

The Politics of Invisibility: Visualizing Legacies of Nuclear Imperialisms

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Pacific Nuclear Remembering and (In)visibility

Invisibility is a concept scholar Teresia K. Teaiwa uses to critically examine the legacies of Oceanic nuclear imperialism and re-structure our understandings of witnessing and agency as related to the systems of nuclear imperialism imposed within the Pacific region by France, the United Kingdom, and the United States.¹ In particular, the regulation of images synonymous with Indigenous experiences during the extraordinary proliferation of atmospheric and underground testing is central to contemporary nuclear remembering.² The photographs and films showing enormous glowing orange spheres—blasting from colonized waters before they burst into distinctive pyrocumulus mushroom-shaped clouds of radiative smoke and debris—have become familiar icons of various Pacific nuclear-weapons testing programs.

These government-controlled images, and stories, are, in spite of what they depict, aesthetically wonderful. They obscure the tests as a launchpad of atomic warfare to the point where an atomic explosion appears as awesome as the rising sun. Together with continuing colonial impacts and witness descriptions of the nuclear testing, the images constitute a mode of official imagery that aligns a human-produced event with the natural world, namely the sun. Theorist Elizabeth DeLoughrey suggests that this alignment was exacerbated by American Cold War propaganda that naturalized atomic weapons “by likening them to harnessing the power of the sun, and their radioactive by-products were depicted as no less dangerous than our daily sunshine.”³ Such associations shift images and rhetoric away from the ongoing, horrific, and long-lasting realities of nuclear weapons and their testing. This state-produced visual

representation of nuclear weaponry and its testing has been described by historian Peter B. Hales as the “atomic sublime.”⁴ He identifies how this form of imagery plays on the qualities of greatness and wonder that are central to a *sublime* conception of natural phenomena, which functions to abstract the destructive killing power of nuclear weapons.⁵ Images of atomic bombs become aestheticized visual icons that simultaneously align this weaponry with the divine powers of nature and erase any associated moral responsibility of nuclear technology production and testing.⁶

The Indigenous Pacific communities—those who literally continue to live in war preparation spaces and amongst the fallout of atomic testing—are rendered invisible by these forms of official imagery. DeLoughrey argues that connecting “a military lab product (a nuclear weapon) and its cosmic figure (the sun) naturalized atomic weapon production [and detonation] and helped to ‘eclipse’ the hundreds of nuclear detonations in the Pacific Islands through the second half of the twentieth century.”⁷ The effects of colonial-imperial occupation and ideology in the Pacific are rendered invisible by both the sublime form of state-produced photographic imagery and by the abstract nature of radiation itself—they are either obscured or defy vision altogether in the form of radioactive materials that remain in the air, land, sky, waters, and people of the Pacific.

Alternative forms of visualization are required to be able to (re)see the human experiences that remain central to contemporary Pacific militarization and the legacies of nuclear weapons testing. This essay explores how contemporary photographic imagery politicizes what has been rendered (in)visible through state-produced imagery, archiving practices, and US national park recognition. Focusing on the works of American-born Chinese visual artist Jane Chang Mi and Marshallese photojournalist and filmmaker Leonard Leon, we argue that their methods of image-making can enable alternative forms of socio-ethical witnessing and visibility of not only state-produced archival images, but also of the Indigenous Pacific communities who are deeply affected by nuclear testing and ongoing militarization.

We look at Mi’s series (*See Reverse Side.*) (2017), which the artist states “considers the photographic archive of Operation Hardtack I in the Marshall Islands. Operation Hardtack I was a series of thirty-five nuclear tests conducted by the United States from April to August of 1958 in the Pacific Testing Grounds, which included Enewetak, Bikini, and Johnston atolls.”⁸ We suggest that Mi’s treatment of this archive functions to make visible the overwhelming invisibility of Indigenous experience, meaning the very people who are most affected by these nuclear tests remain largely absent from the declassified images that she works with. Mi uses this sense of invisibility to critically engage with “what this history is capable of reminding us of, which the archive is able to disclose.”⁹ Mi’s practice resists simply renarrating these events by making absence visible; rather her repositioning of archival material establishes forms of what we call opaque protection of Indigenous experience.

We subsequently provide a US historical overview of the role of Tinian, as part of the Commonwealth of the Northern Mariana Islands (CNMI), in being used by the

US military during World War II to demonstrate the island's lack of inclusion in US national remembrance—either physically or digitally. We then examine a series of Instagram posts from 2019 by Leon (@pacific_aesthetics) that visualizes the enduring imperial impact on Tinian island. He offers poetic and informative captions commenting on the contemporary situation of the “(is)land.”¹⁰ His digital photographs, text, and hashtags establish methods of digital advocacy through social-ethical witnessing and visualization of current militarization and enduring islander resistance. Leon's perspective highlights US militarism, which is omitted from the national narrative, and offers digital documentation through visuals and text to create a space for Pacific perspectives and dialogue.

Our work expands the concept of transnational studies by centering Oceanic, archipelagic, and island thinking.¹¹ Moving beyond imperially created nation-states and boundaries, this work travels across seas and islands as visual transarchipelagic collaborations that endure through ancient oceanic connections. Integral to the practices of both artists are distinct photographic methods which establish counter-modalities for seeing, witnessing, remembering, knowing, and visualizing the future. These modalities function to make visible Indigenous experiences which have been otherwise denied through the sublime, state-produced atom bomb imagery associated with Oceanic nuclear imperialism.

Invisibility is linked to the secrecy surrounding the design and manufacture of nuclear weapons as well as to the material form of radiation itself with its sightless, odorless, and tasteless properties. Governments remain(ed) silent about their military logistics and processes of loading weapons, as well as the ways these weapons would cause irreversible damage to ecosystems that are spiritually and practically significant to Indigenous peoples. Invisibility is central to governmental avoidance to take any real sense of responsibility in terms of clean-up or reparations for seventy years of occupation, fifty years of atomic detonations, and future war preparation. This avoidance leads to forms of state-induced ignorance when it comes to recognizing that stories linked to places associated with all aspects of nuclear testing and militarization hold nuanced forms of sociocultural histories, narratives, and experiences that are specific to human beings. These ideas also relate to how governments align what they are doing with a sense that their actions are for “the good of mankind,” phrasing that suggestively encompasses *all* humans.¹² However, mankind has implicitly been understood as Anglo-American-European and presently as “United States national defense.”¹³ This positioning affirms “mankind” as an imperializing construct—the inventor of awe-inspiringly destructive weapons within the promoted national narrative of the US as the keepers of global stability. Such affirmation establishes, for those in the continental empire, a sense of national civic identity and “patriotic citizenship” that then frame the Manhattan Project, nuclear-weapon testing programs, and contemporary expanding militarization as being for the positive benefit of mankind.¹⁴ At the same time, it erases Indigenous experiences past and present, (is)lands, livelihoods, and social histories.

The presence and visibility of Indigenous experience within the national archives of the United States, Britain, and France are limited. Using search terms such as “atomic testing Pacific Islands,” or “Pacific Proving Grounds,” or “nuclear tests Pacific” produces a catalogue of declassified images which are also readily available via internet searches, encyclopedias, government-run libraries, and museums. There is a prevalence of imagery associated with Pacific atomic testing which primarily focuses on the mushroom clouds of nuclear detonations over vast areas of ocean, as opposed to the Indigenous (is)lands and communities affected by and living amongst radioactive fallout and atomic bomb pits. Such imagery functions to shape public consciousness away from the realities of what these launches and tests did to peoples, (is)lands, and oceans; and is literally difficult to see within official representations. Contemporary control of which US World War II and atomic experiences are included within government digital archives continues to inform whose witnessing counts as memorable, whose stories are seen as worthy, and which spaces are physically commemorated. There is an ‘official’ void within these forms of image-based information that dictates how and what histories are nationally remembered. This void is at odds with the ways that images saturate and pervade contemporary society. We suggest that critically examining how images can function to re-visualize the ongoing impacts of US militarism for Indigenous Pacific communities is politically significant. Images, be they from social media and online platforms, from archives, or from public exhibitions, have the potential to make visible indigenous experiences of nuclear testing and ongoing militarization.

Artist Positionality

Critical analysis of the impact of Oceanic nuclear weapons testing and ongoing militarization is a well-established field of inquiry. Artists, journalists, and academics have engaged in scholarship that concerns (de)militarization and nuclear reparations within the Pacific.¹⁵ Mi and Leon contribute to this legacy through their respective practices to offer alternative visual representational forms of Oceanic nuclear imperialism. They bring different subject positions to their image-making; Mi is US-born, albeit ancestrally connected to Taiwan, and Leon is indigenous to Kwajalein Atoll in the Marshall Islands and has lived in The Commonwealth of the Northern Mariana Islands for more than twenty years.

Mi’s practice is critical of both the state agenda that drives much of the imagery associated with Oceanic nuclear weapons testing as well as the US military’s construction of the Asia-Pacific as a homogenized region. Central to this critique is her experience of residing for long periods in O’ahu and her family’s history of coming from Japanese-occupied Taiwan. Although Mi cannot claim an Indigenous connection to the Oceanic lands and waters impacted by military occupation and nuclear imperialism, her practice does speak from an experience of how histories become standardized, and thereby colonized, through military activities, be they American or Japanese. Mi’s earlier training as both an ocean resource engineer and a scientific diver also informs

this position. Before studying art, Mi completed a graduate program in ocean engineering at the University of Hawai'i. Following that, her employment "centred around working for institutions like NOAA [National Oceanic and Atmospheric Administration] or for the Navy."¹⁶ Mi witnessed how the US military impacts Oceania. Through her experience as a diver, she has seen firsthand how US military activities continue to colonize Oceanic waters.¹⁷

Similarly, Leon speaks four languages, studied at the University of Hawai'i, and shares with the Indigenous CHamoru and Carolinians of the CNMI the experience of growing up under nuclear imperialism and living with the continuing impacts of militarization. Leon's birthplace, Kwajalein Island, continues to be occupied by the US Navy's Ronald Reagan Ballistic Missile Defense Test Site.¹⁸ Today, Marshall Islanders are required to obtain permission from the US Army to travel there. Exclusion from his home (is)land due to US militarization informs his work, specifically the continued missile tests in the Marshall Islands and the planned military trainings for the CNMI.

