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2021

## **Nuclear Displacement: Effects of America's Nuclear Tests on Pacific Islanders**

Jessica Faucher  
*University of North Florida, n01442746@unf.edu*

Faculty Mentor: Dr. Chau Kelly, Associate Professor  
Department of History

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### **Recommended Citation**

Faucher, Jessica (2021) "Nuclear Displacement: Effects of America's Nuclear Tests on Pacific Islanders," *PANDION: The Osprey Journal of Research and Ideas*: Vol. 2: No. 1, Article 8.  
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## Nuclear Displacement: Effects of America's Nuclear Tests on Pacific Islanders

### Cover Page Footnote

I'd like to thank Dr. Chau Kelly for her recommendation to study this important and often overlooked event, and for her guidance and advice in researching the material.

# *Nuclear Displacement: Effects of America's Nuclear Tests on Pacific Islanders*

Jessica Faucher<sup>1</sup>

Faculty Mentor: Chau Kelly, Ph.D.  
Department of History  
University of North Florida

## **Abstract**

The United States conducted a series of nuclear tests in the Pacific that permanently displaced Marshall Islanders, specifically the indigenous population of Bikini Atoll. In addition to rendering their native environment uninhabitable, the U.S. used the bodies of the Rongelapese that had been exposed to radioactive fallout as a living laboratory to study the effects of radiation. Nuclear displacement in the Pacific has not received much attention in historical scholarship but represents nevertheless a well-documented case of imperialism in U.S. history.

## **Introduction**

Between 1946 and 1958, the United States chose Bikini Atoll and Enewetak Atoll in the Marshall Islands of the Pacific as a theatre to explore the devastating effects of nuclear weapons. Chosen because of the islands' distance from the continental U.S. and Western perceptions of civilization, the U.S. embarked on a colonial venture that permanently displaced and inflicted physiological and psychological harm on the indigenous Bikinians and Rongelapese inhabitants. In addition to drastically changing the lives of the Marshallese people and their future generations, U.S. nuclear testing in the Pacific irrevocably altered the environments impacted by radioactive fallout. In the process of bringing the world into the "Atomic Age," the U.S. legitimized its own position as a global superpower, while rendering the Bikinians and Rongelapese rightless. As is the case with most historical instances of imperialism, little consideration was given to the indigenous populations' welfare or connections to their land, which formed an important aspect of their spatial identity. In addition to violating their rights through relocation and the destruction of their

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1 I would like to thank Dr. Chau Kelly for her recommendation that I study this important and often overlooked event, and for her guidance and advice in researching the material.

native land, the U.S. also used Bikini Atoll as well as the bodies of the Rongelapese affected by radioactive exposure as a living laboratory to conduct experiments.

## Historical Background

The Marshall Islands in Micronesia were no stranger to colonization, but they nevertheless remained relatively undisturbed from outside forces before being occupied by the U.S. in the 1940s. The Marshall Islands were originally colonized by Spain in 1494, and Germany in 1885, until being occupied by Japan during World War I.<sup>2</sup> During World War II, the United States seized the territory from Japan and realized its potential as a proving ground for nuclear testing.<sup>3</sup> Weeks after Hiroshima and Nagasaki, the United States began exploring possible sites for testing in the Marshall Islands. Deciding on Bikini and Enewetak atolls as the prime location despite the presence of native inhabitants, the U.S. conducted sixty-seven thermonuclear tests between 1946 and 1958 to study the immediate impact of nuclear weapons, as well as their long-term effects on the environment.<sup>4</sup> In 1947, a year after the first series of tests, the United Nations designated the Marshall Islands as a “strategic” trust territory of the United States.<sup>5</sup> Under this agreement, the U.S. was entrusted to protect the land, resources, and health of the territory.<sup>6</sup>

Bikini is located just north of the equator in the central Pacific and is one of twenty-nine atolls and five islands scattered over 357,000 square miles that make up the Marshall Islands.<sup>7</sup> Bikini Atoll is composed of thirty-six islands with a total landmass of 2.3 square miles.<sup>8</sup> A large lagoon provided the Bikinians with flourishing marine life to sustain their diet, as well as the sustenance provided by coconut palms and pandanus trees. The word “Bikini” in Marshallese translates to the “land of many coconuts,” and is derived from the appearance of the huge growths of trees one

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2 April L. Brown, “Looking Back: No Promised Land: The Shared Legacy of the Castle Bravo Nuclear Test,” *Arms Control Today* 44, no. 2 (March 2014): 40, <https://www.jstor.org/stable/24336150>.

3 Brown, “Looking Back,” 40.

4 Brown, “Looking Back,” 40.

5 Nic Maclellan, “Survivors,” in *Grappling with the Bomb: Britain’s Pacific H-Bomb Tests*, (Australia: ANU Press, 2017), 42, <https://www.jstor.org/stable/j.ctt1ws7w90.8>.

6 Maclellan, “Survivors,” 42.

7 Jonathan M. Weisgall, “The Nuclear Nomads of Bikini,” *Foreign Policy*, no. 39 (Summer 1980): 76.

8 Weisgall, “Nuclear Nomads,” 80, <https://www.jstor.org/stable/1148413>.

sees when approaching the island.<sup>9</sup> Due to their abundance, coconuts are a staple, both as a food source for the Bikinians as well as to make oil, handicrafts, and other resources, and therefore carry a strong cultural significance.

