# Environmental Justice Storytelling: Angels and Isotopes at Yucca Mountain, Nevada

**Donna Houston**

*Department of Environment and Geography, Macquarie University, NSW, Australia; donna.houston@mq.edu.au*

**Abstract:** This paper discusses the productive role of storytelling in community struggles for environmental justice. The individual and collective task of environmental justice storytelling highlights where the politics of pollution intersect with geographical imaginations. Storytelling takes on a productive role in transforming localized and individual emotions and experiences of environmental injustice into public knowledge that is performed in the world. This paper draws on a case study of nuclear waste disposal at Yucca Mountain in Nevada. I focus on how storytelling enacts scenarios of environmental witnessing and transformation that hold together a plurality of presences, absences, action and imagination, past histories and hope for the future.

**Keywords:** environmental justice, activism, storytelling, contaminated landscapes, nuclear waste, imaginative spaces

> To imbue a landscape with moral and even redemptive significance is for most of us nothing more than a romantic fantasy. But there are occasions when to travel through a landscape is to become empowered by raising its meaning (Michael Taussig 1987:335)
>
> Redemption depends on the tiniest fissure in the continuous catastrophe (Walter Benjamin 2003:185).

## Introduction

On 9 March 2010, over a hundred antinuclear waste campaigners, politicians and activists gathered to celebrate the demise of the Yucca Mountain Project (YMP)—the site for the first US commercial radioactive waste dump in Nevada. The mock wake for Yucca Mountain was held in Las Vegas at ghostbar, high above a vista of city lights. Yucca Mountain is located approximately 100 miles to the northwest, inside the Nevada National Security Site (Nevada Test Site) where, during the 1950s, flashes from the atmospheric testing program frequently lit up the Las Vegas sky. Yucca Mountain is a ridge of dense volcanic tuff that extends for seven miles along the southern part of the Nevada National Security Site on land closed to the public and controlled by the US federal government. In 1987, the US government amended the Nuclear Waste Policy Act (1982), which explored the possibility of geologic disposal in several states. The amended policy (popularly known as the "Screw Nevada Bill") selected Yucca Mountain as the only site for consideration for the excavation of radioactive waste.[1] The federal plan set out a process to conduct a "characterization study" of Yucca Mountain to ascertain its suitability for the

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burial of 77,000 metric tons of high-level nuclear waste. As a consequence, since its enactment into law, the YMP has been fraught with contested science and politics (Shrader-Frechette 1993).

Yucca Mountain is an extinct volcano situated in an earthquake and flood prone desert (Ewing and McFarlane 2002). It is also situated on Western Shoshone land that is subject to an ongoing legal claim. The Western Shoshone contend that Yucca Mountain is sentient, "a snake that's going north", and is part of a living and dynamic landscape (Harney, interview, 29 November 2004). The Western Shoshone also argue that in refusing to acknowledge Aboriginal title and American Indian objections to high-level radioactive waste disposal, that the US government is in violation of its own laws (Harney, interview, 29 November 2004). In early 2010, just days before the wake at ghostbar, the US Department of Energy (DOE) announced its decision to put an end to the YMP despite having spent over 20 years and an excess of US$10.5 billion of taxpayer's money attempting to licence and construct the facility. This was a key election promise made to the State of Nevada by President Obama, one that was backed by the Senate majority leader Harry Reid, who has been a long-time opponent of the dumping of nuclear waste at Yucca Mountain (Stover 2011).

At the 9 March ghostbar gathering, citizens, politicians and activists celebrated their victory over Yucca Mountain and told stories about the long campaign against radioactive waste disposal in Nevada. They brought along memory objects that represented their sustained efforts over the years—signs, photographs, placards and publications. Citizen Alert, one of the oldest citizen action groups and most vigorous opponents of the nuclear waste repository at Yucca Mountain, marked the occasion with the announcement that after 30 years of social organizing in Nevada, it was closing its doors. Rebecca Solnit in *Hope in the Dark: Untold Histories, Wild Possibilities* imagines that an "Angel of Alternate History" presides over such events, to stand as a witness to what is lost and what is gained in struggles for environmental justice (2004:73–76). The "Angel of Alternate History" is inspired by Walter Benjamin's (1968) "angel of history", a figure described by Benjamin in his famous essay "Thesis on the philosophy of history" as presiding over crises and catastrophe that unfold in the present. In an oft-quoted sentence he wrote: "where we perceive a chain of events, [the angel] sees one single catastrophe which keeps piling wreckage upon wreckage and hurls it in front of his feet" (1968:257). For Benjamin, crisis is continuous because it is propelled by the powerful, linear story of modern progress. The political narration of modern progress is destructive. It discards events and stories that it does not recognize as its own concern. Benjamin asks: what gets left behind in the relentless, progressive narration of linear time? How can we contemplate the ruins at the angel's feet and recover their meaning?

