

WITNESSING THE “TIMELESS PRESENT”
“SPATIAL TESTIMONIES” OF NUCLEAR COLONIALISM IN LEE MARMON AND WILL
WILSON’S PHOTOGRAPHS

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Introduction

At the Bradbury Science Museum in Los Alamos, New Mexico, there is no before or after The Bomb. The walls of the museum are lined with letters from prominent scientists to President Johnson detailing the urgent nature of the nuclear problem, and glass cases contain cameras and artifacts from the roaring days of Project Y on the Pajarito Plateau. A movie shown on a fifteen minute loop tells stories of the memorable parties and picnics that the community of nuclear scientists attended in the midst of the second World War, and the gift shop contains earrings and keychains with little, dangling atomic bombs. What the museum does not address, is where the uranium and plutonium used for the construction of “Fat Man” and “Little Boy” were mined from, nor does it address what happened after the bombs were dropped from two bomber jets over the cities of Nagasaki and Hiroshima, Japan in August of 1945. At the Bradbury Museum, The Bomb exists only in its ingenious creation and its moment of impact— a narrative that is further cemented by the images of the notorious Mushroom Cloud that can be found on many different informational posters and screens throughout the halls (Figure 1).

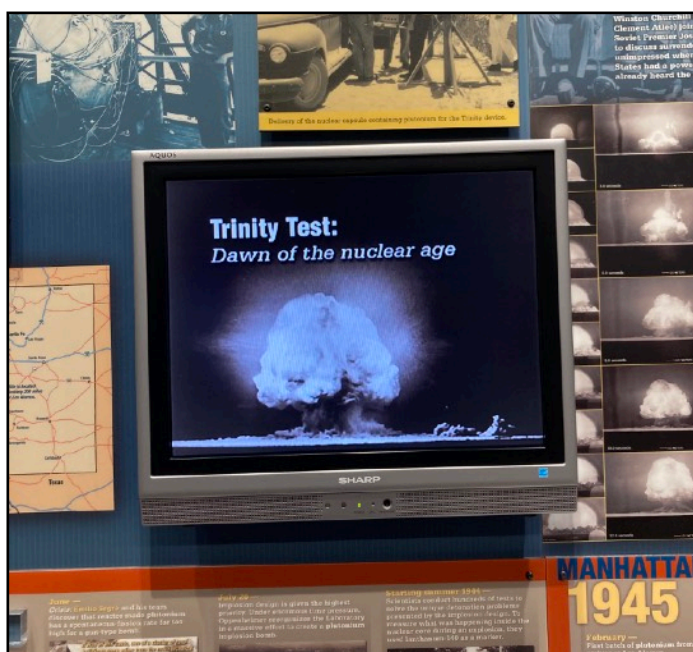


Figure 1: Images of The Mushroom Cloud at the Bradbury Museum of Science in Los Alamos, New Mexico (image taken by the author, September 8, 2021).

The prolific photographs of The Mushroom Cloud establish photography as a key method of perpetuating a dominant narrative of The Bomb, where it exists only in the moment of detonation, thus omitting the violence that both preludes and follows it. With this omission, these photographs can be read as contributing to the ongoing project of U.S. imperialism that is encapsulated by the propaganda of nuclear warfare and manifested through the massiveness and sublimity of The Mushroom Cloud.¹ In *The Civil Contract of Photography*, author Ariella Azoulay attests to the ability of photography to transcend the confines of political narratives, writing that, "...although photography may appear to be a distinctive object of the contemplative life, a moment in which all movements have been eliminated, it is actually deeply embedded in the active life; it attests to action and continues to take part in it, always engaged in an *ongoing present* that challenges the very distinction between contemplation and action."² In this excerpt, Azoulay asserts that photography is never solely capturing what "was there," as is it always a "testimony" to an encounter between the photographer, the subject, and the camera.³ In capturing this encounter, photographs capture an "ongoing present," through linking the encounter with the continuous circulation of the photograph. With Azoulay's interpretation, nuclearism and photography merge in a surprising way— both challenge the bounds of temporality. If the images of The Mushroom Cloud reflect an attempt to constrain the narrative of nuclearism to a singular moment of U.S. dominance, this essay aims to uncover a different kind of photography; one that

¹ Peter B. Hales, "The Atomic Sublime." *American Studies* 32, no. 1 (1991): 9, accessed October 2021, <http://www.jstor.org/stable/40642424>.

² Ariella Azoulay, *The Civil Contract of Photography*. (United States: Zone Books, 2021), 93.

³ Ibid, 92.

reckons with the spatial, temporal and corporeal violence of nuclearism that expands far beyond a singular moment of detonation.

Lee Marmon and Will Wilson's aerial photographs of extractive landscapes in and around their homelands of the Laguna Pueblo and Diné Bikéyah respectively, counter the dominant state narrative of nuclearism that is perpetuated by photographs of The Mushroom Cloud. Their photographs counter this narrative by photographing sites of "slow violence," inverting the gaze of militaristic technologies back on to sites of state violence, and through establishing an "incontestable" Native presence within the landscapes. In this process, the images become situated within a long history of storytelling and witnessing as practices that assert an Indigenous presence in the face of settler colonial violence. Thus, I argue that their photographs are "spatial testimonies" to the violence of nuclearism *and* to Native survivance. Ultimately, Marmon and Wilson's photographs emerge as documents and aesthetic objects that contribute to a reimagining of nuclear histories and futures, where the temporal and spatial violence of settler colonialism and the hierarchies that reproduce it, are confronted and reconfigured.

Oral and written testimonies play a unique role in reconstructing histories of dispossession and erasure.⁴ In the history of nuclearism in the American Southwest, testimonies from uranium miners, families living near uranium landscapes, downwinders, and other members of populations exposed to radiation from any point within the lifecycle of nuclearism, are crucial documents that aid in the reconstruction of this history. Testimonies are both personal and public documents, that simultaneously speak to the deeply private and the communally shared. In the

⁴ For more reading on the role of testimonies in reconstructing histories of dispossession in the Southwest, see Karen R. Roybal, *Archives of Dispossession*, (Chapel Hill: University of North Carolina Press, 2017).

history of the Southwest, some testimonies have resulted in material compensation for certain communities affected by radiation poisoning,⁵ while others have been ignored, forcing communities to continuously advocate for their own recognition, or existence, in the eyes of the state. This leads to an interpretation of testimonies from dispossessed communities as a kind of embodied evidence, that counter colonial narratives of disposability through their very existence, yet may also be incorporated into colonial processes of recognition or erasure. Hagit Keysar's use of the term “spatial testimony,” extends the complexities of witnessing state violence, to the landscape scale.

In “A spatial testimony: The politics of do-it-yourself aerial photography in East Jerusalem,”⁶ Keysar uses the term “spatial testimony” to define the act of creating an embodied testimony through photography, that refers to both the act of witnessing and the process of creating a image that ultimately “unsettles and reconfigures the political space of relations between human rights, human bodies, and technoscientific objects.”⁷ Keysar employs the term “spatial testimony” to refer to the images that resulted from her project with a Palestinian community in East Jerusalem to photograph a highway being built by the Israeli government through their neighborhood using DIY aerial photographic methods (Figure 2). By highlighting how environmental justice scholars and activists situate sites of environmental degradation as sites of state violence, and analyzing how Marmon and Wilson’s photographs reconfigure the

⁵ Esther Yazzie-Lewis, Timothy Benally, Doug Brugge, *The Navajo People and Uranium Mining* (United States: University of New Mexico Press, 2007), 137-142.

⁶ Hagit Keysar, “A Spatial Testimony: The Politics of Do-It-Yourself Aerial Photography in East Jerusalem.” *Environment and Planning D: Society and Space* 37, no. 3 (June 2019): 523–41. <https://doi.org/10.1177/0263775818820326>.

⁷ *Ibid*, 1.

power relations of these landscapes in various ways, it becomes apparent that Keysar’s definition of “spatial testimonies” can be applied to the photographs of uranium landscapes on Indigenous lands. However, their photographs do not exist only in response to violence.



Figure 2: The complete DIY aerial image of highway 50, as it crosses through Beit Safafa and Sharafat, from Hagit Keysar, “A Spatial Testimony,” (June 2019).

Marmon and Wilson’s photographs assert an Indigenous presence in the landscapes they capture, that inherently reconfigures the hierarchies of domination that are at the core of settler colonial narratives that situate Indigenous communities as disappearing and disposable. This aligns their photography with a practice of Native “survivance.” Anishinaabe writer and scholar, Gerald Vizenor describes “survivance” as “an active resistance and repudiation of dominance, obtrusive themes of tragedy, nihilism, and victimry.”⁸ Furthermore, he proposes that stories of Native survivance “are prompted by natural reason, by a consciousness and sense of incontestable presence that arises from experiences in the natural world.”⁹ With Vizenor’s definition, Marmon and Wilson’s photographs may be interpreted within a photography of *survivance*.