The Bikinians follow a matrilineal social structure each with their own *alap*, or hereditary head. At the time of their relocation, the *alap* was Juda, who played an important role in speaking for the Bikinians when dealing with the Americans.<sup>10</sup> Much of the land comprising the Marshall Islands is owned by *iroijes*, or paramount chiefs, who provide protection in return for working the land.<sup>11</sup> The Bikinians followed this system of land tenure until their relocation, after which they began to lose trust and rejected their *iroij*.<sup>12</sup>

## Historiography

Although there are extensive extant archives holding material about nuclear testing in the Pacific and the scientific discoveries found, the historical scholarship on the subject is rather limited. Nevertheless, I was able to find several valuable sources that occupy the field of debate I wish to enter with my research. In the chapter titled "Survivors," in *Grappling With the Bomb: Britain's Pacific H-Bomb Tests*, Nic Maclellan details the human rights abuses suffered by the Rongelapese people after being exposed to nuclear fallout from the infamous Castle Bravo hydrogen test, as well as foreign reactions to the bomb.<sup>13</sup> The author Jeffrey Sasha Davis also provides valuable information in his article, "Representing Place: 'Deserted Isles' and the Reproduction of Bikini Atoll," in which he argues that the notion of a "deserted isle" is a place myth, and that individual conceptualizations of place vary and can be repressive, as was/is the case with Bikini Atoll.<sup>14</sup> In the chapter, "Poetics and Politics: Bikini Atoll and World Heritage Listing" from the book *Transcending the Culture-Nature Divide in Cultural Heritage: Views from the Asia-Pacific Region*, Steve Brown

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9 Steve Brown, "Poetics and Politics: Bikini Atoll and World Heritage Listing," in *Transcending the Culture-Nature Divide in Cultural Heritage: Views from the Asia-Pacific Region*, ed. Sally Brockwell, Sue O'Connor and Denis Byrne (Australia: ANU Press, 2013), 41, <https://www.jstor.org/stable/j.ctt5hg2n.7>.

10 Brown, "Poetics and Politics," 41.

11 Weisgall, "Nuclear Nomads," 81.

12 Weisgall, "Nuclear Nomads," 81.

13 Maclellan, "Survivors," 39-54.

14 Jeffrey Sasha Davis, "Representing Place: 'Deserted Isles' and the Reproduction of Bikini Atoll," *Annals of the Association of American Geographers* 95, no. 3 (Sep. 2005): 607-625, <https://www.jstor.org/stable/3693959>.

provides compelling information on how the Bikinians have reacted to the loss of their home and have subsequently fought for recognition and compensation for their loss, as well as how the addition of Bikini Atoll as a nuclear test site on the World Heritage list has been utilized by the Bikinians to act as a political tool.<sup>15</sup>

All of these sources are within the field of debate I wish to cover in my research as I argue that the United States committed human rights abuses against Marshall Islanders, stripped them of their cultural and spatial identity and environment, and subsequently has failed to provide proper restitution. Nevertheless, the Bikinians have shown formidable strength in reconstructing their heritage that now includes nuclear testing and have shown a continued desire to exert their own independence and return to their homeland.

### **“A Deserted Isle”**

The decision to use the Pacific as a proving ground for extensive nuclear testing was made during World War II. After the catastrophic effects of atomic weapons were demonstrated at Hiroshima and Nagasaki, the islands in the Pacific were an appealing test ground because of U.S. officials’ perceptions of them as “remote” and relatively “uninhabited.” To conduct a series of nuclear tests in the Nevada desert, for example, would put American lives in harm’s way, an unimaginable prospect. Putting the lives of an indigenous population at risk and destroying their geographically small home, however, was considered an easy sacrifice for the sake of Western civilization. As the historian Jeffrey Davis suggested, “a place had to be found where the principal of overkill could be examined...”<sup>16</sup> An imperial and Western perception of the Marshall Islands allowed the U.S. to justify its planned destruction. This pattern of colonial powers exerting their perception of themselves as the center, occupying the position of “civilized,” while marginalizing the periphery as “uncivilized” and “primitive,” has characterized the history of many islands, the Marshalls included. However, the place-myth of a “deserted isle” is just that: a myth.

In order to legitimize their power over that of the Marshallese, the United States had to reconceptualize how people imagined the islands. During the relocation process, the United States did this in a number of ways, including making a spectacle of Bikini Island and its inhabitants as an untouched community in

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15 Brown, “Poetics and Politics,” 35-52.

