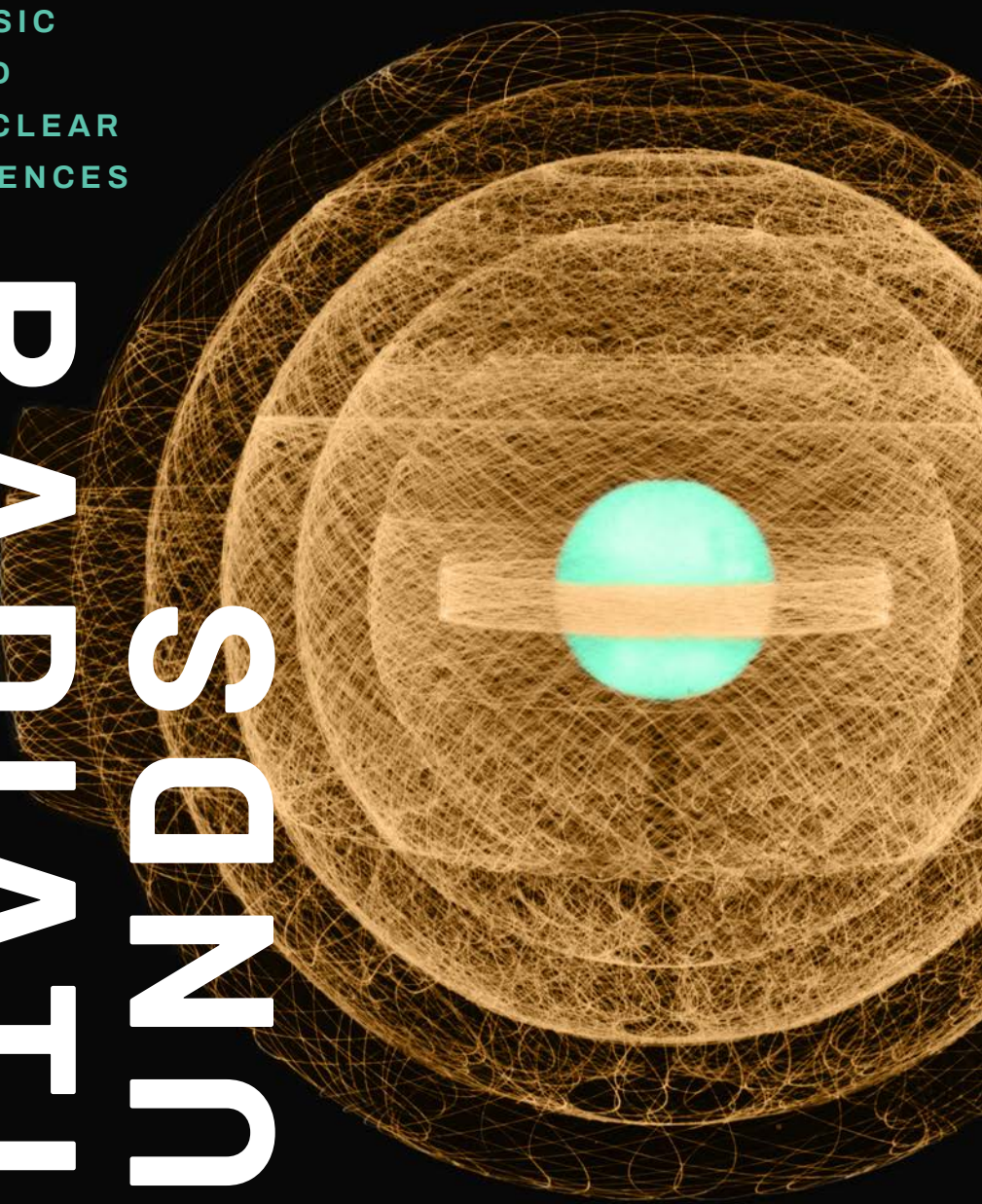


MARSHALLESE
MUSIC
AND
NUCLEAR
SILENCES

RADIATION SOUNDINGS

JESSICA A. SCHWARTZ



BUY

RADIATION SOUNDS

SDNUS RADIATION

MARSHALLESE

MUSIC AND

NUCLEAR SILENCES JESSICA A. SCHWARTZ

DUKE UNIVERSITY PRESS / DURHAM AND LONDON / 2021

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YOKWE YUK LIJON, MAY YOU REST IN PEACE.

You, and so many others, deserved so much better.

This is dedicated to all my friends, mentors,

and interlocutors in the Republic

of the Marshall Islands,

whose voices resonate

as the spirit of

perseverance.

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ACKNOWLEDGMENTS

INTRODUCTION

"IT WAS THE SOUND THAT TERRIFIED US"

On March 1, 1954, the United States detonated its most powerful thermo-nuclear weapon, code-named "Castle Bravo," at Bikini Atoll in the Marshall Islands. Situated to the southeast of Bikini, the populations of Rongelap Atoll, including people residing on Ailingnae and Utrik Atolls, watched in confusion as the sun seemed to rise in the west. On Utrik, Rijen Michael, eighteen years old at the time of the explosion, was startled from his sleep by women talking about the incident, the *baam*, with a great concern that it was the "end of the world."¹ Yostimi Compaj, born in 1942 in the midst of World War II, retains sensory imprints of the bomb as well: "First, there was a great light that came to the island [Utrik]. It was beautiful, with shades of pink like the early-morning light."² The stunning visual display was caused by Bravo's radioactive mushroom cloud, which rose into the stratosphere to an altitude of more than 115,000 feet and spread 70 to 100 miles in diameter in under ten minutes. Eventually, the pattern of fallout expanded over 7,000 square miles.³

As the cloud plumed higher into the atmosphere, a shock wave and resonant boom prompted screams from frightened children on Rongelap. Molly, a Rongelapese woman who was fourteen years old at the time, explained that people were frightened by the "loud sound [that] shook the ground" and caused the thatched houses to shake.⁴ Rijen described this same loud rumble that reached Utrik as *iñūrñūr*, the Marshallese onomatopoeic word that describes an array of unpleasant noises (groan, moan, rumble, growl, grunt). As Yostimi explained, "After [the sky changed colors],

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there was a great sound, and it was the sound that terrified us. We ran to the church then because we didn't know what it was, because the sound was so loud when the bomb fell."⁵ Aruko Bobo, who was living on Rongelap, described how "the air around us was split open by an awful noise. I cannot describe what it was like. It felt like thunder, but the force from the noise was so strong that we could actually feel it. It was like the air was alive. . . . Everything was crazy."⁶

Later that day the wind carried irradiated coral dust from three completely vaporized islets at Bikini Atoll to the east and covered the atolls of Rongelap, Ailingnae, Rongerik, and Utrik.⁷ However, the island populations had no explanation for why white flakes began to fall on what had been a clear, albeit unusual, morning. On the atolls of Ailingnae and Rongelap, children played in the fallout because they thought it was snow.⁸ They "tasted it" and "rubbed it in their eyes."⁹ Women recall that their scalps burned and their hair fell out in large chunks. Men, women, and children became violently ill and ran into the lagoon for respite, but they could not sense that the water was dangerously radioactive.¹⁰

The confusion of the islanders only grew as Americans came to survey the islands and departed without giving the residents clear directions or explanations in regards to the unusual event. Magistrate John Anjain stated that by the afternoon of March 2 (thirty-six hours after the explosion), two US officials came to Rongelap "to inspect the damage done by the bomb," but in their short survey that lasted less than an hour, "they left without telling anyone that the food, water, and other things were harmful to human beings."¹¹ Forty-eight hours after the Bravo detonation, after much fear and bewilderment, the US military came with a ship and seaplane to evacuate the Rongelapese. They commanded the Rongelapese to strip off their clothes and to leave all their possessions on the island. Scared, humiliated, and sick with radiation poisoning, the Rongelapese obeyed, and they followed the Americans onto a naval ship. The Utrikese, treated similarly, were evacuated on the same naval ship, and both communities were taken to Kwajalein Atoll; other atoll populations that received radioactive fallout, such as nearby Ailuk and Likiep, were not evacuated. The Rongelapese and Utrikese became part of a classified study on the effects of radiation on human subjects, code-named Project 4.1, without their consent.¹²

Meanwhile, halfway across the world in the Bronx, New York, Jimmy Keyes, first tenor of the African American doo-wop band the Chords, and his bandmates were sitting around watching television when they became captivated by footage of the early atomic explosions that took place at Bikini

Atoll. The group began to throw around an idea: “Wouldn’t it be amazing to sound something so awesome in a song?”¹³ Shortly thereafter, the Chords composed a song with two explosive syllables at the core; they took the street vernacular popular in the postwar atomic milieu “boom” and added “sh,” on the upbeat, to give an anticipatory silence that they perceived as constitutive of how the bomb’s explosion sounded so powerful. Although the poetic refrain could be classified as an onomatopoeia, the influential song, “Sh-boom (Life Could Be a Dream),” is often noted as being one of the first to employ nonsense syllables in the style that is now characteristic of doo-wop. Recorded on March 15, 1954, it was the first song by an R&B group in the 1950s to place in the top ten of the Billboard pop charts (reaching number nine), making it a “crossover success” in the racially segregated music industry. “Sh-Boom” is also considered one of the first, if not the first, rock ‘n’ roll song, as popularized by the cover of the White Canadian group the Crew Cuts. Considered a more “sanitized,” “traditional” version, the Crew Cuts’ version went to number one on the Billboard charts after the band appeared on the *Ed Sullivan Show*. It highlights a string of “nonsense syllables” from the opening “hey nonny ding dong” rather than the powerful refrain with which the Chords’ version opens: “Life could be a dream, life could be a dream. Doo doo, doo doo, sh-boom.”¹⁴

While doing research on a genealogy of punk through rock ‘n’ roll, I read Richard Aquila’s article “Sh’Boom; or, How Early Rock & Roll Taught Us to Stop Worrying and Love the Bomb” (1997), which included Keyes’s story about watching television with his group, which he had told to CNN in 1994. American popular music was instrumental in the domestication of the military, such as harmonizing the bomb and giving it a human voice, which disconnects people from the realities of nuclear weapons testing and persists in American pop music today. Contextualized by Aquila’s article, “Sh-Boom” compelled a question: do Marshallese have “bomb songs”? I spoke with the US American-Bikini Atoll liaison (and former Peace Corps volunteer) Jack Niedenthal, who told me that Marshallese have many songs dealing with “the bomb,” and he encouraged me to come to the Marshall Islands where I could hear firsthand the impact of US nuclear weapons testing from those who live it.

From 2008 to 2010, I conducted ethnographic work in the Republic of the Marshall Islands (RMI), which is an autonomous nation-state in the north-central Pacific that includes twenty-nine atolls (twenty-four are inhabited) and five islands.¹⁵ I stayed on Majuro Atoll, the capital, and I was fortunate to speak with a range of people from a number of the atolls. At

this moment the Rongelapese are in flux, and they live in Mejato Island (Kwajalein Atoll), Majuro Atoll, and various locations in the United States. Some Rongelapese were preparing to move back to Rongelap, but many government leaders and Rongelapese elders are concerned about safety, for cleanup efforts focused only on the main island and not on the more than sixty other islands that make up the atoll.¹⁶ The Bikinians are displaced for the foreseeable future because of the persistence of radiation on their atoll after US cleanup efforts failed to make any portion of their atoll safe for human habitation. Much of the population of Kwajalein also remains displaced after being removed by the US military, which continues to use their atoll to test nuclear delivery systems.

Over the course of my two years in the Marshall Islands, I would often ask Marshallese from different atolls “Did the Americans ever tell you what they were doing?” My question referred to the sixty-seven nuclear tests conducted by the United States from 1946 through 1958, the forcible relocations, and medical examinations. The programs were shrouded in secrecy; information about the tests conducted on Marshallese bodies and their lands remains classified. One Rongelapese woman’s response was a long silence accompanied by a head shake, which seemed to indicate that her answer was “no,” reinforcing much of what I had been told. This silence is resounded in spaces that hang at the end of questions unanswered to this day by the US Department of Energy (DOE) and appeals denied by the US Supreme Court. These questions resound stylistic influences of American vernacular musics, such as country music and Protestant hymns, and in the Rongelapese song “*Kajjitok in Aō Nan Kew Kiio*” (“These Are My Questions for You Now, Still”), which was composed in 2008 after the exclusion of the Rongelapese and Utrikese women from the official meeting between the DOE and the RMI government.