There are two key insights from Benjamin and Solnit that I pursue in this essay: (1) the disruption of the continuity between past and present reveals a plurality of stories that shape alternative practices; and (2) these alternatives are often invisible, fragmented and no longer available to us as direct experience but are sustained through storytelling and imagination. Throughout this paper I explore these insights in relation to environmental justice storytelling at Yucca Mountain. I argue that storytelling plays an important role in struggles for environmental justice

as a type of work-in-the-world through which harmful environmental impacts can be remembered, witnessed and transformed. Environmental justice activists are called to witness environmental degradation and its effects on their livelihoods, places and bodies (Di Chiro 2008; Rose 2004). The tasks of witnessing, storytelling and memory work create a space through which the "unimaginable" of environmental pollution and unequal environmental protection can be expressed. Environmental justice storytelling provides a framework for understanding how multiple realities of environmental injury come together in ways that are not always readily discernible through policy or scientific practice.

In the first part of this paper, I focus on the role of imagination and storytelling for understanding the unfolding realities of environmental injustice. In the second part, I consider environmental justice storytelling in further detail. I argue that storytelling does not just seek to represent things that have happened, but enacts different ways of telling that can connect biographical, political, philosophical and place-based meanings of environmental injustice in surprising ways. Rebecca Solnit's "Angel of Alternate History" is an excellent metaphor for capturing the messiness and complexity of this. Unlike Benjamin's angel that stands as a silent witness to crisis and destruction, the "Angel of Alternate History" reminds us that we are always standing at the threshold of a future that, because of our actions, may never materialize (2004:73–76). Solnit's angel asks us to believe in the invisible and the unimaginable because it is here that alternate knowledge is sustained and where different futures might be enacted. In the last part of this paper, I draw on a case study of environmental justice storytelling at Yucca Mountain to explore how stories shape the controversy of high-level nuclear waste disposal in two different (but interrelated) public forums: Western Shoshone land justice and toxic touring as mobile memory work.

## Imagining Environmental Injustice

A recent themed issue of *Antipode* on the "Spaces of environmental justice" explores an enlarged context in which geographies of environmental justice take place and how we might conceive of a broader set of theoretical engagements to understand them (*Antipode* 2009). Holifield, Porter and Walker (2009:601–602) in their introduction to this issue highlight opportunities for "imaginative, methodologically diverse and theoretically pluralized" environmental justice research. The articles do not, however, substantively engage with storytelling and creative praxis in relation to environmental justice. Sze et al's (2009) analyses of scale, politics, water and environmental justice in the Sacramento–San Joaquin Delta perhaps come closest to this theme. Their discussion of the complexity of environmental justice in fluid and multi-scaled systems such as water catchments show how divergent stories about water and place produce power and cultural difference. Sze et al's article anticipates the idea that stories too are sites of contestation over the meaning of places, resources and land use. I explore a similar set of ideas by arguing that fiction, film, biography, photography and activism are also "spaces" in which environmental justice struggles play out and become public knowledge.

The imaginative spaces of environmental justice are where the historically and spatially uneven politics of pollution intersect with personal and geographical imaginations. Environmental injustice occurs in places that have been burdened by the accumulation of pollutants, wastes and undesirable land use. Laura Pulido (2000) argues that environmental injustice occurs as the result of a confluence of historical, social and political factors (for example, the interconnection between the processes of racialization and uneven urban development). This confluence of social, ecological and economic inequity is accumulative and has flow on effects that create the conditions for the "sedimentation" of injustice in particular places (Pulido 2000:16). Environmental injustice gives rise to cultural imaginations that associate environmental degradation, contamination, waste and toxicity with invisibility and marginalization (Kuletz 1998). In western popular culture, such places are viewed as the opposite of "wilderness" (pure and undefiled nature) and as a consequence, polluted and contaminated landscapes have not typically been associated with mainstream ecological imaginations that evoke senses, consideration, attachment or care. Rather, places that are marked by environmental injustice are often referred to as "sacrifice zones"—places that bear an unequal environmental burden for the greater "public good" of economic and national development (Churchill and LaDuke 1992; Davis 2002; Kuletz 1998).

Valerie Kuletz (1998:7) argues that "sacrifice zones" carry a double burden. Not only do they suffer accumulative environmental impacts that can cause cancer, asthma, reproductive problems and harm to other species; they are also often largely invisible in wider public imaginations. The environmental philosopher Val Plumwood (2008) called these "shadow places"—places that despite their importance to the functioning of social, economic and environmental systems "elude our knowledge and responsibility". "Sacrifice zones" are made through the material transformation of places and through the public narration of them as already polluted and ruined. The associations of environmentally degraded places with shadows, invisibility and an absence of public responsibility create conditions for further environmental injury. Sacrifice zones are vulnerable to cultural imaginations of contamination precisely because their status as already degraded makes them desirable sites for continued hazardous land use.