Leon employs his two public Instagram accounts, @pacific_aesthetics and @inspiremicronesia, as visual storytelling platforms to share "just an islander's perspective" with his nearly two thousand followers, the majority of whom are young Pacific Islanders.¹⁹ Digital spaces allow those located in Hawai'i, the continental US, and beyond to view and engage with his work centred in Micronesia. Specifically, he highlights his concerns regarding the current situation on Tinian island through photographic still and moving images and in his textual captions and hashtags.

In a comparable manner, Mi's artworks are widely disseminated through her exhibition practice. She has participated in solo and group projects in public galleries and museums in Aotearoa New Zealand, Australia, Singapore, Canada, Hawai'i, and the United States. Many of these projects have focused on centering indigenous voices in relationship to the ongoing environmental impacts of Western imperial nuclear projects. In particular, (*See Reverse Side.*) has been exhibited in the Pacific, in both Aotearoa New Zealand and Hawai'i. By locating this work in the very region that it speaks of, Mi enacts forms of visual agency for the Pacific communities, voices, and experiences that are impacted by nuclear testing and ongoing militarization.

Photographic Representation and the Politics of What Cannot Be Seen

Photographic images have long held contested relationships to the things they represent. Since the 1970s, with the emergence of increasingly critical views of photography, this uncertainty has been characterized by a photograph's indexical reliance on a material world, and the ways in which this relationship manifests through social, political and ethical circulation of meanings.²⁰ A camera's twofold ability to produce an index of the world (a sign causally related to its referent), together with the capacity for this sign to also function ideologically, has informed photographic and filmic theories that politicize representation and the medium of capture itself. This as with

much recent theorizing contrasts with a certain postmodern and poststructural positioning of images, which holds a mistrusting, “deep and pervasive suspicion of [their] relationship to the real.”²¹

Theories that frame photographic practice with suspicion have been reexamined since the late 1990s.²² Instead of critiquing how photographs function socio-culturally, the focus now is more on what images can do—the ways that they impact, and thereby connect, their viewers with what is visually represented. This shift is particularly potent within the context of political oppression, violence, and marginalization. Photographic discourse has started to shift away from the limits of representation, towards the ways in which images can be used to enable political agency. It is because of their referential relationship to the real, that photo-filmic images are able to reveal and thereby imagine and reimagine varying sociopolitical conditions that inform reality.

For example, Ariella Azoulay’s *The Civil Contract of Photography* (2008) provides a framework to explore the political potency of photographs.²³ Azoulay proposes that the act of producing and viewing images is in and of itself not only political, but also part of one’s civic duty of upholding a “responsibility to what is visible.”²⁴ This idea of civic duty—extended to a “civil contract of photography”—is particularly pertinent when connected to peoples whose very sense of being is continually threatened.²⁵ However, visibility involves much more than what can be seen in an image, and entails an ethical spectatorship: The idea of looking at images is shifted to watching. For Azoulay, watching “entails dimensions of time and movement” which in turn keeps interpretation in flux, and thereby able to move beyond what is simply visible within an image’s surface.²⁶ There is an ethics involved in attempting to see, to take on board what the image is showing, in spite of any shortcomings. This concept of watching is central to how Mi’s images induce alternative forms of visibility and the witnessing of nuclear testing.

As outlined, photography and film were integral to nuclear testing; the US military hired hundreds of photographers and filmmakers to “produce a spectral aesthetics of violence, a photographic and cinematic archive of the wars of light distributed by media such as *Life* magazine.”²⁷ In (*See Reverse Side.*), Mi has explored declassified images—housed in the US’s National Archives and Record Administration (NARA)—relating to American nuclear tests conducted on, above or in Ænewetak (Enewetak), Bikinni (Bikini), and Kalama (Johnston) atolls. During her searches, Mi discovered only thirteen declassified images, from the hundreds associated with these tests, that referenced Marshallese ways of living and the lives of the people who have occupied these islands for generations.²⁸ Out of the many images that depicted bombs exploding into their familiar nuclear-mushroom-cloud, only a very small number actually represented a way of life that would be irreversibly changed. This focus on imaging the bomb itself was extended to displaced Marshallese who were given US–military produced photographs of their annihilated homeland. This “exchange of ancestral land for a photograph of its irradiation, for an image of the violence of light,

is a poignant indicator of the way in which visual media were used to frame the costs of militarism.”²⁹ From the moment of detonation to the processes of archiving, this declassified imagery focuses predominantly on the explosive capabilities of the weapons that were tested, as opposed to their impact on Indigenous livelihood.

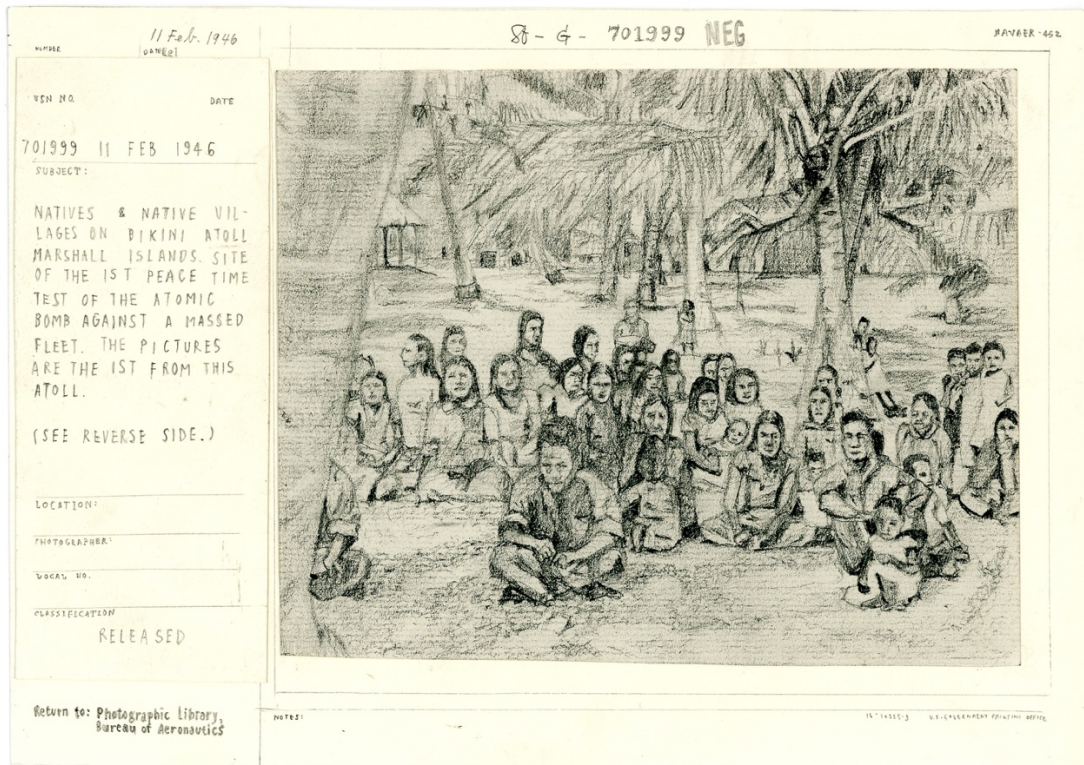


Figure 1. Jane Chang Mi, 701999, Pencil Drawing, 8.5 x 11". Used with permission of the artist.

Mi states that she has worked with these thirteen photographs in order to “highlight their importance, to bring awareness to this overlooked moment in history,” meaning the ongoing implications these tests have for Marshallese people.³⁰ Instead of simply reproducing these photographs—lifting them from the restraints of their archival context, enlarging them, and thereby making them visible—Mi takes a different approach. She painstakingly copies, including the narrative descriptions and archiving classifications on the front and reverse side, each photograph as a pencil-drawn reproduction (see Figures 1 to 4). Her method of drawing these photographs has a twofold function in terms of generating “new historical as well as analytical readings” of archives and the knowledge they produce, along with enabling forms of socio-ethical witnessing to the ongoing legacies of nuclear testing.³¹

The former connects to the way these photographs have been copied with pencil, which is manufactured from graphite—an important ingredient within the nuclear chain reaction process—visually appearing as if it is made of lead. The material properties of lead function as a shield that protects against damaging ionizing

radiation. Mi's decision to not only reproduce these thirteen images as drawings but to use lead pencil in the process results in a symbolically protective shield. While lead alone could not sufficiently safeguard against the mass of first-generation atomic and thermonuclear weapons that were tested, it does contain properties that block radiation. These same radiation-shielding properties are suggested by Mi's heavy pencil lines that construct the bodies and the cultural infrastructure that were displaced as a result of testing. There is a deliberate consciousness to Mi's photo-drawings, just as there would be in any overtly designed uses of actual lead to protect against radiation. Her act of remaking these photographs into pencil drawings separates them from their photographic archival context, which contains trace elements of radioactive matter in the form of light-sensitive silver halide gelatin emulsion.