⁸ Gerald Vizenor, *Survivance: Narratives of Native Presence*. (United Kingdom: University of Nebraska Press, 2008), 11.

⁹ Ibid.

Lee Marmon and the Laguna Pueblo

Leland (Lee) Howard Marmon was born in 1925 in the Laguna Pueblo. Marmon purchased his first camera when he returned from his deployment with the U.S. army in 1946, where he had taken a photography class while stationed in Alaska.¹⁰ Marmon's career spanned 60 years, with the majority of his work taken in black and white, and capturing the everyday lives of Laguna Pueblo residents, and the landscapes of Northwestern New Mexico. Marmon's most well known photographs are of Pueblo elders, like his celebrated image "White Man's Mocassins" that he took of Laguna resident, Jeff Sousa in 1954. While Marmon is recognized as one of the first professional Native photographers,¹¹ and his work has been published in various publications, a collection of his photographs that capture a markedly different subject than his usual muses, has been left largely untouched.

The *Lee Marmon Pictorial Collection* at the University of New Mexico's Center for Southwest Research and Special Collections, consists of 36 boxes, with the entire archive consisting of 65,000 items, including prints, negatives, slides, videos, proof sheets and manuscripts.¹² One of the boxes contains the images of Uranium Mines and Mills that Marmon took in 1958. This collection contains prints, negatives, films and polaroids of the Anaconda Uranium Mill, the Pagate-Jackpile mine, the Phillips Uranium Mill, the Homestake Uranium Mill and the Kerr-McGee Uranium Mine, which were all located on and around Laguna Pueblo

¹⁰ Alexandra N. Harris, "Memories of Lee Marmon: A Lifetime of Photographic Storytelling in New Mexico," *American Indian Magazine* 22, no. 2. (Summer 2021). <https://www.americanindianmagazine.org/story/memories-of-lee-marmon>

¹¹ Ibid.

¹² Clare-Lise Bénéaud, and Claire Marie Daniel, "The Lee Marmon photographs: chronicles of the west," *Collection Building* 32, no. 4. (October 2013): 133-138. <https://doi.org/10.1108/CB-03-2013-0011>

land at the time. Marmon took these photographs during the peak of the “uranium boom” in the Colorado Plateau and of the mines that were in the center of the most productive mining district in the nation.¹³

The Laguna Pueblo is located about 45 miles West of Albuquerque and its total land area designated by the U.S. government, covers 777 square miles. However, the Laguna people have ancestrally resided within a much larger geographic area that extends to Mount Taylor to the northwest, the Sandia Mountains to the east and the Magdalena Mountains to the south.¹⁴ In 1950, The Anaconda Copper Company discovered a deposit of uranium near the village of Pagate on Laguna Pueblo land using a airborne Geiger meter.¹⁵ In 1952, this site would become the largest open pit uranium mine in the world at the time, the Jackpile Uranium mine.¹⁶ In the years that followed, several more uranium mines and mills emerged around the Laguna Pueblo, on ancestral Laguna land, owned by the Phillips Uranium Company, the Homestake Mining Company, and the Kerr-McGee Corporation. Throughout their operations, these companies would come to employ hundreds of Laguna Pueblo men as heavy-equipment operators, miners, truck drivers, drillers and crushers.¹⁷

The introduction of the uranium industry fundamentally changed the Laguna Pueblo economy and culture. Lee Marmon reflects on these changes in his book co-written with Tom

¹³ Virginia T. McLemore, et al. “Uranium Resources in the Grants Uranium District, New Mexico: An Update,” in *Geology of the Route 66 Region: Flagstaff to Grants*, ed. Kate Ziegler, et al. (New Mexico: New Mexico Geological Society, 2013), 117-126.

¹⁴ Lee Marmon and Tom Corbett. *Laguna Pueblo: A Photographic History*. (Albuquerque: University of New Mexico Press, 2015), 1.

¹⁵ Ibid, 65.

¹⁶ Ibid.

¹⁷ Ibid,.

Corbett, *Laguna Pueblo: A Photographic History*.¹⁸ They write of how the livelihoods of the Laguna men employed at the mines and mills changed “from farming and hunting and other customary vocations to jobs with regular hours and higher incomes,” which regulated schedules and ultimately made it so “many members of the community were no longer able to participate in customary tribal meetings, dances and ceremonies.”¹⁹ The changes caused by the introduction of the uranium industry were not solely isolated to the economic and cultural spheres of Laguna life, and ultimately would alter the Laguna Pueblo in other insidious ways, as the diseases that resulted from direct exposure to uranium processing slowly emerged across the population.²⁰ Furthermore, this process of cultural, economic and cellular change was occurring in various communities across the Southwest during the same years.

Uranium Mining in the Navajo Nation and the Artwork of Will Wilson

The history of uranium industry in the Navajo Nation is similar to that of the Laguna Pueblo, however it operated on an even more expansive scale. The Navajo Nation spans 25,000 square miles, however the ancestral land of Diné Bikéyah extends from the southern boundary of Mount Taylor in northwestern New Mexico, to the eastern boundary of Mount Blanca in southern Colorado, to the western boundary of San Francisco Peak of northeastern Arizona, and finally to the northern boundary of Mount Hesperus in southwestern Colorado. Today, Diné land

¹⁸ Ibid.

¹⁹ Ibid, 66.

²⁰ Ibid, 68. For more information on the history of the Laguna Pueblo and the uranium industry see June Lorenzo, "Gendered Impacts of Jackpile Uranium Mining on Laguna Pueblo," *International Journal of Human Rights Education* 3, no. 1 (2019); and, <https://miningwatch.ca/sites/default/files/umine.pdf>

houses over 1000 abandoned uranium mines,²¹ which speak to the vast hold that the uranium industry had on the area during its peak. Uranium was first encountered within the Navajo Nation boundaries in 1917, however it was not until 1941 that uranium became the most important mineral in the world, due to its role in the creation of the atomic bomb. The uranium deposits found on Diné land were the only domestic sites of the mineral that the U.S. government was aware of, and 15% of the uranium used for the Manhattan Project was acquired from the deposits on the Navajo reservation.²² A “uranium boom” followed the end of World War II, marked by the creation of the Atomic Energy Commission, which incentivized American citizens to locate uranium deposits across the country, but more specifically in the Colorado Plateau which was labeled the country’s “energy storehouse.”²³

Over 3,000 Navajo men were employed in the uranium mines that sprang up across the reservation land in the 1950’s and the thirty years of extractivism that followed.²⁴ The dangers of uranium mining without proper protection were known in the 1950’s, yet the Diné and Laguna miners (along with many other miners from a variety of other Pueblos and Southwestern communities), were not informed of the risks associated with the occupation.²⁵ Research beginning in the 1980’s, identified the significantly higher rates of lung, stomach, liver, prostate, bladder and pancreas cancers among miners and their families that were exposed to uranium and

²¹ Traci Brynne Voyles. *Wastelanding: Legacies of Uranium Mining in Navajo Country*. N.p.: (University of Minnesota Press, 2015), 3; Will Wilson. “Connecting the Dots: For a Just Transition,” accessed October 2021, <https://willwilson.photoshelter.com/about/index>.

²² Voyles, *Wastelanding*, 2.

²³ Ibid, 55.

²⁴ Ibid, 3; Yazzie-Lewis, Benally, Brugge, *The Navajo People and Uranium Mining*, PAGE NUMBER.

²⁵ Yazzie-Lewis, Benally, Brugge, *The Navajo People and Uranium Mining*, PAGE NUMBER; Voyles, *Wastelanding*, xiii; Kuletz, *The Tainted Desert*, PAGE NUMBER.

its subsequent radiation.²⁶ Significant rates of birth defects passed down to children born to mothers to had been exposed to radioactive waste have been identified as well.²⁷ The Radiation Exposure and Compensation act was passed in 1990, however, the Diné miners, millers, families and greater community members had noticed the consequences of the uranium mines and waste processing, long before the socially accredited accounts of researchers. The effects of the uranium industry continue to impact Diné and Laguna communities today. This is a reality that Indigenous scholars, artists and activists continuously confront.