16 Davis, “Representing Place,” 613.

media publications and in film. In the *Bikini Backtalk* newsletter circulated by the American military and civilian personnel occupying the Marshall Islands, some of the colonial stereotypes are exerted.<sup>17</sup> For example, the August 25, 1947 issue frequently notes the nudity of the children, and the “peculiar” way that the Native women carry their children.<sup>18</sup> By casting the indigenous community as the “savage” other, the efforts by the U.S. to “bring the lonely Pacific island into the atomic age,” was conceived of as a civilizing mission, rather than as an effort to test the limits of humanity’s destructive capabilities.<sup>19</sup>

Another method the U.S. and its scientists deployed to reconceptualize the Marshall Islands was to imagine it as an isolated ecology that could be used as a laboratory for scientific discovery. Elizabeth M. DeLoughrey demonstrates that, with the congruent rise of the Age of Ecology and the Atomic Age, scientists conceived of a given environment as a “closed system,” allowing them to ignore the ethical implications of the science.<sup>20</sup> In reality, a “closed” ecosystem does not and cannot exist, certainly not in radiological science which permeates the life and land it touches so thoroughly. The nuclear testing performed in the Marshall Islands had a global reach, and dramatically harmed the lives of indigenous populations as well as their environment.

By casting the islands in the Pacific as “isolated,” the scientists of the Atomic Energy Commission (AEC) conceptualized the Marshall Isles as a laboratory that could be controlled and studied without endangering lives in the West. For example, several years after the tests occurred, Dr. Lauren R. Donaldson revisited Bikini and stated, “Bikini remains one of the most important of the world’s radiobiological laboratories.”<sup>21</sup> This perception of Bikini Atoll as being a universally-owned laboratory continues to this day, subverting the Bikinians’ efforts to take back their home and identity.

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17 *Bikini Backtalk*, “Rongerik Natives Entertain Resurvey Group,” August 25, 1947, University of Washington, *Lauren R. Donaldson Collection of Northern Pacific Ocean Radiological Surveys, 1946-1964*, <https://www.jstor.org/stable/10.2307/community.28702277>.

18 *Bikini Backtalk*, “Rongerik Natives,” 2.

19 Hill Williams, “Bikini Atoll-1964,” from University of Washington, *Lauren R. Donaldson Collection of Northern Pacific Ocean Radiological Surveys, 1946-1964*, 29, <https://www.jstor.org/stable/10.2307/community.28702303>.

20 Elizabeth M. DeLoughrey, “The Myth of Isolates: Ecosystem Ecologies in the Nuclear Pacific,” *Cultural Geographies* 20, no. 2 (2012): 171.

21 Neal O. Hines, “Bikini-Pacific Laboratory: The University of Washington is unlocking the secrets of an historic atoll,” *University of Washington* (1949): 8, <https://www.jstor.org/stable/10.2307/community.28702300>.

In the article *Bikini Revisited*, published in 1980, Lloyd J. Graybar notes that the necessity of relocating the Bikinians “was not considered sufficient reason for selecting another site.”<sup>22</sup> In fact, the main concern of the U.S. government centered on which branch of the military would conduct the tests. After the use of the atomic bomb in WWII, there was a growing belief that the bomb had rendered the Navy and its warships obsolete, and that it would fall principally on the Air Force to engage in future wars.<sup>23</sup> The first series of nuclear tests in the newly acquired Pacific Proving Grounds occurred in this context of military infighting, hence the name “Operation Crossroads” given to the tests.

It was agreed that the tests would be conducted by both the Navy and the Air Force. In order to show that the Navy was still relevant, ninety retired vessels were selected to be sacrificed in the summer of 1946 to one atomic bomb dropped by air (codenamed Able) and a second detonated underwater (codenamed Baker).<sup>24</sup> Another major barrier the U.S. government encountered beyond the forced relocation of the island’s inhabitants was the cost of the vessels that were to be deliberately sunk, which were valued at \$400 million dollars.<sup>25</sup> The preoccupation of the U.S. with the price tag of the ships and the concurrent desire to disprove the claim that the Navy itself was the “principal casualty” of the atomic bomb demonstrate both the level of detachment concerning the lives of the Marshallese people and the fact that choosing their islands as the test site was nearly an effortless decision.<sup>26</sup>

## Relocation

In order to conduct the nuclear tests, the United States first had to relocate the 167 Bikinian men, women, and children whose ancestors had settled on the island approximately two thousand years ago.<sup>27</sup> The Americans chose this opportunity to create an elaborate show for the media. Commodore Ben Wyatt arrived on the island on Sunday, February 10, 1946, followed by a film crew. After the Bikinians’ church

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22 Lloyd J. Graybar, “Bikini Revisited,” *Military Affairs* 44, no. 3 (Oct. 1980): 119, <https://www.jstor.org/stable/1987435>.

23 Graybar, “Bikini Revisited,” 118.

24 Michael Brennan, “Return to Bikini Atoll,” *The Military Engineer* 112, no. 728 (Summer 2020): 75, <https://www.jstor.org/stable/10.2307/26937375>.

