Part III
In/Formal and Activist Sites of Learning
10 Tactics for Social Art Intervention

10. Exert stress on unyielding conventions.
   Ask questions that shouldn’t be asked. *Sustain the rigorous process of asking difficult questions.* Disrupt fixed discourse. Practice ideological disruption through aesthetic, dialogic, critical, sculptural, and many other tactics. Question dogma and be iconoclastic. Complicate discourse packaged as black or white or red or blue. Introduce “other” perspectives and frameworks.

“Friendly Fire.” Public Tribute to Patrick Tillman.
9. Reveal the hidden face of power relations assumed to be “natural” and unchanging.
Foucault commented that the job of the cultural activist is to make the connections of power evident. Power relations are built and sustained by a potent blend of consent, miseducation, and brute force. These relations become naturalized and we repeat them mechanically. Articulate connections of power with clarity and direction.

8. Hold off amnesia.
The logic of late capitalism is informed by amnesia. Amnesia, planned obsolescence, the strategic disposal of indigenous knowledge are all embedded into the mythologies of progress, digital culture, the contemporary urban design, and most forms of dominant culture. Push against these tendencies. Re-member. Decolonize.

7. Perform democratic counter-surveillance.
We find ourselves in a deeply woven surveillance society that is embedded in the cultural mythology of the West with the ever-present, omniscient “Eye of God,” the eyes of mommy and daddy watching over us, and the myth of Big Brother, and even Santa Claus knows when you’re sleeping, he knows when you’re awake, he knows if you been bad or good, so be good for goodness sake! In this culture, we’re either being watched, we think we’re being watched and thus watching ourselves (the pathos of self-surveillance) or we’re doing the watching (straddling the thin line between voyeurism and surveillance). Hold the watchers to their laws and practice counter-democracy.

6. Speak to that which is silent. Reveal that which is hidden.
Identify unsolicited “silences.” Speak from silent spaces and wrong places. Silencing of dissent, opinions, perspectives, discourse is an all-too-common practice throughout most social structures. We must recognize that silence doesn’t exist, but rather, it’s an ideology. Change the music! Speak clearly and complexly within the chaos of “silence.”

5. ¡PELIGRO! Engage in sites and arenas of danger. ¡Hay Riesgo!
Social art practice is not safe art practice. There are risks involved, especially if you are asking the correct questions. Identify these risks and look before you leap. Social interventionist practice has many levels of engagement, from mindless provocation to deep and transformative engagement.

4. Dance with the Coyote. Perform the Trickster.
Laughter, play, and humor can be the best medicine for a sick social situation. Humor, the burlesque, the absurd can function as tactics to deal with some pretty serious business. But ¡cuidado! those who dance with the coyote run the risk of being fooled, spun around, policed, and dazed. Remember the trickster is always ridiculed and laughed at.

3. Use magical powers to inspire alternative forms of engagement in everyday life.
If we are to take social art practice seriously, then we must tap into alchemy, wizardry, and esoteric knowledge. Transforming material situations is an experimental alchemical process that involves a quite quantitative process.

2. Occupy media space.
Global media powers and the billion dollar advertising industry are predominant occupiers of mental space, media space, public space, private space, everyday space—most of the primary real estate of the symbolic and cultural arenas. Buy land or make room for your message. Culture jam. Create your own media. You are the media.

1. Call for socially responsible art-action.
We are not autonomous. We can only strive towards autonomy through our work. It takes a village to change a village. We must observe, consider meaning, and ponder effect.
Touring the Nevada Test Site

Sensational Public Pedagogy

ELIZABETH ELLSWORTH AND JAMIE KRUSE

...DOE (Department of Energy) will initiate certain public education activities... including establishing educational tour routes on the Nevada Test Site...Tours would allow the public to see firsthand some of the history and impacts of past nuclear testing. These activities would be an important contribution to public understanding of the Nation's nuclear testing and Cold War Era history. —Federal Register, 1996, p. 65553

The Wackenhut Services security guard moves through our tour bus, bending over each of us on board to touch, according to regulation, each of our Department of Energy-issued ID cards. We have arrived at Gate 100 of the Nevada Test Site (NTS).

