

Up here  
in these hills  
they will find the rocks  
rocks with veins of green and yellow and black.  
They will lay the final pattern with these rocks  
they will lay it across the world  
and explode everything

—From *Ceremony*, by Leslie Marmon Silko

# T H E IRRADIATED INTERNATIONAL

LOU CORNUM

*"If power can be held through atomic bombs, colonial peoples may never be free."*

—W.E.B DuBois

In 1998, a group of Dene elders from Northwest Canada traveled to Hiroshima to meet with survivors and descendants of survivors of the atomic bomb dropped some fifty years earlier. Some of the uranium used to kill more than 200,000 people in Japan had been mined and transported by Dene men, many of whom died years later from radiation-related disease. The six Dene elders came from where the earth had been torn up to the place where earth and sky were ripped apart like never before. They came to Hiroshima to apologize and to recognize the shared radioactive reality between people touched by the detonation of the bomb and those who unwittingly touched the materials that would make such a weapon. Nobody from the Canadian government was present, none among those who had exploited the miner's bodies and their home lands and willingly aided the construction of the atomic bomb ever made the journey.

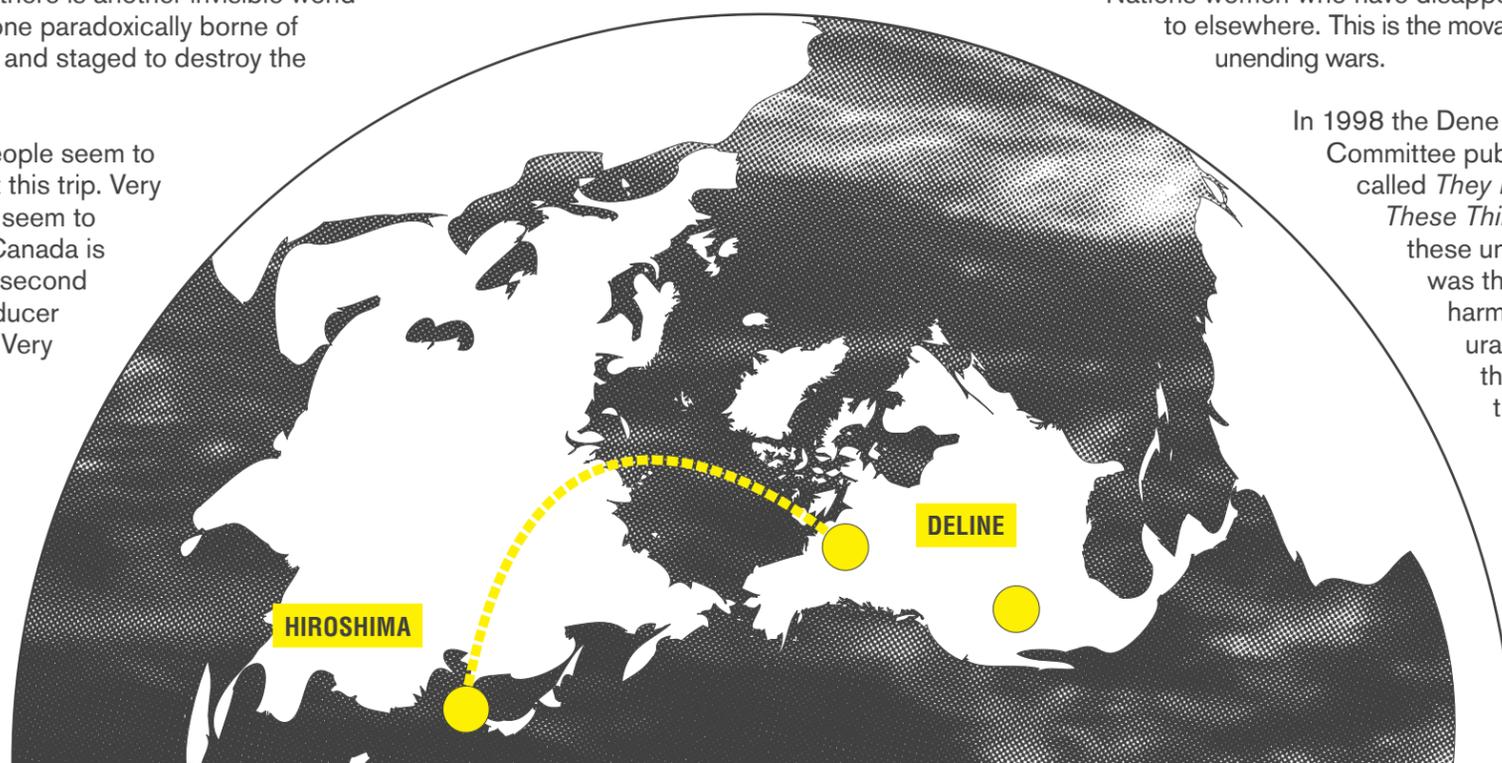
The reinscribed path of the Dene elder's trip illuminated the radiated lines connecting settler colonial resource extraction and Western imperial war-making. Theirs was an act of unexpected mapping, connecting two nodes of a much larger and largely obscured sphere of ongoing and purposefully scattered atomic apocalypse. What does it mean to ask forgiveness for something that was forced upon you? Those whose lives are crossed by uranium and other radioactive weapons materials form a diffuse collective of families, communities, enemies, and strangers. They are the irradiated international and, in their glowing death-laced tales there is another invisible world emerging, one paradoxically borne of destruction and staged to destroy the destroyers.

