Chapter 1

Toxic Discourse

There is a real world, that is really dying, and we had better think about that.

—Marilynne Robinson, *Mother Country*

Threats from civilization are bringing about a kind of new "shadow kingdom," comparable to the realm of the gods and demons in antiquity, which is hidden behind the visible world and threatens human life on this Earth. People no longer correspond today with spirits residing in things, but find themselves exposed to "radiation," ingest "toxic levels," and are pursued into their very dreams by the anxiety of a "nuclear holocaust" . . . Dangerous, hostile substances lie concealed behind the harmless facades. Everything must be viewed with a double gaze, and can only be correctly understood and judged through this doubling. The world of the visible must be investigated, relativized and evaluated with respect to a second reality, only existent in thought and concealed in the world.

—Ulrich Beck, *Risk Society*

For the first time in history, modern selves are self-consciously aware of the need to analyze their actions as transverse interactions within the world that is there for *all* humans . . . The accumulation of actions like starting my car, spraying my lawn with toxics, leaking chloroflurocarbons . . . from my air conditioner, or cutting my trees affects the conditions for human survival around the earth.

—Andrew J. Weigert, *Self, Interaction, and Natural Environment*

The fear of a poisoned world is increasingly pressed, debated, debunked, and reiterated. Medicine, political science, history, sociology, economics, and ethics have been major contributors. Seldom, however, is toxicity discussed as discourse: as an interlocked set of topoi whose force derives partly from the anxieties of late industrial culture, partly from deeper-rooted habits of thought and expression.

The subtler complications of "toxic discourse" will take this whole chapter to explain. For the moment, however, it can be sweepingly de-

fined as expressed anxiety arising from perceived threat of environmental hazard due to chemical modification by human agency. As such, it is by no means unique to the present day, but never before the late twentieth century has it been so vocal, so intense, so pandemic, and so evidentially grounded.

There seem to be at least two reasons why the discourse of toxicity has not been treated with the same attention as its chemical, medical, social, and legal aspects. One, certainly, is the pragmatism that plays a major part in shaping agendas of public discussion. "Discourse" may seem a low priority when health or property is at risk. Not even intellectuals can be counted on to agree with Emerson's dictum that "to a sound judgment, the most abstract truth is the most practical"[1]—even though basic structures of thought, values, feeling, expression, and persuasion may indeed be more influential in the remediation of environmental problems than the instruments of technology or politics.

A second reason for relative neglect is the more "tribal" factor of the manner in which environmental issues have been framed by the potential contributors to the inquiry. Within literary and rhetorical studies, the impetus to engage environmental issues has mainly come from the ecocritical movement,[2] which has concerned itself especially with creative and critical recuperation of the natural world, although lately it has begun to engage a wider range of texts and positions.[3] The other venue from which environmental issues have chiefly been treated as discourse, cultural studies, has tended to epiphenomenalize physical environment by conceiving it as a production of geopolitics, capitalism, technology, or other human institution,[4] although some recent works of literary-cultural theory have placed environmental concerns more at the center of their analytical maps.[5] Perhaps a better cross-fertilization of approaches can be attained on the basis of such a conception as "mutual construction" of discourse and material world as I sketched in the Introduction or the "constrained constructivism" proposed by N. Katherine Hayles.[6] Toxic discourse makes an excellent test case, since, as we shall see, it arises both from individual or social panic and from an evidential base in environmental phenomena. Both this chapter and the next accordingly attempt to define more precisely the work of discourse as a cultural construction regulated by engagement, whether experiential or vicarious, with actual environments.

The Toxic Denominator

Although toxic concern dates from late antiquity,[7] in recent years it has greatly intensified and spread. Love Canal, Three Mile Island, Bhopal, Chernobyl, the *Exxon Valdez:* this modern mantra refers both to actual incidents and to events in the history of postindustrial imagination that ensured that the environmental apocalypticism activated by Hiroshima and Nagasaki would outlast the Cold War. Even the world's privileged enclaves betray symptoms of what social theorist Ulrich Beck has called "the risk society"—an increasingly global state of "immiseration" characterized by a "solidarity from anxiety" due to inability, even with science's assistance, to calculate the consequences of possibly harmful exposure to environmental hazards in one's everyday life.[8] Concurrently, such anxiety has also increased dramatically among the nonprivileged, seldom previously engaged in green activism. In the United States the antitoxics campaign has changed the face of environmental advocacy since its inception as a large-scale movement in the wake of the Love Canal controversy in the late 1970s,[9] broadening from a relatively few local disturbances to a national network of thousands of community groups.

Whereas preservationist agendas advocated by mainstream environmental groups have been financially supported, and their organizations staffed, by well-educated middle-class whites (typically male), what today is increasingly called the environmental justice movement (of which campaigns against toxic dumping have been the catalyst and remain the centerpiece) has increasingly been led by nonelites, more often than not women, including a strong minority presence[10]—and understandably so, given that "all Americans [are] not . . . being poisoned equally."[11] Nor have these nontraditional activists wanted to identify closely with mainstream preservationists, but like as not to disparage them as "bird kissers and tree huggers."[12] "In their previous lives," notes one account of the early leaders, "each of these folks had led overwhelmingly private lives filled with private, immediate concerns. They did not bother themselves with 'political' matters . . . None of them was eager to get involved. At most, one hears them speak of doing it reluctantly, out of a sense of duty, because someone had to. Then, disillu-

sioned and angered by their experiences, each moved toward a radical critique of society, business, and government."[13]

The 1990s may conceivably be remembered as a time when ecojustice activism built bridges with traditional environmentalism. The first two of the seventeen points in the 1991 manifesto emanating from the First National People of Color Environmental Leadership Summit in Washington, D.C., were (1) "Environmental justice affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction" and (2) "Environmental justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias."[14] These declarations seem to strive for an eclectic blend of old-time American democratic civil religion, '60s-era civil rights guarantees, Native American spirituality, and preservationist ethics. But what seems most distinctive about contemporary ecopopulism is the activism of nonelites, the emphasis on community, and an "anthropocentric" emphasis on environmentalism as instrument of social justice as against an "ecocentric" emphasis on caring for nature as a good in itself.[15]

