlefields have become neighborhoods, bunkers repurposed as sheds, and old airstrips transformed into driveways, as traces of war quietly fold into everyday life. The footprints in Niya-Thiya's sand and the fin kicks stirring Dump Cove's sediment mark more than fleeting presence; they signal an ongoing, living connection to the past. One site invites stillness and reflection, the other movement and discovery. Niya-Thiya Cave, a sacred refuge for many, calls for deep contemplation of its cultural weight. Dump Cove's submerged artifacts, now part of a thriving marine ecosystem, form an informal archive attracting both researchers and divers. Together, they reveal the varied ways Okinawa and the CNMI continue to live with and interpret the remnants of war, tracing the shift in these landscapes' roles. Across land and sea, these places convey a profound truth: war's remnants are never mere wreckage but embody memory, responsibility, and a quiet call to bear witness.



Fig. 37. On the hour-long ferry ride from Motobu Port to Iejima.



Fig. 38. On the 45-minute boat ride from Saipan to Tinian.



Fig. 39. View from above the stairs in Niya-Thiya Cave, looking out into the open water with limestone.

Notes

1 Michael Lujan Bevacqua, “Taotaomo’na,” Guampedia, accessed July 24, 2024, <https://www.guampedia.com/taotaomona-taotaomona/>. When broken down, “*tao*” translates to “person” or “people,” while “*tao mo’na*” refers to “ancestors” or “spirits.”

2 Robert Tenorio Torres, “Pre-Contact Marianas Folklore, Legends, and Literature: A Critical Commentary,” *Micronesian: Journal of the Humanities and Social Sciences* 2, no. 1-2 (2003), 12-13, archived September 10, 2008, at https://web.archive.org/web/20080910054004/http://www.hawaii.edu/hivandaids/Pre-Contact_Marianas_Folklore_Legends_and_Literature.pdf. Local knowledge holds that one should not pull or touch any part of a *taotao mo’na* tree, as doing so may result in bruises or serious illness the following day.

3 Patrick McMakin and Deborah McMakin, *The Surubanos: Traditional Curers on the Island of Guam*, Micronesica 14, no. 1 (June 1978): 17. Although this paper focuses on the *taotao mo’na* and CHamorus of Guam, both Chamorros (CNMI) and CHamorus (Guam) share similar beliefs in spirits of nature (see Key Terms for more details).

4 Ibid., 18.

5 D.C. Holtom, “The Meaning of Kami,” *Monumenta Nipponica* 3, no. 1 Jan. 1940: 1-3, <https://doi-org.ezp-prod1.hul.harvard.edu/10.2307/2382402>.

6 Nobutaka Inoue, “Perspectives toward Understanding the Concept of Kami,” Institute for Japanese Culture and

Classics, Kokugakuin University, December 12, 2000, accessed August 1, 2024, <https://www2.kokugakuin.ac.jp/ijcc/wp/cpjr/kami/intro.html>.

7 “Kami,” BBC, last modified September 4, 2009, https://www.bbc.co.uk/religion/religions/shinto/beliefs/kami_1.shtml. *Kami* are thought to possess their own will and presence, and neglecting proper respect, rituals, or offerings can lead to misfortunes like illness or accidents. To ensure their favor and avoid such consequences, it is essential to uphold rituals, offer prayers, and show respect.

8 Natsuki Ikezawa, “Onarigami,” Amakuma Ryukyu, accessed August 1, 2024, <https://amakuma.ryukyu/en/onarigami-en/>. We learned that the cave was already in use before the war due to the spiritual power believed to reside in the stones.

9 “Kijimuna,” Yokai.com, accessed August 5, 2024, <https://yokai.com/kijimunaa/>.

10 Ie Village Office, *Ie Island*, (2015), 3. The cave’s size made some areas inaccessible due to poor lighting and complete darkness, hinting at how densely populated it might have been during the war. The only reference we located at the Okinawa Prefectural Archive appeared in a single publication, which Eriko from the archive generously assisted us in identifying.

11 Hiromichi Yahara, *The Battle of Okinawa*, trans. Harry Harootunian (Pantheon Books, 1995), 145.

12 “Explore Diving in the Northern Mariana Islands,” PADI, accessed June 10, 2024, <https://www.padi.com/diving-in/northern-mariana-islands/>.

[in/northern-mariana-islands/](https://www.padi.com/diving-in/northern-mariana-islands/). Pepsi bottles are also found underwater, each with different manufacturing details and years embossed on the glass.

13 Julie Braun, “American Material Culture: Investigating a World War II Trash Dump,” Idaho National Laboratory (Preprint, 2005), 3, <https://inldigitallibrary.inl.gov/sites/sti/sti/3394894.pdf>. After the army’s departure following the war, many jeeps, guns, and food supplies were left behind on Saipan and Tinian. These abandoned resources provided the local population with enough provisions to sustain themselves for several months. It became common practice for residents to reuse abandoned vehicles.

14 “Dump Coke,” MapMe, accessed June 18, 2024, <https://viewer.mapme.com/mymarianas/location/edf2bc85-d492-41d6-9700-432608c00179>. During the 2020 pandemic, travel restrictions cut off access to the islands for several months, preventing the arrival of tourists and allowing marine animal populations to recover while coral reefs began regenerating undisturbed.

15 The Coca-Cola Company, “History: 1943 – World War II,” *The Coca-Cola Company*, accessed March 2, 2025, <https://www.coca-colacompany.com/about-us/history>. This Coca-Cola bottle features the design patent number “Pat. D-105529,” which corresponds to the iconic contour bottle granted in 1938. Bottles with this embossing were produced between 1938 and 1951. During World War II, Coca-Cola established over 60 bottling plants near active combat zones, following a directive from General Eisenhower to supply troops with Coca-Cola “as close to the front lines as possible.” More than 5 billion bottles were distributed to American servicemen during the war.

16 World Health Organization, “White Phosphorus,” accessed September 15, 2024, <https://www.who.int/news-room/fact-sheets/detail/white-phosphorus>. White phosphorus can remain dangerously reactive and flammable for decades when buried underwater or in soil, posing long-term environmental and safety hazards even 80 years after conflicts.

17 Sharon Alphonso, “A Beginner’s Guide to Okinawa’s Ryukyu Glassware,” *Tokyo Weekender*, March 22, 2023, accessed August 21, 2024, https://www.tokyoweekender.com/art_and_culture/japanese-culture/okinawa-ryukyu-glassware/. Alongside Ryukyu glass, “*Yachimun*,” an Okinawan pottery that blends Japanese, Chinese, and Southeast Asian influences, is also highly regarded in Okinawa. Entire streets are dedicated to selling Ryukyu glass and ceramics, reflecting the region’s cultural influences shaped by the war and neighboring countries.

18 “Ryukyu Glassware,” Okinawa Island Guide, accessed August 21, 2024, <https://www.oki-islandguide.com/arts-and-crafts/ryukyu-glassware-2>.

19 Few archival images of Niya-Thiya Cave or Dump Cove from before or immediately after WWII are known to exist, and notably, our research uncovered little to none. While more contemporary photographs exist today, largely due to tourism or postwar memorialization, there is a noticeable absence of military-produced or official archival documentation. This absence is significant, especially considering both sites underwent shifts in purpose before, during, and after the war, and it invites reflection on how wartime histories are preserved, or hidden, in the landscape. The WWII Maritime Heritage Trail, led by Jennifer McKinnon at East Carolina University, offers a new lens on submerged wartime sites and Pacific Island memory.

Image Credits

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Fig. 1: Hur, Gio. *Overlooking Taga Beach, Tinian*. 2024. Color photograph.

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Fig. 2: U.S. Air Force Contingency and Base Planning Cell. *Area Chart - Okinawa*. January 1945. In: Barry Lawrence Ruderman, “[Second World War - Okinawa] Area Chart – Okinawa.” RareMaps.com. Accessed August 26, 2024. <https://www.raremaps.com/gallery/detail/63861/second-world-war-okinawa-area-chart-okinawa-64th-engineer-base-topographic-battalion>.

Fig. 3: United States Hydrographic Office, U.S. Navy. *North Pacific Ocean Marianas: Saipan and Tinian Islands Soundings and Fathoms*. April 1, 1944. In UC San Diego Library Digital Collections, Pacific Basin Nautical Charts collection. Accessed August 27, 2024. <https://library.ucsd.edu/dc/object/bb7782823b/zoom/0>.

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Fig. 4: Hur, Gio. *Sacred Banyan at Santa Lourdes Shrine, Saipan*. 2024. Color photograph.

Fig. 5: Hur, Gio. *Wall of Niya-Thiya Cave, Iejima*. 2024. Color photograph.

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Fig. 6: U.S. Marines. *A Japanese Man with a Child on His Back*

and Others Come Out of a Cave to Surrender on the Island of Tinian in July 1944. July 1944. Black and white photograph. Okinawa Prefectural Archives. In “In Photos: Okinawa Pref. Archives release WWII images taken on Saipan, Tinian by U.S. forces.” *The Mainichi*. April 24, 2020. Accessed August 27, 2024. <https://mainichi.jp/english/graphs/20200424/hpe/00m/0fe/001000g/20200424hpe00m0fe004000q>.

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Fig. 7: Hur, Gio. *Bottom Steps Inside Niya-Thiya Cave*. 2024. Color photograph.

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Fig. 8: Raimondo, Carlo. *Plaque with Translations, Niya-Thiya Cave*. 2024. Color photograph.

Fig. 9: Hur, Gio. *Vigil Stone Inside Niya-Thiya Cave*. 2024. Color photograph.

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Fig. 10: Hur, Gio. *Carlo and Emily Inside Niya-Thiya Cave*. 2024. Color photograph.

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Fig. 11: Hur, Gio. *Cross Section of Niya-Thiya Cave*. 2024. Color collage.

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Fig. 12: Hur, Gio. *Niya-Thiya Cave: Scale, Materiality, Atmosphere*. 2025. Color collage.

This collage was exhibited at the Quotes Gallery at the Harvard Graduate School of Design (GSD) and the Knafel Concourse Gallery at the Center for Government and International Studies (CGIS).

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Fig. 13: Hur, Gio. *Looking Out Toward the Stairs, Niya-Thiya Cave*. 2024. Color photograph.

Fig. 14: Hur, Gio. *View Facing Inward, Niya-Thiya Cave*. 2024. Color photograph.

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Fig. 15: Hur, Gio. *View Through Cave Window, Niya-Thiya Cave*. 2024. Color photograph.

Fig. 16: Hur, Gio. *Limestone Interior, Niya-Thiya Cave*. 2024. Color photograph.

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Fig. 17: Hur, Gio. *Opening Between Walls, Niya-Thiya Cave*. 2024. Color photograph.

Fig. 18: Hur, Gio. *Plants Visible Above Niya-Thiya Opening*. 2024. Color photograph.

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Fig. 19: Hur, Gio. *Dump Cove Debris Covered by Coral and Sand*. 2024. Color photograph.

Fig. 20: Hur, Gio. *Unexploded Ordnance, Dump Cove*. 2024. Color photograph.

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Fig. 21: U.S. Army Air Forces. *B-29 Scrapyard, Tinian*. 1946. Black and white photograph. U.S. Air Force Historical Research Agency. In “Air Field 22.” Saipan’s History in Pictures. Accessed August 25, 2024. <https://saipanhistory.blogspot.com/2011/06/air-field-22.html>.

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Fig. 22: Hur, Gio. *Team Diving at Shipwreck Dive Site, Saipan*. 2024. Color photograph.

Several team members obtained their PADI Open Water Diver certifications, while others completed refresher courses. Training dives were conducted at dive sites around Saipan in preparation for fieldwork at Dump Cove.

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Fig. 23: Hur, Gio. *Dump Cove: Tracing Material and Spatial Remnants*. 2025. Color collage.

This collage was exhibited at the Quotes Gallery at the Harvard Graduate School of Design (GSD) and the Knafel Concourse Gallery at the Center for Government and International Studies (CGIS).

U.S. Army Air Forces. *B-29 Scrapyard, Tinian*. 1946. Black and white photograph. U.S. Air Force Historical Research Agency. In “Air Field 22.” Saipan’s History in Pictures. Accessed August 25, 2024. <https://saipanhistory.blogspot.com/2011/06/air-field-22.html>.

Office of the Chief Signal Officer. *Men of the 133rd Field Artillery Battalion Enjoy Cokes on the Front*. March 17, 1944. Black and white photograph. Records of the Office of the Chief Signal Officer, U.S. National Archives. Accessed August 10, 2024. <https://prologue.blogs.archives.gov/2015/06/08/the-coca-cola-bottle-celebrating-100-years-of-an-american-icon/#jp-carousel-15540>.

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Fig. 24: Hur, Gio. *Pipe Bombs and Ammunition Remnants, Dump Cove*. 2024. Color photograph.

Fig. 25: Hur, Gio. *Propeller with Coral Growth, Dump Cove*. 2024. Color photograph.

