

Creative Projects Towards Nuclear Disarmament: Revisiting  
Oceanian nuclear weapons testing through Indigenous Hawaiian  
epistemology

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## ABSTRACT

Nuclear weapons testing is one of the most defining aspects of the postwar history of Oceania. Conducted by US and French military in the Marshall Islands and French-occupied Polynesia, respectively, the repercussion of the tests shape today's lived experiences, while contemporary militarisation continues to cause further environmental and social damage. This research focuses on a range of textual and visual projects from the wider Pacific: a socially oriented interview project, a memorial, a video art installation and a video poem. I explore how the responses of these works to Oceanian nuclear histories can function as a contribution towards ongoing efforts to disarm and demilitarise the region.

Indigenous Hawaiian epistemology, as discussed by Hawaiian researcher Manulani Aluli-Meyer, guides the exploration of the selected creative works. For Aluli-Meyer, Hawaiian epistemology involves three distinctive ideas: conceiving of knowledge as an epistemological triangulation, the foundational pillars of Hawaiian knowledge and the intelligence of aloha. She positions the triangulation of knowledge as incorporating embodied, mental and spiritual ways of knowing, which also constitute the basis for holistic knowledge. For Aluli-Meyer knowledge that engages all three faculties of the body, mind and spirit is deemed holistic. Within my research, I am interested in how the triangulation of knowledge can function to challenge objective empiricism. This challenge, in turn, emphasises equally engaging all three facets of the body, mind and spirit when encountering the creative works selected for this thesis.

The foundational pillars of Hawaiian knowledge value relational ways of knowing. My research is concerned with how the relationships that are formed through the selected creative works enable and contextualise knowledge, which establishes and cultivates viewers' connections to locations and people involved in Oceanian nuclear testing. Such relational and contextual specificities function to undermine the dominant narratives of nuclear states that falsely universalise and appropriate lived experiences of the testing. Connection to land, particularly place, is a recurring theme in this research. Land holds and produces knowledge; irradiation and displacement from land thus signifies more than a disconnect from a physical homeland. The selected projects reclaim connections to land, which helps to reverse the various forms of erasure that nuclear weapons testing has inflicted on Oceanian communities.

Both the triangulation of knowledge and the foundational pillars of Hawaiian knowledge are grounded in the intelligence of aloha. Aluli-Meyer positions aloha as the principle of compassion, empathy and care. Knowledge that is formed through aloha is an enduring kind of knowledge, which enables the continuation of past, current and future life.

This research simultaneously explores how this Hawaiian epistemological framework leads to ways of knowing that are conducive to the ongoing work of nuclear disarmament. Ultimately, this thesis takes the position that the textual and visual projects examined serve as sources of knowledge that contribute towards the demilitarisation of Oceania by practising the principle of aloha.

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## **ATTESTATION OF AUTHORSHIP**

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

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## INTRODUCTION

It has been a long time since the world was free of nuclear weapons. The persisting threat of nuclear violence, both accidental and intentional, still exists: can a world without nuclear weapons ever be imagined? The most recent nuclear weapons test took place just over three years ago, conducted by North Korea in September 2017.<sup>1</sup> The North Korean test brought the total number of nuclear weapon detonations since 1945 to 2,058.<sup>2</sup> As this thesis was being written, the Bulletin of the Atomic Scientists made a ‘Doomsday Clock’ announcement.<sup>3</sup> They held the Doomsday Clock at 100 seconds to midnight for the second year in a row, indicating the closest the world had ever been to a possible nuclear and environmental catastrophe.<sup>4</sup> In spite of this context, there are reasons for hope. On January 22, 2021, The Treaty on the Prohibition of Nuclear Weapons (TPNW) came into force as international law.<sup>5</sup> This Treaty implements a comprehensive ban on participating in any nuclear activities, including developing, testing, producing, acquiring, possessing, stockpiling, using or threatening to use nuclear weapons.<sup>6</sup> Accordingly, a world without nuclear weapons can and must be imagined.

Initiated in 1939 and directed by American physicist Robert J. Oppenheimer, the United States’ *Manhattan Project* succeeded in detonating the world’s first atomic bomb—named the Trinity Test—on July 16, 1945, in the deserts of Alamogordo, New Mexico. Less than a month

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<sup>1</sup> Dan Smith, “World Nuclear Forces,” in *SIPRI Yearbook Online* (Stockholm and Oxford: Stockholm International Peace Research Institute and Oxford University Press, 2018), <https://www.sipriyearbook.org/view/9780198821557/sipri-9780198821557-chapter-6-div1-040.xml>.

<sup>2</sup> Ibid.

<sup>3</sup> The Bulletin of the Atomic Scientists is a nonprofit organisation that communicates scientific and global issues that pose a threat to humanity. The Doomsday Clock is a metaphoric symbol used to indicate humanity’s proximity to potentially catastrophic events. “About Us,” Bulletin of the Atomic Scientists, accessed January 5, 2021, <https://thebulletin.org/about-us/>.

<sup>4</sup> John Mecklin, “Current Time,” Bulletin of the Atomic Scientists, January 27, 2021, <https://thebulletin.org/doomsday-clock/current-time>.

<sup>5</sup> Effective as of January 2021, the TPNW is the first legally binding agreement that comprehensively bans nuclear weapons.

<sup>6</sup> “Treaty on the Prohibition of Nuclear Weapons,” United Nations Office for Disarmament Affairs, accessed February 5, 2021, <https://www.un.org/disarmament/wmd/nuclear/tpnw/>.

later, on August 6 and 9, the first and only military use of atomic bombs incinerated the Japanese cities of Hiroshima and Nagasaki, respectively. The following five decades of the Cold War saw countless detonations for purposes of developing the weapon, in parts of the world far away from the supposed social, cultural and economic centres of the world. Survivors of atomic bombings, hereafter referred to as hibakusha,<sup>7</sup> suffer from various health effects, including cancerous diseases such as leukemia and thyroid cancer, cardiovascular diseases, miscarriages and genetic mutations in their offspring. In some cases, where hibakusha continue to be exposed to living environments contaminated by radiation, health-related issues persist throughout generations. Nuclear stockpiles remain nonetheless, as efforts to disarm have stagnated since the early 2000s.

Art has accompanied this history at every stage of its exacerbation, from works by photographers, filmmakers and writers to the contemporary works discussed in this thesis. Artforms of all kinds, including conventional media such as painting and theatre, as well as recent technological innovations like VR simulations, have been used to visualise and express the growing capacity of nuclear weapons, and the potential damage they are capable of. Contemporary creative works increasingly blur discipline boundaries by incorporating socio-cultural projects that take on interdisciplinary forms. Participatory, social and research-oriented practices are examples of interdisciplinary efforts that navigate the impact of the nuclear age. The internet and new communication platforms have allowed creative works to be disseminated wider and faster, and experienced in intimate and immediate ways. In turn, artists and researchers continue to challenge representations and perceptions that are linked to lived experiences of nuclear activities.

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<sup>7</sup> A Japanese term for “survivor of an atomic bomb explosion.” This thesis will refer to any survivor (as opposed to only people from Hiroshima and Nagasaki) of an atomic explosion as hibakusha.

The underlying motive for my research is the disarmament of all nuclear weapons, which I acknowledge is a life's work that extends beyond the reach of this thesis. In addition to the most recent developments with the TPNW, there exist various international and regional treaties that limit the production and deployment of nuclear warheads. Notably, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)<sup>8</sup> and the Comprehensive Nuclear-Test-Ban Treaty (CTBT)<sup>9</sup> have been building frameworks for gradual nuclear disarmament. Nuclear disarmament is an immensely delicate and complex issue, where definitive progress is often reserved for the field of international diplomacy or practical activism. This reality begs the question, what can creative projects actually do in achieving disarmament; how can they contribute to such efforts? This is the central question I ask in my research, which I explore through four creative works; the *Global Hibakusha Project* (2014–2016), an oral history project facilitated by Australian researcher Mick Broderick and American researcher Robert Jacobs; the monument in Tahua Tu-Marama in Pape'ete, Tahiti;<sup>10</sup> Chinese-American artist Jane Chang Mi's video installation *24-08-1968* (2014); and *Anointed* (2018), a video poem by Marshallese poet and activist Kathy Jetñil-Kijiner.

My question is a pertinent one, considering the vast array of creative works that comment on the nuclear age.<sup>11</sup> Many of these works explore nuclear matters without taking a

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<sup>8</sup> The NPT, which came into force in 1970, is the only multilateral treaty that binds nuclear states to commit to an eventual complete disarmament through peaceful co-operation. It is the cornerstone foundation for an international effort towards achieving nuclear disarmament.

<sup>9</sup> The CTBT aims to prohibit nuclear weapons testing for any purposes in any environments. Since opening up for signatures in 1996, it has yet to come into force.

<sup>10</sup> The esplanade was renovated in December 2020. The name change to Tahua Tu-Marama was approved by the Tahitian Council of Ministers in January 2021. Formerly a square, it was known as Place du 2 Juillet 1966, named after the date of the first nuclear weapons testing in French-occupied Polynesia. In commemoration of the victims of nuclear weapons testing, former President Oscar Temaru had renamed the square in July 2011 from its preceding name, Place Jacques Chirac. "L'esplanade Jacques Chirac Rebaptisée « Tahua Tu-Marama »," Tahiti Infos, January 20, 2021, [https://www.tahiti-infos.com/L-esplanade-Jacques-Chirac-rebaptisee-Tahua-Tu-Marama\\_a197679.html](https://www.tahiti-infos.com/L-esplanade-Jacques-Chirac-rebaptisee-Tahua-Tu-Marama_a197679.html).

<sup>11</sup> My research question takes into account the expansive body of creative work created for nuclear disarmament activism, notably the decades of heightened anti-nuclear protests beginning in the 1960s and continuing throughout the 1970s and 80s. Prominent works from Aotearoa New Zealand include Māori artist Ralph Hotere's print and painting series *Black Rainbow*, which the artist originally created in the 1980s and revisited in the early 90s; the Rainbow Warrior memorial at Mātauri Bay in Northland, New Zealand, created by sculptor Chris Booth between 1988 and 1990; Visual Artists Against Nuclear Arms (VAANA), formed in 1984, created

clear stance on the issue. In fact, the capacity for creative inquiries to comment on or shift stances and open up experimental questions is at times their strength.<sup>12</sup> Nonetheless, in my research, I do not refrain from taking an oppositional stance on nuclear weapons. Regardless of the disarmament stance taken by the works explored in this thesis, I am clear about both my research and life's work stance when it comes to all matters nuclear. I was raised in a pacifist family working towards nuclear disarmament, partially influenced by our Japanese nationality.<sup>13</sup> My family works and has worked in nuclear disarmament activism and related issues of demilitarising Japan.<sup>14</sup>

Within my research, I posit nuclear disarmament as a prerequisite to the prevention of a possible nuclear war and of any further nuclear detonations taking place. Despite the anti-proliferation agreements in place, the nuclear states that these legislations target have actively rejected the efforts to limit their nuclear capacities. For example, the United States has stated that it does not accept the TPNW as international law and has openly encouraged other nuclear states to object to the treaty.<sup>15</sup> In the face of such diplomatic tensions, I do not propose that creative works can directly interfere and change the rules of the game. Accordingly, my research explores the ways in which the selected creative projects can contribute to nuclear disarmament by assisting the work of activist organisations and reiterating their message of disarmament. I am interested in how these works can heighten awareness and understanding concerning past, present and potential future nuclear violence. The path to disarmament

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a peace mural at the corner of Karangahape Road and Ponsonby Road in Auckland Central. However, nuclear energy, despite sharing some overlapping concerns, is not within the scope of this thesis.

<sup>12</sup> *Invisible Colors: The Arts of the Atomic Age* (2018) by Gabrielle Decamous, researcher at Kyushu University in Fukuoka, Japan, takes such a stance. As she states, "My starting point is grounded in the arts, and, in that sense, my book is neither pro- nor antinuclear." Gabrielle Decamous, *Invisible Colors: The Arts of the Atomic Age* (Cambridge, MA: The MIT Press, 2018), x.

<sup>13</sup> I acknowledge the hypocrisy of the Japanese state, which relies on the unique history of Japan as the only atomic bombed country in the world to promote its image as a pacifist on an international stage, while inadequately acknowledging its own imperial wartime ideology.

<sup>14</sup> Including the removal of American bases from Okinawa, which has been a lifelong issue for a family member of mine from that prefecture.

<sup>15</sup> "United States," ICAN, accessed February 5, 2021, [https://www.icanw.org/united\\_states](https://www.icanw.org/united_states).

requires building consensus towards complete global nuclear disarmament. Reiterating and normalising the consensus functions as a premise for actual concrete bans, legislations, treaties and the like. It is towards such preliminary work that I propose creative projects can contribute.

My research concerns contemporary creative works, and their response to present-day nuclear threats. I am particularly interested in how artists and authors approach this context without direct experience of nuclear weapons testing, while also being historically distanced from the events themselves, as well as facing the imminent passing of a generation of hibakusha. I wonder how human society can be reminded of the dangers of war and nuclear detonation as the events head further and further into the past.<sup>16</sup> In addition, as discussed below, some of the contemporary works incorporate new digital technologies that change the way individuals interact with one another. This factor considerably influences my discussions of the works, particularly the methods of each work and how they function to establish relationships, which I discuss in regard to the *Global Hibakusha Project* and the use of social media in Section 2.5 of Chapter Two.

My time in Aotearoa New Zealand has further consolidated my anti-nuclear stance. For Japanese citizens who have inherited the experience of an atomic attack and the nuclear power-plant disaster at Fukushima, the nuclear-free policy of Aotearoa New Zealand is a treasured feat in a world threatened by nuclear harm. The work of tangata whenua and manuhiri in having successfully declared and applied their nuclear-free policy to their country and the surrounding region is a model case-study for Japan.<sup>17</sup> A similarly small island country in the Pacific, with

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<sup>16</sup> This is also an ongoing question in the field of nuclear-waste depository design. Radioactive waste remains hazardous for millennia; how can the dangers of depository sites be communicated throughout future generations? No recorded human language or civilisation has lasted for more than a few thousand years.

<sup>17</sup> I do not ignore the advantages New Zealand possesses in exercising political power as a colonial-settler state. As a Western state of predominantly British heritage, New Zealand undoubtedly had an advantage in executing diplomatic moves on the United States, compared to smaller island nations in Oceania of Indigenous populations. Moreover, 'Kiwi' opposition against nuclear testing in the Pacific was fuelled by the radioactive contamination of their immediate environment (as opposed to being elsewhere). As New Zealand historian Rebecca Priestley discusses in her book *Mad on Radium: New Zealand in the Atomic Age*, New Zealanders were not explicitly opposed to nuclear science before nuclear weapons testing began in their backyard. Rebecca

a population just four percent of that of Japan, Aotearoa New Zealand has exercised its sovereignty against American imperial militarism. I am encouraged by this history and the possibility that my research may contribute to Aotearoa New Zealand continuing to play a key role in nuclear disarmament.

As a result of being currently situated in Aotearoa New Zealand, I have limited the scope and focus of my research to nuclear activities within Oceania. The configuration of my Japanese heritage, my family's work in nuclear disarmament and Aotearoa New Zealand's anti-nuclear stance inform this positioning. Oceania is still heavily militarised by the United States and France, and is under urgent threat of further environmental, community and cultural damage. Oceania has also historically endured violence from peripheral, imperialist states (namely Japan and the United States) and colonising states (Britain and France), and has been subjected to numerous nuclear weapons tests, the repercussions of which still need appropriate acknowledgement and healing. My research's underlying aim of nuclear disarmament, therefore, is by extension inclusive of movements to demilitarise the region. Oceanian states are pushing to both exercise their right to determine how their land is used and stop any military exercises that cause further environmental damage, while also attempting to remove foreign bases from their lands in order to free themselves from being a target for adversaries. Accordingly, my research focuses primarily on examining works that are concerned with, and can provide acknowledgement and healing for, Oceania. In a related vein, this thesis uses place names that are either Indigenous or that acknowledge histories of imperialism in the region,

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Priestley, *Mad on Radium: New Zealand in the Atomic Age* (Auckland: Auckland University Press, 2012), 64–65, 81–82. Furthermore, there are examples of whitewashing New Zealand's anti-nuclear activism. For example, in 2020 the New Zealand beer company Steinlager produced an advertisement that romanticises a group of Pākehā activists undertaking a sea voyage to Moruroa to protest against French nuclear weapons testing. American researchers Sylvia C. Frain and Rebecca H. Hogue have critiqued the advertisement for ignoring the significant role Māori and Pasifika activists played in New Zealand's anti-nuclear movement. Sylvia C. Frain and Rebecca H. Hogue, "This Steinlager Ad Distorts the Truth About Nuclear Protests in the Pacific," *The Spinoff*, December 6, 2020, <https://thespinoff.co.nz/media/16-12-2020/this-steinlager-ad-distorts-the-truth-about-anti-nuclear-protest-in-the-pacific/>.

such as ‘French-occupied Polynesia.’ Oceanian experience of nuclear violence, shaped by its ongoing histories of military imperialism, is crucial to understanding how nuclear disarmament and demilitarisation may be achieved.

Given that my research is conducted from and for Oceania, it is framed by Oceanian methodology. As the following methodology chapter outlines, my research examines the selected works through Indigenous Hawaiian epistemology, as discussed by Hawaiian researcher Manulani Aluli-Meyer. I acknowledge that I am framing my research with a knowledge system that I was neither born into nor have inherited from my ancestors. My attempt to follow Aluli-Meyer’s thinking is influenced in part by my intercultural upbringing. During the time I spent in Aotearoa New Zealand, the Czech Republic, Japan, the United Kingdom and the United States, I have observed the international and cross-cultural effort that is required for global nuclear disarmament. Accordingly, I appreciate Aluli-Meyer’s openness in sharing her Indigenous wisdom with those whose roots do not necessarily connect to Oceania. As I discuss in the following chapter, Aluli-Meyer regards ‘Indigenous’ as that which endures.<sup>18</sup> Indigenous Hawaiian knowledge has endured as wisdom that has sustained life for thousands of years.<sup>19</sup> As nuclear proliferation threatens all forms of life, applying life-sustaining wisdom to disarmament efforts is an idea worth exploring. In this sense, my research is an instance of the cross-cultural effort required for global disarmament.

I explore the ways in which this Indigenous epistemology can guide interpretations of the creative works that effectively contribute to the nuclear disarmament and demilitarisation of Oceania. Indigenous Hawaiian epistemology contributes three sets of knowledge to my research: holographic epistemology, the seven foundational pillars of Hawaiian worldview and the intelligence of aloha. By applying these knowledge sets to my analyses of the selected

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<sup>18</sup> Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 231.

<sup>19</sup> *Ibid.*, 218.

creative works, my research aims to identify how and where the works align with the values of Indigenous knowledge, or possess the potential to further cultivate these values. Specifically, the value of relationships, land, interconnection and the utility of knowledge are epistemological ideas that have proved to be most significant in determining the selected works' capacity to contribute towards a realisation of nuclear disarmament. As I discuss in relation to each work, these factors are prompted by and function to activate the intelligence of aloha, the guiding principle of Indigenous Hawaiian epistemology.

Although Oceanian knowledge and history are crucial to nuclear disarmament, my personal anti-nuclear stance had consolidated long before I encountered them. Several personal experiences influenced my position on nuclear disarmament. My family and I happened to be in Prague in April 2009, when then President of the United States Barack Obama delivered his historical speech on nuclear disarmament. Squeezed into Hradčany Square in front of Prague Castle,<sup>20</sup> I tagged behind my family towards the speaker's podium. At that time, as a high schooler, the significance of that speech aligned with my simplified understanding of historical progress. More than a decade later, despite having learnt of the various hypocrisies of nuclear-state governments and the to-and-fro nature of social change, I still think of that experience as a critical event that demonstrated to me the possibility of nuclear disarmament. Being squashed by surrounding spectators, I listened to the head of the only state in the world to have used nuclear weapons in a military conflict denounce nuclear weapons for the first time in history. I was also fortunate to meet selfless activists, when I participated one year in the World Conference against A and H Bombs, which occurs in Hiroshima and Nagasaki every August. I was struck by the conviction of the activists, who relentlessly give their time and energy towards the disarmament cause, regardless of the unlikelihood that any decisive results would be observed in their lifetime. On their behalf, at the ceremony held at the Hiroshima Peace

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<sup>20</sup> The official office of the President of the Czech Republic.



Memorial Park, where participants write wishes for peace on candle-lit lanterns and release them onto the river, I wished for visible outcomes towards disarmament. I do this research in part to fulfil that wish, for my findings to be of use somehow to activists around the world, and the broader movement towards nuclear disarmament.

Radioactive materials and irradiated sites are not easily accessible, nor could they be described as desirable to visit. In this context, creative projects can mediate experiences of radioactivity. This mediation, in turn, can provide substituting sources for knowledge about lived experiences with radioactivity. Also, nuclear weapons tests are historical events, which can only be revisited via documentation, testimonies, imagined reproductions and the like. Accordingly, audiovisual time-based media appear to be most suitable and accessible for conveying lived experiences of these events. Moreover, these media accommodate subject matter that is often expressed via narrative means, such as personal anecdotes or witness accounts of nuclear violence. For these reasons, my research focuses on examining the selected creative works because of their employment of primarily audiovisual media. This focus, however, is not exclusive; the *Global Hibakusha Project* involves visits, interviews and workshops not rendered into audiovisual material; Mi's *24-08-1968*, while the video component is vital to the overall work, is ultimately a simulative installation; the monument in Tahua Tu-Marama, in Pape'ete, does not involve any audiovisual media in itself. Yet, for reasons of accessibility discussed previously, and the circumstances of the 2020 pandemic described to follow, audiovisual works dominate my research.

The outbreak of COVID-19 in early 2020 influenced the selection process of the types of works to examine in this thesis. Restrictions meant I could not physically visit institutions or places to view works. Tāmaki Makaurau Auckland was under some degree of lockdown for two thirds of the year, not to mention the continuous ban on overseas travel. Consequently, works that could be experienced online and at home via personal devices, without their

reception being restricted, were deemed a practical solution to these novel circumstances. The worldwide pandemic also accelerated the shift of much of daily life to online platforms. These happenings in the background informed my thinking on the relevance of digitised experiences in today's world. In this sense, albeit very different in nature, COVID-19 and radiation created similar situations in which reality became less directly accessible and increasingly mediated via digitised platforms.

These realities render an investigation into mediations of nuclear violence pertinent and timely. While achievements like the TPNW have brought renewed attention to the issue of nuclear disarmament, a significant volume of literature has been engaging with this issue since its inception. As expected, however, literature key to discussions on nuclear disarmament are not necessarily informed by, nor operate according to, the Indigenous Hawaiian epistemology that frames my research. Hence, the literature reviewed in Chapter Two includes material that is pertinent to my research because it functions as a type of cautionary tale. My literature review aims to demonstrate how certain theories or creative works do not align with the methodology of my research, in spite of being key contributions to discussions on nuclear disarmament and related issues. I use the term 'cautionary tale' in the context of literature that is inherently reflective of ideas that are in conflict with Indigenous Hawaiian values. This condition is first discussed with reference to the concept of the planetary. I examine scholarship that theorises the link between conceptualisation of the world as a whole and the development of nuclear technologies. I discuss scholarship on the Anthropocene in particular, and draw on critiques that problematise the Anthropocene narrative's tendency to distort wealthy nations' actions as an interest shared by the whole world. Specifically, the supposedly neutral scientific framing of the Anthropocene narrative is questioned for its portrayal of nuclear development as an endeavour of one homogenous human species. I counter-argue such conceptualisations of the global through Aluli-Meyer's discussions concerning the way in which Indigenous Hawaiian

knowledge understands the idea of the universal as an accumulation of differing particularities. In addition, I discuss Japanese artist Isao Hashimoto's video work, *1945-1998* (2003) as an example and manifestation of the problematic (Nuclear) Anthropocene outlined. I further present Hashimoto's militaristic visualisation of the world and the quantifiable expression he uses as approaches that are at odds with the aims of my research, even though his work critiques the worldwide proliferation of nuclear weapons.

My literature review also focuses on the way that spectacularisation of nuclear violence—and its alignment with ideas of the sublime—is a conventional trope found in many representations of nuclear weapons testing. I argue that such representations cannot contribute to nuclear disarmament. In particular, when representations are employed for purposes of activism, aesthetic qualities and methods of dissemination determine how the 'right' message can be communicated to the audience. I consider spectacular representations as cautionary tales for objectifying nuclear violence, which distracts viewers from developing critical empathy towards those affected by the damage caused.

This issue of objectification also applies to Oceanian experiences of nuclear weapons testing. My research identifies American researcher Elizabeth DeLoughrey's theory of irradiation as a cautionary tale. DeLoughrey's argument that irradiation renders an environment unfamiliar to its residents is mismatched with Oceanian ideas of belonging, attributed namely to Tongan scholar Epeli Hau'ofa. Literature of the former kind, that *about* and not *for* Oceania, is reminiscent of the imperialist treatment of the region as an experimental laboratory, where novel scientific and technological knowledge could be sought or tested. Literature that is for and from Oceania not only contrasts with the cautionary tales I discuss but also reverses their effects. The most pertinent effect in question is erasure, which is another ubiquitous reality associated with legacies of imperialism and nuclear weapons testing in Oceania. Erasure underlies discussions throughout this thesis, for example: attempts to erase the monument in

Tahua Tu-Marama and consequently memories of French testing; the silence and secrecy that witnesses of nuclear tests were sworn to by states responsible; deceptive propaganda campaigns that normalised and hid the harmfulness of militarised radiation; as well as the disappearance of homelands, relationships and cultures as direct results of nuclear weapons tests. Mi's photographic work *Le Goût de la Pureté* (2014) and the Instagram posts of Jetñil-Kijiner and Marshallese photojournalist and filmmaker Leni Leon are discussed as works that visualise various past and present mechanisms of erasure operating within militarised Oceania. Such mechanisms include, notably, the self-erasing tactics of imperialist Japan and the United States, as well as the Tahitian tourism industry that attempts to erase evidence of French nuclear weapons testing, and the loss of culture and community of Tinian Island in the Northern Marianas as threatened by the construction of US military bases.

While the literature review presents cautionary tales, the three core chapters of my thesis explore works that can contribute to efforts towards nuclear disarmament. These chapters loosely follow the main topics covered in the literature review, and function as parallel discussions that identify how the works in question are conducive to nuclear disarmament and align with the teachings of Indigenous Hawaiian knowledge. Chapter Three, "Global and Planetary Nuclear Experience," focuses on the conceptualisation of the world as a whole in relation to the planetary nuclear capacity. I discuss Broderick and Jacobs' oral history project, the *Global Hibakusha Project*, and its embodiment of the value of relationships. Their project leads to an understanding of planetary nuclear impact by creating human connections between hibakusha and associated parties across the globe. In contrast to the visually oriented construction of the globe that I problematise in the literature review, the *Global Hibakusha Project* and the monument in Tahua Tu-Marama discussed in this chapter conceptualise a world comprised of relationships that enable interconnection and care. These relationships function as foundations for building solidarity for nuclear disarmament. I argue that the capacity of both

works to establish this foundation exemplifies the ways in which creative works can contribute to nuclear disarmament.

Not all creative works can rely on a relational approach and provide opportunities for face-to-face interaction and relationship building. For this reason my research includes an exploration of works whose effects derive from visual and sensorial qualities. In Chapter Four, “Healing From Heliotrop-ic Violence with Aloha: Embodied and Sensorial Representations of Nuclear Harm,” I examine Mi’s video installation *24-08-1968*, which reproduces a view of the ocean surface shimmering with sunlight in the Tuamotu Archipelago, a former nuclear test site in French-occupied Polynesia. Given the dominance of spectacularising methods of representing nuclear violence, I ask how creative works that are primarily composed of sensorial effects can contribute knowledge towards nuclear disarmament. I argue that within Indigenous Hawaiian knowledge, intentions shape realities, which reminds viewers to look beyond surface aesthetics to the sinister intentions behind nuclear weapons tests. This chapter also discusses how Mi’s immersive and simulative work engages with erasure. The artist refers to a heliotrope in the installation, a solar metaphor employed by the United States to portray radiation as natural and as safe as the sun’s rays, obscuring the truth about radiation’s harm. Another layer of erasure alluded to in the work is the relatively slow and imperceptible nature of irradiation, which renders it near invisible and difficult to represent. Extra attention and effort are required by viewers to see these mechanisms of erasure; the key finding of this chapter implies that notions of care, as valued by Indigenous Hawaiian epistemology, can assist in identifying capacities for healing in aesthetically driven works like *24-08-1968*.

Jetñil-Kijiner’s video poem *Anointed* differs from the works discussed in Chapters Three and Four, in the way it appears to incorporate Indigenous Hawaiian epistemology into its creation. The video poem captures the poet’s visit to Runit Island, a former US nuclear weapons test site, in an act of mourning and remembering the island as a casualty of the tests.

Chapter Five, “Mourning, Remembering and Reviving Lost Stories: Storytelling in Irradiated Oceania,” discusses storytelling as an artistic method that inherently activates and practices the values outlined in Indigenous Hawaiian epistemology. The value of relationships is evident within acts of storytelling, and is intrinsically reciprocal; storytelling can occur only in the presence of both the storyteller and the listener(s). The knowledge conveyed in a story, therefore, is already contextualised by this relationship. The story told by Jetñil-Kijiner incorporates knowledge of an island which, by extension, includes Marshallese culture that by being shared is kept from disappearing. The Marshallese perspective the poet employs in her story also functions to undermine the US narrative that dominates historical records of the testing. In this way, *Anointed* exemplifies the capacity of creative works to contest imperial histories, and revive and preserve affected cultures, all while practising an epistemology that can counteract the worldviews and logics that produced and justified nuclear violence in Oceania. For these reasons, I consider *Anointed* to be an ultimate exemplar that supports my research in attesting to how the combination of creative works and Indigenous Hawaiian epistemology can contribute to achieving nuclear disarmament and demilitarisation in Oceania. A detailed discussion on how this epistemology is consequential for the aim of nuclear disarmament takes place in the following chapter. My research operates within the configuration of creative works, disarmament efforts and Indigenous Hawaiian epistemology. I identify with and explore the values and ideas that are produced as a result of this configuration. My discussions within this thesis demonstrate my learning and practicing of an Indigenous Hawaiian approach to understanding creative efforts towards disarmament.

## CHAPTER ONE

### METHODOLOGY: MANULANI ALULI-MEYER AND INDIGENOUS HAWAIIAN WISDOM

Manulani Aluli-Meyer is a researcher who focuses on Indigenous Hawaiian epistemology.<sup>21</sup> Aluli-Meyer's thinking expands into philosophical, political and cultural discussions concerning contemporary knowledge production. Fundamentally, her positioning of Hawaiian knowledge posits Western epistemology as but one way of understanding the world, and not *the way*.<sup>22</sup> Characteristic features of Western epistemology—particularly its strong belief in rationality and empiricism—and capitalist logic are questioned for producing a contemporary society that cannot advance beyond unsustainable consumption.<sup>23</sup> The dominance of Western epistemology as an aspect of colonisation and imperialism is also not forgotten by the author. In this sense, her writing is a guide to anyone who seeks an epistemology that can overcome the limits of empiricism and of defining knowledge in terms of its servitude to a capitalist society, and ensure the survival of Indigenous knowledge in the process of decolonisation.

My research draws on several of Aluli-Meyer's texts, most notably her essays "Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning" in *Handbook of Critical and Indigenous Methodologies* (2008), "Hawaiian Hermeneutics and Triangulation of Meaning" (2003) and "Holographic Epistemology: Native Common Sense"

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<sup>21</sup> Underlying her research is an interest in reforming the Hawaiian educational system for Indigenous youth. The dominant worldview behind the American education system that is imposed onto Hawaiian schools is at odds with Hawaiian ways of acquiring knowledge and verifying intelligence. The misalignment is negatively impacting the Indigenous communities of Hawai'i, as their children struggle to make sense of mainstream American society operating on a worldview that is indifferent to their ancestral knowledge. In the worst cases, the dominance of a foreign worldview poses a serious threat to their wellbeing.

<sup>22</sup> In a similar notion to what Dipesh Chakrabarty has referred to as "provincialising Europe." Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference* (Princeton; Oxford: Princeton University Press, 2000), 43.

