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Contemporary Photography and the Environmental Debate

Curated by Claude Baillargeon

With essays by Robert F. Kennedy Jr. and Maia-Mari Sutnik

Catalogue entries by Katy McCormick

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# IMAGING A SHATTERING EARTH

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Contemporary Photography and the Environmental Debate

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*To the memory of Tomoko Uemura (1956-1977)  
and the 10,000 people affected by the Minamata disease.  
Their chronic poisoning by methylmercury waste  
compounds remains a cause of deep sorrow for us all.*



Oakland University, the Meadow Brook Art Gallery, and the Department of Art and Art History are delighted to host this engaging exhibition conceived as a focal point and a showcase for *Environmental Explorations*, the 2005–06 College of Arts and Sciences' liberal arts theme.

Accompanying the exhibition is a diversified program of related events, including public lectures, discussion panels, a student symposium, and the exhibition Web site created within an Honors College seminar. Please visit [www2.oakland.edu/shatteringearth](http://www2.oakland.edu/shatteringearth) for details.

For their valued contributions to the exhibition catalogue, we express our heartfelt gratitude to *Environmental Explorations* guest speaker and environmental activist Robert F. Kennedy Jr., Maia-Mari Sutnik, Curator of Photography at the Art Gallery of Ontario, and Katy McCormick, Exhibition Coordinator with Gallery 44 Centre for Contemporary Photography, Toronto.

This exhibition is also part of the tenth annual CONTACT Toronto Photography Festival held in May 2006. We are doubly pleased that its scope is substantially increased through our collaboration with CONTACT 2006. We are very grateful for the support that CONTACT has provided, particularly in regard to the production of this catalogue. We are delighted that the Museum of Contemporary Canadian Art has partnered with CONTACT 2006 as the Toronto venue for *Imaging a Shattering Earth: Contemporary Photography and the Environmental Debate*.

Lastly, for instigating this exhibition project and collaboration, we thank curator Claude Baillargeon, Assistant Professor of Art and Art History. His insights into contemporary photographic practice provide an illuminating study on the effects of poor environmental stewardship.

Ronald A. Sudol  
Interim Dean  
College of Arts and Sciences

Meadow Brook Art Gallery | Oakland University | October 29 – December 18, 2005



# CONTACT

Photography's ability to communicate across national boundaries is central to an understanding of the events that define our place in a worldwide culture, as globalization stimulates an increasing cycle of interconnections through economic, environmental, political, technological, and cultural exchange. On the tenth anniversary of the CONTACT Toronto Photography Festival, we present *Imaging a Global Culture*, a series of exhibitions and events that reflect these interconnections and their dramatic increase over the past decade. Although globalization has had positive effects—including a significant increase in artistic exchange made possible, for example, by the internet—the escalating degradation of the environment and the urgent need for ecological conservation are central among our concerns.

*Imaging a Shattering Earth: Contemporary Photography and the Environmental Debate* tells a dramatic story about the state of global geography. This exhibition is central to CONTACT 2006 and is a welcome addition to our annual program of exhibitions, installations, films, and educational events presented throughout Toronto every May. We hope that *Imaging a Shattering Earth* will encourage dialogue about globalization and the environment and stimulate greater change.

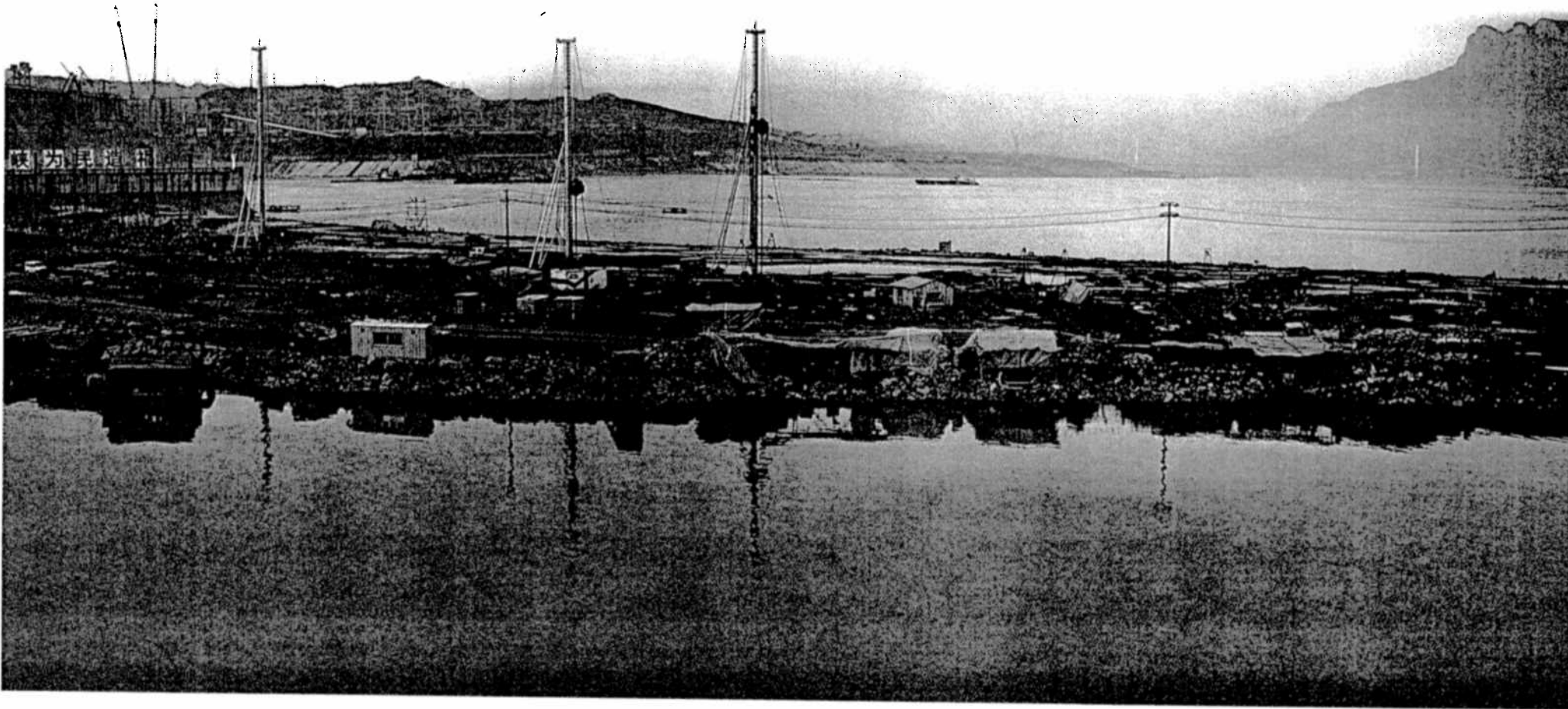
On behalf of CONTACT's directors I would like to thank Oakland University and the Meadow Brook Art Gallery for their partnership in the presentation of this exhibition and catalogue—together we illustrate the benefits of global connections. We are especially grateful to curator Claude Baillargeon for his insightful selection of photographs and commitment to this project. We are very proud to present this exhibition in Toronto at the Museum of Contemporary Canadian Art and extend special thanks to director David Liss for his support.