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Fig. 26: Hur, Gio. *Hannah with B29 Cockpit Frame, Shipwreck Dive Site, Saipan*. 2024. Color photograph.

Fig. 27: Hur, Gio. *Limestone Cliffs Along Tinian Coast*. 2024. Color photograph.

Peak diving months in the Mariana Islands typically span from April to July, when weather conditions are optimal and most dive sites, including those off the coast of Tinian, are fully

accessible. Our visit in late May coincided with this peak season, providing exceptionally clear, calm waters that made conditions ideal for surveying the underwater landscape at Dump Cove.

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Fig. 28: Menzies, Frazer. *The Dumping of Surplus Ammunition at Sea*. September 18, 1945. Black and white photograph. Imperial War Museums. Accessed September 26, 2024. <https://www.iwm.org.uk/collections/item/object/205208197>.

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Fig. 29: Hur, Gio. *Turtle Beneath Aircraft Propeller, Dump Cove*. 2024. Color photograph.

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Fig. 30: Office of the Chief Signal Officer. *Men of the 133rd Field Artillery Battalion Enjoy Cokes on the Front*. March 17, 1944. Black and white photograph. Records of the Office of the Chief Signal Officer, U.S. National Archives. Accessed August 10, 2024. <https://prologue.blogs.archives.gov/2015/06/08/the-coca-cola-bottle-celebrating-100-years-of-an-american-icon/#jp-carousel-15540>.

Fig. 31: Klosterman. *Photograph of Military Police Visiting the 6888th Central Postal Directory Battalion Retreat Club*. June 1, 1945. Black and white photograph. Records of the Office of the Chief Signal Officer, U.S. National Archives. Accessed August 10, 2024. <https://catalog.archives.gov/id/175539233>.

Fig. 32: Patent and Trademark Office. *Design Patent No. 48,160 for*

Bottle or Similar Article. November 16, 1915. Records of the Patent and Trademark Office, U.S. National Archives. Accessed August 10, 2024. <https://prologue.blogs.archives.gov/2015/06/08/the-coca-cola-bottle-celebrating-100-years-of-an-american-icon/#jp-carousel-15531>.

See Endnote 15 for more details.

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Fig. 33: Hur, Gio. *Original 1944 Coca-Cola Bottle Found in Dump Cove, Tinian*. 2024. Color photograph.

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Fig. 34: Alphonso, Sharon. Molding of Ryuku Glassware. Color photograph. In “A Beginner’s Guide to Okinawa’s Ryukyu Glassware.” *Tokyo Weekender*. March 22, 2023. Accessed August 21, 2024. https://www.tokyoweekender.com/art_and_culture/japanese-culture/okinawa-ryukyu-glassware/.

Fig. 35: Couette, Alain. *Microphotograph of Star Sand, Hatoma Island*. June 3, 2007. Color photograph. Creative Commons. Accessed August 20, 2024. https://www.arenophile.fr/Pages_IMG/P2085f.html.

Star-shaped sand grains, composed of the calcified shells of foraminifera (*Baculogypsina sphaerulata*), can be found on certain beaches in Tinian and Saipan. While not widely documented, their presence is locally recognized and they are occasionally spotted along the shoreline.

Fig. 36: Geomr. *Star Sand, Hatoma Island*. April 4, 2007. Color photograph. Creative Commons. Accessed August 20, 2024.

https://en.wikipedia.org/wiki/Iriomote_Island#/media/File:Star_sand_Iriomote.jpg.

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Fig. 37: Hur, Gio. *Ferry Ride from Motobu Port to Iejima*. 2024. Color photograph.

While returning to mainland Okinawa, we missed our ferry and, by coincidence, witnessed local families at Ie Port waving flags to children departing on what seemed to be a school field trip. We later learned this is part of the Japanese *omiokuri* (send-off) tradition, where communities warmly see off travelers with care and wishes for safe journeys. Such farewells are common in small, tight-knit places like islands and rural towns.

Fig. 38: Hur, Gio. *Diving Boat Ride from Saipan to Tinian*. 2024. Color photograph.

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Fig. 39: Hur, Gio. *Overlooking Limestone and Open Water, Niya-Thiya Cave*. 2024. Color photograph.



CHAPTER 4: A TALE OF TWO AIRFIELDS

By Emily Kim

There are few landscapes as superficially mundane and ubiquitous as the airfield: long and wide strips of flattened earth, covered in paving surfaces. In this chapter I discuss two such airfields, one on the island of Iejima off the northwest coast of Okinawa in Japan, and the other on Tinian in the Commonwealth of the Northern Mariana Islands (CNMI). Though small and sparsely populated, both islands played significant roles in World War II as part of a vast network of Pacific airfields. Today, these sites linger at the margins of American memory, appearing as unremarkable as they did at their inception. Yet their continued existence reveals more than the material residue of war.

Iejima Auxiliary Airfield and North Field are just two of the more than eighty airfields built or reconstructed by the U.S. Armed Forces across the Pacific between August 1942 and 1945. While many of these airfields have since fallen into disrepair or disappeared entirely, the continued maintenance

of Iejima Auxiliary Airfield and North Field signals their ongoing strategic and political relevance. In this chapter, I argue that the rapid development of technologies during WWII laid the groundwork for new ways of perceiving, building, and engaging with landscapes across scales. I examine the distinct terrains that immediately surround and are often enabled by the presence of each sterile strip, and consider the broader infrastructural network formed by their collective footprint across the Pacific.

The View from Above

Aerial photography was central to the reconnaissance, mapping, and documentation of various Pacific Islands that were targeted by Allied Forces. While both airplanes and cameras predated the war, their rapid development during World War I and in the lead-up to WWII significantly shaped the conflict, particularly in the Pacific Theater, where the sheer size of the Pacific made air power indispensable. In response, the U.S. produced over 300,000 planes during WWII, more than a hundred times its previous output.¹

Cameras saw constant evolution during WWII, particularly in the United States, which sought to match the technological capabilities of its German and Japanese adversaries. The Eastman Kodak Company—colloquially known as Kodak—based in Rochester, New York,

Fig. 1. (Left) Runway Baker on North Field, Tinian, viewed through a drone.



Fig. 3. (Above) Insignia for the 12th Combat Camera Unit United States Army Air Forces (USAAF), one of many units documenting WWII through film and photography.

revealed shifting boundary lines, designating which world power controlled which set of islands at any given time (see Figure 6). During WWII, these islands became essential points in the vast geography that separated the United States and Japan. As the U.S. Navy outlined in a 1947 report analyzing wartime operations, “a prerequisite to control of the sea was control of the air above.”⁴ With this logic, Pacific Islands were (re)imagined as a network of strategic land acquisitions that allowed for more precise bombing campaigns against Japan. This militarized lens flattened the rich and unique complexities of the various island landscapes, recasting them as interchangeable sites rather than distinct places (see Figures 8-10).

Airfields altered the relationship between islands—what was once only traversable by sea could now be interconnected through air. Built by both Axis and Allied forces, these airfields expanded the capacity to monitor, control, and project power across the region. Their construction was rapid—often beginning within hours of, if not during, battle. Their presence was not merely functional but foundational, enabling the launch of each successive island invasion (see Figure 11).⁵

Most airfields in the Pacific were constructed with limestone quarried directly on-site—material drawn from the coralline limestone that forms the geologic foundation of many Pacific Islands. These airfields, in some cases single runways, took up significant real estate, completely altering island landscapes (see Figure 9). Despite their scattered

Fig. 4. (Below) Technical Sergeant Antone Bruns of the 7th Combat Camera Unit with his camera, his position taking the (literal) place of a bomb or gun on a plane.



Fig. 5. U.S. military photographer David Douglas Duncan inside a USAAF plane at Yontan Airfield, Okinawa.

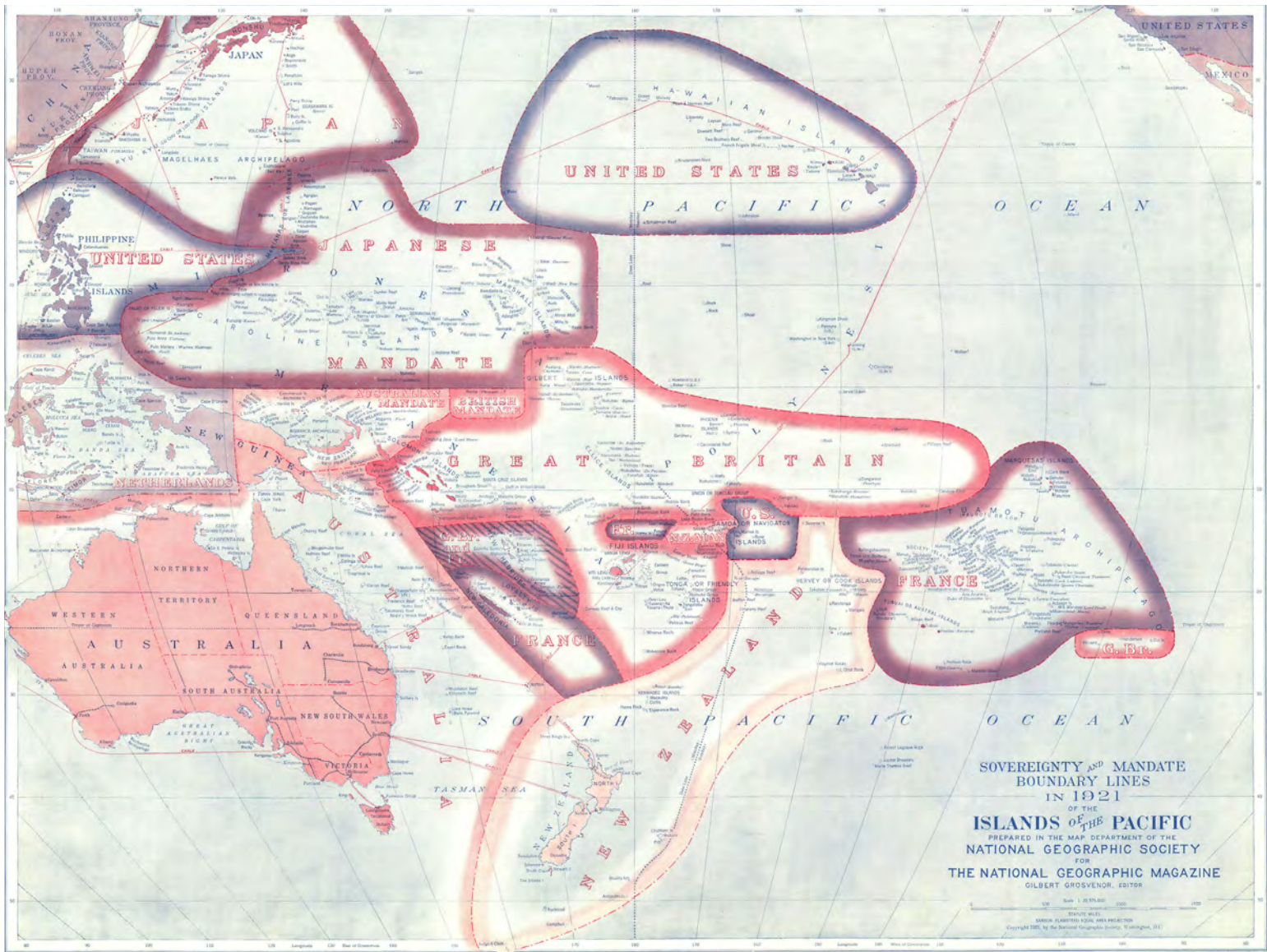


Fig. 6. Map by National Geographic showing the various sovereignty and mandate boundary lines of Pacific Islands in 1921.

locations, the airfields bore a striking uniformity. Whether constructed by the U.S. Army Corps of Engineers or U.S. Naval Construction Forces (Seabees), they often looked indistinguishable from one another. Looking at photos of various airfields from the war, it is easy to imagine these might all be of the same place, simply taken from different angles (see Figures 8-10). This network of airfields made island hopping and the eventual success of the Allied nations possible.

Connected through a growing network of runways, these airfields produced a new military geography that redefined the islands not as culturally distinct territories, but as interchangeable components within a vast logistical system; recasting these unique places as placeless infrastructure. (see Figure 11). The *Enola Gay*, the B-29 bomber that dropped the atomic bomb on Hiroshima, stopped at Iejima Auxiliary Airfield to refuel before returning to its home base at North Field on Tinian—a fleeting moment in transit, yet a telling one.⁶ Though the names of these airfields and their host islands remain largely forgotten to history, their roles in the Pacific War were deeply interdependent. It was the creation of this aerial infrastructure that enabled the United States, operating from thousands of miles away, to wage and win war at unprecedented scale. This single flight path exemplified how militarized connectivity not only altered the physical terrain but reconfigured the spatial logic of empire itself.