Since the first community mobilizations against a toxic landfill in Warren Country, North Carolina in the early 1980s, various movements for environmental justice in the United States have struggled with the realities of living in sacrificed and shadow places. Many stories about these realities were told publically for the first time in 1991 at the landmark National People of Color Environmental Leadership Summit in Washington DC that brought together 300 African, Latino, Native and Asian Americans from all 50 states. The testimony of communities of colour suffering from poisoning from local industrial land use; from the impacts of uranium mining and nuclear weapons testing; and from living in housing constructed on chemical landfill sites constituted a moment that reshaped the story of contemporary environmental politics (Alston 2010:14–15). Dana Alston writes:

> For people of color, environmental issues are not just a matter of preserving ancient forests or defending whales. While the importance of saving endangered species is recognized, it is also clear that adults and children living in communities of color are endangered species too. Environmental issues are immediate survival issues (2010:17).

The 1991 National People of Color Environmental Leadership Summit constituted something of a "dangerous" historical moment in late, industrial capitalism. It called into question the lived consequences of degraded environments and the collusion between planning, development and corporate interests in producing environmental inequity. The environmental justice narratives that emerged out of the Summit challenged assumptions about class, culture and ethics underpinning mainstream environmentalism and conservation. In other words, the stories told at the National People of Color Environmental Leadership Summit confronted the cultural imaginations of contamination and the making of shadow and sacrificed places. These narratives were also reflected in the 11 Principles of Environmental Justice drafted in response to the testimony presented at the Summit. Thus, in addition to narrating a very different set of environmental realities shaped by inequity, racism and invisibility; enacting testimonies of environmental injustice changed the context for how "environment" is talked about and imagined.

The concept of storytelling that I am working with in this paper is one that understands storytelling as a material practice, grounded in complex and co-constitutive realities (Blaser 2010). Storytelling is a way of representing the past, present and future simultaneously—therefore its practice is not linear. A key feature of storytelling is the communal transmission of experience (Stone-Mediatore 2003). This makes storytelling a performative way of practicising knowledge that constructs both publicness and ontological difference. For example, Mario Blaser (2010:xv) uses the idea of "storytelling globalization" to talk about how globalization reflects multiple presents that are fought for and created by the knowledge practices of Indigenous peoples, experts, NGOs, private interests and social movements. Stories are performed by different communities and become sites of struggle to define and shape emergent global processes (2010:vix). Blaser argues that stories reflect practices that produce "that of which they speak" (2010:xv). I am arguing that environmental justice storytelling can be thought of similarly: as a way of practising knowledge in and of a damaged world and as a way of producing different environmental realities.

## Environmental Justice Storytelling

Environmental justice storytelling produces narratives and practices that offer particular insight into what it means to live in degraded and "shadowed" ecosystems. This gives rise to a broader set of environmental justice ethics and cultural politics that emerge from the everyday realities of living with environmental crisis. Literary scholar Frederick Buell writes that, "with the elaboration and growing perception that people inhabit an already damaged world, a more intimate relation between people and their biotic has become desirable, even as this has been forced on people as a necessity" (2003:207). Buell's observation highlights how

pollution and geographical imaginations of place become entangled in struggles for environmental justice.

Environmental pollution is an active and enduring agent in degraded places that forms "cultural logics" around contamination (Krupar 2011). Industrial pollutants permeate bodies, places and senses—they are felt in the lingering presence of chemical odours, dusts and particulates. Industrial pollutants, like other wasted materials, come to possess a life of their own—they mix with other things, endure in soils, genes and sediments and transcend all manner of boundaries that work to order and contain land uses, ecologies and social structures. Environmental justice storytelling is a way of making sense of the material affects of environmental degradation in a present that is currently unfolding. Stories do not just describe something that has happened, but constellate together to become productive and world making. Shari-Stone Mediatore (2003:43) argues that the productive role of stories is what endows "fleeting phenomena with lasting form; thereby transforming phenomena that are experienced in a plurality of lives into publicly recognised history".

In the previous section, I argued that environmental justice storytelling materialized as publically recognized history at the First National People of Color Environmental Leadership Summit. But there also exists a rich field of fiction, documentary film, art, photography and academic writing that captures this broader definition of environmental justice as an alternative form of public history. Environmental justice scholars have argued that environmental justice differs from other types of environmental political activism because it is deeply rooted in culture, spirituality, work and everyday life (Adamson, Evans and Stein 2002; Alston 2010; Pulido 1998). This has given rise to scholarly, artistic and literary work that documents the material, emotional and intimate insights into the lived consequences of environmental injustice through creative practice. For example, Mike Davis (2002:32–65) in his essay "Dead west: ecocide in Marlboro country" draws on the work of photographers Richard Misrach and Carole Gallagher, whose photographs witness the human and ecological toll of nuclear weapons testing in the American West. Gallagher's haunting portraits of the "Downwinders" (cancer victims of the US atmospheric testing program) and Misrach's disturbing pictures of rusting Cold War detritus and dead animal carcasses near plutonium hotspots are examples of environmental injustice storytelling that evoke powerful imagery of life and death in nuclear sacrifice zones in the American West (Davis 2002:35–46).