Very few people seem to know about this trip. Very few people seem to know that Canada is the world's second largest producer of uranium. Very few people seem to know how intimately connected Canada was to the

massacre in Hiroshima and Nagasaki. Before the bomb, there were internment camps in Canada, much like those in the United States where people of Japanese heritage were sent during World War II. Their mirror is found in the immigration detention centers and their echo in the First Nations reserves of today. The very few people who do not know some of these things may be the amorphous, fluid "we" who know some of the rest. Where one violence occurs, the smoke caused obscures another somewhere else: bombs, borders, the border as a bomb dropped into people's lives, and all the deadly effects lingering, lingering.

Canada is so shameless as to have named a place Port Radium in 1937. The name remains, as does the legacy of radiation. The half-life of uranium-235, used in the atomic bomb dropped on the people of Hiroshima and perversely named Little Boy, is seven hundred and three million, eight hundred thousand years. The halved life of a uranium miner is so exponentially smaller, my small mind can't calculate the proportion. Half-lives and less are doled out to Indians killed if not by poison than some other obscured condition of fatality; more than one hundred thousand people's lives cut down in half a second in Hiroshima. The route where uranium flowed from the mines near Port Radium to where it would be shipped for use in the Manhattan Project was called "the highway of the atom." In Canada today, there is another stretch of road called the highway of tears, known for the high number of First Nations women who have disappeared en route to elsewhere. This is the movable feast of unending wars.

In 1998 the Dene Uranium Committee published a report called *They Never Told Us These Things*. Among these untold things was the protracted harms of working in uranium mines and the atomic bomb that would result from such work. When the Dene learned about their particularly poisoned place in



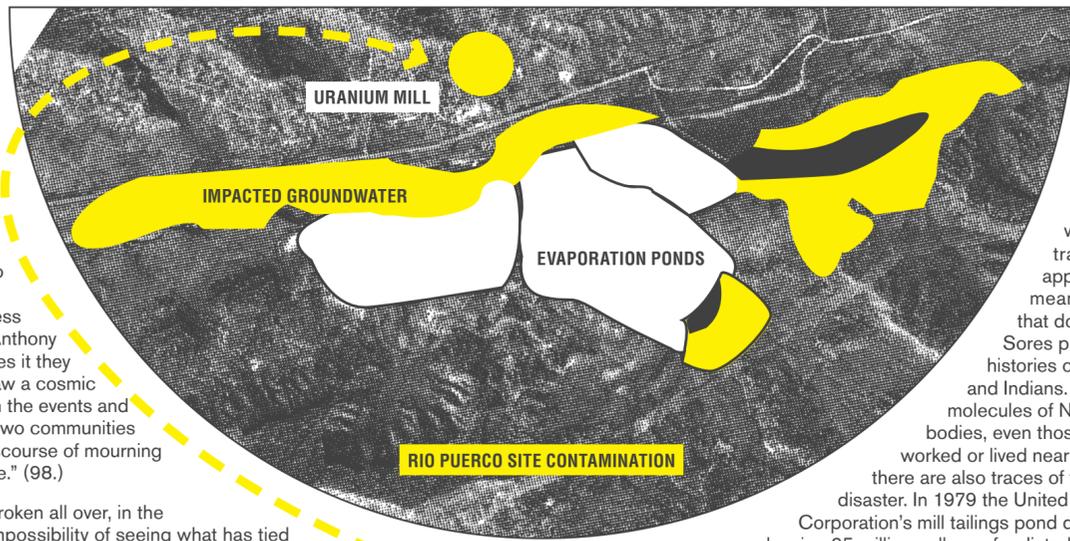
a global design, they sought out connection with the ruptured irradiated international. They traveled to Hiroshima, unable to undo the bomb but willing to witness its route. As Anthony Burke describes it they "wanted to draw a cosmic circle between the events and connect their two communities in a shared discourse of mourning and experience." (98.)

The circle is broken all over, in the constructed impossibility of seeing what has tied together and unbound those caught in the routes of uranium. There are the unmarked highways of the other than human as well. Movement marked by radiation cuts across life forms. You've maybe heard of the wolves taking back Chernobyl; the reindeer from the area have taken their trace contamination as far north as Norway. The species-related herds of caribou in Canada are similarly contaminated, having drunk from the irradiated tailings left by and leaching into Great Bear Lake by Port Radium. In her play that in part describes the entangled lives of Hiroshima atomic bomb victims, Dene miners, and other beings of the irradiated international, Marie Clements includes the stage directions for a world many know but many others cannot see: *Glowing herds of caribou move in unison over the vast empty landscape as cherry blossoms fall until they fill the stage.* This the wasted land, both emptied and filled, alight with slow death and even more persistent life.

Tracing the hoof prints of glowing caribou and the worn tracks of uranium routes are the lit-up bodies of Indians that the extractors can never really kill. The irradiated international call to us through the broken-down walls of the world. Rays shooting from our eyes, out our fingertips and toes. We inhaled, ingested, inherited radioactive material that will never die. Rendered invisible, not unlike the invasive waves of radiation itself, we constitute a global force, potential vector lines against the routes of commodity speculation and transport.