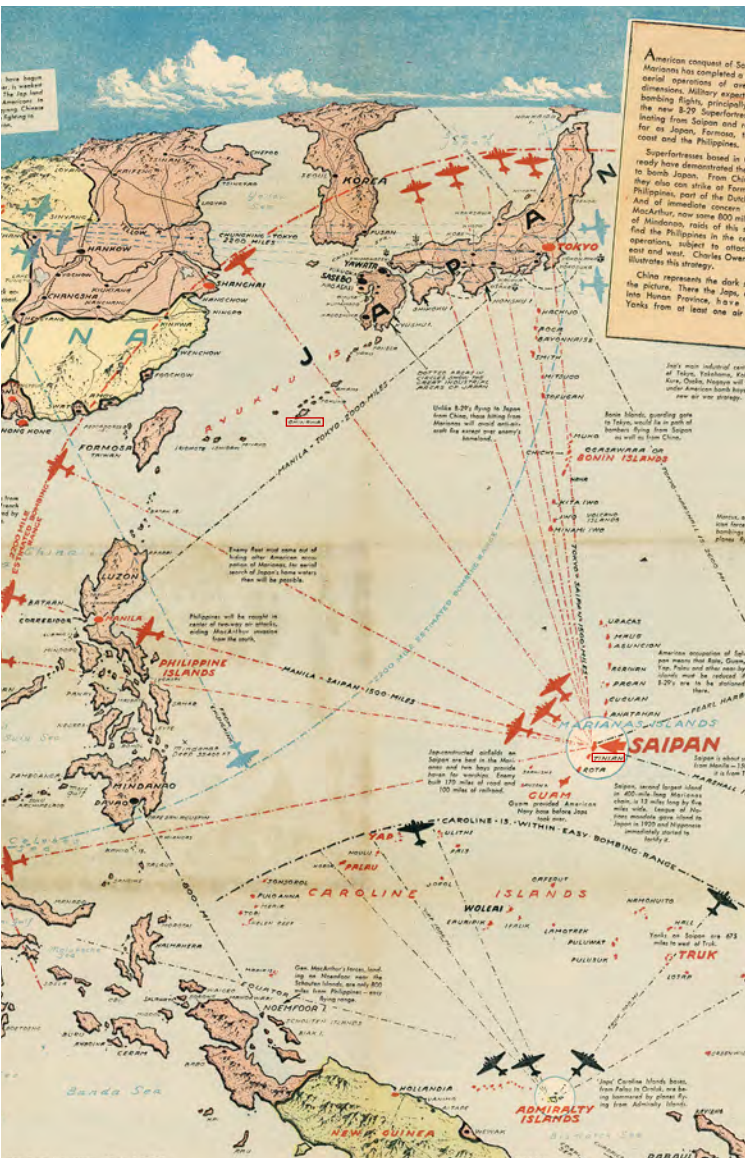


Fig. 7. Map showing the ongoing war in the Pacific and the strategic capture of Saipan (1944), emphasizing the role of air power in winning WWII.



Fig. 8. (Above) U.S. military constructing an airport on Takatik Island, Pohnpei.
Fig. 9. (Below) A U.S.-built airfield on Bikini Atoll completely bisecting an island.



Fig. 10. A runway on an island of Palau built by the U.S. military, framed by palm fronds. Without a label, it would be impossible to tell where this photo was taken.

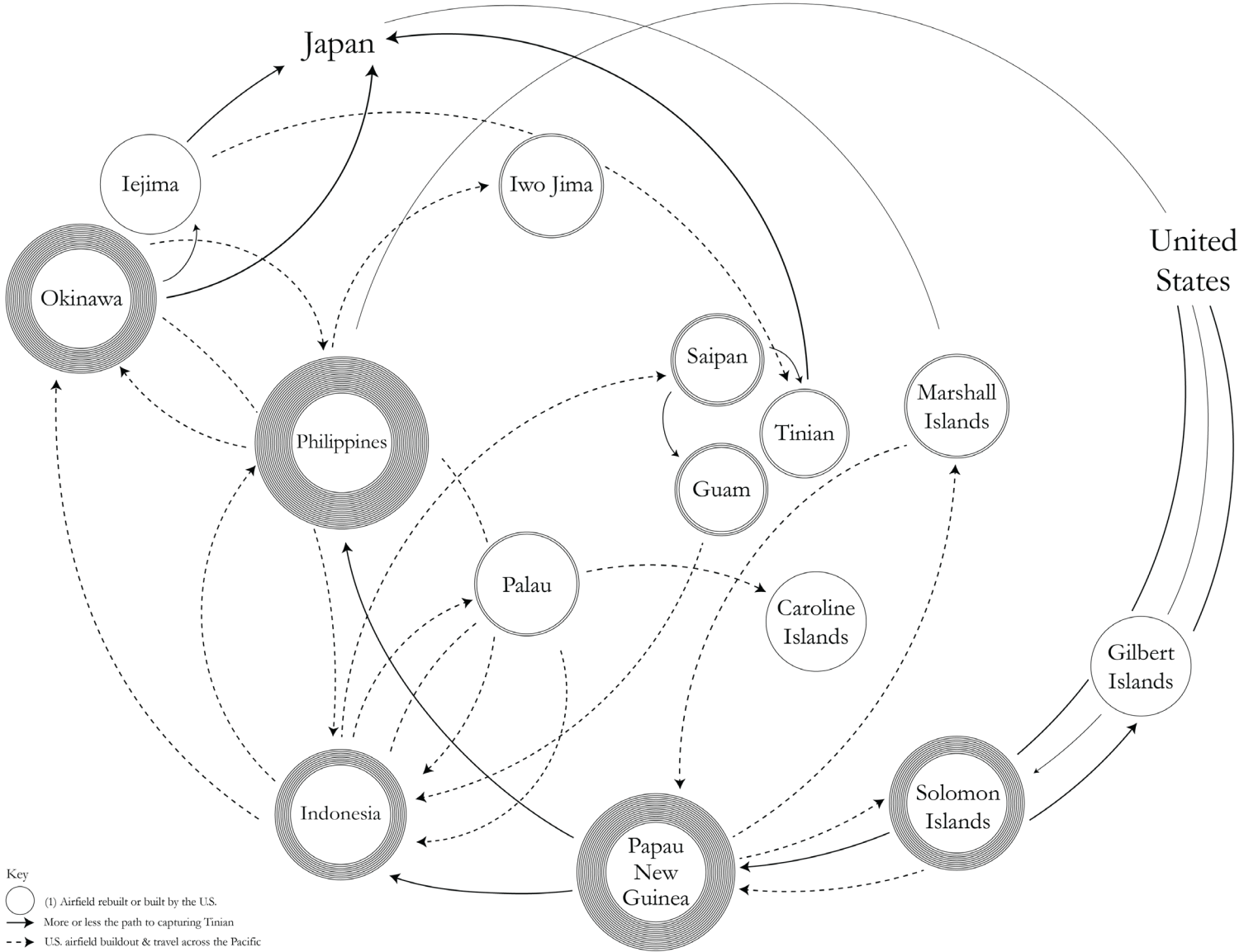


Fig. 11. Island hopping and airfield construction across the Pacific Theater (1942-45).



Cigarettes & Hot Sauce: Airfields as Material Witness

Iejima and Tinian are both home to multiple runways, some more active than others. The war and subsequent U.S. military occupation has greatly re-shaped these islands, leaving long-lasting impacts that have reverberated across time. While the airfields deployed across the islands of the Pacific might be seen as part of a larger landscape typology of military infrastructure and neocolonialism, these two airfields have their own specific and dynamic stories to tell. The airfields—and the environments immediately surrounding them—act as material witnesses to a war which has never really ended for the islands and their residents.

Iejima Auxiliary Airfield

Iejima is a 8.9 mi² (23 km²) peanut-shaped island in Okinawa Prefecture, Japan (see Figure 13). Although it was the first site we visited, reaching it involved the most steps. We began in Naha, the capital at the southern end of Okinawa, then took a bus north along the western coast to the port city of Motobu. With the ferry to Ie Port operating only four times daily, we had to wait until the next morning to make the crossing. After a brief hour-long ride, we arrived at a curved terminal building lined with tourist

Fig. 12. A view of Iejima's agricultural fields from the top of Gusukuyama.

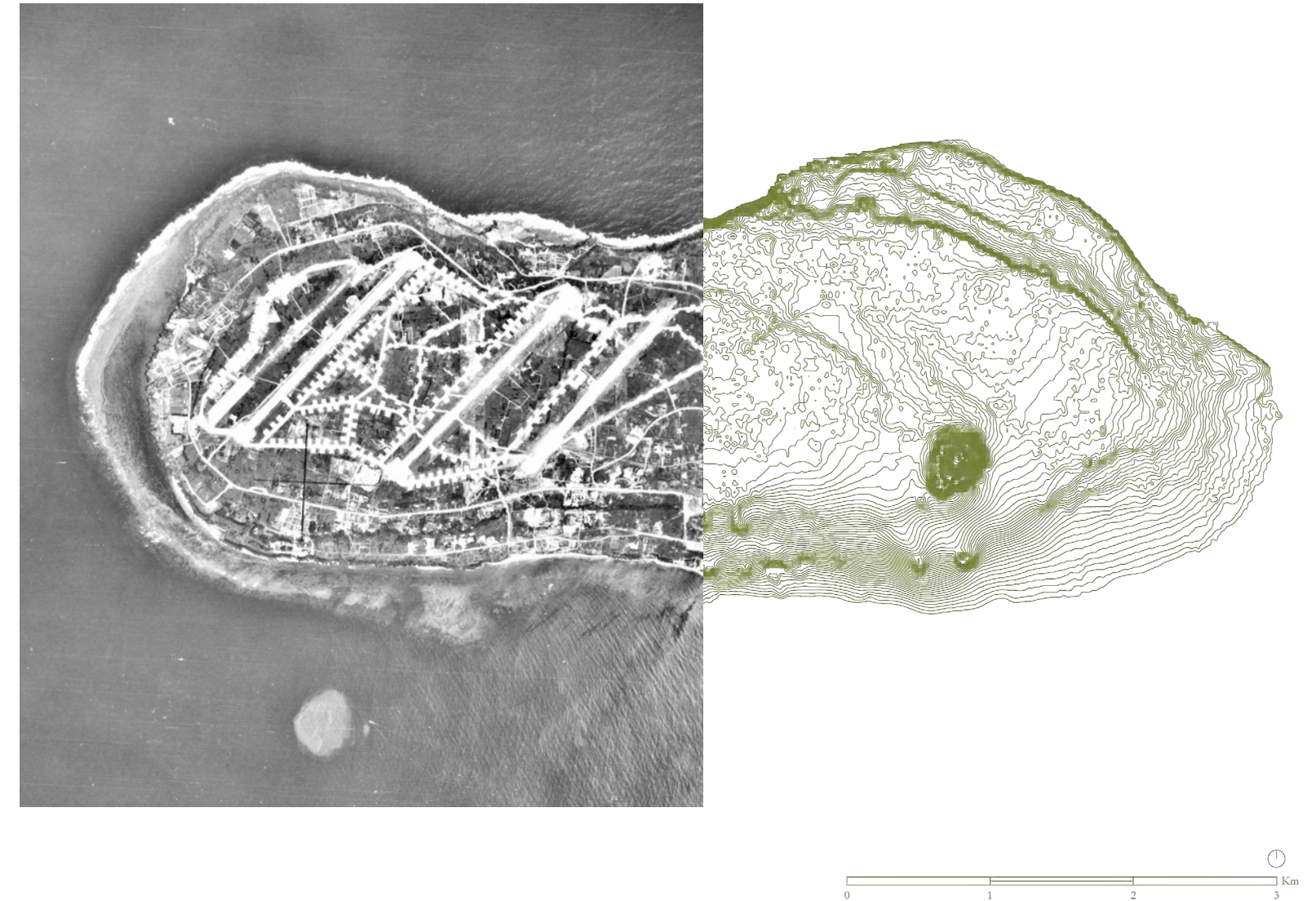


Fig. 13. U.S. military aerial photograph of the western side of Iejima collaged with a topographic drawing of the island.