These sonic fragments are part of the intricate, unequal, and unevenly developed relationship between the United States and the RMI. They attest to the highly controlled yet dynamic boundary between sound and silence that continues to be an essential component of our relationship to nuclear weaponry and its devastating global consequences. Global nuclear culture, as an aural culture, developed around the radically inaudible phenomenon of nuclear weapons and created, in a literal sense, new and vital roles for listening and hearing—in short, new aesthetic sensibilities to hear the inaudible: the consequences at the explosive core of what has been called the “unthinkable” parameters of nuclear war and its “insensible” radioactive aftermath. The radical reconfiguration of what can and cannot be perceived

sensorially has produced new listening practices attuned to hearing what has been rendered unheard: silence itself, such as the literal silence of governmental agencies that guard information on atomic energy research and the unheard-of effects of nuclear weapons explosions.¹⁷

This book addresses the United States and the Marshall Islands as configuring a politics of silence and sound that emerged during the production of global nuclear culture: the socio-sonic practices, including but not limited to music produced while living under US nuclear hegemony, the material dimensions of this existence, and the discursive formations mediating this existence. More specifically, I stress the need to understand nuclear culture as a sonic culture by examining the radical reconfiguration of what could and could not be sensorially perceived.¹⁸ The aural uniquely elucidates complexities of the United States and Marshall Islands' strategic interconnectedness and also the relative cultural shifts that were specific to both countries' geopolitical positions within a general nuclear culture. A focus on the aural within the larger synesthetic field is important in this discussion because of the conspicuous manipulation of silence that I argue has characterized the construction of global nuclear culture. To more thoroughly probe the relationship between the lacunae in our present understanding of nuclear issues and the role of post-Bravo sensorial and expressive modalities, I account for the imbrication of neocolonial and gendered violence in the production of scientific nuclear knowledge from 1946 onward, which depended on the legally sanctioned silencing of humans as "restricted data." Within global nuclear culture, the scientific harnessing and the bureaucratic withholding of information pertinent to nuclear power depended on official sanctions of silence and secrecy. In dealing with such communicative obstructions, writers on atomic culture have woven the nonsonorous into varied analytics of this postwar culture that dismiss the sonic, affective dimensions of global nuclear culture and highlight the culture of secrecy without framing it theoretically.¹⁹ Further, global nuclear culture and its manifestations across various scales of human life and activity were coconstituted by another field of audition that has been generally overlooked in nuclear culture: a specifically musical one. Musical texts, performances, and listening practices illuminate the cultural task of making the "nonsonorous sonorous."²⁰

Radiation Sounds chronicles seventy-five years of a Marshallese musical repertoire that emerged in response to the deleterious effects of US nuclear militarism. These songs archive significant changes in both American and Marshallese musical thought regarding the perception of sounds as

well as silences and the reorganization of their transformative potential through music making, music circulation, and musical practice. Marshallese singing practices, and in particular notions of the throat, draw on vital religious, cultural, and political nodes to make US nuclear violences sensible and intelligible. Through Marshallese singers' words, stories, and performance aesthetics, this study details how music yields insight into the role of expressive culture in mitigating the damages of a persistent nuclear legacy that, at various scales, continues to play out in secrecy and silence. From laments to Christmas songfest competitions, the Marshallese musically and textually evoke the consequences of nuclear hegemony: forced exile, gendered and cultural violence, and the inscription of "insensible" radiation into bodies as heard, for example, in precarious harmonies composed of irradiated women's voices.²¹ I value these songs in terms of the labor of making radiation sound and consider them to be important political, social, and healing work both for Marshallese and for a rigorous evaluation of US history.

This book traces how Marshallese singers politicize musical texture—or the sensible arrangement of voices, bodies, and information—to form new communities, solidarities, and the possibilities for new subjectivities to emerge. Drawing on the language of harmony, or musical characteristics that refer to the general order, ideal community, and means for conflict resolution, I show how nuclear culture instanced the redefinition of societal relations and a new world order based on the United States leading the West (the "free world").²² The bomb and its radioactive aftermath were portrayed as transformative, democratizing instruments that manifested "peace and democracy," as well as prosperity, shifting the once militant, colonial power of Japan to an effeminized, peaceful ally and then making the Marshall Islands, once Japan's labor colony and gateway to the Pacific, America's atomic frontier.²³ I trace this history from World War II through the contemporary political milieu, unpacking shifts in the sensorial grounds increasingly marked by modern warfare through key songs that speak to strategic dematerialization and dematerialization, including the severing of female lineage and land-based political agency, through incarcerations, incinerations, and incorporations that aimed to neutralize potentially defiant groups and dissenting histories.

According to Teresia K. Teaiwa, an I-Kiribati and American poet and academic, "The literature on the history and politics of Micronesia is deafeningly silent on women. Colonialism is responsible for the long suppression and dispersion of women's voices; it is also deaf to the sound of women's

voices.” She writes that colonial power functioned on “the divide and rule principle, the first exercise of which occurs in relation to native women and men. Alienating one half of the native population—the women—from deliberations facilitates the process of colonization and administration.” Teaiwa stresses how “the perpetrators of colonialism made a grave mistake in failing to recognize the power of women.”²⁴ I find that sonic histories of the senses are crucial, particularly as a methodological tool to better understand the ways in which the bomb and radiation are part of a *longue durée* of processes through which women and colonized persons have been rendered insensible and unreasonable by removal from their ancestral homelands and, in the case of nuclear redress, from Western law. I concentrate on the gendering of humans in their separation from nonhumans as two constitutive breaks of nuclear colonialism. I am particularly interested in how nuclear colonizing processes, which created a gateway for the militarized development of Kwajalein and democratic political development of the nation, have been gendered.

Positioned within the Pacific Indigenous rights movement, the aural aesthetically amplifies the conditions of possibility within global underdevelopment and crisis as bound by imperial ideologies. Thinking through the vocal techniques and timbral capacities of the coded female and male voices and bodies performing in political spaces, I consider the unheard or underacknowledged women's wartime musical roles, including their political voices in these productions as part of a gendered representation that is intelligible to Western notions of the public/private spheres and diplomacy but that silences the matrilineal kinship system. This speaks to the gendered and racialized violence at the core of environmental injustice and rights-based remediation. At times the policy and productions assumed to counter environmental inequity reproduce stereotypical gendered or racialized (ethnic and Indigenous) representations of precarity and strength. Women have always been involved in ways of reading the tenor of the atollscape and participating in politics, sonorously and otherwise, yet as this book shows, their gendered and sexualized labor, bodies, and lives were dispossessed from their means of political authority and employed in the service of nuclear colonialism. Singers' voices can be heard in decolonial context, such that their voice crossings challenge the socio-categorical rigors that stream them into disempowered oppositional binaries. These movements resound what Teaiwa terms “fluidarity,” the solidarity of intercultural (nonwhitestreamed) feminisms, and also a generation of Native Pacific scholars who address, in various ways, gender and gendering issues

in the context of colonialism.²⁵ I listen to voice crossings, and drawing from anarchic and Indigenous feminisms but also incorporating other nonwhitestreamed, queer theoretical models that value unlearning normative ways of reading or listening, I contemplate the value, beauty, and strength in the equivocal, particularly in ways that can intervene in the staunch installations of the nuclear superpower.

This book unfolds in five chapters, following my introductory discussion of its theoretical contributions. *Radiation Sounds* is an inquiry into the politics of harmony that focuses on songs which detail a musico-poetics and politics of radiogenic decay and Indigenous survival. I listen to the contested terms of how the RMI came to be harmonized into the global system in spite of—and because of—the extant and unsettled nuclear issues, and how Marshallese citizens protest their inclusion into the international system and exclusion from nuclear justice. I argue that to better hear the limits of voice and democracy, listening to voice(lessness) produced by the contested space of harmony is crucial. Chapter 1 delves into the sonic history of US nuclear testing in the Pacific that provided the grounds for promises of postwar “global harmony.” Listening to the instrumentalization of radiation, I explore how the United States staged and circulated Marshallese voices in American geopolitical memory and engendered a national public vocality predicated on contracts and contrasts.

Chapters 2 through 5 focus on the political histories and musical activism of specific groups that have been marginalized because of nuclear testing, masculine militarism, and the neocolonial system of harmonization. Each chapter emphasizes how Marshallese reappropriate the “scenes of [their nuclear] subjection” as they were staged in the American global media, their Indigenous humanity depreciated.²⁶ Focusing on a sense-based politics of harmony, or how Marshallese pair Western concepts of harmony, as an agreement—a contract—with their notions of harmony in terms of the collective spirit that moves through the collective throats or seats of souls of (non)humans, these chapters develop a sonic politics of indigeneity that resounds the consequences of Bravo through the embodied throats and resonant voices of those people attuned to its still-present transmutations in their bodies and the lands they call home. Chapter 2 focuses on the gendered labor of petitioning for health and declassification in Rongelapese women’s “musical petitions.” Chapter 3 shares how Bikinians compile a national nuclear repertoire comprised of a double vocality to challenge the overdetermination of the US–RMI court-based relationship. Chapter 4 contemplates Bikinian spirited noisiness in terms of gendered

protections. Chapter 5 documents the life of Ebeye and the struggles of the Kwajalein landowners through resistant practices of “homecoming songs.” In each chapter, singers recuperate ancestral memories of embodied knowledge and place naming, which reemplaces maternal and matrilineal epistemological orientations to a militarized land.

The introduction unfolds in three main sections. First, I position the (in)sensible and politics through a framework that I call “global harmony,” in which I theorize US nuclear incorporation of the Marshall Islands through militarized and mediated violences (e.g., mass mediations, voice leadings, nuclear listenings, vaporizations) and offer a genealogy of colonial silences during the juridico-political effacement of nuclear violences through the international politics of reconciliation at the foundations of the Compact of Free Association (hereafter “COFA” or “Compact”). I read systemic breaks through Marshallese songs that I hear in terms of a musical poetics of the bomb through cracked, broken soundings that resound multiple harmonies through the destabilization of a dominant harmony. Second, I draw on Marshallese concepts to consider how singers instrumentalize their voices in rerouting vocal currencies (energies) from the “rational” musical system and “rational” political system (representational) to Marshallese embodied currencies of their homeland that is radioactive and from which they are displaced. Such political work can be read in terms of a sonic politics of indigeneity, whereby singers’ throats move voices to navigate cracked interconnections among the various communities severed by the bomb (and militarism). Third, I share how these songs can be considered in terms of remediation, which is a recursive methodology, and focus on the repairing of societal relations.²⁷ Remediation is the concept that helps me navigate the first and second theoretical interventions; it helps shift the frames and filters through which radiation is deemed (in)sensible by listening, such that what is presumed to be known about voice, the human, peace, harmony, democracy, and ultimately justice—and their practices—is unsettled.

GLOBAL HARMONY

The Marshall Islands were used as a nuclear staging ground for the production of US Atomic Age diplomacy, which promised global harmony built upon the principles of democracy, personal freedom, and political liberty. Such staging bolstered the cold war liberal consensus, which was a blueprint

and goal of US foreign policy; it was a cultural project that disseminated the West as normative and also provided an ideological hierarchical model of opposition. The cold war consensus was based on the proposition that America was to provide military force to ensure national security and promote freedom worldwide as well as international containment of communism and spread of capitalism and democracy.²⁸ This consensus, which was so pervasive that it was often not perceived as an ideology but simply as “common sense,” has also been considered in terms of “global harmony,” which was a trope used by US architects of the cold war, domestic and international (although the project of global harmonization and American expansionism disrupts any neat binaries between domestic and international).²⁹ Global harmony can be approached in terms of an ideal and in terms of reified neocolonial relations based on geopolitical social theory conceptualized by the United States—the architects of the “new world order”—as they considered immigration, decolonization, and media presence following World War II.³⁰

An example is *One World or None* (1946), the first “atomic scare” film that was released the same year as Operation Crossroads commenced at Bikini Atoll just a year after the devastation of Hiroshima and Nagasaki, which was credited with ending World War II and with the US victory.³¹ The film gives an overview of the advances of weapons of war, each with increasing devastation, to show the exponential scale of damage that nuclear weapons can incur. Sponsored by the (US) National Committee on Atomic Information, the film proposed the solution that would suit its geopolitical aims—namely, that nations should align with the United States and join the United Nations, which was recognized as an international peacekeeping organization said to promote security and cooperation between nations and to act as “a center for *harmonizing* the actions of nations.”³² RMI sovereignty, within this context of harmonization, depends on nuclear militarism and moralized notions of harmony. Resistance to such totalizing harmonization requires the ongoing amplification of both the relational Western harmony and Indigenous (dis)harmony through which breaks resound challenges to “one world or none” as defined by the United States. Read as a critique of the individuated voice through the politicization of harmony, singers engage their Indigenous sensibilities to perform a politics of (dis)placed indigeneity that unsettles the genre of Indigenous voice and challenge the denial of Native subjectivity.