<sup>23</sup> Manulani Aluli-Meyer, "Hawaiian Hermeneutics and Triangulation of Meaning: Gross, Subtle, Casual," *Social Justice* 30, no. 4 (2003): 56.

(2013). In these texts, Aluli-Meyer covers three lines of thinking within Indigenous Hawaiian epistemology: these are holographic epistemology, the foundational pillars of Indigenous Hawaiian epistemology and the intelligence of aloha. Holographic epistemology is a tripartite approach to knowing. Aluli-Meyer distinguishes the body, the mind and the spirit as three distinct yet complementary capacities for producing and attaining knowledge. Like a hologram, holographic knowledge is complete when all three capacities come together. I draw on this epistemology to critique ways of knowing that privilege the body exclusively. Empirical knowledge belonging to the hard sciences engages only with the body, and is most often expressed in quantifiable forms.

The foundational pillars of Indigenous Hawaiian epistemology focus on values that guide the production and sharing of knowledge. Gathered from twenty kupuna and kumu (elders and teachers) interviewed by Aluli-Meyer, the seven pillars can be described as values or wisdom that guide epistemological endeavours to serve and benefit those involved in an enduring manner.<sup>24</sup> Holographic epistemology and the seven pillars, as methods and values, respectively function to enable the intelligence of aloha, the third and foundational component of Indigenous Hawaiian epistemology. Aloha, the underlying value of empathy, care and compassion that all knowledge aims to enable, is a driving force for the Hawaiian knowledge system. Aloha is also pertinent to my research as a method, in which selected works are examined always for their capacity to enable and practice aloha. This chapter introduces the three epistemological framings Aluli-Meyer presents, along with how and why they are the methodological framing of my research.

Holographic epistemology is a way of accessing knowledge through the capacities of the body, mind and spirit. These capacities are distinct from each other, yet they simultaneously

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<sup>24</sup> Manulani Aluli-Meyer, "Our Own Liberation: Reflections on Hawaiian Epistemology," *The Contemporary Pacific* 13, no. 1 (2001): 124–148, <https://doi.org/https://doi.org/10.1353/cp.2001.0024>.



constitute one another. Correspondingly, there are three respective realms to each capacity: the realm of the body that can be perceived by physical senses; the realm of the mind that engages intellectual, subjective and mental capacities; and the spiritual realm that connects living forces together beyond bodily and mental limitations. Each capacity can be engaged with to experience the world and its various realms. Aluli-Meyer refers to this tripartite epistemology as a triangulation, reflecting the mutually complementary relationship each capacity/realm has with one another.<sup>25</sup> She also uses the term “holographic epistemology,” employing the hologram as a metaphor to explain how the triangulation functions.<sup>26</sup> In “Holographic Epistemology: Native Common Sense” (2013), Aluli-Meyer likens the capacities and realms to the three laser beams of a holographic image. All three beams are necessary for producing a complete three-dimensional image. In much the same way, the body, mind and spirit come together to constitute fuller, more holistic knowledge. Accordingly, holographic epistemology is suitable for exploring nuclear issues, as the planetary impact of nuclear activities and the unimaginably long duration of radioactive contamination evade ordinary human scale and perception. An active engagement with capacities other than the body—the “beam” responsible for physical, tangible, empirical knowledge—is required when dealing with nuclear phenomena. This approach challenges the dominance of the role of empiricism within non-Indigenous epistemologies.

Knowledge acquired via the body beam equates to embodied knowledge. Aluli-Meyer describes the beam as a foundation of natural sciences, including the physical properties of the world that can be perceived, measured and verified empirically.<sup>27</sup> Indigenous epistemology values embodied knowledge as the necessary foundation for direct interactions with the

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<sup>25</sup> Aluli-Meyer, “Hawaiian Hermeneutics and Triangulation of Meaning: Gross, Subtle, Casual.”

<sup>26</sup> Manulani Aluli-Meyer, “Holographic Epistemology: Native Common Sense,” *China Media Research* 9, no. 2 (2013): 96.

<sup>27</sup> Ibid.

world.<sup>28</sup> Knowledge attained through this beam counts as a “knowing because it has been encountered, registered and remembered in bone and muscle.”<sup>29</sup> Accordingly, much expectation and responsibility are placed on this beam. As the realm that is seen, heard, smelt, tasted and touched, it is occupied by tangible outcomes that can be perceived. Consequently, the body is privileged over other ways of knowing, particularly within non-Indigenous epistemologies. Such privileging overlooks the limitations of the body beam, especially in regard to issues of nuclear violence. Radiation, for example, is arguably imperceptible to human senses, yet it affects human bodies in all its material states. Accordingly, Aluli-Meyer advocates for acknowledging and cultivating capacities to engage with realms of the mind and spirit, to fully access what exists in this multifaceted world. Employing holographic epistemology in learning from creative projects concerned with nuclear weapons testing results in identifying works—or specific aspects of a work—that may be lacking equal engagement with the three beams of the body, mind and spirit. I suggest that creative works that extend empirical knowledge and experiences to include mindful and spiritual ones are able to engage with nuclear issues more holistically, in spite of radiation having no literal sound, smell or taste.

Holographic epistemology recognises that the external world cannot avoid being processed internally and subjectively by individuals or cultures. The beam of the mind transforms hard empirical facts into subjective interpretations; the mind reflects on the knowledge attained from the physical world. Aluli-Meyer calls subjectivity the “nuance of fact” and states that human senses are culturally configured; different cultures will perceive the same physical world differently.<sup>30</sup> This idea is applicable on an individual level also, as Aluli-Meyer demonstrates:

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<sup>28</sup> Ibid.

<sup>29</sup> Ibid.

<sup>30</sup> Aluli-Meyer, “Hawaiian Hermeneutics and Triangulation of Meaning: Gross, Subtle, Casual,” 59; Manulani Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” in

This contextualises the once static notion of empiricism that believes you and I see the same cornfield. It's the maturing of objectivity into subjectivity. It is experience that tells the farmer his cornfield is in need of calcium and water as I, the beach rat from Kailua, notice nothing.<sup>31</sup>

Aluli-Meyer makes clear that body and mind are inseparable, when she states that the mind "is the same as the body, just from an inside vantage-point."<sup>32</sup> She demonstrates the conjoined state of the body and mind through the Hawaiian idea of na'au, which indicates the stomach region.<sup>33</sup> It is also the root word for wisdom, na'auao, which translates to "enlightened intestines."<sup>34</sup> The mind knows through the body, and the body knows as does the mind. Moreover, na'au is also the Hawaiian word for heart. Feeling, emotion and intelligence integrate into na'au. As she put it, "our thinking body is not separated from our feeling mind",<sup>35</sup> the body thinks, and the heart knows.

The spirit is the final and culminating beam of holographic epistemology. Aluli-Meyer's explanation of the spirit in regards to academic research is most relevant for my project. She describes that the spirit activated in research is an 'ah-ha' moment, the kind of contemplation that results in insight, grounding and interconnection.<sup>36</sup> I understand her to mean that insight is a deepened understanding or a realisation, while grounding is the calmness or steadiness one gains from understanding truths, and interconnection is the linking of one's work or aim with a goal shared by the wider world, outside of oneself. This last point, interconnection, is a crucial concept that I have learnt from Aluli-Meyer and applies to the way I position the issue of nuclear disarmament within this thesis. The spirit is what creates

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*Handbook of Critical and Indigenous Methodologies*, ed. Norman K. Denzin, Yvonna S. Lincoln, and Linda Tuhiwai Smith (Thousand Oaks, CA: SAGE Publications, 2008), 220.

<sup>31</sup> Ibid.

<sup>32</sup> Aluli-Meyer, "Holographic Epistemology: Native Common Sense," 97.

<sup>33</sup> Ibid.

<sup>34</sup> Ibid.

<sup>35</sup> Aluli-Meyer, "Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning," 223.

<sup>36</sup> Ibid., 229.

knowledge that endures and extends rather than accumulates.<sup>37</sup> Knowledge accessed with and through the spirit extends and continues far beyond the lifespan of one generation. As Aluli-Meyer states, “Knowledge as a ‘sequence of immortality’ summarises this sense of spiritual continuity, as does the notion that we, by ourselves, cannot bring about the kinds of knowing that endure.”<sup>38</sup> The force that connects individuals together, beyond themselves, their place and time is the interconnection that defines the spirit. In this sense, I understand nuclear disarmament as spiritual work, something that requires continuous global effort and expands across multiple generations. For example, the activists I have met at the annual World Conference against A and H Bombs are engaged in this spiritual work, spending their lives working towards disarmament for times and generations beyond themselves.

Both the spirit and holographic knowledge suggest a radically different method to approaching disarmament. Current disarmament policies are established upon tangible reality, in other words, constrained within the realm of the physical world.<sup>39</sup> Nuclear deterrence, for example, relies on nuclear states possessing—or at least claiming to possess—actual, deployable weapons in order to discourage adversaries from acts of aggression. Similarly, the idea of Mutually Assured Destruction (MAD) is theorised on physical annihilation as the ultimate criterion; the crux of the dilemma is reduced to physical properties.<sup>40</sup> These ideas demonstrate that the global nuclear order operates on a logic that is highly contrasting to Indigenous Hawaiian thinking that values interconnectedness and the spiritual world. A disarmament strategy that incorporates these values would expand the criteria for disarmament beyond physical repercussions and the rhetoric of aggression.

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<sup>37</sup> Ibid., 218.

<sup>38</sup> Aluli-Meyer, “Our Own Liberation: Reflections on Hawaiian Epistemology,” 128.

<sup>39</sup> As is the international security system established by major military states and alliances of the Global North.

<sup>40</sup> MAD, a military strategy doctrine and a security policy, posits that in the case of a nuclear war, where full-scale use of nuclear weapons is employed by two or more opposing states, all sides will be completely annihilated.

The stark contrast between Indigenous Hawaiian values and the worldviews informing contemporary global nuclear policies is evident in a recent publication by the UK government, in which they announced their decision to halt their progress towards disarmament. The language used in *Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy*, published in March 2021, reflects the British state's perspective of the world as an assemblage of independent nations who are identified as either allies or adversaries. There is an absence of the idea that others are an extension of oneself, towards whom care—the same care that one would practice on oneself and one's kin—can be extended. Interconnection teaches that harm done to others is harm done to oneself; given that armament premises potential aggression, the act is in opposition to respecting and implementing the lesson of interconnectedness. In the United Kingdom's announcement, each world state is assumed to exercise their right to pursue their interests, as is evidenced by the UK:

Some states are now significantly increasing and diversifying their nuclear arsenals. They are investing in novel nuclear technologies and developing new 'warfighting' nuclear systems which they are integrating into their military strategies and doctrines and into their political rhetoric to seek to coerce others ... the UK's *independent* nuclear deterrent has existed for over 60 years to deter the most extreme threats to *our* national security and way of life, helping to guarantee *our* security and *that of our Allies*.<sup>41</sup>

Their solution to this threat is one of deterrence: "we must be able to deter the most extreme acts of aggression against us and our NATO Allies."<sup>42</sup> This belief justifies the United Kingdom's decision to rearm in response to other states' dismissal of international efforts to contain nuclear proliferation. The UK government states that "in recognition of the evolving

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<sup>41</sup> [My italics]. "Our Allies" signify NATO states. Her Majesty's Government, *Policy Paper. Global Britain in a Competitive Age: The Integrated Review of Security, Defence, Development and Foreign Policy* (London: Her Majesty's Government, 2021), 75, <https://www.gov.uk/government/publications/global-britain-in-a-competitive-age-the-integrated-review-of-security-defence-development-and-foreign-policy>.

<sup>42</sup> Ibid.

security environment ...<sup>43</sup> [their prior commitment to reducing their stockpile to no more than 180 by the mid-2020s] is no longer possible.”<sup>44</sup> The island nation possessed the smallest stockpile of any nuclear state recognised by the Nuclear Proliferation Treaty. Yet, in a world where physical prevention has greater credibility than compliance towards respecting interconnectedness, rearming in the face of observed threat is deemed a sensible response for UK foreign-policy makers. As impractical as it may sound, especially given the current state of international politics, this thesis sets out to imagine spiritually engaged disarmament as a daring proposal. That said, I also acknowledge that it is extremely difficult to trust nuclear states to give up concrete and physical defense as a strategy for deterrence and to honour and value the interconnection of life. Yet, as is proven by the theory of MAD, withholding nuclear aggression with equal retaliation does not ensure the continuation of human life. The world has yet to see whether mutual peace can be maintained, let alone realised, without concrete nuclear deterrence. This is the goal towards which the spirit plays a crucial role and one that holographic epistemology opens up possibilities towards.

This significance of the spirit in the effort towards disarmament is one reason why I have worked with Indigenous Hawaiian epistemology as the framework for my research. This thesis, therefore, is in part an exploration of the extent to which an epistemology that incorporates the spirit can contribute to disarmament. However, as Māori scholar Linda Tuhiwai Smith observes, the spirit is still a mystery to non-Indigenous cultures. As she states:

The values, attitudes, concepts and language embedded in beliefs about spirituality represent, in many cases, the clearest contrast and mark of difference between indigenous peoples and the West. It is one of the few parts of ourselves which the West cannot decipher, cannot understand and cannot control ... yet.<sup>45</sup>

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<sup>43</sup> The publication further cites emerging new nuclear states and state-sponsored nuclear terrorism, as well as the enhancement of nuclear technologies in major nuclear states and their implementation into those states’ military strategies, as reasons to update their arsenal in order to meet such threats.

<sup>44</sup> Her Majesty’s Government, 75.

<sup>45</sup> Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples*, Second ed. (Dunedin: Otago University Press, 2012), 143.

Accordingly, as I am not from an Indigenous Oceanian community,<sup>46</sup> it is possible that my understanding of the spirit differs from that discussed by Aluli-Meyer, despite my efforts to follow her discussions. Although my position implies a limited interpretation, I propose that my understanding of spirit is driven by my aims to achieve disarmament, which I believe is not in opposition to interests of Indigenous Oceanian communities. For example, disarmament and demilitarisation are crucial aspects of Oceanian sovereignty, as they ensure that the region's environments and communities are not exploited for military or commercial purposes that serve external interests. Moreover, Aluli-Meyer encourages acknowledging subjective interpretations, as discussed previously in regard to the beam of the mind. Incorporating the spirit into my analyses of selected works, whilst being aware of my subjective take on the spirit, is a deliberate method that I therefore employ in my research. This method accommodates the way in which the mind beam functions in my holographic understanding of the spirit in relation to nuclear disarmament.

Equally crucial to Indigenous Hawaiian epistemology are its seven foundational pillars. These pillars reflect what is valued by Indigenous Hawai'i in processes of knowing and understanding.<sup>47</sup> In addition, some key ideas, albeit expressed as specifically Hawaiian, are shared by other Oceanian cultures, namely Mā'ohi of Mā'ohi Nui and Māori in Aotearoa. The pillars consist of:

1. Spiritually driven knowledge
2. Physical place and knowing (the importance of land in knowing)

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<sup>46</sup> Neither do I belong to a culture that follows the dominant Western epistemology; as I grew up in five different countries across four continents, my worldview is a mixture of Western and Eastern (Japanese) ideas.

<sup>47</sup> Aluli-Meyer, "Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning," 218.

3. Culturally configured empiricism
4. Relationships that shape knowledge
5. Utility of knowledge
6. Intention (causality in language)
7. The unification of the body and mind

The first pillar has already been discussed through the ideas of holographic knowledge, as have been the third and seventh. Holographic knowledge and the seven pillars are interdependent in Indigenous Hawaiian epistemology, and, as this thesis argues, integral to understanding how creative works can contribute to disarmament.

The importance of land is especially crucial to the creative works discussed in this thesis. Land, or place, is a contextualising factor in processes of knowing that informs how and what can be learnt. Learning occurs in a variety of places; learning from land involves recognising these places and how they have shaped the knowledge generated or shared.<sup>48</sup> For Indigenous Hawaiian epistemology, land is in this sense a teacher, as it is a mother. Land is a place of origin and growth that shapes one's consciousness.<sup>49</sup> Land does not only refer to a physical locale but any place in which learning takes place. Works discussed in this thesis are examined in terms of how they consolidate or make use of the value of land in processes of knowing that can contribute to disarmament.

The monument in Tahua Tu-Marama recognises the importance of the relationship of land to knowing, as evidenced by the display and commemoration of stones from former nuclear explosion sites in Russia and Japan. The monument values the stones as land that

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<sup>48</sup> Ibid.

<sup>49</sup> Ibid., 219.



possesses history and knowledge, brought to Pape‘ete to create a place to memorialise victims of nuclear explosions. Contestation over this site, between Tahitian activists and politicians siding with the French motherland, attests to the significance of place in enabling access to knowledge. The naming and renaming of the square, from Place Jacques Chirac to Place du 2 Juillet 1966, is part of this contestation.<sup>50</sup> For this reason, I use the following place names in this thesis: ‘Oceania’ instead of ‘the Pacific Islands’;<sup>51</sup> ‘the Pacific’ to refer to the wider geographical region of the Pacific Ocean, in discussions that include countries such as Japan and the United States; ‘Moruroa’ (Mā’ohi) instead of ‘Mururoa’ (French); ‘French-occupied Polynesia’ instead of ‘French Polynesia,’ when I discuss nuclear legacies in the region and refer to its colonial histories; ‘Mā’ohi Nui’ when discussions refer to exclusively Indigenous matters (the same logic is applied to ‘Aotearoa’ and ‘New Zealand,’ and to ‘The Marshall Islands’—officially ‘The Republic of the Marshall Islands’ or ‘Aolepān Aorōkin M̧ajeļ’ in Marshallese, however, in this thesis, all discussions about the island country relate to its histories as an associated state of the United States). In connection, the erasure of land is also related to this second pillar. For example, both *24-08-1968* and *Anointed*—discussed in Chapters Four and Five, respectively—address the erasure of land and its peoples caused by nuclear weapon testing. The artwork *24-08-1968* reclaims damaged land through the imagination while being a place itself for further learning. *Anointed* functions to remember and revitalise lost land, which, in doing so, demonstrates the capacity of land to hold historical and cultural knowledge and relationships to people and their culture. The naming, reclamation,

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<sup>50</sup> Jacques Chirac was a former French President who resumed nuclear weapons testing in Moruroa in 1995 (see Footnote 10).

<sup>51</sup> Another relevant term is ‘Te Moana-Nui-a-Kiwa,’ the Māori term for the Pacific. Using this term in this thesis was considered as a method to acknowledge Aotearoa New Zealand as the place where I conducted this research. However, I have opted for ‘Oceania’ in support of Hau‘ofa’s thinking behind the term, which he outlines in *We Are the Ocean* (2008); the term was conceived to empower the region, as I discuss in Section 2.4 of Chapter Two. Epli Hau‘ofa, *We Are the Ocean: Selected Works* (Honolulu: University of Hawai‘i Press, 2008).

remembrance and revitalisation of land is vital to healing from the damage caused by nuclear weapons testing.

The fourth pillar, relationships, is another epistemological factor that determines what kinds of knowledge are accessed and how. Indigenous Hawaiian epistemology observes that knowledge arrives through relationships one has with people and places, current and gone. This pillar is relevant to the idea of interconnection discussed previously, where knowledge is an extension that is enriched, validated and challenged by multiple groups and their standpoints.<sup>52</sup> Relationships change those involved in the exchange; this is a way of knowing that Aluli-Meyer refers to as “self through other.”<sup>53</sup> What is learnt is an extension of the relationship that enabled that learning in the first place.

For my research, considering this pillar has meant acknowledging my lack of certain relationships, which has made some knowledge inaccessible to me. As I discuss in Chapter Three, the creators of the *Global Hibakusha Project* made the outcome (a series of recorded interviews with hibakusha) accessible only to those with relationships to the hibakusha community, and under the condition that explicit permission is given by the interviewees or their community. This criterion was also extended to the creators; Mick Broderick and Robert Jacobs ensured they had established relationships with the hibakusha before conducting interviews. Accordingly, I can only access these interviews if I establish a meaningful enough relationship with hibakusha communities. A relationship that entails care is deemed meaningful; such a relationship ensures that the hibakusha’s experiences and stories are treated with adequate care. A meaningful relationship therefore, aligns with and practices the principle of aloha. This situation demonstrates the way in which Indigenous Hawaiian epistemology is

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<sup>52</sup> Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 221.

<sup>53</sup> Ibid.

a viable framework for research aiming to contribute to meaningful disarmament.<sup>54</sup> The required consent for disseminating the interviews gives hibakusha control of the representation of their stories and experiences. Their stories, which function to deter further nuclear proliferation and testing, can be shared in ways that they intend. This condition is maintained within the network of relationships between hibakusha and the individuals given permission to share their stories. Retaining hibakusha's stories within networks of people working on the side of disarmament prevents the stories from being used counterproductively. Hibakusha's narratives can be protected from other parties, the most likely one being the state, who may be aiming for (re)armament and trying to distort voices of opposition to fit their narrative.

The value Indigenous Hawaiian epistemology places on relationships is further reflected in my research, in which I explore the relationships artists have with certain locations. For example, Kathy Jetñil-Kijiner's relationship to Runit Island is relationally specific. I have found that relationship informs nearly everything in *Anointed*: the location of the shoot, the content of her poem, the way Jetñil-Kijiner addresses the island, and her critique of the US nuclear testing. Jetñil-Kijiner also manages to (re)establish relationships through *Anointed*, between herself, the affected island and the Marshallese people more broadly. Jetñil-Kijiner's intention to establish relationships and reinforce their value contributes to disarmament. Relationships extend care between the parties involved; through relations, one is brought into another's existence. Valuing relationship with Runit Island, therefore, increases the protection over it and the parties within that relationship, as more parties look out for and take care of each other. Contrarily, a lack of relations can result in indifference, which risks rendering parties vulnerable to danger. A proof of nuclear violence—be it from individuals, locations or stories—with fewer connections, lacking in strong ties to others within its network of relations,

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<sup>54</sup> Moreover, the factor of relationship also demonstrates how Indigenous Hawaiian epistemology ensures an ethical practice. My restriction in accessing or using hibakusha's anecdotes can be equally discussed in terms of ethics as well as an epistemologically oriented method.

has a higher possibility in being obscured. With less of the world aware of its existence, the risk of nuclear violence recurring increases. For Jetñil-Kijiner, the video poem is not a one-off visit to Runit Island but a restoration of a valuable relationship that can heal from and prevent further nuclear weapons testing. Applying the pillar of relationships to understanding *Anointed* exemplifies the ways in which Indigenous epistemology opens up ways of utilising knowledge towards nuclear disarmament.

The idea of the utility of knowledge helps to define and validate certain knowledge as knowledge. The seven pillars presented by Aluli-Meyer qualify as knowledge because they have proven their utility over time. This wisdom—that real knowledge is useful—is one of the pillars that underlies Indigenous Hawaiian epistemology and is applied to my exploration of the selected works’ potential to contribute towards disarmament. I consider this factor of practical utility in assessing how the works support the disarmament aims of my research. Aluli-Meyer observes that utility differentiates knowledge from mere information.<sup>55</sup> Information is without function or application in real life, whereas knowledge is useful when applied to practical, everyday life.<sup>56</sup> Usefulness of knowledge also determines what knowledge is worth passing on. In this sense, knowledge is what has continuously proven to be useful throughout generations. The meaning of ‘Indigenous’ is explained in this way: Aluli-Meyer states that “indigenous is simply a synonym for *that which has endured*.”<sup>57</sup> Endurance and utility are mutually dependent factors, both of which are attributed to Indigenous knowledge. Applying Indigenous Hawaiian epistemology in my research allows me to identify useful and enduring knowledge in realising disarmament, such as know-how on successfully gaining compensation for health problems caused by nuclear weapons testing.

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<sup>55</sup> Aluli-Meyer, “Our Own Liberation: Reflections on Hawaiian Epistemology,” 137.

<sup>56</sup> Ibid.

<sup>57</sup> Aluli-Meyer, “Holographic Epistemology: Native Common Sense,” 5. [Author’s italics].

The idea of intentions is another epistemological concept that has proven its utility, as Aluli-Meyer argues. This pillar teaches that the intention behind an action shapes the outcome, thus intentions must be known and considered in assessing actions or outcomes. This teaching is tied to the Indigenous Hawaiian idea that the body and mind are not separate; what the mind intends manifests as its embodiment.<sup>58</sup> Aluli-Meyer notes that this knowledge of intentionality is becoming less prominent amongst her kupuna/kumu,<sup>59</sup> yet observes that numerous Indigenous scholars, quantum physicists, mothers and social scientists recognise its power.<sup>60</sup> Indeed, as observed by Aluli-Meyer, the wide recognition that thoughts can cause effects attests to its utility. For my research, the pillar of intention functions as an important reminder to actively seek out historical contexts or developments behind depicted blasts or similar representations. No matter how much State rhetorics attempt to justify the testing and the various side effects and aftermaths it brought about, no matter how sublime or spectacular nuclear science and technology may appear, the fact remains that the events of nuclear weapons testing were born out of intentions to kill. My discussion of *24-08-1968* involves precisely this engagement with the pillar of intention. This approach is all the more imperative when examining sensorial artworks like *24-08-1968*, with its strong aesthetic effect. My research considers any work that does not address the violent intention to be inadequate for the aims of disarmament.

Holographic epistemology and the seven pillars of Indigenous Hawaiian epistemology culminate in one underlying purpose, the intelligence of aloha. Aloha informs the Indigenous Hawaiian worldview, and is produced by it. The intelligence of aloha can be reached by engaging with the epistemology as a way of life; Aluli-Meyer describes aloha as the origin of

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<sup>58</sup> Aluli-Meyer, "Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning," 222.

<sup>59</sup> Ibid.

<sup>60</sup> Ibid.

Hawaiian intelligence.<sup>61</sup> Aloha is closely linked to the spirit, interconnection and relationships, integral components of Indigenous Hawaiian epistemology discussed previously. Aloha requires these components to be active in order to endure as intelligence across generations; each living person is a part of past and future kin, a link in a long line of connected lives, including the land and places that enabled, and will enable, these lives. Knowledge that endures is passed along this line, shaped by every relationship that connects each link. Living persons engage with this interconnection with their spiritual capacities. To practice this intelligence of aloha means to act with compassion, empathy and care, and to base everyday living upon these principles.<sup>62</sup> Needless to say, the development and use of nuclear weapons go against these principles. Healing from nuclear violence then requires aloha as its basis, as does the prevention of the continuation and possible recurrence of this violence. As such, aloha as a foundational principle underlies this thesis, in which each argument aspires to practice the intelligence of aloha. In this sense, aloha is a method in my research as well as a methodological framing; in addition to seeking, in selected works, opportunities to practice aloha, I look for ways to analyse the works with care, empathy and compassion.

Aloha is evident in the way Aluli-Meyer shares with others what was shared with her concerning Indigenous knowledge. She reverberates aloha in her address to her readers, as seen, for example, in the closing lines of one of her discussions: “Mahalo for sharing the space and making the time ... May you know your own brilliance. May it lead to collective joy.”<sup>63</sup> I also appreciate the inclusive manner she adopts in her writing, whereby her address is not exclusive to Indigenous readers or researchers. Understandably the main audience *is* Indigenous, but she recognises “change agents, ... cultural leaders and transformational scholars” in addition to

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<sup>61</sup> Ibid., 231.

<sup>62</sup> Ibid., 221.

<sup>63</sup> Ibid., 230.

Indigenous researchers who are receptive to her ideas.<sup>64</sup> This inclusion is of significance to me, as I am non-Indigenous to Oceania.

Aluli-Meyer's definition of Indigenous is not based solely on place, race or identity, but a capacity: she describes Indigenous as something that can endure.<sup>65</sup> In this sense, knowledge systems and worldviews that have produced nuclear weapons and justify their use are epistemologies that cannot last. Aluli-Meyer's invitation to practice Indigenous knowledge is a gesture I feel enabled to accept even as a person non-Indigenous to Oceania. Yet my choice to explore a Hawaiian epistemology is not based on any distinctly Hawaiian histories, politics or positioning in regard to disarmament. I do not consider the issue of nuclear disarmament to be a particularly Hawaiian one, any more than it could be a Japanese or a New Zealand one. Each nation in Oceania has its unique experience of military imperialism within the region.<sup>66</sup> As Aluli-Meyer explains, the particularly Hawaiian aspect of the epistemology is rather a culturally specific expression of enduring knowledge, one that I have found to be relevant to nuclear disarmament.

As knowledge that has endured, Indigenous Hawaiian epistemology is not new. Yet, as Aluli-Meyer reminds her readers, a little remembering is needed to uncover some familiarity with the epistemology.<sup>67</sup> In Hawai'i, as is the case with other nations in Oceania, years of foreign intrusion have concealed the wisdom that has previously led the culture. "Power,

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<sup>64</sup> Ibid., 225.; An example of a distinctly different address is found in the highly influential book by Linda Tuhiwai Smith, *Decolonising Methodologies: Research and Indigenous Peoples* (2012). Her address in the first part of the second edition is clearly aimed at non-Indigenous researchers and institutions who, unknowingly or not, perpetuate colonial practices in their research on Indigenous peoples, cultures and knowledge. Smith protects the Indigenous world from further damage, as well as defending Indigenous methods of research in academia dominated by Western conventions.

<sup>65</sup> Aluli-Meyer, "Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning," 231. She elaborates further on the idea that "We are all Indigenous," borrowed from Kahuna Hale Makua, her elder and a teacher and leader to people in Hawai'i and worldwide.

<sup>66</sup> While Hawai'i has never experienced a nuclear detonation, it has been deeply involved in the militarisation of Oceania through American military occupation. Hawai'i continues to be a heavily militarised state, with a history of being caught between American and Japanese military imperialism.

<sup>67</sup> Aluli-Meyer, "Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning," 218.

hegemony, colonialization, racism, and oppression” are “acts of denial” that have attempted to dismiss the validity of the wisdom they attempted to oppress.<sup>68</sup> Consequences of such hegemonic, colonising and racist histories are perpetuated in the ongoing military and capitalist imperialism that affects the region today. The continuation of Oceania’s militarisation, justified by the rhetoric of security, is a contemporary example of such a consequence. In exchange for protection from potential hostility, military control and political influence over the region is advocated and asserted. This takes place while a generation of hibakusha give testimonies of their experience with militarised violence, and their children and grandchildren are burdened with its repercussions; this reality demonstrates the continuation of imperialist militarisation of contemporary Oceania.<sup>69</sup> Moreover, as I discuss in the following chapter, imperial forces peripheral to the Pacific, notably Japan and the United States, benefit from each other’s acts of aggression as they obscure histories of their own imperialist past. Faced with such a display of brutal force, it may seem difficult to imagine how concepts like aloha can find ground. Yet it is precisely because of the urgency of the situation—take recently heightening tensions between China and the United States as an example—that actions determined by care, compassion and empathy have the chance to be reinforced. The Indigenous epistemology stemming from aloha can be remembered for the enduring knowledge that it is. The following chapter positions the literature that informs my discussions of the selected creative works as guided by the Hawaiian epistemology as shared by Aluli-Meyer.

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<sup>68</sup> Ibid.

<sup>69</sup> American researcher Greg Dvorak invites those indebted to Oceania’s violent histories of imperialism to realise and acknowledge the military settler-colonialism affecting Oceanian lives and environments. His invitation is pertinent to my positioning in Oceania that I inherit as a Japanese individual residing in New Zealand. Dvorak, "S/Pacific Islands: Some Reflections on Identity and Art in Contemporary Oceania."



## CHAPTER TWO

### LITERATURE REVIEW: CAUTIONARY NUCLEAR TALES

The invention and deployment of atomic bombs at the end of World War Two sent a shock wave across the globe. The bombs that were dropped on Hiroshima and Nagasaki, Little Boy and Fat Man, respectively, demonstrated to the world an unprecedented scale of destruction that the United States had newly acquired. Visual imagery—produced by photographers, filmmakers and artists—has accompanied the nascent technology from its very first introduction on the world stage. For example, official photographs—produced by photographers working for the US military—of the detonations made sure that US military power was captured for maximum visualisation and global dissemination.

Since the first detonation of a nuclear weapon, the image of the mushroom cloud—produced by Berlyn Brixner, the official photographer of the Trinity Test at Los Alamos—has become a popular cultural icon of the atomic age. The image features on album covers,<sup>70</sup> appears in numerous films and documentaries and has even inspired beauty pageants.<sup>71</sup> This imagery has also been reworked by Japanese artists who are brave enough to provoke audiences with their controversial interpretations of the infamous icon.<sup>72</sup> This unnatural cloud has also been reframed as relating to ideas of the sublime, as evident in *100 Suns* (2003), a compilation of declassified archival photographs of US atmospheric testing put together by American photographer Michael Light. The excessive destructive capacity depicted in these images is viewed with awe as it produces subliminal effects. Similar sentiments apply to American artist

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<sup>70</sup> For example, see the album cover of American jazz musician Count Basie's 1958 album, *Atomic Mr Basie*.