Even if the theory of environmental justice proves too partisan for most legislators to endorse, the fear of environmental poisoning that energizes it may have at least as good a chance of remaining a compelling public issue as nuclear fear once did, especially given the certainty of future highly publicized emergencies with potentially serious consequences for public health. In the United States the iconographic power of toxic discourse as refracted through the media has been crucial to the quickening of the "scissor effect" of tightened legal regulations on dumping plus local blocking of new waste sites producing "voluntary" moves on industry's part to reduce waste production.[16] Of course, one of those voluntary moves has been to move industry off-shore—*maquiladores* along the U.S.-Mexican border, sweatshops in Latin America and southeast Asia, garbage flotillas to Africa[17]—aggravating global ecoinequality, seeming to thrust the world ever closer to the end time of modernization prophesied by Henri Lefebvre: the whole earth subjugated by "the capitalist 'trinity'" (land-capital-labor) into a space of sovereignty at once fragmented and hierarchical.[18] But that metastasis only confirms the potency of toxic discourse itself

(which Lefebvre's mordant analysis of runaway modernization antici-pates), a potency confirmed by its very extravagance, which has taken on a life of its own in excess of the "facts."[19] Toxic discourse is both al-ways immoderate and yet always being reinforced by unsettling events. Hence its permeation of the talk, if not the daily behavior, of national leaders and citizenry alike: for example, President Clinton's August 1996 nomination acceptance speech proclaiming as a self-evidently shameful truth that ten million U.S. children under twelve live three miles from a toxic waste dump. At the popular level recent public opinion surveys, like the 1995 Kempton, Bolster, and Hartley survey of a cross-section of five different groups of West-Coasters (Earth First!-ers, Sierra Clubbers, dry cleaners, laid-off sawmill workers, and a random sample of Califor-nians), show a strong consensus for such propositions as "A healthy en-vironment is necessary for a healthy economy."[20] In the developing world to an even greater degree, the sense of looming threat to human life and well-being offers a more cogent basis for global accord on envi-ronment as priority than does traditional preservationism.[21] Though toxic discourse may exacerbate social divisions when it summons up "the environmentalism of the poor" against the rich, and be a bone of contention between the countries of the North and the South and be-tween corporate and individual interests, it also may be a common de-nominator: a shared vocabulary, a shared concern. As literary critic Philip Fisher remarks in another context, fear can be a "route through which reciprocity is broken off," but it can produce a "more profound reciprocity . . . through shared fear, mutual fear."[22]

At the end of the nineteenth century, in a fascinating essay on "The Microbe as a Social Leveller," Cyrus Edson, a physician of socialist sym-pathies, set forth a similar idea: that "disease binds the human race to-gether as with an unbreakable chain"; "the man of wealth" is bound to "the man of poverty" by the unbreakable chain of contagion that quar-antines cannot stop for very long.[23] Edson drew from this a lesson of necessary human cooperation and mutual respect. This made sense be-fore modern medicine, when the bacteriological explanation of the ori-gin of disease was still a new discovery and great importance was attached to environmental causation of illness.[24] But Edson did not reckon seriously enough with the self-insulating propensities of the rich,

with racist scapegoating of immigrants and other socially marginal folk as disease-bearers,[25] much less with the pharmaceutical revolution, which has brought a new level of security to those who can buy access. At the turn of the twenty-first century, likewise, perceived environmen-tal crisis will doubtless prompt many affluent individuals, communities, and societies to seek safe havens from which they can blame—or trash—the victims.[26] But the problem may be more inescapable this time around, as the prospect of finding sanctuary anywhere becomes fainter. In any event, if anything like a universal environmental dis-course is to come into being, toxic discourse is certain to be one of the key ingredients. But what, more specifically, is "toxic discourse" any-how?

Toxic Discourse Anatomized

Its effective beginning was Rachel Carson's *Silent Spring* (1962). Chap-ter 1 introduces one of the first of its several defining motifs or topoi: the shock of awakened perception. Carson tells a "Fable for Tomor-row" of a "town in the heart of America" that awakes to a birdless, bud-less spring. "This town does not actually exist," Carson concludes; "but it might easily have a thousand counterparts in America or elsewhere in the world," for "a grim specter has crept upon us almost unnoticed, and this imagined tragedy may easily become a stark reality we all shall know."[27] She then launches into an indictment of DDT and chemical pesticides in general.

Media coverage of Love Canal, the first widely publicized case in the post-Carson era of a "poisoned community" in the United States, drew on similar images of community disruption, showing "visuals that seemed to signify 'normalcy,' but [revealing] the opposite, through voice-over narration . . . A boy bicycles along a quiet suburban street while the narrator says, 'There have been instances of birth defects and miscarriages among families.' . . . The most frequent, most persistent images throughout these news stories," this same analysis continues, "were of community lands (school yard, suburban field, backyards) that *ought* to be green, vibrant with suburban/domesticated vegetation, but instead show only sparse, half-dead plant cover, punctuated with holes

filled with unnatural-looking chemical soup; house yards and basements invaded by chemical ooze; disrupted neighborhood life."[28]

These images echoed the residents' life narratives. Lois Gibbs, who became the community's most prominent activist, insisted that when she arrived in 1972, she "didn't even know Love Canal was there. It was a lovely neighborhood in a quiet residential area, with lots of trees and lots of children outside playing. It seemed just the place for our family." Her awakening was slow and her sense of betrayal commensurate. Returning one night from a Homeowners Association meeting, she was stunned when a companion remarked "that you could close your eyes and walk down the street and tell where every single storm sewer opening was just from the smell. It was true; even though I was in the midst of it, I still couldn't believe the contamination had reached my house."[29]

Studies of other "contaminated communities" report a similar picture: an awakening to the horrified realization that there is no protective environmental blanket, leaving one to feel dreadfully wronged. Then follows a gamut of possible reactions: outrage, acquiescence, impotence, denial, desperation.[30]