Our gratitude goes out to everyone involved in CONTACT 2006, including government funding agencies, our corporate sponsors and other supporters, CONTACT staff and volunteers, and, especially, all the photographers whose vision makes change possible by helping us better understand our world.

Bonnie Rubenstein  
Festival Director  
CONTACT Toronto Photography Festival

Museum of Contemporary Canadian Art | Toronto | May 2006





Robert F. Kennedy Jr.

## OUR WORLD IS CHANGING

We are destroying it; destroying the air we breathe, the water we drink, the land that sustains us. We are laying waste to the only home we have. Over the past several decades, we have cut down more than half the world's tropical forests.




## Claude Baillargeon IMAGING A SHATTERING EARTH

Conceived as a rallying cry against the ecological degradation of our world, *Imaging a Shattering Earth* explores the detrimental impact of humankind on the land, a phenomenon decidedly on the rise since the industrial revolution. While natural calamities like earthquakes, tsunamis, hurricanes, floods, and fires wreak havoc upon the environment, this exhibition and its catalogue underscore human-induced threats and damages. Without attempting to present a comprehensive survey, this project brings together fifty-six works by twelve North-American artists, whose photographs bear witness to an increasing sense of urgency. Effective as catalysts for reflection and debate, these images are forceful reminders of the growing dangers we all face. Collectively, they argue for the necessity of concerted actions against the progressive "shattering" of the earth.

By assuming a certain distance from their subject, these artists enable us to view a pattern of reckless stewardship of our planet. Whether achieved by means of bird's-eye views, panoramic sweeps, wide-angle lenses, large-format negatives, extended depth of field, or other compositional devices intended to suggest a sense of remote space, these photographs aspire to convey the big picture. Though each of the subjects represented can be pinpointed on a map, as evidenced by the work of David T. Hanson, the depicted terrain remains a kind of "every land"—a shared earth, rather than "my yard" or "my father's farm." Thus, it is our communal estate, our planet as a whole that is shown in jeopardy. Removed from the realm of domesticity, these works look beyond our individual rapport with the environment, our household water usage, recycling efforts, and fuel consumption in order to foreground the impact of societal behaviors, industrial practices, corporate priorities, and governmental policies.

Predicated on a direct observation of the earth's altered topography, the selected works (with the notable exception of those by Robert and Shana Parke-Harrison) share a propensity for objectified representation. Whether decontextualized to the point of abstraction, as in the intriguing earth markings of Emmet Gowin and David Maisel, or presented matter-of-factly, as in the graphic testimonies of John Ganis and Peter Goin, part of the intent behind these pictures remains to expose the physical scarring of the earth. Ranging in scale from diminutive to colossal, each print exemplifies its maker's reliance upon a synthetic, outward-looking vision. Yet, for all the remoteness of their imaging strategies, these works aim to engage viewers in a collective process of soul-searching.

Although seemingly paradoxical, this unrelenting call to attention coexists with a steadfast preoccupation with the formal aspects of the image-making process. Indebted to the heroic



*But so full is the world of calamity,  
that every source of pleasure is polluted,  
and every retirement of tranquility disturbed.*

— Samuel Johnson, 1752

Emmet Gowin, *Subsidence Craters, Northern End of Yucca Flat,*  
1996

tradition of exploratory landscape photography initiated in the nineteenth century by the likes of Carleton Watkins, Timothy O'Sullivan, and William Henry Jackson, the photographers pay close attention to the medium's syntax and history. While preoccupied with the depiction of environmental traumas in need of remedial actions, these advocates also aim to produce enduring works of art that maintain a level of open-endedness. Combining references to the picturesque, the beautiful, the sublime, and the spiritual provides an effective means to attract viewers' attention in order to trigger philosophical musing and critical inquiry.

Yet, unlike their nineteenth-century precursors, whose often commercially commissioned images reflect the then prevalent doctrine of manifest destiny, these contemporary practitioners view the underlying notion of progress and its recasting in the guise of globalization with suspicion. Taking their cue from an alternative landscape tradition that evolved in the 1970s around the landmark exhibition *The New Topographics: Photographs of a Man-Altered Landscape* (George Eastman House, 1975), they reaffirm the primacy of the acculturated landscape as a timely subject of investigation. This affinity can be seen in their shared rejection of the earlier paradigm of nature as a teleological manifestation. While those who subscribed to the New Topographics idiom showed a predilection for unglorified tracts of land and nondescript suburban developments, these landscape photographers favor industrial complexes, mining sites, dried-up lakes, landfills, waste ponds, and other exclusion zones. In both cases, the issue is one of human incursion upon land that was once regarded as pristine, relatively isolated, scarcely inhabited, and yet rich in natural resources and commercial opportunities. Though people rarely appear in these compositions, their impact is all pervasive. Unlike the New Topographics practitioners, however, maintaining the appearance of neutrality and authorial self-effacement is not a shared concern with the present group of artists.