<sup>71</sup> Held in Las Vegas in the 1950s, the pageant produced five 'Miss Atomics.' The mushroom cloud often appeared as part of costumes, as headpieces or dresses.

<sup>72</sup> For example, see Nobuyuki Ouda's *Holding Perspective* series (1982–1985) and Makoto Aida's *mokomoko* (2008).

Bruce Conner's film *CROSSROADS* (1976). The film is comprised of archival footage of a nuclear detonation, one in a series of twenty-three US tests conducted at Bikini Atoll between 1946 and 1958 named—by US military—*Operation Crossroads*. Conner uses footage that captures the explosion from multiple angles, replaying them at various speeds from normal to extreme slow-motion. His editing prolongs the spectacle to 36 minutes, during which viewers can meditate on the mushroom cloud as it swells from the sea and reaches into the sky. The second half of the film is accompanied by a calm and pacing organ soundtrack which, configured with the visual explosion, produces an eerily sublime viewing experience.<sup>73</sup>

While archival documentation may deem nuclear weapons tests as past events, the repercussions of twentieth-century nuclear detonations have not come to an end. Contemporary experiences in the impacted regions are still being shaped by the legacies of nuclear weapons testing. For example, Marshall Islanders are still prevented from returning to ancestral lands in Bikini and Enewetak Atolls, parts of which are still inhabitable due to radioactive residues and contaminated environments. The same radioactive pollutant remains in the bodies of those exposed to the testing and is being generationally passed down. Nuclear weapons testing conducted by the British in Malden Island and Kiritimati in Kiribati and Tuvalu, by the French in Moruroa and Fangataufa Atolls, and by the United States in Bikini and Enewetak Atolls all dwarf the destructive capacity and durational aftermath of the wartime bombs dropped on Japan.<sup>74</sup> Despite having confirmed the rate of devastation nuclear weapons are capable of, these

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<sup>73</sup> As Josh Siegel, Associate Curator in the Department of Film at the Museum of Modern Art, New York, elaborates, "Conner found a *cataclysmic beauty* in the declassified National Archives footage of the first underwater atomic bomb test 'Baker Day' ... Twenty-three shots of the same explosion ... make of the destruction a kind of *Cubist cosmic sublime*" [My italics]. Conner Family Trust, "Crossroads," Bruce Conner, 2020, <http://michelle-silva.squarespace.com/crossroads>.

<sup>74</sup> In the 1954 US thermonuclear test *Castle Bravo*, conducted in Bikini Atoll, the weapon's reported yield was 14.8 MT, more than 1,000 times more powerful than the 13 kt Little Boy dropped on Hiroshima.

states maintain their nuclear stockpiles.<sup>75</sup> This is the reality this thesis condemns and against which it seeks counteracting imageries that can enable disarmament for the future.

As I discuss in the following two sections of this chapter, the planetary is an idea pertinent to the issue of nuclear violence. As nuclear technology's capacity for damage reaches a planetary scale, efforts towards nuclear disarmament must match its scale of resistance. This idea of a global effort is important for my research; although issues of nuclear violence, in particular nuclear weapons testing, do have a regional focus, this research considers 'regional' disarmament as a prerequisite to achieving it globally; regional disarmament is not an end of its own, but a means to a bigger, global end.<sup>76</sup> Nuclear disarmament is only possible as a worldwide condition, hence conceptions of the planetary itself are significant for my research.

I draw on theories of the Anthropocene to explore conceptions of planetary phenomena and to identify those that run counter to the kinds of efforts towards disarmament that my research seeks. Although the literature reviewed in this chapter is positioned to aid my pro-disarmament and demilitarisation stance, it does not necessarily align with my research's framework of Indigenous Hawaiian epistemology. I consider such literature as cautionary tales, and examine them first here in order to identify concepts, approaches or ways of thinking that I must beware of. The sections of this chapter loosely follow the topics that are expanded in Chapters Three, Four and Five. In Section 2.2, I discuss Isao Hashimoto's video work *1945-1998* (2003) as an example that demonstrates much of the problematic conceptions of the planetary as discussed within Anthropocene theories. Section 2.3 develops this discussion by focusing on cautionary tales linked to disseminating and representing the threat of nuclear violence. I take particular interest in sensorial and visually oriented works that are susceptible

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<sup>75</sup> This stockpiling is driven in part by deterrence theory, which justifies the maintenance and proliferation of a nuclear arsenal that serves to deter attacks from enemy states.

<sup>76</sup> Conducted as they were in 'Pacific Proving Grounds' or sites confined within USSR borders that often reflect colonial relations.

to being spectacularised, an effect that is not conducive to activist efforts towards disarmament. The literature reviewed in Section 2.4 highlights the significance of differentiating works *for* Oceania from those that are merely *about* the region. As both climate change and radioactive contamination draw interest towards the affected region, I argue that such interest is not necessarily invested in Oceanian values. Accordingly, the last section of this chapter focuses on artists whose works are fully invested in Oceania, namely poet and activist Kathy Jetñil-Kijiner and photojournalist and filmmaker Leni Leon. Their works function to reveal mechanisms of erasures that perpetuate neo-imperialist interests in Oceania.

Nuclear technology is not only applied for military purposes but also for civilian use.<sup>77</sup> Initiated by US President Dwight D. Eisenhower in 1953, the United States established Atoms for Peace, a national programme that aimed to develop civilian research and understanding of nascent nuclear technology for peaceful purposes. The expansion to atomic power has, however, resulted in nuclear power-plant disasters throughout Europe, the United States and Japan. The most notorious of these are the No. 4 reactor explosion at Chernobyl in April 1986 and, more recently, the Daiichi Power Plant meltdown in Fukushima in March 2011. In a similar sense to the military's use of nuclear technology, representations of these events, in the form of artworks, poems and films, disseminate these disasters and their environmental and social repercussions.<sup>78</sup> Despite the obvious overlaps, issues related to nuclear energy are not the primary focus of my research. Rather, I am concerned with post-World War Two nuclear

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<sup>77</sup> Japan, the only country to have experienced a nuclear attack, is in a unique position to produce artworks that comment on the separate yet related issues of nuclear energy and nuclear weaponry; for example, Japanese collective Chim↑Pom's work, *REAL TIMES* (2011), is a performance piece whereby the group added a small panel to Japanese artist Taro Okamoto's *The Myth of Tomorrow (Asu no shinwa)* (1967), which is a large mural permanently installed at Shibuya station in Tokyo, depicting an exploding atomic bomb. Chim↑Pom's additional panel portrayed the nuclear power plant meltdown at Fukushima, consolidating a continuation of Japan's experience with nuclear violence across military and civilian contexts. A decade after the Fukushima disaster, it is a disappointing fact for Japanese society that, after the wartime generation's experience of an atomic bombing, a second generation is experiencing violence brought about by nuclear technology.

<sup>78</sup> Some notable examples include Susan Schuppli's *Trace Evidence* discussed here, Chim↑Pom's *KI-AI 100* (2011), The Otolith Group's *The Radiant* (2012) and Jun Kitazawa's *My Town Market* (2011–2015).

weapons testing, which took place in Oceania up until 1996. That said, I acknowledge that my referencing of certain scholarship throughout this thesis, such as the Anthropocene as it relates to the Nuclear Anthropocene, is relevant to both military and civilian nuclear technologies.

The exhibition catalogue *The Nuclear Culture Source Book* (2016), edited by British curator and writer Ele Carpenter, provides an overview of contemporary artists and theorists from both the West and Japan, who explore issues of nuclear energy in post-Fukushima society.<sup>79</sup> Carpenter leads the Nuclear Culture Research Group at Goldsmiths, University of London—in partnership with Arts Catalyst—which focuses on a wide range of contemporary nuclear issues. The majority of the works featured in the book engage with issues surrounding nuclear energy, which includes radioactive contamination from nuclear power plant accidents and the deep timescale in which they operate, as well as their social implications.<sup>80</sup> The publication includes British researcher and documentary filmmaker Susan Schuppli's film, *Trace Evidence* (2016). Schuppli's practice explores the material evidence of war, conflict, environmental disaster and climate change.<sup>81</sup> The film work *Trace Evidence* retraces the routes upon which radioactive fallout from nuclear reactor disasters travelled across the atmospheres, biospheres and geospheres, spreading across continents and oceans irrespective of sociopolitical boundaries. *Trace Evidence* thus reveals the planetary implications of one

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<sup>79</sup> Another notable publication is *Invisible Colors: Art of the Atomic Age* (2019), by researcher Gabrielle Decamous. Decamous presents a historical overview of cultural works that have responded to the nuclear age, from the era of Marie Curie's research on radium to the Fukushima disaster.

<sup>80</sup> In "Nuclearity," her contribution to *The Nuclear Culture Source Book*, American researcher Gabrielle Hecht expands the scope of the consequences of nuclear activities. She discusses, for example, uranium mining, which is a subject that this thesis does not cover, yet recognises as integral to the international nuclear industry. Uranium mining—particularly in the central African state of Gabon, which *Trace Evidence* also covers—is a vital supplier in the nuclear market and one that produces its own version of hibakusha. Gabrielle Hecht, "Nuclearity," in *Nuclear Culture Source Book*, ed. Ele Carpenter (London: Black Dog Publishing, 2016). Exhibited inside the evacuated Fukushima Exclusion Zone, *Don't Follow the Wind* is essentially closed to the public until the zone is declared safe to enter again; the exhibition thus responds to unforeseeable time frames and irreversible loss of homes, realities inherent in nuclear disasters.

<sup>81</sup> Susan Schuppli, "About," <https://susanschuppli.com/>.



Figure 1. Susan Schuppli, *Trace Evidence*, 2016, video, <https://susanschuppli.com/works/trace-evidence-2/>.

nation's risk-taking in operating nuclear energy power plants.<sup>82</sup> Evidently, the planetary is a characteristic inherent in activities that engage with nuclear materials.

## **2.1: CONCEIVING THE WORLD AMISS: COLD WAR SCIENCES, NARRATIVES OF THE ANTHROPOCENE AND PLANETARY NUCLEAR HARM**

Nuclear weapons testing and its ultimate prevention, nuclear disarmament, is a worldwide issue. My mother tried to explain this aim to me as a child in the following way: "In order for nuclear disarmament to become a reality, all those who can and do hold arms need to give them up, all of them, and all at once." No doubt, her explanation was oversimplified to suit a child's understanding; however, I still align with this thinking, that the worldwide aspect is fundamental to the idea of disarmament.

This thesis is informed by a conception of the global/planetary that follows the Indigenous Hawaiian epistemological idea of interconnectedness. The idea brings an ethical dimension to thinking about the global/planetary aspects of nuclear violence by positing that all living beings, past, present and future, are interconnected. Inflicting damage on any one community equates to inflicting the same damage on others and oneself.<sup>83</sup> This idea of interconnectedness requires that consideration be taken towards all humans who were, are and would be impacted by nuclear weapons. This thinking is the basis for my mother's explanation that disarmament is only effective as a worldwide condition. Given that issues of nuclear

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<sup>82</sup> *Trace Evidence* arguably posits radiation as a dark matter, a hostile force from within the earth that humans have unknowingly let loose. Such a speculative philosophical idea is relevant to DeLoughrey's discussions, outlined in Section 2.4, on Spivak's conception of the planet as an entity that is totally an 'other' to humans. Such a foreign entity is capable of possessing mysterious and dark energies, forces and materials that humans cannot perceive or understand. My research distances itself from such speculation as it depoliticises (radioactive) contamination and its social consequences.

<sup>83</sup> This thinking is also found in the theory of Mutually Assured Destruction (MAD).

proliferation and disarmament are inherently linked to ideas of the global/planetary, exploring the conception of these ideas is pertinent for my research.

Scientific conceptions that position the Earth as one closed system, developed during the Cold War, are a type of cautionary tale that my research resists. The discipline of earth-systems sciences emerged as a side effect of research that aimed to trace the spread of radioactive fallout resulting from nuclear weapons testing programmes. In their book *Planetary Social Thought: The Anthropocene Challenge to the Social Sciences* (2021), British researchers Nigel Clark and Bronislaw Szerszynski refer to science historian Paul Edwards' observations that tracing radioactive debris expelled from both atmospheric and underground tests led to discoveries of planetary air and ocean circuits.<sup>84</sup> I identify these scientific studies as cautionary tales for my research since they were born as investigations into humans' newly acquired capacity to destroy life. A conception of the planet coming from such a destructive framing stands in stark opposition to the idea of interconnectedness found in Indigenous Hawaiian epistemology. The latter teaches interconnectedness in order to appreciate and preserve the mutual reliance of living beings in maintaining their vitality.

American anthropologist Joseph Masco attests in "Bad Weather: On Planetary Crisis" (2010) that Cold War-era scientific research served an argument for nuclear disarmament. Throughout the 1960s, concerned biological and Earth scientists openly published their findings on the dangers the nuclear weapons industry posed to public health.<sup>85</sup> However, these studies of the planet, despite serving to warn against nuclear proliferation, are reactive and reliant on the threat posed by nuclear war. Such threats are also treated as a concern only when

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<sup>84</sup> Nigel Clark and Bronislaw Szerszynski, *Planetary Social Thought: The Anthropocene Challenge to the Social Sciences* (Cambridge: Polity, 2021), 23.

<sup>85</sup> To those conducting the US nuclear programme, these scientists were considered national security threats. The earth-scientists stood in opposition to the geophysics specialists whose planetary research was "born classified" and served exclusively military purposes. Joseph Masco, "Bad Weather: On Planetary Crisis," *Social Studies of Science* 40, no. 1 (2010): 16–17.



the perpetrator's own communities are put on the line.<sup>86</sup> Although the theory of what is referred to as nuclear winter further advocated for nuclear disarmament, it was yet again to an inadequate extent.<sup>87</sup> This theory hypothesises that the Earth's biosphere would die due to sunlight being blocked by the smoke and debris produced by nuclear war.<sup>88</sup> Masco argues that American astronomer Carl Sagan and American atmospheric scientist Richard P. Turco of TTAPS<sup>89</sup> thus changed the debate on nuclear security to one of environmental security. The idea of nuclear winter was conveyed to the American public through an image of Earth engulfed by a giant sooty cloud, appearing to advance over the Southern Hemisphere.<sup>90</sup> Such a representation portrays Earth as an integrated entity only in relation to what is at stake from nuclear threat. Sagan and Turco also conclude that international nuclear stockpiles ought to be reduced to a level beneath the probability of a nuclear winter, the proposed number being "fewer than several hundred nuclear weapons."<sup>91</sup> This proposition implies that there is a permissible degree of nuclear stockpiling.<sup>92</sup> The notion of a permissible degree also regards Earth as an experimental laboratory. Reverence and care towards Earth as a vital provider of human existence and wellbeing is lacking. My research seeks conceptions of the planet that are not lacking in this respect and can maintain the idea of planetary interconnectedness towards nuclear disarmament and beyond. Accordingly, the following chapter argues that relational

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<sup>86</sup> These studies culminated in the 1960s, by which time the United States had already conducted damaging nuclear weapons testing in the Pacific; e.g., thermonuclear bombs with the highest yield were tested in the Marshall Islands in the 1950s.

<sup>87</sup> Richard P. Turco et al., "Nuclear Winter: Global Consequences of Multiple Nuclear Explosions," *Science* 222, no. 4630 (December 23, 1983).

<sup>88</sup> Nuclear winter was first theorised in 1980 by a research group led by former *Manhattan Project* physicist Louis Alvarez. The theory then received a contribution from atmospheric chemist Paul Crutzen, scientist John W. Birks, a multidisciplinary team known as the TTAPS (see following footnote) and P. H. Ehrlich et al. Masco, 19.

<sup>89</sup> An acronym for the multidisciplinary team of scientists Richard P. Turco, Owen B. Toon, Thomas P. Ackerman, James B. Pollack and Carl Sagan.

<sup>90</sup> Masco, 20.

<sup>91</sup> Ibid.

<sup>92</sup> Ibid., 14.

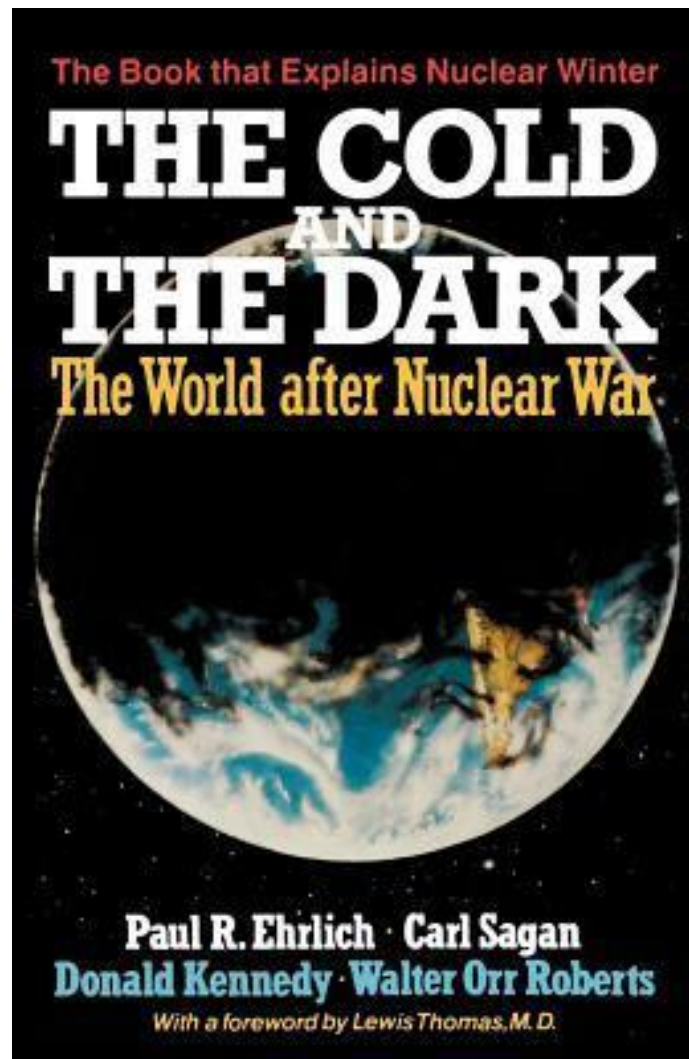


Figure 2. Book cover of *The Cold and the Dark: The World after Nuclear War* (1985) by Paul R. Ehrlich, Carl Sagan, Donald Kennedy, and Walter Orr Roberts depicting nuclear winter on Earth. Illustration by Jon Lomberg, 1984. Cover design by Mike McIver.

approaches to understanding the global/planetary is suited for this task, as is demonstrated by the *Global Hibakusha Project* and the monument in Tahua Tu-Marama.

Cold War-era nuclear activities continue to inform contemporary conceptions of planetary environmental threats. As Clark and Szerszynski point out, Cold War military research led to increased knowledge on planetary ecology, which today enables the detection and study of the Anthropocene phenomenon.<sup>93</sup> First coined by American biologist Eugene F. Stoermer and popularised by Dutch atmospheric chemist Paul Crutzen, the Anthropocene, proposed as the successor to the Holocene, is a geologic era defined by the impact of human activity on Earth.<sup>94</sup> Certain scholarship also considers nuclear weapons testing as a defining characteristic of the Anthropocene phenomenon. For example, British scientists Simon L. Lewis and Mark A. Maslin in “Defining the Anthropocene” (2015), as well as Jan Zalasiewicz et al. in their paper “When Did the Anthropocene Begin? A Mid-twentieth Century Boundary Level is Stratigraphically Optimal” (2015), propose that the accumulation of radioactive fallout in sediments marks the beginning of the Anthropocene.<sup>95</sup>

My research is interested in critiques of the scholarship on the Anthropocene. The scientific narrative of the Anthropocene is problematic in that it homogenises all humans as equally responsible for the planetary environmental degradation characteristic of the geologic era. Indigenous, feminist and Marxist scholars, among others from the humanities, have offered

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<sup>93</sup> Clark and Szerszynski, 23.

<sup>94</sup> Will Steffen, “The Anthropocene: Conceptual and Historical Perspectives,” *Philosophical Transactions of the Royal Society* (2011): 842.

<sup>95</sup> Crutzen has also acknowledged the suitability of the radioactive marker, as mentioned in van Wyck’s contribution to *The Nuclear Culture Source Book*. Peter C. van Wyck, “The Anthropocene’s Signature,” in *The Nuclear Culture Source Book*, ed. Ele Carpenter (London: Black Dog Publishing, 2016), 24. The production of nuclear energy is also included as a nuclear activity that leaves geologic traces on the planet. Radioisotopes in nuclear waste, produced as a byproduct from nuclear reactors, take millennia to disintegrate. This geologic timescale is reflected in Carpenter’s conception of the term ‘Nuclear Anthropocene,’ in her research with the Nuclear Culture Research Group. Ele Carpenter, “Nuclear Anthropocene,” in *The Nuclear Culture Source Book*.

alternative narratives that contest the falsely universalising narrative of the Anthropocene.<sup>96</sup> Given the intertwined history of the development of nuclear weapons and the Earth sciences that now shape theories of the Anthropocene, I propose that critiques of the Anthropocene's falsely universalising narrative can be applied to the history of nuclear proliferation. My research considers this false universality as a cautionary tale, a conception of the global/planetary that ought to be avoided in working towards nuclear disarmament.

Indigenous (Métis) scholar Zoe Todd and Canadian scholar Heather Davis argue that the Anthropocene is a universalising project in which a Eurocentric perspective “re-invisibilises” its power by posing as a neutral and global subject.<sup>97</sup> As Swedish researchers Andreas Malm and Alf Hornborg suggest, not all humans have created and valued the fossil-fuel economy.<sup>98</sup> Clark and Szerszynski argue that the common critique of the Anthropocene narrative among critical social thinkers frequently focuses on the universalising grouping of multiple subjects under one group.<sup>99</sup> Todd and Davis echo discussions by scholar and activist Kyle Whyte of the Citizen Potawatomi Nation, who argues that the Anthropocene, far from being a new phenomenon, is an additional manifestation of cyclical dispossession and violence for Indigenous communities. Indeed, as Indian historian Dipesh Chakrabarty has argued, understanding the human impact on the planet requires recognition of inequalities and injustices, and their pluralities.<sup>100</sup>

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<sup>96</sup> For example, in their book *The Shock of the Anthropocene* (2016), Bonneuil and Fressoz list seven alternative variations of the Anthropocene: Thermocene, Thanatocene, Phagocene, Phronocene, Agnotocene, Capitalocene, and the Polemocene.

<sup>97</sup> Heather Davis and Zoe Todd, “On the Importance of a Date, or, Decolonizing the Anthropocene,” *ACME: An International Journal for Critical Geographies* 16, no. 4 (2017), <https://acme-journal.org/index.php/acme/article/view/1539>.

<sup>98</sup> Andreas Malm and Alf Hornborg, “The Geology of Mankind? A Critique of the Anthropocene Narrative,” *The Anthropocene Review* 1, no. 1 (2014), <https://doi.org/10.1177/2053019613516291>.

<sup>99</sup> For example, political scientist Eva Löwbrand. Clark and Szerszynski, 36.

<sup>100</sup> Dipesh Chakrabarty, “Postcolonial Studies and the Challenge of Climate Change,” *New Literary History* 43, no. 1 (Winter 2012): 1–8.

During the Cold War, nuclear states narrated the development of nuclear weapons as though on behalf of all humankind. This falsely universalising narrative undermines the disparity of power between different groups involved in the development of the weapons and therefore can be critiqued from the position that such narratives derive from an imperialist framing that parades as a neutral and universalist one. In Oceania, for example, the Marshall Islanders were “persuaded” to evacuate their homelands “for the good of mankind.”<sup>101</sup> In reality, the Marshall Islanders had no choice but to comply; the United States at the time held the world’s largest military, and it would have been futile for the Marshall Islanders to have staged a refusal. This disparity of power is also evident in the United States’ flawed argument. The United States claimed that nuclear weapons testing was intended for the good of humankind, however, harming Marshall Islanders in the process invalidates this claim; nothing good came out of the testing for Marshall Islanders. Indigenous Hawaiian epistemology teaches that specificities lead to universality; the specificity of Marshall Islanders’ suffering caused by nuclear weapons testing is inconsistent with the idea that the US nuclear testing programme was a universal good.

In a comparable manner, the universalising language employed in scientific accounts of the Anthropocene prioritises quantifiable and numerical data. As French historians Christophe Bonneuil and Jean-Baptiste Fressoz argue, “it is not enough to measure in order to understand, and we cannot count on the accumulation of scientific data to carry out the necessary revolutions or involutions.”<sup>102</sup> This idea is further highlighted by Davis and Canadian researcher Etienne Turpin, who, in their contribution as editors of the book *Art in the*

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<sup>101</sup> Ruth Levy Guyer, “Radioactivity and Rights: Clashes at Bikini Atoll,” *American Journal of Public Health* 91, no. 9 (2001), <https://doi.org/10.2105/ajph.91.9.1371>.

<sup>102</sup> Christophe Bonneuil and Jean-Baptiste Fressoz, “A Natural History of Destruction: The Environmental Consequences of War,” Verso, February 18, 2016, <https://www.versobooks.com/blogs/2507-a-natural-history-of-destruction-the-environmental-consequences-of-war>.

*Anthropocene* (2015), reference anonymous anarchist authors of the far-left leaning group The Invisible Committee:

What's remarkable is that he [Man] continues relating in the same disastrous manner to the disaster produced by his own disastrous relationship with the world. He calculates the rate at which the ice pack is disappearing. He measures the extermination of the non-human forms of life ... He talks about it scientifically with numbers and averages ... Can we be so sure that the scientific study of climate change is a mode of excluding the 'sensible experiences' of the birds, insects, and plants that confirm, at least to these authors, that changes are really happening?<sup>103</sup>

Utilising quantifiable knowledge to understand the Anthropocene is not problematic in and of itself. Rather, the above critical discussions problematise the dominance of quantifiable knowledge in the Anthropocene narrative at the expense of other forms of knowing.

Cold War-era science conceives of the planet as one that is damaged. Scientific efforts to trace radioactive fallout revealed the finite and enclosed condition of Earth's biosphere, geosphere and atmosphere. What resulted was an inscription of the contamination, assembled together as the form of the Earth. These scientific projects render the blue planet into an experimental laboratory. Efforts to rethink the planetary in protecting the world from nuclear harm are undermined by the exploitative stance of the scientific planetary inscription. My research avoids reinforcing these types of conceptions of the planet and aims to reinstate them as cautionary tales, especially as these Cold War projects continue to influence contemporary theories of planetary phenomena. The theory of the Anthropocene, in particular, is shaped by the sciences that were developed in the context of the Cold War. This historical continuity renders nuclear activities susceptible to critiques aimed at the Anthropocene's narrative, which conveniently groups the human race as one homogenous species that consumes and pollutes the planet. The critique is most applicable to the official US State narrative that attempted to

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<sup>103</sup> Heather Davis and Etienne Turpin, "Art and Death: Lives Between the Fifth Assessment and the Sixth Extinction," in *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies*, ed. Heather Davis and Etienne Turpin (London: Open Humanities Press, 2015), 17.

portray their nuclear testing as a universal good and the victims of the tests as inevitable casualties. Yet the patronising narrative exemplifies a conceptualisation of the global, planetary or the universal that runs counter to achieving disarmament. The following section further expands on these conceptions of the global/planetary that my research rejects, by focusing on how such ideas manifest in Japanese artist Isao Hashimoto's video work *1945-1998*.

## **2.2: ISAO HASHIMOTO'S *1945-1998*: OBSTACLES IN VISUALISING PLANETARY NUCLEAR IMPACT**

Conceiving of the planet is difficult due to its scale and its spherical form; it is impossible to see Earth as a whole, all at once. Visualisations of the planet function as a substitute for conceiving it, and compensate for a view of the planet that is not physically and realistically attainable by humans. Planetary visualisations are of interest to my research for being a method of understanding the planetary character of nuclear activities. Visualisations reflecting ideas of the planet that are conducive to disarmament are of particular interest. As constructions, visualisations cannot help but project certain beliefs and positions; a worldview, quite literally, not all of which visualises the planet or its planetary state in a way that is sympathetic to achieving disarmament and demilitarisation. For example, Isao Hashimoto's visualisation of planetary nuclear violence, in *1945-1998*, is unhelpful to disarmament, as it digitises, abstracts and compresses the planetary impact of nuclear detonations in its representation. In this sense, *1945-1998* is of use to my research as a cautionary tale to explore defective visualisations of planetary nuclear activities.

The video work *1945-1998*'s distortion is enabled by the Cartesian world map, which provides its format. The world map derives from a tradition of employing mathematics and

geometry to construct an abstracted form of the world. As though to reiterate this numerically oriented expression of the planetary, *1945-1998* exclusively utilises quantifiable data to express the planetary damage of nuclear weapons testing. Hashimoto's apparent preference for numerical language to present historical facts is problematic. However, what I find most questionable for the aim of disarmament is the militarised aesthetic of the video work; *1945-1998* is reminiscent of a bombsight view, reproducing a militarised perspective of the world. The Cartesian world map is also implicated; planetary cartography inherits an imperial past.

Hashimoto's *1945-1998* is a time-lapse video recounting every nuclear detonation that has ever taken place on Earth,<sup>104</sup> played out against a backdrop of a Cartesian world map. Each of the 2,053 detonations is a blip of light, colour coded to indicate the nation responsible. A flag appears around the border of the frame each time a new nation becomes equipped with nuclear weapons. A tally keeps track of the number of detonations per state from 1945 to 1998. Each month is scaled down to a second, and during the approximately fourteen minutes that result, the world is pelted by shots of sharp light, some repeatedly flashing where many tests were conducted around a concentrated location.

German philosopher Peter Sloterdijk argues that visualisations play a crucial role in conceptions of the world, particularly in Western ones. In the second volume of his *Spheres* trilogy, *Globes* (2014), Sloterdijk ruminates on the phenomenon of globalisation and the origins of this conceptualisation of the world as a whole. He identifies the sphere–orb–globe as the dominant imagery in visualising the planet. In tracing accounts of globalisation, he cites geometry in classical antiquity and the development of the sphere–orb–globe as a significant influence on the European formulation of the world and subsequent world-making throughout

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<sup>104</sup> Excluding those announced by North Korea. “‘1945-1998’ by Isao Hashimoto,” Comprehensive Nuclear-Test-Ban Treaty Organization, <https://www.ctbto.org/specials/1945-1998-by-isao-hashimoto/>.



their history.<sup>105</sup> Sloterdijk claims that “globalisation began as the geometrisation of the immeasurable”<sup>106</sup>; geometry served as a solution to the immeasurability of the planet. What could not be experienced physically was thus constructed through geometry. Sloterdijk argues that the early European metaphysicians, mathematicians and cosmologists fashioned a worldview centred on orbs. He affirms that visualisation is indispensable for the implementation of globalisation; the production of the orb begins with imagining it.<sup>107</sup> This form-obsessed approach to conceptualising the planet, dictated by mathematical conventions, conceives Earth as a shape rather than a living entity that provides humans with their lived experiences. Sloterdijk’s theory demonstrates that visualisations of the planet such as the globe should not be taken as substitution for the actual planet. The constructed view’s origins of conception ought to also be remembered, be they a capitalist or geometrically oriented conception. These conceptions do not adequately include the physicality of the planet, which is at stake under past and ongoing military nuclear activities.

The visualisation of the world in 1945-1998 reflects Indian literary theorist Gayatri Chakravorty Spivak’s concept of the globe as an abstracted and quantified representation of a living and evasive planetary entity. For Spivak, the globe is a “gridwork of electronic capital ... that abstract ball covered in latitudes and longitudes ... drawn by the requirements of Geographical Information Systems.”<sup>108</sup> Indeed, the globe is a visualisation that reflects tendencies of post-World War Two capitalist globalisation, which inscribes the planet into something comprehensible and manageable by capital.<sup>109</sup> The planet, on the other hand,

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<sup>105</sup> Peter Sloterdijk, *Globes: Spheres Volume II: Macrospherology*, trans. Wieland Hoband (New York: Semiotext(e), 2014), 48.