Thousands of miles south of Deline, the town where the Dene elders traveled from, and across the United States border is Diné Bikeyah the ancestral lands of the Navajo and the smaller enclosed lands of the Navajo reservation. The Diné are distant, distant relatives of the Dene, their resonant tribal names revealing a common language group, Athabaskan. Though the Diné migrated south, they would not escape extractive industries and military men looking for the world-ending power stored in the yellow uranium ore in the earth. There are currently 350 nuclear waste sites from abandoned uranium mines dotting this land with poison. United States President Donald Trump and Secretary of the Interior Ryan Zinke would like to reopen the mines around the Grand Canyon, in addition to the private leasing for mineral and oil rights throughout the Southwest. Simultaneously the administration moves to classify Indians as a special interest group, understood as a racial category that therefore must like all others assigned this particular inclusive Other status meet certain work requirements to receive Medicaid. The attempt to classify away the colonial relationship only makes it starker. The only jobs that then might be available in order to qualify for health care would be jobs in the mines. In this future, Navajo people work for Medicaid because the work insures they will need the health insurance, if it's even enough.

Navajo men were compelled to work the former uranium mines from the 1930s through the 1960s, a period directly following the Bureau of Indian Affairs' concerted campaign to reduce livestock on the Navajo reservation. This immense loss, the severing of social and material relations formed around sheep herding, preempted the entry of Navajos into the wage economy. Working the uranium mines



meant new kinds of disease. The Navajo word for cancer is "lood doo na'dzihi" which translated approximately means "the sore that does not heal." Sores proliferate the histories of uranium and Indians. Inside the molecules of Navajo people's bodies, even those who never worked or lived near the mine, there are also traces of the Rio Puerco disaster. In 1979 the United Nuclear Corporation's mill tailings pond dam broke releasing 95 million gallons of radiated water into

a tributary of the main source of agricultural irrigation and drinking water for many Diné on the reservation and surrounding towns. Rio Puerco was also where children and others might splash around but following the spill, the water caused burns on the feet of any waders. The contaminants also reached nearby aquifers and spilled over into river-side pools. The enormity of this nuclear disaster is outmatched only by the Chernobyl disaster of 1986. Yet Rio Puerco largely remains unheard of outside New Mexico.

My Navajo family comes from the area around Rio Puerco. I think with the irradiated international to push myself beyond my circumscribed homes. The paradox of being Navajo means being both within and outside the nation. Most Americans don't know about Rio Puerco because the reservation and Diné Bikeyah is purposefully kept foreign while simultaneously under domestic control. Indigeneity is often marked by a proximity to land that is simultaneously valued and denigrated by the colonist. While Indigenous peoples conceive of themselves and their place in the world according to various cosmological, political, and social philosophies, in the colonist's view to be Indigenous is to be either dead or in the way. The closer the Indian to the resources and the longer they have lived there, the less their lives seem worthy. A reverse proportion to how badly the material is needed. The boom and bust model of mining means that while mining companies might shut down or depart from an area, the material they left behind may not begin to show instances of bodily harm for another decade or two. The mines and the people are abandoned but not alone. Radiation is forever. Radiation wants a home too. It grows one inside the people's bodies. Before the mining, wherever it has occurred on this globe, most uranium stayed snugly embedded among the rocks. Forced up from its resting place and leached to make weapons-grade material or the falsely-benevolent source of energy, its excess does not settle back nicely. Now it is like shrapnel.

A group called Diné No Nukes has drawn similar connections to the atomic legacy in Japan as the Dene did back in the 90s. A sticker distributed by the group to raise awareness and funds for their projects feature a tri-lingual declarative against nuclear power in English, Japanese and Diné Bizaad (the Navajo Language). In 2014, the group started the Radiation Monitoring Project, a community program of workshops inspired by Japanese activists who in the wake of the Fukushima Nuclear Plant catastrophe acquired the tools to autonomously monitor radiation levels when they could not trust the government to do so truthfully. Similar mistrust is familiar to many uranium communities who have tried to receive compensation for health effects the government claims cannot be causally linked to uranium poisoning. The Radiation Exposure Compensation Act is one of the few government actions to address or redress harms from nuclear testing and uranium mining, granting useless apologies and amounts of money that cannot undo an apocalypse that leeches and spreads across generations. In the prioritizing of nuclear energy, whether for destructive bombs or supposedly clean energy, governments are also quick to rescind notions of humanity and citizenship. According to Japanese activist Mari Matsumoto, following the Fukushima disaster, many people living near the plant were forced or later chose

to migrate and are now treated like illegal immigrants in the country of their birth and unable to access necessary services. The irradiated international is one of many collectives whose citizenship is made contingent in the over-bordered world. People are being stripped of homes, which will be destroyed or deformed in their absence either by the regulations of borders, ongoing climate catastrophe, or most likely both. Migrant and climate crisis are described as the twinned engines of suffering driving the present as it is invaded on both ends by bloody pasts and desperate futures. This is how the world ends when it is divided up into nations. Sylvia Wynter who theorizes the possibilities for an alternative humanism in the post-atomic age cites biologist Lewis Thomas for his remarks that nationalism as it now proliferates is the leading lethal agent on Earth. This articulation from a practitioner of the so-called hard sciences speaks to Wynter's project that to live in a future for the human species means a new form of unbordered knowledge. The borders of nations and the borders of thought and feeling they enforce operate under orders of strict containment: we all perhaps have something to learn from radiation about being uncontainable.