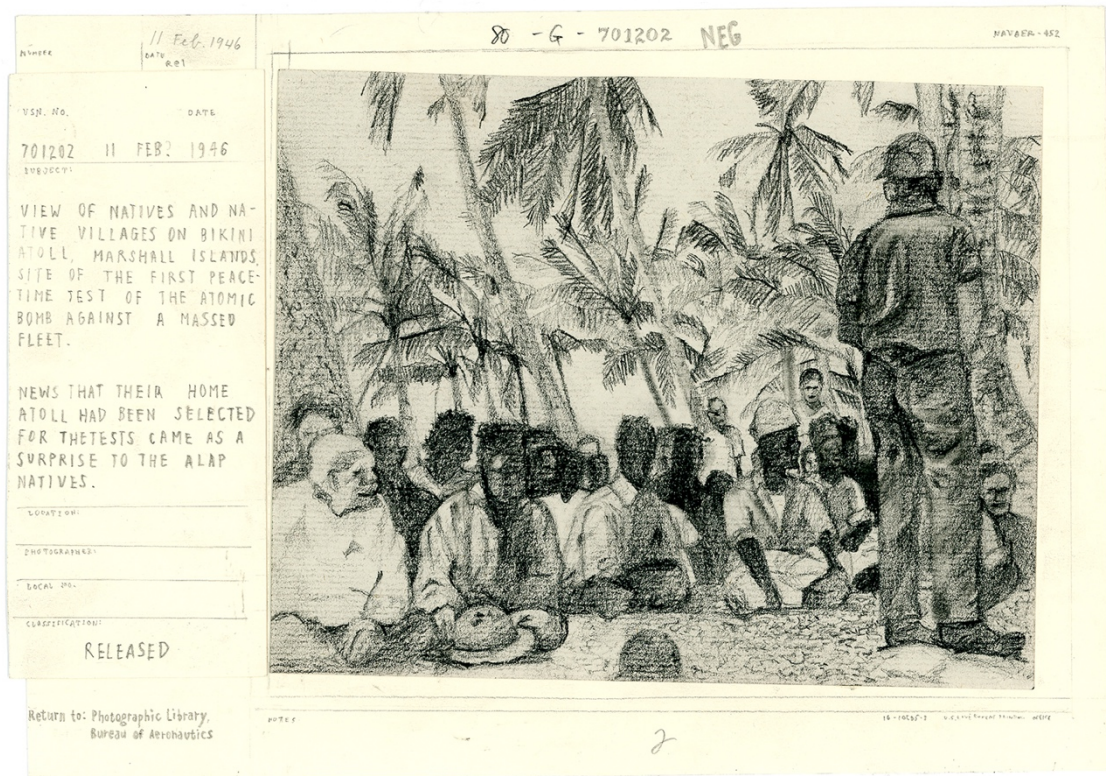


Figure 2. Jane Chang Mi, 701202, Pencil Drawing, 8.5 x 11". Used with permission of the artist.

The original photographic prints, residing in the NARA archive, hold a haptic relationship to the negatives they were made from. Each negative contains traces, while not necessarily perceivable to human eyes, of radiation from the light that exposed it; light, be it from the sun or an atomic blast has touched the surface of the film. Framed in this manner, the archival images contain a radioactive charge that is present in not only the chemical properties of film itself, but also in the kinds of documentary images that make up government archives concerning Oceanic nuclear

testing: Photographs of detonating bombs dominate this national archive. Mi's treatment of these thirteen images grants a visibility to what has been obscured—made invisible—within the “official” government archive itself. However, it is a visibility that brings with it a strong sense of opacity. Although Mi's drawings release the Indigenous lives and lands represented in the original photographs from the confines of a very American nationalist–centric archive, they do not pretend to provide insight into the realities of living in a nuclear test zone. If anything, her pencil drawings function to obscure any sense of clarity the photographs could have claimed to provide.

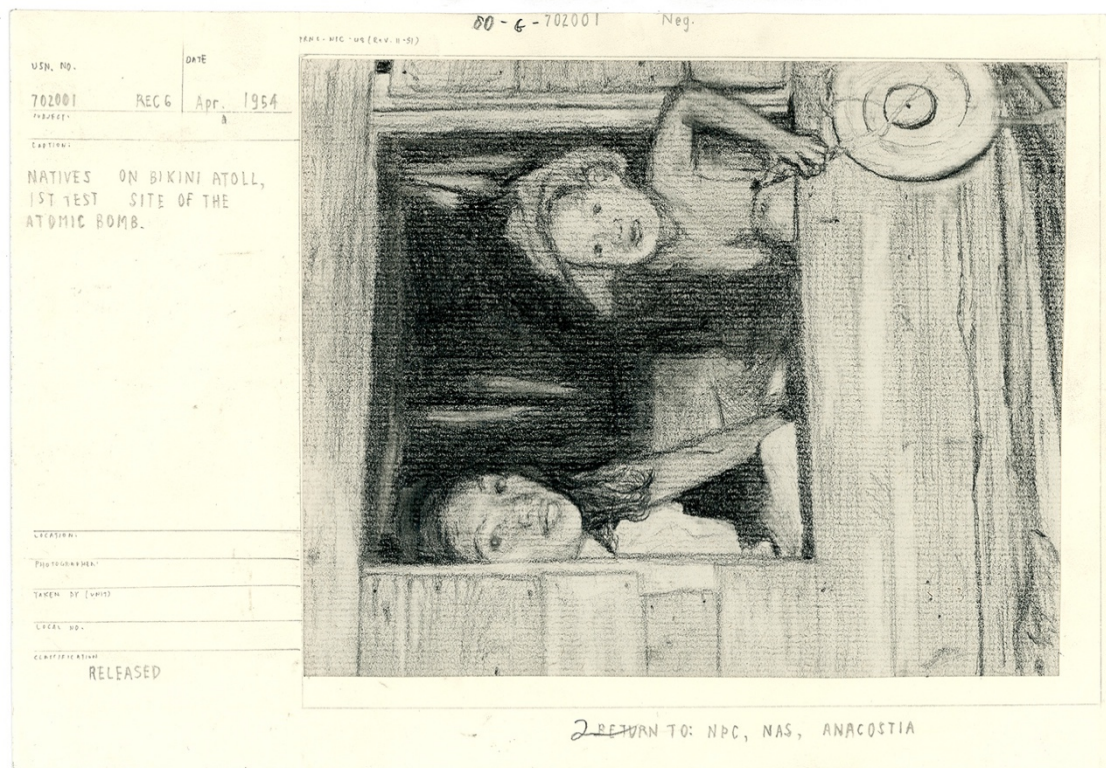


Figure 3. Jane Chang Mi, 702001, Pencil Drawing, 8.5 x 11". Used with permission of the artist.

In their drawn state, these once photographically clear images are hazy; the pencil lines are thick, the shading rough and Mi's process is made evident through her fingerprints, as well as her efforts erasing and redrawing—all of which attest to her own conscious decision to ethically see these images. Through these processes, details are seemingly lost. Although specific information concerning time and cultural location is provided through the copied classifying text, these details are rendered less discernible within the actual drawn photograph. As a result, these drawings provoke a form of self-reflexive questioning that moves beyond what is literally visualized in an image, be it a photograph or a drawing of one. There is a shift from “what are we looking at?” to “what do we expect to see here; what are we being asked to imagine

and witness?”³² Such methodological framing moves the act of looking to a kind of *seeing* that is akin to Azoulay’s watching – an ethical responsibility is required. Part of this ethic involves embracing an image’s visual opaqueness, an aspect which goes beyond an image’s appearance and beyond its archival classification. Viewers are thereby called on to “assume a responsibility with regard to the image, and thus to become potential witnesses.”³³ Responding to Mi’s images in this way aligns with theorist Kelly Oliver’s proposition that there is an ethical *response-ability* to go beyond comprehension, which equates as much to seeing as it does to witnessing.³⁴ This thinking is crucial to the ways that Mi’s drawings are able to enact socio-ethical witnessing to the ongoing legacies of nuclear testing, which moves beyond the limitations of both government archives and the ubiquitous images of the mushroom cloud nuclear explosion.³⁵ These drawings politicize the invisibility of Indigenous experience within declassified American photographic archives, while also caring for the identities of the people—and their associative traumatic experiences—contained within these images. Mi does not subject Indigenous people and their experiences to further scrutiny; rather her pencil lines provide an opaque safety.