Prior to the 1970s, few photographers expressed misgivings about the exploitation of natural resources and the potential repercussions of their processing. The depiction of industrial facilities first gained prominence at the turn of the twentieth century with the Pictorialists, who romanticized these smoke-filled complexes by imbuing them with metaphoric symbolism as part of their photography-as-art crusade. Meanwhile, others like Lewis Hine chastised the ruthless exploitation of child labor by greedy industrialists oblivious to health hazards. In sharp contrast, with the advent of the machine age that reached its apogee in the 1920s, a number of leading exponents of Modernism, none more prominent than Charles Sheeler, viewed industry with a reverence that verged on religiosity. This sentiment began to fade with the hardship and disillusionment springing from the Great Depression. Among the earliest evidence of the changing attitude is Walker Evans's 1935 sardonic portrayal of Bethlehem, PA, in which a working-class cemetery is deliberately foregrounded against the community's steelworks.

Still, one must wait until the early 1970s to experience a full-fledged expression of the power of photography to affect social consciousness vis-à-vis the evils of industrial production. Infuriated by the startling evidence of chronic poisoning in the Japanese community of Minamata, the renowned photojournalist W. Eugene Smith and his wife Aileen spent three years documenting the tragic predicament of the victims and their families. Caused by the uninhibited release of methylmercury waste compounds in the waters of a nearby fishing village and the ensuing contamination of the food chain, the Minamata disease is a neurological disorder that has affected more than 10,000 people, many of whom were poisoned while still in their mothers' womb. Determined to expose the horrors of the disease, the suffering of its victims, and the negligence of the Chisso executives, Smith and his wife produced powerful images, the most memorable of which shows Tomoko Uemura, a blind sixteen-year old, being tenderly bathed by her mother.

Just as there are different sorts of environmental debate, there are various types of environmental photography, as neither represents a singular universal entity. Although this exhibition does not explore photojournalistic environmental photography, this genre remains a persuasive means to raise public consciousness. This can be seen, for example, in Sharon Stewart's *Toxic Tour of Texas* (1992), a body of work that combines representations of waste disposal sites and portraits of concerned citizens with written testimonies to underscore the need for and the value of grass-root activism. Also exploring the combined effect of poisoned landscapes, affected workers, and their oral histories is Carole Gallagher's *American Ground Zero: The Secret Nuclear War* (1993), a powerful indictment of Cold War ideology.

As research for this exhibition evolved, it became increasingly evident that few women work within the previously outlined parameters. As the cultural critic Lucy Lippard contends, "many women photographers, like many women public artists, are more interested in the local/personal/political aspects of landscape than in the godlike big picture, and tend to be more attuned to the reciprocity inherent in the process of looking into places. Their approach might be called vernacular."<sup>1</sup> A case might also be made that social conditioning predisposes men towards big trucks, heavy machinery, mining sites, industrial zones, and military endeavors. Might women be more mindful of the dangers of toxic chemicals upon the body and their effects on reproductive health? Are they perhaps more reticent to expose themselves and their photographic plates to the insidious effects of radioactive radiation and toxic waste (mis)management?

Whatever the case may be, this perplexing issue is undoubtedly foregrounded by the present selection, which is organized according to three recurring preoccupations. The first explores the scarification of the earth's surface as a result of human interventions. The second

addresses the exploitation and management of natural resources. The third focuses on the afterlife of sites deemed irretrievably damaged. These shared concerns reflect the multiple links to be found between the various bodies of work. In the exhibition, certain notorious sites are depicted by more than one photographer, emphasizing both a plurality of perspectives and the degree of danger contained therein. Ultimately, the works in this exhibition are meant to reveal a pattern of monolithic degradation.

## The Marks We Make

In Robert and Shana ParkeHarrison's on-going lament for the planet, a mostly solitary male figure dressed in corporate attire performs the Sisyphean task of restoring a post-apocalyptic landscape. Recalling Antoine de Saint-Exupéry's *Little Prince* (1943) and the cosmic journey that landed the inquisitive fellow in the Sahara, this lone wanderer, driven by a sense of urgency, attempts by every conceivable means to salvage and rejuvenate what remains of the old world. In *The Marks We Make* (plate 4), he is seen spiraling from a rope tied to his ankles, while the stick in his hands scratches the crust of the earth in a rhythmic pattern ironically echoing the practice of pivot agriculture favored by large farming conglomerates in the American Midwest. Seen from the air, the resulting concentric circles exhibit a formal beauty that belies the dangers of exhaustive agrarian practices. With his watchful eye and proactive engagement towards reclamation, this earth guardian can be viewed as a metaphoric surrogate for all the photographers in the exhibition, who are committed to exposing the uncertain future of our ecological universe.

Inspired to write *The Little Prince* while flying as a professional pilot, Saint-Exupéry was well acquainted with the revelatory dimension of aerial perspectives. As we all know from air travel, the experience of viewing familiar grounds from above can be both disorienting and exhilarating. By drastically altering customary spatial relationships with our surroundings, airborne photography fosters a heightened sense of curiosity, while providing all-encompassing points of view from which to meditate upon the earth's transformation. Seen from above, the impact of urban expansion, industrial processing, hydro-engineering, mining, deforestation, waste management, military testing, and other invasive practices is seen on the monumental scale in which it unfolds. Often employed as a means of surveillance and as a mapping device, the technique of aerial photography is proving equally beneficial to environmental artists eager to reveal what is too often concealed from scrutiny at ground level. This approach is particularly effective as a means to circumvent restricted access, while maintaining a safe distance from the health hazards on the ground.

Both of these advantages were useful to David T. Hanson in his *Waste Land* series, which amalgamates topographical maps, aerial views, and government reports to draw attention to the worst toxic sites on U.S. soil. With verbatim transcriptions of the Environmental

Protection Agency's "Superfund" National Priorities List as his only text, Hanson asserts both the magnitude of the problem and the implicated corporations' lack of accountability and delaying tactics. Yet, the ineffectual rhetoric of this Remedial Response Program emerges from its juxtaposition to Hanson's detailed surveillance-like photographs and to the U.S. Geological Survey maps marked to indicate the exact locations of the hazardous sites, many of which are situated in close proximity to densely populated areas. This is the case, for example, with the G & H Landfill in Utica, MI (plate 16), which borders the Rochester-Utica State Recreational Area south of Twenty-Three Mile Road, some eight miles east of Oakland University's Meadow Brook Art Gallery. Hanson's placement of appropriated maps and texts on either side of his aerial photographs also serves to remind us of the semiotic crossovers between these three forms of sign. Beyond their common reliance upon bird's eye views, both survey maps and aerial photographs share an indexical bond with the terrain they represent. Furthermore, all maps, photographs, and texts are signifiers that require interpretive reading to yield significant meaning. Hanson's *oeuvre*, an unambiguous indictment of current practices, retains this theoretical dimension.

