

ENCYCLOPEDIA OF AMERICAN ENVIRONMENTAL HISTORY



VOLUME I

Edited by Kathleen A. Brosnan

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An imprint of Infobase Publishing



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Toward a Gendered Environmental History

by Marsha Weisiger



In her provocative and perceptive essay "Man and Nature! Sex Secrets of Environmental History," first published in 1999, the historian Virginia Scharff chided environmental historians for nearly ignoring women. Environmental historians claim to study the interactions between humans and nature, but, as Scharff pointed out, the humans that they write about tend to be foresters, dam builders, miners, hunters—in a word, male. Men, of course, are profoundly implicated in the conquest of nature. And yet American women—just as much as men—have shaped the environment. They led the movements to clean up cities and eliminate environmental toxins. They campaigned for the protection of birds and byways. And significantly, they consumed nature. Men might log trees and plow fields, but especially with the emergence of a modern consumer society in the late 19th century, the American housewife—whom advertisers dubbed Mrs. Consumer—decided what goods families would buy. As they loaded grocery bags with Chiquita bananas, Sunkist oranges, and Wonder Bread or furnished their homes with oak dining room sets, Frigidaires, and Maytags, they consumed raw materials, soil nutrients, and energy; encouraged the unearthing of heavy metals; prompted the production of pesticides and herbicides; produced waste for waterways and landfills; and in the process transformed ecosystems. Today, most of our interactions with the environment are less like those of foresters and more like those of women buying dining room sets, interactions that make their stories all the more significant to our grasp of the everyday decisions that fell forests. If we really want to understand environmental history, Scharff argues, we need to "take seriously, and understand women's lives, and attitudes, and work, and the environmental consequences of what women do."

At the same time, Scharff wrote in *Seeing Nature through Gender* (2003), we should pay attention to gender. Unlike sex, which denotes our biological differences and desires, *gender* refers to the socially and culturally constructed "bundle of habits and expectations and behaviors" that shape our *ideas* about the differences between men and women and, for better or worse, our metaphors for our relationships with nature. Gendered ideas are not stable; they change over time and vary among cultures. And yet they are so powerful that they

seem "natural," commingled with our understandings of ourselves as biological bodies. That does not mean that gender determines behavior according to some simplistic script, as though men were from Mars and women from Venus. But it does mean that cultural expectations of men and women have had profound consequences for nature.

Gender, in fact, has been central to American environmental history. It has shaped our perceptions of nature, our conceptions of men as producers and women as consumers, our approaches to environmental politics, indeed our very sense of ourselves as sexed beings. Increasingly, environmental historians are paying greater attention to both gender and women, especially their leadership in environmental movements, making it possible to sketch a picture of what a gendered environmental history might look like. As it turns out, a gendered analysis gives our portrait of the past a richer texture, one that captures more completely the complexities of our interrelationships with the natural world.

Throughout history, and across all cultures, according to the anthropologist Sherry Ortner, societies have viewed women as closer to nature, and men closer to culture. Women's unique physiological processes—menstruation, pregnancy, childbirth, lactation—underscore their animality and often keep them close to home, while men remain free to travel and engage in the cultural sphere of work, warfare, religion, and politics. That notion may strike some readers as overly broad, essentialist, and ahistorical. It sounds too much like the appalling argument that biology is destiny. And yet as Carolyn Merchant—a pioneering historian of gender and environment—points out, the idea that women embody nature has permeated Western thought for a very long time. This notion took hold long before the European settlement of America and continues, in one form or another, to the present day.