The watery walls of an always growing oceanic mass grave rise as countries construct their metal walls in last ditch attempts at nation-state sovereignty. More and more people are and will be further displaced. In the Bikini Atoll where people were sent away from their homes so it could be bombed to hell during atomic testing, the land itself is now sinking below the rising sea. Other atomic lands are being reclaimed for purposes of space travel. Technocrats, like the predatory birds of real estate, look for the sacrifice zones where their portfolios can be expanded with talk of expanding humanity (always indexed as a specific class of humans) to a multi-planetary or post-land existence. In French Polynesia, The Seasteading Institute is accumulating capital to construct new islands that will be designated special economic zones: what they unironically call "the next new world." Next to the Mescalero Apache reservation, next to the White Sands Missile Range and Trinity Test site where the first nuclear device was detonated, there is now the hulking project Spaceport, USA where supposedly the star-bound destiny of commerce is being sown. All these projects speak from and invoke frontiers unknowingly or uncaring that these projects like all frontiers thrive on land cleared by force.

To call it climate change almost sounds banal compared to the long-culminating catastrophe it heralds. But these are the phrases we turn to overwhelmed by complex chain of related phenomena on micro to macro scales across ecosystems. How else to communicate the time it takes to engineer and reverse change to these environments? The irradiated international prompt consciousness to understand the scales of the planetary and deeply historical as well as emotional scales of having your world end, often over and over again.

Her whole life my cousin was told she could not have children. Because of the uranium. My whole life I wondered if I had been born weird, incomplete because of the uranium. My cousin did unexpectedly have a child and like me, her daughter had what the doctors call complications, like me her infant heart was operated on, made cyborg so she could live. She is named for the night sky lights made by solar winds in the magnetosphere. One of the conditions of living after and because of colonialism is never knowing. We'll never know why our bodies turned out this way, if it is because of the uranium or some other invisible mutation.

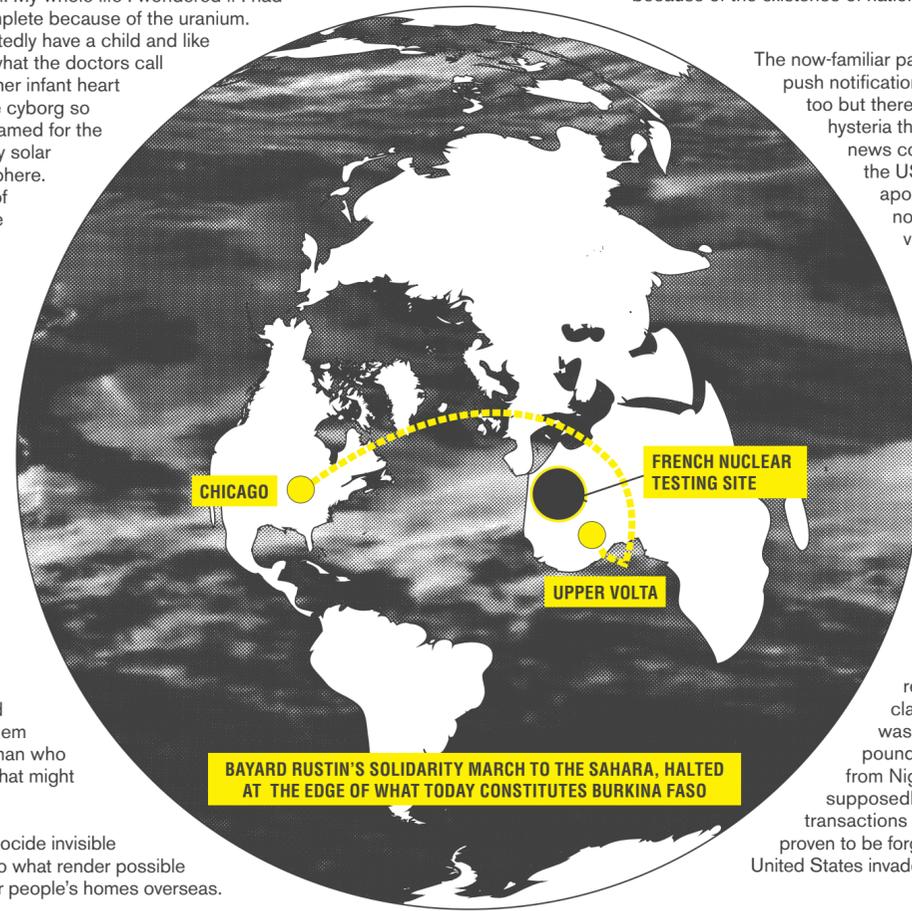
We've known for a while the mess of claiming mutants as stand ins for the subjects of racial violence. Others have claimed the mutant for queerness. The babies born dead on Marshall Islands did not see themselves as mutants because they never got to see at all. Their mothers would probably want to see them as children. But if it is man who made nukes possible what might the mutant do?

The moves to make genocide invisible where I am from are also what render possible the endless war of other people's homes overseas.

While some of uranium that was used on the Japanese came from Canada as the Dene learned, a significant amount also came from mines in the Congo. Africa continues to be a continent as some say "rich" in uranium; however, the proceeds go mostly to large corporations based in other continents. Niger, Namibia and South Africa have continued to produce thousands of tons of uranium, ranking in the ten nations with the highest recoverable uranium resources. Six hundred radioactively contaminated gold mine sites, from which uranium was mined as a byproduct, remain in the proximity of Johannesburg. In Niger, a former French colony, the government has begun to allow mining companies from India and Russia to expand their uranium industries while the nomadic Tuareg community fights for transparency about environmental risks and a share of the immense revenues.