25 Graybar, “Bikini Revisited,” 119.

26 Graybar, “Bikini Revisited,” 118.

27 Steve Brown, “Archaeology of Brutal Encounter: Heritage and Bomb Testing on Bikini Atoll, Republic of the Marshall Islands,” *Archaeology in Oceania* 48, no. 1 (April 2013): 28, <https://www.jstor.org/stable/24026258>.



service, the Commodore requested the local people's permission to relocate them so that the U.S. could test its nuclear weapons on their home in order to "end all world wars."<sup>28</sup> In his appeal, Wyatt "compared the Bikinians to the Children of Israel whom the Lord had saved from their enemy and led into the Promised Land."<sup>29</sup> The hereditary Bikinian leader Juda responded, "If the United States government and the scientists of the world want to use our island and atoll for furthering development, which with God's blessing will result in kindness and benefit to all mankind, my people will be pleased to go elsewhere."<sup>30</sup> Following this encounter, the Bikinians were filmed decorating the cemetery of their ancestors and singing sorrowful songs as they boarded the boat that would take them to their island of relocation.<sup>31</sup> What was not included in the film crew's documentary was that President Truman had already approved the use of the Bikini Atoll as a testing ground a month earlier.<sup>32</sup> The Bikinians therefore had no real choice in the matter. The illusion of consent that Commodore Wyatt received was not only elicited through emotional appeal to the islanders' Christianity, but through a manipulative ruse designed to protect the image of the United States as a benevolent and just power paradoxically seeking peace through nuclear testing.

In addition to coercing the Bikinians' consent, there is no evidence to suggest that the Bikinians were informed that the nuclear testing they were accommodating would likely render their homeland uninhabitable for years or decades to come. If the Bikinians had been informed of this, they likely would have resisted relocation. Instead, the hereditary chief Juda informed Commodore Wyatt that they would like to be relocated to the island of Rongerik, 126 miles to the east of Bikini. Rongerik is 0.63 square miles compared to Bikini's 2.3 square miles, has a lagoon less than one-fourth the size of Bikini's, and was believed by the Bikinians to be inhabited by an evil spirit.<sup>33</sup> Provided with only several weeks' worth of supplies by the Americans, within months the Bikinians were suffering from malnutrition and starvation on an island that provided much less in natural resources than their homeland.<sup>34</sup> Unable to supplement their diet with the coconut that thrived on Bikini, the refugees were

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28 Weisgall, "Nuclear Nomads," 77.

29 Weisgall, "Nuclear Nomads," 77.

30 Weisgall, "Nuclear Nomads," 77.

31 Weisgall, "Nuclear Nomads," 79.

32 Brown, "Looking Back," 40.

33 Weisgall, "Nuclear Nomads," 80.

34 Weisgall, "Nuclear Nomads," 80-81.

forced to cut down young palm trees in order to eat the heart of the palm. They had to ration water to one bucketful per day for each household and found that many of the fish in the lagoon were poisonous (the source of the myth that Rongerik was inhabited by an evil spirit).<sup>35</sup>

In the August 9, 1947 issue of the *Bikini Backtalk* newsletter circulated among U.S. personnel occupying the islands during this period, the desperation and neglect experienced by the Bikinians is clear.<sup>36</sup> The newsletter describes the chief, Juda, and three other Bikinian leaders temporarily returning to Bikini in order to join a resurvey group of scientists, aiding them in determining the extent of the damage produced by nuclear tests and pointing out any abnormalities.<sup>37</sup> While there, Juda “frequently points to the heavily laden coconut trees on the island and says, good, good food.”<sup>38</sup> Although the Americans neglected to recognize this gesture at the time, Juda’s appreciation for the continued growth of the coconut on Bikini was not only due to its cultural significance; his appreciation also marked a difference between Bikini and Rongerik, where his people were starving from lack of abundance of a basic food source.

Unable to ignore the plight the Bikinians faced any longer, in 1948 the United States temporarily moved the Bikinians again, this time to Kwajalein until a more permanent location could be found.<sup>39</sup> The Bikinians had rejected their own *iroij* for not protecting them from relocation from Bikini, and their options for finding a suitable island that was not already controlled by a paramount chief were very limited.<sup>40</sup> The island the Bikinians chose was Kili, located 400 miles south of Bikini. This island is less than one-sixth the size of Bikini, possesses no lagoon, and is inaccessible for long periods of the year due to strong winds that make navigation for boats impossible.<sup>41</sup> Kili is primarily suited for agriculture, especially the crop copra, or dried coconut meat.<sup>42</sup> However, the Bikinians were not accustomed to the agricultural techniques necessary to produce copra effectively, and their skills in fishing were useless on Kili; therefore, they still struggled to provide for themselves.

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35 Weisgall, “Nuclear Nomads,” 81.

36 *Bikini Backtalk*, “Judah Returns to Native Bikini for Visit,” August 9, 1947, University of Washington, *Lauren R. Donaldson Collection of Northern Pacific Ocean Radiological Surveys, 1946-1964*, <https://www.jstor.org/stable/10.2307/community.28702280>.

37 *Bikini Backtalk*, “Judah Returns,” 2.

38 *Bikini Backtalk*, “Judah Returns,” 2.

39 Weisgall, “Nuclear Nomads,” 81.

40 Weisgall, “Nuclear Nomads,” 81.

41 Weisgall, “Nuclear Nomads,” 83.

42 Weisgall, “Nuclear Nomads,” 81.

In 1952, the U.S. airdropped emergency supplies to the refugees on the island without a parachute and, in the process, destroyed the rations.<sup>43</sup>

The multiple relocations the Bikinians experienced were the result of negligence and disinterest on behalf of the United States. U.S. officials did not take the time necessary to thoroughly understand the cultural significance of Bikini Atoll to its inhabitants or the resources it offered; instead, the Americans assumed surrounding islands offered the same amenities. For example, in a 1946 *New York Times* article, U.S. military authorities are quoted as stating Bikini and Rongerik “look as alike as two Idaho potatoes.”<sup>44</sup> Not unlike other colonial instances, the colonizer’s perception of the indigenous population as “simple” without recognizing the complexities inherent in their society allowed them to dehumanize the population in order to ignore their suffering.

