

UNDERMINING

**A WILD RIDE THROUGH LAND USE,
POLITICS, AND ART IN THE
CHANGING WEST**

LUCY R. LIPPARD

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DEDICATION

To my grandsons' generation, hoping that they are learning some lessons we learned too late, and that they will pursue them with creative energies. And to New Mexico, one of the loves of my life.

In memory of André Schiffrin, publisher extraordinaire, whose support over the years has meant so much to so many of us.



Members of El Consejo of camp protesting outside development of a traditional land grant, Tierra Amarilla, NM, 1988, following up the famous land grant battle of 1967, led by Reyes Tijerina. • Levi Romero, Desconao y Leñeros, 2011. A roadside memorial in Española, NM, and trucks of firewood for sale, evoking the longstanding struggles in northern New Mexico over land use in the National Forests.



Edward Ravley, *Cloud Terrace*, Southern Creston, 2009. Petroglyph by Tano (Southern Tewa) Galisteo Basin, N.M., c. 1300–1500. This stepped form, associated with life-giving rain and the cloud home of ancestors and deities, also appears in many of today's Pueblo ceremonies, where women dancers often wear stepped headdresses.



I LIVE IN ONE OF THE LOWER LEVELS OF A PIT, AN ARID ANCIENT

seated in northern New Mexico called the Galisteo Basin, where clouds of moisture circle the mountains and then ignore us, going on to other high places. The Tano (Southern Tewa) people lived “down country” for some five centuries (circa 1250–1782) in the eight huge pueblos scattered throughout the basin. Once two or three stories high, these impressive buildings are now pits and mounds of melted adobe covered by grass and cactus. In their ceremonies, the Tanos evoked clouds, rain, mountains, and springs—the underworld from which their people emerged and the heights where ancestors and deities awaited their prayers. They used gravel as mulch in their gardens to capture warmth and water for the crops.

Gravel—an aggregate formed by water—became the unlikely inspiration for this book, a collage of concerns about the ways humans intersect with nature in the arid Southwest. The humble gravel pit offers an entrance to the

Tom Marfisi, *Cloud Terrace Graffiti*, New York City, 2006. • *Cloud Terrace*, Galisteo Basin. • Peter Goin, *Mushroom Cloud*, 2001. This modern petroglyph from the Black Rock country of northern Nevada is by the eccentric artist Delwayne Williams, who decorated over a mile of roadside with engraved rocks, arranged artifacts, and pop culture monuments.



states of place, suggesting some fissures in the capitalist narrative into which art can flow. The title, *Undermining*, has been attached to the project since its haziest inception: undermining literally—as in pits and shafts that reflect culture, alter irreplaceable ecosystems, and generate new structures; undermining's physical consequences, its scars on the human body politic; undermining as what we are doing to our continent and to the planet when greed and inequity triumph; undermining as a political act—subversion is one way artists can resist. The elements play their part: earth (mining, land art, adobe, archaeology), air (breath, pollution, death), fire (global warming) and water (from above, stored below). Water and natural resources, and their unnatural exploiters—developers, along with the coal, uranium, gas, oil, gravel, and other industries—offer both vertical and horizontal images, wells and rain, underground aquifers, drilling equipment, mountain runoff, irrigation and ditches . . . and the kitchen sink.

John Gons, *Landscape in Stone*, Flagstaff, AZ, 1995, chromogenic print. In a poem accompanying Gons's images, anthropologist Stanley Diamond writes: "A culture is its refuse. . . ." (See Gons, *Consuming the American Landscape*, Stockport, UK: Dewi Lewis Publishing, 2003.) In this case, nature itself is the refuse, or product.



Gravel pits provide a dialectical take on the relationship between my own three-and-a-half decades in the Lower Manhattan activist/avant-garde art community and two decades in Galisteo—a tiny New Mexico village (population 250). An influential few years were spent part time in the foothills of the Colorado Rockies, where my maternal grandparents were raised, and where I began to explore indigenous pasts. And for three decades contemporary Native (American) artists have challenged many of my Yankee predispositions. Sometimes the tools I bring from a lifetime in and on the edge of the arts are pretty useless when confronting land use and abuse. During roughly twenty-five years in the western United States, I've learned a new vocabulary, or perhaps forgotten the old one. It's a stretch to squeeze modernism, modernity, post-modernity, and the shifting mainstreams of the art world into the framework of my current lived experience, which is what I always work from. John Fraser Hart defined geography as "curiosity about places." Once