In the 1960s and 70s, African-American revolutionaries developed networks of anti-colonial and anti-racist organizing that emerged from a socialist internationalism that informs my visions of the irradiated international. Bayard Rustin, the Civil Rights leader known for his work with the March on Washington was an integral part of an earlier campaign protesting the French government's intention to detonate an atomic weapon in the Sahara Desert in the summer of 1959. The French have also tested nuclear bombs in the South Pacific leading to infamous cases throughout Polynesia of radiation sickness and genetic deformities in newborn children for generations after. Rustin's work with the Sahara Campaign was an important kind of cross-historical and transnational effort to link decolonial efforts in Africa with protests for Black liberation in the United States--these efforts were united in a fight against global anti-black racism but also a fight for a world not dominated by those who want power through lethal control. This was a time that seems so far away from me now, the time of an anti-war movement in the United States that saw intertwined possibilities of life and liberation across swaths of sea and land.

In October 2017, the Nobel Peace Prize was awarded to the International Campaign to Abolish Nuclear Weapons (ICAN), a Geneva-based coalition of international organizations that is credited with bringing to fruition the Treaty on the Prohibition of Nuclear Weapons passed earlier this year by the United Nations. This treaty if adopted would broadly outlaw use of nuclear weapons, as well as institute bans on developing, testing, and moving nuclear weapons. While the existence of the treaty is seen as a success by anti-nuclear proliferation advocates, the nine nuclear powers of the world have vocally boycotted all surrounding negotiations. A universal ban on nuclear weapons is in itself not a useless or damaging campaign, but by itself without reference to the colonial and imperial basis of most wars as well as the more obscured forms of nuclear harm seeping into globally-dispersed groundwaters, it does not do enough. An international campaign will most definitely be necessary for ending nuclear warfare. But who gets counted in the international and how do we see nuclear warfare as possible because of the existence of nations?



The now-familiar panic of a nuclear-themed push notification creeps along my skin too but there's something off in the hysteria that accompanies any nuke news compared to the decades the US has spent sowing apocalyptic destruction with no need for A-bombs. The violence of the bombs itself is not contained to the flash of a single event. I was barely what is considered a politically conscious figure when the United States invaded Iraq. Sometimes I feel something like crazy when I realize how little we talk about it now. The invasion of Iraq was also a story of uranium. In 2001 and 2002 the Italian military intelligence agency (SISMI) conveyed reports and information claiming Saddam Hussein was looking to buy 500 pounds of uranium yellowcake from Niger. The documents that supposedly proved these attempted transactions of A-bomb materials were proven to be forgeries. Days later, the United States invaded Iraq.

The weapon of mass destruction is the nation. The United States of America for one. But also the very notion of nation itself.

Kazakhstan, Canada, Australia.

Niger. Russia. Namibia. Uzbekistan. China. The United States.

These are the nations mining the most uranium, all connected by histories of competing empires and lines of radioactive commerce.

Where can you imagine pain? Where can you register it? Where can you see violation? What lines demarcate your concern?

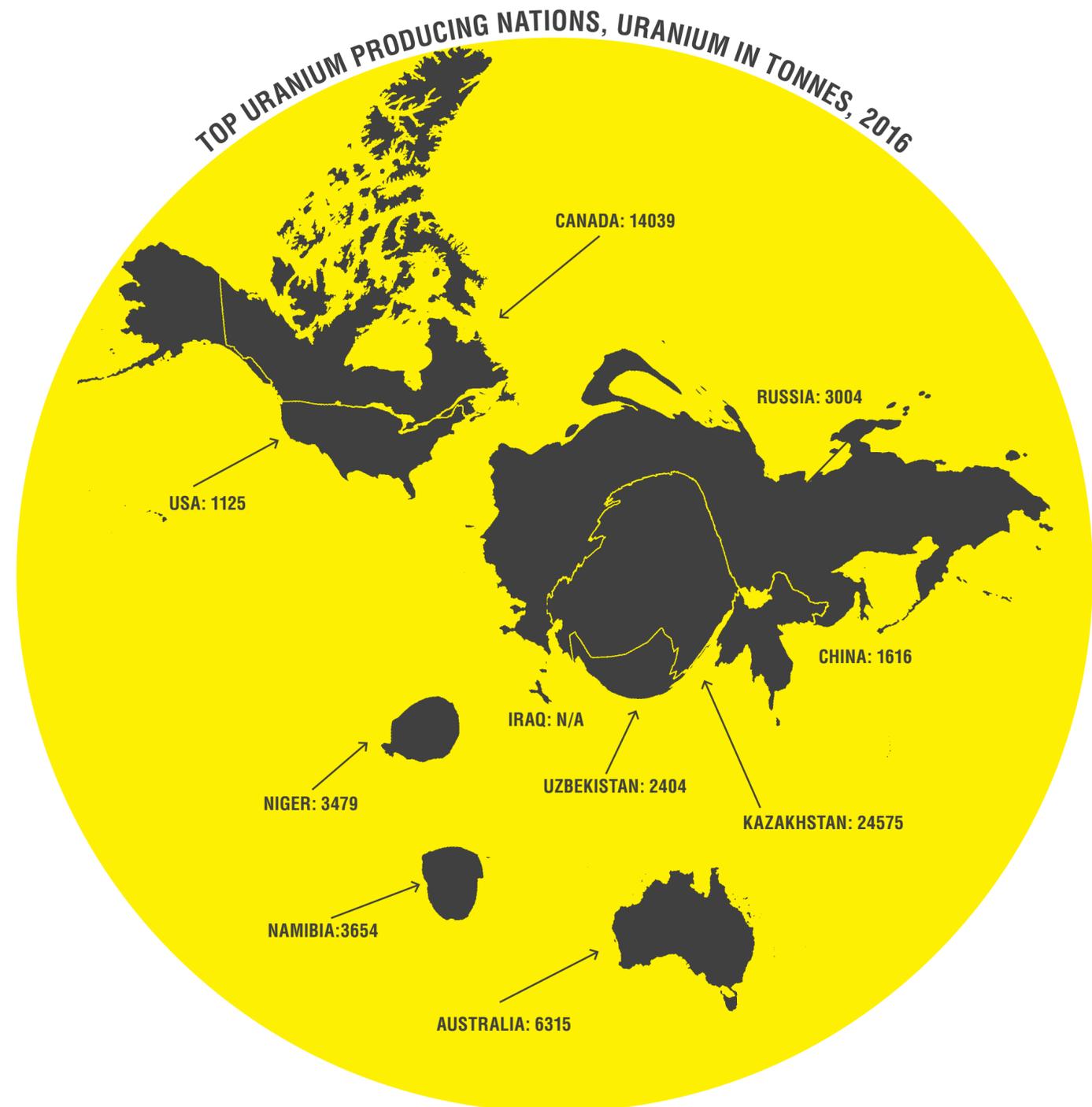
What happens when people across great swaths of time and space witness if not together then in tandem?