These documents raise insoluble chicken-and-egg questions about what's constructing what. To what extent did media coverage of Love Canal shape Gibbs's autobiography? Or did residents' testimony shape the media coverage? To what extent were both pre-shaped by *Silent Spring* and its aftermath? Whatever one's answers, the testimony of Carson, Gibbs, and others clearly evince older patterns of thought. In Nathaniel Hawthorne's mid-nineteenth-century tale "Rappaccini's Daughter," for instance, the protagonist falls in love with a beautiful young woman who tends a strange botanical garden that turns out to be an anti-Eden of poisonous plants created by her mad scientist father. Indeed, Beatrice herself is toxic, and the price Giovanni must pay to secure her is to accept his own metamorphosis into a creature whose breath kills ordinary flies and spiders. The setting is medieval, but the scenario rests on the same techno-dystopian thinking that Hawthorne displays when rewriting *Pilgrim's Progress* in "The Celestial Railroad."[31] Contemporary Victorian-era "sanitarian" exposés like Catherine Beecher's "The American People Starved and Poisoned" claim explicitly what Hawthorne intimates: our snug bastions of bourgeois domesticity are suffused with noxious lethal vapors.[32]

Both Carson and her populist successors, then, revive a long-standing mythography of betrayed Edens, the American dispensation of which has been much discussed by scholars, most influentially by Leo Marx in his *The Machine in the Garden*.[33] For Marx, traditional mainstream American culture was marked by a naïve doublethink that allayed incipient anxieties about the techno-economic progress to which national policy has always been committed with escapist fantasies of inexhaustible natural beauty. This naïveté was critiqued by a handful of independent-minded creative thinkers like Thoreau and Melville who recognized the inherent contradiction between techno-boosterism and Currier-and-Ives identification of U.S. culture and folkways with pastoral landscapes. The predominant mentality Marx terms "simple pastoral," the contrarian vision of awakened intellectuals "complex pastoral."

It comes as no surprise, therefore, to find contemporary toxic discourse retelling narratives of rude awakening from simple pastoral to complex.[34] As historians of architecture and city planning have shown, the cultural construction of suburbia in the United States and often even of urban neighborhoods has drawn heavily upon pastoral imagery and values: envisioning communities of safe, clean, ample residential and public spaces (including for suburbs green oases of lawn around single-family homes and for cities emerald necklaces, garden parks, and apartment windowboxes).[35] Traumas of pastoral disruption are intensified by the common tendency for people to "have a strong but unjustified sense of subjective immunity" about domains familiar to them: hence failure to read product labels or to take elementary precautions when spraying in home or garden.[36]

It was through the rose-colored lens of pastoral-utopian innocence that Lois Gibbs recalls having seen the extremely modest residential subdivision of Love Canal. Likewise the landfill-plagued north Jersey community of Legler, whose residents had settled there (so affirms the major case study) as "part of an escape from the city to a rural idyll."[37] Likewise Sumter County, Alabama, an impoverished, 70 percent African-American district targeted by the Environmental Protection Agency for one of the nation's largest waste disposal facilities but proclaimed by the head of local activist resistance as "a beautiful agricultural region."[38] The accuracy of these images matters less than their psychological and rhetorical cogency.

In linking ecopopulist protest to pastoral values, one may seem to blur categories, seeing that pastoral sentiment's most obvious environmentalist legacy, preservationism in the Thoreau-Muir tradition, was to become the operating philosophy of the elite environmental organizations against which environmental justice activism has often pitted itself. Not only does the latter have a different demographic mix, it also differs in several core values, being more explicitly anthropocentric,[39] focused more on populated areas than open space and on community betterment rather than alone-with-nature experiences. Yet the two persuasions share the conviction that the biological environment ought to be more pristine than it is, ought to be a healthy, soul-nurturing habitat. So it makes sense for toxic discourse to enlist pastoral support. It refocuses and democratizes the pastoral ideal: a nurturing space of clean air, clean water, and pleasant uncluttered surroundings that ought to be one's by right.

Disenchantment from the illusion of the green oasis is accompanied or precipitated by totalizing images of a world without refuge from toxic penetration. This is a second topos propagated by *Silent Spring*. "For the first time in the history of the world," Carson insists, "every human being is now subjected to contact with dangerous chemicals, from the moment of conception until death."[40] The spectacle of communities, population groups, and finally the whole earth contaminated by occult toxic networks has repeatedly been invoked by environmental justice activists. It has furthered the effort to create a community of the disempowered ("From the time oil is taken out of the ground in Alaska in the land of the Gwichen to the refining process in North Richmond [California] to the final combustion of the oil on the freeways through west Oakland, poor people and people of color pay the cost"). It has helped mobilize groups of previously apolitical women by underscoring "connections between particular health problems in their own lives and the larger world of public policies and power that cause them." It has been invoked by minority neighborhoods threatened by hazardous waste facility sites to persuade white residents in contiguous districts that "no part of a community is an island unto itself; all residents benefit or suffer when any of them do."[41] Not for nothing was the publication of the national organization of antitoxic resistance movements baptized *Everyone's Backyard.*

As with the rhetoric of pastoral betrayal, that of toxic diffusion hardly originates with Carson nor has it been confined to the environmental justice movement. It has pervaded popular culture via, for example, ecocatastrophe novels like Philip Dick's *Do Androids Dream of Electric Sheep?*, John Brunner's *The Sheep Look Up*, Scott Sanders's *Terrarium*, and Paul Theroux's *O-Zone*.[42] Their impetus devolves, just as Carson's diagnostic does, from Cold War-era nuclear fear. Just before *Silent Spring* was published, President John F. Kennedy, who supported Carson's campaign to restrict use of chemical pesticides, warned the United Nations that "every inhabitant of this planet must contemplate the day when this planet may no longer be habitable."[43] Carson explicitly played on such anxieties by branding the pesticides industry "a child of the Second World War" and representing pesticides' consequences with imagery of carnage: weaponry, killing, victimage, extermination, corpses, massacre, conquest.[44]

But theories that locate the origin of global toxification rhetoric in the Cold War or nuclear era cannot account for its long-standingness and complexity. Malthusian anxiety lest the world's resources be ruined by overexploitation is not the "new paradigm" it has been claimed to be[45] but a long tradition in conservationist thought.[46] In the 1930s and 1940s artist-conservationist J. N. ("Ding") Darling popularized the vision of an already depleted world in syndicated cartoons depicting the earth as a globe with a vast crater where the United States once was (to satirize corporate rapacity) or a tiny near-empty kettle tended by a diminutive Mother Nature overshadowed by a hungry giant ("World Population") impatiently holding out a huge begging bowl.[47] Indeed, the ruined world image dates back to the first modern conservationist treatise, George Perkins Marsh's *Man and Nature* (1864), which in turn echoes warnings by European civil servants outposted during the seventeenth and eighteenth centuries on ecologically fragile island enclaves like St. Helena and Mauritius.[48]