The Center for Land Use Interpretation’s online database describes the NTS, owned and operated by the Department of Energy, as:

...a multi-use, open-air laboratory that was the primary location of the nuclear weapons testing program for the United States and the United Kingdom.... 100 atmospheric tests have been conducted here, starting with the Able test, a 1 kiloton bomb dropped from a bomber above Frenchman Flat on January 27, 1951. The last intentional atmospheric shot was Little Feller I, on July 17, 1962. After this test, the Limited Test Ban Treaty took effect, prohibiting testing underwater, in the air or in outer space, thus forcing nuclear testing underground...921 nuclear charges have been detonated beneath the landscape at the NTS.... Many other forms of “dirty” and land consumptive research and development [have] taken place at various locations all over the NTS, including nuclear rocket engine development programs, hazardous material spill tests, penetrator bomb tests, seismic tests, and many more. Small-scale underground nuclear tests still take place at the U1A facility, and explosives tests at the BEEF site. (Center for Land Use Interpretation, 2009a)

This place and this moment of arrival had loomed large in our imaginations for over a year. Two summers earlier, while on an artist residency at the Center for Land Use Interpretation’s “South Base” in Wendover, Utah, we found a thin book buried in a pile of others: The Nevada Test Site: A Guide To America’s Nuclear Proving Ground (Coolidge, 1996). Its descriptions of the NTS, located not far from our residency, were incomprehensible from where we were. Since then, our
experiences of many more books, images, eyewitness accounts, and films had compounded
into our felt need to travel to the actual site. It was the primary landscape upon which our
nation’s elusive nuclear histories, both public and secret, have played out.

We were here now—artists tagging along on an informational bus tour for the site’s
citizen advisory board. Like many other contemporary artists, our practice has led us
to expose our own bodies and sensibilities to sites where “the human” and “the environ-
ment” undergo intense and critical mutual change—and then to use creative response to
signal the felt reality of their co-shaping.

And, as artist-educators, we were here also
to experience the NTS as a site of public pedagogy.

We had boarded the tour bus an hour earlier in Las Vegas at 232 Energy Way, the Nevada
Site office of the National Nuclear Security Administration. What was now coming into sight
outside the bus window appeared simultaneously more real and more dream-like than we had
imagined. A version of history (the “established educational tour route”) was rolling past the
window, narrated by our guide from an office of “strategic communication.” But our animal
awarenesses signaled something else that would gnaw at us throughout the tour—by being here
we were intentionally implicating the materials of our own bodies in this act of constructing
new “knowings” and “ways of knowing” this place.

We pass the gate and begin to travel along a continuous crossroads: intersections of what
we had learned before arriving here, what we are hearing from our guide, what we are now
“seeing for ourselves,” and our involuntary feelings of anxiety, curiosity, thrill, and incredulity.
The words of the guide, our previous research, and the views through the tinted windows are
continuously at odds. They co-exist with our knowledge that there is more, literally, below the
surfaces that we walk and drive upon, behind the doors, outside the windows, and around the
corners from where the established educational tour is taking us. We know that any “making
sense” will be partial and limited. What we learned, then, is a still unfolding amalgamation of
memory, sensation, loss of speech, fast scribbles on paper, numbing disconnect, and awe at the
fact that we were actually touring inside this site of total war, and that it was being presented to
us as though it were a theme park.

We offer this chapter as an unfinished, creative response to what and how we continue to
learn about the NTS.

The NTS is of immense public significance not only because of its history, but also because of
its uses today and its legacies that will shape life on earth for millennia to come. Here, we use our
tour of the NTS as a provocation for thinking about and thinking through issues of public peda-
gogy. We sense that it can serve as a testing ground for concepts and perspectives that inform
educators’ conceptualizations and practices of public pedagogy. This is not only because of the
obvious tensions that surround opening a highly restricted area to public education tours—
one that, by all estimations, the public will never be able to inhabit again. It is also because our
own practices as educators and artists have become deeply informed by our experiences of the
complex, public knowledges gained through direct, physical, and interpretive engagement with
landscape and land use.
For example, what we learned and continue to learn from this tour, and how, are being shaped and inspired by the work of the Center Land Use Interpretation (CLUI). The CLUI is an innovative research organization “dedicated to the increase and diffusion of information about how the nation’s lands are apportioned, utilized, and perceived” (Center for Land Use Interpretation, 2009b, ¶ 1). The CLUI addresses the public with a “distributed voice” that attempts to both grasp and release-to-new-interpretations the potentially overwhelming complexities of human-land interactions. Ralph Rugoff, curator and arts writer, describes the CLUI’s pedagogical voice:

A largely volunteer outfit with contributors from across the country, independently researching and investigating and producing new materials about land use and its interpretation, the Center has continued to develop in unpredictable directions…. Distributing the fruits of this open-source research in myriad forms…the Center eschews any central voice of authority…. It presents no master narrative that demands an exclusive path of action. Its politics, if they can be described in such terms, are indirect and elusive. They evade conventional forms by refusing to embrace recognizable “positions”—positions that easily become reified postures that can be targeted and dismissed…. Of course, what we do with the awareness it provokes is up to each of us in the end, but on its own the Center is already evolving tools that can transform the way we think—not only about politics, but about the very ground beneath us. (Rugoff, 2006, p. 41)