In a different vein, Joni Adamson (2001), T.V. Reed (2002) and Patricia Yeager (2003) explore environmental justice as a powerful fictional trope that has been utilized by writers of colour, and in particular, American Indian authors such as Leslie Marmon Silko and Simon Ortiz. The environmental worlds depicted in novels such as Silko's *Ceremony* (1970) and Ortiz's poems in *Fight Back: for the Sake of the People for the Sake of the Land* (1980) emphasize complex, reciprocal relationships between people and environments as well as the pressures exerted on these relationships by resource colonization (Adamson 2001:50). This work is part of an emergent trope of environmental justice writing that links together ecological and spiritual themes with the politics of pollution, racism and economic injustice (Sze 2002). Silko's novel *Ceremony* begins with this parable:

I will tell you something about stories,
[he said]
They aren't just entertainment.
Don't be fooled.
They are all we have, you see,
All we have to fight off
illness and death.

You don't have anything,
if you don't have the stories.

Their evil is mighty
But it can't stand up to our stories.
So they try to destroy the stories
let the stories be confused or forgotten.
They would like that
They would be happy
Because we would be defenseless then.

He rubbed his belly.
I keep them here
[he said]
Here, put your hand on it
See, it is moving.
There is life here
for the people.

And in the belly of this story
the rituals and the ceremony
are still growing

Silko's parable eloquently describes what it means to live in the "downstream of history"—where lifeworlds are fragmented and marginalized by waste, hazardous land use and colonizing forces. Silko's narrative structure is non-linear and it is at once a form of witness to ongoing crisis and a place of alternative knowledge and practice. Patricia Yaeger (2003:108–109) argues stories of environmental injustice in fiction by writers of colour work with powerful themes that connect environmental contamination with social trauma and forgetting. Yaeger writes:

> Descended from people who have been marginalized (defined as throwaways, treated as trash), these writers of color grant trash in their fictions a surprising incandescence. In these texts trash trickles up as well as down; waste turns into a substance vital as blood whose very disorganization sponsors new questions: how do you reorganize a past that has been marginalized, buried, or bestowed by state formations not your own? (2003:109)

The performance of these stories in the world can have transformative effects because they evoke different visions of environmental crisis and inequity as a place where people live. It is in this sense that environmental justice storytelling carries

multiple meanings and realities "along together" (Griffiths 2007). The imaginative elements of environmental justice activism make visible the connections between dwelling and contamination. To rephrase Shari Stone-Mediatori, storytelling environmental justice brings into proximity a plurality of lives lived in places damaged by pollution and transforms this experience into collective and public knowledge.

## Environmental Justice Storytelling at Yucca Mountain

The nearly three-decade long struggle against the siting of a large commercial high-level radioactive waste facility at Yucca Mountain reflects how environmental justice struggle is material and imaginative. While the nuclear waste repository has not been built, the US Department of Energy and its contractors have spent a great deal of money (over US $10.5 billion) scientifically scrutinizing the site's hydrology and geology, undertaking cultural resource studies and environmental impact assessments, investing time and money in legal disputes, and initiating licensing procedures. This activity has also included the construction of a 5-mile "exploratory tunnel" underneath Yucca Mountain and the extraction of 75,000 ft of core and 18,000 geological and water samples (Ewing and McFarlane 2002:659). The years between 2001 and 2007 were a particularly active period as the DOE (with the support of the Bush administration) pushed to obtain a license to construct the geologic repository approximately 1000 feet below the desert floor and 1000 feet above the present water table. This was despite numerous scientific and regularly setbacks, including a ruling in the Federal Appeals Court that the YMP modelled its data on an arbitrary standard (that radioactive waste could safely be contained in Yucca Mountain for a period of 10 000 years).

While the story of science and politics at Yucca Mountain is a compelling one, the early-to mid 2000s were also a period when the YMP could afford to run a number of high profile public relations campaigns that aimed to encourage public consent for the project. Yucca Mountain Science Centres were constructed in Beatty, Pahrump and Las Vegas and public tours of Yucca Mountain and the Nevada Test Site were held each spring and fall. These forums provided the context for public engagement with high-level radioactive waste disposal. Within the exhibition space of the Yucca Mountain Science centres, the DOE presented a scientific story that attempted to naturalize the burial of highly radioactive nuclear waste. This was achieved by situating nuclear development on an evolutionary scale of human technological achievement. Western Shoshone and Southern Paiute basketry and arrowheads were presented alongside samples of rock and local wildlife, tunnel boring machines, examples of waste packages and posters of regulation standards for radiation doses (Kuletz 1998:267–269). The result was a linear story about scientific progress that gave legitimacy and authority to the YMP project because it seamlessly placed the radioactive dump on a continuum of development from prehistoric times to industrial modernity.