<sup>106</sup> *Ibid.*, 45.

<sup>107</sup> *Ibid.*, 46.

<sup>108</sup> Gayatri Chakravorty Spivak, *Death of a Discipline* (New York: Columbia University Press, 2003), 72.

<sup>109</sup> This view is also exacerbated by the Cold War-era photographs of Earth, which, as Bonneuil and Fressoz describe, “[give] an intoxicating sense of total overview, global and dominating, rather than a sense of humble belonging.” Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene*, trans. David Fernbach (London, New York: Verso, 2016), 62.

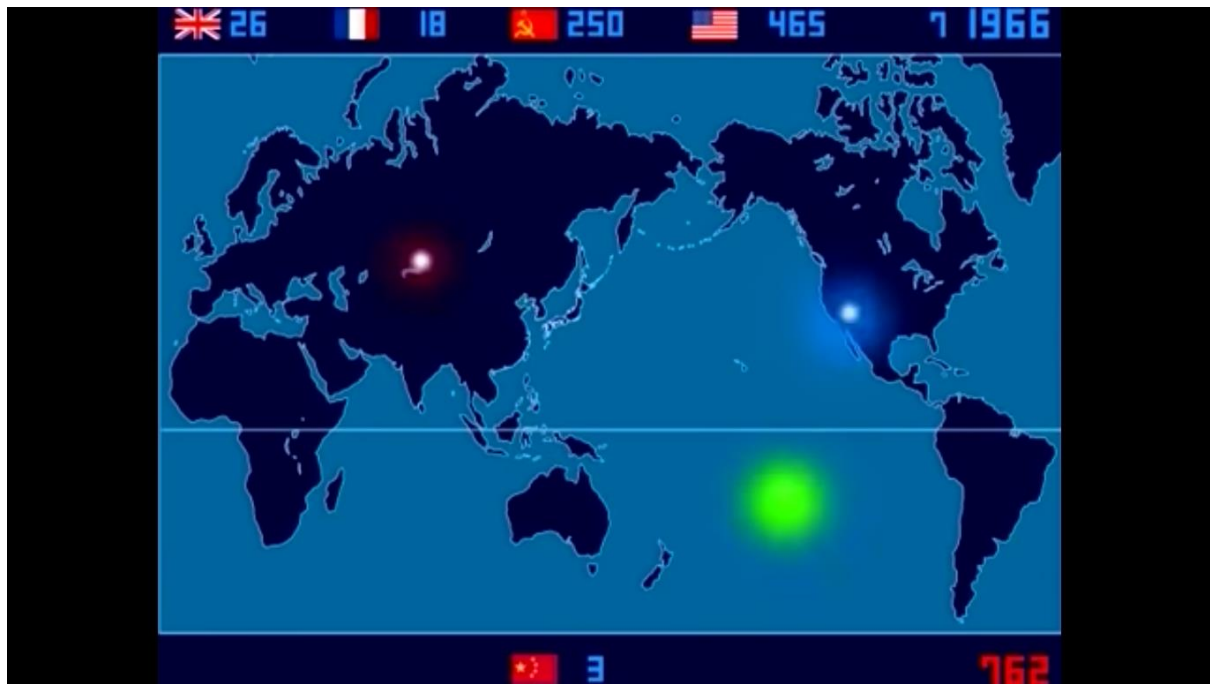


Figure 3. Isao Hashimoto, *1945-1998*, 2003, video, Comprehensive Nuclear-Test-Ban Treaty Organization, <https://www.ctbto.org/specials/1945-1998-by-isao-hashimoto/>.

possesses mystical, unknowable aspects that are hidden from human reach and comprehension. I view her differentiation as a way to attest to the existence of parts of the planet that are imperceptible to humans. Spivak's differentiation relies on the idea of Earth's alterity; as she argues, the planet "is in the species of alterity, belonging to another system."<sup>110</sup> Applied to nuclear weapons testing, Spivak's thinking acknowledges the reality of the detonations and their effects, even if there are aspects of them that are imperceptible to humans. In aligning more with the globe than the planet, *1945-1998* is unable to explore the planetary impact of nuclear weapons testing.

As *1945-1998*'s portrayal of the world is not grounded in any actual lived reality for humans, it denies an embodied understanding of the planetary impact of nuclear testing. The video work presents a world cut open and stretched out to fit a rectangular frame; a view designed for screens. Such an orientation renders viewers' knowledge devoid of physical positioning and lacking actual places, people and relationships that constitute lasting knowledge. The nuclear detonations in *1945-1998* appear embedded within the computerised representation of the world, as abstracted replicas belonging to an artificial space. An understanding of how nuclear weapons have affected the physical world cannot be obtained through such an unrealistic visualisation.

Despite its shortcomings in doing so, *1945-1998* is one in a trilogy<sup>111</sup> of works that Hashimoto made to "express the fear and folly of nuclear weapons."<sup>112</sup> In *1945-1998*, Hashimoto conveys the 'folly' numerically through the number of detonations depicted, relying heavily on quantifiable forms of representation to express the planetary threat of nuclear

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<sup>110</sup> Ibid.

<sup>111</sup> *Overkilled* (2004), Hashimoto's second video in the series, also employs visualisation of numbers. The third video, *The Names of Experiments* (2006), lists the names of US nuclear weapon tests. This work is not included in the discussion here as it does not utilise numerical data.

<sup>112</sup> "'1945-1998' by Isao Hashimoto," Comprehensive Nuclear-Test-Ban Treaty Organization.

weapons.<sup>113</sup> The sheer number of blips that appear on the screen is nauseating in the context of the scale of destruction that each fleeting blip represents. The tallies next to each flag invite viewers to calculate the responsibility of each state according to the sum of tests they have conducted. The artistic expression, restricted to factual and quantifiable data, limits the video work's visualisation of worldwide nuclear weapons testing by engaging with only objective knowledge. Quantifiable information alone cannot lead to an adequate understanding of the planetary impact of nuclear activities.

Hashimoto's method of expression derives from his hope to communicate the facts of nuclear weapons testing to as many people as possible.<sup>114</sup> As he discusses in an interview in the newspaper *Mainichi Shimbun* in 2020, Hashimoto hoped to convey the reality of nuclear detonations systematically through straight facts.<sup>115</sup> As he was conducting background research on the subject, he came across a publication by the Stockholm International Peace Research Institute (SIPRI) on the total number of nuclear detonations that had taken place in the world up until 2003. Hashimoto attempted to visually interpret the publication by creating *1945-1998*; the video work is, first and foremost, an infographic. The numerical expression is preferred and assumed as the universal language for communicating planetary nuclear harm to an international community. The exclusivity of quantifiable forms of expression in *1945-1998* reflects the critique of the scientific approach to the Anthropocene as outlined in the previous section. As stated, my research follows the Indigenous Hawaiian teaching that holistic knowledge derives from a combination of objective (empirical), subjective (cultural, mental)

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<sup>113</sup> In *Overkilled*, Hashimoto visually conveys the mind-blowing number of weapons in global nuclear stockpiles (as of June 2004). *Overkilled* opens with the artist dropping a small ball, similar to a plastic bullet from a BB gun, onto a metal surface. The caption explains that the ball represents the atomic bomb Little Boy that was dropped on Hiroshima, killing more than 140,000 people. A second ball follows for Nagasaki, where more than 70,000 people were killed by Fat Man. Hashimoto then proceeds to pour 20,590 balls onto the metal surface, the number of atomic weapons in the global nuclear stockpile, creating a blurry downpour that emits a deafening roar.

<sup>114</sup> Wada Hiroaki, "New Anti-Nuclear Artistic Expressions in Hiroshima: The Challenge Facing the Creator of an Internationally Acclaimed Artwork on Nuclear Explosions," *Mainichi Shimbun*, July 15, 2020.

<sup>115</sup> Ibid.

and spiritual ways of knowing. Accordingly, I seek visualisations and expressions of planetary nuclear harm that do not prioritise objective ways of knowing over others.

The use of temporal and spatial compressions to depict planetary nuclear impact in *1945-1998* further attest to the limitations in representations that engage solely with objective knowledge. It is indeed difficult, if not impossible, for representations to adequately reflect the imperceptible vastness of the planetary scale of nuclear activities. To represent the number of detonations in geographically dispersed locations occurring across a span of over five decades is no easy task. Yet by exclusively employing objective knowledge, *1945-1998* has no choice but to represent these actualities in an attempt to convey the planetary state of nuclear activities. Unfortunately, Hashimoto's solution has the effect of reducing the objective reality into a scale digestible by humans rather than presenting the planetary phenomenon for what it is. A less-diminishing method would also have engaged with ways of knowing through the mind or the spirit, which would result in a more holistic idea of the planetary.

By shrinking the world into a Cartesian map fitted onto a screen, *1945-1998* compresses the spatial distribution of nuclear detonations and the resulting fallout. After showing the first three detonations in New Mexico, Hiroshima and Nagasaki, the frame zooms out, shrinking the whole world and the subsequent tests to fit within the screen. This zoomed-out view of the world map significantly diminishes the planetary impact of nuclear weapons testing. Not only does *1945-1998* undermine the scale of planetary nuclear harm, but also its geologic duration. *1945-1998* compresses time; each month in the time-lapse is minimised down to a second, and each detonation is reduced to a momentary blip of light. Once the time-lapse reaches December 1998, it replays all the detonations, this time per state. After the blips have been replayed, white glowing circles appear at locations of detonation, their sizes reflecting the number of detonations at each site. Lingering on for a little longer than the explosive blips, they are suggestive of the resulting radioactive fallout. The white signs remain for approximately two



Figure 4. Isao Hashimoto, *1945-1998*, 2003, video, Comprehensive Nuclear-Test-Ban Treaty Organization, <https://www.ctbto.org/specials/1945-1998-by-isao-hashimoto/>.

minutes before they disappear from the screen. Radioactive contamination, in reality, has a half-life of at least 24,000 years. This severe compression of radioactive half-life cannot adequately reflect the planetary scale of the damage caused by the nuclear tests; viewers are afforded a brief, 15-minute encounter that minimises these events.<sup>116</sup> Such a compressed visualisation cannot provide ways to fully explore or understand the planetary impact of nuclear weapons testing. Contrary to Hashimoto's wishes of conveying the realities of nuclear weapons testing, the compression provides only a fraction of the 'real reality' through a distorted representation.

The world map that formats *1945-1998* is a cautionary tale for my research for another reason; the cartography carries a history of military conquest and control. It may seem an obvious choice to present a military-inspired world map in an artwork concerned with nuclear proliferation. However, the reproduction of a military worldview cannot help in disarmament efforts. What is required are visualisations of planetary nuclear threat that do not continue the military origins of the violence. British researcher Jennifer Gabrys attests to the imperial past that contemporary representations of the world inherit.<sup>117</sup> In *Becoming Planetary* (2018), Gabrys references Elizabeth DeLoughrey's claim in "Satellite Planetary and the Ends of the Earth" (2014), that "modern ways of imagining the world as a totality, including spaces claimed for militarism and globalisation, derive from histories of spatial enclosure."<sup>118</sup> Moreover, in their book *The Planetary Social Thought: The Anthropocene Challenge to the Social Sciences*

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<sup>116</sup> The compression may also appear to comment on different temporalities. To the geological timescale of Earth, what are nuclear weapons tests but trivial occurrences, mere blips in the course of a planet's lifespan? It is doubtful, however, that the compression is intended to show human events from the perspective of a geological timescale. The logic behind the compression is telling; Georgian calendar months, compressed into seconds, determine the rate of compression and the duration of the time-lapse. Entirely based on human constructs of time, the artwork is not interested in exploring nuclear weapons testing and its consequences from the perspective of various temporalities.

<sup>117</sup> Gabrys notes that modern technology employed to produce the total view of Earth is closely aligned to colonial projects, which presently inform the process of globalisation. Jennifer Gabrys, "Becoming Planetary," e-flux Architecture, 2018, <https://www.e-flux.com/architecture/accumulation/217051/becoming-planetary/>.

<sup>118</sup> Elizabeth M. DeLoughrey, "Satellite Planetary and the Ends of the Earth," *Public Culture* 26, no. 2 (73) (2014), <https://doi.org/https://doi.org/10.1215/08992363-2392057>.

(2021), Clark and Szerszynski refer to Masco's claim that surveillance, control and command systems developed for Cold War military rivalries created a new understanding of the integration of the Earth's sea and sky.<sup>119</sup> In regard to visualisation, satellite photography is a telling example; a product of the Cold War, the technology was developed to subject the entire Earth to close surveillance in order to monitor enemy activities.<sup>120</sup> While *1945-1998*'s militarised perspective of the world arguably reiterates Hashimoto's condemnation of nuclear violence, it does not envision an alternative that can contribute towards disarmament. Hashimoto's condemnation is a negation, which is not productive or conducive to what my research seeks: new visualisations of a nuclear-free world.

From the outset, *1945-1998* employs a military perspective. The work's aesthetics are explicitly military; the first three detonations depicted—the New Mexico test site, then Hiroshima and Nagasaki—are zoomed in on and targeted via a bombsight, which is clearly a military stylisation. The birds-eye view<sup>121</sup> appears to belong to military personnel, positioned behind a weapon and up in the air, above their target.<sup>122</sup> This positioning places viewers as aggressors and seems to have become the default format for viewing the world, inherited from

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<sup>119</sup> Clark and Szerszynski, 24.

<sup>120</sup> In 1959—nine years before the more popularised *Earthrise* (1968)—the US military's top-secret CORONA satellites captured photographs of the Earth, whilst spying on Russia and Asia. As British historian Robert Poole writes in *Earthrise: How Man First Saw the Earth* (New Haven, CT: Yale University Press, 2008), the postwar race into space research was partially fueled by the belief that whoever conquered space would control the planet. As DeLoughrey quotes former American President John F. Kennedy speaking in 1960, "Control of space will be decided in the next decade. If the Soviets control space, they can control earth, as in past centuries the nation that controlled the seas dominated the continents." The Pentagon would declare a year later that its reach and scope encompassed "the entire globe." DeLoughrey, "Satellite Planetary and the Ends of the Earth," 257, 260.

<sup>121</sup> Or astronaut's-eye view, as described by literary scholar Christian Moraru. Christian Moraru, "Decompressing Culture: Three Steps toward a Geomethodology," in *The Planetary Turn: Relationality and Geoaesthetics in the Twenty-First Century*, ed. Amy J. Elias and Christian Moraru (Evanston, IL: Northwestern University Press, 2015), 212.

<sup>122</sup> *1945-1998*'s digitised aesthetic is also reminiscent of arcade games with its bright colours and electronic sound effects. The flags and tallies mimic player profiles and points systems. The world is designated as a battle (play) ground. Although this design affirms the game-like folly of the nuclear arms race, it simultaneously exacerbates the aggressor perspective in a violent replay of global nuclear detonations.



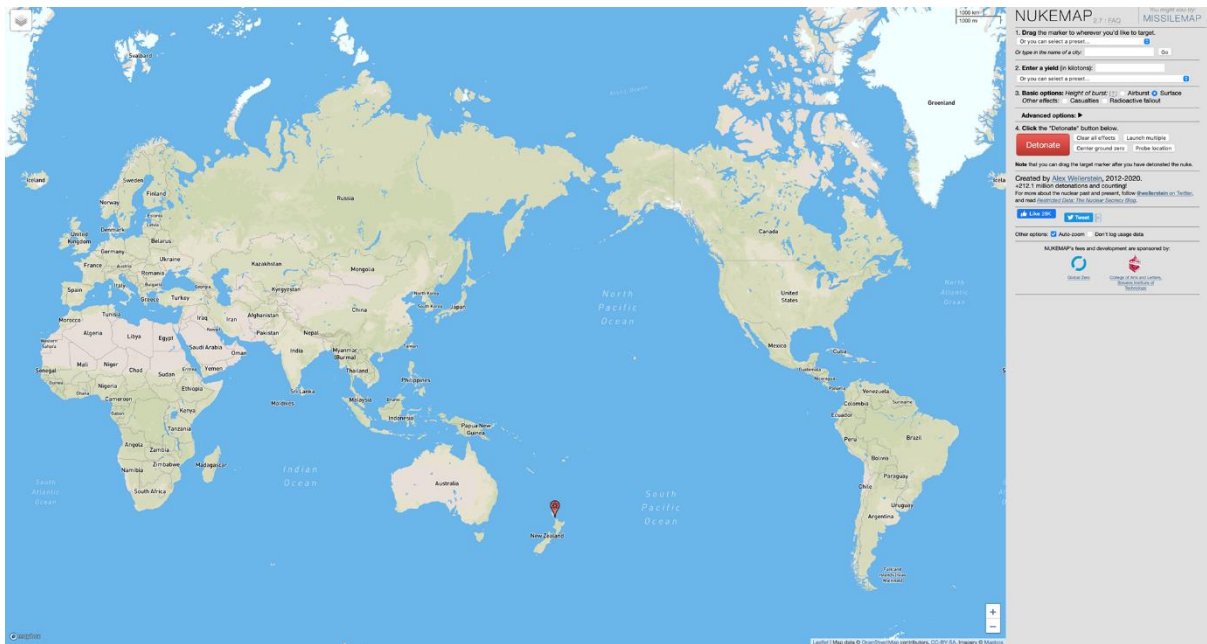


Figure 5. Alex Wellerstein, NUKEMAP, 2012–2020, Nuclear Secrecy, <https://nuclearsecrecy.com/nukemap/>.

# NUKEMAP

2.7 : [FAQ](#)

You might also try:

## MISSILEMAP

- Drag the marker to wherever you'd like to target.

Or you can select a preset...

Or type in the name of a city:
- Enter a yield (in kilotons):

Or you can select a preset...
- Basic options: Height of burst:  ☐ Airburst ☒ Surface

Other effects: ☐ Casualties ☐ Radioactive fallout

Advanced options: ▶
- Click the "Detonate" button below.

Note that you can drag the target marker after you have detonated the nuke.

Created by [Alex Wellerstein](#), 2012-2020.  
+219.1 million detonations and counting!  
For more about the nuclear past and present, follow [@wellerstein on Twitter](#),  
and read [Restricted Data: The Nuclear Secrecy Blog](#).

Other options: ☒ Auto-zoom ☐ Don't log usage data

NUKEMAP's fees and development are sponsored by:

Interested in nuclear history?  
Check out my new book:

Figure 6. NUKEMAP (detail).

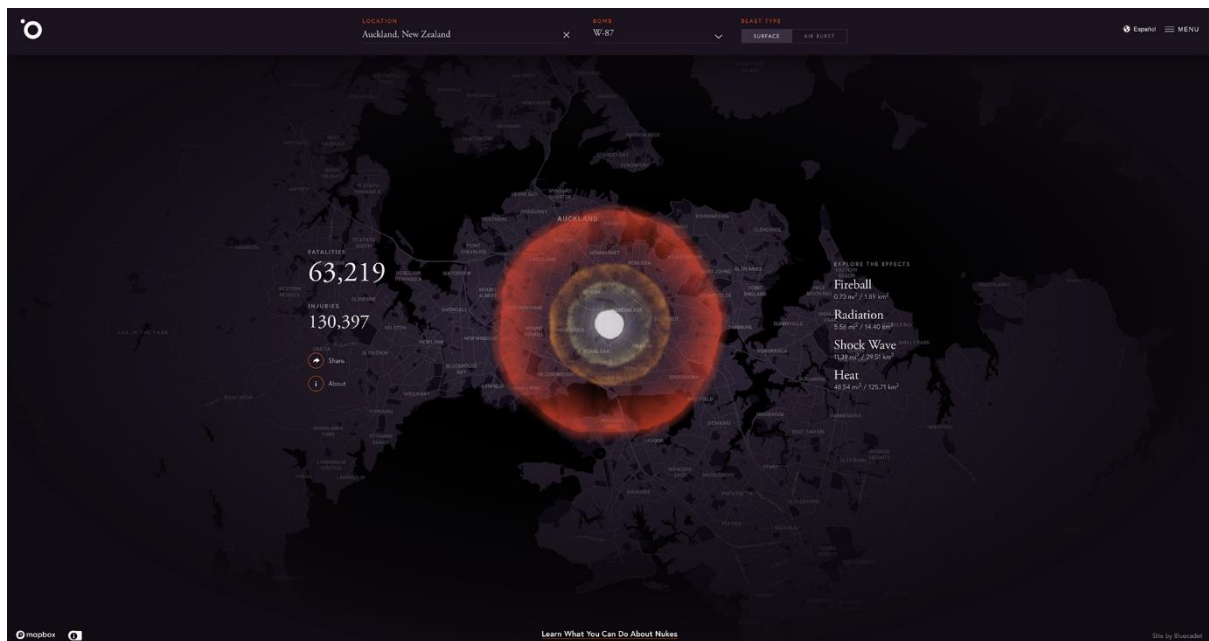


Figure 7. “Experience the Power of a Nuclear Blast in Your Area,” Outrider, <https://outrider.org/nuclear-weapons/interactive/bomb-blast>.

the imperialist practice of cartography. The perspective that implies a military subject is found in many contemporary interactive simulators that visualise nuclear detonations, even in those employed by anti-proliferation projects for educational purposes. For example, on interfaces found on internet sites such as *Outrider*, *Nuclear Secrecy* and *Nuclear Dissent*, the user can select a target location and the model of a bomb to detonate, positing the user as an aggressor.<sup>123</sup> The ubiquity of this militarised perspective signals a serious lack of imagination and a need for new ways to comprehend the global/planetary for disarmament.

Hashimoto's visualisation of planetary nuclear activities, limited to quantified forms of expression and reinforcing militarised perspectives, also prevents the practice of *aloha*, which is a fundamental guiding principle of Indigenous Hawaiian epistemology. *Aloha* is understood as compassion, empathy and care, and underlies both the cause and the goal of one's actions, intentions and being. Arguably, the video replays historical nuclear violence as a warning against repeating the past, yet it does not envision an alternative that affirmatively builds towards a practice of *aloha*, nor does it comment on power disparities between nuclear states and their colonised test sites that it so explicitly portrays.<sup>124</sup> For an artwork to be of use towards disarmament and demilitarisation, it needs to provide viewers with the opportunity to cultivate *aloha*. As Manulani Aluli-Meyer states, "knowledge that does not heal, bring together ... or expand our awareness is not part of the consciousness this world needs now."<sup>125</sup> In other words, for visualisations of the planet to be effective towards nuclear disarmament and demilitarisation, they need to enable healing, bring communities together and expand awareness and

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<sup>123</sup> These interactive simulations are also prone to privileging quantifiable information in conveying the hypothetical destruction of the simulated explosion. *Outrider* dissects the visualised blast into four separate layers: fireball, radiation, shockwave and heat. Each layer is accompanied by data of its radius size and a short technical explanation of the damage it would cause. Furthermore, on *Nuclear Secrecy*'s *NUKEMAP*, the user can opt to display the number of estimated casualties. *Outrider* offers the option to display further details; the number of fatalities can be differentiated from the injuries.

<sup>124</sup> Colonial histories are simply reduced to numerical and geographical information. For example, the disparity between France and French-occupied Polynesia manifests in the tally, as the number of tests appearing next to the French flag rises with each blip that detonates in French-occupied Polynesia on the world map.

<sup>125</sup> Aluli-Meyer, "Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning," 221.

consciousness around overcoming nuclear issues. The video work *1945-1998* demonstrates little potential for achieving these aspects that are essential for disarmament.

### **2.3: CONVEYING NUCLEAR THREAT: DISSEMINATION, SPECTACLES AND SIMULATIONS OF NUCLEAR VIOLENCE**

Visualisations significantly affect the way an issue is understood and approached, and the same predicament can be applied to representations of encounters with nuclear violence. As Hawaiian researcher Jaimey Hamilton Faris discusses, imagery of disasters has the capacity to shape perceptions of what can be changed, by whom, how and when.<sup>126</sup> Although the content of Faris' discussion is concerned with climate change and not nuclear weapons testing, my research borrows certain ideas from her discussions on imageries created for purposes of activism. In particular, my research aligns with her argument that dominant imagery of the "melancholic sublime, catastrophe and visionary solutions"<sup>127</sup> are consequential, as they appear in military discourses, documentaries, policy making, mass media and "even NGO interactive websites like [climatecentral.org](http://climatecentral.org) in which viewers can inundate their own cities,"<sup>128</sup> or incinerate them with nuclear weapons.

Faris suggests that visual aesthetics can attract viewers who continue to watch and empathise temporarily but do not take effective action.<sup>129</sup> Watching from behind a screen, viewers may not sustain their empathy beyond the visuals themselves. The *Global Hibakusha Project*, also examined in the following chapter, is an example of a work that is aware of these

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<sup>126</sup> Jaimey Hamilton Faris, "On the Hydro-Feminism of Kathy Jetñil-Kijiner and Aka Niviâna's *Rise: From One Island to Another*," *Shima Journal* 13, no. 2 (2019): 89.

<sup>127</sup> Ibid.

<sup>128</sup> Ibid.

<sup>129</sup> Ibid.

tendencies for consumption. The creators of the project, Mick Broderick and Robert Jacobs, acknowledge the personal experiences of their interviewees as consumables; and that their plans to record hibakusha's stories could be regarded as "extract[ing] one last resource: stories."<sup>130</sup> Citing American anthropologists Laura Nader and Hugh Gusterson, they recognise that colonial commodification of information is common in many countries. Jacobs and Broderick, therefore, designed methods to protect hibakusha's anecdotes and their dissemination. The interviewees retained intellectual property rights over the interviews, and their dissemination was allowed only when interviewees explicitly gave consent. Indigenous Hawaiian epistemology helps me to understand how the *Global Hibakusha Project* is able to avoid objectively consuming hibakusha's stories. Broderick and Jacobs' methods involve recording and sharing an interviewee's experience and knowledge with care. The project aims to benefit the interviewees and their communities as a priority. Furthermore, the value of relationships in this project—between the creators and the hibakusha, and amongst the hibakusha themselves—is evident. Broderick and Jacobs first established relationships with the hibakusha communities before any filming or interviews took place. Protocols around establishing relationships with appropriate individuals, such as elders or community leaders, were followed. In this regard, such relational works are in alignment with Indigenous Hawaiian epistemology and, to this extent, enable meaningful and lasting disarmament in the way knowledge is disseminated.

Visually oriented and sensorial works can lack narratives that viewers can easily empathise with. Such works are more susceptible to aesthetic consumption. Jane Chang Mi's practice involves documenting the ocean environment with minimal editing to her photographs or footage. Her works in and of themselves do not provide an explicit narrative or personal

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<sup>130</sup> Mick Broderick and Robert Jacobs, "The Global Hibakusha Project: Nuclear Post-Colonialism and Its Intergenerational Legacy," *Unlikely: Journal for Creative Arts* 5: Reimagining Maralinga <http://unlikely.net.au/issue-05/the-global-hibakusha-project>.

accounts of hibakusha experience.<sup>131</sup> Rather her work focuses on conveying a sensorially or visually oriented experience for viewers.<sup>132</sup> This experience may seem to reflect Faris's argument that activism can be hindered by affective aesthetics. Yet, contrarily, Mi's methods function to extend the practice of aloha by moving beyond simply inviting viewers to visually consume images that are associated with traumatic events. Mi often captures, through photography and film, her embodied experiences of the places and environments in which she is immersed. As the artist describes her methods, the camera is employed as an extension of the body by capturing a point-of-view shot from Mi's perspective.<sup>133</sup> Mi's focus is not solely on what is being shown (the object) but on the subjectivity of her seeing and experiencing. This method of filming gives viewers the perspective of moving through the filmed experience and invites them to identify with it. The work *24-08-1968* is an example, in which the captured ocean surface is a viewpoint of the artist. In *24-08-1968*, viewers are positioned in the shoes of imagined hibakusha. Viewers are asked to consider the hibakusha experience with care and sympathy, which leads to a recognition of and healing from the violence of militarised radiation in support of hibakusha. Artworks of this kind provide opportunities for viewers to care for the subjects implicated in the artwork, which render them better equipped to counteract any tendency for only sensorial and visual consumption.<sup>134</sup>

While Mi's works present quieter representations of historical nuclear violence, some artworks fully embrace the spectacular violence these weapons are capable of. My research is

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<sup>131</sup> Australian photographer Paul Ogier's work is another example. See his series *The Prohibited Zone—Australian Atomic Landscapes* (2009–2010), which captures apocalyptic scenery at two former British nuclear test sites at Maralinga and Emu Field.

<sup>132</sup> Chim↑Pom's video work *A Walk in Fukushima* (2016–2017) similarly records an irradiated environment. The immersive 360-degree video work shows the perspective of a former resident walking around the uninhabitable irradiated area. Unlike Mi and Ogier's work, *A Walk in Fukushima* includes a voiceover narrating the thoughts of a former Fukushima resident. Australian filmmaker Lynette Wallworth's VR film *Collisions* (2016) is another similar example. In the immersive VR experience, Aboriginal elder Nyarri Nyarri Morgan recounts his encounter with the British atomic tests in the South Australian desert, Maralinga.

<sup>133</sup> Jane Chang Mi, "Untitled," <http://janecmi.com/Untitled>.

<sup>134</sup> *Untitled* (2010/2014) is another work that exemplifies Mi's filming method; the video shows her swimming around and climbing upon floating ice, for a point-of-view perspective of the artist's dip in the Arctic Ocean.



Figure 8. Smriti Keshari and Eric Schlosser, *the bomb*, 2016, film, <http://thebombnow.com/>.

critical of such works and deems them incapable of leading to enduring efforts towards disarmament or demilitarisation. For example, *the bomb* (2016), an immersive film and music installation created by Indian-American director and artist Smriti Keshari and American journalist and author Eric Schlosser, is an audiovisual work that spectacularises nuclear detonations and military capacities of nuclear states. Described by the creators as an immersive film, music and art installation, *the bomb* is comprised of archival media footage covering the development of the atomic bomb, played in reverse chronology.<sup>135</sup> The ‘experience’ premiered at the 2016 Tribeca Film Festival in New York. Projected 360 degrees across multiple floor-to-ceiling screens, the installation engulfed the audience in a visual history of nuclear activities while a live electronic music quartet played the soundtrack in the centre of the theatre.

The creators of the film, perceiving public indifference to nuclear proliferation, conceived *the bomb* to revive conversations around the issue. However, the intense sensorial experience risks rendering nuclear weapons and the military industry into a spectacle. The audiovisual aspects of the work distract viewers from the issues the creators have tried to convey. The aesthetics draw viewers’ attention to the sensorial bombardment. The flood of scenes of destruction is numbing and drowns viewers in its well of terror without providing any directions for political action.<sup>136</sup> *the bomb* is more successful in bringing awareness to issues of disarmament when it blurs the difference between the threat and the actual manifestation of that threat, the disaster. Contemporary news coverage and archival footage

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<sup>135</sup> Smriti Keshari and Eric Schlosser, “The Film,” *The Bomb*, <http://thebombnow.com/the-artwork>.

<sup>136</sup> *the bomb* is not entirely devoid of political commentary. The political commentary it does provide, however, is restricted to artistic discourse. As a compilation of archived footage, the film inevitably employs the method of détournement. The archival footage is appropriated into the film to be problematised. Footage that displays the sheer physical force of nuclear weapons or a nuclear state’s manpower was originally produced to convey nuclear states’ raw military power—*the bomb* features, in particular, coverage of Chinese and Indian military parades—to intimidate opponents and incite nationalist pride. These demonstrations of power are reframed in the film as ridiculous endeavours that endanger the world. The same can be argued for footage used in the film that records accidents around weapons testing. These scenes reflect the creators’ accusation towards the nuclear states for implementing nuclear testing despite being fully aware of its safety risks. Despite such critical reframing, however, the film remains dependent primarily on explosive imagery for effect.



attest to the disaster that is already happening or has happened; nuclear states' armament, militarisation and weapons testing, as well as past instances of nuclear weapons testing, are actual occurrences. The threat conveyed by *the bomb* is already proven to exist as disasters.