Center for Land Use Interpretation Photo Archive, Sheep Hill Cinder Cone, AZ, 2012. James Furvell's nearby Roden Crater, a massive, experiential, sky-and-light-viewing earthwork in a long-extinct volcano, has been in process in a similar cinder cone since 1979.



in the West, I began to write about "place" and landscape, encompassing history and archaeology. Eventually, thanks to growing involvement in local politics, I realized that "land use" could be a more realistic replacement for the too easily romanticized notion of "land" and "earth" as in landscape, land art, and earthworks. So this book is more concerned with land use than with landscape, more focused on what we learn from living in place than what we see when we look out the windows.

Beginning with gravel pits and archaeology, I'm trying to see what art will finally fit in my baggage as I cross disciplines and wander further afield. Because of course I have baggage, and a lot of packing and unpacking to do as I travel the roads between local and global, rural and metropolitan, stopping at historical markers and the roadside attractions of photography and land art. Symbiotic pits and erections—riffs on the vertical reversed, negative and positive, ups and downs, past and present—kept emerging to form the grid

(or conceit) on which this parallel visual/verbal narrative is constructed. The book is less about the many subjects covered as it is about the connections between them. The challenge is keeping the warps and wefts on the loom. My methodology is simple and experiential: one thing leads to another, as in life. Arthur Rimbaud put it more viscerally: "thought latching on to thought and pulling."

Cultural history and cultural geography are the operative factors here—the base for digressions into more technical information. I agonized about the role of statistics in this story, cutting them out, putting them back in. We are susceptible to the sea of numbers engulfing us, and they are, like maps, easily manipulated. Yet even in their volatility, they do convey the enormity of some of the problems our lands and people are confronting. So I have retained some—not as thorough or indisputable data so much as suggestions of what we are up against.

Peter Goh, Kiva H Complex, Chetro Kall, 2000, Chaco Culture National Historical Park, NM. Chetro Kall is the second largest of Chaco Canyon's monumental "great houses," built by Ancestral Puebloans from around 850–1200. It has some four hundred rooms, possible Mexican architectural influences, and numerous kivas, or subterranean gathering places. This "great kiva" accommodated large numbers of people, possibly for periodic ceremonies involving the entire "Chaco world."

Author's longtime loft home in Lower Manhattan, 2013. • Gollee, NM, 2013. A classic northern New Mexico juxtaposition: a nineteenth-century adobe ruin, a modernist villa home (designed by Beverly Spears), and the author's neo-traditional house in the right background (Photo: Ethan Rymor).



MY ACCIDENTAL PREOCCUPATION WITH GRAVEL PITS BEGAN

in 2000 when I wrote an editorial in my community newsletter bemoaning the incursion of gravel mines west of our rural village. I was taken aback when the local earth mover—a progressive guy who's also a painter and a skeptical environmentalist—reproved me. He said (in so many words): Hell, you used gravel for your road. Everybody wants gravel, but they don't want gravel mines. Robert Baker (a friend's pseudonym for an unpopular local gravel trader) is a son of a bitch, but he's our son of a bitch. If you're going after gravel mines, take on Lafarge, a multinational gravel mining company. They're taking over the American West, putting the locals out of business.

That was a surprise. I'd naively considered gravel pits, when I considered them at all, as the epitome of local enterprise. Mom and Pop have some otherwise unproductive land and a pickup, they need money, and they go for it. I'm told this is the way it used to be. Global takeovers are harder to imagine.

Peter Gorn, *Helms Drive Pit*, Sparks, NV, just north of the Truckee River, 1990. In 1987, a 250' wide oil slick from a tank farm and railroad leaked into this 120'-deep gravel pit, preventing millions of gallons of oil from reaching the river. The oil companies paid for remediation but Helms went bankrupt. During the New Year's Day flood of 1992, the Truckee River flowed into the pit, flooding and closing interstate 80 for several days, but ironically facilitating the emergence of the Sparks Marina Park.