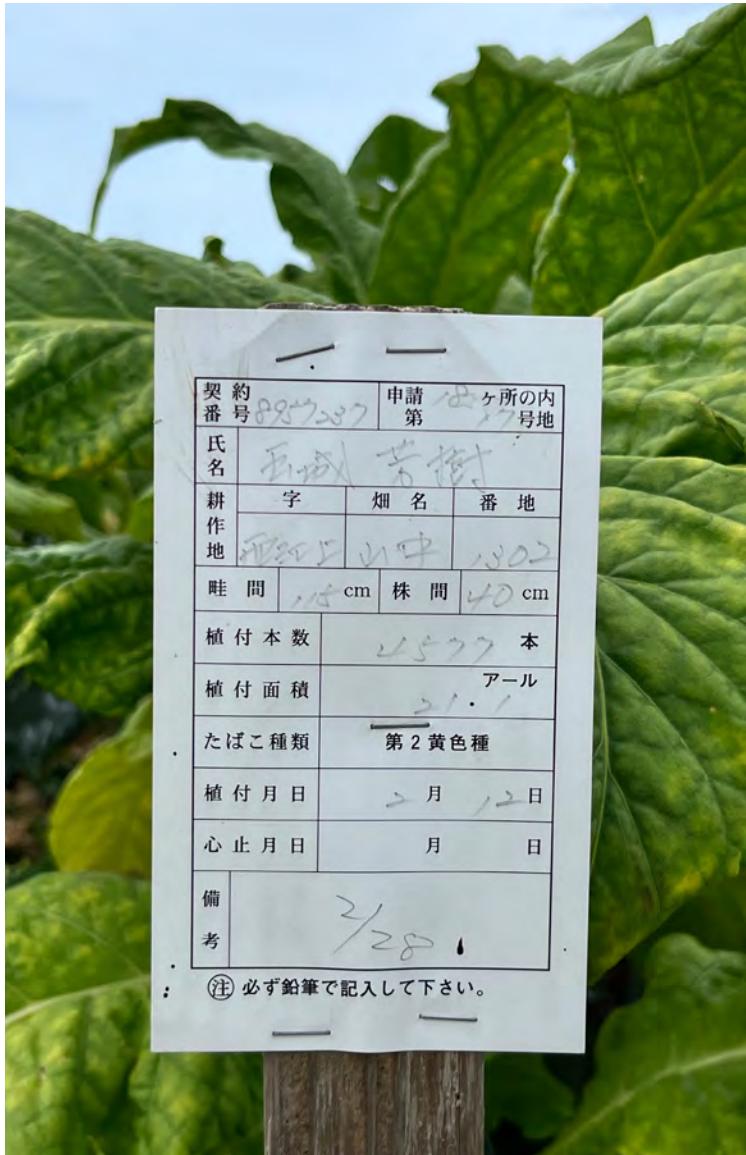


Fig. 14. Tobacco planting label for farmer Yoshiki Tamaki. We used the Google Translate phone application to read the label.



Fig. 15. An incredibly uniform field of tobacco, a common sight along the winding roads that lead us to Iejima Auxiliary Airfield.

shops, restaurants, and a small fleet of bike and car rentals. Given the island’s modest size, we chose bicycles. When we asked about locks, the shopkeeper scoffed—on Iejima there was no need, she assured us.

Our first stop was Niya-Thiya Cave, just southwest of the port. After a few hours spent 3D scanning, photographing, and sketching, we began to make our way toward the airfield. Beginning in the island’s southern lowlands, we felt the topographic incline as we moved north, taking breaks and walking our bikes at some points. We had arrived on Iejima in late May, between tourist seasons, and the island felt nearly deserted. Few cars passed us, and even fewer cyclists. In the fields, we saw the occasional elderly farmer at work. As we pedaled through quiet streets, we began to notice endless rows of a bright green crop. At first, we couldn’t identify the ubiquitous plant. A brave bite of a leaf left us even more puzzled—what could this peppery plant be? With help from Google Translate and the meticulous labeling by local farmers (see Figure 14), we quickly realized: it was tobacco.

After traveling down a wide and seemingly endless road, the tobacco fields around us faded away, and we opened into a clearing. Ahead of us lay our site: Iejima Auxiliary Airfield Runway, one of three airstrips built on the island during the WWII. Today, this “tourist destination” (as proclaimed by Google Maps) is primarily frequented by tobacco farmers, who use the gravel path to shuttle between fields or store supplies along its edge. At first glance, the road appears



Fig. 16. Wrapped barrels of dried tobacco sit on the edges of Iejima Auxiliary Airfield. Shadows of past barrels litter the field.



Fig. 17. Ground textures and colors of Iejima Auxiliary Airfield. Beneath the paved surface, the brittle coralline limestone substrate shows through.

incidental, obscured only by plastic-wrapped barrels of dried tobacco leaf (see Figure 16), compost piles, and, in our case, a charred tractor. But further time on the strip reveals that despite its uneven, weathered surface, the strip is clearly maintained—kept relatively clear and level, a runway still, in form if not fully in function (see Figure 17).

Traversing the airfield, we were struck by how endless the road appeared; it was difficult to tell where the paved ground ended (see Figure 18). We biked for some time before encountering anything else. At the far end of the strip, we reached a U.S. Marine Corps training facility, extensively fenced, with rows of newly planted trees lining its perimeter like lollipops. Riding up and down the runway felt like drifting through an empty parking lot, surrounded by fields on all sides. Along the edges, small weeds pushed through the cracked asphalt—subtle reminders of the upkeep this otherwise vacant strip continues to receive, a level of maintenance rarely afforded to other wartime airfields in the Pacific. Given its scale and size, one wonders why it hasn't simply returned to farmland.

During WWII, the Japanese military built two airfields on Iejima. These runways took up about a third of the island, covering much of the land on the western side (see Figures 18-20). When the Japanese foresaw their defeat at Iejima, they attempted to destroy the airfields, which were quickly rebuilt with an additional strip, and put to use by U.S. forces (see Figures 13 & 22). One of those runways is currently part of an active U.S. Marine Corps training facility,



Fig. 18. (Right) Hannah, Gio, and Carlo on Iejima Auxiliary Airfield during a site visit.

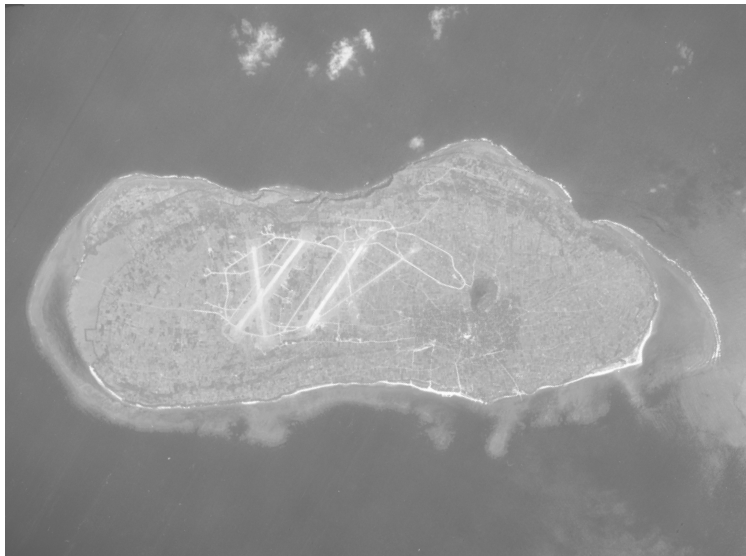


Fig. 19. (Above, left) Japanese Imperial Land Survey Map of Iejima, 1921.
Fig. 21. (Below, left) U.S. aerial photo of Japanese-built airfields, January 1945.

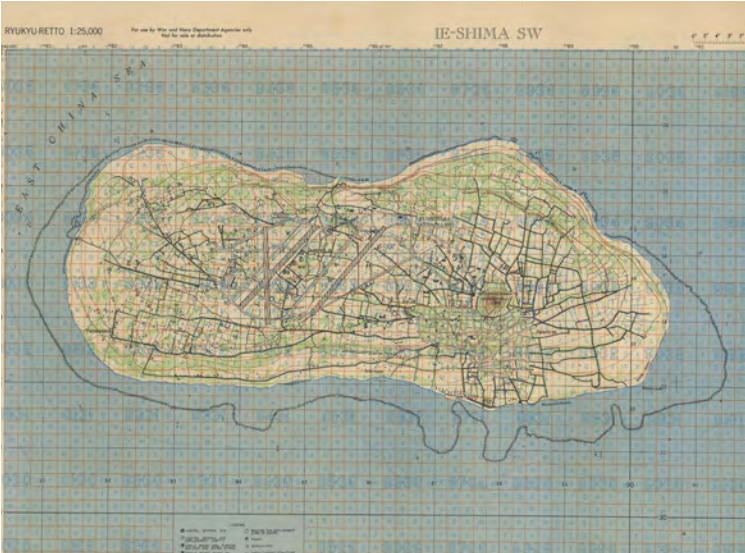


Fig. 20. (Above, right) U.S. reconnaissance map compiled from aerial photos, 1944.
Fig. 22. (Below, right) Aerial photo of Iejima after further U.S. airfield buildout, 1946.



Fig. 23. Okinawans protest at an agricultural field turned practice range by the U.S. military in Iejima, 1950s. The sign is mounted onto a wooden cross and reads “To Americans, We must fear to be punished by God. We are great friends as brothers and sisters. God always will be watching on our act. We live to do good without contrading (?) against God don’t we.”



surrounded by tobacco farms (see Figure 24).

The Okinawan people, across what was formerly known as the Ryukyu Kingdom—before Japan colonized the islands—have a long history of agricultural development. One decade after the war, Iejima, then a U.S. military colony, underwent a second invasion. On March 11th, 1955, the U.S. military began seizing valuable farmland from locals, tricking them into signing away the rights to their farmland, turning two-thirds of the island into an active bombing range. But the sugarcane and tobacco farmers of Iejima would not be so easily pushed out.

During military bomb practices, the farmers continued to actively work their lands, and were only deterred when soldiers arrested them, confiscated their tools, and sent them to prison. Upon their release, the farmers returned straight back to their fields to continue harvesting. They were met by American soldiers who sprayed over three hundred acres of farmland with gasoline to thwart them. This pushed eighty farmers, led by Shōkō Ahagon, to march the length of Okinawa's mainland in what they called the March of the Beggars.⁷ Their campaign, including turning the photographic lens back onto the U.S. military to document their perils, eventually created enough publicity for the U.S. to close the range a decade later (see Figure 23). In 1966, the U.S. military reduced their imprint to one-third of the island, and many farmers were reunited with their stolen land.⁸ Today, their legacy lives on at the *Nuchidon Takara no Ie* (or “The House of ‘Life is a Treasure’”)

Fig. 24. Collaged diagram layering various events, geospatial data, and archival material revealing the legacy of militarization and resistance on the island of Iejima.



Fig. 25. A carton of Okinawan cigarette brand *Uruma*, which is still in circulation today.

museum on Iejima, which bears witness to the Okinawans' endless struggle to retrieve their land from imperial forces.⁹

Unfortunately, the hardships for Okinawan farmers did not end there. As Japan rebuilt its postwar economy, the government nationalized the tobacco industry, creating a state-run monopoly and setting cigarette prices nationwide. When Okinawa reverted to Japanese control from the U.S. Military Government of the Ryukyu Islands (USMGR) in 1972, the islands became subject to Japan's high tobacco tax. For farmers who had long grown and processed their own tobacco, the new regulations felt like yet another loss of autonomy and economic survival.

To ease tensions over repatriation, Japanese officials granted the Okinawans a concession: they could continue farming tobacco and producing their own cigarettes. These cigarettes, now sold by brands Uruma (see Figure 25) and Violet, remain half the price of most Japanese brands and are only available in Okinawa.¹⁰ They serve as a quiet, daily reminder Okinawan resilience—especially the determination of Iejima's farmers. Today, sugarcane and tobacco are Iejima's top agricultural products (see Figure 24). In 2020 alone, the island produced 448 tons of tobacco, generating 910,786,000 JPY or about 6.3 million USD in sales.¹¹ Though their protests may have long faded from national memory, the farmers' presence is etched into the rhythms of the land, where every field of crops signals not just survival, but a lasting claim to dignity and place.



Fig. 26. (Above) Map showing contemporary cropland across Iejima, based on data from the Japan Aerospace Exploration Agency (JAXA).

Fig. 27. (Following spread) Endless tobacco fields flank Iejima Auxiliary Airfield. Small tented carts are scattered throughout, where farmers bundle tobacco leaves by hand.