Post–World War II geopolitical relations draw from Western intellectual history shaped by Pythagorean notions of the harmony of the spheres,

a mode of universalist thought and universal justice that Pythagoras believed might be enabled by “harmonizing” unlike spirits or rationalizing them, dividing them, such as the staging of place-based and gendered binaries in democratization. In order to decolonize harmony and listen to hear the labor of the negative, it is important to trace harmonizing and democratizing genealogies as modernizing. As Patty O’Brien writes, European men posited the Native Pacific women as their opposite given the distance from Europe.³³ Staging Native Pacific women as occupying the private or domestic sphere without political voice, eighteenth-century Enlightenment leaders theorized that European men were the only rational persons entitled to “universal suffrage,” the vote and voice in the public sphere, which began a historical narrative and scientific treatments of the world that have proved disastrous for those positioned outside of legal and political voice. The Enlightenment also saw the theorization of the development of European tonal harmony from the “common practice period” that aligns with European colonialism and scientific rationality, particularly through the sense of hearing that affirms ratio-based proportions through movement and later becomes fixed in written ratios.³⁴ Harmonic universalism applies “Pythagorean” musical theory, which claims the “intervals of the Greek diatonic scales were more ‘natural’ than other scales,” in an extension of Enlightenment philosopher and mathematician Marin Mersenne’s theory of “physical universalism.” The latter “linked the sounds of nature, inanimate objects, animals, children, and women with non-European people and their music.” Mersenne’s laws of harmony, or the correct placement and positioning of sounds within a musical system or social system, “formed the basis for European cross-cultural thought for the next two centuries.”³⁵ The law and politics of harmonic universalism, even though debunked, were powerful missionary-colonial organizational tools that shaped postwar global configurations through US developmental means that positioned the Pacific, which has been characterized as “opposite” of European culture, as the site of the most devastating thermonuclear tests.

Historically, singing has been a point of connection for Marshallese and Americans; it has been used in diplomacy between the commoners and customary elites (chiefs/*iroij*) working in cooperation with colonial authorities. Protestant missionaries from the Boston-based American Board of Commissioners for Foreign Missions (ABCFM) arrived in the mid-nineteenth century and were the first foreigners to have a sustained relationship with Marshallese. Hymn singing provided a way to connect in the face of language and cultural barriers. Euro-American Protestant

songs also assuaged tensions with the German political administration of the atolls (mainly for the copra trade) and offered a new expressive construct for the commoner class to sonically contest its position in the fixed customary hierarchy. Tonal harmony is an art form, or model for sensorial education and attunement to an abstraction of the Western systems that Marshallese learned as they became part of the newly formed working class (from the power base). As Christian gender separations were taught through role assignments, soprano, alto, tenor, and bass (SATB) voice registers that produced and were produced by harmony amplified gendered separations. Many are adamant that although they had their own vocal patterns, they did not have “bars,” “measures,” “scales,” “notes,” “lines,” “rests,” or “keys” before the missionaries arrived. The missionary structures, such as physical arrangements in boarding schools and churches, arranged bodies, yet these prescriptive biopolitical mechanisms arranged sensibilities through written material in books, such as the Bible and the *Bok in Al* (hymnbook), which were cognate with colonial law. The shift from collective sense making through place-based, generational attunements to collective sense making from the eye to the ear, where the ear becomes directed to and through the eye, created a means of sensorial or feelingful familiarity that the US government capitalized on. When US troops returned in 1945, they sang hymns with the Marshallese, who were grateful that the war was over and viewed the Americans as liberators, a role that the United States embraced as it set out to remake Marshallese sociopolitical systems in its own image.

The universalized trope of voice and voicelessness pervades human rights discourses and legal cases. In the wake of the two world wars and with a revived emphasis on newly configured (“post-1945”) human rights and postcolonial self-determination, voice has been upheld as a preeminent “gift” from the United States and as an intervention that combats voicelessness, particularly in undemocratic, undeveloped countries. The moralized Christian rhetorical conflation of harmony with humanity and voice with the human seemingly justified the salvation, liberation, and overcoming narratives emphasized by the victor superpower that can intervene and reroute voice as capital currency through transitional justice and networked neocolonial pressures (investments). Drawing on Western intellectual history that positions the speaking voice as requisite actualization of the person or the political human—namely, the human who counts as human (has rights)—Jessica Taylor offers that “to speak (and to hear the voice) is to be human.”³⁶ Musicological studies of harmony and counter-

point recognize how the musical rationalization of voices was a means to normalize the rationalization of bodies through colonial legal structures and the modern state that secures national voice through citizen-subject voice. Ana María Ochoa Gautier explains that the voice is central to such governance because it is viewed as a productive site to distinguish “the human from the nonhuman.”³⁷

The perceived and instrumentalized malleability of the voice—that it can be used to separate and relate the (non)human and the potentiality for prejudicial rights therein—evidences a powerful complex that operates as a dividing line between the redressable and the unredressable when it comes to postwar and post-cold war pathways to self-determination and sovereignty through the jurisdiction of the United States. This complex is the constitution of voice, which includes an effacement of disempowering violences to subdue colonized Native populations through their (non)-human and sex-based (gender-assignment) separations, both of which can be made to resonate in the singing voice because of acoustical semantics surrounding register, intonation, and contour, for example, when attached to meaningful words. Yet these techniques are part of musical harmony and thus an array of “vocal anthropotechnologies” that have been deployed in the service of “directing the human animal in becoming man,” such as musical notation, diction, orthography, and various means of training and dissemination.³⁸ The legal concept of the person is thus intimately related with the sonorities of the persona: the voice. Marshallese radiation songs wield senselessness by placing it on center stage and making it sensible. Here, voicelessness is also voice because it is staged and amplified by musical, even harmonious, boundaries. Decolonizing critique inheres in pivoting listeners from voiced notes and rests to re-fusals of voice(lessness).

Marshallese often credit ABCFM missionaries in terms of bringing “harmony” and “peace” to the archipelago in a complex, moralized salvation narrative that rehearses a Pacific Atomic Age diplomacy and solidarity through the importation of Western culture and White-supremacist, paternalistic savior culture. Historicizing affective alliance across different socio-natures is an important part of this project, especially with regards to the partitioning of the collective *through harmony*. I aim to provide an analytic corrective to earlier theories of “affective alliance” deriving from cultural studies approaches to popular music, which do not take cultural or historical embodied dispositions of affectivity into consideration.³⁹ There is the tendency to dehistoricize, naturalize, or universalize affective capacity; the openness is historically mediated. Structures of affective alliance or

taken-for-granted nature cosmopolitics, I argue, maintain the structures through which hegemony is reproduced (e.g., the body articulated to the senses, spatialized place). It is crucial to review the operations of power and medial structures through which affective alliance comes to be felt as real and personal, such as colonial structures of appropriation, from anti-nuclear protests to book-based abstractions.

Following Olivia Bloechl's application of Dipesh Chakrabarty's work to a postcolonial musicology, I read music history—through musical harmony—as an “imperious code” that evinces how the senses are codified through musical entrainment and how representative voices come to be heard.⁴⁰ These practices participate in capitalist and democratic entrainments that founded the moralized force of nuclear worlding.⁴¹ Singing afforded colonized populations, specifically underrepresented women and commoners, diplomatic voice (even in an informal capacity). Yet hearing the singing voice in the context of an individual, or modern, voice is limited by the human-centric musical framework that amplifies voice in the first place. Voice can be code for self-determination, particularly within the bounds of the nation-state and its citizenry. The making of Marshallese radiation communities' voice-and-voiceless interplay—from their minoritized positions through which they became representatives in US nuclear mediations from the postwar to today—can be read along the lines of post-cold war liberalism. Following Lisa Lowe's work on “modern liberalism” and the violences that subtend it, I explore how the emergence of the RMI voices and voicelessness (as a matter of unfulfilled promises of political participation) manifested. Moreover, I trace the impossibility of liberal, representative democracy, as the promise of political participation and exercise of voice, to manifest as such within the constitutionally bound nation-state. “By modern liberalism,” Lowe refers to “the narration of political emancipation through citizenship in the state, the promise of economic freedom in the development of wage labor and exchange markets, and the conferring of civilization to human persons educated in aesthetic and national culture—in each case unifying particularity, difference, or locality through universal concepts of reason and community.”⁴² The overcoming narrative (coming to voice) is based on affective alliances and formative dependencies. The tensions between the atoll politics and the RMI that play out in voice(lessness) evince how singers challenge the overcoming narrative while they also pursue hegemonic redress. US nuclear testing—the myth of the American Enlightenment—was premised on the debasement of Marshallese as unable to overcome the war—and come

to self-determined voice—without US developmental democracy; this provided a foil for the military presence in the region, which is a message on which the Truman administration worked with mainstream media to disseminate.⁴³

After being zoned as “strategic” by the United Nations as part of the US Trust Territory of the Pacific Islands (TTPI) from 1947 through 1986, the Marshall Islands became constitutionally independent on May 1, 1979. The RMI, headed by Iroijlaplap (paramount chief) and President Amata Kabua, then became a sovereign nation in 1986 after the signing of the COFA with the United States. With the terms set by the COFA, RMI citizens were given the ability to move, live, and work in the United States without a visa. The RMI was also afforded US military “security” and “protections” and access to funding opportunities, and the United States received the benefit of strategic denial, military use, and other stipulations concerning RMI international relations. Through the COFA, the United States was able to avoid accountability and waive settlements for damages for the populations of Marshallese that it deemed outside the officially demarcated radiation-affected zone.⁴⁴ Although the entire archipelago is downwind from the nuclear detonation sites, only four atolls—Enewetak, Rongelap, Utrik, and Bikini—were included in Section 177 of the COFA, which deals with claims for nuclear damages, even though bills have been proposed and supported to include additional atolls. Out of the twenty-four inhabited atolls, seven voted against the COFA: Bikini, Rongelap, Kwajalein, Ebon, Jaluit, Mili, and Wotje, all of which “had direct experiences with Americans, and histories of direct opposition to Amata Kabua.”⁴⁵

Section 177 outlined the US’s “full and final settlement of past, present, and future” claims to nuclear damages in an espousal clause, and a Nuclear Claims Tribunal (NCT) was established for the RMI to oversee the process of awarding claims. However, US government documents declassified in the 1990s showed that Marshallese were unknowingly used as human test subjects in Project 4.1 and that the effects of the tests were much more widespread than previously known. Realizing that funds would not cover NCT awards and given this newly declassified information, the RMI government petitioned the US government for additional compensation in 2000. The Changed Circumstances Petition (CCP) was the only legal means the Marshallese were afforded concerning the “personal injuries” and “property damages” as well as health issues that persist because of radiation as defined in the language of the COFA. Although the Marshallese used this legal remedy to request additional funding if compensation provided was

deemed “manifestly inadequate,” their petition was judged by the US Congress as a political matter, which takes it outside the law (as a legal question), and the petition was rejected in 2004. A major turning point for Marshallese with whom I spoke was the signing of the amended COFA in 2003 (COFA II) that went into effect in 2004, which they felt lessened their chances of resubmitting the CCP. Funding for the NCT ran out in 2009. The nation, and in particular those communities that desperately wanted and needed to receive the awards from the NCT, were still trying to find legal recourse.

Others are concerned about the RMI’s inability to be a free or independent nation if the RMI cannot control its relations with other nations or have its own voice, or vote, in international affairs. In 2007 the UN Declaration on the Rights of Indigenous Persons was approved overwhelmingly by the General Assembly. However, the United States was one of four nations that initially rejected the vote. Eleven nations abstained, Ukraine and ten Pacific nations that were absent from the assembly, including the RMI, even though the majority of the nation is Indigenous. Similarly, in 1985 the RMI, along with the Federated States of Micronesia and Palau, did not sign the Treaty of Rarotonga, also known as the South Pacific Nuclear Free Zone Treaty, and in 2017 the RMI, along with the nine nuclear weapons nations, refused to sign the Treaty on the Prohibition of Nuclear Weapons. This most recent refusal of the RMI and internal groups, such as Bikinians, to voice their support was responded to by antinuclear activists and organizations with disbelief and outrage. Yet all these examples share how the RMI nation-state, and therefore to varying degrees the COFA minority groups’ voices and votes, are constrained by COFA with affective dimensions of hopeful trust and anxious threat woven into the political, economic, and military dimensions of the compact. Marshallese political diplomacy takes on an aesthetics of subversion, weaving in and out of global harmony in voice-and-vote-based abstentions that can be read along the lines of “equivocality” or “equal voices” that demand a flexibility, which is often moralized negatively as ambiguity.