THE COLONIAL ERA

Indeed, this notion colored the European conception of America itself as "virgin" land. In the mid-16th century, the Flemish painter Jan van der Straet (1523–1605) allegorized the early encounter with the Americas of the Italian explorer Amerigo Vespucci (1454–1512) by depicting

a naked indigenous woman, her legs parted to receive her conqueror. And throughout the colonial and early national periods, men used sexually charged images of women to describe and legitimate the subduing of nature. In 1632, the English colonist Thomas Morton (ca. 1576–1647), for example, likened New England's natural bounty and its potential for development through "art and industry" to "a faire virgin, longing to be sped [made prosperous] and meete her lover in a Nuptiall bed." In portraying America as a lusty, seductive woman, colonists like Morton justified European conquest.

Nature as seductress was only one way in which Euro-Americans feminized the nonhuman world. Women's blood and flesh seemed more intimately connected to nature and earth's cycles, even to women themselves. The Puritan colonists believed that women could actually control the natural world through mysterious processes rooted in their sexual bodies. Take New England's witchcraft hysteria as a case in point. Again and again, women accused other women of conjuring up storms, killing cattle, aborting fetuses, breeding epidemic disease, blighting crops, spoiling cheese, and otherwise subverting nature. According to one historian, most of the accused were middle-aged, menopausal women, who had crossed the biological threshold known colloquially as the "change of life." As their reproductive capacity dried up, so the idea went, these women waged war against nature's own mockingly regenerative powers.

Coeval with these ideas was the metaphor of "Mother Earth," which entered into use in the English language by the mid-16th century and continues to this day. Listen to Henry Colman's gendered words as he celebrated the transformation of wild lands into productive farms in 1833: "Man exercises dominion over nature," he reminded a group of farmers. He "commands the earth on which he treads to waken her mysterious energies . . . [and] compels the inanimate earth . . . to impart sustenance and power, health and happiness to the countless multitudes, who hang upon her breast and are dependent on her bounty." A century later, the artist Alexandre Hogue (1898–1994) drew on this maternal image to portray the American dust bowl as an allegorical rape. Titled *Mother Earth Laid Bare*, the painting depicts a landscape whose eroded furrows take the form of a supine woman, lying naked and exposed, victim of a still-menacing plow idling in the foreground. Nature could be defiled, maternal, malicious, virginal, or even slutty, but it most certainly assumed the shape of a woman.

NINETEENTH-CENTURY AMERICA

Gendered ideas continued to shape American interactions with nature as people moved westward across the plains. The substance of those ideas, however, is a matter of debate. According to the literary historian Annette Kolodny, men

and women held diametrical views of the land. Men craved mastery of a feminized landscape, the penetration of its ground with mines, the harnessing of its streams, the plowing of its prairies into farms. By contrast, women imagined the West as inchoate gardens that they might cultivate and domesticate as an extension of their homes. But as the historian Mark Fiege points out, some women, as did men, used sexualized imagery to describe the agricultural development of the West, and many men imagined the West as a garden, beginning with THOMAS JEFFERSON's vision of an agrarian nation. In 1900, the great prophet of irrigation, William Ellsworth Smythe (1861–1922), may have titled his tract *The Conquest of Arid America*, but his idea of conquest was to tap the West's rivers and reclaim a lost Garden of Eden—or at least an "industrial Eden"—through the "miracle of irrigation." Thus cultivating and conquering nature could be two sides of the same furrow (Smythe, 238).

To be sure, elite women, more than men, tended to write about nature in terms of family and home. By the 19th century, the notion that women were closer to nature and men to culture had evolved into what historians have called the "doctrine of separate spheres." That ideology justified a gendered division of labor in which middle- and upper-class women devoted themselves to domesticity. The notion of separate spheres infused much of American environmental history until the mid-20th century, not only in its intellectual underpinnings, but also in the realms of production, consumption, and political activism.