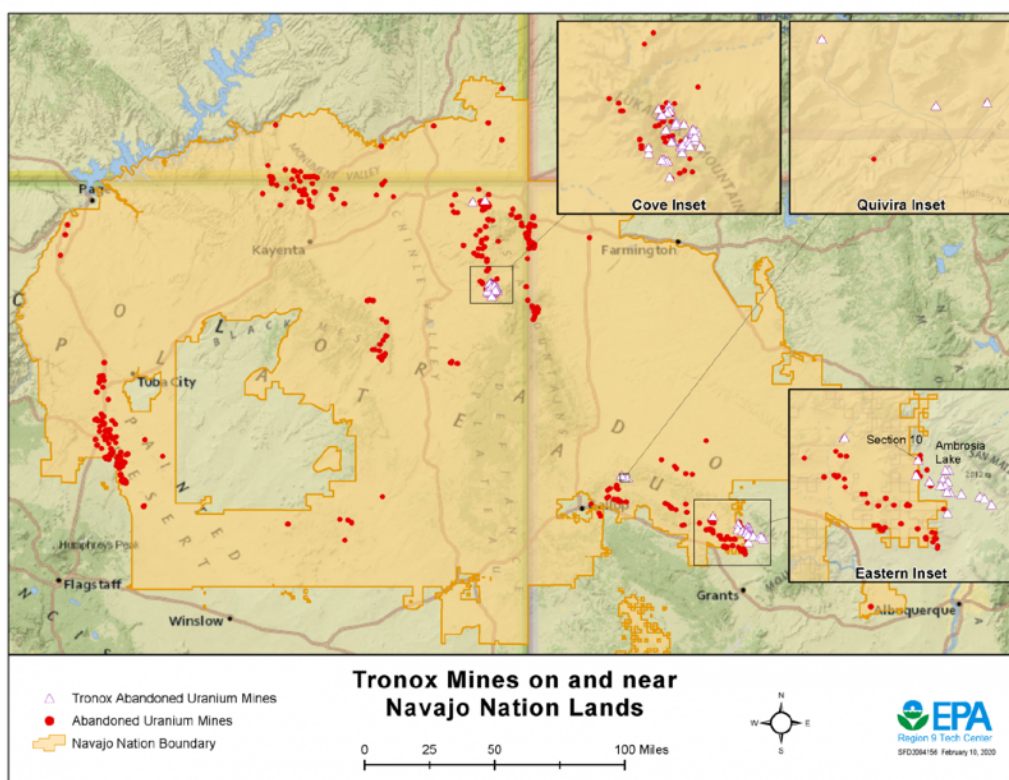


Figure 3: A map of uranium mines in and around the Navajo Nation. The mines near the Laguna Pueblo can be seen in the bottom right hand corner. The triangles represent the Kerr-McGee (now Tronox) abandoned mines. Image courtesy of the Environmental Protection Agency.

Will Wilson, a contemporary Diné photographer, creates work that responds to and emerges from the history of extractivism on the Navajo Nation and the ongoing health

²⁶ Voyles, *Wastelanding*, 4; Ward Churchill and Winona LaDuke. "Native America: The Political Economy of Radioactive Colonialism." *Insurgent Sociologist* 13, no. 3 (April 1986): 51–78.

²⁷ Voyles, *Wastelanding*, 4.

consequences that continue to impact the daily lives of Diné communities. Wilson works with photography, sound and performance to create artworks that “centers the continuation and transformation of customary Indigenous cultural practice.”²⁸ He grew up near Tuba City on the Navajo Nation, and now resides in Santa Fe, New Mexico. The span of Wilson’s artworks invoke the histories of colonial encounters in the Southwest, whether this is the history of so-called “photographic exchange” that his project “The Critical Indigenous Photographic Exchange (CIPX) engages with, or the history of resource extraction and the health consequences that developed from this history, which his ongoing projects, “AIR: Auto Immune Response” and “Connecting the Dots: For a Just Transition,” confront. The photographs analyzed in this essay are a part of the latter project. Wilson describes his new body of work, “Connecting the Dots” as founded on a “photographic survey of the over 500 Abandoned Uranium Mines (AUMs) located on the Navajo Nation,” with the ultimate goal of creating a platform that allows the communities affected by the sites to play a direct role in reconceptualizing the remediation process.²⁹ Wilson interprets the uranium landscapes that he captures in his photography as “physical manifestations of a complex and traumatic history that has poisoned the land and endangered a people.”³⁰ This is a history of settler colonialism and racial capitalism, that manifests through the extractive industry in the Southwest.

Uranium Landscapes As Sites of State Violence

²⁸ Will Wilson. “Connecting the Dots: For a Just Transition,” accessed October 2021, <https://willwilson.photoshelter.com/about/index>;

²⁹ Ibid.

³⁰ Ibid.

In order to analyze Marmon and Wilson's photographs of uranium landscapes in and around their respective homelands, we must first complicate the interpretation of these landscapes as "wastelands." In this process, it becomes apparent that the uranium landscapes of the Southwest should be read as manifestations of the violence of racial capitalism, and sites of state-sanctioned violence. Environmental justice scholarship aids in situating the disproportionate impact of the consequences of radiation poisoning on Indigenous communities in the Southwest, within a larger context of settler colonial histories. This framing makes it possible to label the uranium mines and mills that Marmon and Wilson photograph, sites of state violence.

Traci Voyles' research focuses on the history on uranium mining in Diné Bikéyah, but she extends her analysis beyond addressing the significantly higher rates of multiple kinds of cancers, respiratory diseases and birth defects within the Navajo Nation, through situating the extractive landscapes of Colorado Plateau within a longer history of settler colonialism and the larger economic organization of the United States. Voyles argues that extractive landscapes are "empirical objects" that become "wastelands" not by accident, but by necessity of the treadmill of production under industrialized capitalism that requires "wastelands" in order to continually reproduce itself.³¹ Furthermore, "wastelands" become racialized spaces and "are constituted through racial and spatial politics that render certain bodies and landscapes pollutable."³² In this process, environmental racism, capitalism and settler colonialism collide, as industrial capitalism requires raw materials and wastelands in order to sustain production and its own reproduction.

³¹ Voyles, *Wastleanding*, 15.

³² *Ibid*, 10.

The geographic locations where “wastelands” emerge are deeply intertwined with the economic and political processes that deem Indigenous land disposable and pollutable, due to how ongoing settler colonialism continues to reproduce notions of Indigenous land and populations as not valuable, or only valuable in what can be extracted from them in the form of minerals or labor forces. Laura Pulido further expands on the relationship between instances of environmental racism, like the distribution of toxic and extractive landscapes in the Southwest, and the larger economic organization of the United States in her research that situates environmental racism as one facet of racial capitalism.³³ Pulido builds off of Black Marxist scholarship largely influenced by Cedric Robinson’s book *Black Marxism*.³⁴ Robinson lays a foundation for a conceptualization of capitalism, where racism is understood as the central, foundational force in its development.³⁵ While there are complexities in extending the processes of racial capitalism to settler colonial histories,³⁶ engaging closely with how environmental injustices are interlaced with histories of slavery, imperialism and the capitalist process of primitive accumulation, aids in recognizing sites of environmental degradation as sites of state violence, as the larger state is implicated as the regulating body of an economy founded upon white supremacy.

³³ Laura Pulido. “Geographies of Race and Ethnicity II: Environmental Racism, Racial Capitalism and State-Sanctioned Violence.” *Progress in Human Geography* 41, no. 4 (August 2017): 524–33.

³⁴ Cedric J. Robinson, *Black Marxism : The Making of the Black Radical Tradition*. (Chapel Hill: The University of North Carolina Press, 2000), Accessed October, 2021. ProQuest Ebook Central.

³⁵ Robinson, *Black Marxism*, 5.

³⁶ For a fuller discussion on settler colonialism and racial capitalism see Jackie Wang, *Carceral Capitalism* (United States: MIT Press, 2018), 17.

Like Voyles, Pulido sees instances of environmental racism, whether in the locations of nuclear landscapes in the Southwest, or the response to the water crisis in Flint, Michigan, as a result of a larger project of deeming non-white bodies and lands pollutable. However, Pulido more explicitly links this process of *wastelanding* to racial capitalism and how it manifests in everyday instances of environmental racism. Indigenous scholars, activists and community members, have long advocated for the recognition of settler colonialism and state violence as fundamental environmental injustices. Voyles recognizes this in the introduction to her book, where she quotes the editor of the local Grants, NM newspaper, the Cibola Beacon, stating that, “the most workable date for the founding of the Native [environmental justice] movement ... is 1492.”³⁷ Scholar Kyle Powys Whyte, a member of the Citizens of Potawatomi Nation, further aligns the environmental justice movement with settler colonialism, in writing on how “collective continuance” is, by definition, threatened by settler colonialism, which is the ultimate environmental injustice.³⁸ Dina Gilio-Whitaker synthesizes Whyte’s work in writing that, “applying the lens of settler colonialism to the topic of environmental justice sheds a different light on the processes of history, providing irrefutable linkages between all ears and aspects of settler and Indigenous contact, environmental injustice, and genocide; they are inseparable.”³⁹ This inseparability between settler colonialism and environmental injustices can be aptly applied to the history of nuclearism in the Southwest.

³⁷ Ibid, 7.

³⁸ Kyle Powys Whyte, “Settler Colonialism, Ecology, and Environmental Injustice,” *Environment and Society*. 9 (2018). 125-144.