### **Castle Bravo**

The Castle Bravo test that took place on March 1, 1954 as part of the six-part Castle series utilized the largest device ever detonated in atmospheric nuclear testing, and yielded an energy release equivalent to 15 million tons of TNT.<sup>45</sup> Despite the fact that weather conditions had changed and were reported as unfavorable more than six hours prior to the detonation, Major General Percy Clarkson gave the go ahead to proceed with the test.<sup>46</sup> Bravo yielded an energy release that significantly exceeded what scientists expected. A fireball three miles in diameter that illuminated the sky 135 miles away on Rongerik was created within seconds and observed for a full minute.<sup>47</sup> As a result of the unfavorable wind patterns, large amounts of radioactive debris was carried and fell across the Marshall Islands, especially the atolls Rongelap, Utirik, Rongerik, and Ailinginae.<sup>48</sup> The nuclear blast created by Castle Bravo instantly vaporized three of Bikini’s islands and the topsoil of others and created a crater 200 feet deep and a mile wide within the island’s reef. In addition to other nuclear tests conducted near or on the atoll, Castle Bravo contributed to the radioactive contamination of the island and its flora and fauna that has kept it uninhabitable for

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43 Weisgall, “Nuclear Nomads,” 83.

44 Weisgall, “Nuclear Nomads,” 81.

45 U.S. DNA, Edwin J. Martin and Richard H. Rowland, *Castle Series 1954* (Washington DC: DNA, 1954), 205.

46 Brown, “Looking Back,” 41.

47 U.S. DNA, *Castle Series*, 205.

48 Maclellan, “Survivors,” 40.

nearly 80 years.<sup>49</sup> The Marshallese, horrified by the destruction wrought by Bravo, petitioned the Trusteeship Council in 1954 and requested that “all the experiments with lethal weapons within this area be immediately ceased...” They also requested that if cessation was not a possibility that at least precautionary measures be taken, such as ensuring the Marshallese were a safe distance away from future detonations, and that they receive compensation for their losses and medical treatment.<sup>50</sup>

It was certainly not only the Bikinians that were impacted by the United States’ nuclear testing in the Pacific. Other Marshall islanders, especially the Rongelapese, and a Japanese fishing boat crew were also affected. The radioactive fallout from Bravo was detected as far as Japan, India, Australia, the U.S., and Europe.<sup>51</sup> The unsuspecting Japanese fishing boat *Fukuryū-Maru* and its 23-member crew experienced nuclear fallout as well, and one crew member subsequently died, while others died years later from cancer and other radiogenic illnesses.<sup>52</sup> The radiated tuna aboard the vessel was later distributed in the Japanese fishing market, causing panic as the authorities tried to trace down and remove them. As a result, Bravo generated considerable international criticism, with United Nations delegations from India and the Soviet Union arguing that by conducting nuclear tests in the Marshall Islands, the U.S. was violating its promise to protect the inhabitants and the land under its Trusteeship Agreement.<sup>53</sup>

The Rongelapese survivors who were present on Rongelap and experienced the radioactive fallout describe playing in the deadly mixture of ash falling from the sky: “we put it in our hair as if it were soap or shampoo. But later I lost all of my hair.”<sup>54</sup> The white powdery fallout appeared similar to the coconut oil Rongelapese female children traditionally use to wash their hair and exacerbated the radioactive contamination they experienced from Castle Bravo.<sup>55</sup> Ninety percent of the Rongelapese people suffered from acute radiation exposure and experienced skin lesions and, in some cases, hair loss and nausea as well.<sup>56</sup>

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49 U.S. DNA, *Castle Series*, 205.

50 Merze Tate and Doris M. Hull, “Effects of Nuclear Explosions on Pacific Islanders,” *Pacific Historical Review* 33, no. 4 (Nov. 1964): 384-385, <https://www.jstor.org/stable/3636039>.

51 DeLoughrey, “Myth of Isolates,” 171.

52 Brown, “Archaeology of Brutal Encounter,” 30.

53 Tate and Hull, “Effects of Nuclear Explosions,” 385.

54 Maclellan, “Survivors,” 40.

55 Maclellan, “Survivors,” 40.

56 Weisgall, “Nuclear Nomads,” 84.

In contrast to the swift evacuation and decontamination efforts for American military and civilian personnel exposed to radiation, the Rongelapese were not evacuated until two days after the test.<sup>57</sup> The day after the test, two Americans arrived to conduct surveys of the radioactive fallout, but left without warning the Rongelapese of the lethal dangers to which they were exposed.<sup>58</sup> By the time they were evacuated, the Rongelapese were exposed to anywhere between sixty and 300 rems of radiation, just shy of the 400 rems that would prove lethal to 50% of an exposed population. Five to ten rems alone alter a person's blood chemistry and causes genetic damage.<sup>59</sup> In addition, after their evacuation, the U.S. did not ensure that the Rongelapese went through a thorough decontamination process to limit further exposure. A document written by the Naval Medical Research Institute states that U.S. personnel in some cases allowed the Rongelapese to keep and wear the clothing that still carried unsafe levels of radiation.<sup>60</sup>