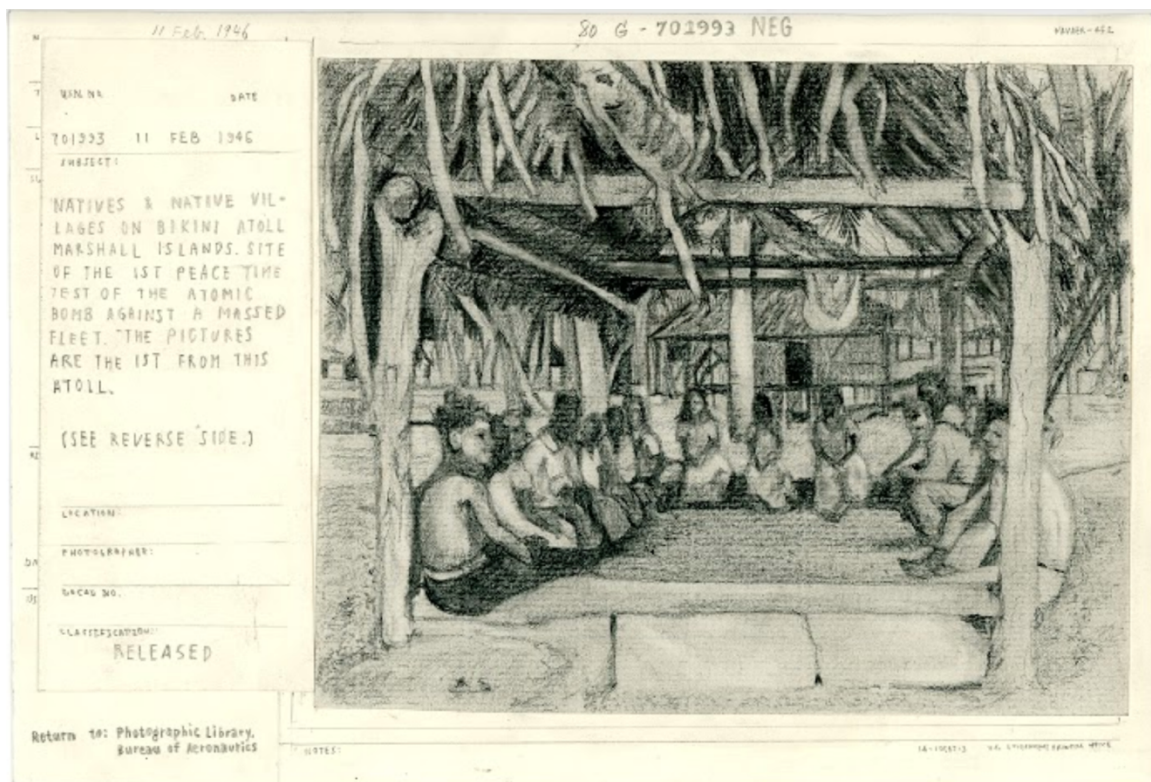


Figure 4. Jane Chang Mi, 701993, Pencil Drawing, 8.5 x 11". Used with permission of the artist.

Tinian Island, Marianas Archipelago, “USA”

Imperial boundaries are an imaginary construct that stops neither radioactive fallout nor transarchipelagic networks of resistance. Radiation exposure and radioactive fallout was not confined to the Marshall Islands during the US Pacific nuclear testing program but traveled more than a thousand miles to the Marianas Archipelago. The US government continues to deny Indigenous Chamoru of the Marianas Archipelago, which includes the island of Guåhan (Guam) and the CNMI, eligibility for healthcare and compensation, even though they are “down-winders.” As LisaLinda Natividad and Victoria-Lola Leon Guerrero write, “while the Pacific Association for Radiation Survivors (PARS) continues to advocate inclusion of Guahan on the Radiation Exposure Compensation Act (RECA) of Congress as down winders, the island is only recognized in the compensation category of on-site participants. This means that only those connected to military service on the island qualify, not the total exposed population of the island as in the case of down winders’ compensation.”³⁶ They continue their claims under the Radiation Exposure Compensation Act (RECA) Amendment of 2019.³⁷ However, the RECA program is due to expire in 2022 and the US government has already stopped accepting applications.³⁸ The invisibility and continued denial of their experience and the imperial control of eligibility are directly connected to US colonial power and expanding militarization.

The people of the Marianas Archipelago impacted by nuclear testing also remain absent from American World War II national commendations and narratives. This lack of nuclear remembering and exclusion enable contemporary militarization. The failure to include Tinian’s significant role in the Second World War within the Manhattan Project National Park system—either digitally or physically—occurs as the US Department of Defense simultaneously argues that maintaining possession of Tinian island is necessary for US national security.

“Destination” Island and the B-29 Superfortresses

On July 24, 1944, the 4th United States Marine Division “took” the forty-square-mile island codenamed “Destination.”³⁹ Tinian became “Home of the Superfortress,” to serve as the launchpad of US atomic warfare through the Army Air Force mission *Operation Silverplate*.⁴⁰ Previously covered in green jungle, fruit trees, cattle, and sugarcane, the island was transformed by the 107th US Naval Construction Brigade into a strategic military base.⁴¹ The military planners believed the shape of Tinian resembled the island of Manhattan and fifteen thousand Seabees recreated the grid of New York City’s streets, naming the south to north route Broadway, 8th Avenue, Riverside Drive, along with 42nd to 124th streets. The north part of the island was converted into the largest operational air base in the world for “Empire Runs” to bomb mainland Japan.⁴² This included six B-29 taxiway runways, each twenty miles long, with more than ninety miles of coral roads to deliver five million gallons of gas for the so-called B-29’s Superfortresses.⁴³

Serving as the final preparatory location of the Manhattan Project, Tinian had more than one hundred and fifty thousand US military personnel tasked with the assembly, loading, and launching of the first (and only) two atomic bombs used during combat. On July 25, 1945, the radioactive “hearts”—one uranium and one plutonium—arrived by crate and were transported “up Broadway” and assembled at Northfield.⁴⁴ Atomic Bomb Pit No. 1 was specially constructed to hold the uranium atomic bomb, Little Boy, carried by the B-29 Superfortress, Enola Gay, taking off from “Runway Able” and dropped on Hiroshima, Japan on August 6, 1945. Atomic Bomb Pit No. 2 housed the plutonium atomic bomb Fat Man, loaded onto the B-29 Bock’s Car and dropped on Nagasaki.⁴⁵ Once the Manhattan Project was deemed successful, the local residents, confined to US military-controlled camps, believed their island would be returned after the war.

Despite this historic and tragic role, Tinian island remains without formal recognition or even digital visualization within the Manhattan Project. Today, the B-29 runways are mostly overgrown by invasive weeds, with several of the atomic bomb loading pits filled with soil and planted with coconut and plumeria trees as “symbols of peace.”⁴⁶ A modest plaque designates the atomic bomb loading pits, stating “the island of Tinian is inseparably linked in human history with the end of the war in the Pacific ... this small island of beauty, small island of history.”⁴⁷ The “old people tell stories that speak of ‘things’ down there under the ground” as the impacts of serving as an atomic assembly area continues.⁴⁸

Today, CHamoru cannot access two-thirds of their island, nor grow food on that portion, nor reach their fishing grounds in that area. During the Northern Mariana Islands’s process of self-determination from the United States in the 1970s, the US Department of Defense (DoD) maintained the island was needed to ensure US national security. The military acquired a fifty-year lease for two-thirds of the island for \$17.5 million, due to expire in 2033—with a no-cost extension option until 2083. In exchange, the Indigenous residents were granted US citizenship and promised improved infrastructure, schools, a hospital, and other economic possibilities. While the restriction of land continues with the US Navy maintaining exclusive use, control, and possession of the Military Lease Area, which encompasses the B-29 runways and atomic pits, the promised improvements for the community never came to fruition. The island and the Indigenous CHamoru and Carolinian people are invisible to the US and are only conceptualized as a strategic military location as needed.

US National Park System—Denied

Local political leaders elected by the Tinian community believe inclusion within the US National Park System could provide leverage to preserve Tinian’s Indigenous, Japanese, and World War II historic sites for tourism. The modest tourist industry is based on the island’s history and environment to lure tourists from Asia. In 2010, the CNMI government requested federal assistance from the US Department of the

Interior for the development of a small dedication as a Tinian Visitor Center to recognize the island's unique history and commemorate the island's role within the Manhattan Project. Again in 2015, Tinian Mayor Joey San Nicolas proposed including North Field, the B-29 runways and bomb pits, as one of the sites of the Manhattan Project National Historical Park along with the Los Alamos Laboratories in New Mexico; Oak Ridge, Tennessee; and Hanford, Washington.⁴⁹ His requests were denied since the DoD lease "precluded it," preventing Tinian's incorporation as the four hundred and ninth national park.⁵⁰ Elsewhere in the Marianas Archipelago, "militourism" is promoted as the *only* economic option for the islands. A concept developed by the late i-Kiribati scholar Teaiwa and adapted to the Guåhan context by CHamoru scholar Christine Taitano DeLisle, "militourism" describes the "insidiousness of US militarism and the harrowing symbiosis between militarism and tourism."⁵¹ On Tinian, US militarism is prioritized over *any* tourism.

This denial of physical recognition extends to the absence within digital spaces, revealing which stories, people, and events are worth commemorating, and which ones remain invisible.⁵² The Manhattan Project National Historical Park website reads, "Dawn of the Atomic Age: This site tells the story about the people, events, science, and engineering that led to the creation of the atomic bomb, which helped end World War II."⁵³ A keyword search of "Tinian" produces a "sorry, no results found" response. Searching the World War II National Park Service website, specifically the section "Untold WWII: From Pearl Harbor to the Atomic Bomb," which claims to tell the stories of "America's WWII experience—from Pearl Harbor to the war's atomic end" also concludes with "sorry, no results found."⁵⁴ Similar to the lack of images available in America's national archives of the nuclear testing in the Marshall Islands, invisibility continues as a central characteristic of the legacies of Oceanic nuclear imperialisms.