The CLUI has evolved the “public tour” into one such transformative tool. In stark contrast to our NTS bus tour, the CLUI embraces pedagogical practice implicit in the public bus tour so that it may “expand its methodology into new fronts” (Center for Land Use Interpretation, 2009c). Like its other extensions of methodologies and tools of interpretation, the CLUI’s bus tours are designed to enable their users “to explore remotely, to search obliquely, and to make creative collisions and juxtapositions that render new meanings and explanations of America—and of the many ways of looking at it” (Coolidge, 2006, p. 25). The CLUI’s description of a recent tour gives a sense of its pedagogical voice, its innovative adoption of the public bus tour as a methodology for research and extrapolation of meaning, and its enactment of a particular approach to public pedagogy. A CLUI web-published account of its recent tour for university students in Cincinnati, Ohio, entitled “Things Pile Up Around the Heart of Procter and Gambleland,” describes a “day of applied interpretation”:

We began at Sawyers Point, the park where Cincinnati has rediscovered its waterfront and erected a very complicated sculptural interpretive area, which includes the Gateway Monument.

The tour then drove by some of the big businesses in town, generative places producing products for the city and the world: the downtown Procter and Gamble (P&G) headquarters, and the Kroger Grocery headquarters. Kroger is one of the largest supermarket chains in the nation, and P&G of course is the largest consumer products company, whose full spectrum of soaps and paper products fill a substantial amount of Krogers’ shelves (and are said to find their way to more countries of the world than any other company’s). P&G started as a local candle and soap company in Cincinnati, whose raw material, tallow, came from the rendered byproducts of the region’s slaughterhouses. Now most of their products are petrochemical and paper-based, and they have over 135,000 employees worldwide.

From there it was on to the other side of the consumer chain—dumps and scrapyards. At the river (and there is still river trade along the Ohio) we looked at the DJJ yard, where metal is ground up and shipped downstream to steel mills and metal re-manufacturers.
Next was a famous local landmark, Mount Rumpke, one of the largest active dumps in the nation. Driving around the backside of the dump, we visited the Handlebar Ranch on Bank Road, an alleged “midget carny town,” housing marginalized people on the margins of the dump. Nobody was home.

Then to Fernald, to see what condition the “future site of a former uranium plant” was in. The plant, which over a forty-year period made 500 million pounds of uranium metal for America’s nuclear weapons arsenal, was closed in 1989, and has been undergoing remediation since that time. Though the visitor center has not been built yet, and the site is still closed to the public, we were met and briefed by Sue Walpole, of the Office of Legacy Management of the DOE, who showed us around the 1,000-acre site. Just about all of the 323 industrial buildings are gone, and the site is being graded and planted to be an open space preserve, with ponds and manufactured wetlands. A few metal sheds remain, including pump houses and monitoring stations, as what lies beneath portions of the green veneer will remain toxic for millennia. The $4.5 billion preserve (the amount spent cleaning up Fernald) will probably never be fully open to the public. From a land use point of view, this site has been used to capacity, and is now in terminal status. The end of the line. (Center for Land Use Interpretation, 2008)

The CLUI’s director and founder, Matt Coolidge, describes the organization’s approach to designing such a tour:

Repeated travel over the same road increases our familiarity with it, and we think we come to know it better and better. But…experiential habits become common corridors of perception that merge into the superhighways of convention. To avert whatever crisis might be forming in the present and awaiting us in the future, the world needs to maintain its interpretive diversity, along with its biological and cultural diversity. The tool kit needs to be fully stocked. (Coolidge & Simons, 2006, p. 31)

Rugoff suggests the effects of the CLUI’s tours and other programs:

To a certain extent, I think of the Center as a type of informational test site or lab where different models of presenting data are tried out and developed…. Once exposed to this information, our everyday picture of the world around us—and our sense of our role in it—can never be the same again. Yet the specifics of how our perspective may change is something that each visitor works out on his or her own. (Rugoff, 2006, p. 40)

In what follows, we explore the significance of these last sentences for practices and theories of public pedagogy. We address this chapter to readers willing to explore with us a pedagogy in which visitors work out the specifics of their own learnings on their own, and spectators are active as interpreters. We invite a spectatorship that we attempted to practice while on the NTS bus tour: “spectators who try to invent their own translation in order to appropriate the story for themselves and make their own story out of it” (Ranciere, 2007, p. 11).

The Department of Energy’s “educational tour route” through the NTS creates a particular route of reading its landscape and history. That route takes the form of a highly orchestrated, staged spectacle—a series of “sights” to be looked at. The tour, in other words, enacts what Ranciere (2007) calls a “distribution of the visible itself [as] part of the configuration of domination and subjection” (p. 7). What we learned from this tour’s “distribution of the visible” is that, as an act of public pedagogy, its route and narration distribute the visible into conventional polarities such as war/peace, nuclear/anti-nuclear, contaminated/clean, contained/breached, lies/truth,
safe/dangerous, us/them, now/then. As a result, its public pedagogy lacks both the language and the will to offer the public experiences that are complex and that invite interpretations that go beyond conventional polarizations.