When Richard Hatcher, the first African-American mayor of Gary, Indiana, an adroit politician with a keen sense of social justice, managed to rally urban blacks, middle-class suburbanites, and working-class whites behind a campaign for better air quality, they may not have been influenced by Carson, much less by antecedent traditions of toxic discourse. But the success of Gary's environmental coalition—until rust-

belt recession hit the city so hard in the 1970s that unemployment overwhelmed other civic concerns—depended on pollution's power as a social unifier: "one of the few issues that could bridge the divide between hostile factions."[49] As Ulrich Beck has written, whereas *poverty is hierarchic, smog is democratic.*[50]

No less crucial to the success of Hatcher's coalition building was his strategy of unifying communal hostility by linking environmental reform with social justice against "a common enemy of corporate greed."[51] This is a third major constituent of toxic discourse: moral passion cast in a David versus Goliath scenario. The motif has a dual provenance in U.S. environmentalist thought. The canonical inception point is the struggle between John Muir and Gifford Pinchot for the soul of Theodore Roosevelt over the question of whether to retain the Hetch Hetchy Valley as part of Yosemite National Park or to allow the valley to be dammed in order to bolster the San Francisco area's water supply. Muir accused "mischief-makers and robbers of every degree" of "trying to make everything dollarable," to no avail—although he did manage to unsettle Roosevelt temporarily.[52] Historically simultaneous with Muir's campaign, but rarely mentioned in histories of American environmentalism,[53] was Upton Sinclair's *The Jungle* (1906), the landmark novel denouncing worker victimage by the meatpacking industry. This is the other provenance: not muckraking narrative alone but a congeries of initiatives on behalf of urban and workplace reform that gathered momentum at the end of the nineteenth century, including the Ruskininspired settlement house movement, intensified labor agitation, and the birth of industrial toxicology. That the two legacies were not sooner linked bespeaks not simply social compartmentalization by class but compartmentalization of space (workplace versus home and leisure spaces, town versus country). Hatcher interwove these concerns by proclaiming the common victimage of all Gary's neighborhoods.

So too Carson at the global level. In a commemorative essay environmental justice activist Victor Lewis praised her exposé of "the demented love affair of corporate power with the chemical insect controls" and her protofeminist "denunciation of the outrages of patriarchy."[54] This was said in recognition of Carson's indictment of military and government agencies as well as chemical companies for pursuing eradication programs that don't work and for dispensing poisons without reckoning consequences or warning of known risks. Carson's own ire was less directed against specific organizations and officials, however, than against entrenched recalcitrance: against the "chemical barrage . . . hurled against the fabric of life"—"as crude a weapon as the cave man's club"; against the "tendency to brand as fanatics or cultists all who are so perverse as to demand that their food be free of insect poisons."[55]

The invective gains force by not limiting itself to a single adversary. It carefully preserves an us-versus-them dichotomy without absolving us for our acquiescence and complicity as chemical consumers—even as *Silent Spring* makes clear that ordinary citizens are victims of military, corporate, and government arrogance (with the opposition always masculinized). This universalizing turn within the rhetoric of blame is almost as important as the accusation itself. Even Lewis, who wishes Carson had pressed "the connections between social and environmental justice, between civil and environmental rights," refers to "our rampant misuse of agricultural pesticides."[56] After all, the environmental justice (EJ) activist must guard against insouciance or ignorance, even after having been "awakened," as well as against extrinsic evil. Significantly, Lewis's tribute to Carson is preceded by a hard-hitting how-to article on "The DOs and DONTs of Fighting Pesticides," whose final warning is "DON'T hire a professional and go to sleep."[57] Besides, in many contexts it is not only more accurate but also more effective to name "environmental racism" as the culprit rather than a particular agent.

In either case, the threat of hegemonic oppression is key to toxic discourse. In response, the environmental justice movement has promoted a self-conscious, informed sense of local self-identification, victimage, and grassroots resistance encapsulated by the image of "communities" or "neighborhoods" nationwide combatting "unwanted industrial encroachment and outside penetration."[58] These terms imply population groups with a common sense of place identification and social identity disrupted by toxic menace. The image of the holistic settlement, however, can be quite flexible. It can be extended to comprise not only historically self-identified entities like Alsen, Louisiana ("a rural community of black landowners [that evolved into] its present status as a stable, working-class suburban [98.9 percent black] enclave") but also statistical districts like ZIP code 99058 in South Central Los Angeles

("The *neighborhood* [italics mine] is a haven for nonresidential activities. More than eighteen industrial firms in 1989 discharged more than 33 million pounds of waste chemicals in this ZIP code").[59] This politics of place elasticity, however, is not at all inconsistent with the sociology of place itself. As social geographer John Agnew puts it, "place refers to [a] *process* of social structuration" that "cannot be understood without reference to the 'outside forces' that help define those places."[60] In toxic discourse the forces are, of course, the invader whose unwanted attention has targeted the locale, the EJ activist-facilitator, and the reader whose concern is drawn to this marked territory. Contestation of what counts as "place" is to be expected, then.

As toxic discourse focuses on specific cases, it readily montages into gothic. When Carson goes to the supermarket, her attention is riveted by the spectacle of "substances of far greater death-dealing power than the medicinal drug for which [one] may be required to sign a 'poison book' in the pharmacy next door . . . Within easy reach of a child's exploring hand" are fragile glass containers with convulsion-inducing chemicals. "These hazards of course follow the purchaser right into his home," in the form of such products as kitchen shelf paper "impregnated with insecticide, not merely on one but on both sides."[61] Today's how-to detoxification guides are full of similar cautionary tales like the case of "self-employed suburban engineer" Eugene Beeman, who "tightened his house to make it more energy efficient" and died of carbon monoxide poisoning as a result, or that of Dana Shrier, who traces her recurring "heart palpitations and joint pains" to "pesticide residues" in her mattress.[62]

Gothification becomes most lurid when the victim never had a choice, as Beeman and Shrier did, at least in principle. Consider five-year old Anttwon Suggs, whose story opens a *Los Angeles Times* article on the worldwide increase of asthma among children and especially inner-city African Americans. Overcome by a seizure at school, Anttwon gasped for breath and begged his teacher for help, "but she scolded him for misbehaving." Taken too late to the school nurse's office, "panic began to set in." Anttwon's "eyes bulged with terror as he fought to draw oxygen through his clogged airways." His hastily summoned mother, "fighting back her own hysteria," tried vainly "to calm him as her only son drew his final breath and died,"[63] trapped in the chambers of the school-dungeon. What this report finds especially shocking is that the incident typifies the plight of a whole class of juvenile victims whose life narratives unscroll in an endless series of tragedies in community, neighborhood, and workplace.