Scale is a big issue, visually and economically, even in the once open-ended West. Most landscapes are actually designed by culture at the hands of anonymous amateurs who work by trial and error and privilege function over form. Then hired professionals try to make sense of what's there and capitalize on it with their own individual talents. The very term cultural landscape is a way of thinking about art and landscape issues that was partially invented by John Brinckerhoff (J.B.) Jackson—a seminal cultural geographer who lived in New Mexico, just west of where I settled. He defined landscape as "a concrete, three-dimensional, shared reality"—a collaboration between people and nature rather than an idealized picture or view of what lies beyond our own centers.

Soon after my conversation with the earth mover, I was looking for a novel way to approach land use through an art frame for a symposium on cities. I began to think about gravel pits as a metaphor for the underground level of

Michael Light, *Tailings of Barney's Canyon Gold Mine Looking North*, near Bingham Canyon, UT, 2006. 40' x 50', pigment print. © Michael Light. (Courtesy of Hecker-Clifters, San Francisco). At 8,000 feet in the Ogkash Mountains, southwest of Salt Lake City, the Bingham Canyon open-pit copper mine (operationalized by the Guggenheim family in 1906) is the largest human-made excavation on the planet: over 1/2 mile deep with a 3 mile rim. Its smaller rock is the tallest free-standing structure west of the Mississippi.



a twenty-first-century cultural landscape, or the "subterranean economy," to take a Jackson phrase out of context. That seemed a fitting subtext for cultural practice. An increasing number of artists/activists are taking up the land use challenges—not just shooting photographs of undermining, but digging deeper, so to speak, into the underlying issues.

Chiseled on the facade of an old grammar school in Fort Benton, Montana, is this admonition: "INDUSTRY IS USELESS WITHOUT CULTURE," a message that still resonates in the post-industrial age. Culture is a far broader term than art and can embrace social energies not yet recognized as art. If much contemporary art appears divorced from the popular expectations of "fine arts," it remains a way of seeing, sometimes more connected to or embedded in life than previously expected. While entangling visual art with the cold realities of our current environment, some artists are realizing that they can envision alternative futures, produce redemptive and restorative vehicles

Brod Thaxton, *Landscape Obscured by Documents*, 1992, oil and cotton border on paper, 30" x 44". The mortgaged documents, ranging from the 1840s to the 1970s, relate to land use, zoning, boundaries, water rights, private and public property, "wise use," and more, in the Bull Run Watershed within the Mount Hood National Forest near Portland, Oregon. Other in this series include nineteenth-century oil paintings and U.S. Geological Survey papers. • The Center for Land Use Interpretation Photo Archive. (CUI) Combined Caverns National Park, New



with which to open cracks into other worlds, and rehabilitate the role of the communal imagination. Artists are good at slipping between the institutional walls to expose the layers of emotional and esthetic resonance in our relationships to place. They can ask questions without worrying about answers. I continue to count on the reconstructive potential of an art that raises consciousness on the land, about land use, history, and local culture and place, considered at length in my 1997 book, *The Love of the Local*. Writing about conceptual, feminist, and political art as "escape attempts," I've concluded that the ultimate escape attempt would be to free ourselves from the limitations of preconceived notions of art, and in doing so, help to save the planet.

In the 1930s, Henri Cartier-Bresson complained: "The world is going to pieces and people like [Ansel] Adams and [Edward] Weston are photographing rocks!" In a plea for the importance of the esthetic at a time, like today, when art can seem insignificant compared with the evils offered by

Mexico, from Cliff's Subterranean Revelations: The Unique Architectural Spaces of Snow Cave, 1998—a project on natural caves developed into tourist attractions, from surface to underworld. The elevator, allowing larger crowds, deliveries, and accessibility, was preceded by a Ducker lift delivering workers down to the cavern's guano mine in the 1920s. • Mitch Do-Browner, *Bentonite Waves*, Corvallis, OR, 2007.



life, Adams replied that a rock was more socially significant than a line of unemployed. I wouldn't go that far. I'm usually on Cartier-Bresson's side, but maybe I'm following Adams here by forcing the gravel pit on you because it offers a way to create in writing and images a context for the microcosmic aspects of global change our western landscapes and rural villages are undergoing—cultural and social changes similar to those that took place in the Southwest after World War II.