Here, we do not address that lack through critique. We do not, for example, perform a symptomatic reading of our NTS tour guide’s rhetoric and the structuring absences of his monologue. That would be an attempt to re-frame the theater of the NTS bus tour as an extension of Brechtian theater. In such a critique, we would try to make spectators of the NTS tour aware of the social situation on which it rests itself and then prompt them to act in consequence—to stop being spectators and “become performers of a collective activity” (Ranciere, 2007, p. 3). Nor will we adopt positions of the anti-nuclear, peace education activists who periodically breach the NTS’s perimeter and have placed their bodies at ground zero of a planned test in order to stop it. This would be an enactment of what Ranciere calls the “antidote” to passive spectatorship according to an Artaudian scheme. Namely, to prompt visitors to the NTS “theater of war” to leave the position of spectator, and “instead of being in front of a spectacle, [to become] surrounded by the performance, dragged into the circle of the action which gives them back their collective energy” (Ranciere, 2007, p. 3).

We take neither of these tacks because, rather than calling for critique or direct action as protest/negation, we sense that the lack at the heart of the public pedagogy of the NTS tour calls for something else. It calls for an exploration of how we might look, as students of this educational tour route’s highly particular “route of reading,” in a way that effectively reconfigures “the distribution of the visible itself [as] part of the configuration of domination and subjection” (Ranciere, 2007, p. 7). With Ranciere, then, we explore how our looking is also an action, one that is capable of reconfiguring the distribution of the visible and its powers to shape what we think we know.

It starts when we realize that looking also is an action which confirms or modifies that distribution, and that “interpreting the world” is already a means of transforming it, of reconfiguring it. The spectator is active, as the student or the scientist: he observes, he selects, compares, interprets. He ties up what he observes with many other things that he has observed on other stages, in other kind of spaces. He makes his poem with the poem that is performed in front of him. She participates in the performance if she is able to tell her own story about the story which is in front of her. This also means if she is able to undo the performance, for instance to deny the corporeal energy that it is supposed to convey here in the present and transform it into a mere image, if she can link it with something that she has read in a book or dreamt about a story, that she has lived or fancied. (Ranciere, 2007, p. 7)

This chapter, then, is an enactment of Ranciere’s “emancipated spectator” and the CLUI’s desire for spectators who “increase the world’s interpretive diversity.” We offer a telling of our own story about the chapter of NTS history performed for us. It is a reading of our bodies/sensations/emotions/inklings into and through the official tour’s route of reading. It is an attempt to create an “idiom to tell [our] own intellectual adventure” (Ranciere, 2007, p. 11) and to show what we learned by:

...blurring the hierarchy between the levels of discourse, between the narration of a story and the philosophical or scientific explanation of the reason of the story or the truth lying behind or beneath the story. There was no metadiscourse telling the truth about a lower level of discourse. What had to be done was a work of translation, showing how empirical stories and philosophical discourses translate each other. (Ranciere, 2007, p. 11)
What follows, then, is not to be taken as fact, but as reconfigurings of what the NTS tour made visible. We re-view our tour through new nodal points that came together for us as individuals and collaborators: previously unthought or unfelt meshworks of words, images, sensations, and tappings-into larger forces and events beyond the NTS. We offer these interpretative nodes as poetic or dream-like “shorthand” for the complexes of histories, contemporary events, and futures that we encountered and that exceed all attempts at linear syntax. As meshworks of the conceptual and the sensory, these nodal points echo the forces that continue to structure the materials and activities of the NTS itself: like the NTS, they are elusive and uncanny, contained yet leaking. We experiment with this idiom “at the risk that the idiom remain ‘unreadable’ for all those who wanted to know the cause of the story, its true meaning or the lesson for action that could be drawn out of it” (Ranciere, 2007, p. 11). We attempt a response via “a discourse that would be readable only for those who would make their own translation from the point of view of their own adventure” (Ranciere, 2007, p. 11).

With this gesture, we join an emerging interdisciplinary field of artists and scientists whose collaborations are now “build[ing] the stage where the manifestation and the effect of their competences become dubious as they frame the story of a new adventure in a new idiom” (Ranciere, 2007, p. 12). As Ranciere warns, the effect of the new idiom cannot be anticipated. And this is what makes it all the more intriguing for those interested in public pedagogy: “it calls for spectators who are active as interpreters, who try to invent their own translation in order to appropriate the story for themselves and make their own story out of it” (Ranciere, 2007, p. 12).