### **A Living Laboratory**

The failure to cancel the Castle Bravo test despite knowledge of the unfavorable weather conditions, and the delayed decision to evacuate the Rongelapese and warn them of the dangers of radiation exposure, constitute a significant violation of human rights. In addition to putting the Rongelapese in mortal danger, the U.S. very quickly seized the unique opportunity to study the adverse effects of radiation on humans by conducting experiments on their bodies, organized under Project 4.1 and led by Dr. Robert Conrad from Brookhaven National Laboratory.<sup>61</sup> This gives justifiable credence to the suspicion that the United States purposely exposed the Rongelapese to nuclear fallout in order to study its effects, and certainly contradicts the government's claim that this was an instance of inadvertent contamination.

Similar to the "consent" coerced from the Bikinians for their relocation, the scientists and doctors who treated and studied the Rongelapese failed to obtain proper consent. The Marshallese were often told that they were receiving treatment for various illnesses and, as a translator was rarely provided, they were not informed

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57 Maclellan, "The Survivors," 41.

58 Brown, "Looking Back," 41.

59 Brown, "Looking Back," 41.

60 U.S. Naval Medical Research Institute, *Exposure of Marshall Islanders and American Military Personnel to Fallout*, Robert Sharp and William H. Chapman, WT-938, Maryland: Naval Medical Research Inst., 1957, 20.

61 U.S. Naval Medical Research Institute, *Exposure of Marshall Islanders*, 1-100.

of the reason for the tests to which they were subjected.<sup>62</sup> Some of the tests included injection of chromium-51, carbon-14, and radioactive iodine, and some islanders experienced experimental surgeries as well.<sup>63</sup> Scientists extracted blood, tissue, bone marrow, and even healthy teeth from the Rongelapese for decades without informing them of the purpose the extractions served.<sup>64</sup> When discussing the opportunity to study the effects of radiation on humans, Merrill Eisenbud of the AEC's Advisory Committee on Biology and Medicine stated, "while it is true that these people do not live, I would say, the way Westerners do, civilized people, it is nevertheless also true that these people are more like us than mice."<sup>65</sup>

Since Castle Bravo, many Marshall Islanders who were alive during the tests, as well as their subsequent generations, have suffered from the ill-effects of exposure to radiation. For every twenty-one Rongelapese under the age of twelve at the time of Bravo, nineteen have developed cancer or other illnesses.<sup>66</sup> Many also suffer from a high rate of thyroid tumors, especially prevalent among women.<sup>67</sup> Birth defects are also common and are characterized by deformities such as the infants being born with abnormally large heads, missing limbs, or lacking skeletal anatomy (otherwise known as "jellyfish" or "grape" babies).<sup>68</sup> When the alarmed mothers of these children sought answers for why these deformities were occurring, they were told it was "to be expected in a small island population."<sup>69</sup> By subjecting Marshall Islanders to radiation exposure and utilizing such exposure as a study opportunity (which, in many cases worsened radiation's effects on the human body), American scientists and doctors treated the indigenous population as subhuman laboratories rather than as individuals who possessed rights to their own bodies. Much of the violence and neglect the Marshallese experienced stemmed from racism and reoccurring colonial tropes. For example, American descriptions of Marshall Islanders as non-Westerners and therefore "uncivilized" allowed the U.S. to justify their activity in the Pacific as an enlightened expedition rather than as a callous experiment.

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62 Brown, "Looking Back," 41.

63 Maclellan, "The Survivors," 51.

64 DeLoughrey, "Myth of Isolates," 177.

65 Maclellan, "The Survivors," 52.

66 Weisgall, "Nuclear Nomads," 84.

67 Brown, "Looking Back," 42.

68 DeLoughrey, "Myth of Isolates," 177.

69 DeLoughrey, "Myth of Isolates," 177.

## **Resettlement?**

Due to the lack of knowledge surrounding the effects and longevity of radiation, by 1964 scientists were beginning to suggest that it was safe to return to Bikini Atoll. A team of scientists sent to resurvey Bikini found that ground radiation readings showed that the island had “cooled” enough to be safe for permanent human habitation.<sup>70</sup> Sweeping statements concerning the effects of radiation were common during this period, ignoring the fact that there was a sharp divergence of opinion among scientists at the time regarding the levels of radiation that could damage an individual or their offspring.<sup>71</sup> Despite the ongoing debate about safe levels of radiation, in 1969 Bikinians were permitted to return to their atoll and begin the resettlement process.<sup>72</sup> However, by 1972, with the help of newer and more sensitive equipment, scientists realized that a more thorough radiological survey was necessary. Rather than halt the resettlement process immediately upon this discovery, the U.S. continued to suggest that returning was safe for the Bikinians. It was not until late 1974 that the Secretary of the Interior, Rogers B. Morton, ordered that construction on the island be ceased and a new survey conducted.<sup>73</sup> In typical bureaucratic fashion, the Department of the Interior (DOI), the Department of Defense (DOD), and the Energy Research and Development Administration (ERDA) argued for a further three years over who should conduct the survey and how it would be paid for.<sup>74</sup> Angered by the mixed messages they were receiving and concerned about their safety, in 1977 the Bikinians sued the United States in order to force them into surveying the island. Once the survey was finally conducted, it confirmed their fears that Bikini Atoll was still uninhabitable.<sup>75</sup>