These examples complicate the political articulation of the nation-state, the voice, and identity to self-determination, which can uphold notions of the fixed individual as means of movements rather than relationality. The modern nation-state functions on the concept of self-determination, individual will, and agency, enabling the rise of state-sanctioned, morally legitimized militarism and the spread of violence (of one voice) as protection (of the many), which is germane to representation. The celebration of

self-determination, as progress, needs to be treated with a critical ear. This book complicates a statement by legal scholar Upendra Baxi: “The modern idea of human rights, which sought to civilize and conquer, [is in contrast to] ‘the ‘contemporary’ human rights paradigm . . . [that] is based on the premise of radical self-determination. Self-determination insists that every human has a right to *voice*. . . .”⁴⁶ The entanglement of the nation-state’s legal existence, through which citizens are entitled to voice, is based on the political legitimacy of violence that protects self-determination. This networked protection of self-determined voice is procured through the normalization of protection as weaponized division (militarized boundaries, nuclear politics) to uphold the imaginary of a stable identity. And with it, the harmonizing or unifying work of the United Nations, for example, seeks to promote cooperative negotiation as made possible by self-determination, even though self-determination is based on divisive violences.

Radiation Sounds proposes plural harmonies and challenges notions of individualized voice, which is listened to through fragmented modern sensibilities and through its capacities to produce musical harmony. Rather, by recognizing the institutional work of prescriptive texture that divides and leads voices to confine resonance’s composure rather than enable it to be felt as potentiality, the significance of state-sanctioned—and therefore precarious—human rights tied to individual voice (as something given that can be taken back) and the historically changing constitution of the human, as person, is illuminated. For those particularly in minoritized positions, the state can decide to limit movement in a wealth of ways, based on the “common good,” harmony, or consensus: privatization, domestication, and segregation, to name a few. This book’s repertoire of songs and performances routes (dis)harmony, as the ebb and flow of voices, through unheard material process of lived embodiments of US state-sponsored radiogenic violence, experimentation, and disenfranchisement. The threads of these histories, and of assumptions about what it means to be a human that are forcibly mapped onto bodies in “civilizing” and “development” projects, are woven with vocal fry and frayed edges of harmonic tapestries that challenge neatly bound notions of state-based self-determination and the representational limits of voice and modern media. These limits are explored through musical reifications of politics and the (in)sensible, according to the nuclear project constitutive of globalizing modernity, capitalism, and democracy (global protest).

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POLITICS AND THE (IN)SENSIBLE

Radiation, we are often told, is insensible. The ways in which radiation is made sensible to some subjects yield insight into the complex processes of classification that undergird global capitalism and representative democracy. Nuclear classifications are based on the production of nuclear knowledge, the definition of nuclear damages, and the scope of remediation. Radiation provided the means to instrumentalize social classifications predicated on racialized, classed, gendered, sexualized, and age-based differences, as well as human and nonhuman differences, in the service of efficient, exclusive procedural organizations in which US representatives would speak with and listen to some subjects only (male, politically elite, human). Songs mark the silencing of some voices in the service of the sounding of others. This book examines the consequences of these fraught aural hierarchies to contribute to conversations that show how racism, sexism, and classism—along with ableism—are constitutive means of global capitalism and (nuclear) colonialism. The intermediary-based networks comprise differently positioned lives and voices in geopolitical arrangements of laboring, reporting, and ruling bodies in what I am calling global harmony.⁴⁷

Radiation, a “physical force” and “symbol” of neocolonial domination, is one of the ways in which the RMI is united and divided.⁴⁸ RMI constitutional independence, nation building, and national memory have been mobilized, in part, around Bravo. An index of the nuclear “unthinkable,” Bravo has been considered “the worst radiological disaster in history” for its global spread of fallout, prompting calls to make sense of the insensible presence of ionizing radiation.⁴⁹ The sensible is an embodied disposition particular to historically situated subjects. Following Jacques Rancière, I understand aesthetics, politics, performance, and (shifts in) the sensible as crucially interconnected. I consider how singers challenge both meaning and the grounds of meaning through what Rancière calls the “distribution of the sensible,” which he explains as the “system of self-evident facts of sense perception that simultaneously discloses the existence of something in common” and delimits “the respective parts and positions within” that commonality.⁵⁰ Drawing on Rancière’s work, Gavin Steingo writes that “music doubles reality” by being of and surpassing the limits of reality; he explains that “*music is the very name of this separation*—a separation that requires a very particular sensory apparatus and a very particular set of operations carried out through that apparatus” between that which is and

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is not (yet) sensible in ways that play with the in-common by breaking with particular positions endemic to the musical or sensible commons.⁵¹

The modes of making Bravo sensible, such as “Sh-Boom” or “*Kajjitok*,” are themselves affectively charged moral discourses that are meant to orient us in particular ways to the things named in the lyrical content. Placed together, the bomb can be positioned as a pivotal event bookended by the nuclear silences (sh-boom-sh). The relational retrograde can be approached through sonic-temporal overlays of the “sh” surrounding the bomb as *prior* and *aftermath* that become absorbed by the mediated treatment of the bomb, which was and continues to be a consistent normalized reminder of national security. “Sh-boom” and “*Kajjitok*” offer different perspectives and sensibilities, but they can both be read through the modern representational, intersectional positions and intersensorial relational processes. The temporal dimension of musical performance gives shape to the ways in which radiation has been rendered sensible to particular subjects and in the making of new subjectivities. “Sh-Boom” epitomizes the anticipatory silences of the nuclear threat and the interruptive refrains that, like broadcast alerts, remind Americans of the nuclear threat. “*Kajjitok*” reverses this, offering a retrograde of explosive silences interwoven with the vocalized material aftermath of the bomb (boom-sh).

In this section I draw up a contrast between the Americanized disposition of (voice) leading roles and nuclear listening practices through the making of nuclear silences, which compels (Marshalllese) cracked, broken soundings. US cultural hegemony fashions nuclear incorporation (global harmonization) by normalizing an aurality around identity-based voice leading that is related to citizenship and rights, freedoms, and democratic participation, and nuclear listening, which is an aural disposition to which US mainland and Americanized listening subjects are entrained in ways that trivialize, celebrate, and fetishize the bomb. Nuclear listening is an attunement in which civil defense and pop culture created spaces where the bomb could be seen and heard spectacularly as democratic development because these spaces were subtended by the undemocratic US government classified archives, which upheld notions of scientific rationality and unequally resourced colonized populations and were available only to US Americans with clearances.⁵² For example, “sh-boom” could be repeated as a playful “nonsense” vocable, whereas studies depicting radiation’s effects on humans were kept sealed. In fact, there are countless American popular songs from the immediate postwar through the present that map the explosive,

horrifying power of the bomb onto certain bodies, tethering an optics of the nuclear spectacle to an acoustical dismissal of Native subjectivity.

The staging of the nuclear spectacle has been explored as civil defense theatrical “stages of emergency” extended to homeland security’s affective “theater of operations.”⁵³ Histories of the atomic bomb often make the visual primary in ways that reinforce the nuclear spectacle as object of contemplation. This divides rather than redraws political communities that experienced nuclear silences as preempting the explosive event, enabling them to develop survival strategies within the reconstitution of the social order. For example, the awe-inspiring, billowing image of the mushroom cloud has been framed to erase the horrific consequences of nuclear weaponry, effectively creating what art historian Peter Hales has coined the “atomic sublime.”⁵⁴ Touted as massively destructive and presented as aesthetically pleasing, the atomic bomb was often pictured in its splendid aftermath as mushroom cloud plumage, like the setting sun, spreading over mythically vacant lands either in the US desert or the South Pacific, conjuring impressionistic associations with the American frontier imaginary. According to Rod Edmond, complex “western representations of the Pacific were to form important chapters in the history of the Enlightenment and Romanticism, of nineteenth-century Christianity, science and social theory, of modern painting, anthropology and popular culture.”⁵⁵

An aim of this book is to provincialize the bomb by sharing how Marshallese musical form breaks the totalizing narratives of postwar living or overcoming that is endemic to the Enlightenment historical narrative.⁵⁶ Scenes of urban destruction were linked with a migration from the pluralistic, ethnically diverse cities to the suburbs by the growing middle class and a privatization that stood in contrast to communist ideology.⁵⁷ These spectacles, which aesthetically rendered settled land disposable, also helped justify the geopolitical acquisitions of the United States, a cold war superpower that maintained an “exceptionalist” narrative of progress. Surviving urban ruination promised—even necessitated—conquering and expanding the modern frontier: the West, the Pacific, and ultimately outer space. Postwar conditions of economic advancement, technoscientific development, and militarization thus shaped the broader cold war sensorium: the grounds on which the nuclear threat was perceived as real. “The goal,” Joseph Masco writes, “as one top-secret study put it in 1956, was an ‘emotional adaptation’ of the citizenry to nuclear crisis, a program of ‘psychological defense’ aimed at ‘feelings’ that would unify the nation in the face of apocalyptic

everyday threat.”⁵⁸ Citizens were taught that survival was possible if they learned the correct skills and purchased the proper goods.

The US government understood it needed to boost the economy affectively and production-wise through what economist Joseph Schumpeter called “creative destruction,” which was considered generative to capitalism.⁵⁹ Music and aurality mediate sensible and temporal unfoldings in ways that enable radioactive generativity as means of belonging, which I call *radioactive citizenship*. Radioactive citizenship is societal positioning or agency afforded through harmonizing the bomb. Specifically, in this context I write about the voice-based mediations that draw on acoustical signifiers of the bomb and mentions of radiation as the insidious force of nuclear weaponry. Radioactive citizenship can be situated in the US government’s Federal Civil Defense Administration (FCDA) programming, which was the first national alert-based media-communications effort of its kind. The FCDA was heavily based on sound design because of the available technologies that would make people aware of the nuclear threat, such as air-raid sirens and the radio.

US Americans learned about the bomb, were taught to anticipate the bomb, and, perhaps most importantly, were taught how to survive the bomb by experiencing sounds that trained people to be civil defenders and fostered certain feelings and attitudes. The act of listening in the Atomic Age was a mechanism of survival; it made people more reliant on music as a dimension of temporal survival. Public-service announcements, exemplified by the popular slogan “Listen and learn, civil defense is common sense,” are echoed today in the Department of Homeland Security’s “If you see something, say something.” Broadcast alerts communicated that the public’s survival depended on the development of particular aural skills, honing what I have elsewhere called “the hypervigilant ear” and “nuclear listening” because they kept people attuned to the US government and corporate radio, which defined the parameters of listening. Still today, a repertoire of “bomb songs” with even more codified military sounds circulates across playlists in gendered formation, which I address later and elsewhere. Importantly, for now these sounds are subtended by the silences that have come to be normalized as part of wartime, cold war, and (inter) national security.

“Silence means security” was an American slogan coined during World War II as the nation began to formulate its role as a world power. During this period, atomic weaponry was being developed in a top-secret milieu. With the Manhattan Project and consequent cold war and arms race, national

security was more tightly linked with secrecy as both domestic and foreign policy. The US government developed a complex “secrecy system” to withhold information from the American public and its adversaries regarding the magnitude of the bomb’s destructive capabilities. The Atomic Energy Act of 1946 defined a new legal term, “restricted data,” that made any utterance, mention, or rumor of restricted data until their declassification a violation of the law. “Restricted data” extended to all speech acts and continues to be enforced today, ostensibly protecting the arms of the nation over freedom of speech. Given the limits of logocentric voice, it’s important to move beyond the speech-based aspects of censorship or the censoring of voices and consider how voices themselves can be heard as the dividing line or the doubling of worlds: the means of production and the product of harmony. I understand “the voice” both as a disciplined production articulated to liberal humanized agency and political sociality through which Marshallese singers can share their stories, and I also understand the disciplinary processes through which individuated voices are produced as silencing mechanisms of the militarized state that is upheld as protective.