³⁹ Dina Gilio-Whitaker, *As Long as Grass Grows: The Indigenous Fight for Environmental Justice, from Colonization to Standing Rock*. (United States: Beacon Press, 2019), 39.

Diné scholar Melanie K. Yazzie further contextualizes the history of the extractive industry in the Navajo Nation, and highlights how Indigenous activists are inherently engaged in anti-capitalist action when demonstrating against environmental devastation at the hands of extractive industries in “Decolonizing Development in Dine Bikeyah: Resource Extraction, Anti-Capitalism, and Relational Futures.”⁴⁰ Yazzie’s work aligns with Pulido’s argument, as she highlights how the violence of energy development and extractive industries is inseparable from capitalism, which ultimately requires “the reproduction of violent relations of domination and exploitation in order to facilitate the accumulation and concentration of profit in the hands of a small ruling class at the expense of a mass class of racialized and colonized poor.”⁴¹ In this process, the larger U.S. State becomes implicated once again, in the violence of extractivism on Indigenous lands.

Through implicating the state in instances of environmental racism, the consequences of environmental injustices can be appropriately interpreted as state-sanctioned violence informed by an ideology that frames Indigenous populations as disposable, disappearing, or non-existent, Pulido attempts to de-neutralize the state in eyes of Environmental Justice scholars and activists, and clearly states that: “environmental racism must be understood as state-sanctioned racial violence.”⁴² Pulido, Voyles, Whyte, Gilio-Whitaker, and Yazzie, all highlight how instances of environmental racism and the landscapes that result from them, must be conceptualized as a part of a larger process of deeming non-white bodies and lands pollutable which is the process at the

⁴⁰ Melanie K. Yazzie, “Decolonizing Development in Diné Bikeyah: Resource Extraction, Anti-Capitalism, and Relational Futures.” *Environment and Society* 9 (2018): 25–39. <https://www.jstor.org/stable/26879576>.

⁴¹ Yazzie, “Decolonizing Development in Diné Bikeyah,” 2.

⁴² Pulido. “Geographies of Race and Ethnicity II,” 6-7.

core of settler colonialism.⁴³ Furthermore, as Robinson highlights in *Black Marxism*, the very basis of capitalism is founded upon the expendability of non-white bodies and requires “sinks”⁴⁴ or “wastelands”⁴⁵ in order to reproduce itself. These sinks or wastelands are land, air, water and bodies that have been devalued or deemed disposable. These scholars highlight how the uranium mines, mills, and waste sites in Diné Bikeyah and the Laguna Pueblo should be interpreted as instances of state-sanctioned violence informed by environmental racism and resulting from a racial capitalist system. With this framing, photography emerges as a critical method that aids in the project of *visualizing* the violence that manifests through these sites.

(1) Visualizing Slow Violence

In choosing to photograph the uranium mills, mines and waste sites in and around their respective homelands, Marmon and Wilson highlight landscapes of state violence that have been overlooked or erased in the official narratives of nuclearism and the atomic bomb. As outlined in the previous section, the overlooking of these landscapes is deeply intertwined with much larger systemic processes of racial capitalism. Furthermore, the violence that occurs at these sites, is a very different kind of state violence that is not as easily visualized compared to other instances of “fast” violence, like the detonation of the atomic bomb. Voyles writes that, “the ill effects of radiation exposure take ten, fifteen, sometimes twenty years, sometimes multiple generations, to manifest. This makes uranium mining in Diné Bikéyah a kind of ‘slow violence’ or ‘delayed

⁴³ Nicholas A. Brown, “The Logic of Settler Accumulation in a Landscape of Perpetual Vanishing,” *Settler Colonial Studies* 4, no. 1 (2014): 3, DOI: 10.1080/2201473X.2013.784236

⁴⁴ Ibid.

⁴⁵ Voyles, *Wastelanding*, 15.

destruction' that emerges over time.'⁴⁶ The slow effects of radiation extend beyond miners, and impact all members of communities who live with exposed laborers, live near tailing piles, live near testing sites, eat produce grown near testing sites, tailing piles, or waste sites, drink water that's been contaminated with radioactive material or are descendants of someone who has done any of these actions.

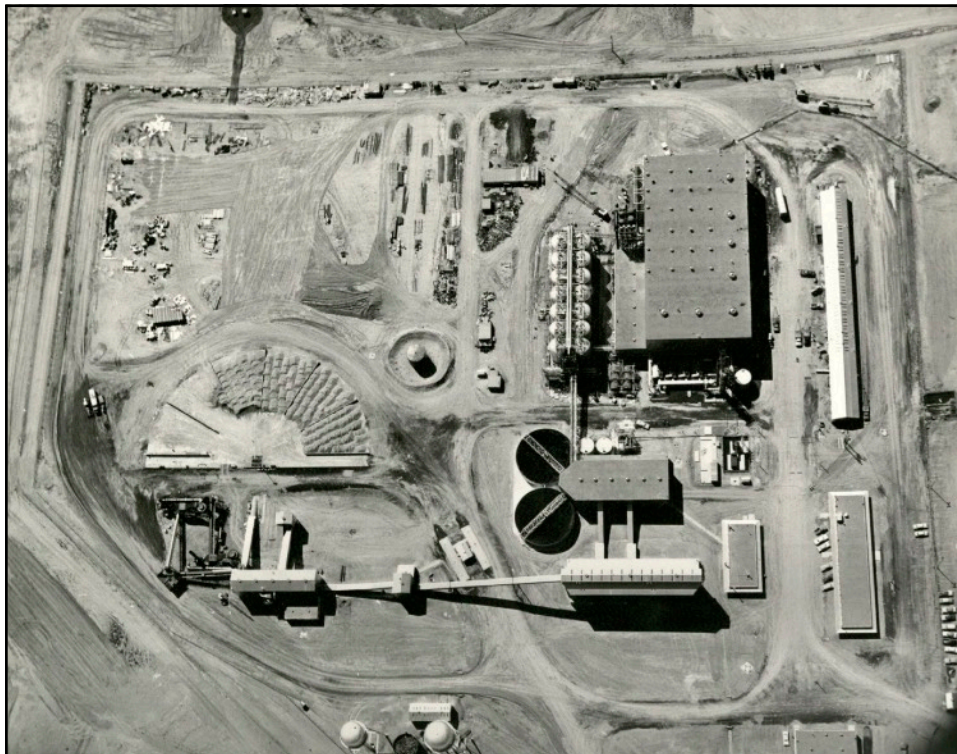


Figure 4: An aerial image of the Phillips Uranium Mill, Ambrosia Lake, near Grants, NM. Photograph by Lee Marmon, 1958. From the Lee Marmon Pictorial Collection at the University of New Mexico's Center for Southwest Research and Special Collections.

In his book, *Slow Violence and the Environmentalism of the Poor*, Rob Nixon defines “slow violence” as, “a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not

⁴⁶ Ibid, 5.

viewed as violence at all.”⁴⁷ Slow violence is in stark contrast to how violence is usually conceived of, that is explosive, spectacular and explicitly visible. In advocating for a recognition of “slow violence,” Nixon is providing the vocabulary for which we can define the state-sanctioned violence of environmental racism that the scholars of the previous section highlight. Marmon and Wilson’s photographs can be read as attempts to visualize the slow violence that permeates from these sites, and in doing so they reconfigure the dominant ideologies of which sites of violence, and which affected populations, are deemed worthy of our care and attention.

Nixon identifies the key challenge of recognition of slow violence as its relative invisibility and states that in order to engage with this kind of violence, we must consider how to “devise arresting stories, images, and symbols adequate to the pervasive but elusive violence of delayed effects.”⁴⁸ The question of how to visualize slow violence remains relevant to Nixon throughout the text, and he further emphasizes that the nature of environmental violence “as a contest not only over space, or bodies, or labor, or resources, but also over time” must “be seen and deeply considered.”⁴⁹ At a moment when the “fast” violence of nuclear testing is at the forefront of the national consciousness, Marmon’s decision to photograph uranium mines and mills around the Laguna Pueblo, forces a reconsideration of where the violence of the Cold War was occurring and to whom. Marmon’s images of the Phillips Uranium and the Jackpile Mine (Figures 4 and 5) are representative of his larger collection of images of uranium landscapes taken in 1958, in the midst of the Cold War and “Atomic Age.” These images capture the

⁴⁷ Nixon, *Slow Violence and the Environmentalism of the Poor*, 2.

⁴⁸ *Ibid*, 3.

⁴⁹ *Ibid*, 8.

uranium landscapes from above, making the human seem minuscule in relationship to the larger landscapes. In this way, Marmon's images draw on the notion of the "sublime" in photographic traditions, to create an arresting experience that destabilizes the viewer's understanding of the environments that they reside within. In creating sublime, abstracted images of uranium landscapes, Marmon's work aligns with Nixon's call to "devise arresting images" of slow violence.