This disaster, borne out of gross negligence, resulted in many Bikinians being exposed to dangerous levels of internal radiation. In addition to allowing the Bikinians to return to the island and remain there for years after the risks were known, the U.S. also failed to provide the necessary resources to prevent the Bikinians from consuming large quantities of irradiated food. In the mid-1970s, the U.S. began providing the Bikinians with outside food sources to supplement what they

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70 Williams, “Bikini Atoll-1964,” 30.

71 Tate and Hull, “Effects of Nuclear Explosions,” 392.

72 Weisgall, “Nuclear Nomads,” 86.

73 Weisgall, “Nuclear Nomads,” 86-87.

74 Weisgall, “Nuclear Nomads,” 88.

75 Weisgall, “Nuclear Nomads,” 88.

could acquire on the island.<sup>76</sup> However, in reality the monthly-scheduled trips only came once every several months, a situation which continued in 1978 even after the government instructed the Bikinians they could no longer consume food produced on the island.<sup>77</sup> Given the option between starving and risking radiation exposure, the Bikinians had little choice but to eat contaminated food. In April of 1978, the Bikinians' internal radiation levels were tested by a medical team which concluded they had likely ingested "the largest amounts of radiation of any known population."<sup>78</sup> Finally, in the summer of 1978, the Bikinians were relocated once again.<sup>79</sup>

### **Bikini Today**

Since the failed attempt at resettlement, Bikini Atoll has remained uninhabitable for permanent occupation due to its radiation levels. The Bikinians and other Pacific Islanders affected by the nuclear tests have, however, been able to gain back some of the independence and rights from which the United States had deprived them. In 1979, the Republic of the Marshall Islands was established by the Pacific Islanders, and in 1986, the Compact of Free Association between the U.S. and the Republic was formed, ending the Trusteeship Agreement.<sup>80</sup> Though the Compact of Free Association allows for continued U.S. military presence on Kwajalein Atoll, it also allows the Marshallese to work and go to school in the U.S. if they wish to, and one aspect provides medical care to those directly affected by the Bravo detonation.<sup>81</sup>

Despite the establishment of a trust fund created by the Compact to provide the Marshallese with some level of reparations, the Compact has effectively hindered further restitution. As a condition of the Compact, the Marshallese had to agree to not pursue litigation in the future.<sup>82</sup> This has prevented some of the Marshallese from getting access to the necessary medical care to treat radiological illnesses, or to get appropriate funding to invest in their island's rehabilitation. The Compact has also presented a major barrier to those islanders not narrowly defined in the Compact who were also affected by nuclear fallout. During the Bill Clinton's presidency, when reports by the AEC were declassified, it was discovered that the U.S. had covered up the extent

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76 Weisgall, "Nuclear Nomads," 89.

77 Weisgall, "Nuclear Nomads," 89.

78 Weisgall, "Nuclear Nomads," 90.

79 Weisgall, "Nuclear Nomads," 90.

80 Brown, "Looking Back," 42.

81 Brown, "Looking Back," 42.

82 Brown, "Looking Back," 42.



of Castle Bravo's fallout.<sup>83</sup> Rather than the four atolls of Bikini, Rongelap, Enewetak, and Utrik being affected as the U.S. told the Marshallese, fallout may actually have affected thirteen Atolls.<sup>84</sup> Those islanders who also experienced radiation exposure but were not included in the original agreement have therefore lost access to reparations.

The Bikinians have found other methods of seeking justice for their displacement and the destruction of their home. Now that they have full control over Bikini Atoll, they have been able to utilize its history of nuclear testing to their advantage to try to regain control over their identity and cultural heritage. In 1996, the Bikinians established a private tourism industry that offers tourists the chance to dive around the vessels sunk during Operation Crossroads.<sup>85</sup> Though tourism can often become harmful to an indigenous population in the wake of colonization, the Bikinians' ability to control the industry has proven to be beneficial for them. Bikini's inclusion on the World Heritage List in 2010 has also offered a pathway for the Bikinians to share their story as well.<sup>86</sup> Though World Heritage Listing often signifies universal ownership over a place's culture and heritage, the Bikinians have effectively used the exposure to further their own goals of being recognized and supported for the abuses inflicted on them by the United States.

## **Conclusion**

The nuclear testing that occurred in the Pacific Proving Grounds by the United States has left a permanent scar on the lives, environment, and identity of the Marshallese people. In choosing the Marshall Isles as the site of nuclear testing, in the relocation of the Bikinians, and in the use of the Marshallese affected by radiation to conduct human experiments, the United States displayed negligence and committed multiple human rights violations. The U.S. justified their actions by deploying colonial stereotypes of the islands and its people as "isolated," "simple," and "uncivilized," and rendered the environment and human beings as objects which existed for the advancement of Western technology.