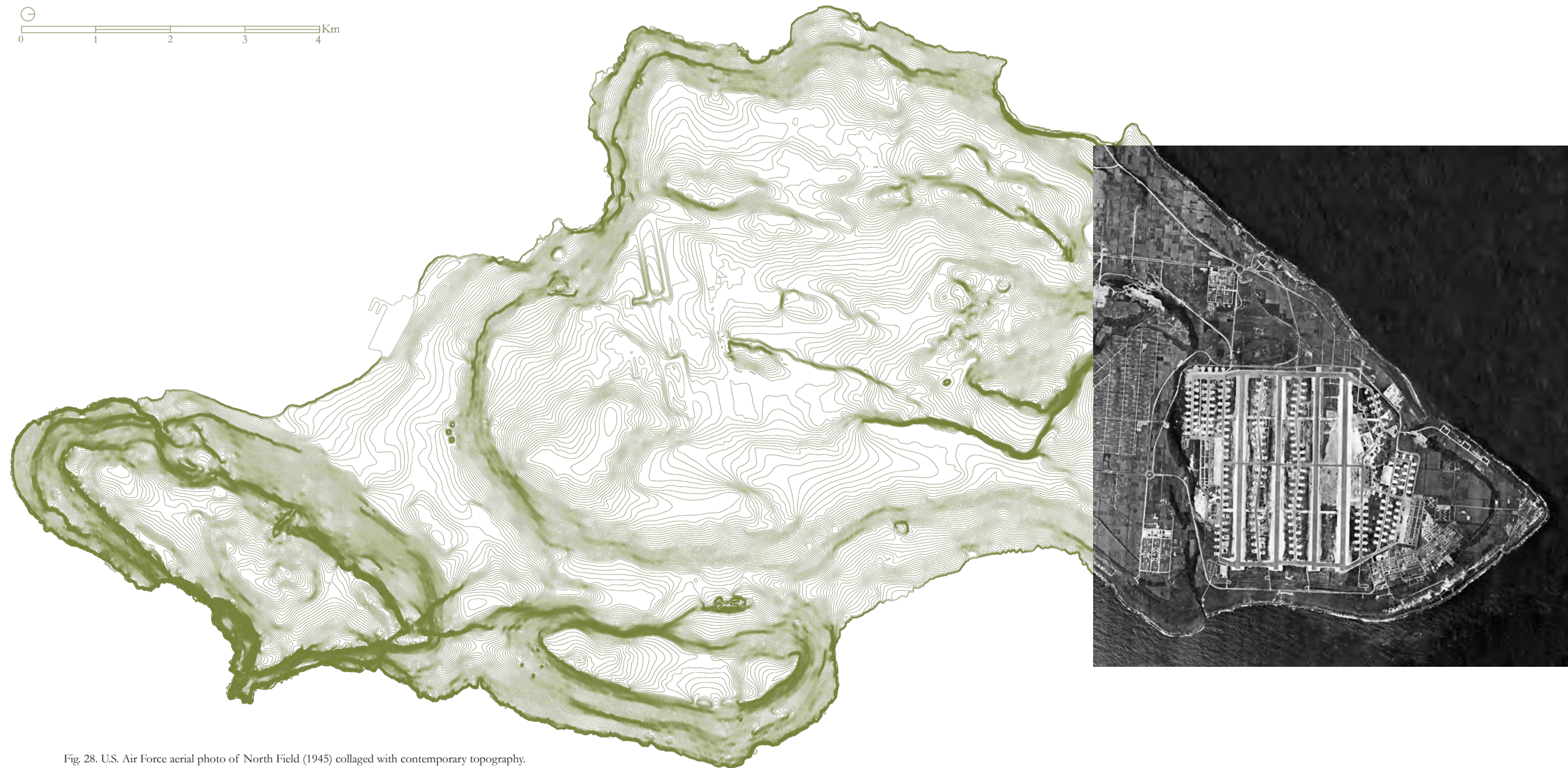


Fig. 28. U.S. Air Force aerial photo of North Field (1945) collaged with contemporary topography.

North Field

Tinian is a 39.08 mi² (101 km²) island in the CNMI. The Chamorro (CHamoru) people, who are indigenous to the island, have witnessed a litany of empires control their lands since the Spanish made the Marianas a port in the late 1600s. In 1899, rule over the islands transferred to Germany until 1919, when the League of Nations gave Japan former control of the islands as part of the South Seas Mandate. At the height of Japan's colonial period, Tinian was quickly transformed into a sugar plantation. With a climate and geography similar to Okinawa, Okinawan sugarcane farmers were sent to the CNMI to grow and harvest sugar for export to mainland Japan. In the 1920s, Tinian's predominately limestone jungle was almost completely cleared to grow fields of sugarcane (see Figure 29). The newly agricultural landscape only lasted a few decades before it was completely flattened once more by bombing during the Battle of Tinian (see Figure 30).

By August of 1944, the Battle of Tinian was ending, and the Seabees had already begun to repair and expand the existing runways the Japanese had built, formerly known as Ushi Point Airfield (see Figure 41). Tinian had been selected for its strategic position; located only 1,500-1,700 miles (2,414-2,736 km) away from Japan, it was an ideal launch point for an Allied air attack. The Allied



Fig. 29. Okinawan sugarcane farmers working in Saipan and Tinian. The translation provided is by Google Translate.

Forces’ Boeing B-29 “Superfortress” bombers required 8,500-foot-long runways (“a ten-lane highway”); the north end of Tinian could easily accommodate four such runways (see Figure 28). This was a colossal project. Over fifteen quarries were constructed across the island to mine coralline limestone, used to fill and level the northern end of the island to create the highly engineered runways. Only four months after the battle was over, more than a hundred B-29s and 12,000 U.S. Air Force personnel began arriving at North Field (see Figure 32). It was built in alternating 12-hour shifts, by both U.S. military personnel and interned Chamorros, Carolinians, Okinawans, and Koreans. It quickly became the largest and busiest airport in the world.¹² By February of 1945, three of the four runways were complete and the site was operational. In less than one year from the capture of Tinian, the U.S. launched the atomic bombs from North Field onto Hiroshima (see Figures 33-35) and Nagasaki.

During the war, the U.S. military employed college-educated foresters. Originally recruited to interpret aerial photographs and maps to help with operational intelligence, the Army Corps of Engineers and Seabees ran forestry operations, which included lumber supply (logging and milling) as well as botany work.¹³ Though Tinian’s newly empty landscape was perfect for expanding existing Japanese airfields, its barren land had to be addressed after the war ended. Landscapes pocked with bomb-shaped craters and decimated ecologies across a relatively flat island led to an initiative to re-vegetate it. Having experimented



Fig. 30 (Above, left) Tinian flattened by the Battle of Tinian, 1944.
Fig. 32. (Below, left) North Field, the world’s largest military airdrome, 1945.



Fig. 31. (Above, right) B-29 Superfortresses fly over Runway No. 3 during buildout.
Fig. 33. (Below, right) Loading the atomic bomb pits on Tinian, 1945.



Fig. 34. U.S. military aerial photo of Hiroshima before the dropping of the atomic bomb.

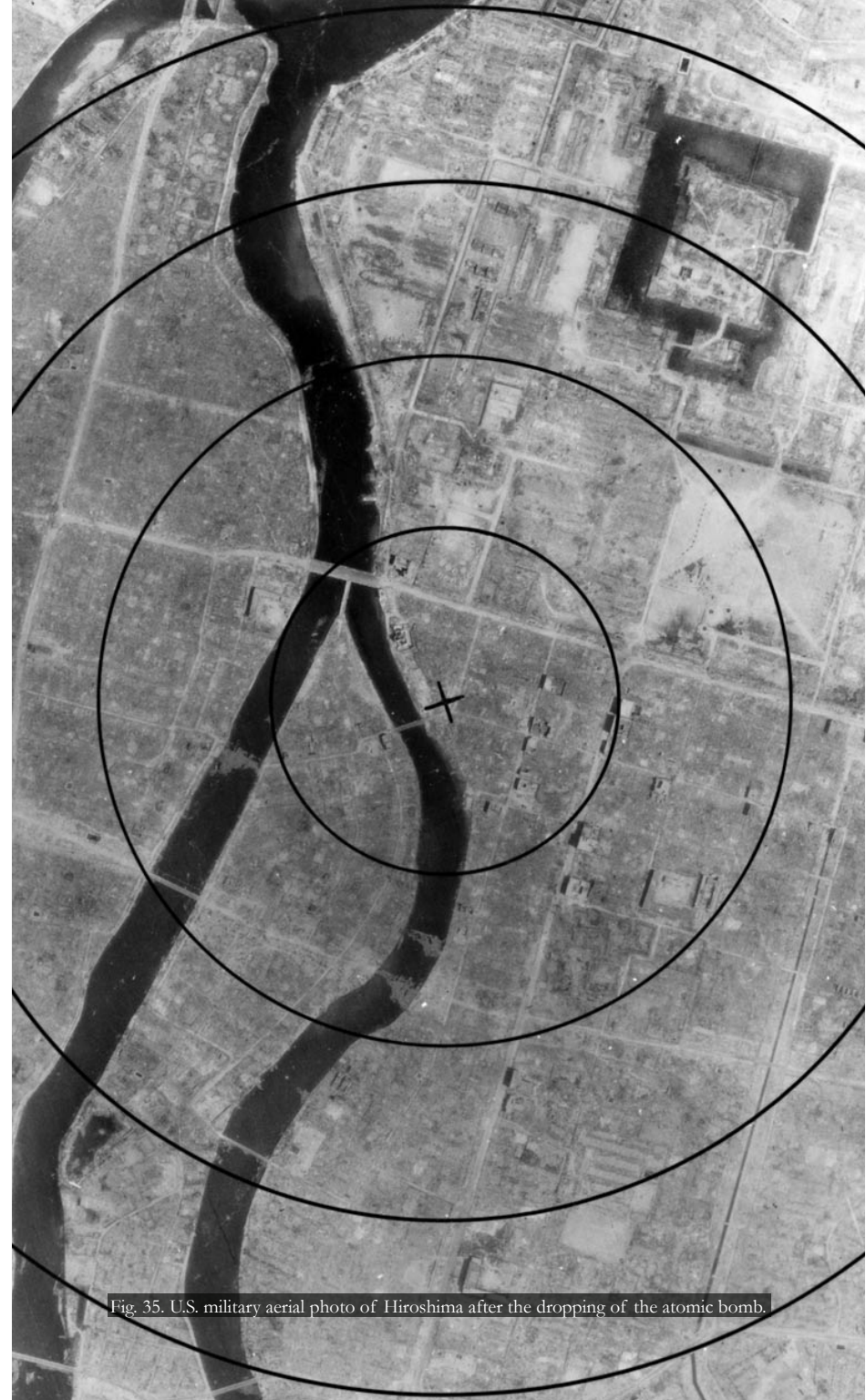


Fig. 35. U.S. military aerial photo of Hiroshima after the dropping of the atomic bomb.



Fig. 36. A pressed botanical sample of *tāngantāngan* (*Leucaena leucocephala*) from the University of Guam, held by Harvard University's Arnold Arboretum Herbarium, 1969.

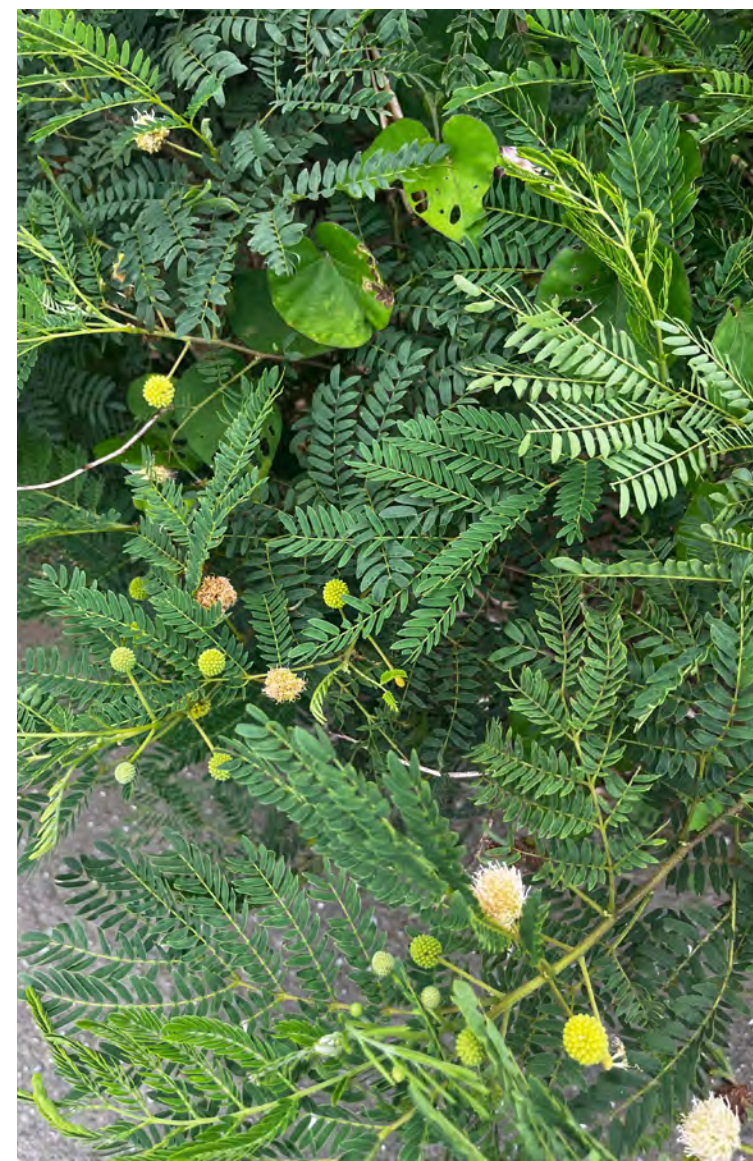


Fig. 37. *Tāngantāngan* growing on the periphery of North Field. The plant was also easily identifiable along Iejima Auxiliary Airfield.



with aerial seed dispersal via crop dusters in the late 1920s and aerial reforestation in Hawai'i in the 1930s, the military foresters decided to utilize the tactic to reforest Tinian. So, the U.S. Navy seed bombed *tāngantāngan* (*Leucaena leucocephala*) or river tamarind (see Figure 36) across the island, believing the tree would help add nitrogen back to the soil and reduce erosion as well as provide lumber and fodder for animals. Native to Mexico and Central America, the *tāngantāngan* loves light and did especially well in the cleared landscape.¹⁴ It has proven itself to be a largely invasive species across the Marianas and other tropical islands subjected to U.S. aerial reforestation and occupation. On Tinian, the aggressive and pervasive nature of the plant has left little room for native species to return to the island

(see Figures 37-40, 42 & 43).