As with our previous topoi, here too the precursor forms date back to early industrialization. In U.S. literary history, gothicization of public health issues starts with the first novelist of claim to major importance, Charles Brockden Brown, who luridly portrayed yellow fever epidemics in Philadelphia and New York in *Arthur Mervyn* (1799–1800), *Ormond* (1799), and other works. In early nineteenth-century Euro-America, gothicized environmental squalor intensifies in European and American accounts of rural and especially urban poverty, perhaps the best known being Freidrich Engels's description of Manchester and other British factory towns in *The Condition of the Working Class in England* (1845) and Charles Dickens's novel *Hard Times* (1854), also set in the industrial Midlands.

Surveying mid-nineteenth-century exposés of the lower depths of New York City, Eric Homberger notes their reliance on "the Virgilian mode": "a guided tour of the underworld" slums that allegorizes them in classico-biblical terms as "the home of lost souls" so as to instill shock and compassion in uninitiated readers.[64] Herman Melville carried the Virgilian mode to the milltowns of New England ("you stand as within a Dantean gateway" at the threshold of the ravine leading to the "Tartarus of Maids"); Rebecca Harding Davis carried it to the industrial cities in the hinterland ("take no heed to your clean clothes, and come right down with me,—here, into the thickest of the fog and mud and foul effluvia").[65] It remained a staple of journalistic exposés like Jacob Riis's *How the Other Half Lives* (1890) and Jack London's *The People of the Abyss* (1903),[66] of novelistic equivalents like Sinclair's *The Jungle*, and even the writings of investigative researchers, such as Jane Addams's protégée Alice Hamilton, the American founder of industrial toxicology. In her autobiography Hamilton recalls a bleak January visit to a lead-smelting operation in Joplin, Missouri, "the very dreariest, most hopeless community I had eve[r] seen . . . around the village not a tree, only . . . the refuse from the concentrating mills which formed huge pyramids of ground rock and wide stretches of fine sand as far as the eye could see. As I looked there came to mind that Old Testament verse:

'And the heaven that is over thy head shall be brass, and the earth that is under thee shall be iron.'"[67]

Here we also see the Virgilian mode's potential double bind: advocating social regeneration by reinscribing the polarization of saved versus damned, the guide being so much wiser, so much more like "us," than the hapless hardly human victims. Sometimes the condescension is deliberate. In the macho-adventurer London and in the photographer-voyeur Riis, pity can lapse abruptly into contempt. Dickens's humanitarianism keeps him from this; yet neither Dickens nor Sinclair will abdicate narrative omniscience, any more than Hamilton will question that the best way to diagnose and remediate the environmental problems in the workplace is cooperation between experts and managers. Muriel Rukeyser opens up her long labor-activist poem "The Book of the Dead" to *Spoon River Anthology*-style monologues of Appalachian silicosis victims, but encased within heavy editorial didacticism.[68]

Contemporary toxic discourse inherits this ambiguous legacy. Carson relies at every turn on scientific authority. But in *Silent Spring* the terms of the author-audience relation to the scenes depicted have changed, both parties now being potential if not actual denizens of the toxic Inferno. In contemporary toxic discourse, furthermore, victims are permitted to reverse roles and claim authority. EJ journals contain extensive grassroots affidavits from community representatives along with the corroborating testimony of activist-investigators and scholar-consultants. The insider affidavits make central those moments in Virgilian gothic when—in the spirit of the *Inferno* itself—the sufferer briefly achieves agency by becoming the guide's guide.

Altogether the four interlocking formations, both in their cultural embeddedness and in their contemporary transposition, promote a unifying culture of toxicity notwithstanding recognition of such marks of social difference as race, gender, and class in determining what groups get subjected to what degree of risk. Carson's adoption by the EJ movement as harbinger, prophet, and foremother is exemplary, in that *Silent Spring*'s controlled analytical-satiric tone and documentary circumspection mark it as directed toward a well-educated, middle-class sub/urban citizenry (originally it was serialized in *The New Yorker*) by a person of the same background. Yet it is also a book whose passionate concern

about the threat of omnivictimage and whose author's postpublication ordeal as a vindicated and triumphant martyr of industry-led attack (the pathos intensified by Carson's own death from cancer) reidentifies it as a work of "universal" scope speaking from as well as to and for the positions of toxic victims in every place and social niche.[69]

Toxicity, Risk, and Literary Imagination

So much by way of genre analysis. Now let us consider some broader implications of this Virgilian tour for the understanding of the creative and critical work of environmental representation. One implication, clearly, is that toxic discourse calls for a way of imagining physical environments that fuses social constructivist with environmental restorationist perspectives. Against the model often favored by ecocriticism hitherto, of an "ecological holism" to which acts of imagination have the capacity to (re)connect us,[70] toxic discourse holds that belief in the availability of such a holism by such means is chimerical and divisive. Yet it recognizes both the rhetorical appeal and the benefit to human and planetary welfare of the ideal of a purified physical environment as an end in itself, thereby recognizing physical environment's nonreducibility to ideological artifact or socioeconomic counter. Its impetus is both to reinforce the deromanticization and to urge the expansion of "nature" as an operative category.

On the one hand, physical nature's cultural importance, indeed nature's nature itself, ceases to be located in its promise as past, present, or future sanctuary but rather in its standing as humanity's codependent and coconspirator in coping with the fact/awareness that the nature one engages must now inescapably be—if indeed it has not always in some sense been—not pristine but the effect of "second" (i.e., modified) nature or (in Derek Jarman's phrase) "modern nature."[71] However one might wish otherwise, the nature that toxic discourse recognizes as the physical environment humans inhabit is *not* a holistic spiritual or biotic economy but a network or networks within which, on the one hand, humans are biotically imbricated (like it or not), and within which, on the other hand, first nature has been greatly modified (like it or not) by *techne*. This view is neither "preservationist," given its recognition of

the impact of human powers and the legitimacy of human needs, nor is it "conservationist," since not resource management so much as viable symbiosis with physical environment is its goal.