Commonwealth Joint Military Trainings

Today, Tinian residents are resisting increased US militarization and the development of live-fire bombing ranges on the island as outlined in the 2015 CNMI Joint Military Training Draft Environmental Impact Statement (DEIS).⁵⁵ For Tinian, militarism is not historic—but currently expanding. The highly technical English document of fourteen hundred pages outlines the US Navy's exercise and training plans for the entire Marianas Archipelago and the construction of multiple live-fire ranges for artillery, grenades, and rockets. This includes conducting amphibious assaults over coral reefs with tanks on Unai Chulu beach, one of the few sandy beaches popular for subsistence fishing. While the DoD promises to create ninety-five jobs on the island and inject one billion US dollars' worth of investment and infrastructure upgrades, the community is reminded of previous unfulfilled promises. Their concerns are centered on the destruction of nine hundred acres of conservation land and forests, which is home to rare birds, cultural sites, and contamination of the island's only source of groundwater and aquifer.⁵⁶ Further, the US National Park Service criticized the 2015 military documents for failure to incorporate research on the impacts of historic sites, specifically North

Field, and the potential to destroy nearly two hundred sites that are eligible for the US National Register for Historic Places.⁵⁷

Leon's posts on social media visualize and contextualize these complex plans, which were underreported by other media outlets. Similar to Mi's work, Leon's digital photographs work to counter colonial controlled histories and military documents, while his textual captions reveal their realities and center their concerns through intergenerational knowledge exchange. As a visual and digital method of social-ethical agency, Leon's work exposes the contemporary colonial invisibility of Indigenous Pacific peoples, the lack of US national valuing of their health, documentation of their experiences, and inclusion of their stories. Leon visually documents specific sites on Tinian (is)land to share information about expanding militarization and digitally preserve these locales for future generations.



Figure 5. Instagram post by @pacific_aesthetics with photo credit @tiaranaputi. Used with permission of the artists.

Through his Instagram handle, @pacific_aesthetics, he offers a Micronesian perspective on imperialism and militarization shared through a series of three posts from July 2019. The first is a co-captured series with CHamoru scholar Tiara Na'puti.⁵⁸ The first two images show Leon retrieving something from the roots of a tree which was blown over during Super Typhoon Yutu of 2018 (see Figure 5).⁵⁹ The tangled network of roots is more than six feet high, with shells and other debris wedged in. The final image is a closeup of a gâchai (adze) made out of hima (clamshell) and a sacred ancestral tool of the CHamoru people. In the caption Leon reflects that, with the loss of “sacred sites to bombs,” the Indigenous CHamoru culture on Tinian is threatened to be “erased.”⁶⁰

This photographic series serves as a form of Indigenous social-ethical witnessing and digital advocacy for the protection of the sacred and historic aspects of the (is)land. Leon offers a Marshallese perspective to visualize what is left out of the nuclear imperial remembering of the past as well as contemporary military documents outlining the future. The #protectIndigenous and #protectTinian hashtags tie his involvement and images to the greater efforts of Indigenous protectors worldwide and directly to the (is)land and peoples.⁶¹

State powers like the DoD are not interested in Indigenous witnessing, ancient histories, nor their enduring connection to these (is)lands. Serving as a counterform to the absence of recognition on the National Park website or in the DEIS documents, Leon's work addresses the politics of invisibility and the cultural and historical sites “erased from the island” by expanding militarization. Still more problematic are the intangible impacts of military service members who treat local people, especially women and the environment, badly and without respect. The discourse the US Marines promote (that they “need” Tinian for “training”) renders “invisible” the underlying reasons for the relocation—local resistance due to ongoing sexual violence against women and children in Okinawa.⁶²

Leon's second post shows an aerial image of Tinian's runways carved into greenery, extending to oceanic blue with a small village dotting the coastline. Here he uses the visual historical narrative of runways to highlight the ongoing colonial treatment and imbalances of power between the island's government and the US military (see Figure 6).

Leon textually indicates the sacrifices the local population continues to endure through the DoD's imperial plans and framing of the islands (and peoples) as necessary for US national security. If local residents are forced to migrate elsewhere, due to lack of farmland and fishing access, the island's emptiness is *beneficial* to the US military. Pacific peoples impacted by nuclear imperialism are tragically familiar with how the DoD conceptualizes uninhabited (is)lands as “proving grounds, bombing ranges, and air, sea, land targets.”⁶³ As outlined in the 2015 draft environmental impact statement military document, the concept of “uninhabited” is fundamental to the (flawed) framework. For Pagan island, located north in the Marianas Archipelago, the document confirms the bombing will cause “permanent changes to the visual

environment ... [but] since Pāgan is essentially uninhabited, no impact would occur.”⁶⁴ Uninhabited (is)lands are crucial to colonial imaginaries, being visually replicated within state-produced archival images of nuclear testing, digitally replicated across the National Park website, and central to military expansion.

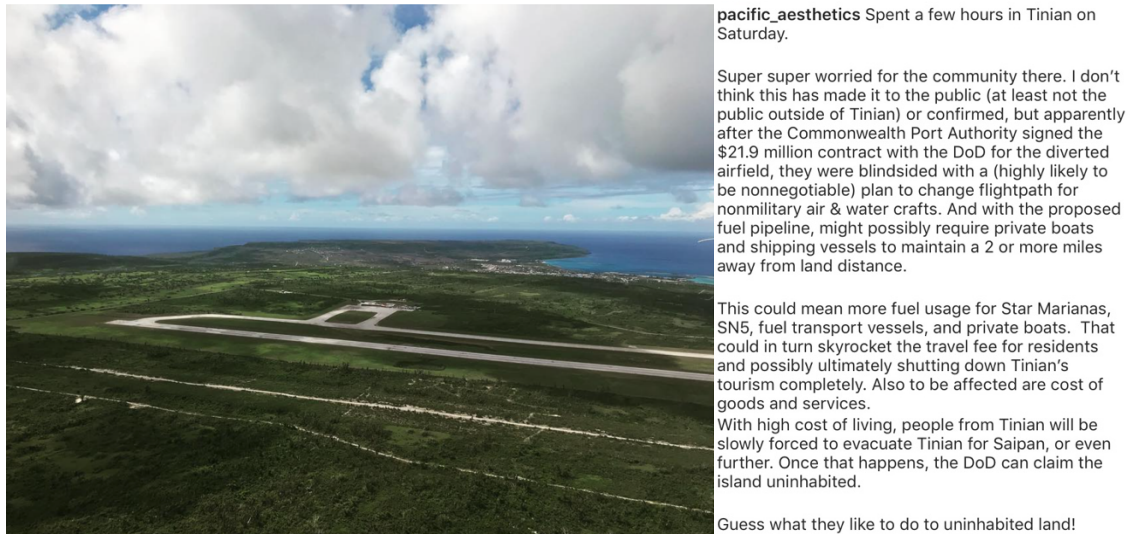


Figure 6. “Spent a few hours.” Instagram post by @pacific_aesthetics. Used by permission.

Leon’s third post displays Indigenous matrilineal and transgenerational exchange, with textual captions supporting agency, knowledge, and responsibility for the future (see Figure 7).⁶⁵ Visually and textually countering the historical reference of Tinian as the “launching pad of atomic warfare,” Leon’s method of social-ethical witnessing instead illustrates two CHamoru women standing on the coastline observing the sea, reaffirming Indigenous knowledge, endurance, and protection of the (is)land.

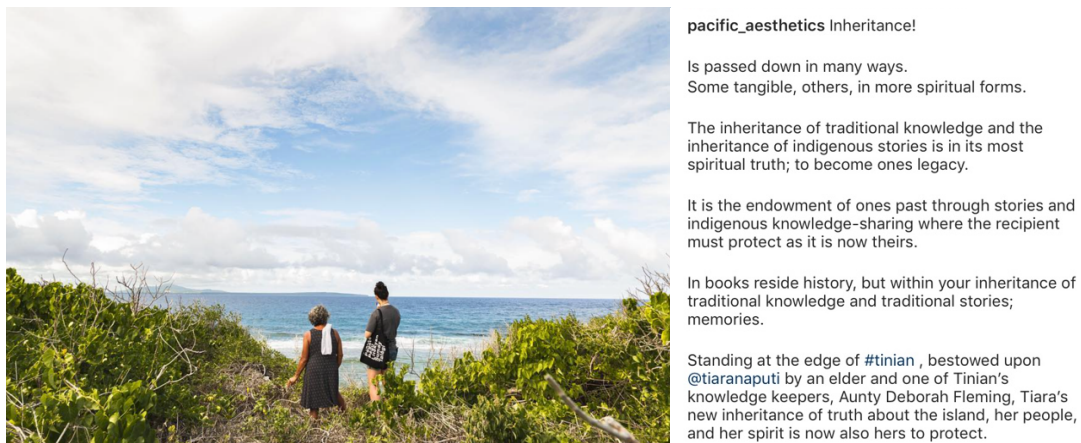


Figure 7. “Inheritance!” Instagram post by @pacific_aesthetics. Used by permission.

Leon's caption highlights that "[t]he inheritance of traditional knowledge and the inheritance of indigenous stories is in its most spiritual truth," through stories of resilience. He produces hope and creates space for alternative future legacies. As a form of digital agency, Leon's method of image-making counters the control of nuclear imperialism, which dictates what is considered "national" history, who counts as witnesses, who gets to share their stories, what is remembered and included (or not) in books or on websites. Social-ethical witnessing resists state-produced narratives (and forgetting) and promotes Indigenous protection and connection to (is)lands and responsibilities to future generations. Through visualization and textual content, these Instagram posts support those who continue to resist expanding militarization.