What We Learned

New Nodal Point: Why Wasn’t the Sun Enough?

I have felt it myself. The glitter of nuclear weapons. It is irresistible if you come to them as a scientist. To feel it’s there in your hands, to release this energy that fuels the stars, to let it do your bidding. To perform these miracles, to lift a million tons of rock into the sky. It is something that gives people an illusion of illimitable power, and it is, in some ways, responsible for all our troubles—this, what you might call technical arrogance, that overcomes people when they see what they can do with their minds. —Freeman Dyson, quoted in Else’s (1981) film The Day After Trinity (Dawidoff, 2009).

The approach to Frenchman Flat via bus crescendos through a narrow pass, then opens at the top of the hill into a flat expanse. From this vantage point, the land falls away and lies bare and wide. It is with this view that our projected imaginations meet the spatial realities of this place and it is at this moment that we sense “arrival” at the Nevada Test Site.

Here at Frenchman Flat, the test named Able lit the skies above the NTS for the first time on January 27th, 1951. Thirteen more atmospheric tests would illuminate Frenchman Flat and 86 more would detonate above Yucca Flat.

The early days of atomic testing were days of pure spectacle—flashes of light, roiling clouds of dust and rock rising to their signature mushroom shape, followed by shock waves that corrugated across the desert floor. The bombs exploded during these years were atmospheric—open-air shows that offered fantastic, public displays of the nation’s prowess. In the split seconds of that power’s release, everything else fell away and humans’ newfound ability to create a fleeting sun on Earth could be observed directly.

The NTS opened in 1951, and by the mid-1950s the two biggest shows in Nevada were nuclear explosions and Liberace, who earned $50,000 a week at the new Riviera casino,
performing his signature pastiche of high and low musical genres in a black tuxedo studded with 1,328,000 sequins. A favorite pastime of the era was to take a cocktail up to the top of a casino in the morning, to search the northern horizon for a flash of light or a mushroom cloud and toast America’s superpower ascendancy. (Masco, 2004, ¶ 21)

Soon after leaving Frenchman Flat, our bus passes by the benches of News Nob, perched on a rocky outcrop overlooking Yucca Flat. Today, the benches exist in a state of dilapidation, the grey wood splintered and weathered from decades desert exposure. In the 1950s, they were priority seating, situated seven miles from ground zero. Here, eager reporters (including Walter Cronkite) sat to take in the wondrous spectacle made public before them. According to the Department of Energy, “during the atmospheric testing days, it was one of most photographed and heavily reported areas in the world” (U.S. Department of Energy, 2009, ¶ 4).

John McPhee offers a glimpse of the power of the atomic as spectacle as he describes the experience of hydrogen bomb designer Ted Taylor:

Ted said he would admit to a pure fascination with nuclear explosions, a fascination wholly on an intellectual plane, disjunct from practical application. Down the years, it had been a matter of considerable anguish to him to live with the irony that what he thought was the worst invention in physical history was also the most interesting. He said he had been hopelessly drawn to spectacular and destructive potentialities of plutonium, even from the first moment he had ever heard its name, and to the binding energy that comes out of the nucleus and goes into the fireball, even before he could come to grasp the stunning numbers that describe it. (McPhee, 1973, p. 160)

For millennia the sun has supplied humans with ample amounts of awe, fear, joy, gratitude, myth, and life itself. The “success” of the first test of the atomic bomb, Trinity, in the New Mexican desert in 1945 was almost instantly followed by the decision to drop, rather than to demonstrate two more bombs, on the cities of Hiroshima and Nagasaki. These first, irrevocable acts of the atomic age sped up and intensified a dramatic turning away from human practices of living in relation with and in awe of the solar, of human life, and of other life on the planet. These first acts inaugurated a turning toward what Donna Haraway (2007) calls the fantasy of human exceptionalism: “the premise that humanity alone is not a spatial and temporal web of interspecies dependencies” (p. 11).

The use of the bomb, in spite of all consequences, marked a sharp departure from any lingering beliefs that some fundamentals of the universe were in fact beyond human comprehension or control. Continued exploitation of the nuclear ensures that any form of life that exists on the planet millions of years from now will continue to grapple with the leftovers inherited from the present generation.

Such realities make Buckminster Fuller’s insightful comment resonate with continuing significance: “We may now care for each Earthian individual at a sustainable billionaire’s level of affluence while living exclusively on less than 1 percent of our planet’s daily energy income from our cosmically designed nuclear reactor, the Sun, optimally located 92 million safe miles away from us” (Fuller, 2009, ¶ 10).

Perhaps our optimal distance of 92 million miles from the sun’s nuclear reactor is the optimal distance to be located from all nuclear reactors. Yet over and over, humans intentionally cross that limit into close and lasting relationship, through weapons, waste, and energy, with this ultimately uncontainable force.