Figure 5: The Jackpile Mine Aerial View #1. Photograph taken by Lee Marmon, 1958. From The Lee Marmon Pictorial Collection at the University of New Mexico's Center for Southwest Research and Special Collections.

Photography presents itself as a medium with a unique capability to convey how environmental violence and racism, is a "contest over time." If photography is "always engaged

in an ongoing present,”⁵⁰ by taking photographs of sites of slow violence, Marmon is capturing the uranium mines at a moment when they are at their peak productivity, and freezing them in time, yet also prolonging their life through the very existence of a photograph. The prolonging of the site’s existence through the photograph, reflects the nature of slow violence itself– it permeates the boundaries of time and continues to impact the communities long after the sites are abandoned. By taking photographs of the uranium mines and mills that would spur decades of illness for the Laguna people that continue to be passed down to generations, Marmon keeps the sites in an “ongoing present” which reflects how they are already experienced by the populations who continue to bear witness to the violence of extractivism first hand. Wilson’s photographs from his ongoing project “Connecting the Dots,” continue this project more than 60 years after Marmon’s images were taken.

Wilson describes his ongoing project, “Connecting the Dots: For a Just Transition,” as intending to “shape a platform for voices of resilience, Indigenous knowledge and restorative systems of remediation while bearing witness to a history of environmental damage and communal loss on the Navajo Nation.”⁵¹ Through creating an ongoing project with the ultimate goal of photographing the hundreds of abandoned uranium mines and waste sites that can be found in the Navajo Nation, Wilson sees his work as part of a larger project of remediation and “bearing witness” to the landscapes of extraction on Diné land that continue to negatively affect the health of the people and land.⁵² Wilson takes aerial photographs of these sites, using drone

⁵⁰ Azoulay, *The Civil Contract of Photography*, 93.

⁵¹ Wilson. “Connecting the Dots: For a Just Transition,” <https://willwilson.photoshelter.com/about/index>;

⁵² Ibid.

technology to witness these sites from above, and situate them within the larger context of the landscapes. In Wilson's image of the Mexican Hat Disposal Site (Figure 6), the waste site appears like an unrendered, empty space in the midst of the surrounding reds and oranges of the Colorado Plateau. Wilson's images echo Marmon's work in their subject matter and composition, thus similarly drawing on the disorienting and sublime aerial experience. Furthermore, by taking photographs of uranium landscapes more than 60 years after Marmon's images were taken, the very existence of Wilson's work speaks to how the slow violence of nuclearism exists in an "ongoing present" that continues to plague the Indigenous communities of the Southwest.

Many of the images from "Connecting the Dots," include the horizon line in the composition of the photographs. This choice situates the uranium landscapes within the larger environments that they reside in, which results in the viewer being forced to consider what landscapes are valued or devalued in the Southwest. In Figure 6, the infamous landscape of Monument Valley can be seen along the horizon line, while Figure 7 foregrounds the Shiprock Disposal Cell, with its recognizable namesake, the Shiprock geologic formation, in the background. In these images, Wilson bears witness to the paradoxical legacies of the Southwest, where it endures simultaneously as land of "enchantment" and "wasteland." In this way, Wilson's images capture both the slow violence of extractivism on the land, and the slow violence of the "imagined,"⁵³ romanticized Southwest, which further contributes to the erasure of the histories of colonial violence and perpetuates a narratives of the "non-existent" Indigenous presence.

⁵³ Voyles, *Wastelanding*, 13



Figure 6: Aerial Image of the Mexican Hat Disposal Site, from “Connecting the Dots: For A Just Transition.” Photograph taken by Will Wilson, 2020.



Figure 7: Aerial Image of the Shiprock Disposal Cell in Shiprock, New Mexico, Navajo Nation. Photograph taken by Will Wilson, 2020.

Slow violence emerges as a useful framing for the form of state violence that permeates throughout the uranium landscapes in the Southwest. Marmon's decision to photograph the uranium landscapes in and around the Laguna Pueblo highlights a reconsideration of what it means to photograph state violence, and how slow violence is experienced by the communities affected. Wilson continues this project 60 years after Marmon and directly states that he sees his photographs within a project of "bearing witness" to the sites of extractive violence.⁵⁴ In this process, he speaks to a main point of contention for Nixon. If creating documents that lend to the ability to visualize slow violence is a central component of remediating this violence, then there must be a witness to this violence, however slow violence may ultimately be overlooked when "it's relayed by people whose witnessing authority is culturally discounted."⁵⁵ The following section highlights how Marmon and Wilson's photographs confront this tension, through their use of military technologies and a militaristic gaze in order to bear witness to sites of state violence. In this process they further reconfigure the colonial power relations that manifest in the uranium landscapes.

(2) Technologies of Witnessing and "Surveilling-Back"

To take photographs of the landscapes of slow violence within their homelands, both Marmon and Wilson co-opt the use of military technologies and militaristic gaze, essentially inverting the view of the state back unto itself. Marmon's use of an airplane, the same technology that was used to drop the atomic bombs, and Wilson's use of drones, which epitomize a remotely controlled, "fast violence," can be analyzed as inverting the gaze of the state for the purpose of

⁵⁴ Wilson. "Connecting the Dots: For a Just Transition," <https://willwilson.photoshelter.com/about/index>

⁵⁵ Nixon, *Slow Violence and the Environmentalism of the Poor*, 16.

witnessing state violence. In this process, the technologies that the photographers use to take the photographs become an essential part of the subject matter. This aligns their work with Keysar's definition of "spatial testimony," where the photographic processes that lead to the final image, are a fundamental part of the testimony.⁵⁶ Furthermore, along with inverting the technologies of witnessing, Marmon and Wilson's photography inverts the hierarchy of who and what gets photographed in the American Southwest— a region where photographs of Indigenous communities by white photographers has directly contributed to the construction of an image of Indigeneity as frozen in the past.

In "From God's-eye to Camera-eye: Aerial Photography's Post-humanist and Neo-humanist Visions of the World,"⁵⁷ Paula Amad details the history of aerial photography as emerging from the use of the "bird's eye view" for purposes of territorial surveying and expansion, and ultimately as a military weapon. By 1958, the year that Marmon is taking aerial photographs of uranium mines in the Laguna Pueblo, the aerial gaze and aerial photography had been well established in the warfare contexts of World War I and II. Amad writes that,

"Given aerial photography's major function in the early-twentieth century as a tool of military reconnaissance, not to mention the airplane's primary role in the development of aerial bombardments such as those of Hiroshima and Nagasaki in August 1945 ... there is obviously significant material evidence for the association of aerial vision with a negative, violent and even terroristic mode of modern vision."⁵⁸

⁵⁶ Keysar, "A Spatial Testimony," 524.

⁵⁷ Paula Amad, "From God's-eye to Camera-eye: Aerial Photography's Post-humanist and Neo-humanist Visions of the World," *History of Photography*, 36, no. 1, (2012): 66-86, DOI: 10.1080/03087298.2012.632567

⁵⁸ *Ibid*, 69.

At the moment that Marmon is photographing the uranium landscapes, the U.S. military is developing the “pinnacle” of aerial photography, the satellite. The development of the satellite directly resulted from the Cold War, and became one of the most significant wartime inventions.⁵⁹ Thus, Marmon is using the aerial view to highlight a site of overlooked, slow State violence at a moment when the aerial view is continuously being used to surveil the nuclear arsenals on a global scale.

The scan of images in Figure 8, shows the progression of Marmon’s photographic process. In this progression of images, an airplane (we can assume the one that Marmon will subsequently fly in) is pictured taking off from the desert ground, and rising into the sky. The aerial images of the uranium landscapes follow the images of the plane taking flight. However, even in the photographs from the air of the Kerr-McGee Mill and Phillips Mill (5-12), the airplane can still be seen, as part of the wing can be seen in the upper left hand corners of the photographs. In these images, the technologies of witnessing become a part of the subject-matter. In this way, the uranium landscapes that Marmon is photographing, cannot be separated from the technology used to capture them. With the airplane a part of the image, the viewer is forced to consider how the technologies are being used. Marmon uses the airplane to aid in his project of documenting uranium landscapes, which results in a very different experience than how the technologies are intended to be used in military contexts. In Figure 8, we see the airplane transform from a weapon of fast violence, into a medium that aids in a project of capturing colonial landscapes of slow violence.