Conclusion

Both Mi's and Leon's practices are concerned with how to render visible past and present Indigenous realities of Oceanic nuclear imperialisms. Indigenous experiences have either been obscured by the types of images that have become associated with nuclear testing and military occupation or have been made invisible by being marginalized through government archiving and remembrance methods. Central to the digital photographs, texts, and photo-drawings that each of these practitioners produce are methods which set into motion forms of socio-ethical witnessing that run counter to official government-produced narratives and memory. While Mi's refashioned photo-drawings make present the ways in which government archives have obscured the human realities of cultural displacement and land loss caused by nuclear testing, Leon's use of social media platforms function to politicize the ongoing present-day legacies of contemporary nuclear imperialisms and military occupation.

Albeit via different methods, both practitioners are concerned with how to establish forms of socio-ethical agency that focus on being *seen*, as well as socio-ethical acts of seeing and witnessing. Their resulting works function to give agency to the people that nuclear testing, and the military system that enabled it either refuses to see or makes absent through forms of archiving and remembering. In other words, the same imperializing ideology that frames the military system that required (is)lands to test nuclear weapons in the first place also frames rhetoric produced by government archives, and contemporary justification of military expansion and occupation—both have a vested interest in keeping the lived realities of nuclear imperialisms, historical and contemporary, invisible. This control of visibility continues to be of utmost importance to the US government today, which is evidenced by an ongoing failure to adequately acknowledge the toxic mess created by nuclear testing and exacerbated by continual military occupation.⁶⁶ The diverse practices of Mi and Leon are committed to establishing forms of visibility that function as political agency for the Indigenous peoples, lands, and cultures impacted by military and nuclear testing. Their works explore other modalities for visualizing the presence of this violent history for future generations.

Notes

- ¹ Teresia K. Teaiwa, “Bikinis and Other S/pacific N/oceans” in *Militarized Currents*, ed. Setsu Shigematsu and Keith L. Camacho (Minneapolis: University of Minnesota Press, 2010), 15–16.
- ² Teaiwa, “Bikinis and Other S/pacific N/oceans,” 15.
- ³ Elizabeth DeLoughrey, “Heliotropes: Solar Ecologies and Pacific Radiations” in *Postcolonial Ecologies*, eds. Elizabeth DeLoughrey and George B. Handley (New York: Oxford University Press, 2011), 236.
- ⁴ Peter B. Hales, “The Atomic Sublime,” *American Studies* 32, no. 1 (1991): 13.
- ⁵ See also cultural theorist Frances Ferguson, “The Nuclear Sublime,” *Diacritics* 14, no. 2, *Nuclear Criticism* (1984): 4–10. Ferguson situates the unthinkable destructive capacity of nuclear weapons within aesthetic traditions of the sublime: “I take the nuclear as the unthinkable to be the most recent version of the notion of the sublime” (5). In an analysis of critic Jonathan Schell’s *The Fate of the Earth* (1982), Ferguson argues that the nuclear sublime “operates much like most other versions of the sublime, in that it imagines freedom to be threatened by a power that is consistently mislocated” (9).
- ⁶ Hales, “The Atomic Sublime,” 16.
- ⁷ Elizabeth DeLoughrey, “Radiation Ecologies and the Wars of Light,” *Modern Fiction Studies* 55, no. 3 (Fall 2009): 472.
- ⁸ Jane Chang Mi, (*See Reverse Side.*), artist’s website, <http://janecmi.com/See-Reverse-Side>.
- ⁹ Reinhard Braun, “Un-Curating the Archive,” *Camera Austria*, accessed May 12, 2018, <http://camera-austria.at/ausstellungen/un-curating-the-archive-2/?lang=en>.
- ¹⁰ “(Is)land” is a term used by Vincente M. Diaz, “Simply Chamorro: Telling Tales of Demise and Survival in Guam,” *The Contemporary Pacific* 6, no. 1 (1994): 31, <http://www.jstor.org/stable/23701589>.
- ¹¹ Hester Blum, Mary Eyring, Iping Liang, and Brian Russell Roberts, eds., Special Forum on Archipelagoes/Oceans/American Visuality, *Journal of Transnational American Studies* 10, no. 1 (2019): 5–21. <https://escholarship.org/uc/item/5w31v1p2>.
- ¹² Kathy Jetnil-Kijiner, “poem: History Project” April 13, 2011, accessed June 2, 2020, <https://jkijiner.wordpress.com/2011/04/13/history-project/>.
- ¹³ Karen Barad, “After the End of the World: Entangled Nuclear Colonialisms, Matters of Force, and the Material Force of Justice,” *Theory & Event* 22, no. 3 (July 2019): 538.

- ¹⁴ Robert Hariman and John Louis Lucaites, *No Caption Needed: Iconic Photographs, Public Culture, and Liberal Democracy* (Chicago: University of Chicago Press, 2007), 136.
- ¹⁵ See *The Nuclear Culture Research Group* at Goldsmiths, University of London, <https://nuclear.artscatalyst.org/>. For a Pacific-centered understandings, see Women's International League for Peace and Freedom, *Pacific Women Speak-Out for Independence and Denuclearisation* (New Zealand: Christchurch, 1998); and Joseph H. Genz, Noelani Goodyear-Ka'ōpua, Monica C. La Briola, Alexander Mawyer, Elicitia N. Morei, and John P. Rosa, *Militarism and Nuclear Testing*, Vol. 1 (Honolulu: Center for Pacific Islands Studies: University of Hawai'i, Mānoa, 2016).
- ¹⁶ Elliott Cost, "On Being Surrounded by Water," interview with Jane Chang Mi, *The Creative Independent*, April 24, 2019, <https://thecreativeindependent.com/people/visual-artist-jane-chang-mi-on-being-surrounded-by-water/>.
- ¹⁷ Mi's project, "The Eye of the Gods" (2016), explores pre-contact historical narratives associated with the history of Pearl Harbor. Mi was "the inaugural artist in residence at the World War II Valor in the Pacific National Monument" where she was invited to dive the *USS Arizona* and *USS Utah* wreckages: Her series was later exhibited as part of the Honolulu Biennale in 2017. See Jane Chang Mi, "The Eye of the Gods," artist's website, <http://janecmi.com/filter/Installation/The-Eyes-of-the-Gods>.
- ¹⁸ See Greg Dvorak's personal narrative, *Coral and Concrete: Remembering Kwajalein Atoll between Japan, America, and the Marshall Islands* (Honolulu: University of Hawai'i Press, 2018).
- ¹⁹ Leonard Leon has two Instagram handles: "Marshallese Visual Storytelling" @pacific_aesthetics with photographic content https://www.instagram.com/pacific_aesthetics/ and @inspiremicronesia <https://www.instagram.com/inspiremicronesia/> featuring his shell carving.
- ²⁰ Specifically in the context of photography, the writing of Roland Barthes, Jean Baudrillard, Victor Burgin, Martha Rosler, Abigail Solomon-Godeau, Susan Sontag, and John Tagg, among others, led to a deep mistrust in a photographs use-value; these critics "were highly sceptical of the photograph's ability to be either politically or ethically potent"—see Susie Linfield, *The Cruel Radiance: Photography and Political Violence* (Chicago: University of Chicago Press, 2010), 7.
- ²¹ Erika Balsom, "The Reality-Based Community," *eflux*, no. 83 (June 2017), <http://www.e-flux.com/journal/83/142332/the-reality-based-community/>.
- ²² See Sue Best, *Reparative Aesthetics: Witnessing in Contemporary Art Photography* (London: Bloomsbury Academic Publishing, 2016); Elspeth H. Brown and Thy Thu, eds., *Feeling Photography* (Durham, NC and London: Duke University Press, 2014); Georges

- Didi-Huberman *Images in Spite of All: Four Photographs from Auschwitz* (Chicago: Chicago University Press, 2008); Maria Lind and Hito Steyerl, eds., *The Green Room: Reconsidering the Documentary and Contemporary Art* (Berlin: Sternberg Press, 2008).
- ²³ Ariella Azoulay, *The Civil Contract of Photography* (Cambridge, MA: MIT Press, 2008).
- ²⁴ Azoulay, *Civil Contract*, 130.
- ²⁵ For Azoulay, this sense of civic duty directly connects to her experiences of the Israel-Palestine conflict, which inform much of her theorizing of photography.
- ²⁶ Azoulay, *Civil Contract*, 14.
- ²⁷ DeLoughrey, “Radiation Ecologies,” 476.
- ²⁸ Jane Mi, discussion with the authors, November 18, 2019.
- ²⁹ DeLoughrey, “Radiation Ecologies, 476.
- ³⁰ Jane Mi, (*See Reverse Side.*), artist’s website, <http://janecmi.com/See-Reverse-Side>.
- ³¹ Okwui Enwezor, *Archive Fever: Uses of the Document in Contemporary Art* (Göttingen: Steidl, 2008), 23.
- ³² Ulrich Baer, *Spectral Evidence: The Photographing of Trauma* (Cambridge, MA: MIT Press, 2002), 69.
- ³³ Baer, *Spectral Evidence*, 182.
- ³⁴ Kelly Oliver, *Witnessing: Beyond Recognition* (Minneapolis: University of Minnesota Press, 2001), 106.
- ³⁵ In a recent *LASER Talk* (Leonardo Art Science Evening Rendezvous), held at Auckland University of Technology on July 5, 2019, Mi discussed how part of her intention with (*See Reverse Side.*) was to shift attention away from the mushroom cloud images and their sublime associations. She made reference to early artists, namely Bruce Conner, who in their critique of USA’s nuclear weapons testing programmes, ended up perpetuating associating atomic detonations with ideas of the romantic sublime. Conner’s film *Crossroads* (1976) provides a good example; in this film Connor uses military produced footage of *Operation Crossroads*, conducted at Bikini Atoll, which he reproduces as extremely slow-motion replays. Conner’s treatment of this military footage results in almost dreamy images that look like billowing puffy clouds—their violent, destructive and radiative context is almost neutralized by such methods. Conner’s *Crossroads* perpetuates the spectacle, as opposed to the socio-political realities, of nuclear testing. Bruce Conner, dir., *Crossroads*, film, 36 minutes, 1976.
- ³⁶ LisaLinda Natividad, and Victoria-Lola Leon Guerrero, “The Explosive Growth of U.S. Military Power on Guam Confronts People Power: Experience of an Island People