The dichotomy between disorientation and wonderment that accompanies flying has led a number of artists, among them Emmet Gowin and David Maisel, to explore the introspective potential of aerial photography. Fascinated with the medium's ability to transform as it records, these artists view the photographic process as a means to engage spiritually and holistically with the world. Spurred by the deteriorating condition of our ecosystems, their preferred strategy is to craft alluring images fostering contemplation, in the belief that this will lead to enlightenment. This, they assert, can be achieved by foregrounding the ambiguous sublimity of the ravaged landscape, thereby exposing the paradoxical relationship between degradation and beauty.

This shared concern is particularly evident in their many abstract, horizonless compositions, which are devoid of clues to scale, spatial relationships, and orientation, despite the vastly different dimensions of their respective photographs. As in the all-over compositions of the Abstract Expressionists, these square fragments of wounded terrain exude a formal strength which brings out and gives relevance to the marks and patterns animating their visual fields. Entranced by their rhythms and modulations, our mind's eye struggles to reconcile what it perceives with what is actually represented. While discovering the identity of the subjects can be startling, the spell of these engrossing pictures remains and their evocative presence is renewed with each successive viewing.

Consider, for example, David Maisel's *Lake Project*, one of several chapters from his on-going *Black Maps* investigation of despoiled landscapes. Though ostensibly inscrutable, these highly saturated images (plates 12–14) represent the drainage remnants of California's Owens

(dry) Lake, once a 110-square mile shallow body of water depleted in a mere thirteen years (1913–26) to meet the freshwater needs of Los Angeles. In the summer, the ecosystem of the desiccated lakebed, unusually rich in minerals, induces the proliferation of microscopic bacterial organisms, which turn residual water pink or even blood red. Yet, this striking phenomenon conceals the fact that windy conditions give rise to toxic dust storms laden with micro dust particles, including traces of carcinogenic cadmium, chromium, arsenic, and other hazardous materials.<sup>2</sup>

The consequences of an unabated exploitation of the planet are made clear in every picture in this exhibition, save for those grappling with the invisibility of nuclear radiation. From the incriminating evidence of toxic and household waste mismanagement, deforestation, and other environmental abuses garnered from coast to coast by John Ganis to the scarification and gouging inflicted by a plethora of mining activities, the earth is shown as deeply disturbed and in need of healing. Though resilient, our ecosystems cannot indefinitely withstand the relentless depletion of non-renewable resources, nor can the unabated onslaught of hazardous wastes and heat-trapping compounds be successfully reversed with current technologies.

## Resource Industries

The exploitation and management of natural resources figure prominently amidst the concerns of environmental photographers. From the extraction of raw materials to the by-products of their industrial processing, the resource industries encompass a broad array of commercial practices, many of which can be detrimental to the environment. Though some resources, like timber, are potentially renewable, only close monitoring and binding regulation by independent agencies and non-commercial interests can ensure sustainability. Rarely reported on, this issue is brought to light, for example, by the clear-cutting photographs of John Ganis, who has documented the for-profit deforestation taking place within certain U.S. national forests. How startling, for instance, to be confronted with the aftermath of a federal timber sale in Oregon's Willamette National Forest (plate 23), when the very notion of a "national forest" would imply some form of careful governmental guardianship "for the people."

Foremost among the determinant forces driving the exploitation of natural resources is our insatiable hunger for energy, be it hydro-electric, nuclear, oil based, coal, or derived from alternative sources. Emblematic of this condition is the global quest for fossil fuel, a subject that is increasingly probed by concerned photographers. Whether they focus on the controversial handling of petroleum in the Alaskan wilderness, the ravaged landscape of Alberta's oil sands, the spoil of coal strip-mining in Southern Illinois or the Czech Republic, or even the massive extraction of low-grade coal by the Chinese, the central issues remain the short-sighted custodianship of our resources and the failure to account for the true costs, in environmental

terms, of energy. A case in point is John Ganis's portrayal of the Alaska pipeline (plate 21), in which an aluminum-sheathed conduit invades the otherwise majestic frontier like some bionic earthworm. If the price of energy is spoil, should it not cost more? And if it did, would we not use it more efficiently?

As a graduate student at Southern Illinois University, Carbondale, Jonathan Long used a swiveling panoramic camera to capture Dantesque sweeps of abandoned coalmine waste. In *Black Canyon* (plate 27), a site now undergoing reclamation as part of the Sahara Woods State Natural Area, Long lowered his camera into the miasma of the mining gob to accentuate its desolation and the ghastly stream of rusty water leaching out of the rocks. In *Broken Trees* (plate 26), he provides stupefying evidence that the apocalyptic wasteland envisioned by Robert and Shana ParkeHarrison already exists in the heartland of America. Though reclamation may be underway in these devastated areas of Southern Illinois, it is alarming to think that mining lobbyists are now increasingly calling for deregulation and the easing of the very policies that curtailed these lawless abuses of the past century.