Canadian theorist Peter C. van Wyck proposes that threats are just as capable of delivering an effective impact as disasters. With this proposition, van Wyck further extends the function of threat. As he demonstrates in *Signs of Danger: Waste, Trauma and Nuclear Threat* (2004), van Wyck's approach to threat is premised on the coupling of threat and disaster, in which threat is a virtual possibility that may or may not physically manifest as disaster. In such a formula, as van Wyck notes, threat is limited to being an expression of a prior probability of the disastrous event. The disaster takes centre stage as the main event, while the threat is relevant only in relation to it, mainly in cases where the threat correctly anticipates the actualisation of the disastrous event. Van Wyck questions this proposition and suggests reversing the dynamic between threat and disaster. He does so in order to explore the capacity of threat as a source for knowledge, which he argues is not fully being taken advantage of in the disaster-dominant model. In the former dynamic, the disastrous event as an actual occurrence in the physical world claims superiority in being the issue at hand. This model for understanding unexpected events revolves around disaster. In contrast, the dynamic proposed by van Wyck reallocates disaster to a minor role, as just one actualisation of many other possibilities that threats could anticipate. This dynamic renders threat, or the possibility of, for example, nuclear detonations or radioactive poisoning, the dominant focus. Threat is recognised for the impact and the transformation it is able to produce. As Aluli-Meyer proposes, knowledge is qualified once it can be acted upon as practical knowledge in everyday life. In this sense, van Wyck's proposition attempts to utilise threat's capacity to impact outcomes in the physical world as a useful source of knowledge.

Artistic representations that cannot establish meaningful relationships with hibakusha, or lead to a practice of aloha, undermine the activist motive and effort to convey nuclear violence. Visual spectacles also create distance between the violence depicted and viewers who consume them. Faced with spectacularised nuclear violence, viewers are rendered into passive observers rather than active recipients of the stories shared by the survivors of the violence. When active participation is required for nuclear disarmament, the cautionary tales discussed in this section point to excessive display of aesthetic or spectacular effects that are ineffective towards achieving this goal. The following section further identifies the questionable consumption and objectification of experiences with the nuclear that are specific to Oceania.

#### **2.4: BELONGING TO OCEANIA: DIFFERENCES IN LITERATURE ABOUT, AND FOR, OCEANIA**

Epeli Hau'ofa's seminal text *We Are the Ocean* (2008) explores ideas that come from within Oceania, which speak to lived experience in the region. Ideas *for* Oceania, rather than merely *about* the region, reflect an attachment to Oceania, in which the region is an anchor for relationships; these ideas posit Oceania as both a literal and relational place. Hau'ofa's description of Oceania as a sea of islands full of life aligns with the disarmament aims of my research. His idea refutes Western imperialist notions of remoteness imposed upon the region that have in part justified using Oceania as a site for nuclear weapons testing programmes.<sup>137</sup>

Differing views of Oceania contest the very essence of what Oceania is. The image of the region as synonymous with the vast 'emptiness' of the Pacific Ocean has origins foreign to

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<sup>137</sup> See Sasha Davis, *The Empires' Edge: Militarization, Resistance, and Transcending Hegemony in the Pacific* (Athens: University of Georgia Press, 2015).

Oceanian viewpoints. As Hau‘ofa suggests, such ‘emptiness’ derives from a perception grounded on land as opposed to water. Compared to the continental landmasses of Europe, Africa, Asia and the Americas, travellers and discoverers arriving in Oceania could only see little specks of islands scattered across a vast empty space.<sup>138</sup> Yet to the people who have lived with the ocean for thousands of years, the idea that the ocean is ‘empty’ is inconceivable and incomprehensible.<sup>139</sup> The Pacific Ocean is full of life, made dynamic by relationships and kinships that are constantly being built between the residents to their land and ocean, as well as to the communities within and across islands. Hau‘ofa argues that the ocean enables this liveliness; the ocean is a highway for exploring outwards and establishing new connections, not an obstacle that confines communities to their respective islands.<sup>140</sup> Hau‘ofa’s conception of Oceania is integral to my research because it discredits the imperialist idea that the Pacific is an empty and insignificant region, an idea which the United States and France used as justification to test nuclear weapons in the region. The idea of ‘Oceania’ demonstrates how the region can be imagined, understood and approached in the process of healing from the violence of this testing.

In relation to the proposal to reimagine the ocean, Hau‘ofa suggests replacing the term ‘Pacific Islands’ with ‘Oceania,’ denoting the focus on the ocean rather than land. Hau‘ofa identifies the imperialist view of Oceania as a form of “belittling” a group of people subordinated under another.<sup>141</sup> As Hau‘ofa argues, such belittlement is problematic, as it can seep into the self-perception of the people it is used against and hinder their ability to assert

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<sup>138</sup> Greg Dvorak also notes that the “God’s-eye-view” of Google maps is an imperialist view that renders the islands of Oceania into small specks. Greg Dvorak, “S/Pacific Islands: Some Reflections on Identity and Art in Contemporary Oceania,” *e-flux*, 2020, <https://www.e-flux.com/journal/112/352069/s-pacific-islands-some-reflections-on-identity-and-art-in-contemporary-oceania/>.

<sup>139</sup> See also Matt K. Matsuda, “This Territory was Not Empty: Pacific Possibilities,” *Geographical Review* 97, no. 2, Islands (April 2007).

<sup>140</sup> Epeli Hau‘ofa, *We Are the Ocean: Selected Works* (Honolulu: University of Hawai‘i Press, 2008), xv.

<sup>141</sup> *Ibid.*, 28.

and act with self-autonomy.<sup>142</sup> Regarding the island nations of Oceania as small leads to communities being “at the mercy of the manipulators of the global economy and ‘world orders’ of one kind or another.”<sup>143</sup> The concept of ‘Oceania,’ as a name given by a person who belongs there, reflects the self-determination and sovereignty required for the demilitarisation of the region; the term re-describes the region as seen by those who live there and know it intimately.

Even approaches that are critical of Cold War violence are not always helpful for rebuilding Oceanians’ connection to their homelands. In her interpretation of Oceanian experiences of irradiation, DeLoughrey entertains ideas that are not supportive towards a recuperation of the region from radioactive harm. As expanded upon in Chapter Four, DeLoughrey couples the alterity of light and the irradiated environment of Oceania to argue that radiation morphs exposed places into unfamiliar territories. In *Allegories of the Anthropocene* (2019), DeLoughrey attributes the quality of alterity to light, given the lack of language that can adequately represent it. DeLoughrey draws on ideas from American philosopher David Grandy, who argues that light—and, by extension, radiation—is unrepresentable because it is invisible.<sup>144</sup> She also draws on French philosopher Jacques Derrida’s positioning of the radicality of light.<sup>145</sup> Derrida points to Aristotle’s failure in finding language to represent this invisibility of light, and this failure of language gives light its attribution of “radical alterity.”<sup>146</sup> Borrowing from Spivak, DeLoughrey argues that militarised radiation turns Earth into a foreign other, as it infiltrates environments of the planet and renders them foreign and hostile to human habitation.<sup>147</sup> This theory, to the extent that it suggests

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<sup>142</sup> Ibid., 29.

<sup>143</sup> Ibid., 31.

<sup>144</sup> Elizabeth M. DeLoughrey, *Allegories of the Anthropocene* (Durham: Duke University Press, 2019), 65.

<sup>145</sup> Ibid.

<sup>146</sup> Ibid.

<sup>147</sup> DeLoughrey uses this idea to reconfigure planetarity in today’s irradiated world. For DeLoughrey, the spread of radioactive fallout around the world, as a result of Cold War nuclear weapons testing, expresses the planetarity of human activity. DeLoughrey’s thinking demonstrates how literary methods can contribute additional layers to understanding and configuring the planetarity deriving from worldwide radiation. Ibid., 74.

alienation from land in Oceania, is of no use to the efforts of reclaiming land ‘lost’ to irradiation and consequent evacuation. DeLoughrey’s ideas propose susceptibility to semantics as a criterion for enabling familiarity; the lack of language or ways to represent radiation renders irradiated environments a radical other. Such an approach has little to offer my research, except as an example not to follow. DeLoughrey’s suggestion that alienation is the result of irradiation of land too easily dismisses the resilience of established relationships. Relationships to places comprise of more than physical proximity to it or one’s ability to represent it. Relationships are built with intention and commitment, and are not determined by the external factors of an apparently helpless situation.

A more helpful stance that my research can learn from is found in Hau‘ofa’s portrayal of his relationship with Oceania. He embraces the full extent of a relationship’s capacity to navigate hazards, rephrased in terms of a mother’s unconditional love:

[W]e all know that only those who make the ocean their home, and love it, can really claim it as their own. Conquerors come, conquerors go, the ocean remains, mother only to her children. This mother has a big heart though; she adopts anyone who loves her.<sup>148</sup>

Sāmoan writer Albert Wendt consolidates a similar stance, as cited by Hau‘ofa:

I belong to Oceania—or, at least, I am rooted in a fertile portion of it—and it nourishes my spirit, helps to define me, and feeds my imagination. A detached/objective analysis I will leave to sociologists and all the other ‘ontologists’ ... Objectivity is for such uncommitted gods.<sup>149</sup>

Both Hau‘ofa and Wendt, who draw on Oceanian traditions, are not led to alienating their homes despite recognising the impossibility of intimately knowing all of them. Arguably, experiences of dislocation caused by nuclear weapons testing differ from those caused by

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<sup>148</sup> Hau‘ofa, 34–35.

<sup>149</sup> Ibid., 56.

colonisation or capitalism. Homelands become inaccessible not due to social oppression or issues of changed economy or livelihoods, but to a condition where sustaining life is impossible for an unknown duration. Yet, despite such acute damage to their homes, Bikini Islanders, for example, still hold beliefs of their eventual return home.<sup>150</sup> As holographic epistemology demonstrates, the world can be known in ways other than through the immediate physicality of the body. With interconnectedness and the extension of aloha, places that cannot be known physically can be reached by other means, mentally and spiritually enabled by interconnectedness.

Western epistemology, for which knowing rarely excludes hard evidence, has subjected Oceania to a more probing approach in its quest for knowledge. The history of nuclear research and the scientific discovery of planetary phenomena continue in Oceania today via foreign exploitation of the region. As American anthropologist Miriam Kahn notes in her discussion on the French colonisation of Tahiti in *Tahiti Beyond the Postcard* (2011), colonised island nations of Polynesia were considered experimental terrains for implementing ideas discussed in European metropolises. By the early nineteenth century, colonial-settler cities had become sites to test out policies or strategies that could pose solutions to the political and social problems already affecting France.<sup>151</sup> This history continues to manifest in Oceania, where research *about* the region, as opposed to *for*, overwhelmingly feeds the imagery of contemporary Oceania.

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<sup>150</sup> This belief is made evident in a story that school children of the Bikini Atoll community, now residing in Ejit in Majuro, read during the annual Nuclear Victims Remembrance Day. Titled “Our Bikini Generation,” the story recounts the history of the US nuclear testing programme at Bikini Atoll and the promise the United States had made to the people of Bikini, of their return home after the tests. This promise is passed down the generations through the story, along with a strong sense of ancestral belonging to Bikini Atoll and culture. Australian photographer Jessie Boylan, a participating helper in the *Global Hibakusha Project*, observed this ceremony in 2014. The story, which the Marshallese school teacher had shared with Boylan, can be read on the Nuclear Futures website. “Marshall Islands Day One,” Nuclear Futures: Exposing the Legacy of the Atomic Age Through Creative Arts, <https://nuclearfutures.org/marshall-islands-day-one/>.

<sup>151</sup> Miriam Kahn, *Tahiti Beyond the Postcard* (Seattle: University of Washington Press, 2011), 43.

As DeLoughrey states in *Allegories of the Anthropocene*, the realities of nuclear activities and the Anthropocene coincide in Oceania. Oceania has been, and continues to be, exploited through the processes of developing military technologies and sciences during the Cold War, as well as through contemporary research on climate change.<sup>152</sup> Post testing, the US military collected data from affected Marshall Islanders, studying the effects of radiation exposure on their bodies and living environments.<sup>153</sup> Presently, contemporary journalists, filmmakers and scholars from the global North increasingly descend on the islands of Kiribati, Tuvalu and Tokelau to research one of the world's earliest experiences of living with climate change.<sup>154</sup> DeLoughrey identifies this phenomenon as a continuum of the Cold War-era quest for scientific knowledge and Anthropocene discourses as it culminates in contemporary Oceania. Creative works that show awareness of this history—and are critical of its continuation in the present—align with the anti-imperial motives of my research. Jetñil-Kijiner's practice is a good example of this anti-imperial stance. Her work addresses issues of the Nuclear Anthropocene and global warming interchangeably with the foreign impact on her island country. In my research, I take the position that creative works that can challenge these legacies, rather than overlook them, are needed to implement the healing of Oceania from nuclear activities.<sup>155</sup> Such works align with the principles of Indigenous Hawaiian epistemology, in particular, the practice of aloha as the guiding principle towards lasting disarmament.

Literature about Oceania can seem as if it was produced to benefit the region. Yet, as this section has demonstrated, literature that is *for* Oceania, with its capacity to care for

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<sup>152</sup> DeLoughrey, *Allegories of the Anthropocene*, 67.

<sup>153</sup> Christine Hong, *A Violent Peace: Race, U.S. Militarism, and Cultures of Democratization in Cold War Asia and the Pacific* (Stanford: Stanford University Press, 2020).

<sup>154</sup> DeLoughrey, *Allegories of the Anthropocene*, 190.

<sup>155</sup> For more examples of such work by Jetñil-Kijiner, see *History Project* (2011) and *Monster* (2017). For an example of a work that appears to overlook imperialist legacies, see British research collective INTERPRT's work, *Runit Dome* (2019). The methods they employ reflect a continuation of the numerically-, scientifically- and technologically-oriented approach that objectifies Oceanian experiences.

relationships and people, differs significantly from research projects merely *about* the region. This is a pertinent lesson for my research, which, with its focus on Oceania, finds itself exposed to the risk of slipping into the category of objective research. Without the guide of Indigenous Hawaiian epistemology, in particular the practice of aloha, my research would be at risk of objectivity. Hau‘ofa’s expression of Oceania as a unique and vibrant home reflects the sort of dedication to the region that any effort towards disarmament ought to adopt and which my research strives to practice. Hau‘ofa’s ode to Oceania also demonstrates the power of ideas informed by aloha. The presence of aloha is what differentiates such literature *for* Oceania from that which solely attempts to learn about Oceanian experiences. The difference in degree of the former’s commitment and attachment to the region is starkly different from the latter. As the following section explores, literature fully involved in contemporary Oceanian realities—including the issue of continued militarisation—is capable of resisting attempts to utilise the region for the benefit of others at the expense of Oceania itself.

## **2.5: ERASURE OF IMPERIAL LEGACIES OF CONTEMPORARY MILITARISATION IN OCEANIA**

The military histories of the Pacific are complex and contested.<sup>156</sup> All the more so as representations and mediation of these histories have often been obscured by nuclear states for whom revealing the impact of their nuclear operations to the world has not been in their interests. Such obfuscations contextualise the creative works, interview project and monument examined in this thesis. Scholarship on the militarisation of the Pacific reveals several erasures

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<sup>156</sup> I revert to the term ‘Pacific’ here instead of ‘Oceania’ in order to include Japan and the United States in this discussion.



at play, from imperial histories to contemporary militarisation in the region. *Militarized Currents: Toward a Decolonized Future in Asia and the Pacific* (2010), edited by Japanese-American researcher Setsu Shigematsu and American researcher Keith L. Camacho, is an anthology of essays that frames the militarisation of the Pacific from gendered and racialised perspectives. Shigematsu and Camacho advocate for a cross-regional approach in the effort to decolonise and demilitarise the Pacific. Referring to the relocation of US bases from Okinawa to Guåhan (Guam), Shigematsu and Camacho stress the need for demilitarisation movements to be organised at a regional scale.<sup>157</sup> For example, the withdrawal of US bases from Okinawa, in Japan, may appear to be a success story for the Okinawan demilitarisation movement. However, the United States compensates for this withdrawal by intensifying their militarisation elsewhere within the Pacific; in the case of Okinawan bases, to Guåhan. Regional solidarity is required in order to achieve complete demilitarisation of the Pacific.<sup>158</sup> Here I refer again to the Hawaiian teaching that ‘specificity leads to universality,’ to stress that although my research aims to assist disarmament and demilitarisation in Oceania first and foremost, this position is taken with full knowledge of the weight each locale holds in constituting broader disarmament. Solidarity will need to become cross-regional for disarmament to be realised; as discussed earlier in this chapter, disarmament is only effective if achieved globally.

As the case of Okinawa and Guåhan demonstrates, and as Japanese historian Naoki Sakai argues, Japanese and US imperialism sustain each other through trans-Pacific arrangements. Such arrangements include the postwar transfer of power over the Marshall Islands, from defeated Japan to the United States. Control over the Marshall Islands was passed on from one imperialist state to another and enabled the recipient United States to utilise the

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<sup>157</sup> Setsu Shigematsu and Keith L. Camacho (eds.), *Militarized Currents: Toward a Decolonized Future in Asia and the Pacific*, (Minneapolis: University of Minnesota Press, 2010), xxii.

<sup>158</sup> Also argued in Hong, 135–137.

Marshall Islands as a test site for developing their nuclear arsenal.<sup>159</sup> In a similar transfer of power, the system of ‘Comfort Stations’ set up throughout Asia by the Japanese imperial military was later used for prostitution to serve American soldiers. Such arrangements function to obscure imperialist histories through the mutual complicity of colonising the Pacific.<sup>160</sup> Japanese colonisation of Micronesia in 1914, for example, was justified as a move against Western imperialism, even though the Japanese imitated and learnt from that system.<sup>161</sup> As co-editors Takashi Fujitani, Geoffrey M. White and Lisa Yoneyama argue in *Perilous Memories: The Asia-Pacific War(s)* (2001), the postwar handover of Micronesia to the United States, as confiscated Japanese territory, was framed as a ‘liberation’ of these islands from Japanese colonial rule.<sup>162</sup> By redressing the transfer of power as liberation or salvation from an enemy, the imperial powers maintained control over smaller states between themselves. Such is the nature of the erasure at play in historical imperialism and contemporary militarisation of the Pacific. My position is that such erasure must be fully acknowledged as a factor to overcome in the process towards disarmament.

Cultural and social works about nuclear issues exist within these forces of erasure that obscure imperial histories. Whatever the creators’ intentions may have been, their work can be swept up by these forces. This is evident with Hashimoto’s *1945-1998*, which involuntarily aligns with mechanisms that sustain Japanese and US imperialism in the Pacific. While *1945-1998* does not overtly critique the United States, nor does it confront the Japanese colonisation of Micronesia prior to US imperialism. Hashimoto’s pacifist stance focuses on the image of postwar Japan as a victim of atomic attacks rather than an imperial aggressor that committed numerous atrocities in the neighbouring Asian countries that it invaded. Japanese media have

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<sup>159</sup> Shigematsu and Camacho, xvi-xvii.

<sup>160</sup> Ibid., 16.

<sup>161</sup> Ibid., 17.

<sup>162</sup> T. Fujitani, Geoffrey M. White, and Lisa Yoneyama (eds.), *Perilous Memories: The Asia-Pacific War(s)*, (Durham: Duke University Press, 2001), 3.

favourably portrayed 1945-1998,<sup>163</sup> and it has apparently been shown to former US President Barack Obama. In comparison, Jetñil-Kijiner's *Anointed*, a poem about her visit to a former US test site, Runit Island, is a welcome antithesis to works that do not resist such mechanisms of erasure. Works like *Anointed* are therefore valuable for exposing the mechanism of erasure that mutually benefits the historical and present neo-imperial stances of Japan and the United States.

These mechanisms of erasure extend to criticisms of imperialist endeavours, obscuring critical voices regardless of their imperialist or subjugated positions. Korean-American researcher Christine Hong presents Japanese manga artist Keiji Nakazawa's series *Barefoot Gen* (1973–1987) as an interesting example of a Japanese critique of US violence that was appropriated by postwar US capitalist narratives. *Barefoot Gen* tells a story of a boy in Hiroshima who, having survived the bombing of August 1945, continues with strength and resilience in re-establishing his life. Loosely based on his own experience as a Hiroshima survivor, Nakazawa had intended for his work to “fling a grudge at the United States.”<sup>164</sup> However, Hong argues that such criticism of US nuclear violence and imperialism are appropriated into a broader narrative of postwar success stories.<sup>165</sup> Japan, in such a narrative, is portrayed as an example of a US client-state, colonised and prepared for US capitalist expansion.<sup>166</sup> The lesson of *Barefoot Gen*, by the time it reached American audiences in the 1970s, was already contextualised within the narrative of Japan as a postwar economic success modelled after American capitalism.<sup>167</sup>

Postwar capitalism, or more accurately, as Hong refers to it, dependent capitalism or sub-imperialism, is a significant tool in mechanisms of erasure that render nuclear violence

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<sup>163</sup> See Hiroaki.

<sup>164</sup> Hong, 118.

<sup>165</sup> Ibid., 117.

<sup>166</sup> Ibid.

<sup>167</sup> Ibid.

invisible in Oceania. As Kahn records in her book *Tahiti: Beyond the Postcard*, the French nuclear testing programme led to dependent capitalism being established in Tahiti. With the establishment of the Centre d'expérimentation du Pacifique (CEP) in 1963,<sup>168</sup> a cash economy was imported into Tahiti.<sup>169</sup> Following the opening of an international airport in Faa'a, originally built for military purposes, the Tahitian tourism industry boomed.<sup>170</sup> The Tahitian government, to this day, makes a significant effort to market the international image of Tahiti as a paradise for tourists.<sup>171</sup> Accordingly, in order to feed the country's heavily tourism-oriented economy, obscuring traces of nuclear activities became a necessity.<sup>172</sup>

As Kahn discusses, the Tahitian riot of 1995—a violent protest over France's decision to resume nuclear weapons testing—was as contestation over the image of Tahiti.<sup>173</sup> Capitalist forces that benefitted from erasing the realities of French tests clashed with those who would be sacrificed in the process. Violent protests took over the capital, Pape'ete, in September 1995, when CEP ignored local opposition and conducted *Operation Thetis* at Moruroa.<sup>174</sup> Media coverage of the rioting was disseminated internationally.<sup>175</sup> Yet, as Kahn notes, the French and the Territorial (Tahitian) governments showed more concern for the reputational damage the violent images would have on the Tahitian tourism industry than for the testing that prompted the protests.<sup>176</sup> Thus in Tahiti, capitalist interests produced the mechanism to erase military

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<sup>168</sup> The French organisation responsible for conducting nuclear tests in French-occupied Polynesia.

<sup>169</sup> There followed a movement of Polynesian and French workforces within the islands; attracted by high salaries, some moved to Moruroa and Fangataufa to work in building military facilities, while French citizens arrived on the islands seeking incomes larger than what they would receive back home. Kahn identifies the cash economy as one of the most profound effects to have reverberated throughout French-occupied Polynesia as a result of the French nuclear testing programme. Kahn, 73.

<sup>170</sup> Ibid., 76.

<sup>171</sup> Ibid., 75.

<sup>172</sup> I-Kiribati and African-American scholar Teresia K. Teaiwa describes this phenomenon as militourism: "a military or paramilitary force ensures the running of a tourist industry, and that same tourist industry masks the military force behind it." Teresia K. Teaiwa, "Reading Paul Gauguin's *Noa Noa* with Epeli Ha'ofa's *Kisses in the Nederends*: Militourism, Feminism, and the 'Polynesian' Body," in *Inside Out: Literature, Cultural Politics, and Identity in the New Pacific*, ed. Rob Wilson and Vilsoni Hereniko (Lanham: Rowman & Littlefield Publishers, 1999), 251.

<sup>173</sup> Kahn, 87.

<sup>174</sup> Ibid., 86.

<sup>175</sup> Ibid., 87.

<sup>176</sup> Ibid.

activities with tourist enterprises. My research is interested in creative works that can expose mechanisms of erasure and give visibility to the capitalistic and military endeavours that have been obscured.<sup>177</sup> Mi's photographic work *Le Goût de la Pureté* is one such example. The photograph captures a water purifier, which is a product of a French water company, in the middle of a jungle on an island in French-occupied Polynesia. This documentation of a small capitalist intrusion into an Oceanian island re-visibilises the French military presence as an unnatural and imposing one. As both Kahn and Mi note, the introduction of French capital into Tahiti replaced much of the traditional, self-sustainable lifestyles that the residents had had.<sup>178</sup>

As Mi's *Le Goût de la Pureté* demonstrates, art functions to expose a powerful foreign military presence that has become ubiquitous in Oceania. New Zealand researcher and artist Fiona Amundsen and American researcher Sylvia Frain argue in "Politics of Invisibility: Visualising Legacies of Nuclear Imperialism" (2020), that the works of Mi and Leni Leon provide alternative visualisation to official State representations of US nuclear weapons testing and contemporary US military practices. Amundsen and Frain make specific reference to Mi's work (*See Reverse Side.*) (2017), which focuses on archival photographs of *Operation Hardtack I*, conducted in the Marshall Islands in 1958.<sup>179</sup> Of the many official declassified photographs taken of the tests, only thirteen of them portray Marshallese Islanders and their daily lives that were affected by the detonations.<sup>180</sup> Mi has reproduced the declassified images by copying them, hand-drawn in pencil, to lift them out of archival obscurity. By selecting

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<sup>177</sup> Another example of a nuclear history being distorted to serve capitalist interests is presented by Teaiwa in "Bikinis and Other P/Pacific N/Oceans." The name 'bikini' was appropriated by French designer Louis Réard into a sexualised icon of capitalistic leisure, overshadowing the reality of nuclear violence unleashed on Bikini Atoll. Teresia K. Teaiwa, "Bikinis and Other S/Pacific N/Oceans," *The Contemporary Pacific* 6, no. 1 (1994), <http://www.jstor.org/stable/23701591>.

<sup>178</sup> Kahn, 73; Jane Chang Mi, "Le Goût De La Pureté," <http://janecmi.com/Le-Gout-de-la-Purete>.

<sup>179</sup> Fiona Amundsen and Sylvia C. Frain, "The Politics of Invisibility: Visualizing Legacies of Nuclear Imperialisms," *Transnational American Studies* 11, no. 2 (2020): 126, <https://escholarship.org/uc/item/6zs4q1hv>.

<sup>180</sup> *Ibid.*, 131.



Figure 9. Jane Chang Mi, *Le Goût de la Pureté*, 2014, photograph, <http://janecmi.com/Le-Gout-de-la-Purete>.

these specific images, Mi highlights their importance within the series of official photographs of the tests.<sup>181</sup>

Leon's photojournalism, which he publishes on Instagram, provides a Marshallese perspective on the extended US military exercises taking place on Tinian Island, in the Commonwealth of Northern Mariana Islands.<sup>182</sup> Leon's posts disseminate images and commentaries that are not represented in official state documentation or mainstream media platforms. In addition, Leon's photographs document aspects of Tinian culture and the environment that are at risk of disappearing should the United States fully implement their militarisation of the island. In the Instagram posts discussed by Amundsen and Frain, Leon documents a gâchai (adze), "a sacred ancestral tool of the Chamorro people" that he had found wedged inside the roots of an uprooted tree.<sup>183</sup> In his caption, Leon states that if Tinian Island is militarised, such significant artefacts will disappear and become inaccessible to the people of Tinian.<sup>184</sup>

In this instance, the platform of Instagram functions as a public digital archive, where traditional cultures, knowledge and artefacts are stored and shared.<sup>185</sup> The platform also functions in a manner that is akin to a living archive, as described by Jamaican-born British Marxist sociologist Stuart Hall.<sup>186</sup> In comparison to museum collections that render the archived works "dead," a living archive remains dynamic and is never complete.<sup>187</sup> Leon's documentations are constituents of a living archive of Chamorro culture; the latter is always being constructed and is done so collectively.

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<sup>181</sup> Ibid.

<sup>182</sup> Ibid., 127.

<sup>183</sup> Ibid., 141.

<sup>184</sup> Ibid.

<sup>185</sup> Ibid., 136.

<sup>186</sup> As quoted by Cache Collective, a curatorial group of young scholars. Cache Collective, "Cache: Provisions and Productions in Contemporary Igloolik Video," in *Global Indigenous Media: Cultures, Poetics, and Politics*, ed. Pamela Wilson and Michelle Steward (Durham: Duke University Press, 2008), 76.

<sup>187</sup> Ibid.

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Figure 10. Leni Leon (pacific\_aesthetics), Instagram, August 8, 2020,  
[https://www.instagram.com/p/CDnE8bsFU\\_V/](https://www.instagram.com/p/CDnE8bsFU_V/).



The Instagram platform, catering for social interactions, allows users to share the knowledge stored in Leon's posts and others like them. Moreover, the direct contact between users of social media provides networks for sharing Indigenous knowledge with relatively less interference from foreign interests and gatekeepers.<sup>188</sup> Leon's use of social media demonstrates an effective method of sharing Indigenous knowledge among Indigenous people that reverses the erasures that have resulted from US military and imperialist activities.

In a comparable manner, Jetñil-Kijiner's use of Instagram demonstrates another effective method of utilising a social media platform to tell stories from an Indigenous perspective. On March 8, 2021, the seventy-fifth anniversary of the day Bikini Islanders were relocated to make way for US nuclear weapons testing, Jetñil-Kijiner posted an archival photograph of American military personnel informing the local leader, Kejubuki Juda, of his community's evacuation. Jetñil-Kijiner's caption for the image debunks the deception employed in the original film, which is a US-produced documentary that follows the events of the Bikini Islanders' displacement.<sup>189</sup> She explains that the moment was staged for filming, in which the Bikini Islanders performed their agreement to leave their homeland.<sup>190</sup> She cites, in particular, the rehearsed consenting chants of the Bikini Islanders, which she states required multiple takes. Jetñil-Kijiner refutes the voiceover narration that accompanied the original footage, which justified the use of Bikini as a test site as "something good for mankind."<sup>191</sup> She re-narrates the moment from a Marshallese perspective, enabled by the image-text-oriented format of Instagram that allows her to re-caption the archival photograph. Jetñil-Kijiner's post,

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<sup>188</sup> These criteria, of direct sharing of knowledge for the use and benefit of concerned communities, is also reflected in *The Global Hibakusha Project* covered in Chapter Three.

<sup>189</sup> *Bikini, the Atom Island*, written and narrated by Carey Wilson (Metro-Goldwyn-Mayer, 1946).

<sup>190</sup> Kathy Jetñil-Kijiner (kathykijiner), Instagram, March 8, 2021, <https://www.instagram.com/p/CMi3f0NB6WG/>.

<sup>191</sup> *Bikini, the Atom Island*.

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Figure 11. Kathy Jetñil-Kijiner (kathykijiner), Instagram, March 8, 2021,  
<https://www.instagram.com/p/CMI3f0NB6WG/>.

as a retrospective correction of historical injustice, is a contribution to an online living archive. The original archival material that distorts the real harm of nuclear weapons testing is re-used to reveal its construction. Leon's and Jetñil-Kijiner's use of Instagram demonstrates methods that are crucial to representing experiences and perspective suppressed by imperial interests.

Jetñil-Kijiner's video poems have a similar function to Leon's work in preserving certain aspects of culture and places for people who remain largely underrepresented by perpetrators of their erasure. As American anthropologist Faye Ginsburg notes, Leon's and Jetñil-Kijiner's works are a form of cultural activism, which turns to new media technologies such as the internet for "reviving relationships to their lands, local languages, traditions, and histories, and of articulating community concerns."<sup>192</sup> The artists' use of new technologies continues to be guided by the fundamental principles similarly found in Indigenous Hawaiian epistemology.

Leon's imagery is a case of aloha at work in Oceania. His work incorporates the value of specificity as stressed by Aluli-Meyer; in particular, the specificities of Leon's experience, intention and presentation. His images disseminate embodied encounters with knowledge provided by his land, as he simultaneously consolidates its presence and anticipates its loss. His images strengthen existing relationships between his community and their islands and establish new ones as he appeals to wider, more international audiences afforded by the platform of social media. Leon's subjectivity is presented in his posts via point-of-view shots and captions that amplify his perspective and experience. By involving himself in his posts, Leon appeals to those with whom he has a relationship or kinship. To those without a preceding relationship with Leon, he is able to disseminate his subjective experiences and invite viewers to share in his subjectivity. Leon's subjective images invite new connections that are imbued

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<sup>192</sup> Faye Ginsburg, "Rethinking the Digital Age," in *Global Indigenous Media: Cultures, Poetics, and Politics*, ed. Pamela Wilson and Michelle Steward (Durham: Duke University Press, 2008), 302.

with aloha and function to protect the islands from the damage the US military is attempting to do, which Leon's images de-invisibilise and disseminate globally.