- under Spanish, Japanese and American Colonial Rule,” *The Asia-Pacific Journal*, 8, issue 49, no. 3 (December 6, 2010), <https://apjff.org/-LisaLinda-Natividad/3454/article.html>.
- ³⁷ Mar-Vic Cagurangan, “Guam Included in RECA Expansion Bill,” *Pacific News Center*, March 30, 2019, <https://www.pncguam.com/guam-included-in-reca-expansion-bill/>.
- ³⁸ “NMI Wants In on Nuke Testing Compensation,” *Saipan Tribune*, October 19, 2005, <https://www.saipantribune.com/index.php/a4e395c5-1dfb-11e4-aedf-250bc8c9958e/>.
- ³⁹ Don A. Farrell, *Tinian* (Tinian, MP: Micronesia Productions, Commonwealth of the Northern Mariana Islands, 1992), 39. Tinian island sustained forty-three consecutive days of US bombardment of the Japanese Imperial Forces, including the first use of napalm bombs during warfare.
- ⁴⁰ “Tinian Island,” Atomic Heritage Foundation, <https://www.atomicheritage.org/location/tinian-island>.
- ⁴¹ Farrell, *Tinian*, 46.
- ⁴² Farrell, *Tinian*, 46–47.
- ⁴³ Farrell, *Tinian*, 62–63. The average B-29 uses five hundred gallons of gasoline per hour, totaling seven thousand six hundred and fifty gallons per mission.
- ⁴⁴ Farrell, *Tinian*, 68.
- ⁴⁵ *Flight of the B-29 Superfortress “Enola Gay” Atomic Bomb Loading Pits*, Plaque 7 on Tinian island, CNMI. English and Japanese translations are offered along with a left frontal military image of the Enola Gay.
- ⁴⁶ Farrell, *Tinian*, 63. Runway Baker was restored in 2013 and is used for active training for the USMC C-130s based on Guam and Okinawa. See Marine Corps Activity Guam, “Expeditionary Marines To Train on Tinian,” *Public Affairs*, September 8, 2016, <https://guam.stripes.com/community-news/expeditionary-marines-train-tinian>.
- ⁴⁷ *Flight of the B-29 Superfortress “Enola Gay” Atomic Bomb Loading Pits*, Plaque 7 on Tinian.
- ⁴⁸ Zohl Dé Ishtar, *Daughters of the Pacific* (Melbourne: Australia Spinifex Press, 1994), 95.
- ⁴⁹ Office of the Mayor of Tinian and Aguiguan, “Tinian Mayor Suggests Alternatives to Marines’ Plans,” *Saipan Tribune*, November 25, 2015, <https://www.saipantribune.com/index.php/tinian-mayor-suggests-alternatives-marines-plans/>.

- ⁵⁰ Haidee V. Eugenio, "CNMI Asks U.S. to Build Tinian Visitor Center," *Saipan Tribune*, February 11, 2010, <http://www.pireport.org/articles/2010/02/11/cnmi-asks-us-build-tinian-visitor-center>.
- ⁵¹ Teresia K. Teaiwa, *Militarism, Tourism, and the Native: Articulations in Oceania*, PhD diss., University of California, Santa Cruz, 2001; Christine Taitano DeLisle, "Destination Chamorro Culture: Notes on Realignment, Rebranding, and Post-9/11 Militourism in Guam," *American Quarterly* 68, no. 3 (2016): 563–572, here 563.
- ⁵² See Takashi Fujitani, Geoffrey White, and Lisa Yoneyama, eds., *Perilous Memories: The Asia-Pacific War(s)* (Durham, NC: Duke University Press, 2001).
- ⁵³ "Manhattan Project National Historical Park, NM, WA, TN," National Park Service, <https://www.nps.gov/mapr/index.htm>.
- ⁵⁴ "World War II," National Park Service, <https://www.nps.gov/subjects/worldwarii/index.htm>.
- ⁵⁵ US Marine Corps Forces, Pacific, *Draft Environmental Impact Statement/Overseas Environmental Impact Statement for Commonwealth of the Northern Marianas Islands Joint Military Training* (Honolulu, HI: Naval Facilities Engineering Command, Pacific, 2015), originally posted at <http://www.cnmijointmilitarytrainingeis.com/documents>. A version of the Revised Draft EIS/OEIS (Overseas Environmental Impact Statement) was "expected to be released for public review and comment in late 2018 or early 2019" according to the official website for the CNMI Joint Military Training EIS, accessed December 11, 2019, <http://www.cnmijointmilitarytrainingeis.com/announcements/26>. In November 2020, the most recent announcement on the status of the EIS/OEIS was dated January 24, 2020 and consisted of a two-line statement: "There is no information on the EIS status at this time. For more information, contact the Joint Region Marianas Public Affairs Office" ("Status of Revised Draft EIS," *CNMI Joint Military Training EIS/OEIS*, U.S. Marine Corps, Pacific, <https://www.cnmijointmilitarytrainingeis.com/announcements.html>).
- ⁵⁶ Alexie Villegas Zotomayor, "Saipan Residents Say 'no' to Tinian, Pagan Military Training," *Marianas Variety*, May 1, 2015. <http://www.mvariety.com/cnmi/cnmi-news/local/76415-saipan-residents-say-no-to-tinian-pagan-military-training>. Also see Zotomayor, "Tinian Resident Emphatically Oppose Military Exercises," *Marianas Variety*, May 4, 2015. <http://www.pireport.org/articles/2015/05/04/tinian-residents-emphatically-oppose-military-exercises>.
- ⁵⁷ Anita Hofschneider, "Chapter 3: Tinian: 'We Believed in America,'" *Honolulu Civil Beat*, December 14, 2016, <http://www.civilbeat.org/2016/12/tinian-we-believed-in-america/>.

- ⁵⁸ See Tiara Na'puti, "Oceanic Possibilities for Communication Studies," *Communication and Critical/Cultural Studies* 17, no.1 (2020): 95–103, <https://www.tandfonline.com/doi/full/10.1080/14791420.2020.1723802>.
- ⁵⁹ Tiara Na'puti, "Indigenous Responses to Super Typhoon Yutu: Resilience Rhetorics in a Time of Disaster Militarism," Relationality and Resilience panel, National Communication Association Conference, Baltimore, MD, November 14, 2019.
- ⁶⁰ Leonard Leon (@pacific_aesthetics), "While in the Tinian on Saturday filming..." Instagram photo, July 17, 2019, <https://www.instagram.com/p/BoAGiGFNuG/>.
- ⁶¹ Marisa Elena Duarte and Morgan Vigil-Hayes, "#Indigenous: A Technical and Decolonial Analysis of Activist Uses of Hashtags Across Social Movements," *MediaTropes eJournal* 7, no. 1 (2017): 166–184, <https://mediatropes.com/index.php/Mediatropes/article/view/28556>.
- ⁶² Sylvia C. Frain, "Women's Resistance in the Marianas Archipelago: A US Colonial Homefront and Militarized Frontline," *Feminist Formations* 29, no. 1 (2017): 99, <https://muse.jhu.edu/article/658645>.
- ⁶³ Emmanuel T. Erediano, "CPA: Navy Request Shows 'callous disregard' for People of Tinian," *The Guam Daily Post*, June 27, 2019, https://www.postguam.com/news/cnmi/cpa-navy-request-shows-callous-disregard-for-people-of-tinian/article_e5b8f240-97d8-11e9-9ccf-ebb4a01f8469.html.
- ⁶⁴ *Draft Environmental Impact Statement for Commonwealth of the Northern Marianas Islands Joint Military Training*, U.S. Marine Corps Forces Pacific, 2015, 534. There is no ferry service and the seven-seater propeller plane relies on visual confirmation to fly directly north (weather and passenger numbers permitting) over North Field to the island of Saipan. Should the military restrict this airspace, the cost of flying will dramatically increase more than one hundred dollars—more than a person makes in a day—and will create an additional expense should residents need medical care. The people of Tinian were promised a medical facility during the Covenant negotiations of the 1970s; however, the Department of Defense never initiated this. See Sophia Perez, "US Navy Wants to Restrict Tinian's Airspace," *Marianas Variety*, March 19, 2020, <https://www.mvariety.com/mv-videos/51-videos/2558-us-navy-wants-to-restrict-tinian-s-airspace>. Also see Sylvia C. Frain, "Tip of the Spear," short documentary pitch for Hawai'i Filmmakers Collective Producers Lab, November 14, 2020, 1:01:00–1:12:00, <https://www.facebook.com/hifilmmakers/videos/863705574372285/>.
- ⁶⁵ Leonard Leon (@pacific_aesthetics), "Inheritance!" Instagram photo, July 15, 2019, <https://www.instagram.com/p/Bz7DZWfllbP/>. Also see @inspiremicronesia, "Inspired Inheritance," Instagram post, August 30, 2020, <https://www.instagram.com/p/CEd7lYrlsOj/>.