In China, the craving for energy is exacerbated by the politics of globalization that seek larger markets and reduced production costs to the detriment of environmental safeguards and human rights. As the new superpower asserts its growing prominence on the world stage, its energy needs increase exponentially. With a booming economy supported by a plentiful workforce, China is answering its energy challenge with projects of unprecedented ambition and far-reaching consequences. Nowhere is this more evident than in the Three Gorges Dam under construction across the Yangtze River. Begun in 1993, it will stand upon completion in 2009 as the world's supreme leviathan of hydro-electric facilities. With a span five times that of Hoover Dam, the resulting megastructure will result in the flooding of "13 major cities, 140 towns and over 1,300 villages." The already-begun inundation is forcing the evacuation and resettlement of an estimated 1.13 million people.<sup>3</sup>

In Edward Burtynsky's monumental panoramic depiction of the Three Gorges Project (plate 3), the unmitigated faith in progress that propels the risky enterprise is sure to consume the age-old serenity of the riverscape. Unfazed by the potentially cataclysmic repercussions of this impetuous tampering with nature's order of things, the promoters proudly assert in bright red calligraphy "Ge Zhou Dam Group is honest and doing our best" (on the left), while proclaiming that "The Police Hydro-Electric Construction Department is building Three Gorges Dam to make people happy" (on the right).<sup>4</sup> While such propagandistic bravado may be designed to assuage local sentiment, the message fails to reassure the world community mindful of seismic dangers and other environmental pitfalls.

Further exemplifying China's wholesale exploitation of its natural resources are the fifty million tons of coal that the country extracts from the bowels of the earth and burns on an



annual basis.<sup>5</sup> In Tianjin, the banks of the port of Tanggu are filled with mountains of coal spreading as far as the eye can see (plate 28). Consumed in enormous quantities by the steel industry, which continues to rely extensively upon coal-fired generators, the carbonized mineral can be found in abundance in parts of China. According to current data, there are “over a trillion tonnes of the proven coal reserves lying under Chinese soil—or more than 500 years of production at current levels.”<sup>6</sup>

Among the main Chinese coal users is Shanghai Bao Steel Group, which ranks as the sixth producer of steel worldwide. In 2005, it is estimated that this single plant will consume more than eighteen million tons of high sulfur, dirty burning coal, a major source of smog, acid rain, and mercury contamination, the latter of which finds its way into our bodies through the consumption of fish. In the Burtynsky photograph that graces the cover of this catalogue, Bao Steel’s on-site coal reserves are viewed from a perspective reminiscent of the ceremonial plaza facing the Pyramid of the Moon at Teotihuacán. With the symmetrically disposed structures and the obelisk-like smokestacks rising beyond, Burtynsky’s rigorous composition conflates, in both formal and conceptual terms, the rational spatial organization of an ideal Renaissance city with the eeriness of the Aztec metropolis. Hence, this nearly monochromatic study, with its strong contrast of light and dark, can be read both as a symbol of China’s rising fortune and a foreboding sign of the environmental challenges ahead.

A prime example of catastrophic outcome related to large-scale strip mining can be found in northern Bohemia, Czech Republic, where during the Cold War the now fallen Soviet regime sacrificed close to a million acres of land in the pursuit of cheap coal. To reach the coal-seam buried two hundred feet below the surface, more than a hundred traditional land-based communities were relocated in housing projects with few prospects of livelihood outside of mining. To make matters worse, the local people now live surrounded by discarded overburden and effluent holding ponds, and their health is affected by the acid rain which falls as a result of the pollution still spewing out of the seven power stations built by the State. In one of his photographs from the devastated region (plate 41), Emmet Gowin conveys the palpable horror of the poisoned landscape where the 800-year-old town of Libkovice once stood.<sup>7</sup> Razed between 1990 and 1998 to let a state-owned company extract coal under the village, the project has since collapsed, leaving former inhabitants fuming.<sup>8</sup>

In the American west, mining activities have long attracted the attention of photographers, though the focus of their interest has proven quite diverse. In the mid-nineteenth century, Carleton Watkins, Timothy O’Sullivan, and others were often commissioned to promote the nascent industry in the hope of luring prospectors and investors. Nowadays, photographers who continue the documentary tradition established by these pioneers are more likely to investigate the environmental impact of mining or its socio-cultural history. Among those

whose practice partakes of both perspectives is Reno-based Peter Goin, who for the last three decades has surveyed the complex relationships between people and the western landscape. Often working in collaboration with other artists and writers, Goin is a well-published observer of the evolving environment. His publications include a trail-blazing study of the nuclear landscape, a rephotographic survey of Lake Tahoe, an exploration of symbiosis entitled *Humanature*, a collaborative documentation of Nevada’s Truckee River, called *A Doubtful River*, and an in depth study of mining titled *Changing Mines in America*.

Given the prominence of mining in the western United States, its activities form a recurring theme within Goin’s *oeuvre*. In *Humanature*, for instance, Arizona’s mammoth Clifton-Morenci Pit, one of North America’s largest copper mines, is viewed as a hybrid form of landscape no longer strictly natural, nor entirely manufactured. In contrast, despite thematic and compositional similarities, the photograph of the abandoned Liberty Pit in Ruth, Nevada (plate 30), also an open-pit copper mine, is primarily presented as an historical artifact in *Changing Mines*. Within this context, Goin’s focus shifts to the socio-cultural legacy of the mined landscape. Equally breathtaking in its expansiveness is the bird’s-eye view of Helms Gravel Pit adjacent to the Truckee River in Sparks, Nevada (plate 31). Ravaged in 1987 by a substantial oil slick flowing from a nearby tank farm, this EPA National Priorities List “Superfund” site has since been cleaned up and given a new vocation. Following stabilization of its banks, the basin has been flooded, stocked with fish, and reinvented as Sparks Marina Park.

If there is one universal icon that symbolizes the industrial processing of our natural resources, it is the smokestack. Within the history of photography, it has been a recurring motif ever since Victor Regnault portrayed the coal-powered plant of the Manufacture de Sèvres on the outskirts of Paris in the 1860s. Made conspicuous by the Pictorialists at the end of the nineteenth century, and later, the icon of the Modernist New Vision between the First and Second World Wars, the theme continues to inspire artists.