The DOE's public enactment of radioactive waste disposal reflects the hidden violence of the linear narration of history described by Walter Benjamin at the beginning of this paper. Environmental justice activists at Yucca Mountain mobilized


**Plate 1:** Museum to end the atomic age. Photograph by the author, 2002

their activities to work "against the grain" of mainstream science, history and governance (Benjamin 1968:257). Storytelling alternatives to the spectre and reality of high-level nuclear waste disposal became an important way of intervening in the DOE's public relations campaign. The full scope of imagination and intervention against nuclear waste disposal at Yucca Mountain is beyond the scope of this paper. However, some of the creative practices enacted by different activists included: the local scientific monitoring of streams and groundwater; the development of grassroots environmental impact assessments and "peoples' policies" on nuclear waste; a public art competition to develop a warning sign for Yucca Mountain that could communicate the dangers of radioactive waste for 10,000 years; creative fiction and non-fiction writing; civil disobedience and environmental direct action; documentary film; prayer circles, toxic tours and spirit walks and a travelling mobile museum that documented the atomic history of the region (see Plate 1). These mobile repertoires suggest that creative praxis in environmental justice struggles can bring together different forms of community memory, stories and evidence in the same imaginative space. Thus, while diverse individuals and groups produced different kinds of stories about Yucca Mountain, they mix together and become publicly knowable through performative telling and retelling. Such practices highlight what is important about the productive role of storytelling in environmental justice struggles, because it is through the constellation of stories (rather than the casual connections between them) that a plurality of presences and feelings about real and perceived impacts of radioactive pollution is articulated.

In the following two scenarios of land justice and toxic touring, I argue that environmental justice storytelling at Yucca Mountain provided public forums through which alternative scenarios to nuclear waste disposal were made visible. In contrast to the big stories of science and human evolution told by the DOE, environmental justice activists engaged in a range of imaginative practices to gather evidence and express the reasons for their objections.

## *Western Shoshone Land Justice*

In late November 2004, I met Corbin Harney the spiritual leader of the Western Shoshone Nation near the western side of the Yucca Mountain ridge. Frigid winds were whipping down from the northwest over the basin and alkali flats with bone numbing precision. Despite the freezing temperature, it was not difficult to see what is special about the sweeping views awash with the pastel hues of creosote and sagebrush scrub. As we walked up a trail that led to a prayer circle, Corbin pointed out different plants and told me that many more varieties used to grow there. Behind the prayer circle, the wooden frame of a sweat lodge stood as another visible reminder of continued American Indian presence in the area. "We come up here twice a year to warn the people, the public, that this is not a safe place to put nuclear rods," Corbin said, "We come up here and try to warn the public and protest what they are doing to the land and to us. So much death caused by radiation" (interview, 29 November 2004).

Corbin, who died of cancer in 2007, spent much of his life witnessing environmental injury to his homeland by the military and the nuclear industry. The area around Yucca Mountain (which encompasses the Nevada National Security Site and the Nellis Airforce and Gunnery Range) is subject to an ongoing land claim by the Western Shoshone. The land has been closed to the public since the US government began testing atomic weapons there in the early 1950s. In 1863, the Western Shoshone signed the Treaty of Ruby Valley with the US government. Treaty of Ruby Valley lands encompass much of Nevada and extend north into Utah and south into California. In the terms of the treaty, the Western Shoshone granted limited land uses (such as travel and ranching) but never ceded any territory. The US government, however, argues that Aboriginal title has been extinguished by the gradual encroachment of non-Indian people in the region (Dorrow 2004).

Yucca Mountain is situated in a wounded landscape, physically marked by barbed wire fences, armed security patrols, and decades of weapons testing and experimentation that has left the land scarred and contaminated. But it is also wounded landscape because the Western Shoshone and other effected tribes such as the Southern Piaute and Owens Valley Paiute Indians have been denied access and justice. Deborah Bird Rose (2004:34) writes that wounded space is "geographical space that has been torn and fractured by violence and exile, and that is pitted with life that has been irretrievably killed". Such places are often sites that are vulnerable to public amnesia and collective forgetting because they contain difficult, painful and unsettled pasts (Till 2008:108). Wounded spaces often remain so because present land use prevents decolonization and recuperation from taking place (Rose 2004:34). This is particularly true for American Indian groups affected by the spectre and reality of radioactive pollution at Yucca Mountain because it can irreparably damage cultural and spiritual connections to place (Stoffle and Arnold 2003).

As Corbin walked around the campsite, he talked about Yucca Mountain and nuclear waste and about different plants and animals under threat from radiation. The Western Shoshone say that Yucca Mountain is "a snake that's going north" because it is moving in a landscape that is interwoven with stories, ceremonies and pathways (Crum 1994; Kuletz 1998). Corbin explained:

> [Yucca Mountain] it's got holes all over it. Some of them holes got water in them and when the people used to roam the country going from north to south. In the winter time they go south where it's a warmer climate—they go through here and there's straw on the other side. It stands about this high, and looks something like rye grass but it has got a hole going straight through it. You can stick one of them in the holes out here you can suck water out of it ... that's the reason why they came through here. It's a very important thing because this is water that they can drink from. So that's the reason why our people always say, "Going through here you've got water to drink." There used to be a lot of different kinds of roots that you can dig up but the radiation kept killing them. But it is something that was very important to the native people at one time. Just think about ten thousand years ago. Going through here they had to rely on water and roots and whatnot ... And still today we survive off that but we don't realise it. But we're destroying everything that's here. All the food put here by the nature—we are destroying ourself. We are destroying the mother, and so on and so forth (interview, 29 November 2004).