Out on the margins, where local scars cover for global perpetrators, we live in a distorted mirror image of the center, which perceives our "nature" as primarily resource. Here negative space can be more important than what's constructed from its deported materials elsewhere. The gravel pit, like other mining holes, is the reverse image of the cityscape it creates—extraction in aid of erection. If the modern city is vertical (a climb, leading to a privileged penthouse overview), landscape is predominantly horizontal (a walk, through

Mitch Dobrower, *Daybreak*, Los Angeles, 2008. An eerie image highlighting the intrusion of urban encroachment into dramatic natural locations. Despite its reputation for sprawl, LA is the densest city in the U.S. • Kikakuji's Landmark, Wokopis (Sacred Waters), 2011, hand-etched silver gelatin print, 23" x 28", from *Pongoiwi* installation. Wokopis is an ancient burial site being sand mined by American Hawaii and shipped to Oahu for the construction industry. Native Hawaiians believed their ancestors' mana lived in the bones. • Phil Young (Cherokee), *Genuine Indian Trading Post and Burial Site*, 1991, detail, multimedia installation, Gallery of the State University of New York College of Oneonta. The gaudy commercial "trading post" included archaeological grid lines and burial, two plastic "princesses," and a portrait of a "proud, stoic chief" at Mt. Rushmore, reflecting Young's satiric humor and indignation of the desecration and stereotyping of indigenous people and places.



all walks of life). Like archaeology, which is time read backwards, gravel mines are metaphorically cities turned upside down, though urban culture is unaware of its origins and rural birthplaces. Where the vertical rules—from nineteenth-century surveyors planting flags and proclaiming dominion from the loftiest mountain peaks to the hundredth stories of skyscrapers where corporate CEOs (the real occupiers of Wall Street) peer down at protestors—the power of upward is added to outward mobility.

Like graves, these pits—whether they are dwellings or burial grounds or archaeological digs or the remnants of industries that claim to keep us alive—are eventually abandoned, their meanings forgotten, leaving stubborn scars on the land. Such "dead zones" are illuminated by Timothy J. LeCain in *Mass Destruction*, his fascinating book on the giant western copper mines. Sometimes the graves are more recent. In February 2004, an Albuquerque man died in a gravel pit, New Mexico's "first mine fatality" of the year. And

ing Post and Burial Site, 1991, detail, multimedia installation, Gallery of the State University of New York College of Oneonta. The gaudy commercial "trading post" included archaeological grid lines and burial, two plastic "princesses," and a portrait of a "proud, stoic chief" at Mt. Rushmore, reflecting Young's satiric humor and indignation of the desecration and stereotyping of indigenous people and places.



After the European conquest, the graves of innumerable Native people were cheerfully excavated and "collected" by cultural institutions, while others have been turned under in the process of mining.

Since 1990 it is required by law (The Native American Graves Protection and Repatriation Act, or NAGPRA) that human remains found on public lands be returned to the tribes for proper burial. It is rare that non-Native people have the same problem, though consider the clamor for proper burial of unidentified scattered body parts after September 11, 2001. Or the 2012 newspaper report about the Lowellville Cemetery in eastern Ohio, beneath which, "Deep underground, locked in ancient shale formations, are lucrative quantities of natural gas." With two other local cemeteries, Lowellville received offers from a Texas firm for their mineral rights, plus percentages of oil and gas royalties from companies claiming that no graves would be disturbed. The offer was rejected. Area activists are fighting for a citywide drilling ban.

Sometimes there is justice. In 2004, gas drillers plowed through the cemetery of a historic Black coal camp community in West Virginia. The resulting lawsuit took six years, but the company was ordered to pay \$200,000 in punitive damages, plus \$700,000 in compensatory damages.

REAL GRAVEL—NATURALLY CREATED PEBBLES—IS GEOLOGICAL debris, constructive disintegration, alluvial, water-borne, dug from old streams and lake beds. Fake gravel is just crushed rock, produced by the ecologically destructive processes of dynamite and hard rock mining. Scarcely water is used to separate it from its mother lode, encouraging erosion and sometimes polluting precious drinking water in the process. In the arid Southwest, gravel pits can be less than eyesores. If the site is not squirming with machines, it isn't clear whether the pit is industrial or natural, recently broken into for profit, or eroded by wind and water over millions of years, or art—massive outdoor



second front—the border towns of Bloomfield and Aztec—an ongoing challenge: the amount of water granted to the Navajo Nation in a settlement contract since the 1960s. The towns (incredibly) claim seniority of water rights over Navajo. But the billion-dollar, 280-mile pipeline for the Navajo-Gallup Water Supply Project and the Jicarilla Apache Nation to the east is moving ahead—a mixed blessing, as the pipeline will disturb grazing as well as water uses. Given the long history of land appropriation by governments, even the Navajo are justifiably suspicious of the project.