North Field was designated a National Historic Landmark in 1985 (see Figure 41), though remains part of a larger swath of land leased by the U.S. Department of Defense. Viewing the site on Google Earth and encountering it firsthand were dramatically different experiences. From satellite images, the area appears to be a lush green forest, with paved strips breaking up the dense greenery. On the ground, we drove through tall dry brush, with the occasional papaya tree adding an exclamation of green amongst a sea of brown. Our early June trip coincided with the height of the dry season. In an old rented minivan, we crossed bumpy dirt paths and paved roads alike on our



Fig. 38. (Left) The two atomic bomb loading pits sit in an unremarkable paved lot. The glass structures weren't added until 2004; plants were previously planted within the pits.

Fig. 39. (Above) *Tāngantāngan* grows densely on North Field, abutting the edge of the road connecting the runways. Minivan and signage to the left shown for scale.



Fig. 40. Map of Tinian showing current *tângantângan* density across the island.



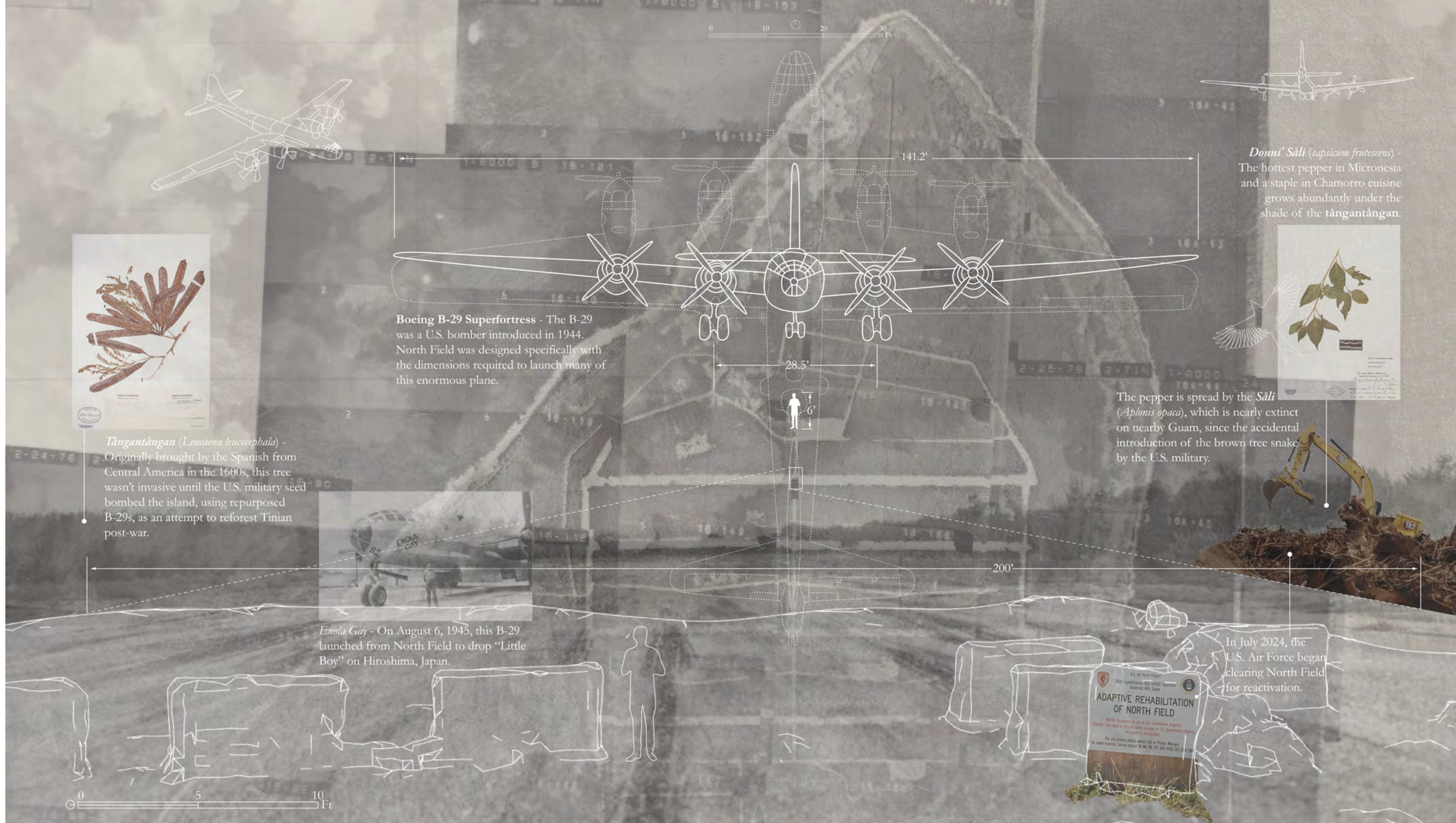
Fig. 41. Signage designating North Field as a National Historic Landmark.



Fig. 42. Hannah and Gio on Runway Baker, North Field. The heat was inescapable.



Fig. 43. Scorched land and burnt *tângantângan* seen leaving North Field.



journey to explore North Field (see Figure 39). A network of smaller roads marked only by small wooden signs helped us navigate to the atomic bomb loading pits. Two grave-like holes in the ground, each approximately 20 ft (6.1 m) long, 10 ft (3.05 m) wide, and 8 ft (2.3 m) deep, sit under a tented glass panel structure, marking where the atomic bombs were loaded (see Figure 38). The two structures sit far away from one another, and the hot air made it physically uncomfortable to cross the lot to view the second pit.

As we exited North Field, we drove past a brushfire that had been ignited by the hot sun. Since 1984, records have noted a “forest of *tangantangan*” surrounding North Field.¹⁵ This is still true today. The tree is everywhere, forming a dense wall that blocks one’s view past the immediately cleared road (see Figures 38 & 39). No doubt, the easily flammable *tangantangan* has played a role as kindling.¹⁶ We followed the patches of scorched black stems further down the road (see Figure 43), realizing the extent of the burns was much larger than we had thought.

Under the shade of the *tangantangan*, the hottest chili pepper in the Marianas—a variant of *Capsicum frutescens* known locally as *donne’ sali*—has flourished.¹⁷ Likely introduced to the Mariana Islands in the 17th century by the Spanish from Central America, the *donne’ sali* quickly naturalized. Today the pepper has its own festival which brings tourists to Tinian every February. It is a vital fruit in the Chamorro and Carolinian diets and an economic driver for the island. Eaten fresh or made into various forms of hot sauce, the

Fig. 44. Collaged diagram layering various events, geospatial data, and archival material revealing the legacy of militarization and emerging ecologies on the island of Tinian.



Fig. 45. The Tinian mayor with the *Sali* (Micronesian Starling) statue erected in downtown Tinian in 2023.

pepper is regularly enjoyed across the Marianas. On Tinian, the pepper grows easily in the wild. It doesn't require cultivation and grows in such bounty that simply harvesting can supply enough to make the famous Tinian hot sauces that the island enjoys and exports.

Though once abundant across the Marianas (mainly Saipan, Tinian, and Guam), the *donne' sali* now only flourishes on Tinian. Scientists have found its dispersal and abundant growth tied to a bird called the *Sali*, or Micronesian Starling (see Figure 45), which consumes the seeds and disperses them across the island.¹⁸ On Guam, only 45 minutes away by plane, the brown tree snake (*Boiga irregularis*, or "BTS")—accidentally introduced by the U.S. military—has eaten most of the *sali*, making it locally endangered. Without them, *donne' sali* can only exist in carefully human-cultivated areas. Despite the consistent maintenance of this militarized space, an unlikely ecological entanglement has emerged, reflecting a different kind of local resiliency.

Across North Field, cylindrical metal snake traps installed by the U.S. Department of Agriculture (USDA) hang on the *tangantangan* that abut the former airstrips (see Figure 45). Dense areas of *donne' sali* grow alongside them in the area surrounding North Field. The presence of the traps amongst the *donne' sali* plants is an eerie reminder of how fragile ecosystems can be, and how long-lasting the effects of military occupation have been on the archipelago.



Fig. 46. USDA snake traps hanging on the *tangantangan* that line the runways of North Field. The labels on the trap read "NOTICE GOVERNMENT PROPERTY. DAMAGING OR STEALING IS PUNISHABLE BY FINE AND IMPRISONMENT (18 UNITED STATES CODE 41 AND 641). U.S. DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE WILDLIFE SERVICES."

Conclusion

Many of the airfields built during the Pacific Theater are now abandoned and overgrown, recaptured by the plants that surround them. Some have been transformed into commercial airports, while others have remained active properties of the U.S. military. Take, for example, the two major airports we flew into to visit all eight of our sites. To visit Okinawa, we flew into an airport that was originally built by the Japanese Navy as Oroku Aerodrome, until it was taken over by the United States in 1945 and renamed Naha Airport. The airport we flew in and out of to visit both Saipan and Tinian was originally built by the Japanese in the 1930s as Aslito Field, later becoming Isley Field when U.S. troops captured it in 1944; today it is known as Saipan International Airport. Despite the now commercial use of these two airfields and their proximity to one another, there are no direct or cross-archipelago commercial flights available. Instead, we had to transfer multiple times through Incheon International Airport in South Korea to get to both Okinawa Prefecture and the CNMI.

What our travel itinerary (see Figure 47) and numerous photos of seemingly empty landscapes reveals is the U.S. military’s continued presence and readiness in the Pacific region (see Figures 48-49). Though originally built as

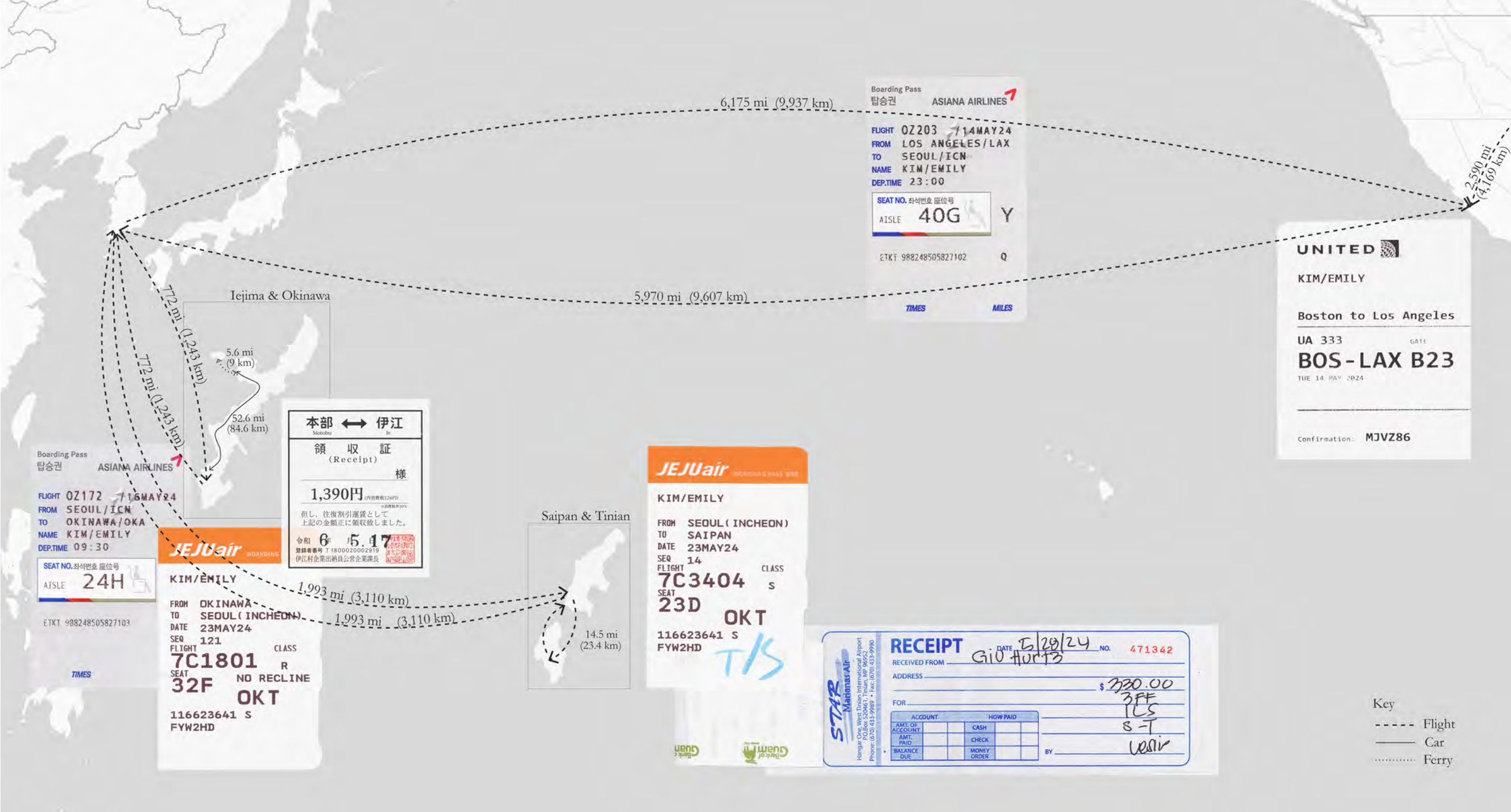


Fig. 47. Collaged map of the travel itinerary for our fieldwork from May-June 2024.