Corbin's story expresses a concept of land justice at Yucca Mountain. Land justice encompasses cosmological, customary and kinship relationships with land. This is very different to expressions of land in Western law and politics that see it as property, resource or asset (Blomley 1994). Though writing in an Australian context, Jessica Weir (2009:7) provides a useful definition of land justice as "respect for people and country" and as an "expression of shared past, present and future with land". This definition highlights the concerns and obligations of Aboriginal peoples in environmental justice struggles where different ontological understandings of land and place encompass spiritual and kinship relations between people and environment. This idea was also expressed by a Western Shoshone elder and long-time activist on land rights:

> The land belongs to the people and generations of people who are yet to come ... We can't sell out. You don't know who is going to be there. That's how we think about it. The land belongs to the future and we can't sell the future. We can't sell life. Land is life. We can't sell life (interview, 20 October 2004).

For Western Shoshone activists, environmental justice storytelling emphasizes holistic and intergenerational relationships between people and environment. Western Shoshone perspectives on Yucca Mountain reflect deeper historical affiliations with land that emphasize the connectivity between all things: food, culture, spirituality and kinship with plants, water, animals, rocks and sky.

Corbin's story above describes the importance of having water to drink. Another Western Shoshone elder I spoke with emphasized how radioactivity has had devastating effects on traditional Western Shoshone ways of life:

> Whereas before, you know, the environment of Yucca Mountain was—and other parts of Nevada which the Western Shoshone claim as their past, we are free to hunt the deer and smaller animals, you know as part of our diet. My parents were able to grow things on the land or gather things on the land that were healthy and not contaminated. But now when you hunt on the land as you go closer to Yucca Mountain and the mines and the bombs that they have set off—there's a question about contamination of food, especially the Western Shoshone food chain—are coming up through the grasses on the land that the animals eat, that we eat later (interview, 22 October 2004).

Environmental justice storytelling, for Western Shoshone activists, connects land with intergenerational and life-sustaining activities. Radioactive pollution has the potential to disrupt these connections, by creating irreversible environmental harm, which affects the most fundamental spiritual and material aspects of Western Shoshone lifeworlds (Stoffle and Arnold 2003). While nuclear testing and waste dumping creates sacrificed places—American Indians remain connected to environmentally degraded land. This was a point repeatedly emphasized by several Western Shoshone elders, as something they felt was not well understood by non-Indian people. "We've been here for thousands of years," an elder explained, "And even if you move to Ohio or Denver or wherever you move, the Western Shoshone will still be here but what the United States will leave for us is polluted land" (interview, 22 October 2004).

Environmental justice storytelling, highlights affective rather than casual relationships with environmental pollution and degradation. For the Western Shoshone, these relationships extend seven generations into the future, into ceremonial time, and are reflected in everyday practices that sustain kin and cultural identities. Storytelling illuminates the distinct ontological presence of American Indians at Yucca Mountain—which was also enacted in public protest forums. Western Shoshone activists, for example, organized several Spirit Runs in 2000, 2001 and 2002, which involved a 240-mile walk or run around the perimeter of the Nevada National Security Site. The event was a visible affirmation of continuous Western Shoshone presence on land affected by nuclear testing, experimentation and injustice. In 2002, a similar event called the Family Spirit Walk traversed 800 miles from New Mexico to Nevada through American Indian lands affected by uranium mining, milling and weapons. Along the way, the family spirit walkers met with American Indian people who shared their stories of living with the impacts of radioactive development (Walters 2002).

Rebecca Solnit (2000) has observed that the area surrounding Yucca Mountain and the Nevada National Security Site is a place where stories about environmental and social justice and US public history converge. "Such places," she writes, "bring together histories which may seem unrelated—and when they come together it becomes possible to see new connections in our personal and public histories and stories, collisions even. A spiderweb of stories spreads out from any place, but it takes time to follow the strands" (2000:24). The spirit runs are an example of this because they are public enactments of contested history around land use and social justice in the American West. The public enactment of the spirit runs drew attention to the intersections between internal colonization, the cycle of nuclear production and the importance of land justice. But the ways in which constellations of stories and practices gain traction and "publicness" is also important. The spirit runs connect with other Western Shoshone protest actions at Yucca Mountain—past and present—as well as other forms of community activism against high-level radioactive waste disposal. Since the mid 1980s, hundreds of different community groups have protested in spring and fall gatherings at the Peace Camp located across highway 95 from the Mercury Base on the Nevada National Security Site (Plate 2). The entanglement of these protests and actions with other scenarios of US

**Plate 2:** Prayer circle at the Peace Camp, Nevada. Photograph by the author, 2002

public history has shaped the stories and scenarios of anti nuclear waste activism at Yucca Mountain.