The more relationships are intertwined with Leon's plight, the more strengthened are the ties to the environment and cultural histories of Tinian Island. The issues that Leon and Jetñil-Kijiner comment on are not regional concerns; they are not only localised issues affecting particular communities. What Leon experiences on Tinian Island, and what Jetñil-Kijiner speaks of for Runit Island, requires the regional effort of Oceania and the global effort of the world to disarm and demilitarise "all of it, altogether, and all at once." These case studies and creative works function as specificities that constitute my knowledge of existing efforts towards the demilitarisation of Oceania. Most importantly, valuing relationships, the land, the spirit and aloha for generating knowledge that endures are the key ideas in my research. These ideas frame the following discussion in Chapter Three, which focuses on conceptions of the planetary as related to nuclear weapons testing. I explore what epistemological factors are imperative for determining how the *Global Hibakusha Project* and the monument in Tahua Tu-Marama are capable of contributing to enduring disarmament and demilitarisation in Oceania.

## CHAPTER THREE

### GLOBAL AND PLANETARY NUCLEAR EXPERIENCE

The development, detonation and testing of nuclear weapons—initiated by the World War Two *Manhattan Project* and the 1945 bombing of Hiroshima and Nagasaki—has developed into a worldwide phenomenon. The International Campaign to Abolish Nuclear Weapons (ICAN) describes nuclear weapons as “the only devices ever created with the capacity to destroy all complex life forms on Earth within a relatively short period.”<sup>193</sup> This coalition also proposes that detonating 1,000 nuclear bombs would be enough to “render the planet uninhabitable.”<sup>194</sup> Nuclear activities became global during the five decades of the Cold War, with nine nuclear states<sup>195</sup> detonating over 2,050 nuclear weapons as part of nuclear weapons testing programmes in Australia, Asia, Africa, the Pacific and North America.<sup>196</sup> Radioactive fallout resulting from these tests spread throughout the entire planet and is detectable in all of the world’s continents.<sup>197</sup> As of 2020, the nine nuclear states possess the capacity to damage the world with their 3,720 deployed nuclear warheads.<sup>198</sup> This idea of the Earth as a whole is key to understanding the impact of nuclear activities both past and present. Nuclear disarmament, in response to this worldwide nuclear threat, requires a conception and visualisation of the global that can contribute towards this goal.

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<sup>193</sup> “Climate Disruption and Famine,” International Campaign to Abolish Nuclear Weapons, [https://www.icanw.org/climate\\_disruption\\_and\\_famine](https://www.icanw.org/climate_disruption_and_famine).

<sup>194</sup> Ibid.

<sup>195</sup> The nine nuclear states are the United States, the United Kingdom, France, Russia, China, North Korea, India, Pakistan and Israel.

<sup>196</sup> “World Overview,” Comprehensive Nuclear-Test-Ban Treaty Organization, 2012, <https://www.ctbto.org/nuclear-testing/history-of-nuclear-testing/world-overview/>.

<sup>197</sup> van Wyck, 24.

<sup>198</sup> According to the Stockholm International Peace Research Institute (SIPRI). The total inventory lists 13,400 warheads. The 9,680 warheads categorised as “Other warheads” by SIPRI include operational warheads in storage and retired warheads awaiting dismantlement. Shannon N. Kile and Hans M. Kristensen, “World Nuclear Forces,” in *SIPRI Yearbook Online* (Stockholm and Oxford: Stockholm International Peace Research Institute and Oxford University Press, 2018), <https://www.sipriyearbook.org/view/9780198869207/sipri-9780198869207-chapter-010.xml>.

As discussed, my research focuses on the ways in which Indigenous Hawaiian epistemology can contribute towards the disarmament and demilitarisation of Oceania. This focus is determined in my research by exploring works concerned with the legacies of nuclear weapons testing. This chapter focuses on how approaching the idea of the global through Hawaiian epistemology can work towards disarmament.<sup>199</sup> I focus more fully on the *Global Hibakusha Project* led by Mick Broderick and Robert Jacobs, and the monument in Tahua Tu-Marama in Pape‘ete, Tahiti. These creative works allow interpretations that align closely with the values of Indigenous Hawaiian knowledge through their conceptions of the global that affirmatively contribute towards nuclear disarmament and demilitarisation in Oceania. The works engage with what Manulani Aluli-Meyer has discussed as specificities leading to universality and the epistemological importance of land/place and relationships. Both works involve connecting specific lived experiences of nuclear weapons tests and extending them to other similar instances around the world. These connections further reflect ideas of interconnectedness, the spirit and aloha, as outlined in Indigenous Hawaiian epistemology. Aloha is the principle of compassion, empathy and care; aloha causes and is caused by epistemology. The interconnectedness of the globe, enabled by the spirit, is the foundation for extending aloha worldwide. Aloha is practised in the creative works examined by looking out for and after one another in preserving nuclear histories and preventing future detonations.

Broderick and Jacobs’ *Global Hibakusha Project* records experiences of hibakusha in communities affected by nuclear weapons testing and nuclear reactor accidents. Broderick and Jacobs’ definition of global hibakusha is inclusive of nuclear veterans, civilian workers, residents and Indigenous communities close to sources of contamination or affected by

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<sup>199</sup> In this chapter, I use the word ‘global’ in the sense of worldwide and international, a state of affairs that involves all nations and communities on Earth. The term is not used in the sense set up by Spivak, whereby she names globe/globalism in opposition to the planet/planetarity, as discussed in Section 2.2 of Chapter Two.



Figure 12. Monument in Tahua Tu-Marama in Pape'ete, Tahiti, Tahiti Infos, 2014, [https://www.tahiti-infos.com/La-place-Jacques-Chirac-officiellement-denommee-a-Papeete\\_a104041.html](https://www.tahiti-infos.com/La-place-Jacques-Chirac-officiellement-denommee-a-Papeete_a104041.html).



Figure 13. Monument in Tahua Tu-Marama in Pape'ete, Tahiti, Tahiti Heritage, 2013, <https://www.tahitiheritage.pf/lieu-de-memoire-des-essais-nucleaires/>.



travelling fallout.<sup>200</sup> The authors have visited hibakusha in various countries (Russia, Kazakhstan, the Marshall Islands, Tahiti, Fiji, New Zealand, Australia, the United Kingdom, the United States, France and Spain), with the aim of establishing potential connections between these disparate and isolated communities.<sup>201</sup> They envisioned that evolving social media networks and increasingly cheap and accessible gadgets could be utilised to digitally record and archive oral histories.<sup>202</sup> The stories could then be shared within and across the communities involved.<sup>203</sup> An important aspect of this project was to give these communities ownership and control over their narratives, which the authors recognised as often being mediated by Western academics or media gatekeepers.<sup>204</sup>

Broderick and Jacobs' research design of the *Global Hibakusha Project* reflects an awareness of the value of relationships as being a vital factor that shapes what is shared and how. Given the history of colonialism that has affected many of these hibakusha communities, the creators were aware that their project could be regarded as a continuation of this extraction, in particular of subjective oral histories as a resource for their own research. In order to implement an approach more beneficial for the communities that they would interview, the creators ensured that their research developed from relationships established with the communities. Broderick and Jacobs worked with existing structures of authority within the communities, which included elders, activist groups and other community hierarchies.<sup>205</sup> Key

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<sup>200</sup> Broderick and Jacobs.

<sup>201</sup> Broderick and Jacobs note that many of the survivor communities were unaware of others like them outside their communities. For example, although Kazak hibakusha had heard of tests taking place in the United States, few knew about the Pacific Proving Grounds. Indigenous Australian hibakusha had not heard of nuclear detonations in Oceania, Russia, China or Japan. Kiritimati survivors, affected by both British and US testing between 1958 and 1962, had never received official documentation, health checks, or consultation over subsequent clean-ups of their land. Within nuclear states, former workers and participants in nuclear testing were under strict state order not to share any information about the tests, including with their closest kin. Ibid.

<sup>202</sup> Ibid.

<sup>203</sup> Ibid.

<sup>204</sup> Ibid.

<sup>205</sup> Ibid.



community leaders' receptiveness to the interview project, or lack thereof, determined whether Broderick and Jacobs could access hibakusha's stories.<sup>206</sup>

Building relationships in this way shows that global hibakusha are individuals with whom the creators have interpersonal relationships, as opposed to being research subjects. The *Global Hibakusha Project* thus posits the hibakusha as an international community with whom relationships can be established and opportunities for learning initiated. Broderick and Jacobs' relational approach generates an idea of the planetary/global composed of such communities and relationships, which now involves the creators; the relationships that built the project could not have come to be without them. Broderick and Jacobs' method is particularly important for disarmament since the relationships, established not only between the creators and the hibakusha communities but between the various communities themselves, bestow a sense of responsibility to look after the stories of the hibakusha and their experiences. This responsibility is evident in the projects' protocols, which require research results to be shared with the communities and published only if the communities give explicit consent. Relationship, as an epistemological factor, ensures that knowledge deriving from it strengthens and improves it; both the relationship and the knowledge must enable a practice of aloha.

Relationship building also extends into an adjacent project that Broderick and Jacobs conducted following the *Global Hibakusha Project*.<sup>207</sup> The international youth leadership workshops held in the Marshall Islands in 2014 and in Hiroshima in 2015 gathered third-generation hibakusha from Australia, Kazakhstan, Japan and the Marshall Islands. The

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<sup>206</sup> One example is an episode in Russia, where the creators were introduced to a former KGB Colonel who denied that any fallout from Soviet tests had reached neighbouring Kazakh villages. Hence this meeting did not lead to any fruitful result for the project. By contrast, in Semeny (former Semipalatinsk, the primary Soviet testing site), where Broderick and Jacobs were visiting a hospital that treated many hibakusha, an academic helped Broderick and Jacobs get in touch with numerous important contacts. Ibid.

<sup>207</sup> In partnership with Nuclear Futures, an Australian programme that supported artists working with atomic survivor communities. The programme was active from 2014 to 2016 and extended into six different countries. "About," Nuclear Futures: Exposing the Legacy of the Atomic Age Through Creative Arts, <http://nuclearfutures.org/about/>.

workshops aimed to teach participating youths how to conduct oral history interviews, including camera techniques and interview methods, for recording stories of nuclear violence from their family members. The workshops allowed third-generation hibakusha to establish connections with others like them from various countries, building relationships not only within the generation of the original hibakusha but with their descendants.

The workshops add a temporal dimension to the global hibakusha community. Not only does the project create a means through which older hibakusha can pass on their experiences beyond their lifetime, but it also creates a global and generational community of hibakusha. The workshop nurtures cross-cultural solidarity at the level of the youngest generation, as participants share stories of their grandparents as well as their own, with the cohort of third-generation global hibakusha. Moreover, as is the case in particular with Marshall Islanders, third-generation hibakusha attest to the unbelievably long aftermath of nuclear weapons testing; Bikini Islanders have yet to return to their islands, waiting now for 75 years on the United States' promise that they will be able to return home. The multi-generational damage speaks to the planetary timescale in which radioactive contamination operates. Passing down hibakusha's stories to younger generations is vital for the global disarmament movement, as hibakusha testimony prevents such promises and histories of violence from being forgotten. Hibakusha testimony also functions to deter the future possibility of a nuclear war, warning against a possible repetition of the violent history. Although hibakusha's commitment to remembering and sharing their stories is highly personalised, the disarmament message conveyed through their stories has a global reach.<sup>208</sup> The relationships that exist between generations of hibakusha also present a solution to the question of how to preserve and

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<sup>208</sup> Hibakusha anecdotes should be noted for their world-wide impact in comparison to other state-driven methods, such as anniversaries, commemorations or remembrance days. For example, the antipodean remembrance day Anzac Day is a public holiday commemorating all those who died in wars, conflicts or other peace-keeping operations. Dawn services and other community-focused ceremonies throughout the day are employed to remember and disseminate histories of Australian/New Zealand participation in global conflicts.

disseminate these testimonies. These relationships will ensure that the stories are cared for, as they are passed down within the communities of hibakusha and those who establish meaningful relationships with them. This global network of supportive hibakusha community is the idea of the global that disarmament movements can most benefit from.

The *Global Hibakusha Project* hopes to achieve a practical outcome. This outcome involves establishing connections between the disparate communities, which allows knowledge and experiences of radiation exposure to be shared. In addition, information on reparations or declassification of documents that can help the communities to receive acknowledgement and claim compensation has been shared through the project.<sup>209</sup> In effect, knowledge gained by one community of hibakusha is shared internationally to help other communities facing similar obstacles. This practical, global applicability validates this shared knowledge as akin to the way knowledge is understood within Hawaiian epistemology. As stated, utility of knowledge is one of the seven main ideas—or ‘pillars’—that constitute the foundations of Indigenous Hawaiian epistemology. The utility of knowledge pillar teaches that real knowledge is useful in a practical sense;<sup>210</sup> useful knowledge can be applied to everyday living and produce practical outcomes for the good of one’s community.<sup>211</sup> This capacity for practical application distinguishes real knowledge from mere information, which most often exclusively contains factual or quantifiable data.<sup>212</sup> Like legal precedents, progress made in gaining recognition or compensation in one community can lead to achieving similar feats elsewhere. A government acknowledging the suffering endured by hibakusha and implementing compensation is one way that it can address its culpability. Admitting to past crimes is a starting point for building a global consensus towards the persecution and

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<sup>209</sup> Broderick and Jacobs.

<sup>210</sup> Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 221.

<sup>211</sup> Aluli-Meyer, “Our Own Liberation: Reflections on Hawaiian Epistemology,” 136–137.

<sup>212</sup> Ibid., 137.

prohibition of nuclear violence. The functional outcomes of the *Global Hibakusha Project*—or more accurately, the potential for such outcomes—thus contribute towards global disarmament.

The project also exemplifies what Aluli-Meyer has discussed as specificity leading to universality.<sup>213</sup> This idea posits that universality is not in *opposition* to specificities (particularity), but is reached *through* specificities. For example, hibakusha from one locale can imagine what hibakusha elsewhere have gone through, based on their own experiences. This way, individual hibakusha may understand the universality of their experience. This Hawaiian conceptualisation of universality counteracts Cold War US state narratives that attempted to universalise the development of nuclear weapons as a general good by disregarding the specificities of the Marshallese experience.<sup>214</sup> Dismissing specificities is not a meaningful (or even possible) way to engage with the worldwide spread of nuclear violence. Efforts to understand the destructive capacity of global nuclear stockpiles need to begin from a specificity; a specific experience, person, community or locale.<sup>215</sup>

Aluli-Meyer discusses the idea of specificity leading to universality in order to question that empiricism is neutral and objective.<sup>216</sup> She argues that human senses are culturally configured;<sup>217</sup> perception of the same physical world can differ from culture to culture. For Aluli-Meyer, these differing interpretations of experience are crucial because they lead to understanding ‘universality’ as an accumulation of multiple truths.<sup>218</sup> As she states, this kind of universality leads “inevitably to transformative policies, awareness and pathways to

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<sup>213</sup> Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 218.

<sup>214</sup> As discussed in Section 2.1 in Chapter Two.

<sup>215</sup> Teresia K Teaiwa, in “Bikinis and Other P/Pacific N/Oceans,” also advocates for honouring specificities of Oceanian experiences. She posits that specificities counteract generalising neo-colonial forces (primarily American and French) that render Oceania into military bases or tourist attractions.

<sup>216</sup> Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 218.

<sup>217</sup> *Ibid.*, 220.

<sup>218</sup> *Ibid.*, 218.

liberation via our own articulated epistemology.”<sup>219</sup> The stories recorded for the *Global Hibakusha Project* cultivate this multiplicity by adding specific encounters with nuclear violence to experiences worldwide.<sup>220</sup> These multiplicities more accurately reflect the global state of nuclear activities and challenge conceptualisations of the universal that lack a specific and embodied positioning.

While the *Global Hibakusha Project* explores specificities through personal anecdotes, the monument in Tahua Tu-Marama expresses specificities through land. Located in the seaside park in Pape‘ete, Tahiti, the monument displays stones from former ground zeros, including Semipalatinsk, Hiroshima and Nagasaki, and five additional stones symbolising the five archipelagos of French-occupied Polynesia. The stones are laid in front of three unu carved by Tahitian artist Eriki Marchand.<sup>221</sup> By bringing together geological fragments of affected lands, the monument conveys the reality of global nuclear violence through the physical presence of land. As discussed in Chapter One, land, within Indigenous Hawaiian epistemology, is a significant teacher that informs learning processes and knowledge acquisition. Experiences had at a place and relationships established there enhance what can be learnt from that place. The monument in Tahua Tu-Marama has served as a symbolic spot for numerous delegates, visitors, trade unionists and other personalities from Oceania and the world to come and reflect upon

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<sup>219</sup> Ibid.

<sup>220</sup> In addition, the term ‘global hibakusha’ too reflects the idea of specificity leading to universality; the term ‘hibakusha’ is a Japanese word meaning ‘person affected by a bomb.’ ‘Global hibakusha’ refers to the specificities of the Japanese experience while extending universally to many other communities affected by detonations thereafter. In fact, as the authors of the project state, the spread of radionuclides as a result of nuclear testing renders much of the Cold War-era populations ‘hibakusha.’ Broderick and Jacobs.

<sup>221</sup> An unu is a traditional element found on marae. The monument at Pape‘ete includes three, each with its own message or symbolism. The first shows the star Aldebaran of the constellation of Taurus, which is one of ten pillars the god Taaroa erected to separate the sky from the earth. Marchand hoped to symbolise the upheaval of Polynesian society during the thirty years of nuclear weapons testing. The second unu, named after the first atomic explosion in Fangataufa in 1975, *Achille*, depicts a cry of anger. The explosion woke the deity Ruamoko from the belly of the earth. The cross of Lorraine, the French symbol for freedom, is shown bursting into the heart of the Polynesian world. The third piece is engraved with the words ‘truth’ and ‘rights’ in reo Mao‘hi, English and French. The first two unu were inaugurated on July 2, 2011, while the third was unveiled five years later, on the fiftieth anniversary of the first nuclear detonation in French-occupied Polynesia. “Enseigner Le Fait Nucléaire En Classe De Cm2,” Ministère de l’éducation de la modernisation de l’administration en charge du numérique (MEA), [https://www.education.pf/wp-content/uploads/2019/11/CM2-histoire-fait-nucleaire-diaporama\\_support.pptx](https://www.education.pf/wp-content/uploads/2019/11/CM2-histoire-fait-nucleaire-diaporama_support.pptx).

the folly of nuclear violence.<sup>222</sup> The location of the monument in French-occupied Polynesia, itself a place with experiences of nuclear violence and colonisation, extends the monument's memorialising function to other affected sites. In this way, the specificity of what could be learnt at Pape'ete about nuclear weapons testing is an entry way for connecting to other experiences of nuclear detonations around the world.

In addition, the monument commemorates the coming together of various sites of nuclear violence through a specifically local expression. The stones and the three *unu* are placed upon a form of a *paepae*, which is a paved platform that traditionally served as a foundation for a house, a *marae* or for a game of sports. The *paepae* reflects an expression of space culturally specific to Mā'ohi Nui. The foreign stones brought from sites of nuclear detonations are elements of the global that are incorporated into a local configuration of a site. This aspect of the monument is another way in which it reflects the idea of universality as an accumulation of specificities, as expressed through the land.

How individual specific places lead to universality is demonstrated further by an attempt in 2014 by former President of French-occupied Polynesia Gaston Flosse to remove the monument and to return the name of the square to Place Jacques Chirac.<sup>223</sup> Memorialising the victims of nuclear detonations is an essential practice in achieving global disarmament and demilitarisation; the monument serves as an acknowledgement of nuclear violence. Removing the monument would equate to reversing this acknowledgement specific to French-occupied Polynesia, as well as sites elsewhere around the world. Erasing acknowledgements of nuclear violence is, of course, counterproductive to condemning the development and testing of the

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<sup>222</sup> Moruroa e Tatou, "A Move to Erase All Memory of the Victims of Nuclear Testing?" June 13, 2014, <https://www.acdn.net/spip/spip.php?article872&lang=en>.

<sup>223</sup> Jacques Chirac was a former French President responsible for the resumed testing at Moruroa in 1995, despite numerous domestic and international protests. "Moruroa e Tatou 'Dégouté' Par Son Expulsion De La Place Du 2-Juillet-1966," Tahiti Infos, June 11, 2014, [https://www.tahiti-infos.com/Moruroa-E-Tatou-degoute-par-son-expulsion-de-la-place-du-2-juillet-1966\\_a103066.html](https://www.tahiti-infos.com/Moruroa-E-Tatou-degoute-par-son-expulsion-de-la-place-du-2-juillet-1966_a103066.html).

weapons. The erasure would also result in a loss of connection between the Tahitian monument and ground zeros elsewhere, which link each specificity to a worldwide condition. The multiplicity that Aluli-Meyer advocates is reduced, as are the opportunities for transformative policies towards nuclear violence. Fortunately, thanks to the efforts of Moruroa e tatou, an association of former workers and victims of nuclear weapons testing at Moruroa and Fangataufa Atolls, the monument was saved and still stands. A vital resource has been retained for disarmament and demilitarisation movements in Oceania. The value of this monument is reiterated by the Hawaiian epistemological pillars of specificity towards universalism and the significance of land. These pillars enable conceptualisations of the global that can be utilised to heal from the realities and legacies of nuclear weapons testing.

Both the *Global Hibakusha Project* and the monument in Tahua Tu-Marama incorporate physical aspects of the planet, which reflect the planetary attribute of worldwide nuclear weapons testing. The stones included in the monument in Tahua Tu-Marama are actual elements of the earth, which indicate the natural environments that have been affected by nuclear violence. Broderick and Jacobs physically visited former test sites or places of residence of the hibakusha whom they interviewed. They make physical contact with the places and people that make up the planetary reality of nuclear violence. Similarly, in their adjacent international youth workshops, participating third-generation hibakusha visit each other's homes that are sites of nuclear detonations; they swim in the sea at the Marshall Islands, or tour the city of Hiroshima. These physical visits are a way of establishing relationships with a place. Travel to these sites is an engagement with the physicality of the planet. These planetary engagements function to undermine conceptions of the global that are reduced, flattened or digitised, as outlined in the previous chapter.

The two works also attest to Aluli-Meyer's thinking concerning the idea of interconnection. Interconnectedness binds all living beings together and is engaged with the

spirit. The spirit allows one to connect with the wider universe beyond one's physical or mental capacities. Accordingly, interconnectedness allows aloha—the principle of compassion, empathy and care—to extend globally, where humans cannot physically connect on a global scale. For example, the monument in Pape‘ete is one point in this interconnection, where visitors can connect to all those affected by the tests, including the land in French-occupied Polynesia as well as elsewhere in Oceania and beyond. To regard and treat the monument with aloha leads to the same approach being applied to past and present places and people worldwide, whose experiences provide reasons to ban nuclear weapons.

As Aluli-Meyer discusses, connectivity with others constitutes acquiring and generating knowledge; Indigenous Hawaiian epistemology emphasises that all knowledge is built on relationships, and their formation and cultivation. The relationship created between hibakusha communities via the *Global Hibakusha Project* is a fitting example. These relationships are not considered haphazard occurrences but are established across intentional time and space. The relationships are lived experiences of the connection between those involved and are remembered by them as such.<sup>224</sup> The intelligence of aloha, therefore, is premised in thinking and acting with awareness of and consideration for others.<sup>225</sup> Here, a conception of the global based on this epistemological idea of relationships and aloha generates ways to achieve disarmament and demilitarisation. Relationships, interconnection, the spirit, and aloha are all constituents of my method of employing Indigenous Hawaiian epistemology, and are the principles for working towards nuclear disarmament and demilitarisation in Oceania.

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<sup>224</sup> Aluli-Meyer, “Holographic Epistemology: Native Common Sense,” 5.

<sup>225</sup> This connecting gesture also consequently extends to oneself. Aluli-Meyer describes aloha as a “level of consciousness” that functions as the foundation for one's actions. Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 221.



This chapter has outlined the ways in which Indigenous Hawaiian epistemology can identify, in works concerned with global nuclear weapons testing, conceptions of the global that are conducive to nuclear disarmament. Such conceptions are composed of relationships from which one can learn about direct experiences with nuclear violence. The *Global Hibakusha Project* produces a global community of hibakusha, between whom practical wisdom on gaining state recognition and compensation can be shared. The monument in Tahua Tu-Marama memorialises victims of nuclear detonations not only in French-occupied Polynesia but around the world, establishing connections between the sites. These capacities enable viable knowledge that is conducive to nuclear disarmament in accordance with Indigenous Hawaiian epistemology.

Considering the importance given to the role that specificities have in understanding the global, the following chapter examines an artwork that derives from a specific encounter with militarised radiation. Chapter Four examines Jane Chang Mi's *24-08-1968*, a video installation that explores a fully embodied encounter with the irradiated environment of the Tuamotu Archipelago. In doing so, the chapter investigates what and how a sensorial artwork that simulates exposure to radiation can contribute to disarmament and demilitarisation. My analysis of *24-08-1968* further extends the epistemological idea of land in remembering and reclaiming it as a way to heal from irradiation. In addition, the pillar of intention is discussed as a tool with which the simulation can be approached as a learning opportunity in the context of a sensorial experience.

## CHAPTER FOUR

### HEALING FROM HELIOTROP-IC VIOLENCE WITH ALOHA: EMBODIED AND SENSORIAL REPRESENTATIONS OF NUCLEAR HARM

During the Cold War, the United Kingdom, the United States and France predominantly tested nuclear weapons within Oceania. Although Indigenous communities were relocated to make way for these tests, the real dangers of them were often not communicated. Consequently, people were unknowingly exposed to radiation that also spread into their living environments. Their suffering, which is yet to be adequately addressed and compensated for by the responsible governments, continues to demonstrate the ongoing physical and social consequences of living in environments contaminated by radiation.

Jane Chang Mi's *24-08-1968* is an artwork that comments on this plight by recording, recounting and disseminating experiences of weaponised radiation in Oceania. Mi's artwork explores the dangers of radiation, which is represented by the video's use of reflected sunlight that functions to "blind" and "attack" the viewers. This chapter explores how Indigenous Hawaiian epistemology can guide an exploration of this artwork in a way that enables healing from the violence and an activation of aloha in the process. Unlike the *Global Hibakusha Project*, Mi's *24-08-1968* does not involve hibakusha anecdotes to convey the realities of the testing. Instead, the video installation functions as an immersive and sensorial simulation of militarised radiation. As the artist has discussed, the artwork draws on the heliotrope, a metaphor prevalent in Cold War US state-led propaganda that likened radiation to solar energy.<sup>226</sup> The heliotrope was featured in Cold War rhetoric surrounding the development of nuclear weapons; the solar metaphor was applied to descriptions of the weapons' cosmic

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<sup>226</sup> Jane Chang Mi, "24-08-1968," <http://janecmi.com/24-08-1968>.

power.<sup>227</sup> Mi's artwork works with this metaphor by visualising the propaganda that was set up to deliberately mislead the public of involved states to believe that radiation was as harmless as sunlight.

This chapter argues that, due to its sensorial aesthetics, *24-08-1968* is susceptible to being dominated by its mesmerising qualities. Subliminal and spectacularised representations of atomic power are ubiquitous in records of nuclear weapons testing, where the classic image of the mushroom cloud dominates the official documentation of tests. Although Mi's work does not depict an actual explosion, it engages in a topic that has been historically portrayed as spectacularised. Accordingly, this chapter explores how Indigenous Hawaiian epistemology can lead to an exploration of *24-08-1968* that avoids rendering the work's content as solely an aesthetic display. Specifically, I suggest that remembering the violent intentions behind the irradiation simulated in the installation is a method for preventing the artwork's effects from stalling at its visual and sensorial projections. "Causative agency of intention" is an Indigenous Hawaiian idea that validates intentions as totally capable of materialising as concrete consequences.<sup>228</sup> Acknowledging the intentions behind the nuclear weapons testing reframes the solar simulation as the kind of violence that it was, rather than as an entertaining sensorial experience.

The intelligence of aloha underlies my methods for engaging with this artwork. When *24-08-1968* is viewed with aloha, the artwork's capacity to generate empathy and compassion for hibakusha becomes apparent. I explore this capacity through American author Rob Nixon's concept of slow violence. The work *24-08-1968* successfully visualises slow violence by defying mass media's conventional expectations of newsworthy (spectacularisable) disaster

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<sup>227</sup> The heliotrope accompanied nuclear detonations from its very first conception. Director of the *Manhattan Project* Robert Oppenheimer famously described the Trinity explosion as "the radiance of a thousand suns." A more recent example can be found in Michael Light's compilation of archived photographs of US tests; the book is titled *100 Suns*.

<sup>228</sup> Aluli-Meyer, "Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning," 222.

and instead producing an intimate and subjective encounter with weaponised radiation. In contrast, I utilise a position of aloha to focus on the subjectivity of the hibakusha involved in the violence, rather than objectifying their experiences. I am interested in the way this positioning enables an interpersonal connection to hibakusha experience. I also engage with holographic epistemology, which enables mental and spiritual approaches to the artwork that function to cultivate its capacities for sharing subjectivities and establishing interconnection.

The practice of aloha enables an approach to the irradiated environment depicted in *24-08-1968* that leads to reclaiming it and turning it into a place for healing. This act of recovering is both enabled and challenged by *24-08-1968*'s visual formal properties that reflect an unfamiliar environment. Here I draw on Elizabeth DeLoughrey's discussion of planetarity in *Allegories of the Anthropocene* (2019). DeLoughrey applies the concept of planetarity from Gayatri Chakravorty Spivak to argue that irradiation transformed Oceanian environments into unfamiliar places. The process of defamiliarisation goes against efforts to reclaim familiarity in places contaminated by radiation. In the face of such uncertainties, a commitment towards aloha becomes ever more vital in initiating healing from the violence of nuclear weapons testing.

Mi, an ocean engineer as well as an artist, draws from her background in marine training to conduct interdisciplinary research on the colonial occupation of Oceania. Her video installation, *24-08-1968*, set up in a residential garage in Los Angeles, comprises a video projected onto the back wall of the garage. The video loops one continuous shot of flickering sunlight reflected on the ocean's surface. Sand covering the garage floor and bird calls emanating from the video create an immersive, oceanic setting inside the concrete cuboid. This dim setting heightens the intensity of the light shimmering in the projection. Mi filmed this footage during her residency at the Richard B. Gump South Pacific Research Station on the island of Mo'orea, located 40km to the northwest of Tahiti. The video documentation is one of



Figure 14. Jane Chang Mi, *24-08-1968*, 2014, video installation, <http://janecmi.com/24-08-1968>.

a series of recordings that traces the effects of French military and capitalist imperialism on the region.<sup>229</sup>

The experience of the artist, as captured in *24-08-1968*, builds on past and ongoing experiences of affected communities. For example, the footage records Mi's own experience of gazing at the shimmering marine sunlight. Shot in the Tuamotu Archipelago, where the primary French test sites of Moruroa and Fangataufa are located, the video captures Mi's encounter with the history of radioactive contamination at the site. This experience of the artist, in turn, is shared with the viewers via the installation. In addition, *24-08-1968* imagines the experience of those affected by the actual, historical irradiation. The artwork thus functions as a connecting point between experiences that are otherwise temporally and spatially separated.

The projected video, scaled to the garage's height, confronts viewers with flickering, blinding light. Mi associates the piercing sunlight in *24-08-1968* with radiation from nuclear weapons testing, describing the artwork as a sensorial encounter in which viewers experience being "attacked" by the bright sunlight.<sup>230</sup> The attacking sunlight functions to simulate a heliotrope, a metaphor that likened radiation to the sun's rays. Although Mi's work refers specifically to the French tests conducted in the Tuamotu Archipelago between 1963 and 1996, the propaganda campaign was led primarily by the United States during their nuclear weapons testing in the Marshall Islands. DeLoughrey attributes the development of the heliotrope as a solar metaphor to William Laurence, *New York Times* journalist and *Manhattan Project* reporter.<sup>231</sup> His rhetoric, which DeLoughrey describes as "consistent cosmic hyperbole about the power of atomic explosions,"<sup>232</sup> was adopted by both President Harry Truman and the Chair of the Atomic Energy Commission (AEC), David E. Lilienthal, not to mention many other

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<sup>229</sup> See Mi's work, *Le Goût de la Pureté* (2014).

<sup>230</sup> Mi, "24-08-1968."

<sup>231</sup> DeLoughrey, *Allegories of the Anthropocene*, 73.

