Revisiting Eniwetok: Nuclear Legacies and the Evolving Concept of Cultural Heritage

Patrick O'Shea

Abstract

This paper explores the nuclear legacy of Eniwetok Atoll, focusing on its impact on contemporary definitions of cultural heritage. By examining the site of numerous US nuclear tests, we delve into the duality of societal memory and the desire to forget, reflecting on how these aspects challenge and expand the notion of what is worth preserving for future generations. The Eniwetok case study serves as a pivotal example of the complex interplay between scientific advancement, geopolitical dynamics, and human ethics, prompting a reevaluation of cultural heritage in the Anthropocene.

1 Introduction

Nuclear testing sites, particularly those like Eniwetok Atoll, represent a profound paradox within the discourse of cultural heritage. Once areas of natural beauty and ecological diversity, these sites have been transformed into enduring symbols of human technological capacity for destruction. This transformation raises critical questions about the nature of cultural heritage, challenging conventional perceptions of what is deemed worthy of preservation. The case of Eniwetok Atoll, a focal point of U.S. nuclear testing, serves as a lens through which to explore this complex interplay between scientific progress, geopolitical dynamics, and ethical considerations. This paper seeks to dissect the multifaceted implications of nuclear testing on cultural heritage, examining the delicate balance between the desire to remember and the impulse to forget, and the evolving definitions of heritage in the shadow of nuclear fallout. Through a comprehensive analysis, we argue for a reevaluation of cultural heritage in the Anthropocene, advocating for an inclusive approach that integrates the legacies of scientific exploration and its impact on both human and environmental history.

2 Cultural Heritage and Nuclear Sites

The presence of nuclear test sites such as Eniwetok Atoll in the cultural heritage landscape presents a multifaceted challenge to traditional notions of what constitutes heritage. These sites are not merely physical remnants of the atomic age but serve as poignant reminders of the complex interplay between human ambition, technological prowess, and ethical dilemmas. Traditionally, the domain of cultural heritage has been concerned with the preservation of artifacts, monuments, and practices that signify human achievement and historical legacy. However, the legacy of nuclear testing complicates this narrative, introducing elements of destruction, contamination, and trauma into the heritage discourse.

Drawing upon the insights of Gorman (2019), who emphasizes the often overlooked narratives of indigenous peoples and non-spacefaring nations in space exploration discourse, one can parallel the exclusionary practices in the recognition and preservation of cultural heritage sites [?]. Eniwetok, therefore, stands as a testament to the "collective" history Chakrabarty (2009) describes, where human actions transcend biological impacts, assuming geological significance through the anthropogenic alteration of landscapes and ecosystems [?]. This introduces a critical dissonance into the cultural heritage narrative, where destruction and contamination emerge as integral, albeit contentious, components of our shared heritage.

The atomic tests at Eniwetok encapsulate the dual nature of human ingenuity the drive towards technological advancement and its consequent ethical and environmental repercussions. The atoll's transformation from a site of natural beauty and indigenous significance to a symbol of geopolitical power and scientific progress embodies the dialectical tensions inherent in the concept of cultural heritage. This duality prompts a reevaluation of heritage values, urging a more inclusive approach that acknowledges both the achievements and the calamities of human history.

Moreover, the ethical considerations surrounding the preservation and memorialization of such sites further complicate the discourse. As Foucault's analysis of power and knowledge suggests, the narratives we choose to preserve and those we opt to forget are deeply entrenched in power dynamics and socio-political agendas [?]. The preservation of nuclear test sites, therefore, is not just about acknowledging historical facts but also about recognizing the narratives of displacement, environmental degradation, and the long-term health impacts on local and global communities.

In light of these considerations, this section argues for a broadened interpretation of cultural heritage, one that embraces the scars of our recent past as integral to our collective identity. Such an approach not only enriches our understanding of cultural heritage but also fosters a more nuanced appreciation of the complex legacies of the nuclear age. By incorporating the narratives of sites like Eniwetok into the cultural heritage discourse, we confront the ethical imperatives of memory, responsibility, and restitution, paving the way for a more inclusive and reflective

3 Duality of Memory and Forgetting

The narrative of Eniwetok Atoll is emblematic of a profound duality inherent in human memory the oscillation between the compulsion to remember and the instinct to forget. This atoll, once a symbol of natural serenity and cultural richness, has been irrevocably transformed into a testament of nuclear cataclysm, prompting a reevaluation of what we, as a society, choose to enshrine in our collective memory. This section critically examines the psychological ramifications of nuclear testing on the impacted communities and evaluates the broader implications for cultural heritage conservation. In doing so, it navigates the intricate dichotomy between celebrating achievements in scientific innovation and confronting the human and environmental toll of such endeavors.