The material work of storytelling illuminates how alternatives are inhabited, negotiated and worked out on the ground through activism. Storytelling practices are not always affirmative, because they are reflective of emergent politics as well as past conflicts. For example, in 1991 and 1992, the First National People of Colour Environmental Summit and the 500-year anniversary of Columbus' landing in the Americas transpired within 12 months of each other. Stories that emerged out of both events had a great deal of impact on how local environmental politics were being shaped by grassroots activists at Yucca Mountain. The 500-year anniversary of Columbus sparked many public scenarios across the United States that celebrated performances of discovery, and alternatively, many scenarios where suppressed narratives were creatively enacted through the recounting of American Indian histories, genocide, forced relocation and internal colonialism (Taylor 2003:55–75). At Yucca Mountain and the Peace Camp, this sparked storytelling practices that linked histories of nuclear testing and dumping with colonialism and racism. The gathering momentum in the US public sphere around American Indian land rights and the impacts of environmental racism on communities of colour, opened up spaces for storytelling practices that created different possibilities for activism around nuclear waste issues. It was during this time that American Indian leadership was asserted in community actions against Yucca Mountain (Plate 2). As one long-term environmental justice organizer at the Peace Camp explained:

> Most people don't remember that we [Indian and non-Indian people] used to have no contact with each other at all. You know, there used to be very strictly Native organizations and white activist organizations and no mixing whatsoever. And now we may have a somewhat stilted and frustrated relationship but we do have a relationship. And the phrase, "nuclear colonialism", which to me was such as wild idea trying to


**Plate 3:** Hell's Gate. Freeway underpass near Mercury, Nevada. Photograph by the author, 2002

> explain that people and now—well, even five years ago—you see it all the time (interview, 15 July 2004).

Environmental justice storytelling represents the work of individuals and collectives in performing and presenting community evidence—in the case of the Western Shoshone, this evidence is presented as the impacts of nuclear colonialism and the denial of land justice. This also represents the processes through which disparate and fragmented experiences gain traction and power to become alternative public knowledge where community and cultural memory can be mobilized and politicized (Peluzzo 2003:228). Alongside activities that provide testimonial accounts of living with toxics and pollution, creative actions also connect to deeper community memories and attachments to place. Sites such as the Peace Camp often represent the grounds upon which people act but they are focal points for the transmission of stories. An archaeological presence of environmental justice storytelling can be discerned at the Peace Camp—in the exposed wooden beams of sweat lodges, the remains of fire pits and prayer circles or the messages written on freeway underpasses and rocks (Beck, Drollinger and Schofield 2007; Plate 3). But the worlds that are shaped by the transmission of stories are actively worked at through engagement and praxis. In the last section of this paper, I discuss some of the ways in which environmental justice activists engaged with mobile forms of storytelling to sustain public and political opposition to the waste dump.

## *Mobile Memory Work and Toxic Touring*

I met Corbin Harney on a "Peoples' Tour" of Yucca Mountain guided by a long time environmental justice activist and organizer. The Peoples' Tour started as an informal excursion (for the price of a tank of gas) for journalists, activists, school groups,

writers and the occasional graduate student as a way of getting people out into the desert to learn directly about the impacts of Yucca Mountain from the perspective of local residents. Toxic tours are a mode of environmental justice storytelling that constructs alternative knowledge by bringing together diverse people from different walks of life. For example, Phaedra Pezzulo (2003) discusses how local toxic tours in "Cancer Alley" (a stretch of the Mississippi River between New Orleans and Baton Rouge) became a public forum for enacting environmental justice. Toxic tours are a form of imaginative community praxis. For Peluzzo (2003:228) they provide a performative space for asking and answering questions such as, "Whose evidence is present? Whose evidence is absent? Whose history has been forgotten? And whose memory should be told?"

The Peoples' Tour at Yucca Mountain inverted and resisted public tours and open days of the exploratory tunnel offered by the YMP. Organized through word of mouth—the Peoples' Tour offered up different visions of the region's past and future through the ordinary narratives of people who live in the shadow of Yucca Mountain. Toxic tours resituate the injuries and injustices of wounded and sacrificed places with the aim of transforming them into places of care, responsibility and consideration. For Giovanna Di Chiro (2003:223) toxic tours perform an important intervention in environmental politics—by inverting the idea of an "eco-tour", to focus on the politics and consequences of transformed and damaged environments. On the long stretches of highway that cut precise swaths through plains dotted with yuccas and playas, participants on the Peoples' Tour are given a sense of the material and intimate terrains of environmental injustice in the Yucca Mountain region. "The people who are not used to the desert think it's dead", my guide commented on the way back to Las Vegas, "and if you take them out there and show them things that they've never seen before and will never see again—like feeling the stone, feeling the silence—seeing a red tail hawk circle overhead and see the wild horses. I love doing that" (interview, 29 November 2004).