Nuclear silences are the excesses of what can be heard and thus listened to through US modern mediated hearings that create cores and peripheries, insides and outsides, in which the latter is incorporated into the former. The US imagination of Marshallese peoples, particularly the “isolated” atoll groups who were geographically farthest from missionary “civilizing” institutions and colonial administrative bases, as subhuman, savage, and uncivilized in ways that rendered them unable to feel, sense, and think or know as much as US Americans has been devastating. Radiation, in the United States, is aligned with a particular moral orientation articulated to modern progress, as Rebecca M. Herzig details in *Suffering for Science*. As Linda Tuhiwai Smith discusses in *Decolonizing Methodologies*, research is one of the dirtiest words to Native communities because it conjures up abuses for the “good of mankind.” Displaced and taken as test subjects, Marshallese became subject to sensorial effacement on multiple levels, from modernization and the fragmentation of the senses to being subject to examinations and other means of sensorial commodification and rationalization through which “memory as a metasense” or “memory of the senses” became incrementally denigrated.⁶⁰ This was complicated by the notion that radiation is “insensible,” which restricted Marshallese from perceptual sense and meaningful sense, such that meaningful sense is often rendered in the form of severance, decay, and the “sensible” settler culture as a means of communication and appeal. As Herzig writes, “Without sensibility there

is no right. A being without sensibility can suffer no wrong.” Through their human subjectivation to radiogenic experimentation, some Marshallese groups became part of the Americanized culture of “sacrifice” (of their Indigenous lands and lives) in ways that would afford them agency, selfhood, personhood, and ultimately possession of voice via state sovereignty.⁶¹

Nuclear silences impede Indigenous movements: place-based temporalities and sensibilities, which manifest in the “near inaudibilities” in musical form. I follow Eugenie Brinkema’s “critique of silence” in which she writes that “the violence of silence is to being, in order to render that kinetic stillness; the violence of near inaudibility is to form, sustaining the pressure of a duration—creating that ‘space of time’ for the sensation of extreme quiet to manifest.”⁶² In theorizing a broader nuclear aurality and global interconnectedness, I demonstrate how silence emerged as the paradigmatic Atomic Age sensibility and was instrumental in controlling bodies and information in both the United States and the Marshall Islands. I refer to nuclear silences as metaphorical, regulatory, and actual, although it is important to consider the interrelatedness of the three broad categories. Metaphorical silences are those silences that are, for example, symbolic of regulatory and actual silences, the traumatic internalizations—and therefore incommunicable dimensions—of nuclear damages and rhetorical silences; they are pressures through which the “sense of voice” forms, such as the pregnant pauses throughout an interrogation or singers’ cry breaks. These silences manifest as expressive “non-sense” or “noises” that disrupt the law (language). Regulatory silences are the laws that restrict or prohibit speech, enforce policies of isolation, and protect classifications. These juridical and political matters that control information also control bodies: not just what they can say but also with whom they can talk and where they can go. The actual, or physical and material, silences result from forcible violence that renders a “kinetic stillness” of life, such as the vaporization of islands, forcible removals that separate sites of memory, and radiogenic disease and biomedical procedures that shift anatomies and cause damage to vocal cords, creating the physical inability to sing, speak, or make sound.⁶³

Through the use of radiation aligned with total salvation and total destruction, the United States aimed to “[control] sensory difference” in stages of modernization, development, and nuclear incorporation. In *Ways of Sensing*, Howes and Classen point out that “societies have customarily made use of three basic methods for dealing with threatening differences (whether deemed to be physical, ideological or cultural in nature): containment, elimination, and assimilation.”⁶⁴ The dismissal of Native sensibilities

and severance of commensal communities are instruments of the anesthesics of empire and the disenchantment of modernity. It is steeped in colonial relations in which Indigenous persons are denied personhood and rights precisely through the denial of perceptual acuity and the ability to feel pain, creating the justifications for abuses, such as violence toward women and Indigenous persons, in ways that would get them to become “civilized” or “developed” and thus become “sensible.” Such practices of the withholding of the means of consent through the denial of the sensible participate in what Patrick Wolfe calls the settler colonial “logic of elimination” that eradicates Native populations through various mechanisms, such as outright genocide, the destruction of heritage and Indigenous culture through guilt and shame, emphasis on a discourse of loss, and the debilitation of Indigenous agency through restrictions on mobility: physical and social.⁶⁵ J. Kēhaulani Kauanui focuses on Wolfe’s designation that settler colonialism is a “structure, not an event,” and shows how biopolitical controls and governmentality often normalize these structures of genocidal incorporation, meaning incorporation of the human to labor for the colonial power by mass extinction (genocide and assimilation) of “the native as native.”⁶⁶

Following authors such as Adriana Cavarero, Amanda Weidman, Ochoa Gautier, and Rancière, who understand the voice in terms of the sensible (and its distribution), I explore the material entanglements of voices of humans and nonhumans (machines, technologies) in more-than-human communities that speak to relational silences embedded in the politics of voice emergent in the nuclear age.⁶⁷ I present a robust counterpoint of listening and sensorial orientations to voices that re-fuse voice leading techniques within the prescriptive (neo)colonial system of harmony. These voices accrue resistant power, I suggest, when we listen to them as decolonial dissonances, dissonances that cannot be resolved within structures that mediate and resolve discord in the service of a teleological, linear history, be it of sounds or of bodies to which sounds become (problematically) attached as identity rather than relational network. Decolonial dissonances are vocal spacings that counterbalance technological determinism, Atomic Age diplomacy, governmental secrecy, and scientific objectification that have anesthetized agentive relationalities and upheld acoustic barriers in the historical present, which in turn structure archives that produce intellectual trajectories, bodies of knowledge, and political ecologies.⁶⁸

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INTRODUCTION

BROKEN SOUNDINGS: A SONIC POLITICS OF INDIGENEITY

Global harmony can be read as a metaphor for the organized modern system. Sonic abstractions of global harmony (one world or none, global nuclear culture) can be heard in songs shaped by the formal rigors of musical harmony. Marshallese singers often use the figure of harmony and performances of harmony to amplify multiple ontologies that take shape as discord with the dominant “global” system, or the US political arrangement of Americanized cultural boundaries—including the limitations of voice-based identity as agency—in hierarchical configurations endemic to global capitalism. I consider how Marshallese songs challenge the sensible, structural underpinning of US American systems that categorically deny them hearings. To redirect auditors’ listening, Marshallese generate musical dissensus, “the essence of politics . . . [as] the demonstration (manifestation) of a gap in the sensible itself.” Rancière considers politics to be a break with the logic of a system wherein a few rule over the democratic masses. He writes about “the efficacy of *dissensus*, which is not a designation of conflict as such, but is a specific type thereof, a conflict between *sense* and *sense*. Dissensus is a conflict between sensory perception and a way of making sense of it, or between several sensory regimes and/or bodies.”⁶⁹ I trace how Marshallese vocality and musicality respond relationally to the modernizing global phenomenon of nuclear silences as gaps in present-day nuclear knowledge, by first framing the issue within the nuclear context and rooting it in an exploration of these meaningful practices, conceptions of the body/senses as relational pathways, and notions of the social and political, all of which renders indistinguishable questions of health, politics, and intergenerational survival as felt and thought.⁷⁰

Public performances that draw from Indigenous, customary colonial, and contemporary cosmopolitan modes of expressivity are vital for political groups, such as women’s groups, Four Atolls politics, and Kwajalein political representatives, to redraw protective boundaries that can resist and participate in neocolonial incorporation. Through these counternarratives, or what I read as a sonic politics of indigeneity, Marshallese singers employ Indigenous epistemologies and modern reading practices *as complementary and interlocking*. Marshallese Indigenous values have been their survival mechanisms. Values of togetherness (*ippān doon*) and complementarity challenge fragmentary practices, such as divisiveness and individualism. Amid the violence wrought by masculinized militarism, Marshallese

emphasize listening to matrilineal resonances, which are nonbinary composites of maternal mixing, in the vibrant, interlocking communications of more-than-human communities. Here, currency accrues through an understanding of how to listen to hear the movements of the land and lineage in directional movements (rumblings) of nonhumans, which augment or diminish the throat in its vocal capacities. Although Marshallese singers structure their musical outreach with Western musical harmony (a pitch-based system that abstracts, disembodies, and universalizes voices), the singers share the invasiveness of radiation as a musical system of resonant displacements that unfolds through timbral harmonies (internal intonation through poetics/onomatopoeia) that share the exhaustion of embodied voice—as muscular motions and memory—in singers’ performances of the labor of making radiation sound that is realized through Indigenous ways of making sense.⁷¹

Pacific histories, Tongan scholar Epeli Hau’ofa remarked, cannot be understood without “knowing how to read our landscapes (and seascapes).”⁷² Alternative ways of reading, or literacies, have become an important aspect of study in critical Indigenous, settler colonial, and Native Pacific cultural studies.⁷³ Contributing to these fields’ investments in alternative literacies, I explore how Marshallese music structures dissonances felt by the extant presence of radiation as it circulates through the lives, lands, and futurities of Marshallese. The disembodied voice produced through the pitch-based Western musical system links to patriarchal networks through which currency flows; the matriline, the mother-son relation, and the lineage are empowered with attention to the throat, for timbral singing is felt in and resonates through the throat, and it attunes singers to nonhuman-human relations through the personalized realization of the nonhuman sounds that the person communicates. I listen to hear how singers and poets creatively interweave multiple readings from Indigenous place-based value concepts, which I explore in terms of “currency,” that ground the atollic movements, including throat- and atoll-based voices that resonate alphabetic text from literature to law to medicine to Bible passages; here, singers’ voices “produce different relations between words, the kinds of things that they designate and the kinds of practices they empower,” such as recollections of Marshallese matrilineal, spiritual, and communal modes of protection, strength, and security that have been devalued by the United States, submerged by radiogenic violence, and placed outside of legal protections.⁷⁴

Marshallese have an onomatopoeic sound for the explosion of the bomb: *erüp*. The word, spelled *erub* in certain instances, translates to “broken.” It is

used as a meaningful acronym for the Four Atolls designated in Section 177, ERUB: Enewetak, Rongelap, Utrik, Bikini. It is one of the breaks that is sutured into the formation of the nation-state, evincing unequal violences that forcibly pushed those atolls that were deemed the most distant from Western civilization into the center of global development. The break is central to the legal project through which Marshallese democratic voices have been entrained. As anthropologist Stuart Kirsch contends, “The Nuclear Claims Tribunal, which provides compensation for damage and loss, obligates communities to demonstrate a break with the past. . . . Marshallese claims about culture loss are influenced by the legal processes through which they are adjudicated.”⁷⁵ These affective social spaces are of critical importance in examining musical performance and circulation as an alternative to, and perhaps critique of, the NCT and the US Supreme Court, which rely on certain modes of speech and voiced appeals to perform loss as intelligible. The political, social, and economic breaks tether or interlock with bomb songs from anywhere (e.g., “Sh-Boom”) that, when engaged, can resonate the ongoing presence of radiation within durative structural racism, sexism, ableism (value placed on modern, corporate sensibilities), and other modalities of policing bodies as investments in maintaining the flow of privatized resources.

Theorists often read modern frameworks through discontinuity. While Marshallese musical breaks can be read as resounding such discontinuity (under modernization), it is important to listen beyond or in excess of modernizing frameworks that focus on the break (in ways that orient toward hegemonic assimilation). By relistening to Marshallese harmonic breaks in the context of a sonic politics of indigeneity, we can hear harmonic breaks as opening up sites of hearing that are not foreclosed upon by modern sensibilities but rather become pathways to Marshallese Indigenous values. For example, looking at Walter Benjamin and Ernst Bloch’s take on modernity, C. Nadia Seremetakis writes that they only “looked to discordant objects, experiences of discontinuity, and cultural zones of non-contemporaneity in everyday social practices as containing interruptive possibilities in relation to the dominant myth of the continuum. . . . They tended to ignore or undervalue the extent to which particular cultures and social strata had developed their own indigenous, self-reflexive practices which cultivated break, rupture, discontinuity, and alterity in modern life.”⁷⁶ Taking Marshallese sounds of the break and bomb as metaphorical and literal sound structure provides alternative frameworks to harmonic form as dominant mediation and entrainment of sensibilities. These resonant entrainments

can be heard in terms of the interrupted break that materializes a sharing of the throat as a sharing of the labor, perhaps in interlocking gesture to continue sharing these stories. As Laurie Stras writes, “The disrupted voice conveys meaning before it conveys language . . . it is indicative of passions, suffering. . . . We hear it, too, as the result of labor—the physical trace of an agent working on the body, a measure of the body’s cumulative experience” of forces: pressures and time.⁷⁷

Kathryn Geurts writes that “a culture’s sensory order is one of the first and most basic elements of *making ourselves human*.”⁷⁸ Whereas scholarly reflection upon radiation has favored visibility rather than audibility—the eye rather than the ear, for example—this project works at the cross-sensorial: the crossing of the senses or the transmutation of the atomic flash of light and sonic boom to the “slow violence” that unfolds over a latency period where the effects of radiation cannot be perceived until after several cycles of cell mutation and organic attenuation.⁷⁹ These effects are observed over time; they are the compiled questions of sisters, the collective ennui of a group, the patterns of illness, the change in taste of food, the shrinking of plants, and the shifts in movement—for example, of movements of plants and animals, documented in song and compared and critically assessed. The movements away from health and agency are composed into visceral and audible phenomena—into sounds—that hum subversively in ways that permit them to go uncensored and remain unclassified. Working across the senses, I consider how radiogenic damages are registered (and communicated) as a host of uneasy, disjointed, and dispirited feelings. In this way the five senses, and in particular the ear and the eye, lag in registering the impacts of radiation, as do the classifications of diseases catalogued in Western medicine.