When considering the multiple instances of colonialism in which the U.S. has engaged throughout its history, Bikini Atoll is largely absent from the scholarship. This is due in large part to the successful reconceptualization of the Marshall Islands

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83 Brown, "Looking Back," 42.

84 Brown, "Looking Back," 42.

85 Brown, "Archaeology of Brutal Encounter," 30.

86 Brown, "Archaeology of Brutal Encounter," 30.

by the U.S. as an exotic and marginalized location that served to bring the world into the Atomic Age, rather than as a place and people with a long history who possessed their own culture and heritage prior to U.S. occupation. As the poet Hone Tuwhare powerfully stated, nuclear displacement in the Pacific was no “gallant monsoon’s flash” but a “monstrous sun.”<sup>87</sup> Despite the multi-generational suffering the Bikinians have experienced, they are still fighting today to repossess their identity and return to their ancestral homeland.

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87 Hone Tuwhare, *No Ordinary Sun* (Auckland: Blackwood and Janet Paul 1964).

## **Bibliography**

### ***Primary Sources***

*Bikini Backtalk*, "Judah Returns to Native Bikini for Visit." Aug. 9, 1947. From University of Washington, *Lauren R. Donaldson Collection of Northern Pacific Ocean Radiological Surveys, 1946-1964*. <https://www.jstor.org/stable/10.2307/community.28702280>.

*Bikini Backtalk*, "Rongerik Natives Entertain Resurvey Group," Aug. 25, 1947. From University of Washington, *Lauren R. Donaldson Collection of Northern Pacific Ocean Radiological Surveys, 1946-1964*. <https://www.jstor.org/stable/10.2307/community.28702277>.

Tuwhare, Hone. *No Ordinary Sun*. Auckland: Blackwood and Janet Paul, 1964.

U.S. DNA. Martin, Edwin J. and Richard H. Rowland. *Castle Series 1954*. Washington DC: DNA, 1954.

U.S. Naval Medical Research Institute. *Exposure of Marshall Islanders and American Military Personnel to Fallout*. Robert Sharp and William H. Chapman. WT-938. Maryland: Naval Medical Research Inst., 1957.

Williams, Hill. "Bikini Atoll-1964." From University of Washington, *Lauren R. Donaldson Collection of Northern Pacific Ocean Radiological Surveys, 1946-1964*. <https://www.jstor.org/stable/10.2307/community.28702303>.

### ***Secondary Sources***

Brennan, Michael. "Return to Bikini Atoll: Revealing the History of Atomic Testing." *The Military Engineer* 112, no. 728 (Summer 2020): 74-77, <https://www.jstor.org/stable/10.2307/26937375>.

Brown, April L. "Looking Back: No Promised Land: The Shared Legacy of the Castle Bravo Nuclear Test." *Arms Control Today* 44, no. 2 (March 2014): 40-44. <https://www.jstor.org/stable/24336150>.

Brown, Steve. "Archeology of Brutal Encounter: Heritage and Bomb Testing on Bikini Atoll, republic of the Marshall Islands." *Archaeology in Oceania* 48, no. 1 (April 2013): 26-39. <https://www.jstor.org/stable/24026258>.

- Brown, Steve. "Poetics and Politics: Bikini Atoll and World Heritage Listing." In *Transcending the Culture-Nature Divide in Cultural Heritage*, edited by Sally Brockwell, Sue O'Connor, and Denis Byrne, 35-52. ANU Press, 2017. <https://www.jstor.org/stable/j.ctt5hg2n.7>.
- Davis, Jeffrey Sasha. "Representing Place: "Deserted Isles" and the Reproduction of Bikini Atoll." *Annals of the Association of American Geographers* 95, no. 3 (Sep. 2005): 607-625. <https://www.jstor.org/stable/3693959>.
- Deloughrey, Elizabeth M. "The Myth of Isolates: Ecosystems Ecologies in the Nuclear Pacific." *Cultural Geographies* 20, no. 2 (2012): 167-184.
- Graybar, Lloyd J. "Bikini Revisited." *Military Affairs* 44, no. 3 (Oct. 1980): 118-123. <https://www.jstor.org/stable/1987435>.
- Hines, Neal O. "Bikini-Pacific Laboratory: The University of Washington is unlocking the secrets of an historic atoll," *University of Washington* (1949): 6-8. <https://www.jstor.org/stable/10.2307/community.28702300>.
- MacLellan, Nic. "The Survivors." In *Grappling with the Bomb: Britain's Pacific H-bomb Tests*, 39-54. ANU Press, 2017. <https://www.jstor.org/stable/j.ctt1ws7w90.8>.
- Tate, Merze and Doris M. Hull. "Effects of Nuclear Explosions on Pacific Islanders." *Pacific Historical Review* 33, no. 4 (Nov. 1964): 379-393. <https://www.jstor.org/stable/3636039>.
- Weisgall, Jonathan M. "The Nuclear Nomads of Bikini." *Foreign Policy*, no. 39 (Summer, 1980): 74-98. <https://www.jstor.org/stable/1148413>.