Elite women, for example, developed a distinctly female tradition of nature study, in which nature became a wellspring for moral instruction and reflections on motherhood and home. As the study of natural history began to blossom in the United States, women recorded their observations of plants, birds, and butterflies as a "natural" extension of their social roles as domesticators. The first of these female naturalists was Susan Fenimore Cooper (1813–94), who published *Rural Hours* in 1850. Written in the same year that HENRY DAVID THOREAU penned *Walden; or Life in the Country* (1854), his famous meditation on the natural world as the embodied divine, Cooper's two-volume book chronicled the cycle of the seasons as she strolled through the gardens, fields, and woods of her home in upstate New York. She documented the natural world with specificity, emphasized the value of native plants, observed the spread of noxious weeds, and called for the preservation of native forests, the "good gift of our gracious Maker." And yet, as did Thoreau, Cooper focused less on the physical attributes of flowers, trees, and birds and more on their behavior, the impressions they made upon her, the emotions they evoked.

Still there were differences between their approaches. Cooper imbued her descriptions of birds and flowers with notions of family and female modesty. Comparing the wild

rose to its cultivated cousin, for instance, she disparaged hybrids bred with few leaves and showy blossoms. Their nakedness, she wrote, "reminds one of the painful difference between the gentle, healthy-hearted daughter of home . . . and the meretricious [tastelessly alluring] dancer, tricked out upon the stage to dazzle and bewilder, and be stared at by the mob." By contrast, the wild native rose was more demure, veiled with leaves, for "the rose has so long been an emblem of womanly loveliness. . . ; and modesty in every true-hearted woman is, like affection, a growth of her very nature." Flowers offered lessons on femininity, and birds on "parental affection." Similarly, Florence Merriam Bailey (1863–1948), the first woman to win the Brewster Medal from the American Ornithologists' Union, in 1931, for her *Birds of New Mexico* (1928), focused not only on the scientific characteristics of birds but also on their courtship behavior and family life, articulating bonds among mothers, fathers, and their offspring. Her first book, *Birds Through an Opera Glass* (1899), took the position of a genteel observer. By contrast, her contemporary JOHN BURROUGHS (1837–1921) viewed bird-watching as an outdoor sport, akin to hunting and fishing. She highlighted cooperative behavior, while he focused his sights on aggression among birds and predator-prey relationships. Their differing approaches reflected societal ideals of masculinity and femininity.

Gendered relationships with nature were not limited to the merely metaphorical; they extended to economic production as well. Environmental historians have told well the stories of men whose work transformed landscapes with brawn and bluster. Few of those histories, it should be noted, have examined how those modes of production, and the hubris that often accompanied them, were gendered expressions of masculinity. Men, for example, industrialized agricultural production in the 19th century with large-scale livestock operations and extensive commodity farms, supported by a new infrastructure of distant feedlots and slaughterhouses, grain elevators and futures markets, the refrigerated railroad car, and expansive irrigation systems. At the same time, they began to appropriate the agricultural production that had once been women's work, produced for urban markets nearby: milk, butter, eggs, poultry, and even vegetable and orchard crops. We can only wonder about the significance of gender in this transformation of the agricultural landscape and its environmental consequences, for its story remains largely unwritten.

To see how the story can shift when we consider gender, we might look to environmental histories of production among Native Americans. Consider the BISON hunters of the Great Plains. During the 18th and early 19th centuries, the indigenous peoples of the Plains adopted a more highly gendered economy as a result of market forces and the assumption of a nomadic way of life, made possible by the acquisition of horses from Europeans. Formerly, the Cheyenne, Sioux,

Arapaho, and other Plains peoples had lived semisedentary lives with diversified economies shifting seasonally from horticulture to gathering to hunting. In summer, entire communities of men, women, and children participated in communal hunts, in which they encircled bison herds with fire to trap and kill them or stampeded them off cliffs. The horse changed all that. Equestrian hunting became an exclusive masculine pursuit, while women remained in camp to process robes, work that was vital to production for the market but far lower in status. At the same time, horseback hunters following herds became measurably more nomadic, making horticulture unsustainable and thereby eliminating a significant female contribution to the household economy. That shift rendered the newly nomadic hunters vulnerable to the deliberate federal policy to extinguish bison and aided in the military defeat of Plains Indians by 1890.