On the other hand, the boundaries of "nature" and of "environmental" discourse now become much more elastic than formerly conceived. As Alexander Wilson has observed, the prevalent North American settler culture "ideology of city and country as discrete and exclusive land forms has been destructive" for its impoverishment of the sense of the ecological status and potential of both domains. The stereotypes inhibit recognizing country's status as site of production and city's need for greater ecological self-sufficiency. Though Wilson takes a good argument too far, the basic point is sound;[72] and the same could be said about the traditional linkage in literary studies of "environmental" consciousness to outback genres like wilderness romance and "nature writing" rather than with literatures of the city. Toxic discourse breaks down this binary, opens one to consideration of Richard Wright and Charles Dickens as writers with a sense of the "ecology" of place as keen as that of ruralizing counterparts like Zora Neale Hurston or Thomas Hardy.

Nowhere is this blurring of standard genre distinctions more striking than in contemporary works of nature writing produced under pressure of toxic anxiety, such as Terry Tempest Williams's *Refuge* (1991).[73] *Refuge* unfolds a double plot of a Utah wildlife sanctuary endangered by a rise in the Great Salt Lake and of the women in Williams's family maimed by cancer that might have been caused by downwind fallout from a decade of aboveground nuclear tests at Yucca Flats, Nevada. The book culminates with the narrator's realization that her family might have been put at risk unawares by accidentally being too near a particularly dirty explosion in the early 1950s.[74] After reading this book, it immediately dawns on one how much even the previous generation of green activist writing about this region, like Edward Abbey's *Desert Solitaire* (1968) and *The Monkey Wrench Gang* (1975), has overlooked or suppressed.[75]

The two fields of Williams's vision—wildlife and family illness—pull with and against each other by turns. Wilderness is both antidote to illness and escape from facing it; the deaths of mother and grandmother are both natural processes and profoundly *un*natural; and the way the

narrator splits attention between these foci is both therapeutic and symptomatic of the fitful grasp that she and her culture have of the relation between their mind-bodies and the environmental envelope that contains them. This allows Williams both to acknowledge and to resist the desire to cordon off natural from social—a hazard of traditional preservationist thinking, as we have seen, and the state of innocence from which ecopopulist leaders like Lois Gibbs had to awaken before they could understand what had overtaken their communities. *Refuge* becomes metacommentary on pastoralism's wish-fulfilling turn. Like Carson before her, Williams perceives that human communities and physical environment both stand to gain when the impact on reading audiences of a represented awakening to what is most troubling about that interdependence begins to approximate the startled awakening of victims of actual contaminated communities, for whom "environment becomes much more important to their understanding of life than it was previously likely to be," and this in turn tends to "undermine [their] belief in [human] dominion over earth that characterizes the view of Western civilization."[76]

The emphasis *Refuge* places on the imbrication of outback with metropolis thus not only avoids the circumscription of traditional nature writing but also reconceives that tradition by pointing to an interdependence previously there without having been fully acknowledged. Indeed, the most canonical of such works, Thoreau's *Walden* (1854), acknowledges frankly at start and close that the writer not only once was but now is "a sojourner in civilized life again";[77] and it is from that hybrid perspective that the ecocentric turn in the book is to be read, including Thoreau's political theory (of civil disobedience), which evolved as the book (which mentions his incarceration) was in progress. *Refuge* both levels charges and avoids claiming more than it can prove about the cause(s) of the family's illnesses. This produces a certain tortuousness that points to a second set of critical issues raised by works like Williams's.

Earlier we noted the importance of moral melodrama to toxic discourse, as well as the totalizing rhetoric with which it sets forth claims of environmental poisoning. Reading it, as Martha Nussbaum writes of Dickens's *Hard Times*, one feels "constituted by the novel as judges of a certain sort." Nussbaum readily accepts the propriety of this role, con-

vinced that ability to imagine the lives of socially marginal people empathetically as novelists like Dickens do is an important asset in the crafting of coherent, perceptive legal argument. But what about the question of evidence? Although "the literary judge" may indeed be more apt to wish to read a case "in its full historical and social context,"[78] he or she must also reckon with the phenomenon of narratorial bias in novels like *Hard Times,* not to mention the oxymoronic multi-genre of "nonfiction." Toxic discourse raises this question with unusual poignancy.

Although it rests on anxieties about environmental poisoning for which there is often strong evidence, it is a discourse of allegation or insinuation rather than of proof. Its very moralism and intensity reflect awareness that the case has not yet been proven, at least to the satisfaction of the requisite authorities. During two decades of ecopopulism, "almost every claim that a risk is present, almost every attribution of cause, [has been] vigorously contested."[79] It is notoriously hard to demonstrate environmental causation of illness, given the limitation of preexisting research bases, not to mention the multiplicity of possible causal agents. The generation of conclusive data and accompanying regulatory codes is a lengthy and haphazard process;[80] and in any case, as a senior spokesperson for risk assessment theory acknowledges, "*Science cannot prove safety, only the degree of existing harm.* Thus new technologies cannot be proven safe before use."[81] The problem of reaching even approximate certitude is compounded by the predictable reluctance of allegedly responsible parties to concede error and by the cumbersomeness of the process by which error is legally determined. At Love Canal "officials [never] agreed that there was a health problem" other than possible hazard to pregnant women and small children.[82] A suit by families in a leukemia cluster in Woburn, Massachusetts, against W. R. Grace for chemical dumping was settled out of court in 1986 for $8 million after the judge ordered the case retried on the ground that the jury, which had voted to convict, did not understand the hydrogeological evidence.[83]

This climate of scientific and legal complexification calls toxic discourse into question even in advance of its utterance, yet also calls it into being and argues for both its social and ethical import. The deliberate pace and methodological rationalism of scientific and legal proce-

dures run directly counter to the felt urgency of toxic discourse, leaving self-identified victims of environmental illness oscillating between implacable outrage and miserable uncertainty. Williams, for instance, concedes "I cannot prove that my mother . . . or my grandmothers . . . along with my aunts developed cancer from nuclear fallout in Utah. But I can't prove they didn't."[84] This sense of frustrated indeterminacy pushes her toward hesitant but persistent insinuation. The same holds for Todd Haynes's 1995 film *Safe,* about an upscale San Fernando Valley woman with a burgeoning array of what she becomes convinced are environmentally induced allergic symptoms dating back to childhood asthma. Her patriarchal family doctor finds nothing wrong with her and prescribes an equally patriarchal psychiatrist. Does her final retreat to a hermetic igloo-like "safe house" at an exclusive holistic health ranch in the hills above Albuquerque result from undiagnosed physiological vulnerabilities or from psychic dysfunctionality? The film insinuates the former possibility by making it the ostensible catalyst, but equivocates by suggesting the alternative possibility throughout.

