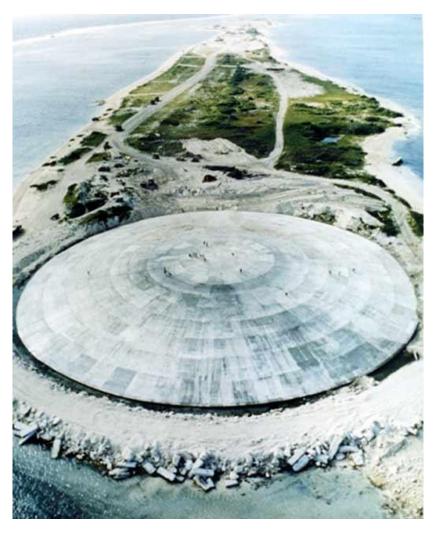
## **Aftermaths**



Dome on Runit Island, Enewetak Atoll, Marshall Islands, covering a crater created by a US nuclear weapons test in 1977. The crater and dome now contain 84,000 cubic meters of radioactive soil from other islands in the Enewetak Atoll. Unknown photographer.

Public Domain. Courtesy of US Defense Special Weapons Agency.

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One difficulty faced by environmental justice activists is that the mass media tend to focus on spectacular, catastrophic events rather than on the quiet, unspectacular, and frequently indefinite nature of environmental health risks that unfold gradually over the course of years or generations (Nixon 2011). Media coverage of war, for example, highlights battlefield casualties but rarely details the casualties incurred in the environmental aftermath of such conflicts: as Rob Nixon explains, "each war generates a distinctive, historically specific chemical, radiological, epidemiological, and environmental legacy" (2011, 209). By pioneering the use of new and ethically questionable war technologies such as atomic bombs, Agent Orange, and depleted uranium weapons, the US has produced lethal landscapes and premature deaths that have been quickly forgotten by the

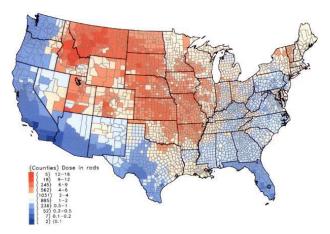
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American public, if they are even noticed at all.

Because military scientists and health authorities obscured the dangers of radiation exposure, many "downwinders" gathered outdoors to observe early nuclear test explosions. Only years later did communities of downwinders develop symptoms that could be linked to nuclear tests. While initial handbills announcing the tests insisted that any danger would be contained within the boundaries of the test site, a 2006 National Cancer Institute map shows how experiments conducted at the Nevada Test Site unevenly distributed radioiodine (iodine-131), a substance linked to elevated thyroid cancer risk, across the nation. Test explosions are not isolated events contained to the boundaries of the test site; they are ongoing experiments whose fallout, waste products, and associated risks will affect human and nonhuman species far beyond designated testing locations for generations to come.



Map of per capita thyroid doses of radioactive iodine fallout from all from all atmospheric nuclear tests conducted at the Nevada Test Site

This map is in the public domain as a work of the National Cancer Institute, 1997.

Source:

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Leaking Agent Orange Barrels at Johnston Atoll, c. 1973.

Public Domain. Courtesy of US federal government.

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Ironically, nuclear colonialism also has a way of returning to bombed populations in the form of radioactive waste. Illnesses associated with radiation exposure, the displacement of many Marshallese to make space for nuclear tests, and the destruction of their environmental resources has left many Pacific Islanders with few economic alternatives to accepting nuclear and toxic waste from developed nations (Kuletz 1998, 126–27).

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Within the US, nuclear waste disposal has been sited near vulnerable populations in states already affected by nuclear facilities: South Carolina, Washington, and Nevada. Decades after its last reactor was shut down in 1987, the Hanford Site in the state of Washington (which produced plutonium for the atomic bomb dropped on Nagasaki) continues to endanger those living nearby, leaking radioactive waste into groundwater and generating flammable gases that could cause toxic explosions. If implemented, plans to site a permanent high-level nuclear waste dump at Yucca Mountain in Nevada would have further barred Native Americans from important trails, encampments, and sacred sites in the vicinity of the Nevada Test Site (Kuletz 1998, 121–290). After decades of struggle with environmentalists, Native Americans, and anti-nuclear activists, the Obama administration abandoned plans for the site in 2010.



Poster by Pham Văn Luận.

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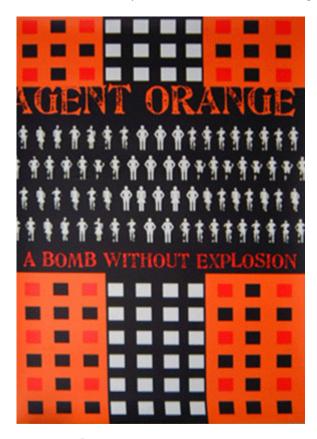
The use of Agent Orange and other chemical weapons in Vietnam, Laos, and Cambodia during the Vietnam War have also given rise to a long, indefinite, and widely neglected aftermath. As part of Operation Ranch Hand, the US sprayed nearly 20 million gallons of chemical herbicides and defoliants in these countries. Though its effects are not yet fully understood, US veterans exposed to dioxins have unusual rates of cancers, children with congenital disorders, and "neurological, endocrinal, and psychological disorders" (Waugh and Lien 2010, 120). While the US has not conducted a study on Vietnamese victims of Agent Orange, the Vietnamese

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Ministry of Foreign Affairs estimates that about 4.8 million Vietnamese were exposed to Agent Orange, and that this led to approximately 400,000 killed or dead and at least 500,000 children born with congenital disorders (York and Mick 2008). In addition to poisoning soil, water, and the food chain for generations, chemical defoliants and herbicides devastated animal and plant species throughout the Vietnamese countryside. While the US media seldom discusses the ongoing effects of Agent Orange in Vietnam, Vietnamese authors and artists continue to produce work that bear witness to the slow violence inflicted by US chemical weapons: Calling Agent Orange "a bomb without explosion," Đỗ Đình Tân's poster displays a number of bodies in various states of dissolution. In their edited collection Family of Fallen Leaves: Stories of Agent Orange by Vietnamese Writers, Charles Waugh and Huy Lien present stories of villages and families devastated by dioxin-based herbicides during and long after the Vietnam War.



Poster by Đỗ Đình Tân.

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Like Agent Orange, depleted uranium weapons used by the US during the Gulf Wars and the war in Afghanistan have affected both civilians and combatants on both sides. In addition to providing a very dense incendiary metal useful for penetrating surfaces, depleted uranium weapons enable the US to dispose of a radioactive waste product of nuclear reactors and weapons manufacturing. Studies have linked depleted uranium to higher risks of

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cancer and children with congenital disorders, and exposure has also been cited as a possible cause of medically unexplained illnesses (popularly called Gulf War Syndrome) among over one-third of the veterans who served in the 1991 Gulf War. Commenting on the environmental violence associated with supposedly "precise" weapons built with depleted uranium, Nixon (2011, 210) writes: "Such technologies, when they compromise the environment, morph into long-term killers, creating landscapes that inflict lingering, off-camera casualties. Time itself becomes the ultimate cover-up, a dependable ally in camouflaging 'smart' warfare's sprawling toll." The current "war on terror," like the Vietnam War and the nuclear research that proliferated during the Cold War, targets not only present enemy combatants but also future generations of human and nonhuman life forms.

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