The damages wrought by uranium are not limited to Navajo. Anaconda's notorious Jackpile mine—at 3,000 acres, it was the nation's largest open pit uranium mine—operated on Laguna Pueblo land from 1953 to 1982. Laguna resident Dorothy Purley, who died of lymphoma in 1999 at age sixty, said "it seemed like a dream come true. It gave so many of my people on the reservation a chance to find employment without having to remain of

Patrick Nagatani, *Kweemool Kachina*, United Nuclear Corporation uranium leach tailings, Fork of Rio Puerco, near Gallup, New Mexico. (Nuclear Enchantment series, 1989, chromogenic print). Nuclear Enchantment parodies New Mexico's tourism market: Lord of Saccharin Kachina (caption to be vowing revenge for the destruction of Indian land). *Black Hopewell Uranium Tailings*, Anaconda Minerals Corporation, Laguna Pueblo Reservation, New Mexico (Nuclear Enchantment series), 1993, chromogenic print. (See www.patricknagatani.com.)



the reservation. . . . It never occurred to us that our children and our grandchildren's lives would be put at risk."

Not is the damage done by these lethal pits limited to Native people. Residents of Yerington, Nevada, filed a class action suit against Atlantic Richfield (and parent BP America Inc.) for negligence and cover-ups of a plume of uranium, arsenic, and other contaminants stored on nearby property that leaked from the old Anaconda copper mine into private wells. The lawsuit has dragged on for thirty years, and little has been done to clean up the site. Yes in 2006, residents of Eunice, in southeastern New Mexico, welcomed a Louisiana Energy Services uranium enrichment plant with no provision made for waste disposal. Depleted uranium has a half-life of 4.5 billion years. And so it goes.

LOCAL LANDSCAPES REFLECT GLOBAL CRISES. NOTHING IS more local than ecology (from the Greek word for home). Nothing is more

Enchantment: Photographs by Patrick Nagatani, Albuquerque University of New Mexico Press, 1993. Land Arts of the American West: Visiting Remains of Jackpile Mine, Laguna Pueblo, New Mexico, August 2011. Photo: Chris Taylor, Land Arts of the American West. Laguna Pueblo member Curtis Francisco with students. The industry did not clean up the mine, and the pueblo had to take on the task of reclamation.



global than a nuclear world. We're all on the spot when we begin to consider where we are and what's going on there. The notion of a nuclear ecology can seem an oxymoron, but for better or worse, humans too are part of nature, if a uniquely destructive element. How we treat our home—both the planet and our exact location, is a matter of survival—for us. The planet will continue, as Alan Weisman explains in his provocative book *The World Without Us*.

I find great comfort in Galisteo's identity as a mere point in a vast landscape of gullied rangeland and distant mountains. At the same time I'm forced to concede how global my beloved local really is. A mile to the east, trucks are carrying drums of radioactive waste to WIPP near the popular tourist destination of Carlsbad Caverns. The plant receives waste from all over the country—Hanford, Idaho National Laboratory, Savannah River, Oak Ridge, and our own Los Alamos. Whereas extraction centers give up their earthly goods, WIPP is a devastating pit that merely receives, a geological

Patrick Hagelans, Contaminated Radioactive Sediment, Monahad Canyon, Los Alamos National Laboratory, New Mexico (Nuclear Enchantment series, 1995), chromogenic print. Ancient petroglyphs are scratched into the black sandy ceilings of the canyon's shallow caves. In the early 1990s, looking down into Monahad Canyon after a light snow, we noticed perfect circles, snow free, on the canyon floor, apparently marking pits of some kind that were likely "hot."



lockbox for chemical sludge, lab gear, and filters laced with plutonium—the "fendishly toxic" detritus of national nuclear weapons production buried almost 1/2 mile underground in deep salt deposits, supposedly secure for ten thousand years, despite doubts about leakage and dangerous transportation.