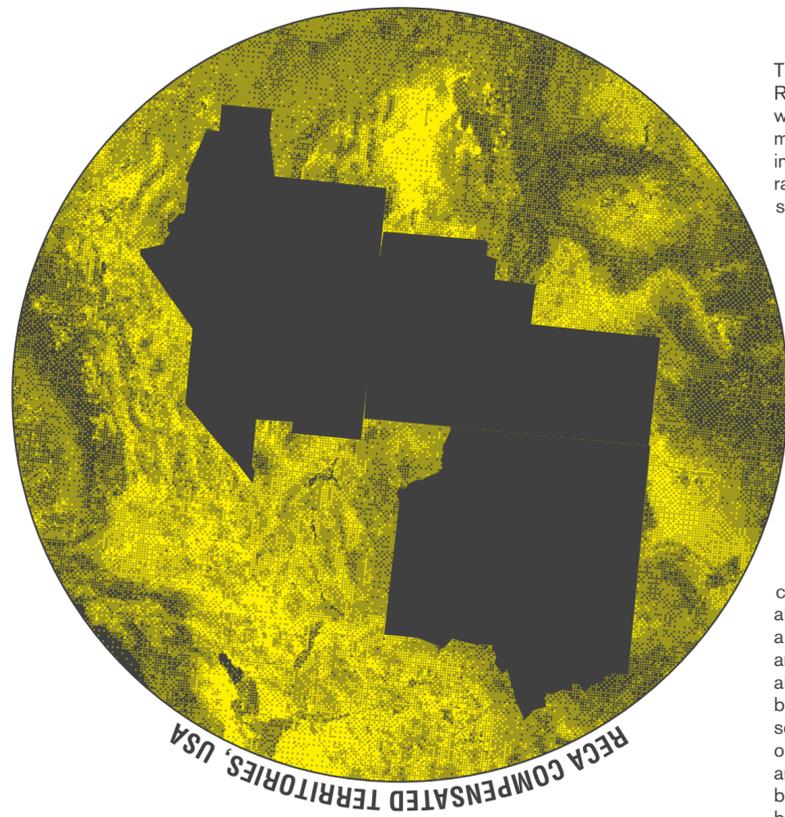
I will myself to radiate outwards, to exceed the constraint of a national body, of a closed border body, to meld with a mutant consciousness and deform what deforms me.

The work to do: Making visible, Making felt, Making it stop. I don't yet know the chain reaction that links these acts. There is no reversal reaction to take away the death and slow death already enacted by leaky waste sites and test site winds. The irradiated international are here, everywhere. In the nodes and lines linking this uncollected collective is the invisible power of radiation itself, radiation made otherwise. In their poem "Infected Sunset," Demian DinéYazhi writes from Navajo lands: *I talk to the uranium beneath my body/It tell me it is lonesome/ it is warmblooded and resilient/it is angry and it has been violated/and in this way it is just as angry as an Indian.*" How do you journey to the uranium and ask for forgiveness? There is no way to undo the violation but perhaps there are shared trajectories for our anger.

There must be a way to think about earth and land and being that would make the idea of nuclear weapons impossible. And to think of the waters as well. Soon the extractors plan to plumb the ocean for their deadly matters. Four billion tons of uranium is in the seas. It does not ask to be made solid. Fred Moten, who grew up in Las Vegas near the Nevada test site and recalls the charged air after a nuclear detonation, wonders and asks us to wonder what "complex disarticulations and rearticulations of space and subjectivity..." are possible and create possibility beyond the "spatial obsessions of empire" (109). I ask these questions in the form of how to claim land without slipping into property and borders, so that the irradiated international can protect themselves from harm without reproducing harm for others. I turn to a rearticulation of the invisible lines of radiation that demarcated a vast network but one perhaps of transformed suffering. How might we take back the world and hold it differently? Revolutionary subjects, the potential of the irradiated international, are containers of energy. Decolonization is a reorganization of matter. A new geography is coming cut by empire's geometry but now shaped into something else.