⁵⁹ Olivia B. Waxman, “Aerial Photography’s Surprising Role in History,” *Time Magazine*, last modified May 31, 2018. <https://time.com/longform/aerial-photography-drones-history/>

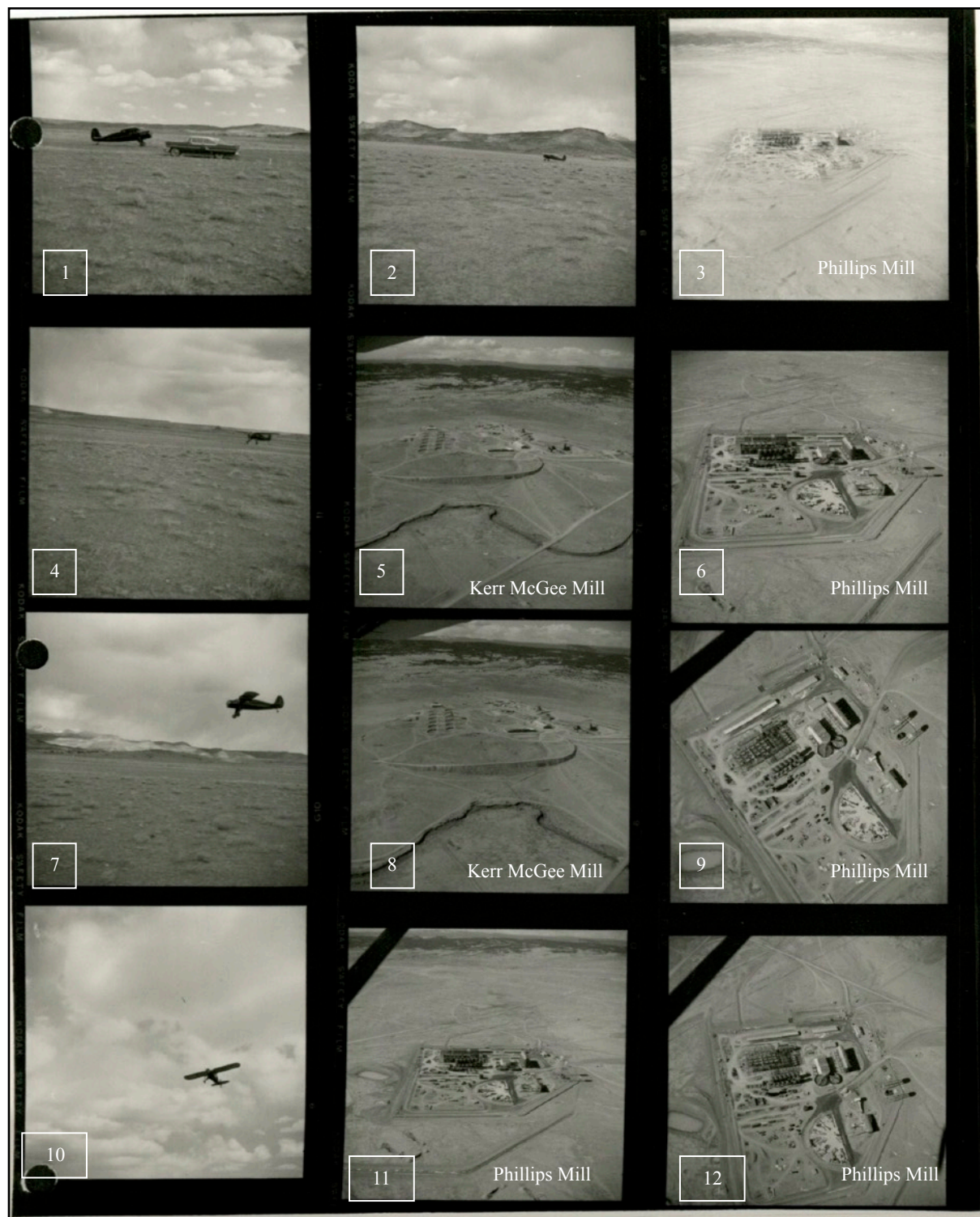


Figure 8: Scan of a contact sheet. Sheet includes images of an airplane taking off and images of the Kerr McGee Uranium Mine and the Phillips Uranium mill. Photographs taken by Lee Marmon, 1958. From The Lee Marmon Pictorial Collection at the University of New Mexico's Center for Southwest Research and Special Collections.

Wilson's work can be read as contributing to this same project of inverting the use of militaristic technologies to witness state violence manifested through landscapes of extraction. In Figure 9, the shadow of the drone Wilson uses to capture the images of the uranium landscapes can be seen. With the drone a part of the subject matter, the viewer is forced to consider the implications of drone technologies and the use of a drone in this context. Drones exemplify the progression of military technologies to a growing "derealization" of warfare,⁶⁰ with the speed of which they can carry out violent acts, being an essential characteristic of this project. In other words, drones are the epitome of weapons of 'fast violence.' As drones with photographic capabilities have emerged into the greater consumer market, drone-viewing has become accessible for a larger population, and for artists like Wilson. In "The Citizen Drone: Protest, Sousveillance and Droneviewing,"⁶¹ Dennis Zuev and Gary Bratchford examine the role of drones when used in activism and citizen journalism capacities. In their work, the connections between photography, aerial viewing and state power come together to highlight the capabilities of drone technology not only as a witness, but as a tool to invert the gaze of the state back unto itself.

Counter-surveillance emerges as a tool of resistance movements that seek to redistribute political power from the hands of governments or powerful corporations.⁶² Zuev and Bratchford include a quote from an Dean Dedman Jr. a Sioux drone activist that used drone photography as

⁶⁰ Amad, "From God's-eye to Camera-eye," 71.

⁶¹ Dennis Zuev & Gary Bratchford, "The citizen drone: protest, sousveillance and droneviewing," *Visual Studies* 35, no. 5 (2020); 442-456, DOI: 10.1080/1472586X.2020.1843285

⁶² Ibid, 448.

a part of the Native resistance movement at Standing Rock. Dedman summarizes the potential of drones are powerful technology for witnessing colonial violence. In his words:

“We are using this technology to fight this kind of battle. Long ago when they came over to seize, they came with superior technology that conquered all the indigenous people. Now it is the 21st century and we are utilizing the technology to the best of our abilities and skills as indigenous people, we are getting it round, we are *using it back* and we are gonna win.”⁶³

In this quote, the revolutionary potential of drone photographs becomes abundantly clear. Wilson photographs further extend the capabilities of drone technologies beyond sites of protest, to sites of slow violence. Like the Diné drone activist, Wilson is not solely “using back” the technologies of witnessing, but is essentially “gazing back” at the state and making it the subject of his photographs.



Figure 9: An image of the plaque that can be found at the center of the Mexican Hat Disposal Site. The shadow of the drone can be seen directly above the plaque. Red circle added to highlight the shadow. Photograph by Will Wilson, 2020.

⁶³ Ibid, 449.

The role of photography as a colonial weapon of misrepresentation and erasure, has long been understood by the Indigenous communities in the American Southwest.⁶⁴ Wilson's entire body of work confronts this history. His project "The Critical Indigenous Photographic Exchange (CIPX)" reframes the settler colonial photography projects like that of early twentieth century photographer Edward S. Curtis. CIPX aims to "supplant Curtis's Settler gaze and the remarkable body of ethnographic material he compiled, with a contemporary vision of Native North America."⁶⁵ Wilson did this through creating tintype portraits of contemporary Indigenous collaborators, that allow the people framed in the portraits to "re-inscribe" their own values and customs, ultimately "indigenizing the photographic exchange."⁶⁶ "Connecting the Dots" continues this project, in a less explicit, but still impactful way, through inverting the settler colonial photographic subject-object encounter. In Wilson's photographs the settler colonial state becomes the subject, and Wilson himself resides in the position behind the camera, deciding how to frame the colonial state, manifested through the uranium landscape. Thus, further reconfiguring how the landscapes are conceived of and how photographic processes of witnessing contribute to this reconceptualization.

Both Marmon and Wilson use militaristic technologies to create spatial testimonies to the slow violence of nuclearism. In using aerial viewing, mediated by drones or airplanes, Wilson and Marmon are using forms of witnessing that have been culturally established as "purely factual," to create testimonies to violence that is actively occurring to communities whose

⁶⁴ Elizabeth S. Hawley, "James Luna and the Paradoxically Present Vanishing Indian," *Contemporaneity: Historical Presence in Visual Culture* 5, no. 1 (2016): 5-26. <https://doi.org/10.5195/contemp.2016.170>

⁶⁵ Wilson. "Connecting the Dots: For a Just Transition," <https://willwilson.photoshelter.com/about/index;>

⁶⁶ Ibid.

“witnessing authority” is cultural discounted.⁶⁷ When put in relationship with each other, their photographic processes themselves, reflect the same evolution of militaristic technologies. In using the gaze of military technologies to photograph sites of slow violence, their photographs urge a reconsideration of which testimonies are considered, and what sites are deemed worthy of attention. This process speaks to a key component of spatial testimonies, where the power of the testimony is derived from “producing and disseminating affect-intensive images aimed at galvanizing a community of witnesses into action.”⁶⁸ Furthermore, Wilson and Marmon’s photographs are not using the aerial view as a “weapon,” they are using it in order to create a testimony to the violence that has occurred against their communities, and in doing so they assert an Indigenous presence and perspective over the landscapes, and in the field of photography as a whole. This is another way in which they invert the hierarchies of dominance at the sites of extraction.