These songs, which assume care and accountability, amplify silent gestures to the thyroid, the biopolitical scars (eugenic scars) alongside gendered vocal parts in musical harmony. *Radiation Sounds* registers how Marshallese singers gesture to their (fragmented) body parts and disentangling (fragmented) voices, which are connected to radiation and removal. In particular, Marshallese return to their throats, which are approached as the center or seat of the soul, akin in ways to the metaphor of the heart in the West, and as the seat of the emotions. Unlike Western musical thought, which frames the voice as sounding an individual’s deepest emotions, aligning voice more broadly with a person’s identity and metaphorically with an individual’s agency, the voice in Marshallese thought is one’s “sound”: it is the sonic component of the throat complex and speaks to a larger network based on conviviality and lineage (which is directly related

to the land and the mother). The ability or inability to express emotions depends on an entire social network, knowledge of a lineage, and a “healthy throat,” which comes from communality. Rather than the individual animating the musical voice, it is the musical voice that animates the person, primarily because the musical voice is itself a mnemonic device for summoning an entire heritage and therefore realm of knowledge concerning how to live and engage with others. Moreover, unlike the voice, the timbre-resonant throat cannot be overdetermined according to a Marshallese *jabokonnan* (proverb): “We reach and understand the sea, but not the throat (heart) of human beings.”⁸⁰

I theorize singers’ throat-based, interconnected knowledge through an “erüp epistemology,” or ways of knowing displacements—expropriative abstractions, severances, and damaging fissures—that mark systemic fissuring of Marshallese interconnected Indigenous bodies. Musical weaving can be understood in terms of “re-fusals.” These re-fusals take shape through alternative sites of strength in which communal forms of empowerment gesture to new denuclearizing subjectivities and solidarities. Musical re-fusals are performances that (1) refuse or reject the dominant system’s hegemony; (2) re-fuse or rewire, reroute, currents and flows (attentions and movements); and (3) sonically weave what Americanized listeners might consider musical re-fuse or “excess” of the sound-based musical representation system. Seremetakis reminds readers that performances must be understood beyond the representational system: “*Performance is not ‘performative’*—the instantiation of a pre-existing code.” Performance has the potential to make that which was imperceptible perceptible, like radiation songs can make radioactive “decay” heard through the song’s composite temporal processes. “It is a *poesis*,” she writes, “the making of something out of that which was previously experientially and culturally unmarked or even null and void.”⁸¹ Victor Shklovsky coined the term *defamiliarization* to address the ways in which “poetic devices” were used to “[counteract] the tendency of our minds to get used to everything, including ways of speaking and writing,” such that people “no longer notice anything—a condition of deadened perception.”⁸² In order to “(re)educate the senses” in “bodily learning,” defamiliarizing techniques are needed to “break . . . conventions” and “help reinvigorate” singers *and* listeners in “unexpected” ways, thus engendering communities of sense through which radiation and the means of its harmonization (e.g., COFA, CCP, Christian culture) can be perceived in a musico-poetics of neocolonial (radioactive) decay; so too can Indigenous regeneration be perceived anew.⁸³

Although democratic promises of equality and freedom circulated, Marshallese have reflected on the layered breaks they must use their embodied voices to remediate, which demands repairing the severed throat as well. Prior to the US and Japanese imperial powers, which displaced Marshallese en masse and promoted patrilineal inheritance, the throat was understood as the seat of the soul and emotions where Marshallese connect (or feel the lack of interconnectedness) with the matrilineal bodies and lands. It was also the *seat of reason*.⁸⁴ The severance of “reason” from the embodied, emotional lives of Marshallese shows how the making of “irrational,” “insensible,” and “unreasonable” people happens. Marshallese sensorial locations of reason (interconnections) were stripped and severed from emotional cues through the imposition of modern rational systems that exclude and efface Marshallese relational being, or “memory of the senses,” as matters of life, death, survival, and health: to detect radiation, to develop voice, for protection, for security, for remediation. In doing so, doctors, scientists, and politicians who had access to “reasons” for why Marshallese felt tired after taking medicine, to the duration of their removal, and to the dangers of radiation (as well as its presence in the immediate moment) would often restrict these reasons from Marshallese sensibilities and therefore processual embodiment, engendering “emotional management” as the displacement of reason, articulated to irrationality and insensibility that further dehumanized Marshallese and rendered them subject to nuclear, political, and state-legitimized violent processes of removals, experimentation, and withholding of information, data, and explanation.

REMEDIATION

Radiation Sounds is interested in remediation in terms of health and healing. Marshallese restage their nuclear history in ways that hold the United States accountable for the modern history of decay as a temporal genre that dispossesses Marshallese of their ancestral homelands and lifeways. By listening to Marshallese radiogenic poetics of decay as a component of larger processes of Marshallese regenerative grounds, Marshallese radiation songs resound remedial efforts; they are remediations of nuclear history, and they are remedial insofar as they are crucial to health and healing in terms of outreach and singing, as vibrational practices of *bōro wōt juon* (one throat only). Rather than resistance in terms of oppositional conflict, remediation challenges the consensual through the dissensual. Music offers a stage to

hear reparative investments that Marshallese nuclear communities have made to their health and healing as well as to national, transnational, and international politics. Here, Marshallese singers break with conventional notions of remediation tied explicitly to the environment and point to their throats, and thus the severed collective, intimating the nuclear subjectivation as the stage for isolation-making in the severance of humans and nonhumans. The Marshallese word for health—*ājmour*—offers a poetics of movement with complementary phonemes “āj” (weave) and “mour” (life) that speak to Indigenous temporal sovereignty in terms of nonmodern temporalities as orientations, the forging of pathways, and navigational wayfinding in excess of (radioactive) decay.⁸⁵ Moreover, weaving is a practice that is gendered female, since women often plait in the Marshall Islands. Thinking about remediation in terms of *ājmour* symbolizes the weaving of life resonant through Marshallese matrilineal voices that has persisted throughout the gendered, transcorporeal violence of the nuclear project. It is a poesis, a making of the not yet known and felt.

I use the term *remediation* in three distinct, albeit correlated ways. First, I address biopolitical and biomedical remediation. Second, re-mediation suggests passing through more than one media. And, third, remediation refers to the contradistinction to quarantine/segregation, which recalls the problematic division between environment and people. In the first case, musical outreach, an extension of voices as potential for relational hearing spaces, frames sensorial conflict, musical dissensus that might easily be assumed within the biopolitical structures of surveillance. Songs are instances through which sonic cues recall the medical care and state-sponsored remediation, post-Bravo, through which human subjects were created through experimentation. Given that DOE medical care persists, so too do opportunities for neocolonial extractions and dismemberments. Songs re-mediate, as instances for the mediation (yet again) of Marshallese voices and bodies that have already been “remediated” in the American geopolitical memory. Singing displaces or unsettles them from the classifications to which they have been subject.

Marshallese ERUB singers perform multiple (dis)identifications that are critical of the boundaries within which they have been placed and instrumentalize symbolic materials to connect with dominant and minoritized communities. Drawing on José Muñoz’s concept of disidentification as a “performative mode of tactical recognition that various minoritarian subjects employ in an effort to resist the oppressive and normalizing discourse of dominant ideology,” I explore the ways in which Marshallese

collectivize through indexical ambiguity and (dis)identification through multiple meanings, which enable them to move between onto-political identifications and socialities that match the movements of the song and meanings.⁸⁶ For example, pointing to the *bōrō wōt juon* can speak to Christian, US, and UN appeals to unification as well as the Indigenous survival mechanism of *ippān doon* as togetherness, specifically in more-than-human communities of which radiation has become profitable, as part of the survivor-victim (antinuclear) protest complex, and devastating (in the making of nuclear survivors and victims).

Second, re-mediation is by definition that which passes through more than one media. Marshallese embodied voices are sites of multisensorial interconnections and outreach. Marshallese songs re-mediate nuclear histories in excess of the secular sensibilities of the spectacle, the ear, eye, and hand—and the modern fragmented senses—through the collective throat. The re-mediation of nuclear histories and of nuclearization, individualization and modernization, via the Marshallese throat are recursive processes, creating interruptive breaks when the frame of harmony is too limited for the vocal apparatuses—the throat as aural sphere of singers and audiences—which cannot bear the weight. This book also re-mediate nuclear histories, therefore, by listening to these interruptions and tracing them through the cognate stories, drawing connections and shifting sensible orientations through the performances to amplify the disconnects of nuclear silences and nuclear listening. To return to Teaiwa's work, re-mediation draws on the interweaving of the feminine voices to push back on the colonial alienation of women. Marshallese singers return to more than one media, the univocal sovereign, and listen to their place-naming practices and other emplaced and embodied rituals of hearing together equivocally in political deliberations. Centering the throat (*bōro wōt juon*) in this respect is a crucial way of thinking “sensory democracy” for it reveals the voicelessness and other embodied damages to be systemic.

Attention to Marshallese cosmological narratives, particularly those mapped onto modern RMI political narratives, can be read for how voice comes to pass through more than one media and offer regenerative possibilities for hearing the breadth of injury and scale of reparative needs. Such remedial readings disrupt political archives in which nuclear history-telling retains its masculine, individualistic tenor. RMI political narratives often center on (male) chiefly characters and actions that draw explanatory power from Marshallese legendary figures. This is particularly true with the tendency to focus on US-RMI relations, specifically around

imperial violence and modernization, with the trickster (L'Etao) and the virtuous chief (Jebro) as symbolic embodiments of the US and RMI governance, respectively. Working from the political representation (voices) of these figures, as sons, to their mothers offers insight into what the stories tell us in terms of positional situation in supporting the communal, intergenerational strength of the matriline (Indigenous futurities) since their voices are never about the individual character alone. His movements are afforded by his mother and by extension her relation within the cosmological network. According to Marshallese cosmology, as explained by Phillip McArthur, there are three female figures who possess three different sources of power. The name of the eldest sister is Lijenbwe, or “woman (*li*) from/of (*jen*) the divination knot (*bwe*), derives the power of divination (*bubu*), and it is from her descendants that the highest-ranking matriclans originated. . . .”⁸⁷ The middle sister is Lōktañūr, “the primal matriarch who instituted the high chief title,” and whose story describes “the way the legitimate course of authority comes through obedience to one’s mother.”⁸⁸ Lōktañūr, the weaver of the first canoe sail, has twelve sons who engage in a canoe race to become the first chief of the Marshall Islands. Lōktañūr asks each son if they will give her a ride across the lagoon. Since she is carrying a large bundle, her sons fear that she will slow them down, and they all deny her—with the exception of her youngest son, Jebro. Her bundle turns out to be the first sail and harnesses the winds and waves, empowering Jebro to win the race and become the chief. As chief, he is entrusted to always respect, or carry the “weight” of, his mother as lineage and the land, which function as the animate means of his political voice (winds, waves, currents).

Today, Lōktañūr and Jebro continue to direct Marshallese; they are guiding constellations. The youngest sister is Limejokedad, or “woman (*li*) who (*me*) is dirty (*jokedad*), [and] gives birth to the so-called ‘trickster’ figure, L'Etao.”⁸⁹ L'Etao is the figure of modernity and the United States. As I explore, the toxification and ruination of the land through modern war seemingly rebirths the trickster in his return to the atolls in which the sounds of war become echoed through the bombs and their violent aftermath. L'Etao's voice, according to the *Marshallese-English Dictionary*, translates to the Echo.⁹⁰ The Echo, or the voice of modernity, is associated with the disembodied male figure in Western intellectual history and also the embodiment of individualism (since his voice is the only one that is individualized and given a proper name) that is aligned with mastery over the senses (trickery) rather than a deeply rooted (and routed) engagement (care for) the growth of the community. To pass through more than one media is to critique the liberal notion

of the individual and the individual voice mapped onto an essentialized identity in ways that challenge reproductive essentialisms articulated to the isolated figure of the “mother” or “son” as well as humancentric time, which becomes extended through the written word.⁹¹

Marshallese (Indigenous Pacific Islander) concepts of historical space-time are rooted in and routed through the ancestral atoll, where *mwilal* (depth) has accrued through the contributions of the ancestors over time to help continue the *bwij* (lineage, primarily matrilineal) and *jowi* (maternal clan) and so take care of the land.⁹² Marshallese are connected to their ancestors through the land inherited through their *bwij*, from which the word *bwijen* (umbilical cord) comes. The intense connection of the maternal, or feminine, cords that bind the atoll chains can be called “atoll umbilicals” and, by extension, ainikien umbilicals that “sound” the ancestral land.⁹³ Ainikien fibers of the atoll umbilicals are interwoven for the health (*ājmour*, meaning “weaving of life”) of Marshallese societal organization and culture, which are extensions of the feminine voice, considered the “the ultimate authority” in customary practice and archived in cosmology. Extending this relation to the atollscapes can extend the analyses of equivocality further in terms of what radiation has severed, creating empowering networks from re-fusing the severed nodes by way of the feminine voice within the atollscape. Atoll umbilicals can be in tension with the cable umbilicals or modern media lines through which Western sovereignty produces envoiced, individualized subjects whose sociality is mass mediated.