In the French Caribbean, one of the central laboratories of modern death, speaking from where the land meets the sea in Martinique, Édouard Glissant writes in the *Poetics of Relation* about two kinds of science, or more precisely two directions for science to take. There is the arrow-like science of discovery-as-conquest. What we might call empire science. After the empirical, what can be seen (radiation, and by extension the irradiated international, is you recall invisible, until it's not.) The arrow like science is the penetrating practice that says it is neutral good to dig up radioactive materials and see how much they can annihilate. The science of observation. And in the notebook where these observations are recorded, say in the Bikini Atoll there is no note for the people relocated to another island while the test is conducted and ferried back to a home that is no longer home.

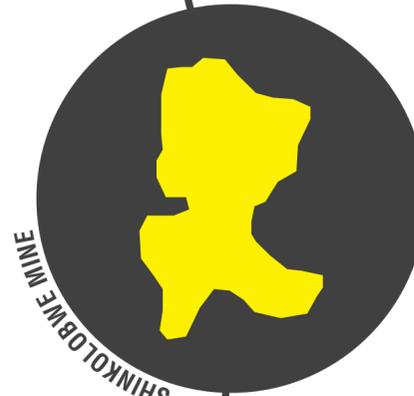
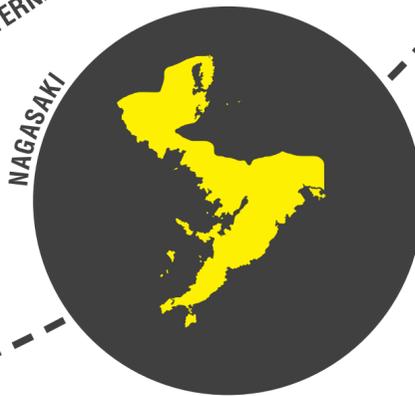
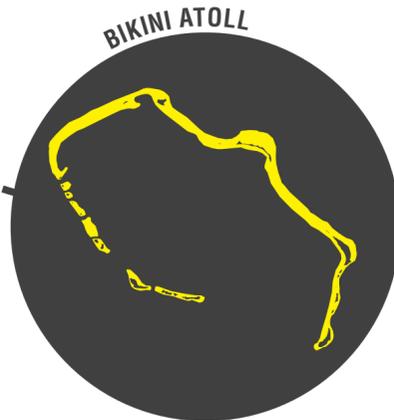




The other direction Glissant describes is a science of inquiry. Rather than an arrow, this science takes the circular shape of wholeness. The science of inquiry is experimental, processive, meditative. This is a science that might note and record, as indigenous peoples globally have done, the presence of the radiated yellow dirt but chose a different relationship to this substance than one of extraction. At the end of this section on science Glissant states, "the highest point of knowledge is poetics." How do we share knowledge with each other and to what ends? This is about a science fit to the measure of a world we want, one we can actually live more than a half-life in. Deleuze and Guattari call something similar by the name of nomadic science, a practice of seeking wonders and posing problems, outside the science of the state, outside the science of sovereign categories. Britt Russert reformulates this as "fugitive science," forms of apprehension that operate on lines of flight carried out by black and native practitioners to understand their place and future in the world outside the distorted view of empiricism.

These other practices of science help me think what has so far been sputtering or overindulgent attempts to consider categories of nature, the social, the political and the human all together. Wynter also reiterates Césaire's conception of a science of the word, a science of human systems. There are the tribal ways of knowing, diffuse and different across all continents, systems of observation and the practice of being-with the non-human that do not speak the name of science but perhaps as stories or ceremonies or a blockade or an encampment against extraction. All these alternative and speculative traditions of science that have not yet been but have also always been are a study of how and why certain beings and forms can live together, which formations create life, which conditions make more combinations of more life possible.