(3) Asserting an “Incontestable” Indigenous Presence

At particular moments when the continuance of Native traditions and ways of life are being threatened, Marmon and Wilson’s aerial photographs of uranium landscapes reconfigure dominant conceptions of the temporalities of state violence, through highlighting overlooked sites of violence and through inverting the use of surveillance technologies to capture landscapes of slow violence. However, it would be an inadequate reading to situate the photographs as solely existing in response to state violence, as they are simultaneously responding to settler

⁶⁷ Nixon, *Slow Violence and the Environmentalism of the Poor*, 16.

⁶⁸ Keysar, “A Spatial Testimony,” 528.

colonialism on Native land, *and* creating documents that attest to an “incontestable”⁶⁹ Indigenous presence that has been present since time immemorial, and will continue into futurity. By “looking over” the landscapes in the most literal sense, Marmon and Wilson invert not only a militaristic gaze, but the hierarchies of settler colonial dominance that situate Indigenous communities as victims, vanishing or absent in the histories of land dispossession and extractivism in the Southwest.

As the photographer, Marmon himself is never pictured in his own photographs, yet his position as the one capturing the images, is a kind of position of power where he is able frame his homelands and people as he chooses. The aerial photographs of uranium mines are no different, as he is not captured in the framing of the images, but his presence permeates all aspects of the images as he is the one taking them. Marmon’s exerts his power as a photographer, quite literally *over* the landscapes of power that he captures with his camera. In this process, the colonial hierarchies of dominance, founded upon white supremacy, are reversed, with Marmon positioned in the airplane with the “God’s eye view.” While there is a limited amount of scholarship on Marmon’s aerial images of uranium mines, and an equally limited amount of material that includes Marmon’s own perspective on these photographs, in *Laguna Pueblo: A Photographic History*,⁷⁰ Marmon critically reflects on how the introduction of the uranium industry fundamentally changed his community.⁷¹ Through connecting his images to this loss of Laguna traditions, we can understand Marmon’s photographs as documenting an encounter

⁶⁹ Vizenor, “Survivance,” 11; Karen Hughes & Ellen Trevorrow “‘The Nation is Coming to Life’: Law, Sovereignty, and Belonging in Ngarrindjeri Photography of the Mid-Twentieth Century,” *History of Photography* 42, 3 (2018): 249-268. DOI: 10.1080/03087298.2018.1521571

⁷⁰ Marmon and Corbett. *Laguna Pueblo: A Photographic History*, 65.

⁷¹ *Ibid.* 65-67.

between hegemonic colonial forces and Laguna life ways. In taking these photographs, Marmon becomes a witness to this encounter, and his presence at the sites may be interpreted as not only an act of resistance, but an assertion of the persistence of Laguna life amidst colonial interventions.

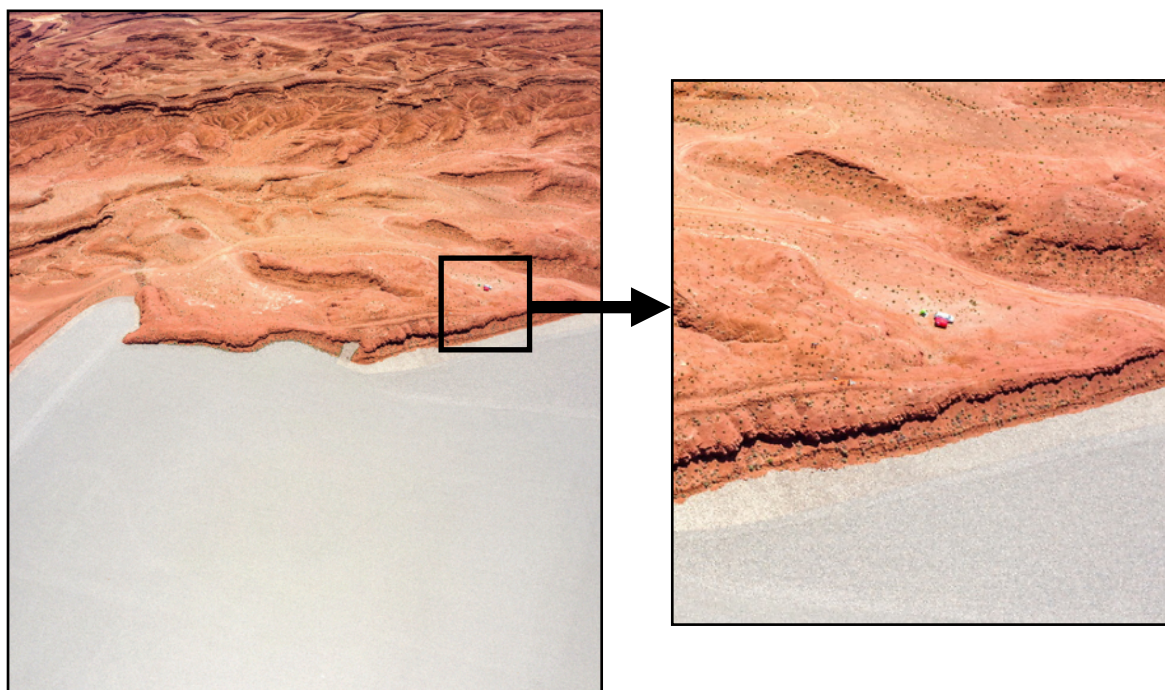


Figure 10: A close up of Wilson's image "Mexican Hat Disposal Site," where Wilson's white truck can be seen. In conversation with the author, he pointed to where he was standing next to the truck when taking the image, making the image a kind of self portrait of the artist himself. Photographs by Will Wilson, 2020.

This dynamic is further explored in Wilson's photographs. Figure 10 includes a close up of the Mexican Hat Disposal Site where Wilson's white truck can be seen. Wilson has highlighted that he, himself, is in this photograph, standing next to the truck, controlling the drone that ultimately takes the photograph.⁷² With his inclusion in the photograph, "Mexican Hat Disposal Site" can be considered a self-portrait of the artist amidst the extractive landscape.

⁷² Will Wilson in conversation with the author, August 20th, 2021.

Wilson's physical presence in the photograph asserts an "incontestable" Indigenous presence into the context of a landscape that represents legacies of colonial violence against Indigenous communities. This is a legacy founded upon the notion that Diné communities and people like Wilson, are disposable or non-existent. And yet, Wilson is there. He is a witness to a very different narrative— one that recognizes the presence of Diné life and that reckons with the consequences of nuclear violence. Thus the image, "Mexican Hat Disposal Site," is a testimony to this presence

Marmon and Wilson's photographs do not exist solely in response to the violence of nuclear colonialism, they are also spatial testimonies to an Indigenous presence on the landscapes that was there long before uranium was discovered in the mountains, and will continue to be there long after the half-life expires, 700 million years into the future. By interpreting their photographs as testimonies to an Indigenous presence that challenge the very definitions of colonial time and space, it may become possible to situate their photography within a photography of "survivance," that speaks to the continuance of Indigenous life that inherently challenges colonial structures of dominance. Although questions remain unanswered about Marmon's approach and perspective to these histories due to the limited amount of research that has been published about his aerial images of uranium landscapes, in looking to his daughter's writing on his photography, Marmon's photographic philosophy may be clarified and applied to his approach to uranium landscapes. With the work of Wilson, his own words situate his images as a part of a larger project of recognition and remediation, that ultimately advocates for the centering of Diné traditions when considering the futures of Diné land.

Towards a Photography of Survivance

In the opening chapter of his book *Survivance: Narratives of Native Presence*,⁷³ Vizenor uses the example of a testimony in a federal court by an Anishnaabe man, Charles Aubid, as an example of survivance in practice. Aubid was a witness in a case that challenged the federal government's right to regulate the harvesting of wild rice in a wildlife reserve in Minnesota. Aubid testified through translators,

“that he was present as a young man when the federal agents told Old John Squirrel that the Anishinaabe would always have control of the *manoomin* harvest. Aubid told the judge that the Anishinaabe always understood their rights by stories. John Squirrel was there in memories, a storied presence of native survivance.”⁷⁴

Through testifying “by visual memory, an inseparable sensibility of natural reason, and with a singular conception of continental native liberty,” Aubid challenged the political relations of a federal court, where the definitions of evidence reflect cultural hierarchies and “sanction judicial practices over native presence and survivance.”⁷⁵ The example of Aubid's testimony and its inclusion in the first pages of Vizenor's book, lays the foundation for an analysis of how Indigenous witnesses fundamentally challenge the spatial and temporal organization of settler colonial sites of violence that threaten Native sovereignty and self-determination. The very nature of a testimony that confronts colonial hierarchies speaks to the practice of survivance. Through understanding Marmon and Wilson's photographs as “spatial testimonies,” they can be read as reconfiguring colonial power relations through asserting an Indigenous presence, in the same way that Aubid's testimony did.