In the early 1980s, John Pfahl questioned the threatening proliferation of nuclear power plants and other energy-generating facilities throughout North America. In a series of color images entitled *Power Places*, Pfahl explored the paradoxical relationships between energy production, picturesque landscape, and the alluring forces of the sublime. By 1988, this lyrical alchemist successfully distilled these heterogeneous ingredients in a new way. The resulting *Smoke* pictures, four of which form a part of this exhibition (plates 34–37), retain only the barest hint of the materiality of some towering smokestacks as billows of colorful smoke engulf the pictorial space. Simultaneously attracted and repelled by this “phantasmagoria of light and color,” Pfahl conceived these evocative compositions as metaphors of ecological uncertainty.<sup>9</sup> As the current Bush administration radically undermines thirty years of clean-air policy through closed-door legal maneuvers and rule changes, these photographs serve to

remind us that politics remain the most eminent threat to the environment.<sup>10</sup> Ultimately, it is our steadfast denial of such tell-tale signs as the appearance of industrial smog in places as remote as Reno, Nevada (back cover), that will lead our profit-driven society to its ecological demise.

## Exclusion Zones

Nowhere is the tragedy of environmental disasters more palpable and irrevocable than in the exclusion zones proliferating around the globe. As the term implies, an exclusion zone is a delimited area into which entry is forbidden. Commonly used to designate military installations, territorial waters, or airspace closed to unauthorized access, the phrase is also a fitting trope to denote ecologically devastated areas that are now unfit for human habitation. Echoing the Judeo-Christian expulsion from the biblical Garden of Eden associated with the Fall of Man, environmentally poisoned exclusion zones are rendered permanently inaccessible by our own doing.

While the individuals, corporations, and governments implicated in these forced evacuations often act with impunity, the testimonies put forth by environmental photographers help to prevent the eradication of their actions from public consciousness. Although photographs, like other forms of representation, are limited in what they can communicate, their indexical relationship with what they represent make them broadly regarded as evidence. Yet, the very toxicity that forces the creation of exclusion zones is often invisible to the eye. From water contamination to ground seepage and from airborne pollutants to radioactivity, there are countless environmental dangers lurking beyond the threshold of visibility. In such cases, all that the photographers can do is to allude, to evoke, or to intimate by means of telling details and signs presented according to their own conceptual framework and philosophical standpoint.

Of all the challenges associated with the depiction of exclusion zones, none has fascinated contemporary photographers more than gauging the impact of nuclear energy upon the landscape and its inhabitants. Following the trend-setting investigations of Kenji Higuchi, Robert Del Tredici, and Peter Goin, other photo-based artists as diverse as Patrick Nagatani, Carole Gallagher, and Lisa Lewenz also began to question the promise of progress implied by the development of atomic energy. By 1987, a collective known as the Atomic Photographers Guild was created. It now counts more than twenty loosely affiliated members, among them David McMillan and Mark Ruwedel, both of whom figure in this exhibition.<sup>11</sup>

On the North American continent, the most contaminated exclusion zone remains the Hanford Nuclear Reservation nestled along the Columbia River in southeastern Washington. Selected in 1943 by the Manhattan Project to house the world's first nuclear reactor, the complex had its ninth reactor shut down in 1991, having by then produced the majority of the plutonium used for the American nuclear weapons program. In the process, the Hanford Works left

behind 53 million gallons of plutonium-laden sludge now leaching from disintegrating underground tanks. Hoping "to transform this sludge into glass blocks, where the trapped isotopes would decay harmlessly over 10,000 years," the clean-up is expected to cost "at least \$85 billion and last until 2050."<sup>12</sup>

Perhaps prompted by the 1991 publication of Peter Goin's *Nuclear Landscape*, among the first photographic surveys to reveal the harrowing realities of the atomic age, Mark Ruwedel traveled down the Columbia River on three occasions in the early 1990s to document the Hanford Stretch. Favoring an understated, though highly rigorous approach reminiscent of both the New Topographics and their nineteenth-century forebears, Ruwedel brings out the profound dichotomies that now permeate this historical waterway. By portraying the Hanford Stretch as a placid landscape surrounded by a wildlife refuge, an ecology reserve, and a habitat management area, Ruwedel reveals this environmental protectionism as a masquerade. In one diptych taken from a rocky island (plate 53), he represents a two-fold history of forced displacement: on one shore, the abandoned Hanford town site, on the other, the historical meeting ground of a native North American tribe. Once a mighty river, the Columbia is now tamed by three dozen major dams. Electrical pylons, remnants of a bygone era, connect the desolate horizon like a timeline charting the human occupation of the Hanford Stretch.

Seen from the air, as in Emmet Gowin's disconcertingly gorgeous rendition of the Cartesian grid imprinted upon the poisoned riverside (plate 38), Hanford looks as wondrous as the Nazca lines from the coastal plains of southern Peru. How could such beauty belie the unfathomable horror of self-destructiveness? In Gowin's own words, the making of this photograph "changed my whole perception of the age in which I live. . . . What I saw, imagined, and now know, was that a landscape had been created that could never be saved."<sup>13</sup> Once mainly preoccupied with the sensitive portrayal of his immediate family, Gowin has spent the last twenty years drawing inspiration from this disturbing realization. The result has been a sobering compilation of ecological traumas forcing us to contemplate humankind's self-destructive tendency.

This perspective cannot be overlooked as one considers the extensive series Gowin produced at the Nevada Nuclear Test Site, an exclusion zone in both a military and ecological sense of the word. Somewhat easier to access since the end of the Cold War, the highly contaminated 1,350 square-mile testing area located in the Mojave Desert has no parallel anywhere in the world. Created in 1950 as an alternative to the proving grounds of the Marshall Islands in the South Pacific Ocean, the Nevada Test Site has been used for hundreds of atmospheric and underground nuclear explosions. Among the most visually striking features of this forbidden land are the subsidence craters, which are especially numerous throughout Yucca Flat

(plate 20). The result of powerful underground detonations, these hollows and their surrounding areas will remain radioactive for thousands of years. Sedan Crater (plate 40), the largest of them all with a diameter of 1,280 feet, was created in a matter of seconds by a thermonuclear reaction initiated on 6 July 1962. In Gowin's lyrical composition, it assumes a poignant symbolic dimension. As put by the environmental activist Terry Tempest Williams, "Call it a mass grave for all Downwinders or *hibakusha*, as the Japanese refer to 'explosion-affected people.'"<sup>14</sup>

In recent years, the dangers inherent in the production, testing, and application of nuclear energy and their life-threatening effect on people have led a number of photographers to investigate the aftermath of major incidents. Foremost among these studies is Carole Gallagher's extensive documentation of the Nevada Test Site workers, their families, and other "downwinders," who experienced first hand the onslaught of the nuclear clouds that followed every above-ground detonation.<sup>15</sup> By the very nature of her focus on the affected people, Gallagher's *American Ground Zero* stands in sharp contrast to the depopulated spaces featured in this exhibition.