Fig. 48. Temporary wooden sign notifying visitors of the reactivation of North Field, Tinian, by the U.S. Air Force.

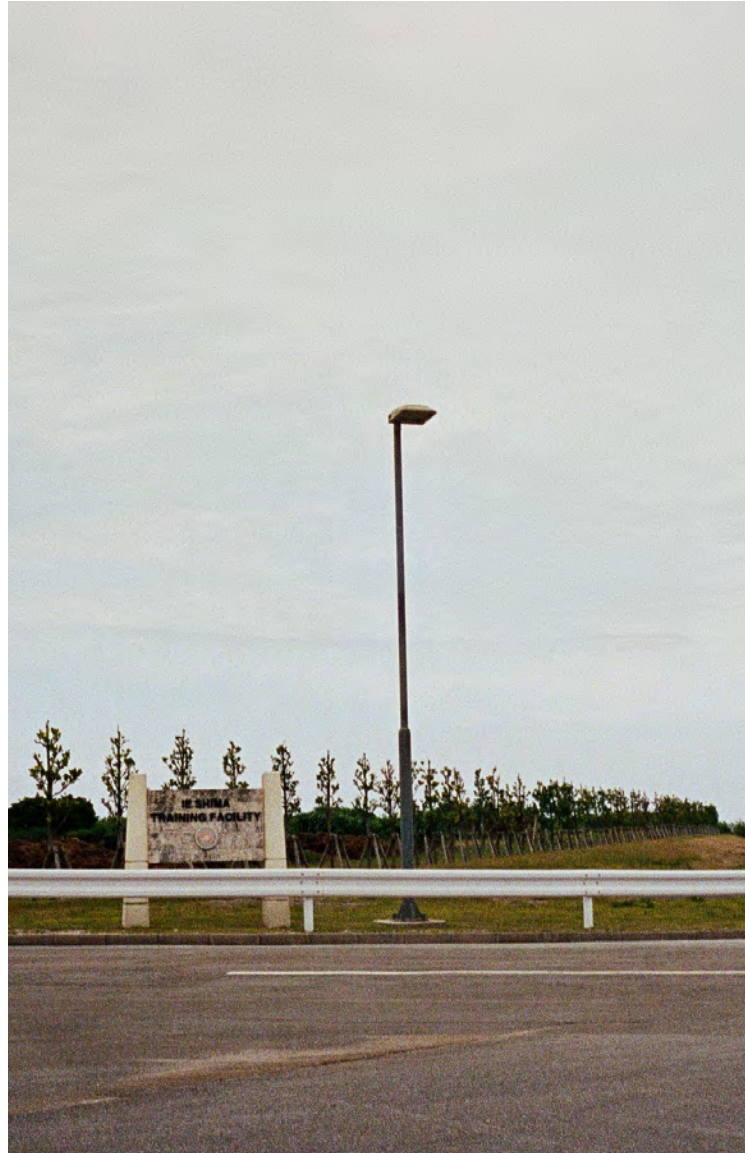


Fig. 49. Sign and fencing at the far end of Iejima Auxiliary Airfield, indicating the U.S. Marines training facility in Iejima.

part of a greater network to allow for ease of movement between the islands, flight restrictions have made these sites more difficult to visit. If you look at the map of our travels (see Figure 47), you will see the various modes of transportation and transfer points required to visit these once connected sites.

Though we were able to visit Tinian in the summer of 2024, the only airline servicing the island announced later in the fall that they would terminate service shortly.¹⁹ Aside from chartering a private boat, the airline Star Marianas provides the only way for civilians to access Tinian.²⁰ The U.S. Air Force, meanwhile, was recently granted 409 million USD to refurbish North Field and is expanding its military presence on the island (see Figure 47).²¹ On the southern third of the island, some two thousand residents, or approximately 5% of the CNMI population continue to call Tinian their home. As U.S. military presence increases and proposals for live fire ranges are made, the question remains whether this population will continue to fall.

The airfield is a uniquely desolate space; it is literally designed to be absent of anything other than a relatively smooth surface to depart from and land on (see Figure 50). As U.S. historian and sociologist Lewis Mumford put it, the visual and cultural experience of the airport landscape resembles a wasteland, with “field” referring to “another kind of artificial desert, a barren area planted in great concrete strips, vibrating with noise, dedicated to the arrival and departure of planes.”²² But the thing about such

Fig. 50. (Following spread) Looking straight down Runway Baker at North Field, Tinian. Skid marks reveal recent airplane activity on this runway.

seemingly vacant landscapes is that they require meticulous maintenance. For eighty years, these airfields have remained mostly clear of vegetation. This is no mere coincidence. WWII brought to light the U.S.’s reliance on trade with Asia as well as the lack of military power and presence the U.S. had invested in the Pacific. Through the Korean War, Vietnam War, and Cold War, the new military infrastructure across the Pacific Ocean proved invaluable to the United States in asserting itself as a global power. As tensions rise with China, the reactivation of North Field is only one of the many military infrastructural projects actively taking place across the Pacific.²³ Even independent countries like Palau are seeing U.S. military build-out.²⁴ Old air routes are remembered, and new land transformations hold the memory of old infrastructures, perhaps driven by an urgency to show a strength of force across the Pacific. On the “mainland”—how islanders refer to the continental U.S.—it is easy to believe that these build-outs are tactics to avoid a larger war. But the reality of these movements is that they insinuate a perpetuation of war, a war—hat for some—as never ended.



Notes

1 “World War II Aircraft,” Smithsonian Institute, accessed July 28, 2024, <https://www.si.edu/spotlight/wwii-aircraft>. This substantial increase in plane production reflects the shift in the way WWII was fought. Most literature within landscape architecture and urban planning focuses on WWI as the origin of the bird’s eye view as a generator for urban design. I focus on the emphasis of the aerial perspective and further development of the plane and camera during WWII in designing a cross-Pacific infrastructure.

2 John Wade, *Cameras at War: Photo Gear that Captured 100 Years of Conflict – From Crimea to Korea*, (Barnsley, UK: Pen & Sword Military, 2020).

3 “Foreign Aerial Photography,” *National Archives*, last reviewed June 9, 2023, <https://www.archives.gov/research/cartographic/aerial-photography/foreign-photography>.

4 United States, Office of the Chief of Naval Operations, *U.S. Naval Aviation in the Pacific*, (Washington: Office of the Chief of Naval Operations, United States Navy, 1947), 43. The purpose of this book was to analyze the relation between air and sea power through military reports from the Pacific Theater. Note that this was perceived as a new mode of enacting war by the U.S. military.

5 Corbin Williamson, “Expeditionary Airfields in the Pacific, 1941-1945,” *Wild Blue Yonder*, July 19, 2021, <https://www.airuniversity.af.edu/Wild-Blue-Yonder/Article-Display/Article/2699821/expeditionary-airfields-in-the-pacific-19411945/>.

6 Okinawa City Office, *A Guide to Battle Sites and Military Bases in Okinawa City*, (Okinawa City Office, 2012), 10.

7 Ahagon Shōkō, *The Island Where People Live: A photo documentary of the troubled land of Iejima, Okinawa Islands*, trans. C. Harold Rickard, (Hong Kong: Christian Conference of Asia, 1989), 9.

8 Ibid, 153.

9 Jon Mitchell, “Beggars’ Belief: The Farmers’ Resistance Movement On Iejima Island, Okinawa,” *The Asia-Pacific Journal* 8, no. 23 (2010), <https://apjif.org/jon-mitchell/3370/article>.

10 “Okinawa Cigarettes,” *Learn Okinawa A to Z*, accessed July 13, 2024, https://www.okistyle.com/a2z/?p=2546#google_vignette.

11 “Agriculture,” Ie Village Official Website, August 5, 2020, <https://www.iejima.org.e.qz.hp.transer.com/document/2015022000417/>.

12 Richard Rhodes, *The Making of Atomic Bombs*, (NYC: Simon & Schuster, 1968), 681.

13 Cynthia Ross, “Ecological Imperialism in the Occupied Landscape,” *World History Connected* 18, no. 2 (2021): 26, <https://doi.org/10.13021/whc.v18i2.3609>. Though the focus of Ross’s paper is on Guam, the analysis on the use of *tāngantāngan* by the U.S. across the Pacific Islands is of particular note.

14 Ibid, 33.

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20 This essay was originally written in August of 2024. Star

Marianas has since been brought back online, servicing travel between the various inhabited Mariana Islands. However, in June of 2025, the U.S. Marine Corps issued an updated draft of their Environmental Impact Statement (EIS) which proposes a massive military expansion on Tinian, including live-fire ranges, a base camp, bringing communication infrastructures back online, and developing a biosecurity facility. Local organizations, like Micronesia Climate Change Alliance, have been working hard against an impossible timeline to stop these dangerous build-outs, and more broadly move the Marianas towards demilitarization.

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CONCLUSION

We define postwar landscapes not as static artifacts, but as active agents. These ruins catalyze new island ecologies that have yet to be studied in contrast with one another, and when taken together, encompass a new postwar landscape vernacular. These landscapes continue to situate imperial control via military access and historical narratives displayed on site.

Comparisons of the eight sites we explored in each of the four chapters—one from Okinawa Prefecture paired with one from the Commonwealth of the Northern Mariana Islands (CNMI)—offer unique insights into the complex legacy of World War II in the Pacific.

The Former Japanese Navy Underground Headquarters and Last Command Post represent an unending quality of war as these material remnants drive residents and visitors alike to reconcile with the past, present, and potential future of war on these islands. Shuri Castle and the Japanese Jail illustrate cultural and historical layers of Okinawa and Saipan, where the war intersected with a rich heritage, resulting in a blend of destruction and cultural rebirth. Niya-Thiya Cave and Dump Cove highlight the physical and spiritual debris of the war, from sacred spaces to underwater graveyards of military surplus, symbolizing both

loss and resilience. The preservation of Iejima Auxiliary Airfield and North Field quietly hints at the ongoing access and use of these islands by the U.S. military, revealing the long-term impact that has reverberated some eighty years beyond the historic launching of the atomic bombs from Tinian’s shores.

Juxtaposing these sites offers a critical framework for analyzing distinct locations across different islands and archipelagos. Yet we approach comparative work with caution, recognizing its tendency to flatten relationships—between archipelagos, islands, sites, or histories—into hierarchies or reductive binaries. The observable patterns of reconstruction and ruination that emerge across Okinawa Prefecture and the CNMI, for example, should not be misread as reflecting essential cultural differences between the Indigenous communities of these regions. While these material responses are indeed distinct, their postwar landscapes must be understood as shaped by a shared history of U.S. militarization and the broader political conditions of postwar governance in the Pacific.

This framework resists simplistic comparisons in favor of tracing the political, economic, social, historical, and cultural relations that structure these landscapes. In doing so, the comparison of these sites reveals—if only partially—a dense network of connections that bind seemingly disparate spaces together. As tourist destinations, these ruins and reconstructions are more than representations of a shared or entangled history; they are material expressions of a wartime heritage that continues to be lived, interpreted, and

Fig. D1. (Left) The littoral edge of Niya-Thiya Cave that looks out onto a breakwater in the distance.



contested.

These sites are not simply material remnants of the past. They are complex artifacts that influence the present and future in both subtle and significant ways, how people on these islands—residents and transients alike—perceive their immediate surroundings and the wider world. For example, some locals in Saipan have remarked that they have grown so accustomed to the sight of ever-present military vessels in the waters surrounding the island that their absence would now seem strange. In this way, while the dropping of the atomic bombs is often cited as the end of active conflict, the enduring effects of war inscribed in the landscape suggest that it is not yet over for everyone.