⁷³ Vizenor, *Survivance*, 2-3.

⁷⁴ Ibid.

⁷⁵ Ibid.

In the introduction to *The Pueblo Imagination: Landscape and Memory in the Photography of Lee Marmon*,⁷⁶ Marmon's daughter, celebrated author Leslie Marmon Silko introduces her father's photography and situates it within the expansive history of Laguna. She writes that, "... the old folks taught my father to see the world they loved as they had learned it from their beloved grandparents and so on. In this way my father experienced the tranquility of *the timeless Present*."⁷⁷ She continues on to write of his fascination with the photographic process, describing it as, "that magic of speeding light particles and crystals of precious metals, that imprint of the present moment."⁷⁸ Ultimately, she concludes, "[t]hus my father's lifelong work with a camera serves the most ancient of Pueblo imperatives: to honor all beings, but especially our beloved ones, gone before us, who return to bless us with snow and rain."⁷⁹ The themes of how photography challenges temporalities echo throughout Silko's description of Marmon's photographic practice. With this reading of Marmon's photographs, Silko highlights the expanse of the connectivity between the images and Pueblo ontologies and ways of life. Furthermore, she positions her fathers photographs as a part of a tradition of passing down ancestral ways of seeing the world. With Silko's reading of Marmon's photographs, his work may be understood as founded upon on the continuance of Laguna Pueblo epistemologies, thus it may urge us towards a photography *of survivance*.

⁷⁶ Lee Marmon, *The Pueblo Imagination: Landscape and Memory in the Photography of Lee Marmon*, (Boston: Beacon Press, 2003).

⁷⁷ Leslie Marmon Silko, introduction to *The Pueblo Imagination: Landscape and Memory in the Photography of Lee Marmon*, Lee Marmon, (Boston: Beacon Press, 2003), 9.

⁷⁸ Ibid.

⁷⁹ Ibid, 13.

Wilson's photography captures uranium landscapes more than 60 years after Marmon's. The existence of Wilson's work in relationship to Marmon's, is a testimony in itself to the "timeless Present" of colonial violence manifested in the sites of extraction on Diné land. In "Connecting the Dots," Wilson is creating an ongoing project of documenting the uranium landscapes within the Navajo Nation, that may ultimately reveal itself to be a boundless project, as uranium seeps into every component of the affected ecosystems and resides there for its half-life. Thus, his project asks, what does it even mean to photograph uranium landscapes? Does it mean photographing everything and everybody? Wilson sees "Connecting the Dots" as an evolving project that aligns with his larger body of work that aims to allow Diné to "re-story" their own narrative.⁸⁰ His survey of uranium landscapes on Diné land contributes to this project of "re-storying," through highlighting overlooked sites of state violence and reconfiguring dominant conceptions of Southwestern landscapes. Wilson's project of "re-storying" may be considered a practice of survivance, that aligns with Aubid's testimony and Marmon's photographs, as it is a project of unsettling colonial conceptions of Indigeneity, and allows the space for Diné to tell their own stories, or create their own testimonies.

The Nature of Testimony

As sites of slow violence, uranium landscapes affect the communities situated around them in cellular ways that manifest differently in each exposed individual. Furthermore, the distribution of radiation positing is notoriously challenging to measure, with it appearing in very

⁸⁰ Manuela Well-Off-Man, "Exposure: Native Art and Political Ecology," <https://www.extractionart.org/mocna>

different ways across similarly exposed populations.⁸¹ With this acknowledgement of the deeply personalized experience of the violence of nuclearism, it may be argued that aerial photographs are inherently unable to communicate the intimacy of how the slow violence of nuclearism is felt on the individual scale, as the “sublime” aerial view can be critiqued as dehumanizing or “disembodied.”⁸² However, while radiation effects every individual differently, the uranium industry shaped entire communities and the entire American Southwest. Both Marmon and Wilson’s photographs bear witness to an experience of simultaneous personal and communal loss. Wilson states this directly in his description of “Connecting the Dots,”⁸³ and Marmon does this in his writing of how the uranium industry changed the community of Laguna as a whole. Thus their use of the aerial view emerges as a device to communicate a shared loss on a massive scale, that ultimately results in a photographic survey of deeply personal *and* communally experienced sites of violence. In this way, their photographs align with the very nature of testimonies themselves.

The power of testimonies emerge from how they speak to an individual story and yet, testimonies continually navigate a fabric of shared experiences. Thus, testimonies simultaneously speak to the personal and shared. In this way, some testimonies may be interpreted as individual accounts that coalesce to argue for an indictment far greater than one individual. However, perhaps the only claim that can be proven, is that testimonies defy definition. Like nuclearism,

⁸¹ Joseph Masco, “Mutant Ecologies: Radioactive Life in Post–Cold War New Mexico,” *Cultural Anthropology* 19 (2004): 521. <https://doi.org/10.1525/can.2004.19.4.517>

⁸² Jill Gatlin, “Toxic Sublimity and the Crisis of Human Perception: Rethinking Aesthetic, Documentary, and Political Appeals in Contemporary Wasteland Photography.” *Interdisciplinary Studies in Literature and Environment* 22, no. 4 (2015): 723. <https://www.jstor.org/stable/26569611>.

⁸³ Wilson, “Connecting the Dots: For a Just Transition,” accessed October 2021, <https://willwilson.photoshelter.com/about/index>;

testimonies cannot be confined. To read Marmon and Wilson’s photographs as “spatial testimonies,” is to acknowledge the un-confineable, and embrace the unresolved. To argue that their photographs contribute to a singular project or are testimonies to a singular experience, may ultimately reproduce the same cycles colonial confinement that survivance, a critical approach to photography and the ongoing consequences of radiation poisoning, force us to reconsider.

Conclusion

In *Beyond Settler Time*, Mark Rifkin expands upon the way in which a reconceptualization of temporalities may be intricately linked with the decolonial project. He writes,

“The temporal trick whereby Indians are edited out of the current moment—or cast as inherently anachronistic—emerges out of the refusal to accept the (geo)political implications of persistent Indigenous becoming, the ways that the presentness of Native peoples challenges settler claims to possession now and for the future.”⁸⁴

To comprehend the power of photography, the consequences of nuclearism and the practice of survivance, an understanding of *time* must extend beyond settler colonial definitions. Rather than confine nuclearism to the violence of the past, the photography of uranium landscapes by Lee Marmon and Will Wilson attempt to communicate how nuclearism is experienced by the Indigenous communities who have witnessed first-hand the consequences of the extractive industries since the mid 20th century. Marmon and Wilson’s photographs center sites of slow violence, inverts the use of weapons of “fast violence,” and assert an incontestable Indigenous presence in the face of attempted erasure and genocide. All of these characteristics of their photographs, fundamentally reject colonial narratives of violence, nuclearism and Indigeneity.

⁸⁴ Mark Rifkin, *Beyond Settler Time*, (Durham: Duke University Press, 2017) 5.

This is a rejection of the narrative that nuclearism is solely The Mushroom Cloud, and that Indigenous communities are frozen in a state of continuous vanishing.

To conclude with a nod to “decolonial futures” toes a line of falling into an academic pattern where white scholars convert decolonization into a neatly packaged, metaphorical ending. As Eve Tuck and K. Wayne Yang’s enduring piece urges us to understand, “decolonization is not a metaphor.”⁸⁵ It is an ongoing historical process of unsettling, realized with material relations like land and monetary reparations. With this in mind, this essay has illustrated how Marmon and Wilson’s photographs fundamentally challenge colonial conceptions of time and space. In this project of reconfiguring, or unsettling, mediated by the aerial photographs of uranium landscapes on Indigenous lands, Marmon and Wilson’s work challenges the constrictions of “past, present, future,” capturing how colonial violence is experienced as the “timeless Present” that cannot be pinned down to a singular moment or narrative. This challenging of temporal boundaries, is at the core of the practice of survivance, which is an assertion of an indisputable, boundless Native presence. Survivance is inherently a decolonial practice, that challenges the confinement of Indigeneity to a particular temporality, and asserts an Indigenous presence into perpetuity. With this, Marmon and Wilson’s photographs may be interpreted within a larger project of decolonization, that demands a recognition of Indigenous sovereignty and a returning of Indigenous land to the communities it was stolen from.

⁸⁵ Eve Tuck and K. Wayne Yang, “Decolonization is Not a Metaphor,” in *Decolonization: Indigeneity, Education & Society* 1, no.1 (2012):1-40.

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