Yet, the void left behind by the forced evacuation of 135,000 people from Ukraine's "Atomic City" of Chernobyl and its surrounding perimeter speaks volumes about human tragedy. Induced by overriding safeguards for testing purposes, the Chernobyl nuclear meltdown, which set one of the reactors aflame for nine days in 1986, let out two hundred times more radioactivity than the amount released upon Hiroshima and Nagasaki. Notwithstanding the thirty-six hour evacuation delay that further threatened countless residents, an exclusion zone fanning thirty kilometers from the epicenter was permanently sealed off to all human occupation. This area encompasses not only thousands of acres of once productive farmland, but also the modern and well appointed community of Pripjat, home to 45,000 employees of the plant and their families. In the course of evacuating, people were forced to abandon all belongings, large and small, for fear of spreading further contamination beyond the zone of total exclusion.

As revealed by David McMillan's photographs taken on a yearly basis since 1994 (plates 45–50), these warnings were only partially heeded. Though evidence of sudden departure remains all pervasive, much has since been removed by too many people oblivious to the invisibility of radioactivity. As time disintegrates the remnants of human occupation and nature reasserts its dominion over the abandoned district, McMillan's expanding archive underscores the dialectic between the half-life of radioactivity and the ephemeral course of civilization. Long after his elegiac portrayal of the once-thriving community has faded beyond recognition, Chernobyl's exclusion zone will remain hopelessly contaminated. As we contemplate such compelling evidence of man-induced ecological disasters throughout *Imaging a Shattering Earth*, it may be wise to remember the fate of Icarus, who refused to obey the voice of reason.

- 1 Lucy R. Lippard, "Undertones: Nine Cultural Landscapes," in *New American Feminist Photographies*, ed. Diane Neumaier (Philadelphia: Temple University Press, 1995), 39.
- 2 See Marith C. Reheis, "Dust Deposition Downwind of Owens (Dry) Lake, 1991–1994: Preliminary Findings," *Journal of Geophysical Research-Atmospheres* 102 (27 November 1997): 25999–26008, and Diana Gaston, "Immaculate Destruction: David Maisel's *Lake Project*," *Aperture*, no. 172 (fall 2003): 38–45.
- 3 Edward Burtynsky, *China: The Photographs of Edward Burtynsky* (Göttingen, Germany: Steidl, 2005), 122.
- 4 As translated in Gary Michael Dault, "The China Photographs of Ed Burtynsky: Second Sight at the Eleventh Hour," in *Before the Flood: Photographs by Edward Burtynsky* (Toronto: Self-published, 2003), 6.
- 5 Lucas Lackner, "Before the Flood," in *Before the Flood*, 27.
- 6 Emma Graham-Harrison, "China's Coal Riches Could Ease Oil Insecurity," Reuters News Service, *Planet Ark*, 25 May 2005, <http://www.planetark.com/dailynewsstory.cfm/newsid/30962/story.htm>.
- 7 The tragedy behind this series of photographs is recounted in *Emmet Gowin: Changing the Earth* (New Haven, CT: Yale University Art Gallery in assoc. with the Corcoran Gallery of Art and Yale University Press, 2002), 155–57.
- 8 Jan Haverkamp, "Does a Village Have Rights? Former Inhabitants of Libkovice Want to Buy Back Their Village," *Jinn Magazine*, 1 February 2000, <http://www.pacificnews.org/jinn/stories/6.02/000201-czech.html>.
- 9 Artist statement quoted in *A Distanced Land: The Photographs of John Pfahl* (Albuquerque: The University of New Mexico Press, in assoc. with Albright-Knox Art Gallery, 1990), 158.
- 10 See Bruce Barcott, "Up in Smoke: The Bush Administration, the Big Power Companies and the Undoing of 30 Years of Clean-Air Policy," *New York Times Magazine*, 4 April 2004, cover story (38–45, 66, 73, 76–78).
- 11 See Blake Fitzpatrick and Robert Del Tredici, *The Atomic Photographers Guild: Visibility and Invisibility in the Nuclear Era* (Toronto: Gallery TPW; Peterborough, ON: The Art Gallery of Peterborough, 2001).
- 12 Christopher Helman, "Waste Mismanagement," *Forbes*, 18 August 2005, [www.forbes.com/2005/08150/035.html](http://www.forbes.com/2005/08150/035.html).
- 13 Jock Reynolds, "Above the Fruited Plain: Reflections on the Origins and Trajectories of Emmet Gowin's Aerial Landscape Photographs," in *Emmet Gowin: Changing the Earth, Aerial Photographs* (New Haven, CT: Yale University Art Gallery, in assoc. with The Corcoran Gallery of Art and Yale University Press, 2002), 144.
- 14 Terry Tempest Williams, "The Earth Stares Back," in *Changing the Earth*, 131.
- 15 Carole Gallagher, *American Ground Zero: The Secret Nuclear War* (Cambridge: MIT Press, 1993). Since the Limited Test Ban Treaty was signed by the United States and the Soviet Union in 1963, atmospheric testing of nuclear weapons are no longer permissible.

an ongoing series of aftermaths to an unfathomable environmental, economic, and human disaster.

Fitzpatrick, Blake. "Disaster Topographics." In *Image and Inscription: An Anthology of Contemporary Canadian Photography*, edited by Robert Bean. Toronto: YYZ Books and Gallery 44, 2005.

Fitzpatrick, Blake, and Robert Del Tredici. *The Atomic Photographers Guild: Visibility and Invisibility in the Nuclear Era*. Toronto: Gallery TPW; Peterborough, ON: The Art Gallery of Peterborough, 2001.

Sowiak, Christine. *That Still Place . . . That Place Still*. Calgary: The Nickle Arts Museum, 2003.