When President Obama decommissioned Yucca Mountain in Nevada, intended as the final resting place for radioactive materials with an inconceivably long half-life (a classic combination of mountain and pit), WIPP was presented as a possible understudy. In August 2012 the Department of Energy announced plans to send 14.4 tons of surplus plutonium to the Los Alamos National Laboratory (LANL) and/or WIPP. "Hot particles of plutonium" in the soil can lodge in bodies and damage ten thousand cells within its range; they are millions of times more dangerous than uranium dust. New Mexico activists contend that instead of sending waste across the country to us, it should stay on site, minimizing the danger and expense of transportation.

John Bost, WIPP (aerial view), 2012, Corral, NM. The U.S. Department of Energy is lobbying for "improvement" of the facility, and some expansion has been approved to accept more and different types of nuclear waste, including that from commercial industries, despite doubts about security of the salt deposits.



Our little Galisteo volunteer fire department has received Hazmat (hazardous material) training.

About 60 miles to the south of my home is the Sandia National Laboratory, where much of the national nuclear arsenal is stored. Seventy miles to our northwest is LANL, home of the atom bomb and now projected site for the production of plutonium "pits" (triggers). Like the 1872 mining law, these pits "keep on giving." Recently, thanks to persistent local activism and the threat of more immense wildfires in the Jemez Mountains, where the lab is located, LANL was forbidden to burn make waste in the open air. Much rejoicing. Then the decision was rescinded. One step forward, one step back. In 2012, the lab promised to speed up removal of thousands of gallons of radioactive waste that has been waiting for decades in insecure pits and drums—some six hundred shipments eventually headed for WIPP.

Around 200 miles to the southeast is the Trinity Site at White Sands Missile

Juan Rico, WIPP. Completed Salt Tunnel, 2012. On a tour with local government officials, the photographer descended in an elevator 2.5 miles into the earth.



Range, where the first atom bomb was detonated just before dawn on July 16, 1945. Within a month bombs had been dropped on Hiroshima and Nagasaki and the rest of that story is the world we live in. Food and water were contaminated, according to the Tularosa Downwinders Consortium, representing thirty thousand people living within a 60-mile radius of the test blast—insolvent guinea pigs for the nation's greatest science experiment. As a native of New York City, I lived for years a few blocks from Canal Street and Broadway, a site once chosen "by experts" as the most efficient target in the New York area for a make drop. (Claes Oldenburg proposed a monument for the hot spot.)

New Mexico is only one of several "nuclear states" in the West. In the 1980s, an Air Force colonel told photographer Carol Gallagher, author of *American Ground Zero*, "There isn't anyone in the United States who isn't a downwinder." As westerners, we're haunted by the invisible poisons lurking in our dramatic landscapes, considered the "perfect places to toss used razor

Patrick Nagel, *The Evening News*, Native American Pueblo Dwelling, New Mexico, (Nuclear Enchantment series, 1990, chromogenic print. On the TV screen is an image of WIPP by Robert Del Vecchio. Works on the Scribble board are: "giving radioactive sheep, Laguna, Nagasaki, atomic, bomb, red, fern, and Gnome" (referring to a 1961 nuclear accident near Comstock, one of several in the West, including one on Jicarilla Apache land in 1947 and another 5 miles from Comstock).



Uranians now live: "Uranium and tourism can coexist." Uranium can be reinhabited soon.

Such attitudes take the irony out of the title of Michael A. Arundson's 2004 book—*Atomic Culture: How We Learned to Stop Worrying and Love the Bomb*. The ecological ramifications of such nonchalance, or fatalism, will affect people and places far from that particular Paradox, where Doctor Strangelove would be right at home. The Atomic Age is not over. Video games and a plethora of over-the-top apocalyptic movies take on a new level of reality, and cold warriors remain in or close to power. Years after fallout shelters and "Duck and Cover" became laughable, the former citizens of Uranium have shown us new ways of practicing denial. Fear is what drove those futile exercises and fear still drives support for U.S. nuclear policy today. Since 1992 there has been a hold on full-scale nuclear weapons testing at the Nevada Test Site (which began in 1951). Closed-computer simulation has replaced exper-

imental tests, although "subcritical experiments" continue, including one potentially undertaken on December 7, 2012.