<sup>232</sup> Ibid.

journalists and politicians of the time.<sup>233</sup> The state-led campaign set out to deceive the public about atomic energy, utilising the heliotrope to confuse solar and militarised radiation.<sup>234</sup> By realigning “the imagery of the sun and the nuclear with threatening violence,”<sup>235</sup> *24-08-1968* provides a visual and sensorial experience of this rhetorical tool.

By conveying the heliotrope, *24-08-1968* addresses related violence that is produced or derived from it, namely militarised radiation and radioactive contamination of living environments. The harsh light represents both militarised radiation and the visual solar metaphor, while the ocean surface reflecting the sunlight and the installation space covered in sand allude to an environment exposed to and contaminated by radiation. These elements enable the whole installation to simulate that violence—militarised radiation, heliotrope and radioactive contamination—all at once.

The flickering sunlight in *24-08-1968* delivers a sensorial and immersive experience for viewers. These sensorial effects render the artwork susceptible to being enjoyed by viewers only for such effects; the artwork’s commentary on the political agenda behind the heliotrope risks being overshadowed by the affective qualities of the work. In order to avoid such a risk, attention must be brought to the political agenda and the intentions that underlie nuclear weapons testing. In “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning” (2008), Manulani Aluli-Meyer discusses the capacity of intention to manifest as concrete consequences. Intention is recognised in Indigenous Hawaiian epistemology as fundamental to what is experienced in the physical world—what exists in the physical, observable world is a product of the consciousness by which it was created. Aluli-Meyer introduces this idea as “the causative agency of intention”, whereby “effect begins with

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<sup>233</sup> Ibid.

<sup>234</sup> Ibid.

<sup>235</sup> Mi, “24-08-1968.”

intention ... thought creates and intention shapes the observable world.”<sup>236</sup> The violent military intention behind testing weapons of destruction cannot be separated from its materialisation. This intention is acknowledged in *24-08-1968* by simulating the heliotrope to demonstrate both how the solar metaphor functioned as well as the impact of this historical propaganda. Acknowledging the harmful intentions that shaped these historical events functions to counteract the shimmering immersive experience that can dominate the artwork.

In addition to shaping outcomes in reality, intention can result in obfuscation and erasures, as achieved by the heliotrope. As DeLoughrey argues, the American State and the AEC’s solar rhetoric effectively erased the history of radiation’s harmful presence in Oceania.<sup>237</sup> In the case of French and US testing, this erasure is two-fold; the naturalising metaphor erased radiation from the public’s mind as a harmful substance; the second erasure concerns the metaphor itself as a literary device. A metaphor offers a replacement (i.e., the sun) for something (i.e., radiation) that it erases in the process.<sup>238</sup> Consequently, other possible ways of relating to that original referent (radiation) are also erased.<sup>239</sup> This erasure is counteracted by *24-08-1968*, as it visualises both the obscured referent and the metaphor by simulating irradiation through solar imagery.

Obscuring histories equates to losing lessons of the past. Erasing the history of the heliotrope increases the possibility of militarised radiation being employed again. These erasures are a continuation of the violent military intent, to the extent that they make possible further manifestations of that detrimental intent—the development of nuclear warfare—nearly eighty years after its first inception. The persistent effects of this intention are evident in

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<sup>236</sup> Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 222.

<sup>237</sup> Elizabeth M. DeLoughrey, “Heliotropes: Solar Ecologies and Pacific Radiations,” in *Postcolonial Ecologies: Literatures of the Environment*, ed. Elizabeth DeLoughrey and George Handley (New York: Oxford University Press, 2011), 245.

<sup>238</sup> Ibid.

<sup>239</sup> Ibid.



relentless denials by nuclear states in acknowledging the harm caused by their testing programmes, as well as delays in delivering adequate compensation to affected communities. As ongoing and inconspicuous dangers, both heliotrope and militarised radiation are what Nixon refers to as slow violence. In *Slow Violence and Environmentalism of the Poor* (2011), Nixon differentiates explosive and spectacular disasters from those that materialise over more extended periods of time, quietly and modestly. For example, “radioactive aftermaths of wars” fit into this category as contemporary slow violence and may be one of the slowest, given that some radioactive isotopes, Plutonium-239 in particular, have a half-life of over 24,000 years.<sup>240</sup> Intergenerational health issues caused by radioactive poisoning also attest to the slower rate at which the violence operates. For Nixon, slow violence is concealed not only because it is materially imperceptible—radiation is an appropriate example—but because as a consequence of this invisible materiality, it lacks representation. His discussion specifically refers to the spectacle-seeking media, for whom “pervasive but elusive violence of delayed effects” is often not captivating enough a material to cover.<sup>241</sup> As Nixon states, adequate representation is needed to mobilise political will around violence that is not naturally spectacular:

How can we convert into image and narrative the disasters that are slow moving and long in the making, disasters that are anonymous and that star nobody, disasters that are attritional and of indifferent interest to the sensation-driven technologies of our image-world? ... How can we turn the long emergencies of slow violence into stories dramatic enough to rouse public sentiment and warrant political intervention, these emergencies whose repercussions have given rise to some of the most critical challenges of our time? <sup>242</sup>

Answers are provided by *24-08-1968* to the difficulties of representation that Nixon identifies. Mi’s footage captures the elongated duration and undetectability of slow violence, without falling for the impressive drama needed to rouse viewer engagement. The ‘slow-moving’

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<sup>240</sup> Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2011), 2.

<sup>241</sup> *Ibid.*, 3.

<sup>242</sup> *Ibid.*

footage shows a continuous and static shot in which the reflection of sunlight on the water surface dances in much the same way throughout. Replayed on loop in the installation, the footage shows no apparent linear dramatic progression; the disaster never seems to arrive because it already has. The violence still plays out, albeit in a continuous and monotonous way. This slow-drama effect is achieved by the flickering light simulating a radioactive attack that viewers are physically exposed to. Moreover, as a counterbalance to the idea of the spectacular, *24-08-1968*'s dramatic elements are intimate; the "radioactive" sunlight is uncomfortably physically close, whereby a viewer's entire body is exposed to the light of the immersive installation.

The delivery of this slower drama in *24-08-1968* also implies that it matters not only *what* to remember but *how* to remember it. Rather than portraying a violent atomic blast as a techno-scientific feat in a Cold War rivalry, *24-08-1968* remembers nuclear weapons testing as destructive violence in want of healing. An approach that spectacularises violence is engaged in objectification, whereas *24-08-1968*'s portrayal is interpersonal, inviting viewers to connect with others. Viewers are put into the shoes of those who have experienced the harms of militarised radiation first-hand, not those in awe of a luminous spectacle.

By alluding to the experiences of those who have endured the violence, the artwork opens an opportunity for enabling healing and practising of aloha. As stated, by placing viewers who have no first-hand experience of weaponised radiation into a simulated position of those who have, *24-08-1968* functions to establish an interconnection, which is the epistemological idea that inevitably involves activation of aloha. The potential to activate aloha in viewers, as they engage with *24-08-1968*, renders the work evocative of compassion and empathy. This potential is essential when the healing involves those who were not directly affected by the violence. Aloha, although undermined by the development, testing and deployment of nuclear weapons, initiates this healing process once its reactivation is enabled by the artwork. Viewers

must then keep it alive by practising and sharing it with others to nurture and increase this healing.

Understanding others' experiences with militarised radiation is enhanced by holographic epistemology, which engages the capacities of body, mind and spirit in processes of knowing. In the context of *24-08-1968*, the body engages with the physical experience of exposure to light; the mind interprets this experience through subjective perspectives; the spirit inspires both the experience and its interpretations towards broader purposes of recovery and prevention of nuclear violence. For example, my own physical encounter with the piercing light is informed by the theory of the heliotrope, whereby the artwork allows me to better imagine the unsettling feeling of not knowing whether the light I am exposed to is harmful or not. This experience and my interpretation fuel and are fueled by my interest in nuclear disarmament, the broader context and purpose for which I seek knowledge. As a simulation, *24-08-1968* allows viewers to contemplate the experience of radiation exposure without facing any real danger of radioactive poisoning. The space given for contemplation allows viewers to activate more fully their capacities of the mind and spirit in engaging with the simulation.

A particularly auspicious way in which the faculty of the mind can be employed towards nuclear disarmament is by reiterating a perspective that has full knowledge of the solar metaphor. Created four decades after the initial French nuclear testing programme, *24-08-1968* has the advantage of hindsight. Contemporary viewers facing the captured sunlight can utilise their retrospective advantage and view the heliotrope for the deception that it was. In *24-08-1968* this contemporary position is emphasised in opposition to the imagined historical view in which hibakusha are misled about the safety of the sunlight they see. In this way, the artwork encompasses a historical progression, from the inception of the heliotrope to its demystification. The historical lesson embedded in *24-08-1968* ensures that the heliotrope can only be portrayed as a study of past propaganda. This historical progression also implies the possibility of a future

time when the violence of the heliotrope can be remembered from a healed position. Towards this future, *24-08-1968* contributes yet another perspective: that of the imagined past, before the arrival of nuclear weapons testing. This perspective sees the very same ocean environment, but one that is yet to be contaminated by the violence about to unfold. Such a view overwrites nuclear states' attempts to normalise an irradiated environment by remembering a time before its arrival.

This idea of remembering is discussed by Aluli-Meyer, with reference to revitalising Indigenous Hawaiian knowledge as reflective of simple truths.<sup>243</sup> In “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” she encourages her readers to approach truths communicated in Indigenous knowledge as though they were remembering them, rather than learning them as something new for the first time. Her suggestions stem from her idea that Indigenous knowledge is enduring knowledge, currently interrupted and inconvenienced by younger ideologies of modernity. Indigenous knowledge has accompanied human existence for so long; it is old wisdom that humans need to remember, not something unprecedented that has to be approached anew. Accordingly, the act of remembering reveals the truth of the past, of a time prior to nuclear technology and any acts of deception that claim it to be a natural development. In *24-08-1968* the viewer is offered a visual, sensorial and embodied experience of that past that needs to be remembered. Indigenous Hawaiian epistemology enables a kind of recalling of an uncontaminated past that is simultaneously a future healed from contamination.

Similarly, *24-08-1968* extends this historical overwriting to include aspects of place. The artwork enables a reclamation of places affected by militarised radiation. In order to transform the affected places with aloha, it is necessary to re-establish and cultivate such places

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<sup>243</sup> Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 224.

where the transformation can expand. As discussed, place, or land, is a foundation for knowing, for Indigenous worldviews shared across Oceania.<sup>244</sup> Aluli-Meyer recognises the capacity of place to contextualise knowing, stating, “one does not simply learn about land, we learn best *from* land.”<sup>245</sup> When aligned with this thinking, *24-08-1968* becomes a place that produces knowledge concerning the heliotrope and related violence. The installation itself becomes a place included in the epistemological concept of land discussed by Aluli-Meyer. As a place, *24-08-1968* shapes knowledge that will determine how the history of French nuclear testing will be remembered and treated in the future.

The installation *24-08-1968* offers imagined places that align with Palestinian theorist Edward Said’s observation of how land can be reclaimed via the imagination.<sup>246</sup> As quoted by DeLoughrey and American theorist George B. Handley in their book *Postcolonial Ecologies: Literatures of the Environment* (2011), Said states:

If there is anything that radically distinguishes the imagination of anti-imperialism, it is the primacy of the geographical in it. Imperialism after all is an act of geographical violence through which virtually every space in the world is explored, charted, and finally brought under control. For the native, the history of colonial servitude is inaugurated by the loss of locality to the outsider; its geographical identity must thereafter be searched for and somehow restored. ... Because of the presence of the colonizing outsider, *the land is recoverable at first only through imagination.*<sup>247</sup>

The reclamation of land through imagination in *24-08-1968* is enabled by Mi’s mimetic, lens-based representational methods. The documentation of what Mi saw in the Tuamotu Archipelago portrays a realistic place, easily recognisable and foundational to quotidian life in Oceania. The natural scenery allows viewers to relate to the ocean environment by recalling a

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<sup>244</sup> Kahn, 6–7, 23–24.

<sup>245</sup> Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 219. [Author’s italics].

<sup>246</sup> Elizabeth M. DeLoughrey and George B. Hadley, eds., *Postcolonial Ecologies: Literatures of the Environment* (New York: Oxford University Press, 2011), 3.

<sup>247</sup> Ibid. [My italics].

sense of familiarity with the scene depicted. Viewers will have some personal memory or experience related to the ocean. These places may be reimagined, reiterated and reaffirmed in facing the irradiated place that *24-08-1968* simulates. At that moment of imagination, the artwork offers a place that can be shaped by the viewer's mind. If personal and familiar experiences with the ocean are conjured and revisited there, they can counteract the portrayal of the ocean as a place contaminated by radiation.

Reclaiming places inevitably involves contestation, as *24-08-1968* demonstrates. This contestation derives from DeLoughrey's reading of Spivak's concept of planetarity, which is applied to the irradiated environments of Oceania. Developed from Spivak's concept of the planet based on its alterity, planetarity—planet-alterity—is a process of defamiliarisation of place.<sup>248</sup> Essentially, it is Earth revealing its alterity in relation to humans; a process that humans perceive as a defamiliarisation of their home-place/planet. DeLoughrey applies this concept of alterity to radioactive light that permeates Oceania, arguing that the destabilisation of the region due to radiation reflects the process of Spivak's defamiliarisation.<sup>249</sup> Accordingly, *24-08-1968* allows viewers to experience this defamiliarisation, in which the unsettling possibility of irradiation intrudes into the simulation that had initially ensured to viewers the familiarity of the ocean scene depicted. This defamiliarisation is accommodated by *24-08-1968*; Mi's filming methods functions to abstract the ocean scene. For example, the ocean's surface is a grey plane covering the entire projection wall, without a horizon to orientate viewers. Further visual elements within the video—shining clumps of light separating like cells under microscopic view, multiplying and mutating—confound the identity of the depicted content. These abstracted forms continuously appear as both recognisable and distorted. This abstraction creates an oscillation between the familiar and unfamiliar in the course of

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<sup>248</sup> DeLoughrey, *Allegories of the Anthropocene*, 77.

<sup>249</sup> *Ibid.*, 66.

experiencing *24-08-1968*. In the face of this oscillation, a response conducive to nuclear disarmament resists attempts to overcome this contestation. Attempts to fight defamiliarisation would involve notions of conquering or knowing the environment in order to turn it into someplace familiar. It is impossible, however, to conquer or know irradiated environments completely, let alone safely. More importantly, it is doubtful that such attempts would achieve anything meaningful towards disarmament. Rather, a meaningful approach would involve utilising the defamiliarisation to identify the heliotrope and the harmful intentions behind it, in order to initiate a healing towards aloha, while fully acknowledging the oscillating and contested state of these places.

The various ways of approaching *24-08-1968* that are discussed in this chapter ultimately serve to activate aloha in the viewer's reception of the artwork. The artwork's capacity for this activation is what determines its contribution to my research's aim towards nuclear disarmament. The Indigenous Hawaiian epistemological pillar of intention, Nixon's advocacy for adequate representations of slow violence and the act of remembering Indigenous knowledge are all means for enabling a viewer's empathy, compassion and care for those affected by the heliotrope and militarised radiation. Although the nature of nuclear weapons testing was mostly experimental, the conception and purpose of the programmes were fully intentional. The United States' use of the heliotrope was not some literary exercise, but propaganda implemented intentionally to prevent their nuclear testing programme from falling into disrepute. These case studies signify the consequential nature of intentions, given that such erasures extend into an obfuscation of the legacies of testing. Aloha is turned to in processes of undoing these erasures, in ensuring that remembering the violence incorporates opportunities for healing. An accurate representation of slow violence enables a better understanding of the testing, not as spectacular violence but as an intergenerational injury that must be acknowledged and compensated for. Land that was contaminated must be remembered

in, and reclaimed to, its state prior to testing. These gestures lead to correctly identifying radiation as an unnatural intrusion into the environment. Aloha enables such ways of seeing and finds in the artwork opportunities for acts of healing. To remember and to heal with aloha are ways of knowing that are generated in the intersection of Hawaiian epistemology and the artistic methods of *24-08-1968*. Aloha both counteracts the ongoing violence caused by nuclear testing in Oceania, and contributes to disarmament efforts. The following chapter expands on these discussions and examines storytelling as a method that intrinsically activates Indigenous Hawaiian epistemology and, importantly, aloha.



## CHAPTER FIVE

### MOURNING, REMEMBERING AND REVIVING LOST STORIES: STORYTELLING IN IRRADIATED OCEANIA

Stories and experiences associated with nuclear weapons testing in Oceania are varied. For example, there are stories that focus on the numerous operations, the relocation of communities, and the secrecy and tragedy of nuclear weapons testing. There are also official, state-produced narratives that aim to justify the destruction of communities, land and sea. These state narratives often sit in opposition to the personal anecdotes of radiation exposure. In addition, there are many artistic interpretations that focus on the environmental and Indigenous injustices of nuclear weapons testing. Referencing Kathy Jetñil-Kijiner's video poem *Anointed* (2018), this chapter explores the way storytelling functions as a method for mourning, remembering, and retelling of stories and cultures that were lost as a result of nuclear weapons testing programmes. In doing so, this chapter also traces the way storytelling necessarily activates and implements foundations of Indigenous Hawaiian epistemology. The significance of land and relationships referenced throughout this thesis are also discussed in this chapter as intrinsic components in the act of storytelling.

Linda Tuhiwai Smith posits storytelling in the same category as oral histories and the perspectives of elders and women.<sup>250</sup> Storytelling is a method of “passing down the belief and values of a culture” with the aim of preserving them for upcoming generations.<sup>251</sup> Jetñil-Kijiner's storytelling preserves histories and cultures associated with the test sites that are at risk of disappearing due to the relocation of communities affected by US nuclear weapons testing. Jetñil-Kijiner's storytelling functions as a form of mourning in this regard, remembering the once-lively environments of Runit Island, a heavily affected test site at

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<sup>250</sup> Smith, 145.

<sup>251</sup> Ibid.

Enewetak Atoll. In Indigenous cultures of Oceania, land has a strong connection to the people who live off it, and the traditions and customs that it enables. Hence, for the people of Enewetak, remembering their land equates to re-establishing a connection back to all the people with ties to that land, as well as to shared traditions and customs. For example, the practices of canoe building and navigation are examples of Marshallese customs that, in the context of *Anointed*, function as a method of establishing connections to lands and people. *Anointed* serves to preserve, pass down and even revive this voyaging practice through storytelling. The capacity of storytelling to restore lost relationships and land is a suitable method for (re)generating epistemologies and knowledge that can help in the anti-militarisation of Oceania.

In *Anointed*, Jetñil-Kijiner seeks counter stories to the state-produced narratives that portray the Marshall Islands as useful for US nuclear weapons tests. Her stories refer to the suffering experienced by Marshallese hibakusha, as well as her own reflections of her visit to the former test site at Runit Island. These stories add additional truths and alternative perspectives to US accounts of the Marshall Islands as test sites, revealing the sacrifices of the Marshallese people for the sake of techno-military advancement of the US nuclear arsenal. Jetñil-Kijiner's poetry is a contemporary counterpart to earlier works of poetry in Oceania that express opposition to nuclear testing in the region. Belauan anti-nuclear activist and writer Cita Morei's poem *Belau Be Brave* (1992) is one example, as discussed by both researcher Gabrielle Decamous and New Zealand scholar Michelle Keown. The poem was written in response to the political confrontation that took over Belau (Palau) in the early 1990s, when the US government attempted to persuade Belau to disregard its anti-nuclear constitution.<sup>252</sup> A slightly older poem, *No Ordinary Sun* (1958) by Māori poet Hone Tuwhare is another notable example.

In addition to these alternative narratives, Jetñil-Kijiner recounts traditional Marshallese tales in *Anointed*. The folklore of Letao, a Marshallese trickster deity, appears in

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<sup>252</sup> Decamous, 176.

Jetñil-Kijiner’s questioning of the American claim to power that led to the nuclear explosion-induced burning of the Marshall Islands. Jetñil-Kijiner recites the tale of Letao to articulate the illicit nature of the United States’ nuclear violence. This aspect of *Anointed* functions to rewrite US official state narratives that try to legitimise the testing conducted in ‘US peripheral territories.’ Rewriting such narratives is important in counterbalancing perpetrator logic, while juxtaposing opposing beliefs and narratives invalidates the monopoly of any one story. Jetñil-Kijiner’s reference to traditional Marshallese knowledge challenges the United States’ martial logic that continues to shape everyday realities for the residents of the island nation. *Anointed* contributes to preventing the recurrence of such violence by challenging the validity of US narratives and reframing their justifications for testing as illegitimate.

Jetñil-Kijiner, born in the Marshall Islands and raised in Hawai‘i,<sup>253</sup> writes and performs poetry as a form of activism. As a Marshall Islander, she draws on the challenges the island nation faces in regard to rising sea levels<sup>254</sup> and the continuing aftermath of the US nuclear weapons testing that the Marshallese people endure.<sup>255</sup> Between 1946 and 1958, the United States conducted a nuclear testing programme in the Marshall Islands, detonating sixty-seven nuclear weapons.<sup>256</sup> The majority of this testing was conducted in Enewetak and Bikini Atolls, subjecting them to infamous catastrophes; *Operation Ivy* of 1952, the first of the US thermonuclear—hydrogen bomb—tests,<sup>257</sup> reportedly had an explosive yield four hundred times that of the atomic bomb detonated over Hiroshima.<sup>258</sup> Meanwhile, *Castle Bravo*, carried

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<sup>253</sup> “Impact Hero. 2017: Kathy Jetñil-Kijiner,” Earth Company, 2020, accessed November 8, 2020, <https://www.earthcompany.info/ih17-kathy-2/>.

<sup>254</sup> For Jetñil-Kijiner’s notable work on this topic, see her poetry performance at the opening ceremony of the United Nations Secretary General’s Climate Summit and Conference of Parties (COP21) in Paris in 2015.

<sup>255</sup> See *Monster* (2018), *Fishbone Hair* (2016) and *History Project* (2011).

<sup>256</sup> “The United States’ Nuclear Testing Programme,” Comprehensive Nuclear-Test-Ban Treaty Organization, accessed November 8, 2020, <https://www.ctbto.org/nuclear-testing/the-effects-of-nuclear-testing/the-united-states-nuclear-testing-programme/>.

<sup>257</sup> Named *Event Mike* and conducted on October 31, 1952, the hydrogen bomb vaporised the island of Elugelab, where it was detonated. Robert L. Peters and David L. Wilson, *The Radiological Cleanup of Enewetak Atoll* (Washington, DC: Defense Nuclear Agency, 1981), 48.

<sup>258</sup> “The United States’ Nuclear Testing Programme,” Comprehensive Nuclear-Test-Ban Treaty Organization.

out in 1954 at Bikini Atoll, was the largest nuclear bomb ever tested by the United States.<sup>259</sup> Referred to as the “bomb that ran away,” *Castle Bravo*’s actual yield of fifteen megatons far exceeded the predicted maximum yield of eight megatons.<sup>260</sup> This testing displaced the people of Bikini, as well as its neighbouring atolls Rongelap and Utirik.<sup>261</sup> Many were exposed to dangerously high levels of radiation and suffered radioactive poisoning without any knowledge of what was happening. For example, residents of Rongelap were not given any prior warning of the *Castle Bravo* test. Some were allowed to return to their islands at various intervals, all while the United States’ message about the atolls’ safety remained ambiguous.<sup>262</sup> The contamination of the islands and surrounding seas effectively disrupted the lives and livelihoods of Marshallese people; socio-cultural relationships and practices organised around the islands’ food sources were indefinitely damaged by the US nuclear weapons testing programme.<sup>263</sup>

*Anointed* was written in anticipation of Jetñil-Kijiner’s 2018 visit to Runit Island in Enewetak Atoll, the furthest atoll from the Marshall Islands’ capital, Majuro. A total of forty-three tests were conducted in Enewetak Atoll,<sup>264</sup> of which eighteen took place on Runit Island.<sup>265</sup> Tests carried out in the northern reefs of Runit, notably *Lacross* and *Cactus*, left large craters on land and in the lagoon.<sup>266</sup> During the ‘clean-up’ of Enewetak Atoll from 1972 to 1980, the US Department of Defence (DoD) filled one of the craters with a mixture of contaminated radioactive soil and cement. The concrete-slurry-filled crater was then sealed with a dome-shaped concrete cap, as Jetñil-Kijiner describes it in *Anointed*. The US DoD

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<sup>259</sup> Ibid.

<sup>260</sup> Keith M. Parsons and Robert A. Zaballa, *Bombing the Marshall Islands: A Cold War Tragedy* (New York: Cambridge University Press, 2017), 51.

<sup>261</sup> Ibid., 73–76.

<sup>262</sup> Ranging from three months (Utirik Atoll) to three years (Bikini Atoll). Ibid., 75–76.

<sup>263</sup> Ibid., 76.

<sup>264</sup> “World Overview,” Comprehensive Nuclear-Test-Ban Treaty Organization.

<sup>265</sup> Peters and Wilson, 403.

<sup>266</sup> Ibid., 57.

ensured that the structure was safe.<sup>267</sup> However, due to rising sea levels, radioactive material has begun leaking into the surrounding marine environment.

The video component of *Anointed* documents Jetñil-Kijiner's visit to Runit Island. Directed by cinematographer Dan Lin, Director of Pacific Storytellers Cooperative, the video follows the poet as she sails to the island in an Indigenous canoe.<sup>268</sup> Once on the island, she walks across gravel roads and shrubbery before reaching the summit of the Runit Dome. Woven between these scenes are images that document life on the island; children playing in the water or sitting in classrooms; aerial shots of beaches; and a local man whose health is visibly affected by radioactive poisoning. These contemporary scenes are juxtaposed with archival footage of US nuclear weapons tests, which shows mushroom clouds bloating into fireballs on the ocean surface and palm trees instantly incinerated by a rapid front of fire. Jetñil-Kijiner's voiceover recounts stories associated with the island; the island's past, both before and after the nuclear testing; traditional tales featuring deities and legendary persons; as well as her own story of her quest to find more stories about the island.

*Anointed* is delivered in a form of storytelling that aligns with Smith's analysis of the role of storytelling within Indigenous cultures. As Smith states, storytelling is positioned as a tool for passing down beliefs and values of a culture, that are to be learnt, recited and passed on.<sup>269</sup> The story and the storytellers are both carriers of the beliefs, values and knowledge passed to future generations. Smith quotes Canadian theorist Margaret Kovach, who states that "stories are connected to knowing ... story is both method and meaning."<sup>270</sup> As a method, *Anointed's* storytelling shares pillars of Hawaiian epistemology that are also evident across

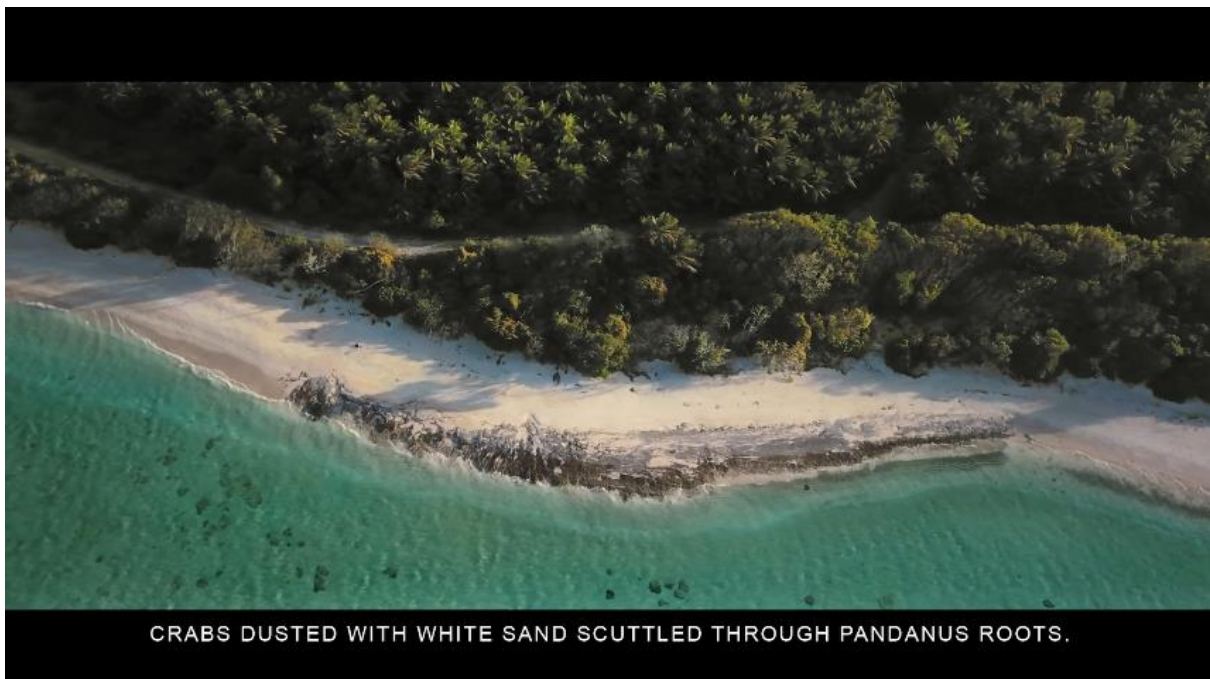
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<sup>267</sup> The US Defense Nuclear Agency stated in a report that "there was no indication that the dome would not fulfil its intended purpose, and there was little reason to be concerned over the leakage of radioactive materials which might result in internal or external human exposure." Peters and Wilson, 470.

<sup>268</sup> Provided by the Okeanos Foundation for the Sea, an organisation that provides traditional and sustainable means of sea transportation. See <https://okeanos-foundation.org/>.

<sup>269</sup> Smith, *Decolonizing Methodologies: Research and Indigenous Peoples*, 145.

<sup>270</sup> Ibid.



CRABS DUSTED WITH WHITE SAND SCUTTLED THROUGH PANDANUS ROOTS.

Figure 15. Kathy Jetñil-Kijiner, *Anointed*, 2018, video, Pacific Storytellers Collective, <https://youtu.be/hEVpExaY2Fs>.

Oceanian cultures. The importance of land and relationships are fundamental pillars within Oceanian epistemologies, and are crucial to the disarmament and demilitarisation of Oceania.

In addition, *Anointed* as a form of storytelling functions to mourn, remember and rewrite Marshallese experience of the US nuclear weapons testing programme. Jetñil-Kijiner has discussed writing poetry as a way of working through the pain and anger caused by the repercussions of the testing.<sup>271</sup> Displacement from homes, high rates of cancer caused by exposure to radioactive environments, and a lack of compensation or access to adequate healthcare are some of the ongoing impacts that Marshall Islanders continue to experience. *Anointed's* composition functions as a sense of mourning that is connected to these experiences. Jetñil-Kijiner refers to Runit Dome as a “tomb”<sup>272</sup> and a “grave,” and practises traditional Marshallese rituals of mourning—scattering white stones—while wearing black.<sup>273</sup> As Jetñil-Kijiner performs these acts, traditional Marshallese values and beliefs are revived through her mourning, remembering and rewriting. This revival is achieved by the retelling of official US narratives that justified the development of military nuclear technology. Through a traditional Marshallese tale, *Anointed* highlights the belief that power is anointed, not attained voluntarily. The poet mourns over the breach of this value, as she remembers the development of nuclear weapons as an immoral playing with power. In this way, as Kovach has stated, *Anointed* carries a meaning—power is anointed—and, as storytelling, is simultaneously a method of conveying that message.

The poet mourns over the island being inflicted with the violence of the testing and the subsequent loss of its vitality. As she explains in a 2018 interview held at the Marshall Islands Consulate in Honolulu, Runit Island prior to US nuclear weapons testing was valued by the

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<sup>271</sup> “Interview with Kathy Jetnail-Kijiner About Anointed,” Marshall Islands Consulate Honolulu, August 31, 2018, <https://www.youtube.com/watch?v=uAT-Zxg8MPc>.

<sup>272</sup> Possibly borrowing from the locals’ calling the dome a ‘tomb.’

<sup>273</sup> “Interview with Kathy Jetnail-Kijiner About Anointed.”



Figure 16. Kathy Jetñil-Kijiner, *Anointed*, 2018, video, Pacific Storytellers Collective, <https://youtu.be/hEVpExaY2Fs>.



people of Enewetak Atoll for its abundance of food resources.<sup>274</sup> For locals, Runit Island was a “pantry of the chiefs with lush vegetation, watermelons,<sup>275</sup> and strong trees to build canoes.”<sup>276</sup> Residents of neighbouring islands would come to Runit Island to gather resources whenever provisions on their islands ran low.<sup>277</sup> In describing the island as a “whole”—“You were a whole island, once”<sup>278</sup>—*Anointed* refers to the island’s vitality. The poet emphasises this past abundance in her mournful and performed storytelling.