The very climate of scientific and legal probabalism that makes Williams cautious and makes *Safe* end ambiguously can also be expected to produce in other quarters a rhetoric of unequivocal assertion as counterweight: a rhetoric with its own ethical force. As Lois Gibbs declared, "I don't see why you need scientific certainty when people's lives and health are at risk."[85] The most thorough study of ecopopulism to date defends the legitimacy of this kind of reaction, the reasonableness of flat refusal to accept indeterminate degrees of environmental risk, at least in such cases as hazardous waste deposits, since "the claim that the risks of *proper* disposal or treatment are known rests on the assumption that permitted facilities operate as advertised, a claim that is not credible in light of the EPA's enforcement record. Given the current state of knowledge and the current state of regulatory enforcement, there is no way to validate claims that the risks are known to be minor or acceptable." On the contrary, "experts have shown that even the best-designed landfills are certain to fail."[86] Add to this decision analyst Paul Slovic's warning that "whoever controls the definition of risk controls the rational solution to the problem at hand," together with the risk assessment community's concession that "public acceptance of any risk is more dependent on public confidence in risk management than

on the quantitative estimates of risk consequences, probabilities, and magnitudes,"[87] and alarmism starts to seem not just defensible but indispensable. This is particularly so when the technology in question can be expected to produce what organizational sociologist Charles Perrow calls "normal accidents": that is, when the system's "interactive complexity" and "tight coupling" of sequenced processes are such that accidents must be expected in the nature of the case.[88] The situation is all the more worrisome given that "no system can maintain itself by means of a point-for-point correlation with its environment, i.e., can summon enough 'requisite variety' to match its environment."[89]

From this standpoint, what to some would seem the paranoia of antitoxic advocacy seems a recourse made needful by the very culture of expertise of which the academy is a part and which intellectuals propagate. The culture that sustains the procedural rigor resulting in repeated findings of indeterminacy stands accused of evading the obligation to *do* something beyond critical interrogation of the problem. An absolutist counterdiscourse seems from this standpoint a necessary outlet for the anxiety formal risk analysis would contain. This is arguably just as true for ambiguated works like *Refuge* and *Safe*, with their self-conflicted wonderment as to whether anxiety might be paranoia. Here indeterminacy at the level of knowledge itself exercises a kind of determination as act of imagination: ensconcing toxic anxiety as a psychological reality and as a cause of immiseration in good part because of the inability to know.[90]

These works thereby also suggest, however, the liability of discourse to become its own sanctuary. Activists have sometimes worried about this. With the hindsight of two decades of committed social work, Jane Addams berated herself "that in my first view of the horror of East London I should have recalled De Quincey's literary description" in "The English Mail Coach" of a case of absorption in literary meditation rendering the persona incapable of preventing an accident in real life. Although the recollection of this literary simulacrum of paralysis seems to have been precisely what jolted Addams from armchair malaise, she took it as a mark of insular decadence that her mind was even fleetingly held captive by intertextuality "at the very moment of looking down from the top of the omnibus" upon real poverty.[91] Though her post-

Puritan scrupulousness may have been overnice, she was not wrong to worry about this form of entrapment. Toxic discourse may repress, fail to fulfill, or swerve away from itself according to the drag of other discourses with which it cross-pollinates.

In the powerful middle section of Don DeLillo's novel *White Noise* (1985), for example, the protagonist Jack Gladney's life becomes transformed when he is exposed to what he fears is a lethal dose during an "airborne toxic event," as local authorities euphemistically call it: a spectacular accident that traumatizes the community. The incident destroys the complacency with which he initially brushes off the explosion, assuring his family that "[t]hese things happen to poor people who live in exposed areas. Society is set up in such a way that it's the poor and the uneducated who suffer the main impact of natural and man-made disasters."[92] For awhile the novel seems to have crystallized around this scene of awakening. But the prospect of ecocatastrophe seems to be invoked mainly to be reduced to the status of catalyst to the unfolding of the culturally symptomatic vacuousness of this professor of "Hitler Studies," as the denouement turns to focus on his and his wife's chronic, narcissistic, long-standing death obsessions, which seem no more than tenuously linked to the precipitating event. Unless one reads the event itself and the characters' subsequent discomfiture as, for example, a deliberate nonevent precipitating a scene of bad risk management whose significance lies in precisely nothing more than "the totality of its simulations,"[93] it is hard not to conclude that a very different sort of "event" might have served equally well: a crime scare, a rumor of kidnapping by aliens, whatever. Otherwise the episode of toxic anxiety and its seeming dissipation seem chiefly a supporting metaphor for the trivialization of Holocaust memory in Gladney's scholarly simulacrum-building (the German expert lacking competence in German) and the book's other (non)event, his high-profile Hitler conference.[94]