Like the Western Shoshone spirit runs and the environmental actions at the Peace Camp, the Peoples' Tour traced a counter-history of Yucca Mountain that resisted its representation as a sacrifice zone suitable for the burial of radioactive waste. As a mobile, public forum, the Peoples' Tour brought together a plurality of stories and experiences that highlighted local experiences and concerns. In addition to meeting with Corbin Harney near Yucca Mountain and at his Poo-bah-hah Healing Centre across the border in Tecopa, California, we visited a temple dedicated to the Goddess Isis (located almost immediately across highway 95 from the Nellis bombing range), an organic dairy producer whose farm is located 11 miles downstream from Yucca Mountain, and a local saloon owner in the Armagosa Valley. The Peoples' Tour presented community evidence downplayed or outright ignored by the YMP, including stories about the contested science around the site's suitability, lack of public consultation, incorrect scientific monitoring, local histories of cancers and sickness and the kinds of stands that people have made to defend their places and livelihoods.

As a form of imaginative praxis, toxic touring provided a visceral and everyday sense of what it means to live with environmental injustice. The Peoples' Tour was one of several strategies for mobile storytelling and community engagement with


**Plate 4:** Mock nuclear waste cask. Peace Camp, Nevada. Photograph by the author, 2002

nuclear waste. Citizen Alert embarked on a similar project with its "Back to Our Routes" tour in 2004. Activists constructed a 24 ft long mock nuclear waste cask, which visited 24 towns in Nevada over a 4-week period (see Plate 4). The "Back to Our Routes" tour served two purposes. The mock nuclear waste cask became an exercise in "imagining the impossible" of high-level nuclear waste disposal at Yucca Mountain by providing a dramatic visual image of what the transportation of waste casks would look like on local roads and rail. "Back to Our Routes" also made reference to the grassroots history of community organizing in Nevada. In 1975, when rumours of a nuclear waste dump first hit Nevada, two women decided to embark on a driving tour to ask people what they thought about it. "By the time they had finished", an organizer at Citizen Alert recounted, "350 people had joined" (interview, 23 November 2004).

## Conclusion

The mobile and imaginative practices of Western Shoshone land justice and toxic tourism illuminate how stories are performed in environmental justice struggles to shape alternative imaginations of place. Environmental justice storytelling is an activity that does not just represent an "end", though ends to environmental injustice are important. It is a practice that also reflects the processes through which evidence about environmental impacts is gathered and how this alternative knowledge is actively sustained. Storytelling as work-in-the-world therefore does not focus solely on causes and effects, but rather, weaves together a range of issues and responses to environmental injustice—such as emotions, epidemiology, history, imagination and ontological difference. Because stories are full of resonance, memory and evidence, they reflect discernible and powerful truths about unwanted

land uses. At Yucca Mountain, this truth was simple but beared the weight of continued community enactments: that it is not a good place to bury radioactive waste.

There are two points about environmental justice storytelling that I want to make here. The first comes from Rebecca Solnit and the reason why she says that an Angel of Alternate History presides over Yucca Mountain. "Most environmental victories", Solnit points out, "look like nothing happened; the land wasn't annexed by the army, the mine didn't open, the road didn't cut through, the factory didn't spew effluents that didn't give children asthma" (2004:74). We might add here that the high-level nuclear waste dump has not been constructed. For Solnit, what lives on, and what becomes important to environmental justice struggles elsewhere, is the presence of stories that remind us that actions count. In other words, people are making decisions all the time about the kinds of worlds that they want to live in and they are imaginatively and practically striving towards them. Stories about environmental justice can carry these diverse ideas along together to produce different environmental imaginaries (both good and bad) in and of a damaged world. The constellation of stories at Yucca Mountain recognized and reorganized connectivities between environmental pollution and everyday life in ways that spoke to the heart of the matter for local residents. The power and resonance of this is important because it produces its own kinds of impacts that travel beyond Yucca Mountain and the issue of high-level nuclear waste disposal.

This brings me to my second point. Environmental justice storytelling is a practice that can give insight into what it means to live with and transform environmental crisis. Storytelling and imaginative praxis as a method and as a process illuminates what people do in various places to combat environmental injustice. In this regard, it is a mobile repertoire that can travel to other places—through the experience of individuals and activists and how this is remembered through photography, film, writing and art. At Yucca Mountain, the crisis of nuclear waste disposal might permanently be averted but the problem of what to do with nuclear waste sitting in storage in the nation's 103 nuclear reactors remains. The Western Shoshone people can tick "nuclear waste dump" off their list of environmental concerns but they continue to struggle for land justice and continue to be impacted by other extractive industries such a gas drilling and gold mining. For those who live with the realities of environmental justice most acutely, storytelling is a powerful way of exploring these discernible truths—where shared capacities for suffering, as well as for shaping and sustaining better worlds exist alongside each other.

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In memory of Corbin Harney (24 March 1920–10 July 2007).

## Endnote

[1] The 'Screw Nevada Bill' is the popular name in Nevada for the 1987 amendments to the Nuclear Waste Policy Act. Eighty percent of Nevadans were opposed to nuclear waste dumping at Yucca Mountain and felt that the decision to entomb waste there was political rather than scientific (Schraeder-Frechette 1993:24–25).

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