Always exceeding our rational capacities, atomic energy diverts our attention towards the stars instead. But unlike stars and our own sun, which steadily light the cosmos for millennia,
an uncontrolled nuclear chain reaction occurring on earth is only that—a sun that burns out in seconds. A momentary flash, followed by darkness.

From the overlook at Yucca Flat, a simple question came to us. It serves us now as a way to hold all of the above in productive tension: Why wasn’t the sun enough?

What We Learned

New Nodal Point: More Fiction Than Lived Reality Can Contain

As our bus drove the narrow road deeper into the NTS, we passed remnants of battered planes, school buses, and houses scattered across the landscape. They had been used to test the effects of nuclear explosions on their surfaces and materials.

The Yucca Flat area of the Nevada Test Site easily qualifies as the most bombed place on earth. That is one of the facts not taught to us on the public tour. The resulting, pockmarked landscape is unlike any other—atomic bombs created these holes by vaporizing massive volumes of desert, transforming rock and dirt into bare energy, into void.

The anniversary of Trinity’s detonation—the first atomic bomb exploded on earth—is acknowledged each July 16th. Open houses are held at its site in New Mexico twice a year. It is this first atomic bomb that is given historical weight in both national and international consciousness. The second and third bombs exploded on earth over Hiroshima and Nagasaki and carried immense historical gravitas. After these three detonations, broad public awareness and considered response seems to have dissipated.

Many millions of people might believe, or only remember, that merely three or a few more nuclear bombs have been detonated since the start of the atomic age. In fact, 1,021 nuclear bombs, with yields much larger than the first three, were exploded within the NTS borders by the United States government. The U.S. detonated more than 100 nuclear explosions outside the NTS, including in Alaska, Colorado, Mississippi, New Mexico, other parts of Nevada, and on Pacific Islands. While the bombings at the NTS were called “tests,” they were in no way less destructive in force or less “dirty” with radiation than those dropped on Japan. These tests will always be remembered by employees of the Department of Energy who were hired to stage them and by “downwinders,” the locals and native peoples who continue to fight to regain access to NTS lands taken from them or for compensation for the devastating health effects of the tests. But atomic tests seem to have lost their following within the broader American public when the mushroom clouds went underground.

Exaggeration is unnecessary when it comes to the topic of nuclear weapons. Lived realities are more than enough.

Nevertheless, long after the war it was originally designed to stop had ended, extravagant narratives were and continue to be spun to justify continuous development and testing of this tool of total war. The very premise that established the NTS was that testing nuclear weapons would make the American public
safer—safer from an impending nuclear WWII that was a hair-trigger away, safer from the Soviets, safer from the un-American worlds “outside.” After World War II there was a desperate search for “peaceful,” constructive uses for a new power that is in reality the “accelerated production of decay” (Nadel, 1995, p. 50). Instantaneous canal and harbor excavation, cheap and infinite supplies of energy, and rocket ships able to be flung to the edges of the universe thanks to their nuclear-fueled engines were a few of the applications attempted at the NTS. But such dreams for “peaceful” uses of atomic energy were pursued within a violent reality—that of a nation capable of bombing its own land and people in the name of safety and progress, and apparently inured to the literal and metaphorical global fallout that resulted.

Did these actions actually prevent a wider war? There is no certain answer for that question. But there is no doubt about the existence of the technologies, machineries, jobs, tools, waste, and deep contaminations that populate the NTS. When given the chance, its actors took up their roles and reached far into the earth and towards the stars over 1,000 times to perpetuate these realities and fulfill the narratives that authorized them. Today, decades later, the stories and material realities within the borders of the NTS have not yet been reconciled with those existing outside. The public pedagogy practiced on the NTS bus tour has not yet integrated itself into a consciousness of contexts larger than itself or versions of history other than its own. Perhaps this is because the story that the NTS continues to tell about itself contains more fiction than the lived realities that exist outside its borders can contain.

In an attempt to make something different of this place, we toured the landscape of its fiction. Our participation in the public tour incited in us senses of awe and disbelief at the living fiction that continued to unfold inside its gates. The question: “Why, ever?” shifted to the contemporary, more immediate: “Why, still?”

To enter the Nevada Test Site is to enter a fictive history that has become the present’s lived realities.

**What We Learned**

**New Nodal Point: Atomic Passing Through the Geologic**

If we consider that the oceanic crust on which the continents are embedded is constantly being created and destroyed (by solidification and re-melting) and that even continental crust is under constant erosion so that its materials are recycled into the ocean, the rocks and mountains that define the most stable and durable traits of our reality would merely represent a local slowing down of this flowing reality. It is almost as if every part of the mineral world could be defined simply by specifying its chemical composition and its speed of flow: very slow for rocks, faster for lava.