Informed by both academic insight and the lived experiences of those who inhabit these legacies, our interpretation of these sites illuminates the many ways the legacy of WWII continues: through ongoing militarization, cultural preservation, environmental contamination, the commercialization of wartime memory through tourism, and the emergence of a distinct heritage of WWII. As the juxtaposition of these sites helps bring into focus a larger landscape of relations that transcends the formal and recognized boundaries of islands, we must then think of how these relations extend, once again, beyond the Pacific region. Understanding the persistence of war, then, should not be confined to those islands that once served as battlegrounds in the Pacific Theater. The war and its aftershocks constitute a collective, planetary heritage. If the war continues to shape life for some, can it truly be said



Fig. D2. (Above) Three U.S. military vessels that sit just beyond the reef, everpresent on the western side of Saipan. Fig. D4. (Below) Carlo, Emily, and Gio (left to right) in the Okinawa Prefectural Archives.



Fig. D4. (Right) Light leaks in the Japanese Jail.



to be over? The answer, of course, is no—but the weight of that continuation, and the ways in which it is felt, are distributed unequally. It is thus incumbent upon all of us to recognize the forms and figures of our not-so-postwar lives as they continue to evolve and manifest within the landscapes we inhabit.

Ruins in this context embody not only the physical impact of war as understood through landscape studies, but also the evolving didactic function that war itself generates. For many tourists visiting these islands, these postwar sites serve as a lens through which the destructive force of WWII can be safely contemplated. To most, they appear as inert objects, serving as devices for remembering the past while often diverting attention from ongoing realities. Yet their form and placement speak not only to the event of war but also to its enduring aftermath. These remnants contribute to and help shape emergent island ecologies that remain understudied. Taken together, they suggest the development of a new postwar landscape vernacular—one that is simultaneously ecological, cultural, and political.

Collectively, these sites underscore the importance of preserving and interpreting historical landscapes, not just as monuments to the past but as living spaces that continue to influence cultural identity and memory. The delicate balance between public access and preservation is crucial.

By visiting these places, we have seen how history is not static but rather a dynamic narrative that continues to evolve through our interactions with it. These places serve



Fig. D6. (Above) Hannah in the remains of the Air Administration Building on Tinian.

Fig. D7. (Below, left) Sketch of Niya-Thiya Cave.

Fig. D8. (Below, right) Ceramic tiling on Shuri Castle.

Fig. D5. (Left) Close-up of an Atomic Bomb Pit edge on North Field.

as powerful reminders of the enduring impact of war, not only on a global geopolitical scale but also within local cultures, ecologies, and spiritual practices.

Our pursuit and examination of a postwar vernacular is situated in the landscape's capacity to register both the destructive forces of war as well as the generative or emergent responses to it. Landscape thus becomes a dynamic socio-ecological lens that helps one examine war beyond the typical temporal boundaries of registered conflict. Messy and disruptive: the effects of war spill over without reservation—it is not some terminal act—it persists in unplanned ways. Recognizing this should not be misconstrued as a sanitization of war and its long-lasting effects. Rather, the emergent landscapes and livelihoods that have taken root in the proverbial rubble we examine are as much a testament to life as they are to a legacy of violence.



Fig. D9. (Right) Coralline limestone detailing on the inside of Niya-Thiya Cave.



KEY TERMS

Army Corps of Engineers: The U.S. Army Corps of Engineers is a subsect of the Army branch, focused on both military construction and infrastructural building of a “civil nature.” In the Pacific Theater, many of the airfields built or revitalized by the U.S. military were implemented in part by the Army Corps of Engineers.

Boeing B-29 Superfortress: An American bomber plane with four engines, designed to carry heavier payloads and fly faster and higher than Boeing’s other plane models at the time. The B-29 became known as a superpower for Allied forces in World War II. Only 3,970 models were built, and 26 survived the war. The *Enola Gay* was the bomber plane that dropped the atomic bomb on Hiroshima; a second B-29, named *Bockscar*, carried out the bombing of Nagasaki.

Carolinian: An ethnic group of Micronesia, originally from the Caroline Islands. The Carolinian people have over two hundred years of historical and cultural ties to the Mariana Islands, especially Saipan and Tinian. Archaeological evidence reflects centuries-long contact between Carolinians and Chamorros prior to the Spanish Era (1600s, first colonization).

Chamorro (CHamoru): The indigenous peoples of what is now known as the Commonwealth of the Northern Mariana Islands (CNMI) and Guam. We mainly use the Chamorro spelling, as it is the most recognized form in the CNMI. CHamoru spelling has grown in popularity, mostly on Guam, as part of a movement to align the written language with its indigenous roots and pronunciation. While Chamorro and CHamoru share a common Indigenous identity, the different spellings reflect distinct colonial histories and evolving political, cultural, and linguistic affiliations between the CNMI and Guam. Although Guam is part of the Marianas archipelago, it is politically separate from the CNMI.

Commonwealth of the Northern Mariana Islands (CNMI): Formed out of the Trust Territory of the Pacific Islands that the U.S. government administered through the United Nations from 1947 to 1994. The Northern Mariana Islands became a U.S. Commonwealth in political union with the United States through the Covenant Agreement in 1975. The Islands’ first constitutional government was elected in 1977 and took office in January 1978.

Donne’ sàli: A variety of pepper native to the Mariana Islands, thought to be the hottest in Micronesia. It is a staple in Chamorro cuisine. The Chamorro name comes from *donne*, meaning chili pepper, and *sali*, the indigenous name for the Micronesian Starling, which feeds on the pepper.

Fig. E1. (Left) Archival gloves getting a little UV treatment post-use at the Okinawa Prefectural Archives.

Gajumaru: This is a species of banyan tree native to subtropical and tropical regions, including Okinawa (*Ficus microcarpa*). In Okinawan culture and folklore, the *gajumaru* is considered a sacred tree believed to be inhabited by spirits called *kijimuna*.

Government of the Ryukyu Islands (GRI): The administrative body established by the United States Civil Administration of the Ryukyu Islands (USCAR) following WWII. It governed the Ryukyu Islands, including Okinawa, under U.S. military occupation until the islands’ reversion to Japan in 1972. The government managed local affairs but remained under U.S. authority throughout this period.

Gusuku (gushiku): Japanese and Okinawan terms respectively, commonly refer to the fortresses and castles found in the Ryukyu Islands that feature tall stone walls. Some argue that the term refers more broadly to sacred sites, as not all *gusukus* feature fortifications.

Gusukuyama (Mount Gusuku): Reaching 565 feet (172 meters) high, the conical topography is the tallest point on Iejima and considered to be sacred in the Ryukyuan religion. It houses a *utaki* or shrine where prayers are made for a safe voyage.

Hibanmui: A naval fire beacon located at the top of a hill, which was used during the Shuri Dynasty to monitor ships off the Ryukyuan coast.

Iejima: One of four islands we visited, on which two of our sites are located: Niya-Thiya Cave and the Iejima Auxiliary Airfield.

Island hopping: Also known as “Leapfrogging,” island hopping was an amphibious strategy that Allied forces used to navigate and defeat the Japanese military in the Pacific Theater.

Kamekoubaka: A traditional Okinawan tomb, named for its resemblance to a turtle’s shell, is symbolically meant to represent a woman’s womb—reflecting the traditional belief that people return to their mother’s womb after death.

Kami: Refers to the spirits, deities, or divine beings in Ryukyu Shinto. They are often associated with natural features like mountains, rivers, trees, and rocks, as well as ancestral spirits and historical figures.

Kijimuna: Mythical creatures from Okinawan folklore, often depicted as small, mischievous spirits or fairies that inhabit trees, especially Banyan trees.

Latte (latde): Are the megalithic pillar and capstone foundations, often carved from limestone, that were used to hold up the elevated traditional Chamorro buildings.

Navy Training Technical Unit (NTTU): Covert CIA-operated facilities were located on the northern end of Saipan during the height of Cold War operations in

the Asia-Pacific region. Active between 1952 and 1962, the Northern Training and Testing Unit (NTTU) was responsible for training anti-communist spies and guerrilla operatives. During this period, public access to the northern part of the island was completely restricted.

Niya-Thiya Cave: A sacred cave site on Iejima, Okinawa, Niya-Thiya (sometimes translated as “sheltering cave” or “ancestral cave”) carries deep spiritual and historical importance in Okinawan culture. It is also known as *Sen-nin Gama*, a name that evokes its role as a place of refuge during times of war.

Okinawan (Ryukyuan): The indigenous peoples of the Ryukyu Islands, which now make up the prefectures of Okinawa and Kagoshima, Japan. Okinawans have a rich and long history, with a distinct culture, language, and spiritual beliefs.

Okinawa Prefecture: The southernmost prefecture of Japan. With a population of 1.5 million (2020 census data), the prefecture comprises two thirds of the Ryukyu Islands, including Okinawa, Daito, and Sakishima Islands. Naha is the capital and sits on Okinawa, the largest of the islands in the prefecture.

Okinawa Reversion Act of 1971: The document that laid out the terms and conditions of reverting Okinawa from U.S. control back to the Japanese government.

Onarigami: An Okinawan spiritual concept referring to the sacred spiritual power possessed by women. It comes from the traditional belief that women are considered to be spiritually closer to the divine and possess a unique power to maintain harmony.

Pacific Theater: Sometimes also called the Asia-Pacific War, the Pacific Theater is a term to refer to the fighting during WWII that occurred in east Asia, the Pacific Ocean, the Indian Ocean, and Oceania.

Rokokumon: *Mon* translates to “gate” in Japanese. A specific name of a gate on the north side of Shuri Castle.

Ryukyu Kingdom: A monarchy that ruled for 450 years before its annexation into Japan in 1879. Many Okinawan people identify as culturally distinct from Japan, though it is officially a Japanese prefecture.

Ryukyu Limestone: Rock formed by coral reefs found in central and southern Okinawa and Miyako Islands. The limestone is porous and therefore ideal for construction uses as it allows water to permeate its surface.

San Francisco Deal of 1951: A peace treaty that signified the end of Japanese rule and imperial control in the Pacific. It marked the end of formal Allied occupation of Japanese cities, though U.S. military bases remain across Japan, mainly in Okinawa.

U.S. Naval Construction Battalion (Seabees): The United States Naval Construction Battalions are colloquially referred to as the “Seabees” deriving from the initials, “CB” or “Construction Battalion.” They are the construction and engineering unit of the U.S. Navy.

Seiden: The main hall of Shuri Castle.

Sen-nin Gama: “Cave of a Thousand People” is another name for Niya-Thiya Cave, as it is said that over a thousand people took refuge there at various times during the war.

1919 South Seas Mandate: A League of Nations (which later became the U.N.) mandate given to Japan that granted the Empire of Japan control over several islands in the Pacific, including the Northern Mariana Islands.

Tāngantāngan: This tree, also known as river tamarind (*Leucaena leucocephala*), was first introduced to the Mariana Islands from Central America by the Spanish colonists. The tree was re-introduced by the U.S. across multiple Pacific Islands. *Tāngantāngan* is fast growing and can reach up to 50 feet in height and 20 inches in diameter. It regrows rigorously after fire and has since been classified as invasive species across most of the world.

Taotao Mo’na: Ancient Chamorro spirits who are believed to inhabit the natural environment, such as banyan trees, caves, and old villages, and are considered to be protectors of the land and its people.

Trust Territory of the Pacific: Created by the United Nations, it included the Mariana Islands, which were administered by the United States from 1947 to 1986 following the dissolution of the Japanese South Seas Mandate after WWII.

United States Civil Administration of the Ryukyu Islands (USCAR): The civil governing body that replaced U.S. military government in 1950, establishing the Government of the Ryukyus in 1952. While oriented towards promoting democratic political tenants in a post-war Okinawa, locally established governments were still subject to U.S. military authority.



Fig. E2. Seawall in Motobu, Okinawa.



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AUTHORS

Gio Hur is a recent graduate of the Master of Landscape Architecture program at the Harvard Graduate School of Design. Raised in Saipan, CNMI, she brings a personal perspective to the complex histories of Pacific Island landscapes. Her research explores how water shapes these environments over time, especially in postwar contexts where submerged artifacts, coastal erosion, and shifting ecologies uncover intertwined stories. Treating water as both material and witness, she investigates how it preserves and transforms these landscapes, revealing the layered impacts of history and memory. Through fieldwork and mapping, she aims to reconstruct obscured narratives and confront the enduring imprint of empire on island geographies.

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We hope this book reflects our commitment to learning with humility and listening with care. We are grateful to those who have shaped these places long before us, and remain dedicated to honoring their knowledge in every step forward. Please contact islandsafterthewar@gmail.com with any questions, comments, or concerns. All constructive feedback is welcome.

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