The transformation of Eniwetok from a pristine natural habitat into a site of nuclear devastation underscores a critical tension within the domain of cultural heritage the ethical dilemma of what to remember and what to consciously forget. Drawing upon the work of scholars like Chakrabarty (2009), who delineates the anthropogenic shift towards becoming geological agents, this discourse extends into the realm of collective memory, where human actions have not only reshaped landscapes but also redefined the parameters of historical significance [?]. Furthermore, the concept of "negative heritage" as explored by Meskell (2002), introduces an additional layer of complexity, suggesting that sites of suffering and trauma can also become integral components of our cultural legacy, challenging us to confront uncomfortable truths about our past [?].

The psychological impact on communities subjected to nuclear testing, particularly those connected to Eniwetok, is profound. Research in the field of memory studies highlights the ways in which traumatic events are internalized, remembered, and transmitted across generations, often encapsulating a sense of loss that transcends the immediate physical damages [?]. This intergenerational transmission of trauma, coupled with the contentious decision of what to memorialize, illuminates the ethical imperatives facing societies grappling with the aftermath of such catastrophes.

Moreover, the act of remembering or forgetting is not merely a psychological process but is deeply entwined with cultural practices and heritage conservation. The decision to commemorate sites like Eniwetok engages with broader discourses on the role of cultural heritage in mediating our relationship with the past. As Lowenthal (1985) articulates, heritage is not only about preservation but also about selective remembering and intentional forgetting, serving as a mirror reflecting societal values, traumas, and aspirations [?].

In conclusion, the duality of memory and forgetting in the context of Eniwetok

Atoll invites a nuanced discourse on the intersections of psychology, ethics, and heritage conservation. It compels us to consider the ways in which we choose to engage with our past, not just as a record of human achievement, but as a complex tapestry woven from the threads of scientific progress, trauma, and the perpetual human endeavor to find meaning amidst devastation. This duality, therefore, is not merely a facet of human memory but a fundamental aspect of our cultural and historical identity, urging a more empathetic and inclusive approach to heritage conservation.

4 Changing Definitions of Cultural Heritage

The narrative of Eniwetok Atoll contributes to an evolving paradigm in cultural heritage, shifting from a focus on tangible artifacts to recognizing sites of significant historical impact, regardless of their ostensibly negative connotations. This reevaluation challenges traditional criteria for cultural preservation by advocating the integration of places like Eniwetok, not in spite of, but due to their pivotal lessons on the human condition, ethical boundaries, and the repercussions of technological advancement. Drawing upon Latour's (2017) discourse on the Anthropocene, this transformation in heritage perspectives mirrors our changing interaction with the planet, where the consequences of human actions necessitate a broader understanding of our legacy [?]. The legacy of Eniwetok, marked by both its historical significance and the controversy surrounding its nuclear past, underscores the necessity for a more inclusive approach to cultural heritage that encompasses the full spectrum of human experiences and endeavors.

5 Case Study - Eniwetok

The legacy of Eniwetok is not just in the physical scars it bears but also in the memories and reflections it invokes. Recounting the experiences of my grandfather, Bun O'Shea, who witnessed the aftermath of nuclear testing on the island, provides a poignant narrative that bridges personal history with global implications. "More than 10 years ago, I walked onto the blood-stained coral island called Eniwetok. I used to swim under water with water-tight glasses on to better observe the coral formations, the sea vegetation, and the beautifully colored and oddly-shaped fish that would swim by my eyes. I was thinking of all this while looking at pictures of the H-bomb blast. The island I describe is now only a black crater in the sea. A black hole that even a dozen Pentagon buildings wouldnt fill. The little island is gone blasted out of the Pacific.... Ill be thinking about this as I swim underwater in Lake Champlain too." he wrote.