White Noise's framing of this toxic event as, chiefly, a postmodern symbol of inauthenticity raises a question raised by Susan Sontag in another context: Is there something inherently problematic about converting affliction into metaphor?[95] My metaphor elides, derealizes, somebody else's pain. For several reasons, I should not want to go so

far. First, the novel's insistence on keeping the "event" in quotation marks, and the shallowness of Gladney's response to it, have a pertinence of their own for our inquiry. Bemused detachment, boredom, fecklessness, a sense of unreality about the affair—these are all predictable responses to the passionate, unequivocal engagement of most of the texts we have been considering, howevermuch (for example) an environmental activist might consider them culpably blasé. They make clear what hard work it takes, unless one is preconditioned to think of oneself or one's community as a prime candidate for toxic victimage, for relatively privileged persons to grasp its possibility in a sustained, concentrated way—whether the key issue here be Gladney's attention span or the novel's or both. There is a cultural logic to the "instinctive" reaction that it can't happen here, and to parodistic evasion of toxic discourse as paranoid or banal. Second, relegation to subsidiary metaphor status is something rather than nothing. Once imaged, the "event" cannot be wholly retracted and stands as a "matter" of (literary) record. There is considerable warrant for believing that even "dead" metaphors (e.g., "a black-and-white situation") shape or at least reinforce cultural values.[96] Third, metaphorization in this instance may be better understood as representation of partial emergence from environmental unconscious than as strategy to repress. In the mid-1980s toxicity was only starting to assert itself as a presenting personal reality for the mythical average American. Love Canal and Superfund were only a few years old. A novelist of middle-class manners would have had to contend with the embedded sense of distance between the stuff of headline news about toxic events and the predictable-seeming stability and safety of bourgeois life in middle-class American towns and suburbs.

The metaphorization of waste is an instructive collateral example. For Wallace Stevens, a dump was a purely symbolic place, merely a repository of used-up images. A generation later, Thomas Pynchon made W.A.S.T.E. a symbol of another sort: of the subversiveness of the Tristero.[97] DeLillo, in his massive fictional memoir of the Cold War era, *Underworld*, treats waste more materially as literal garbage and as multinational industry, but oscillating between this literalism and waste as image of modern civilization as detritus.[98] Even for a creative writer of avowedly environmentalist persuasion, the impulse still runs strong to

recycle waste as metaphor, as in A. R. Ammons's 1993 National Book Award-winning poem *Garbage*. "Garbage has to be the poem of our time," the speaker insists: but why? Because "garbage is spiritual," a symbol for the age: a multivalent symbol, connoting among other things Stevens's old metaphor of shopworn creativity. The title image remains as much a stimulus to aesthetic play as a socioenvironmental referent.

Yet Ammons remains aware of garbage's materiality, of its sullying of the planet, of the human body in terminal states of materiality: body as imminent garbage. In the process, the poem wryly ironizes its own bystander status ("I don't know anything much about garbage dumps: / I mean, I've never climbed one"); it "ecologizes" Stevens's trope by insisting on garbage's reuse (poetry "reaches down into the dead pit / and cool oil of stale recognition and words and / brings up hauls of stringy gook which it arrays / with light and strings with shiny syllables"). The seriocomic metamorphism alternates with environmental jeremiad ("poetry to no purpose! all this garbage! all these words: we may replace our mountains with / trash: leachments may be our creeks flowing / from the bottoms of corruption").[99] The poem gathers its energy from angry-bemused nonstop oscillation between the image of garbage as recyclable and garbage as shameful refuse, its extravagance of language aternately fueled and punctured by recognition of humanity's irretrievably biological condition.[100]

Meanwhile, evidence accumulates of the emergence of toxicity as a widely shared paradigm of cultural self-identification, and of toxic discourse as an increasingly pervasive irritant: evidence too that the eloquence of testimony of ordinary citizens' anxiety about environmental degradation can have influence on public policy, especially when the media are watching.[101] Against the economic and procedural conservatism of legislative and regulatory bodies, and their susceptibility to lobbying by vested interests, more individuals and communities have developed what some environmental anthropologists call "disaster subcultures" (whereby community ethos and social rituals get shaped by the recollection and/or anticipation of environmental disaster).[102] More and more it may become second nature to everyone's environmental imagination to visualize humanity in relation to environment not as

solitary escapees or consumers but as collectivities with no alternative but to cooperate in acknowledgment of their like-it-or-not interdependence.

Insofar as a sense of human collectivity can be rendered through a first-person meditative mode, works like *Refuge* and *Garbage* also imagine "disaster subcultures" into being—Williams's feminist-survivalist "Clan of Single-Breasted Women," Ammons's glimpses of cultures united by acknowledgment of garbage crisis:

> toxic waste, poison air, beach goo, eroded
> roads draw nations together, whereas magnanimous
>
> platitude and sweet semblance ease each nation
> back into its comfort or despair: global crises
>
> promote internationalist gettings together,
> problems the best procedure

Not that this prospect inspires much hope and contentment for him, any more than the prospect of a sorority of environmental cancer victims entirely consoles Williams. The poem is, so I take it, provocatively ironic in its formulistic antithesis here, aware as it also is that "our / sins are so many, here heaped, spared given to / false matter."[103] For though toxification may provide a cultural denominator for communities and even for the planet, as Ammons wryly suggests here, the act of imagining it, notwithstanding whatever wishful thinking it inspires about recycling and social mutuality and so forth, will mainly reinforce the desire to do away with it. To the imagination of how that might be done, we now turn.

The Place of Place

> A placeless world is as unthinkable as a bodiless self.
> —Edward Casey, *The Fate of Place*

> To preserve our places and be at home in them, it is necessary to fill them with imagination.
> —Wendell Berry, "Poetry and Place"

There never was an is without a where. Both the bad things and the good that happen to human beings and other life-forms self-evidently occur when their bodies are physically located somewhere, in particular locations. "Environment is not an 'other' to us" but "part of our being."[1] This applies not only to "natural" bodies but also to "cyborgs," the biotechnological hybrids modern humans increasingly have become.[2] Like the reengineerable body, environmental toxification can be conceived abstractly in terms of percentages of chemical compounds diffused throughout earth's atmosphere produced by the macroforces of industrial development, but what gives definition, force, persuasion, *embodiment* to toxic concern are specific events happening at specific times in specific locations to specific beings.

This is the insight behind the double plot of Richard Powers's novel *Gain* (1998). One strand is a pseudohistorical account of a hypothetical soap company, the other the story of a particular woman's losing battle against cancer in a midwestern town whose fortunes have depended on that industry. At the first level, the novel dramatizes the effect of pattern overwhelming presence, to borrow N. Katherine Hayles's characterization of the colonization of consciousness by informatics.[3] In *Gain* the colonizing force is an increasingly decontextualized and transnational capitalism, set forth in a fabulistic chronicle of Yankee enterprise, at once fact-laden and cartoonish: a kind of postmodern update of Dos Passos's *USA* trilogy. The second level, the arena of embodied place