- ⁶⁶ Susanne Rust, “U.S. Won’t Clean Up Marshall Islands Nuclear Waste Dome but Wants It Free of Anti-U. S. Graffiti,” *Los Angeles Times*, November 14, 2019, <https://www.latimes.com/environment/story/2019-11-14/marshall-islands-runit-nuclear-waste-dome-site-graffiti>.

Selected Bibliography

- Azoulay, Ariella. *The Civil Contract of Photography*. Cambridge, MA: MIT Press, 2008.
- Baer, Ulrich. *Spectral Evidence: The Photographing of Trauma*. Cambridge, MA.: MIT Press, 2002.
- Balsom, Erika. “The Reality-Based Community.” *eflux*, no. 83 (June 2017): 4. <http://www.e-flux.com/journal/83/142332/the-reality-based-community/>.
- Barad, Karen. “After the End of the World: Entangled Nuclear Colonialisms, Matters of Force, and the Material Force of Justice.” *Theory & Event* 22, no. 3 (July 2019): 524–550.
- Best, Sue. *Reparative Aesthetics: Witnessing in Contemporary Art Photography*. London: Bloomsbury Academic Publishing, 2016.
- Braun, Reinhard. “Un-Curating the Archive.” *Camera Austria*, May 2018. <http://camera-austria.at/ausstellungen/un-curating-the-archive-2/?lang=en>.
- Brown, Elspeth H., and Thy Thu, editors. *Feeling Photography*. Durham, NC and London: Duke University Press, 2014.
- Conner, Bruce, director. *Crossroads*. Film, 36 minutes, 1976.
- Cost, Elliott. “On Being Surrounded by Water.” Interview with Jane Chang Mi. *The Creative Independent*. April 24, 2019. <https://thecreativeindependent.com/people/visual-artist-jane-chang-mi-on-being-surrounded-by-water/>.
- DeLisle, Christine Taitano. “Destination Chamorro Culture: Notes on Realignment, Rebranding, and Post-9/11 Militourism in Guam.” *American Quarterly* 68, no. 3 (2016): 563–572. <https://muse.jhu.edu/article/631119/pdf>.
- DeLoughrey, Elizabeth. “Radiation Ecologies and the Wars of Light.” *MFS Modern Fiction Studies* 55, no. 3 (Fall 2009): 468–498.
- . “Heliotropes: Solar Ecologies and Pacific Radiations.” In *Postcolonial Ecologies: Literatures of the Environment*, edited by Elizabeth DeLoughrey and George B. Handley. New York: Oxford University Press, 2011.
- Dé Ishtar, Zohl. *Daughters of the Pacific*. North Melbourne: Australia Spinifex Press, 1994.

- Diaz, Vincente M. "Simply Chamorro: Telling Tales of Demise and Survival in Guam." *The Contemporary Pacific* 6, no. 1 (1994): 29–58. <http://www.jstor.org/stable/23701589>.
- Didi-Huberman, Georges. *Images in Spite of All: Four Photographs from Auschwitz*. Chicago: Chicago University Press, 2008.
- Dvorak, Greg. *Coral and Concrete: Remembering Kwajalein Atoll between Japan, America, and the Marshall Islands*. Honolulu: University of Hawai'i Press, 2018.
- Enwezor, Okwui. *Archive Fever: Uses of the Document in Contemporary Art*. Göttingen, Germany: Steidl, 2008.
- Farrell, Don A. *Tinian*. Tinian, MP: Micronesia Productions, Commonwealth of the Northern Mariana Islands, 1992.
- . *Tinian and the Bomb: Project Alberta and Operation Centerboard*. Tinian, MP: Micronesia Productions, Commonwealth of the Northern Mariana Islands, 2018.
- Frances Ferguson. "The Nuclear Sublime." *Diacritics* 14, no. 2. Nuclear Criticism (1984): 4–10. <http://www.jstor.com/stable/464754>.
- Frain, Sylvia C. "Women's Resistance in the Marianas Archipelago: A US Colonial Homefront and Militarized Frontline." *Feminist Formations* 29, no. 1 (2017): 97–135. <https://muse.jhu.edu/article/658645>.
- . "'Tip of the Spear' short documentary pitch for Hawai'i Filmmakers Collective Producers Lab." Facebook, November 14, 2020. Video, 1:01:00–1:12:00. <https://www.facebook.com/hifilmmakers/videos/863705574372285/>.
- Fujitani, Takashi, Geoffrey White, and Lisa Yoneyama, editors. *Perilous Memories: The Asia-Pacific War(s)*. Durham, NC: Duke University Press, 2001.
- Genz, Joseph H., Noelani Goodyear-Ka'ōpua, Monica C. La Briola, Alexander Mawyer, Elicitia N. Morei, and John P. Rosa. *Militarism and Nuclear Testing*, Vol. 1. Honolulu: University of Hawai'i, Mānoa, Center for Pacific Islands Studies, 2016.
- Hales, Peter B. "The Atomic Sublime." *American Studies* 32, no. 1 (1991): 5–31. <https://journals.ku.edu/amsj/article/view/2890/2849>
- Hariman Robert, and John Louis Lucaites. *No Caption Needed: Iconic Photographs, Public Culture, and Liberal Democracy*. Chicago and London: University of Chicago Press, 2007.
- Hofschneider, Anita. "Chapter 3: Tinian: 'We Believed in America.'" *Honolulu Civil Beat*, December 14, 2016. <http://www.civilbeat.org/2016/12/tinian-we-believed-in-america/>
- Jetnil-Kijiner, Kathy. "poem: History Project." Spoken-word poem, Artist's website, 2011. <https://kijiner.wordpress.com/2011/04/13/history-project/>.

- Leon, Leonard. “@pacific_aesthetics.” Artist’s Instagram account. https://www.instagram.com/pacific_aesthetics/.
- . (@pacific_aesthetics). 2019. “Inheritance!” Instagram photo, July 15, 2019. <https://www.instagram.com/p/Bz7DZwflbP/>.
- . (@pacific_aesthetics). 2019. “Spent a few hours in Tinian on Saturday.” Instagram photo, July 16, 2019. <https://www.instagram.com/p/Bz8EgM6liSs/>.
- . (@pacific_aesthetics). 2019. “While in the Tinian on Saturday filming...” Instagram photo, July 17, 2019. <https://www.instagram.com/p/BoAGigIFNuG/>.
- Lind, Maria, and Hito Steyerl, editors. *The Green Room: Reconsidering the Documentary and Contemporary Art*. Berlin: Sternberg Press, 2008.
- Linfield, Susie. *The Cruel Radiance: Photography and Political Violence*. Chicago and London: University of Chicago Press, 2010.
- Mi, Jane Chang. (See *Reverse Side*). Artist’s website. <http://janecmi.com/See-Reverse-Side>.
- . “The Eye of the Gods.” (See *Reverse Side*). Artist’s website. <http://janecmi.com/filter/Installation/The-Eyes-of-the-Gods>.
- . 701999. Pencil drawing. Artist’s collection, Los Angeles, 2017.
- . 701202. Pencil drawing. Artist’s collection, Los Angeles, 2017.
- . 702001. Pencil drawing. Artist’s collection, Los Angeles, 2017.
- . 701993. Pencil drawing. Artist’s collection, Los Angeles, 2017.
- , Daniel Hikuroa, and Billie Lythberg. “Moana-nui-a-kiwa: Our Ocean Still in Need of Warriors.” Panel discussion, Leonardo Art-Science Evening Rendezvous (LASER) series. Tāmaki Makaurau Auckland. July 5, 2019.
- Na’puti, Tiara. “Oceanic Possibilities for Communication Studies.” *Communication and Critical/Cultural Studies* 17, no. 1 (2020): 95–103. <https://www.tandfonline.com/doi/full/10.1080/14791420.2020.1723802>.
- . “Indigenous Responses to Super Typhoon Yutu: Resilience Rhetorics in a Time of Disaster Militarism.” *Relationality and Resilience* panel. National Communication Association Conference. Baltimore, MD. November 14, 2019.
- Natividad, LisaLinda, and Victoria-Lola Leon Guerrero. “The Explosive Growth of U.S. Military Power on Guam Confronts People Power: Experience of an Island People under Spanish, Japanese and American Colonial Rule.” *The Asia-Pacific Journal*, 8, issue 49, no. 3 (December 6, 2010). <https://apjff.org/-LisaLinda-Natividad/3454/article.html>.

Oliver, Kelly. *Witnessing: Beyond Recognition*. Minneapolis: University of Minnesota Press, 2001.

Perez, Sophia, director. *Tip of the Spear: How Mariana Islanders See Their Relationship With the US Military*. Produced by Sylvia C. Frain. Documentary in preproduction.

Schell, Jonathan. *The Fate of the Earth*. New York: Avon Books, 1982.

Teaiwa, Teresia K. *Militarism, Tourism, and the Native: Articulations in Oceania*. PhD diss., University of California, Santa Cruz, 2001.

———. “Bikinis and Other S/pacific N/oceans.” In *Militarized Currents: Toward a Decolonized Future in Asia and the Pacific*, edited by Setsu Shigematsu and Keith Camacho, 15–31. Minneapolis: University of Minnesota Press, 2010.

U.S. Marine Corps Forces, Pacific. *Draft Environmental Impact Statement/Overseas Environmental Impact Statement for Commonwealth of the Northern Marianas Islands Joint Military Training*. Honolulu, HI: Naval Facilities Engineering Command, Pacific, 2015. <http://www.cnmijointmilitarytrainingeis.com/documents>.

Women’s International League for Peace and Freedom. *Pacific Women Speak-Out for Independence and Denuclearisation*. New Zealand: Christchurch, 1998.