Similarly, our individual bodies and minds are mere coagulations or decelerations in the flows of biomass, genes, memes, and norms...these flows of “stuff,” as well as...the hardenings themselves...once they emerge...react back on the flows to constrain them in a variety of ways. (De Landa, 2000, pp. 258–259)

Our bus pulls in beside the flat pits of Area 5’s low-level nuclear waste storage facilities. It slows to offer us better views. There are a couple of buildings in the area, but the waste is stored in the earth outside, in containers resembling oil barrels and train cars. The norm for long-term storage of this “low-level” nuclear waste is to package it in barrels, attach a GPS device and cover it with dirt. Once the dirt is in place, the waste is called “breached.” That’s it. Iodine-12, one such low-level nuclear waste, has a half-life of sixteen million years. This means it has a hazardous life of 160–320 million years. Rebecca Solnit, in her artful book entitled *Landscape Wars of the*
American West, reflects on the storage of high-level nuclear waste:

…the DOE expects that in 10,000 years our language and culture will be extinct, since none has lasted a fraction of that time. Marking the waste deposit sites in such a way that the warnings will last ten millennia and be meaningful to whomever may come along then has been something of a challenge to the DOE’s futurists. There were proposals…to establish a nuclear priesthood, which would hand down the sacred knowledge from generation to generation. Others proposed forbidding monuments of vastness that would survive the erosion of all those years, though any monument could attract curiosity and no inscription was guaranteed to make sense. (Solnit, 1994, pp. 82–83)

The piles of breached dirt looked semi-ordinary, even banal in the desert sun as we peer at them through the tinted glass of the bus windows. Here, and throughout the tour, the shell and movement of the bus affords us an illusion of a protective buffer. It provides an armchair-like distance from the realities of the exposures present all around.

But, as we approach the edge of Sedan crater, this buffer begins to fall away. We had driven past the signs warning of contamination. We had seen small craters along the way. Now, several hours into the tour, we tumble out of the bus and walk a dusty path up the gradual hill to the viewing platform at Sedan’s edge. Our guide and the group fall into a brief silence. Words cannot meet the sight before us. Even at this point in the tour, a sense of awe is still possible—not merely at the power of a nuclear weapon or the minds that had devised such a device—but also at this shape, this curve, the contour of this form, this depth, this volume, this distance, this imagination, this impact, this imprint carved into the earth. Here, the binding of the desert with atomic energy fused into alien particles in the crater just below us, under our feet, perhaps in the dust in the air all around us. Indications of the smallest of breezes trigger tinges of nausea.

Sedan was a project of the Plowshare Program, a test to study “peaceful” applications for the nuclear bomb. In this case, the use of nuclear bombs to dig giant holes for large excavation projects (such as a man-made harbor or another Panama Canal). Sedan’s device had been nested in the earth at a depth that was a relatively shallow 635 feet. Its blast raised 12 million tons of earth into the air. In its wake, it left the 1,280 feet wide, 320 feet deep crater before us.

An overwhelming sensation grows in us at the lip of this crater. The sensation does not have words, but takes on form. It is a physical sensation of being impressed by our proximity to impact-as-force, land marked by extremely long spans of time, and geologic flows monumental enough to build mountains, move continents, fill oceans. It forms at the edge of this audacious attempt by humans to challenge or mimic such forces.

Of all the nuclear tests conducted in the U.S., Sedan ranked highest in overall activity of radionuclides in fallout. Contamination from Sedan’s fallout exposed slightly less than 7% of
Americans to harmful radiation, more than 13 million people, the highest number exposed by any nuclear test explosion in the continental United States. (Miller, 2002, p. 340). But this is not the only way that Sedan, and Nevada, became irrevocably intertwined with distant land and people. Parts of the Sedan crater were transported to Alaska during the Atomic Energy Commissions’ Chariot Program to investigate how its contaminated soil would affect Alaska’s local environments. After the Chariot Program, Sedan’s contaminated soil was abandoned in Alaska, left to taint the land there until 1993 when its presence was discovered and the Department of Energy was forced to return and claim it. That soil is now stored not far from the crater in the Area 5’s radioactive waste facility at the NTS.

We were rounding the northernmost turn in our tour and heading south again. Facing Las Vegas, some 70 miles away, our bus picks up speed and we travel at about 30 mph. The tour guide settles into a personal monologue to fill the time between our last point of interest and the next. For the first time, it becomes possible for us to experience a sense of, simply, “traveling through” the test site. Given the views from the windows, we could be anywhere in the Great Basin.

It seems odd to be moving this fast through this space. But since the establishment of the NTS on this land, nothing human-built or split—including our bus—seems to have hesitated in the presence of this place’s slow and monumental geologic forces. This land’s in comprehensibly slow flows of rock, mountains, and tectonic forces now coexist with the flash of the atomic present and recent past.