The puzzle that no one has solved concerning nuclear waste is how to mark its deposits in a manner lasting for the thousands of years that comprise the half-life of radioactivity. This is the so-called Forever Problem. No culture has lasted that long, and we have no idea who—if anybody—we might be contacting in ten millennia or more. It is entirely possible that no language or symbol system now known will be comprehensible then, even the trefoil (radioactive!) symbol. So the markers have to be visual and "universal." It's an unmet challenge for artists. Competitions and exhibitions for long-term nuclear markers have drawn artists, scientists, futurists, and experts in linguistics, anthropology and semiotics to design "landscapes of peril." One was a 50-foot-high forest of concrete thorns or claws. Others were menacing lightning-shaped earthworks, a black hole, a rubble landscape, huge

Carole Gallagher, Deserted Schoolyard in Amargosa Valley, 10 miles south of Nevada Test Site 1988. Since the first test in 1951, downwind lands were seriously contaminated; a fact study revealed in the 1970s. Gallagher's images and oral histories with residents, cancer victims, and Army veterans were inspired by Dorothea Lange, who had worked in the area. • Atomic Drive Sign, Amargosa Valley, 1988. (See Gallagher, *American Ground Zero: The Secret Nuclear War*. Cambridge: MIT Press, 1992.)

Michael Brill (sculptor) and Sohrab Azizi (art), Landscape of Thorns, Nuclear Market, c. 1990. From Message to 12,000 A.D., addressing the staggering problem of storing the world's nuclear waste. • Marguerite Kahn (with Andrew Davidson, Kathleen Sullivan, Mothers for Peace), Paradise Lost, 2010. Proposal for nuclear guardianship of Duress Canyon, CA, with real time radioactive waste synthesized with Milton's metaphor: conventional superlatives countered by "Mass and Time Actual-figures" (voids from radiation), increase awareness of nuclear waste.



forbidding blocks or spike fields, and spokes bursting through a grid (destroying order). The winner of one competition was a field of biologically-created, unnaturally blue yucca plants that would reproduce themselves "forever" ... or not. There are no plans to construct the featured project. And who's to say that all yuccas won't be blue in the distant future?

Despite these competitions for Yucca Mountain and WIPP (which will be filled up by 2033, or well before if shipments continue), nothing sensible has emerged. The cultural constrictions on art, the habits of fashion, were more evident than thinking beyond the box, or rather the pyramid—the most popular model. Writer and anti-nuke activist Rebecca Solnit suggests that signs at nuclear waste dumps read: "This place is not a place of honor. No highly esteemed deed is commemorated here. Nothing valued is here. This place is a message and part of a system of messages. Pay attention to it. Sending this message was important to us. We considered ourselves to be a powerful culture."

Eve André Laramie, *Slouching Towards Yucca Mountain, Dark Character*, 2011. (Badwater Basin, Death Valley). Still from video. The Dark Character represents the mining industry. The U.S. government began developing Yucca Mountain in Nevada as a deep repository for high-level radioactive waste. The project was terminated, given geological faults and climate uncertainties, though a seven-mile mine of tunnels remains beneath the mountain, with no master plan for permanent disposal, waste sits in temporary storage of hundreds of sites across the country.



THE WORD GRAVEL INCORPORATES THE WORD GRAVE, AND gravity may also be entangled in this imaginary equation. One detour away from the New West is relevant to a riff on pits and erections. In an urban context the pit usually represents both destruction and construction, reflecting the rapid movement and change that characterize city life. September 11, 2001, sped up the process, charged the meanings, and undermined national assumptions of invulnerability. Since then, the relationship between skyscraper and pit has taken on new implications, at least new to this country, which has been spared inner-city ruins like those of postwar Europe, Asia, and the Middle East. In the U.S., ruins have been for the most part rare and picturesque, imparting nostalgia and moral lessons, a scintillating play of presence and absence, a mediation (and for some a meditation) between life and death, between the built and the natural environment, between architecture's sources and its inevitable resting places.

Joel Meyerowitz, *Assembled panoramas of the site from the World Financial Center, Looking East (detail)*, 2001-02. (Courtesy of Howard Greenberg Gallery). © Joel Meyerowitz. After 9/11, Ground Zero was classified as a "crime scene." Although photography was generally prohibited, Meyerowitz gained unlimited access to document ongoing work and workers at "the site." (See Meyerowitz, *Aftermath: World Trade Center Archive*, New York: Phaidon Press, 2004.)