This personal account emphasizes the dual nature of Eniwetok as a site of significant scientific pursuit and a place of profound loss and transformation. The juxtaposition of his memories with the current state of the atoll underscores the transformative power of nuclear technology and its lasting impact on both the environment and human psyche.

The construction of the Runit Dome, a concrete structure encapsulating radioactive debris, stands as a testament to the attempts to contain the aftermath. Yet, the dome's deteriorating condition and the rising sea levels pose ongoing risks, symbolizing the enduring challenges of nuclear legacy management and the intricate relationship between humanity and its technological endeavors.

The reflections on Eniwetok extend beyond environmental and health implications to challenge our understanding of cultural heritage. Through the lens of my grandparents' editorials, we are reminded that cultural heritage encompasses not only physical artifacts and monuments but also the intangible narratives that shape our collective memory and identity. Eniwetok's story, from its pre-test beauty to its current state, encapsulates a broader discourse on the responsibility and ethics of scientific exploration and its footprint on human history.

5.1 Implications for Cultural Heritage

The narratives surrounding Eniwetok, particularly those articulated by individuals directly impacted by its history, compel a reevaluation of what we consider worth preserving for future generations. The site's transformation from a natural paradise to a nuclear test site, and subsequently to a focus of international attention and concern, underscores the dynamic and sometimes contentious nature of cultural heritage in the Anthropocene.

This case study reveals the depth and complexity of nuclear heritage, intertwining personal narratives with global challenges. It advocates for a broader, more inclusive approach to cultural heritage that recognizes the significance of places like Eniwetok not only for their historical and scientific value but also for their capacity to teach crucial lessons about the intersection of technology, ethics, and human agency.

6 Conclusion

Reflecting on Eniwetok through the narratives of those who experienced its transformation first-hand, including my grandfather, deepens our understanding of the nuclear age's cultural heritage. These personal and collective memories serve as powerful reminders of the consequences of human actions and technological advancements. As we navigate the complexities of the Anthropocene, the story of Eniwetok and

similar sites encourages us to think critically about the legacy we leave behind. It challenges us to consider not only the achievements we celebrate but also the scars we inflict on our planet and ourselves. In doing so, it urges us to ponder the kind of future we wish to create and the elements of our past we choose to remember and to forget.

References

- [1] Alice Gorman, Dr. Space Junk vs. The Universe: Archaeology of the future, Sydney, Australia: New South Publishing, 2019.
- [2] Rick Winston, Red Scare in the Green Mountains: Vermont in the McCarthy Era 1946-1960, USA: Rootstock Publishing, 2018.
- [3] Dipesh Chakrabarty, "The Climate of History: Four Theses," Critical Inquiry, 35(2): 197-222, 2009.
- [4] Angus Chen, "Rocks Made of Plastic Found on Hawaiian Beach," *Science Magazine*, June 13, 2004.
- [5] Jason "Oceanographers Map of Nuclear Daley, Legacy Bikini Tests Atoll." Smithsonian, December at 11, 2019. https://www.smithsonianmag.com/smart-news/ oceanographers-map-legacy-nuclear-blasts-bikini-atoll-180973754/
- [6] Bruno Latour, Facing Gaia: Eight Lectures on the New Climatic Regime, translated by Catherine Porter, UK: Polity Press, 2017.
- [7] Valerie Olson, Into the Extreme: U.S. Environmental Systems and Politics beyond Earth, London: University of Minnesota Press, 2018.
- [8] Lisa Parks and James Schwoch, *Down to Earth: Satellite Technologies*, *Industries*, and *Cultures*, USA: Rutgers University Press, 2012.
- [9] Susanne Rust, "How the U.SBetrayed the Marshall Islands, Kindling the Next Nuclear Disaster," LosAngelesTimes. 2019. November 10, https://www.latimes.com/projects/ marshall-islands-nuclear-testing-sea-level-rise/
- [10] Douglas Kahn, Earth Sound Earth Signal: Energies and Earth Magnitude in the Arts, CA: University of California Press, 2013.

[11] Maveric K. I. L. Abella, Monica Rouco Molina, Ivana Nikoli-Hughes, Emlyn W. Hughes, Malvin A. Ruderman, "Background gamma radiation and soil activity measurements in the northern Marshall Islands," *Proceedings of the National Academy of Sciences*, July 2019, 116 (31): 15425-15434. DOI: 10.1073/pnas.1903421116