Equivocality is a methodology to hear multiple ontologies and systemic complexes without deference to the dominant system, such that Indigenous poetics and politics of convivial valuation, which the bomb has injured but not fully destroyed, resonate and provide direction. The collective singular throat materializes sonic histories informed by seascape epistemologies and the weaving of atoll and cable umbilicals. With attention to the throat as nexus of the collective currencies, Marshallese interconnected ways of being, doing, and respecting can take on vocal currency. Here, as Ochoa Gautier writes, “The voice [can be] understood [in excess of] that which represent[s] . . . identity. Instead, the voice manifest[s] or enable[s] the capacity to move between states of multiplicity or unity where a single person can envelope multiple beings and where collective singing . . . can manifest a unity in which the collective is understood as expressing the singular.” Within this singularity, she continues, “Different living entities or musical instruments voice the breath of life . . . , and where culture is understood ‘as an on-going act of creation’ rather than ‘the distillation of

a set of abstract ideals. . . .”⁹⁴ These regenerative practices of equivocal-ity move through multiple media and bodies in ways that network against the isolated and the fragmentary, as well as the dismemberments that emphasize the modern form of the break (as distinguished from the break as knowing, or navigating through displacements). As Creek poet Joy Harjo, the first Native American US poet laureate, has explained, “There is no separation between poetry, the stories and events that link them, or the music that holds all together, just as there is no separation between human, animal, plants, sky, and earth.”⁹⁵ Marshallese music therefore cannot be defined but rather appreciated in terms of musicality, as the movements of life, that share reasons (of the throat) and meaningful frameworks *to appreciate timbral or personal connection with(in) the world and a nuclear reality in which we are all implicated*.

Finally, Marshallese musical remediation restages the myth of segregation and quarantine in two senses. First, there is the myth of the island as isolated, and second there is the myth of toxic segregation in which toxicity can be confined and not harm people, such that a large dome was placed over nuclear waste (Runit Dome on Enewetak Atoll), or that only four atolls were impacted by nuclear fallout and the larger radioactive culture.⁹⁶ Moreover, Elizabeth DeLoughrey has written extensively on the attempts to contain radiation, as part of the larger Cold War containment culture, through radiation ecosystems ecologies.⁹⁷ These developments created significant media that structures how the world is perceived and materials are treated, yet they are often premised on affective dimensions, such as fears of contamination and desires for purification. By emphasizing the deleterious impacts of the culture of global radioactive citizenship and the specificities of how it maps onto individual polities, countries, and regions in global harmony, I aim to dispel such myths through Marshallese music and sensibilities that resound interconnectedness rather than classified and contained.

By musically recalling their homelands with attention to the disrupted reciprocity of the throat, Marshallese singers unravel the falsehood of island-based isolation and quarantine as something that is geographically “natural.” Land, separated from generational knowledge embodied through language and ways of doing and making, is central to Indigenous struggles for justice. Listening to Marshallese voices that resonate the work of the throat, which is considered unreachable yet connected to the living land via the soul, is crucial in hearing damages and possible means of remediation. As Wilfred Kendall shared, “Land speaks of your being, essence,

reason for living. You relate to the world in terms of land [that] provides for your present, future, and future needs. . . . You cannot put enough value on land. . . . How do you put a value on something that people consider as a living thing that is part of your soul?”⁹⁸ Glen Coulthard calls a way of knowing through “reciprocal relations” with the land “grounded normativity,” which is “a place-based foundation of Indigenous decolonial thought and practice . . . the modalities of Indigenous land-connected practices and longstanding experiential knowledge that inform and structure [Indigenous] ethical engagements with the world and our relations with human and nonhuman others over time.”⁹⁹ In this respect, the role of listening to the voice to hear the connectivity of the throat can be appreciated in terms of remediation of “Indigenous decolonial thought and practice” that move through the many media of the atollscapes.

Second, Marshallese singers contest the myth of the clean slate, the empty space, and the isolated place in which toxic radioactivity can be dumped without consequence. By directing attention to the throats, or hearts of the matter (the material that has decayed because of US nuclear waste and military dumping), Marshallese singers refocus attention. Marshallese remix and remediate nonviolent protests drawn from transnational inspiration: sing-ins, sail-ins, and radiophonic attunements to RMI history are all occupations of the terrains once occupied by the US as a territorial possession. Karin Ingersoll develops the concept of “seascape epistemology” to reemplace Indigenous knowledge of oceanic connectivity and fluidity, which cannot be occupied, dominated, or exploited.¹⁰⁰ The Marshallese “atollscape” or “*aelōñ*” epistemology structures an understanding of how to move through and make sense of the world. An atollscape epistemology, like a seascape epistemology, is about interconnectedness and interdependence. *Aelōñ* can be translated to “the currents and everything above them” (*ae*—currents, *lōn*—what is above, such as the dry land and sky).¹⁰¹ The Marshallese word for sound, *ainikien*, combines the root words *aini* (like *ae*, “current,” “to gather and circulate”) and *kien* (“rules”). *Ainikien* is about knowing one’s place within an interconnected world, specifically in terms of the rhythms afforded by the mother and her connective cords: not just the umbilical cord but also the vocal cords, the currents in the air and sea that flow in and out in breath and move the waves (sound, oceanic). Voices are the vibrational, acoustical movements routed through “atoll umbilicals,” or the nourishing threads, waves, and currents of Marshallese navigational sensibilities that network the archipelago via circulations, gatherings, and distributions (vocal currency).¹⁰²

The military culture is part of Marshallese culture, as well, and what Brian Massumi has called a “politics of affect” can be nuanced with a deeper theorization of how remediation of nuclear histories through Marshallese senses can reposition American alert-based culture of civil defense and contemporary emergency thinking in ways that have contributed to the masculinizing of the atollscape such that there exists a COFA-based “affective alliance.”¹⁰³ Remedial efforts can again displace such emergency thinking through the restorative, reflective rest or break. A remediation of “affective alliance” and moral pressure shifts our “ethical listening” not only to “political listening” but from the rational listening centered in text-notation (tones, pitches) to the reasonable listening that treats interconnectedness of the (non)human animate spirit as crucial in political decisions (timbral relationality). This repositioning of listening, as a remedial practice of staged affective alliance, speaks as well to the “remediation [as] a citational operation that colonizes the residual media regime to redress the failed utopian promises and violence of that regime,” such as the means of harmony via the construct of the representative voice predicated on the break between land and human complementarity and gender complementarity (as well as who can speak for whom).¹⁰⁴ Since the US nuclear project was premised on democratic and capitalist expansionism that are foregrounded by human activities, these breaks necessitate remedial listening practices to hear the interconnected world.

Radiation sounds, I argue, can be heard in the vocal interplays in songs (lyrics) that gesture to embodied acoustical silences as nuclear silences because it has become necessary for the human to “speak” for the “non-human,” as it were, and “make decisions.” Radiation is one modality of energetic transference that has its own currency or temporal, space-time movements (lifetime). Writing about the literary “counter-canon” to representations of the Pacific that sustain environmental racism wrought by French nuclearization and US bombing in the Pacific, Dina El Dessouky conveys the ways in which Indigenous Hawaiian activists and writers “coarticulate [their] indigenous bodies and island places, advocating the fundamental, interrelated, and equal rights of both human and nonhuman ecological communities.”¹⁰⁵ Listening to radiation songs with an ear toward voice-based *equality* in the interrelatedness of “human and nonhuman ecological communities” (and acoustical sounds and silences) as harmonies comprising more-than-human communities can attune us to more-than-human temporalities and the limits of human-centric time in modern systems (such as the law) that promulgate inequality (e.g., COFA,

CCP). I read Dessouky's analytic as helpful in putting forth a decolonial notion of "sensory democracy" that emphasizes the ways in which nuclear injustice manifests through representational limits that cannot be voiced in modern institutions.

I expand upon Andrew Dobson's concept of sensory democracy that he traces by focusing on listening in deliberative democracy to hearing as a means of resonant potentiality in being guided through voicelessness or detours away from meaning making by communities whose ontologies can be assumed through proprietary sense making (reading practices of their worlds). Dobson proposes the concept of "apophatic listening," in which a listener suspends judgment and listens quietly such that an eventual guided means of listening and reciprocity between speaker and listener unfolds.¹⁰⁶ Apophatic listening seems crucial for "agonistic cosmopolitics," or contested ways of ordering the world through which negotiations can be made when all ways of ordering the world (socio-natures) are looked at as legitimate such that their impacts are parsed. Here, Anders Blok follows Latour's notion that cosmopolitics is the forging of a world "in common" that is not dependent on human actors in a nature-culture duality but rather recognizes (non)human relations in governance systems and their scientific foundations, which are built on antidemocratic platforms in our contemporary moment and academic institutional structure through the division of the sciences, social sciences, and humanities.¹⁰⁷ Latour's notion of the in-common world that takes into account nonhumans through the merging of politics and science by way of those authorized to speak, as it were, echoes Dobson's intervention in ways that underscore the exclusion of marginalized, minoritized subject positions that are unable to be represented within modern, rational institutions in full.

The US military-industrial-academic complex has participated in exclusionary practices in the name of democracy and global harmony. This book traces Marshallese musical memories of some of these systemic disqualifications through medical, environmental, and educational institutions as they resonate viscerally and intergenerationally. As I conclude my introductory framework, and writing from my position in music and the humanities, I want to underscore the importance of remediation in projects and programs that actively aim to "trouble and divest" democracy "from its Western, capitalist desires" such that it "can be reimagined as a viable concept for both critical and indigenous forms of education."¹⁰⁸ As we move toward global humanities, augmenting cold war identity-based studies programs, this critique of global harmony as institutionalized world mak-

ing, I hope, contributes to the ways in which music, sound, and voice studies take shape in and across the environmental humanities, medical or health humanities, and digital humanities, especially when considering who and what get excised from which interdisciplinary programs and “intersectional” frameworks because of nondominant (systemically silenced) means and modes of relating.¹⁰⁹ A more-than-human-humanities approach must engage Indigenous understandings of entangled relationality expressed and taught by Indigenous scholars that challenge the normalizing of democratic, academic, and capitalist ableism that have participated in colonial, eugenic practices.¹¹⁰ Sensory democracy, as a framework, rejects those filters of “ability” and “voice” as given while respecting their systemic power in the academy as well as the capitalist and democratic system. This is, more broadly, a call to respect and to listen across political boundaries and representational mass mediation and uniform programming. Participation through disidentification and detours can express limits, incommensurabilities, injustices, and inequalities that manifest from systemic inclusion, or governance, as remediation or reparation that has required severances, cuts, and fragmentations. Songs, compositions, and other formal modes of communication become ways to “voice” and demarcate a being-and-beyond the voice that materializes in the formal projections of minoritized bodies themselves shaped through normative justifiable projections that require nonhegemonic remediations. In radiation songs, it is the perseverance of the sense of the throat—the collective and communal spirit—amidst the waves of imperial violence that evinces the persistence of the soul, the living land, and those who refuse the nuclear silencing of their knowledges and their futurities.

If the social contract of global harmony is predicated on nuclear ruins and, more specifically, Indigenous ruins as subjects of nuclear colonialism, meaning the contested grounds over which masculine militaries battle for geopolitical control, then these songs share their refusals—rejections and reweavings—of how history can play out. Marshallese singers challenge any clear division between the public and private realms because their spiritual being and becomings through the collective throat are both and neither. On the one hand, they have been forcibly rendered public, where musical gestures amplify human rights discourses in terms of survivor and victimhood that connect the Marshallese with larger networks of historically subjugated communities made vulnerable by global power inequalities. The knowledge that the Marshallese throat can never be overdetermined affords the vocal currency (*ainikien*) that carries and circulates

“radiation sounds” because it is based on reciprocal relations rooted in and routed through (dis)placed, embodied Indigenous sensibilities. Drawing on a sonic politics of indigeneity, singers demand answers and maintain spaces in which the US as neocolonial power must be answerable, while upholding the vital processes of matrilineal Indigenous futurities predicted by the ancestors who, like the singers, continue to weave life.