Storytelling allows Jetñil-Kijiner to remember and share stories of Runit Island’s past; she addresses the island by reciting descriptions of when it was healthy:

You were breadfruit trees heavy with green globes of fruit whispering promises of massive canoes. Crabs dusted with white sand scuttled through pandanus roots. Beneath looming coconut trees beds of ripe watermelon slept still, swollen with juice.<sup>279</sup>

These verses are accompanied by images of green breadfruit hanging from trees and beaches with white sand and contrasting turquoise waters. These contemporary scenes document the island as a survivor who endured the destructive impact of nuclear weapons testing. However, as an irradiated environment, the island appears healthy only in filmed visuals. This portrayal of the greenery on Runit Island reflects the poet’s intention to reclaim the island as a healthy one, albeit a past one. Jetñil-Kijiner reclaims Runit Island, imagined as intact and uncontaminated, in her imagination.<sup>280</sup> Although Runit Island may be indefinitely damaged, through the methods of imagining and storytelling explored in *Anointed*, it can begin to slowly heal for its Indigenous communities. The video poem demonstrates that mourning through storytelling is a valuable method by which this healing can occur.

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<sup>274</sup> Ibid.

<sup>275</sup> The watermelons are a metaphor for natural abundance. Jetñil-Kijiner is not referring to actual watermelons growing on the island. “Interview with Kathy Jetñil-Kijiner About *Anointed*.”

<sup>276</sup> Ibid.

<sup>277</sup> “Interview with Kathy Jetñil-Kijiner About *Anointed*.”

<sup>278</sup> “*Anointed* (w/ Subtitles) by Dan Lin and Kathy Jetñil-Kijiner,” Pacific Storytellers Cooperative, April 16, 2018, <https://www.youtube.com/watch?v=hEVpExaY2Fs>.

<sup>279</sup> Ibid.

<sup>280</sup> As Edward Said argues, compromised homeland is initially reclaimed through imaginations. DeLoughrey and Hadley, eds., *Postcolonial Ecologies: Literatures of the Environment*.

The island Jetñil-Kijiner reclaims in *Anointed* is more than a physical site. Land is, as Manulani Aluli-Meyer describes, “the everything to our sense of love, joy and nourishment.”<sup>281</sup> Jetñil-Kijiner describes her experience of visiting Runit Island as similar to “meeting a person.”<sup>282</sup> Both she and director Lin have likened their encounter with the island to “visiting a sick relative you’ve never met.”<sup>283</sup> Jetñil-Kijiner’s remembering of the island includes recalling the relationships the island had with the people of Enewetak Atoll. While the poet mourns the loss of past relationships, her visit to the island represents the establishment of new ones. By recounting her visit through storytelling, Jetñil-Kijiner revitalises the importance of land and relationships to Oceanian epistemologies. Restoring value to land and relationships to land is a process of healing from US nuclear tests. Recultivating care around these lands and relationships leads to efforts to safeguard them from future possibilities of continuing or resuming militarisation of Oceania.

Aluli-Meyer discusses the way knowledge is formed through relationships.<sup>284</sup> In the case of storytelling, the relationship between listener and storyteller shapes the story, in which the storyteller imbues the story with intention and meaning for a particular listener. As evident in *Anointed*, the way Jetñil-Kijiner addresses the island is telling of her relationship with it; the recounting of the island as once a pantry for chiefs, filled with “green globes of fruit, pandanus roots, and whispers of canoes”<sup>285</sup> conveys a relationship of nourishment and dependency between the poet and the island, a relationship that is shared by the people from neighbouring islands in Enewetak Atoll. Jetñil-Kijiner’s storytelling, shaped by such a relationship, also

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<sup>281</sup> Manulani Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning,” 219.

<sup>282</sup> “Interview with Kathy Jetñil-Kijiner About *Anointed*.”

<sup>283</sup> Sylvia C. Frain, “Pacific Nuclear Activist-Poet Tells Stories through Culture – and Her Latest Poem,” Pacific Media Centre Te Amokura, April 17, 2018, <https://pmc.aut.ac.nz/articles/pacific-nuclear-activist-poet-tells-stories-through-culture-and-her-latest-poem>.

<sup>284</sup> Aluli-Meyer, “Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning”, 221.

<sup>285</sup> Lin and Jetñil-Kijiner, *Anointed*.

speaks on behalf of those people in the neighbouring islands, whose relationship with Runit Island is similarly marked with nourishment and dependency. Indigenous scholar Jo-Ann Archibald suggests that, as Smith also notes, storytelling establishes a respectful and reciprocal relationship between the listener and the storyteller.<sup>286</sup> Smith emphasises the centrality of dialogue and conservation in storytelling “amongst ourselves as Indigenous peoples, to ourselves and for ourselves.”<sup>287</sup> Viewers of *Anointed* are therefore simultaneously the storytellers; Jetñil-Kijiner’s storytelling is situated amongst Marshall Islands people, and is both to and for themselves. Thus her storytelling acknowledges and strengthens the relationships that exist across Runit Island.

These relationships are further affirmed by Jetñil-Kijiner’s address to her listeners. She addresses fellow Marshall Islanders using first-person collective pronouns: “How shall *we* remember you? ... *We* pretend it is not burning *all of us* ... the way *we*’ve been tricked, of the lies *we*’ve been told.”<sup>288</sup> The advice “Do not bring flowers, or speeches” given in the opening lines also appears to address those already invested in the mourning of Runit Island. Jetñil-Kijiner is speaking to those expected to attend the ‘funeral,’ who would have had a close enough relationship with the island to consider bringing flowers and speeches for mourning. *Anointed*’s mourning-cum-storytelling presupposes and relies on pre-existing relationships between the listener and the island. The storytelling is intended for those who already have an interest in mourning the island, as Jetñil-Kijiner does. The act of storytelling inherently involves activating relationships, a valued pillar of Indigenous Hawaiian epistemology. As stated, cultivating care around relationships and land safeguards against further violence.

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<sup>286</sup> Smith, 146.

<sup>287</sup> Ibid.

<sup>288</sup> Lin and Jetñil-Kijiner, *Anointed*. [My italics].

Storytelling, as a method towards nuclear disarmament, enables the remembering, revitalising and building of new relationships to push back against US military imperialism in Oceania.

As Jaimey Hamilton Faris notes, Jetñil-Kijiner's poems are written and performed in English, and disseminated via the internet through the poet's social media platforms.<sup>289</sup> The target audience therefore cannot be exclusive to Marshallese people. By catering the language and method of accessing the poem to international audiences, Jetñil-Kijiner anticipates an outsider witness. The poem has the potential to stir international concern for radioactive contamination in these witnesses. The first-person narrative employed in the poem functions to share Jetñil-Kijiner's position, as someone with an existing relationship to Runit Island. By sharing her position as kin to the island, she gives viewers an opportunity to empathise with the "us," Jetñil-Kijiner and the Marshallese people, and therefore asks them to reflect on their own relationship to the story of Runit Island, and inevitably their position towards US imperialism and nuclear violence in Oceania.

As with relationships, cultural knowledge is also an extension of a people's experience with their land. Jetñil-Kijiner's storytelling functions to remember and preserve traditional Marshallese culture that is disappearing due to the displacement of communities from Enewetak Atoll. Remembering and preserving customs and traditions reverses the damaging impact of the nuclear tests, which halted these practices. This reversal aids the process of healing. Specifically, *Anointed* remembers canoe-making and navigation, which are integral to Marshallese culture. The poet features these maritime practices in the poem's verses and accompanying visuals. To develop the visuals for *Anointed*, Jetñil-Kijiner's project team travelled to Runit Island on an Indigenous-inspired canoe provided by Okeanos Foundation for

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<sup>289</sup> Jaimey Hamilton Faris, "On the Hydro-feminism of Kathy Jetñil-Kijiner and Aka Niviâna's *Rise: From One Island to Another*," *Shima Journal* 13, no. 2 (2019).

the Sea.<sup>290</sup> This organisation aims to “implement traditionally based sustainable sea transportation to ensure independence, cultural revival and ocean stewardship.”<sup>291</sup> The foundation’s collaboration with the poet is part of the story of *Anointed*’s creation. The opening scene shows the poet and crew aboard the canoe as Jetñil-Kijiner’s voiceover recites, “To get to this tomb take a canoe. Take a canoe through miles of scattered suns.”<sup>292</sup> The overlap between land, knowledge and relationship is evident; in order for the poet to build a relationship with Runit Island, knowledge of navigation is required. Here is an instance of storytelling passing down the values and beliefs of a culture to future generations, as Smith discusses. “The story and the storyteller both serve to connect the past with the future, one generation with the other, the land with the people and the people with the story.”<sup>293</sup> Jetñil-Kijiner’s storytelling memorialises the island’s past, as well as a culture and a way of life related to that land.

This process of remembering and reviving cultural knowledge in *Anointed* also functions to prevent the recurrence of nuclear weapons detonation. For example, storytelling allows Jetñil-Kijiner to retell the histories of US nuclear testing in the Marshall Islands using a traditional Marshallese tale. Specifically, the story of Letao, a trickster god, is told as a parallel story to the historical anecdote of the island dominated by narratives from the US Department of Defense:

There’s a story of a turtle goddess. She gifted one of her sons, Letao, a piece of her shell, anointed with power ... It gave Letao the power to transform into anything, into trees and houses, the shapes of other men, even kindling for the first fire he almost/burned us/alive.

Here is a legend of a shell. *Anointed* with power. Letao used this shell to turn himself into kindling for the first fire. He gave this fire to a small boy. The boy almost burned his entire village to the ground. Licks of fire leapt from strands of coconut leaves from skin and bone and while the boy cried Letao laughed and laughed.<sup>294</sup>

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<sup>290</sup> “Home,” Okeanos, accessed November 8, 2020, <https://okeanos-foundation.org/>.

<sup>291</sup> Ibid.

<sup>292</sup> Lin and Jetñil-Kijiner, *Anointed*.

<sup>293</sup> Smith.

<sup>294</sup> Lin and Jetñil-Kijiner, *Anointed*.



Figure 17. Kathy Jetñil-Kijiner, *Anointed*, 2018, video, Pacific Storytellers Collective, <https://youtu.be/hEVpExaY2Fs>.

The connection between the story of Letao and US nuclear testing is reinforced by the accompanying historical imagery of the island engulfed in fire; a scorching wall of fire advances across the ocean surface—the force of nuclear energy expanding rapidly outwards. An enormous and unidentifiable bubble swells in the horizon, and a mushroom-shaped fireball rises into the sky as Jetñil-Kijiner recites the line “laughed and laughed.”<sup>295</sup> This connection is made more evident when, in the following verses, Jetñil-Kijiner links the tale of Letao with the fire from nuclear weapons affecting the Marshallese community: “Here is a story of a people on fire—we pretend it is not burning all of us ... Here is a story of the ways we’ve been tricked, of the lies we’ve been told.”<sup>296</sup> Contemporary reality and a traditional story are juxtaposed to express the Marshallese perspective of the experience of US nuclear weapons testing.

This juxtaposition highlights the different conceptions of power at play. For example, the Marshallese story challenges US state narratives that presented nuclear tests as a necessity “for the good of all mankind.”<sup>297</sup> *Anointed’s* closing verses respond to the United States’ claim that they were acting on behalf of all humankind: “Who gave them this power? Who anointed them with the power to burn?” Arguably a rhetorical question (the answer is “nobody”), it asks what allowed the US military to experiment with such dangerous forces at the expense of others’ lives and homes. These violent actions, linked to US imperial ideologies, do not align with the tale of Letao, which teaches that power is gained by being anointed with it.

The retelling of nuclear tests as a breach of Marshallese beliefs presents an alternative story to the official state narrative. As New Zealand academic Russell Bishop suggests,

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<sup>295</sup> Taken from archival footage of US nuclear tests in the Marshall Islands, *Ivy Mike* (1952) and *Castle Bravo* (1954) respectively.

<sup>296</sup> Lin and Jetñil-Kijiner, *Anointed*.

<sup>297</sup> *Bikini, the Atom Island*.

storytelling is a way of representing the diversity of truth.<sup>298</sup> For Aluli-Meyer, this diversity is expressed as culturally configured ways of seeing so-called objective realities.<sup>299</sup> Bishop's and Aluli-Meyer's thinking implies that the tale of Letao has as much credibility to narrate events as does postwar imperialist US military policies. According to Marshallese knowledge, therefore, US exercise of power is unfeasible and must be told as such, to prevent such a history from repeating. Retelling the story of the testing through traditional Marshallese tales allows Jetñil-Kijiner to critique the United States for their breach, and discredit their official military narratives that assert the necessity of nuclear weapons tests, and of conducting them in the Marshall Islands. This critique is applicable to all nuclear states and can support any instance of disarmament work. Although the cultural nuances may differ, stories like *Anointed* are clear statements for disarmament that are addressed directly to nuclear states and equally the rest of the world.

However, despite the illegitimacy of their actions, the United States did experiment with unimaginable scales of destruction in the islands and oceans of the Marshall Islands. There is a clash of values and belief systems, with US nuclear testing breaching the Marshallese belief that power is anointed. No matter how much Jetñil-Kijiner disseminates the story of Letao, the historical occurrences at the Pacific Proving Grounds cannot be reversed. Jetñil-Kijiner searches for stories in the face of this reality. The lines "How shall we remember you?" and "who knows the stories of the life you led before?" suggest the need to find appropriate narratives for remembering and portraying this island. These lines refer to the possibility that the poet is well aware of the dominant US narratives that have spoken on behalf of her island nation, uninvited. Accordingly, the poet seeks further stories to rewrite her home's identity:

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<sup>298</sup> Smith, 146.

<sup>299</sup> Aluli-Meyer, "Indigenous and Authentic: Hawaiian Epistemology and the Triangulation of Meaning," 220.



I am looking for more stories / I look, and I look. There must be more to this than incinerated trees, a cracked dome, a rising sea, a leaking nuclear waste with no fence, there must be more than a concrete shell that houses death.<sup>300</sup>

While she appears unable to find further suitable stories, and her search seems to end with her “belly empty of stories and answers,”<sup>301</sup> Jetñil-Kijiner has created a story in the process. *Anointed* itself is a story, the type of which she asserts she is looking for. The poem records Runit Island’s past, of a time undefined by US militarisation; it preserves customs and practices, functioning as a cultural archive; and it rewrites imperialist narratives, revealing the crimes committed by the US military. All these stories are based on real occurrences linked to Jetñil-Kijiner’s visit to Runit Island. *Anointed* thus compensates for the lack of stories that initiated the protagonist, Jetñil-Kijiner, to tell the story of her search in the first place. Her act of mourning and remembering the island and retelling its stories birthed new acts of storytelling, which contribute towards healing from the violence of US nuclear weapons testing in the Marshall Islands.

Stories are highly receptive of nuanced and contextualised experiences. They reflect the contexts in which they are told, the content that they tell, and the storyteller and listeners that are bound together through the experience of storytelling. The capacity of storytelling to accommodate numerous contextualisations demonstrates that it is a suitable method for reviving, preserving and passing down knowledge, beliefs and values. As this chapter discusses, Jetñil-Kijiner uses the method of storytelling to revitalise lost customs and lands, convey historical injustices and demonstrate future stories. These acts were made possible by her visit to Runit Island, which re-established her relationship to the place, and during which she engaged with the voyaging customs of her culture. *Anointed* demonstrates how to heal from nuclear violence by revitalising and reclaiming the vitality of her ancestral land, and the

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<sup>300</sup> Lin and Jetñil-Kijiner, *Anointed*.

<sup>301</sup> Ibid.

customs and traditions of navigation, vital to Marshallese way of life. Employing a first-person pronoun in the poem allows Jetñil-Kijiner to speak to those who have an existing relationship with the island, as well as those who have the opportunity to build one.

The presence of the wider international audience is important in her testimony of the illegitimacy of US testing at Enewetak Atoll, which was retold and re-examined through traditional Marshallese tales. Retelling the historical accounts of US testing in this way serves to correct and hinder the dissemination of US narratives that justify their testing. This correction accordingly leads to disarmament, as the supposed legitimacy of proliferation logic is questioned against the logics of Marshallese beliefs. Disarmament becomes further viable when the rhetorical power of nuclear states is challenged and reduced. The poet has searched for different ways to tell Enewetak's history, or alternative stories of the US testing, and the Marshallese way of life prior to US imperialism. In doing so, she has created *Anointed* as a story of her own. Jetñil-Kijiner's story demonstrates how to envision an Oceanian future by turning associated histories of nuclear testing into efforts for disarmament and demilitarisation.

## CONCLUSION

During this research, I was frequently confronted with the considerable gap between the Indigenous Hawaiian epistemology that I believe should influence nuclear disarmament efforts and the existing frameworks and strategies for international arms control. These existing frameworks consist primarily of international agreements that establish anti-proliferation rules. There are also strategies for enforcing these regulations, which include active diplomacy and sanctions that international organisations or individual states impose on rule breakers.<sup>302</sup> Moreover, the regime of nuclear proliferation is now increasingly a competition over political dominance which, needless to say, operates on a fundamentally different logic from a Hawaiian worldview based on practices of aloha.<sup>303</sup> The teaching of aloha also stands in stark contrast to the tactical approach employed by international bodies to stabilise nuclear states' pursuit of military dominance.<sup>304</sup> I acknowledge that what I am proposing, that Indigenous Hawaiian epistemology be incorporated into the underlying framework for nuclear disarmament, requires extensive time and effort. A radical shift in ways of thinking and being on a global scale are imperative as a precondition to this change.

Creative projects also do not dominate the sector of international diplomacy, where political decisions and decisive actions are implemented. Yet visual artworks, literature and

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<sup>302</sup> For example, the UN Security Council has imposed various sanctions on North Korea (DPRK) since 2006, following its withdrawal from NPT in 2003 and subsequent nuclear weapons testing. These sanctions range from banning trade, freezing assets of those involved in their nuclear programme and restricting member states from engaging in business, scientific and technological co-operation with the DPRK.

<sup>303</sup> Izumi Nakamitsu, UN High Representative for Disarmament Affairs, stated in her keynote address to the Institute of International and European Affairs in Dublin in June 2019 that nuclear superpowers are preferring the “secur[ing of] lasting strategic dominance” over “strategic stability.” The latter is a Cold War concept based on the idea of mutual vulnerability. Izumi Nakamitsu, *Ensuring a Safer and More Secure World: A New Vision for Arms Control*, Keynote Address to the Institute of International and European Affairs (Dublin: United Nations Office for Disarmament Affairs, 2019).

<sup>304</sup> The NPT, for example, functions to reduce the two incentives states may have for developing nuclear weapons: an external threat posed by a nuclear state and the prestige and power associated with possessing nuclear weapons. Paolo Cotta-Ramusino, “Next Steps to Universal Nuclear Disarmament,” *UN Chronicle. We Must Disarm* XLVI, no.s 1, 2 (2009).

social projects have the capacity to entertain novel ideas more freely, and—unlike international legislative bodies—are not restricted by demands for effectiveness or concrete results. Accordingly, alternative approaches to disarmament can be identified in creative works, and have the potential to eventually take shape into something more substantial. My research has found that particular creative works provide opportunities for people to encounter and engage with Indigenous Hawaiian values as foundational ideas for achieving nuclear disarmament. Framing my research through Indigenous Hawaiian epistemology has further demonstrated that this epistemology is consequential in rethinking the parameters that govern much of international arms control and discussions of historical and current nuclear issues. In this sense, I have attempted to contribute this thesis itself as a ‘change agent’ that, as discussed by Aluli-Meyer, is capable of cultural change and transformation concerning ongoing global efforts towards disarmament.

My research aim is twofold. I set out to explore what the selected creative works can offer to discourses concerning nuclear disarmament and the demilitarisation of Oceania. I turned to Indigenous Hawaiian epistemology as a guide and, in doing so, aimed to investigate how this epistemology could revise or further enable efforts towards nuclear disarmament. In fulfilling this combined aim, my research has identified, in the selected creative works, capacities for healing from and preventing future nuclear violence. These capacities were in some cases already present in the selected works, while in others required further establishing and nurturing. Simultaneously, my findings also affirmed that Indigenous Hawaiian ways of knowing can enable the kinds of knowledge that are required for nuclear disarmament.

The seven pillars of Indigenous Hawaiian epistemology are wisdoms to be valued within processes of knowing. These pillars guided my understanding of the selected works, functioning not dissimilarly to criteria that I sought the works to fulfil. My exploration has found that the pillar of relationship is most significant, as it overwhelmingly determines the

selected works' capacity to contribute to nuclear disarmament. For example, the *Global Hibakusha Project*, the monument in Tahua Tu-Marama and *Anointed* all demonstrate ways in which relationships premise a reciprocal situation in which knowledge is generated or shared. The creators or recipients of knowledge are implicated in both the production and passing down of that knowledge. Given that individuals are a part of the process of knowledge generation, they are required to look after and care for that knowledge, as they would for themselves. This means being actively aware of the reverberating consequences of certain knowledge; what it teaches, what it could be used for and for whom, as well as where it is located.

The *Global Hibakusha Project* demonstrates that an idea of the planetary can be thought of in a relational way, as a worldwide network of relationships that maps not only geographical features for military purposes or standardised units of natural resources for capitalist consumption, but connections established in relation to oneself. This relational way of knowing the planetary leads to an understanding of the vast extent of nuclear damage; the more locations and communities, or points of connection, there are to 'map' throughout the world, the more widespread the issue. This reality may seem grim, but it implies that there is a widespread foundation upon which support for disarmament can be built. The *Global Hibakusha Project* is a valuable endeavour in this sense, as it initiates relationship building by linking disparate hibakusha communities across the world.

*Anointed* demonstrates that the value of relationships applies not only to people but also to land. My research has found that land, after relationships, is a significant epistemological factor. Land is a point of connection, a specific locale or place that shapes and is shaped by parties involved in relationships with it. Kathy Jetñil-Kijiner's visit to Runit Island is an excellent case in point. *Anointed* attests to the power of the Indigenous Oceanian idea that land is a person. As hibakusha can tell stories of their experiences, so can land, in an effort to deter future nuclear violence. While hibakusha will eventually pass, and their memories and bodies

that have borne witness to nuclear violence return to earth, land is present for longer, carrying reminders in the form of irradiated environments, ground zeros or memorial sites. In this sense, land is a form of memory, and as long as it continues to bear the mark of nuclear detonations, the lessons and dangers of Cold War experiments and imperial regimes can be learnt. As my research has found, *Anointed*—and by extension *24-08-1968* and the monument in Tahua Tu-Marama in Pape‘ete, Tahiti—demonstrate the value of engaging with land in exploring legacies of nuclear weapons testing.

This idea of land as a person reflects the fact that land requires the same care as a human being or any other sentient being. The universal necessity of care and the importance of land and people as points of connection attest to the interconnected nature of all living beings. The reality of this relational condition makes it even more difficult to accept the fact that nuclear weapons were and are used intentionally; each detonation unleashes a torrent of venom into the global network of interconnected living beings. I might speculate that Robert J. Oppenheimer had this interconnection in mind when he famously said, having successfully created the world’s first atomic bomb, “Now I am become Death, the destroyer of worlds.”<sup>305</sup> In stark contrast, the intelligence of aloha generates an opposite effect; points of connection are linked in order to spread further aloha. Aloha is an enabler of life, and it is knowledge that teaches us to care for *all* life. All four works selected for my research create connections that enable aloha; between viewers, artists and the people and lands that contribute to the content of the works. As an opposition to Oppenheimer’s Death, creative works that can activate aloha align with efforts towards disarmament.

The pillars of Indigenous Hawaiian epistemology would not have been articulated by Manulani Aluli-Meyer as wisdom had they not proved their utility. Utility of knowledge itself

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<sup>305</sup> Oppenheimer quoted this line from a sacred Hindu text, the Bhagavad-Gita.

is a pillar and involves wisdom that has proven its utility. This pillar has been a criterion for assessing what exploration is worth pursuing in my research. The discussions this thesis has focused on have the potential to be of use in real life. For example, the *Global Hibakusha Project* has led to hibakusha communities gaining practical knowledge on achieving state recognition and compensation; the monument in Tahua Tu-Marama functions as a place for bringing together local and international activists, hibakusha and communities; *24-08-1968* demonstrates the usefulness of simulations in providing ways of reclaiming land ‘lost’ to irradiation and encountering embodied experiences with militarised radiation, an experience that is difficult in reality; *Anointed* preserves and passes on cultural knowledge through storytelling. The core findings of my research—the value of relationships, land, interconnection and aloha to nuclear disarmament efforts—reflect Aluli-Meyer’s regard of Indigenous knowledge as enduring wisdom for survival. Nuclear disarmament is a practice of survival, and one that, as this thesis has demonstrated, can learn from Indigenous Hawaiian epistemology.

In contrast to the aloha-centric approach demonstrated by Aluli-Meyer, social and governmental bodies working towards disarmament rely on fear to raise awareness or incentivise change, in conveying the potential impending danger of nuclear war. For example, in facing recently renewed interest in proliferation displayed by nuclear states, the following conditions are commonly communicated to the public; the fact that no country in the world is prepared for the humanitarian crisis that a nuclear attack would cause; the impossibility of a foolproof system for managing deployable nuclear weapons;<sup>306</sup> the risk of terrorist groups acquiring access to nuclear weapons; and perhaps most worryingly for the international community, the degradation of communication, cooperation and commitment between the

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<sup>306</sup> Such a foolproof system is impossible, if human and technological errors are considered; electronic security systems are vulnerable to errors and hacking, while guaranteed control over every single individual involved in nuclear defence/attack systems is unrealistic. Nakamitsu.

United States and Russia on disarmament matters. The latter point implies that the current situation has deteriorated to the point that existing agreements on disarmament are under threat; extending disarmament is no longer a feasible agenda when the world faces a potential regression of the progress made to date towards disarmament.

Effective implementation of arms control relies on hard measures, such as imposing sanctions or ostracising noncomplying states from the international diplomatic committee. While hard measures are effective, they are essentially persecutions that run counter to establishing co-operative relationships. Sanctions further lose their credibility if they are seen as tactics for maintaining the status quo; nuclear states are spared new competition while non-nuclear states are discouraged from developing military nuclear capacity. The rhetoric of persecution is further undermined when powerful states (namely, the United States) use anti-proliferation as an excuse to physically interfere in other nations' matters and further their interests in the region.<sup>307</sup> There is little room to entertain a shift in thinking towards a value-based, qualitative framework for nuclear disarmament when disarmament agendas are abused in partisan politics and hard measures create hostile relationships. In this situation, valuing relationships, land, interconnection, aloha and life as a shared, common reality begin to sound unreasonable to policy makers. The rhetoric of leaders working for universal nuclear disarmament hence remains confined to responding to observable immediate threats and proposing actions that maximise tangible security.<sup>308</sup>

This current dire situation demonstrates the difficulty of properly adopting Indigenous thinking into these existing frameworks. Given this context, it is all the more imperative that initiatives to incorporate Indigenous thinking do not result in the appropriation of specific

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<sup>307</sup> As George Bush's administration had done in Iraq.

<sup>308</sup> For example, Nakamitsu raised the following as issues to be addressed in thinking of a way forward: security systems' reliance on imperfect technologies, the shift from qualitative to a quantitative method of measuring nuclear proliferation (from number of weapons in an arsenal to the destructive capacity of an arsenal) and differentiating between strategic and conventional capabilities in legislations. Nakamitsu.



knowledge by the dominant legislative logic to fit current disarmament outlooks; the centring of Indigenous knowledge needs to be led by Indigenous voices. Pre-emptive protocols that ensure appropriate understanding of Indigenous epistemologies need to be established in order to protect and situate Indigenous knowledge. This endeavour involves, first, overcoming systemic, neo-colonial mechanisms, especially in the international bodies that would represent Indigenous communities. For adequate representation to become viable, these international bodies' policies for inclusion need to meet the expectations of Indigenous communities, while participation would also need to be driven by Indigenous communities themselves.

Initiatives such as the *Global Hibakusha Project* provide opportunities for such cross-cultural understanding to take place. The lesson of the importance of relationship building demonstrated by the project is applicable to disarmament efforts at international legislative levels. In addition, individuals from international organisations and the like can benefit from experiencing embodied works such as Jane Chang Mi's *24-08-1968*. This physically intimate encounter with simulated militarised radiation establishes an empathetic capacity of engagement. The video installation provides an experience similar to being on-site, in contrast to discursive and theoretical policy-making, which is at times removed from the actual violence in question. In turn, Kathy Jetñil-Kijiner's works, particularly those that address the plight of Indigenous communities whilst communicating their worldviews, are an example of attempts at broader co-operation.<sup>309</sup> However, her work simultaneously highlights the risk of the sort of co-opting that is always present whenever survivor voices are sought for purposes of global incentivisation.

My project's focus on the ways in which creative works contribute to disarmament efforts has created opportunities for further research. Specifically, I am interested in exploring

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<sup>309</sup> One example is her performance at the opening ceremony of the 2014 Climate Summit held at the UN headquarters in New York.

how Indigenous Hawaiian epistemology can identify ways in which existing arms control or bilateral agreements can incorporate non-Western worldviews and structures.<sup>310</sup> Such initiatives could make the possibility of having diverse, value-based systems more viable within international legislative bodies. The findings of my research suggest that, in building the foundation for such a change, changes can be trialled in Indigenous-led organisations, pilot programmes in education and art sectors, as well as NGOs. Such initiatives and conversations led by Indigenous communities lead to familiarity with Indigenous ideas being built across a broad social basis. Grassroots-level understanding is a preliminary step towards the implementation of Indigenous values into international organisations.<sup>311</sup> I consider my research as an ally in these efforts, functioning to value Indigenous ideas in a way similar to what Linda Tuhiwai Smith proposes for non-Indigenous researchers in the context of academia.<sup>312</sup>

An Indigenous Hawaiian framework can also be adopted in disarmament education to rethink the current international system and disseminate Indigenous Hawaiian knowledge as wisdom for survival. Moreover, art institutions can commission exhibitions and artworks in accordance with a framework that incorporates epistemologies and values based on the intelligence of aloha. These methods also functions to assist activist organisations to spread their message of disarmament from various standpoints. My ultimate aim is for the Indigenous Hawaiian epistemology to be engaged with not as a theoretical curiosity but as a serious framework for policy making, be it in art galleries, NGOs, governments or education contexts. Active implementation of Indigenous methodologies led by Indigenous researchers, artists,

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<sup>310</sup> Existing statements ought to be referenced, including the Peoples' Charter for a Nuclear Free and Independent Pacific, conceived at the Nuclear Free and Independent Pacific Movement Conference in Vanuatu in 1983.

<sup>311</sup> Several actions within the implementation plan of the UN Agenda for Disarmament already present possibilities. Two example actions are: 1) making disarmament a norm amongst the wider public; and 2) consolidating regional nuclear weapon-free zones. In regards to the latter, Oceania as a region already has the foundations to establish a value-based cultural framework for opposing nuclear proliferation. Accordingly, I suggest that The Treaty of Rarotonga, which established the South Pacific Nuclear Free Zone, is one of the first treaties that should be redrafted as a bilateral agreement.

<sup>312</sup> Smith, 186.

educators and the like, as well as non-Indigenous allies who value the same methodologies, is required to strengthen such practices. Non-Indigenous (to Oceania) authors of creative works selected for this thesis, particularly Mick Broderick, Robert Jacobs and Jane Chang Mi, are examples of such allies to Indigenous communities.

I am grateful for the *Global Hibakusha Project*, the monument in Tahua Tu-Marama, 24-08-1968 and *Anointed* for disseminating and remembering the violence of nuclear weapons, and for working towards the prevention of their further use. I am grateful to Manulani Aluli-Meyer for sharing the wisdom that was shared with her. In turn, I hope my research can be of use to activists, artists and all those working towards nuclear disarmament. This research is a link in the interconnected effort for disarmament; this research is imbued with the intelligence of aloha. Universal nuclear disarmament is possible where aloha is practiced and valued. An enabler of life, aloha is a tried and tested way of being, enduring as knowledge within Indigenous Hawaiian epistemology. I hope that aloha travels far and wide, for the world to become that much wiser in valuing its own life.

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