The radioactive waste that was and continues to be created at the NTS through actions that take less than an instant is now becoming a stratum of the geologic. Its “flow” of decay from radioactive to inert is slow enough to last for the remainder of the life expectancy of Earth itself. Geologic deep time—the time it has taken for the stuff of this place to coagulate and emerge as shape, color, assemblage of forces, and flows—is met with total disregard here. It is a place where holes have been blasted in the most stable and durable traits of our reality, including “slow time.” Subsidence craters throughout the NTS mark the places where top layers of the earth collapsed into the voids created when underground tests vaporized not only tons of earth and tons of steel and iron testing towers—but also geologic time itself.

Our tour bus, as all human activities here, passes through the geologic forces of this place at relatively tremendous speed. Some of the human-built activities pass through at speeds approaching that of light. Compared to the rate of the geologic forces around us, our bus seems to be moving at bullet train speed. As on a bullet train, we have no time or context to bow or nod in acknowledgment of what or whom we are passing.

On this educational tour, no public nod is offered in passing to any of this place’s slowly moving things, animate or inanimate. That would require a tour capable of practicing a public pedagogy that flattens the “Great Divides of animal/human, nature/culture, organic/technical, and wild/domestic” into “mundane differences, the kinds that have consequences and demand respect and response—rather than rising to sublime and final ends” (Haraway, 2007, p. 15).

Cameras and recording devices are strictly prohibited on our tour. We pull a small blue
sheet of photo-sensitive paper from our pack and place it on our knees in the sunlight that angles through the bus window. We lay our hands on it. The radiant light of the sun passing through the Nevada Test Site exposes the paper and creates a cyanotype of our fingers.

**Conclusion**

tour (n.) “a turn, a shift on duty,” from O.Fr. tour, tourn “a turn, trick, round, circuit, circumference.” Sense of “a traveling around, journey.” Tour de force, “feat of strength.” The Grand Tour, a journey through France, Germany, Switzerland, and Italy formerly was the finishing touch in the education of a gentleman.

We took the public tour of the NTS not to put finishing touches in the education of ourselves as artists-educators, but most urgently to put our education in touch with this place. At the start of the tour, our minds were populated by projections, imaginings, and assumptions about the NTS. None had been informed by direct sensation of its places, objects, or people.


By boarding the bus and participating in a public tour of the NTS, we were acting on a conscious choice to cross our perceptions of what we had learned, assumed, and projected from a distance, with a passage of sensation—with a continuity of sheer experience of this place. We were inviting a place that existed for us only in concepts and photographic images to enter, irrevocably, the materiality of our sensing bodies/minds.

When the DOE opened the NTS to the public, it opened it to the public body and now invites us to sense it “for ourselves.” To meet the DOE’s gesture as an invitation to enter something other than an historical theme park, we practiced a version of Rancier’s spectator as active interpreter. Boarding the bus as artist-educators, we addressed the tour in a way that intentionally sustained our focus and attention on the path of sensation: we invited our bodies’ sensations to alter, materially, the highways of perception that others’ words and experiences continued to generate within us. By intentionally choosing to make the world of the NTS “concretely appear” for us, we created for ourselves a place of learning at the point where paths of sensation and perception/cognition cross. From this crossroads, our aesthetic responses make something concretely of our spectatorship: traces and signals of the forces we sensed in our bodies as they played out across—and reconfigured—our preconceptions.

The public pedagogies of the CLUI use bus tours, self-guided tours, interpretive plaques, and extrapolative projects to place bodies of the American public “out there,” in the field. It then uses images, interpretive text, and routes of reading a landscape and its land use as a means to create crossed paths of sensation and perception. It refuses to resolve the resulting crossroads into “the way” to go on from here. Instead, prolonged attention and sustained focus at crossings of sensation and perception invite the public to actively inquire towards the irresolvable nature of places such as NTS—without the dream of a final resolution. In other words, the CLUI’s public pedagogy turns the conventional public tour into a continuous crossroads where sensation and perception are given time and space to meet and co-shape one another. By creating points
of viewing/looking at sites where “the world concretely appears”—at the crossings of paths of perception and sensation, the CLUI invites the public to take part in the concrete making of the world’s appearance.

When we address the world and our own experiences as populated with occasions open to and calling for response—daily life is imbued with potential for making in reply. When spectators of public tours such as the NTS’s respond with interpretations that actively tell their own stories about the story which is in front of them, that link the story in front of them with something that they have lived or fancied—a public knowledge results. When public pedagogy creates a continuous crossroads of sensation and perception as a place of learning—it has the potential to become a pedagogy not “for” the public—but rather a pedagogy of and by the public.

References