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INTRODUCTION

INTRODUCTION

- 1 Rijen Michael (Utrikese man), interview with author, February 27, 2009.
- 2 Yostimi Compaj (Utrikese man), interview with author, March 10, 2010.
- 3 As a point of reference, Connecticut is just over 5,500 square miles. See Rowberry, "Castle Bravo"; and Kunkle and Ristvet, "Castle Bravo."
- 4 Molly (Rongelapese woman), interview with author, March 20, 2010. Name changed at interlocutor's request.
- 5 Compaj interview.
- 6 Aruko Bobo, interview by Holly M. Barker, August 27, 1994, in Johnston and Barker, *Consequential Damages of Nuclear War*, 99.
- 7 Three of Bikini Atoll's islands were vaporized by the nuclear testing: Bokonijien, Aerokojlol, and Nam. When I refer to Rongelap as land that is uninhabitable, the atolls of Ailingnae and Rongerik are included. I follow Johnston and Barker and stress that in this book, "the people of Rongelap," or "Rongelapese," refers to those people exiled from Rongelap, Rongerik, and Ailinginae atolls" (*Consequential Damages of Nuclear War*, 43).
- 8 Castle Bravo was one thousand times more powerful than the first atomic tests in 1946, and it came as a shock to many that the Rongelapese had not been evacuated before the unprecedented test. The three islands vaporized at Bikini Atoll were turned into the "fallout" that covered Rongelap and other atolls in the Marshall Islands. It was then that the term *fallout* was introduced into our lexicon.
- 9 Molly interview.
- 10 Adult intake of radiation solely from the Bravo event was estimated at approximately 300–375 roentgens (whole-body dose), 10,000–20,000 rads (thyroid), and 20–300 rem (internal doses other than thyroid). Compare with the "current known health effects of ionizing radiation" that places lethal doses at 400 rem ("can kill 50 percent of exposed population"). Information from Johnston and Barker, *Consequential Damages*, 97; see Appendix V for tables and statistics pertaining to the tests and changes in dose limits because of the tests.
- 11 Johnston and Barker, *Consequential Damages* 12. The authors quote "excerpts from John Anjain," in "The Fallout on Rongelap Atoll and Its Social, Medical and Environmental Effects."
- 12 See Barker, *Bravo for the Marshallese*, for details about Project 4.1.

- 13 Keyes recalled this story in a 1994 CNN interview. See Aquila, “Sh’Boom,” 106–18.
- 14 “Sh-Boom” by The Chords, last modified 2019, www.songfacts.com/facts/the-chords/sh-boom.
- 15 The Marshall Islands are in a region known (pejoratively) as Micronesia.
- 16 Johnson, “Rongelap Return Could Happen in Near Future.” At the time of this writing the mayor of Rongelap was negotiating to lease parts of Rongelap to the People’s Republic of China because efforts to encourage Rongelapese to return to their homeland have mostly failed.
- 17 For a more thorough discussion of the “distribution of the sensible” and the political work of an aesthetics that creates a dissensus making the part that has no part audible, see Rancière, *Disagreement*; *Dissensus*; and *The Future of the Image*.
- 18 See Rancière, *Disagreement*; *Dissensus*; and *The Future of the Image*.
- 19 See Amundson and Zeman, eds., *Atomic Culture*; Jacobs, *The Dragon’s Tail*; Halliwell, *American Culture in the 1950s*; Grossman, *Neither Dead nor Red*; Weisgall, *Operation Crossroads*; and Winkler, *Life Under a Cloud*. See also Hanlon, *Remaking Micronesia*; and Friedman, *Creating an American Lake*.
- 20 Deleuze, *Francis Bacon*, 74.
- 21 Desjarlais, *Body and Emotion*; Seremetakis, ed., *The Senses Still*; Taussig, *Defacement*. Also see Gusterson, *Nuclear Rites*.
- 22 Harmony has been used as a means for European and US imperial powers to arrange the world. Referencing Foucault’s *The Order of Things*, Christopher Hight argues that harmony “can be read as integral to the story of racial representation.” Following Attali’s work in *Noise*, he writes that harmony “is based on proportional ratios between units’ places on a single axis of variation (pitch), an organic unity of these increments in both pitch and time, and a rich mathematics of their combinations in whole units. This harmonic system,” Hight contends, “contributed to the conceptual organization of the colonial” (14). See also Bloechl, *Native American Song at the Frontiers of Early Modern Music*; Baker, *Imposing Harmony*; and Irving, *Colonial Counterpoint*.
- 23 Igarashi, *Bodies of Memory*, citing Lummis, “Genshitekina nikkō no nakadeno hinatabokko,” 34.
- 24 Teaiwa, “Microwomen,” 126.
- 25 Teaiwa, “Solidarity and Fluidarity.”
- 26 Hartman, *Scenes of Subjection*.
- 27 Fortun, *Advocacy after Bhopal*.
- 28 See Fordham, *Building the Cold War Consensus*; and Manning, *John le Carré and the Cold War*.
- 29 Manning, *John le Carré and the Cold War*, 17.
- 30 Lee, “From GI Sweethearts to Lock and Lollers.”
- 31 Ragan, *One World or None*.
- 32 United Nations, *Charter of the United Nations*. Italics mine.

- 33 O'Brien, *The Pacific Muse*.
- 34 See Rameau, *Treatise on Harmony*.
- 35 Ellingson, "Transcription."
- 36 Kunreuther, *Voicing Subjects*, 15, citing Taylor, "Speaking Shadows," 8.
- 37 Ochoa Gautier, *Aurality*, 17.
- 38 Ludueña, *La Comunidad de los Espectros*, as cited in Ochoa Gautier, *Aurality*, 18.
- 39 Grossberg, *Bringing It All Back Home*, 370.
- 40 Chakrabarty, *Provincializing Europe*, as cited in Bloechl, *Native American Song*, xvi.
- 41 See Bloechl, *Native American Song*, xvi.
- 42 Lowe, *The Intimacies of Four Continents*, 3–4.
- 43 Keever, *News Zero*.
- 44 See Johnston and Barker, *Consequential Damages*.
- 45 Walsh, "Imagining the Marshalls," 358.
- 46 Baxi, "Voices of Suffering and the Future of Human Rights," 135.
- 47 There are no nuclear powers in the global South. The global North maintains a nuclear hegemony and extracts resources from the global South.
- 48 See Rudiak-Gould, "The Fallen Palm."
- 49 DeLoughrey, "The Myth of Isolates," 171.
- 50 Rancière, *The Politics of Aesthetics*, 12.
- 51 Steingo, *Kwaito's Promise*, 9.
- 52 See Robinson, *Redefining Science*.
- 53 Davis, *Stages of Emergency*; Masco, *The Theater of Operations*.
- 54 Hales, "The Atomic Sublime."
- 55 Edmond, *Representing the South Pacific*, 7.
- 56 Keane, *Christian Moderns*, 6.
- 57 Oakes, *The Imaginary War*, 38–39.
- 58 Masco, "Engineering the Future as Nuclear Ruins," 257. Masco cites the Panel on the Human Effects of Nuclear Weapons Development, *Human Effects of Nuclear Weapons Development*, 9.
- 59 Schumpeter, *Capitalism, Socialism, and Democracy*.
- 60 Seremetakis, ed., *The Senses Still*.
- 61 Herzig, *Suffering for Science*, 36.
- 62 Brinkema, "Critique of Silence."
- 63 Brinkema, *The Forms of the Affects*, 93.
- 64 Howes and Classen, *Ways of Sensing*, 12, 106.
- 65 See Wolfe, "Settler Colonialism and the Elimination of the Native" and *Settler Colonialism and the Transformation of Anthropology*. I use the term *social project*, borrowing from Elizabeth Povinelli, to describe the "specific arrangements that extend beyond simple human sociality or human beings" (*Economies of Abandonment*, 7). Povinelli cites her intellectual predecessors who have termed a similar arrangement or configuration that aims to or puts forth alternative ways of being, doing, living, connecting, and so on as "counterpublics" (Michael

- Warner), “new social imaginaries” (Charles Taylor), “subaltern counterpublics” (Nancy Frazer), and “heterotopias” (Michel Foucault).
- 66 Kauanui, “A Structure, Not an Event.”
- 67 Cavarero, *For More Than One Voice*; Weidman, *Singing the Classical, Voicing the Modern*. Even the idea of an ecology was shaped by the nuclear testing and the removal of humans from their lands at Bikini Atoll and Eniwetok Atoll. See DeLoughrey, “The Myth of Isolates.”
- 68 Stoler, *Imperial Debris*.
- 69 Rancière, *Dissensus*, 38, 139.
- 70 Here I draw on the scholarship from anthropology of the senses, such as Seremetakis, *The Senses Still*; and Desjarlais, *Sensory Biographies*. See also Taussig, *Defacement*; Classen and Howes, “The Museum as Sensescape”; and Geurts, *Culture and the Senses*.
- 71 See Eidsheim, *The Race of Sound*.
- 72 Hau’ofa, “Epilogue,” 466.
- 73 See works of J. Kēhaulani Kauanui, including *Hawaiian Blood* and *Paradoxes of Hawaiian Sovereignty*.
- 74 See Jetnil-Kijiner, “Iep Jaltok.” For quoted portion, see Rancière, *Dissensus*, 54.
- 75 Kirsch, “Lost Worlds,” 171.
- 76 Seremetakis, ed., *The Senses Still*, 12.
- 77 Stras, “The Organ of the Soul,” 173.
- 78 Geurts, *Culture and the Senses*, 5.
- 79 See Lippit, *Atomic Light*; Cartwright, *Screening the Body*; Kochhar-Lindgren, *Hearing Difference*; and Nixon, *Slow Violence and the Environmentalism of the Poor*.
- 80 Stone, Kowata, and Joash, eds. *Jabōnkōnnaan in Majeļ*, 39.
- 81 Seremetakis, ed., *The Senses Still*, 7.
- 82 Ceraso, *Sounding Composition*, 40.
- 83 Ceraso, “(Re)Educating the Senses,” 112, which cites Bialostosky *How to Play a Poem*.
- 84 Erdland and Neuse, *The Marshall Islanders*, 1914.
- 85 Rifkin, *Beyond Settler Time*.
- 86 Muñoz, *Disidentifications*, 97.
- 87 McArthur, “Narrative, Cosmos, and Nation,” 58–59.
- 88 McArthur, “Narrative, Cosmos, and Nation,” 58–59.
- 89 McArthur, “Narrative, Cosmos, and Nation,” 58–59.
- 90 Abo et al., *Marshallese English Dictionary*.
- 91 It is my aim to challenge, rather than adhere to, any fixed notions of gender. With respect to issues of gender and sexuality within the Marshallese community, see Schwartz, “The Young Ladies Are Here.”
- 92 See Denning, “Introduction: In Search of a Metaphor”; Jolly, “Becoming a ‘New’ Museum? Contesting Oceanic Visions at Musée du Quai Branly”; and Dvorak, “Seeds from Afar, Flowers from the Reef.”
- 93 Rachel Lee, personal communication, August 30, 2017.

- 94 Ochoa Gautier, *Aurality*, 12.
- 95 Harjo, *How We Became Human*, xxvi.
- 96 Columbia law professor Micheal Gerrard, an advisor to the RMI in international environmental law cases, has done much to inform the public of the dangers on Enewetak at Runit Dome. See Marshallese Educational Initiative's "Michael Gerrard on Runit Dome and Our Shared Nuclear Legacy," <https://vimeo.com/108142666>. See also Okney, "Legacies and Perils from the Perspective of the Republic of the Marshall Islands Nuclear Claims Tribunal," in *The Oceans in the Nuclear Age*.
- 97 DeLoughrey, "The Myth of Isolates."
- 98 Wilfred Kendall, advisory meeting, Majuro, March 3, 1999, in Johnston and Barker, *Consequential Damages*, 63.
- 99 Coulthard, *Red Skin, White Masks*, 13.
- 100 Ingersoll, *Waves of Knowing*.
- 101 Maddison, "Oral Histories of the Marshallese Diaspora."
- 102 Rachel Lee, personal communication, August 30, 2017.
- 103 Massumi, *Politics of Affect*. See also Grossberg, *Bringing It All Back Home*.
- 104 Seremetakis, *Sensing the Everyday*, 164. Also see Buck-Morss, *The Dialectics of Seeing*.
- 105 El Dessouky, "Activating Voice, Body, and Place," 256.
- 106 Dobson, *Listening for Democracy*.
- 107 Blok, "War of the Whales"; Latour, "Whose Cosmos, Which Cosmopolitics?"
- 108 Grande, *Red Pedagogy*, 7.
- 109 Crenshaw, "Demarginalizing the Intersection of Race and Sex," 1989.
- 110 Dolmage, *Academic Ableism*.

CHAPTER 1. RADIOACTIVE CITIZENSHIP

- 1 Bob Gordon, "Bikini Atoll Residents Denied Compensation for Nuclear Tests," *Digital Journal*, April 7, 2010, www.digitaljournal.com/article/290200#ixzz4MGOKJR38.
- 2 Petryna, *Life Exposed*, xxv.
- 3 Kiste, *The Bikinians*, 3; Topping, "Review of U.S. Language Policy in the TTPI," 116; Kupferman, *Disassembling and Decolonizing Schools in the Pacific*, 114.
- 4 "Pacific Isles Aided By 2 New Statutes," *New York Times*, August 25, 1964.
- 5 Kupferman, *Disassembling and Decolonizing Schools in the Pacific*.
- 6 Braun, "Imagining Un-Imagined Communities," 145–6.
- 7 Kunreuther, *Voicing Subjects*, 11.
- 8 Antari Elbon, interview with author, September 10, 2009.
- 9 Jorelik Tibon, interview with author, October 5, 2009.
- 10 Jorelik Tibon, conversation with author, April 2009.
- 11 See Foucault, *Discipline and Punish*.