AN INCOMPLETE EVER-EXPANDING TERRITORIES OF THE IRRADIATED INTERNATIONAL, BEYOND COMPENSATION GESTURES

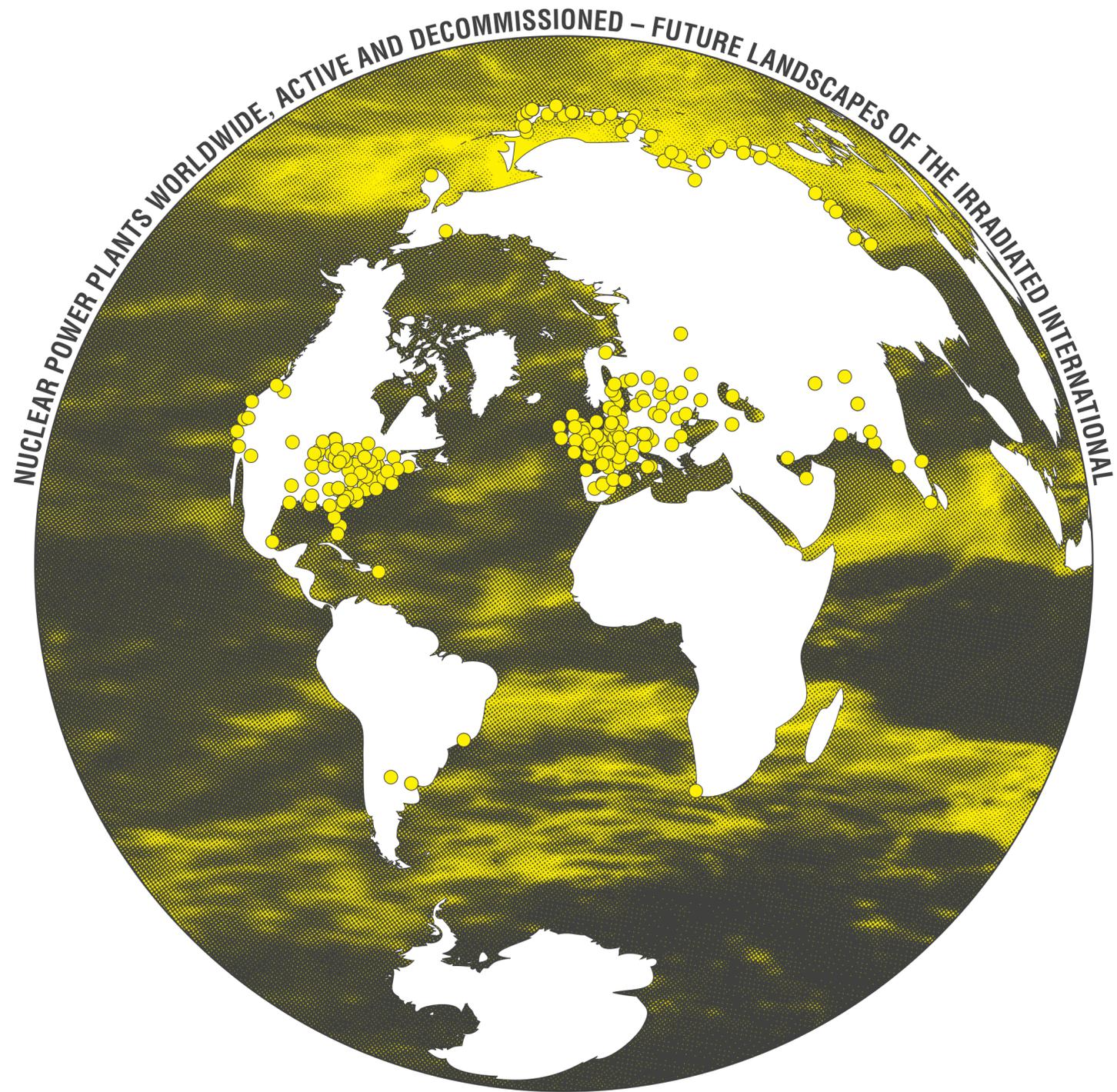


These projects speak with the irradiated international against a science that studies how to kill, how to hoard and how to manage such that others live longer only to die more alone. All these forms of knowing are forms of becoming. They speak the poetics of an exuberant proliferation of experience that insists on eternal inquiry and constant creation.

The irradiated international goes beyond what anthropologist Barbara Rose Johnston calls the radiogenic communities. It goes beyond solidarity. We must think outside the community. Outside the limits of what you can care for. Imagine a solidarity that does not have to be solid. But diffuse. As widespread and impersonal as violence, as radiation. Because it does not seem that seeing the world in its entirety has done much to mitigate the violence. What does it take to feel the world in its entirety? Or is this not the answer at all? To act not just through connections but across breaks.

In her essay on "settler atmospherics," Kristen Simmons of the Southern Paiute states the project of the US settler empire is "to place indigenous nations and bodies into suspension." Yet despite all the precarities of this displacement, she writes that "those in suspension arc toward one another—becoming-open in an atmosphere of violence." In our shared state of porosity there is "potential, exposure, and entanglement all at once...and we develop capacities to feel one another otherwise."

In the future for those whose future was taken away: I seek a materialism without teleology, a materialism of matters unseen and chaotic. More than one southwest tribe had prophecies about the yellow strains in the rock, the ore that never had to be a weapon, but that these see-ers knew would be dug up and laid in lethal planetary designs. Now it is the irradiated international whose power I prophesize and who I ask to prophesize with me: a world reorganized and the practices and poetics to live with it.



This text was created for Future Perfect, a conference held on June 7 and 8, 2018 at Data & Society Research Institute. Thanks to Demian DinéYazhi for the "Infected Sunset" excerpt and everyone in the Programs, Events, Operations, and Communications teams at Data & Society.

Layout and graphics: Ingrid Burrington  
 Print edition printing: Linco Printing

**Sources**

Burke, Anthony. *Uranium*. Polity Press, 2017.  
 Clements, Marie. *Burning Vision*. Talon Books, 2003.  
 Glissant, Édouard. *Poetics of Relation*. U of Michigan P, 1997.  
 Intoni, Vincent. *African Americans Against the Bomb: Nuclear Weapons, Colonialism, and the Black Freedom Movement*. Stanford UP, 2015.  
 Kohso, Sabu and Mari Mastumoto. "The Nuclear National Family." *The New Inquiry*, 2017.  
 Moten, Fred. *Black and Blur*. Duke UP, 2017.  
 Russert, Britt. *Fugitive Science: Empiricism and Freedom in Early African American Culture*. Duke UP, 2017.  
 Simmons, Kristen. "Settler Atmospheric." *Cultural Anthropology*, 2017.  
 Voyles, Traci Brynne. *Wastelanding: Legacies of Uranium Mining in Navajo Country*. U of Minnesota P, 2015.  
 Wynter, Sylvia. "The Ceremony Must be Found: After Humanism." *boundary 2*, 1984.