**ROBERT and SHANA PARKEHARRISON**  
RPH born Fort Leonard Wood, MO, 1968 | SPH born Tulsa, OK,  
1964 | reside Boston, MA

Four photogravures from the *Reclamation* series, 2003, one photogravure from the *Procession* series, 2004, each 20" x 24."

In 2001, after many years of an evolving collaboration, the ParkeHarrisons began to exhibit their work recognizing both Robert and Shana as co-creators. Motivated by an urgent preoccupation with raising environmental awareness, their work is situated somewhere between photography, performance, sculpture, and painting. Developing a personal vocabulary drawing from such cultural idioms as cartoons, fairytales, poetry, literature, painting, and theatre, the artists have created an everyman who moves from one impossible attempt at healing the earth to another. Equal parts savior and fool, their everyman is an apt emblem for our fumbling efforts to save the planet by half measures. In their most recent works, apparently set within an endgame of environmental disaster, the ParkeHarrison's alter-ego is seemly engaged in a process of attempted rehabilitation—literally teaching the earth to return to old cycles: to remember to rain, to rotate, to cloud over, to grow anew, as if through sheer determination we could make a difference.

ParkeHarrison, Robert. *The Architect's Brother*. Santa Fe, NM: Twin Palms, 2000.

[www.parkeharrison.com](http://www.parkeharrison.com)

**JOHN PFAHL**  
born New York, NY, 1939 | resides Buffalo, NY

Four chromogenic prints from the *Smoke* series, 1988–90, each 20" x 20."

For over three decades, John Pfahl's work has investigated problems of perception, fusing traditions of landscape representation, color

photography, and conceptual art. Beginning with his interventionist *Altered Landscapes* (1974–78), followed by his deceptively beautiful *Power Places* series (1981–84), and more recently with his *Piles* (1994–98) images of recycling and refuse, Pfahl has mounted a subtle attack on our assumptions regarding the environment. In the late eighties, Pfahl began photographing the smoke billowing from the stacks of Bethlehem Steel's coke plant, whose annual emissions release as much as 1.4 billion tons of benzene into the atmosphere (*Smoke* artist statement, [www.johnpfahl.com](http://www.johnpfahl.com)). Ever more relevant in the current climate of deregulation, *Smoke*, akin to the famous cloud *Equivalents* of Alfred Stieglitz, represents a constellation of significances. Those would include negligence, greed, deceit, ignorance, and, ultimately, failing health. A mountain of evidence compiled by the Environmental Protection Agency in 1999 revealed that a majority of industrial polluters have consistently dodged the air-quality standards established by the Clean Air Act (1970), which required them to steadily reduce emissions by introducing cleaner, more efficient technologies with each newly built facility. After seven years it became apparent that industry had simply resorted to patching up old plants rather than building new ones to standard. In 1976, Congress amended the Clean Air Act with the new-source review or NSR, which required companies contemplating upgrades to install pollution-control devices such as scrubbers, known to reduce emissions up to 95 percent (Bruce Barcott, "Up in Smoke: The Bush Administration, the Big Power Companies and the Undoing of 30 Years of Clean-Air Policy," *The New York Times Magazine*, 4 April 2004, cover article). In 2002–03, the Bush administration implemented a series of rule changes that effectively nulls the new-source review regulations.

Pfahl, John. *A Distanced Land: The Photographs of John Pfahl*.

Albuquerque: University of New Mexico, in assoc. with Albright-Knox Art Gallery, 1990.

[www.johnpfahl.com](http://www.johnpfahl.com)

**MARK RUWEDEL**  
born Bethlehem, PA, 1954 | resides Long Beach, CA

Five gelatin silver prints from *The Hanford Stretch, Columbia River*, 1992–93, single works each 24" x 28," diptych 24" x 48." Courtesy of the artist and Stephen Bulger Gallery, Toronto.

Since the early nineties Mark Ruwedel has photographed both human and geologically induced traces on the lands of the American West in conceptually related series such as *Westward the Course of Empire*, examining the expansion of the railroads;

*Earthworks*, recording the land-based artworks of sculptors Ili Robert Smithson; *The Ice Age*, tracking the migratory routes of ancient peoples; and *The Italian Navigator*, tracing the legacy of the U.S. Military's weapons programs. *The Hanford Stretch*, Mark Ruwedel's self-published photographic project comprising twenty images, tracks the journeys he and several companions made along a 50-mile segment of the Columbia River, 1992–93. Home to nine nuclear reactors operating between 1944 and 1990, eight of whose radioactive cores were cooled by waters flowing directly to and from the Columbia River, the Hanford Works produced 74 tons of weapons-grade plutonium. Given thirty days to evacuate back in 1943, the residents of Hanford and White Bluffs had no choice but to leave when the isolated towns were chosen by the Manhattan Project as a site of plutonium production that would eventually supply over half the total U.S. nuclear arsenal. The Hanford Reservation is today considered one of the most toxic sites in the U.S. Controversy continues to follow efforts at containment in the wake of the reactor shut-downs. While the Environmental Protection Agency struggles to find a "long term" solution to the 53 million gallons of plutonium-laden sludge stored in 177 underground containment tanks, "leaks in a third of those tanks have leached a million gallons of toxic goo into the earth" (Christopher Helmar "Waste Mismanagement," *Forbes*, 18 August 2005 [www.forbes.com/2005/08150/035.html](http://www.forbes.com/2005/08150/035.html)). In the meantime construction on the high-tech containment facility has been halted because "the structural steel design of the Analytical Laboratory at Hanford's massive vitrification plant does not meet commercial building standards used nationwide" (Annette Cary "Hanford Lab Building Lags Behind," *Tri-City Herald*, 14 September 2005, [www.tri-cityherald.com/tch/local/v-rss/story/6966909p6867036c.html](http://www.tri-cityherald.com/tch/local/v-rss/story/6966909p6867036c.html)).

Love, Karen, ed. Mark Ruwedel: *Written on the Land*. North Vancouver: Presentation House Gallery, 2002.

Ruwedel, Mark. *The Hanford Stretch, Columbia River*. Montreal: Self-published, 1993.

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Catalogue entries by Katy McCormick