Or ruminant on the Diné (aka Navajo), who had herded sheep, goats, and horses in the arid Southwest since the early 1700s. Two centuries later, many Diné had become quite prosperous, owning substantial flocks. Livestock ownership itself was gendered: Men often boasted enormous herds of horses, while women possessed large flocks of goats and sheep (though no class of livestock was the exclusive domain of one gender). Large flocks, along with matrilineal residence patterns, gave women control of grazing lands, and their power as economic producers gave them considerable influence within their rural communities. Then in the 1930s, the U.S. BUREAU OF INDIAN AFFAIRS, in concert with the Soil Conservation Service, forced the Navajo to slash their vast herds in an effort to conserve severely overgrazed rangelands. The program impoverished the Diné, yet failed to improve the condition of the land and created a collective memory of trauma that continues to complicate conservation policies. Most historians who have analyzed what went wrong have focused on the opposition that flared up within the federally appointed all-male Navajo Tribal Council. Their stories make the councilmen seem as though they spoke with forked tongues, agreeing to the conservation program on one day, then denouncing it the next. And yet, if we broaden our perspective to include women, the council's actions make sense. The conservation program threatened women's economic autonomy, destroyed their means to support their families, and restricted their use of traditional matrilineal grazing areas. Women understandably fought tooth and nail against the federal government and pressured the tribal council to repudiate the conservation program, leading to a chronically eroded range.

Gendered production shaped the ways in which people changed the natural world, and gender also structured the ways in which men and women *consumed* nature. In the 19th century, the development of scenic resorts and national parks fostered the commodification and consumption of nature

as recreational playground. These were generally sublime mountainous landscapes, awe-inspiring in their grandeur and majesty. But the men and women who hiked or climbed the mountains tended to define the sublime differently, according to the historian Susan Schrepfer. Men tended to measure themselves against mountains, which they characterized as barren, terrifying peaks. Though at different times and places men described their conquests in sexual, imperial, or martial terms, the literary tropes they used to narrate their encounters remained remarkably stable. Looking down into the abyss, men mastered their fear, conquered the crests, and experienced spiritual transformation. Women, by contrast, climbed mountains less for the exhilarating danger than for the sensual, aesthetic experience; the feeling of freedom; and the empowering energy they felt pulsing through their bodies. Whereas men focused on brushes with death, women emphasized the presence of life—wildflowers, birds, streams—which they domesticated with the language of the garden and home.

These gendered expressions, nonetheless, were contingent on their specific context, counters the historian Joseph E. Taylor III. A woman might note the lilting trill of songbirds at one point and the adrenaline rush of vertical nature at another. Similarly, a man might use hypermasculine language to describe his climb up the face of El Capitan in Yosemite, then wax poetic about his hike through the wildflowers of Big Tuolumne Meadows. That is, men's and women's relationships with nature did not always conform to gendered stereotypes. Witness the ski industry, which in the mid-20th century deployed images of women as sexy and fashionable "Snow Bunnies" to attract male skiers to the slopes, even as most of the women themselves sought physical empowerment and independence through their athleticism. By the early 1990s, snowboarding "Shred Betties"—dressed in ironically girly pink clothing and pigtails—demonstrated their fearlessness, celebrated their physical freedom, and soon earned respect in a male-dominated extreme sport. Gender colored the ways in which men and women knew and consumed nature, but the definitions of what constituted femininity and masculinity were rarely simple.

THE PROGRESSIVE ERA

Hunting offers another example of the ways in which gender colored interactions with nature. At the turn of the 20th century, rural working-class men collided with upper-class "dudes" over constructions of masculinity. THEODORE ROOSEVELT (1858–1919) famously argued that rugged experiences in wilderness renewed manly vigor and revitalized "overcivilized" men. He himself cultivated a hypermasculine persona as a big game hunter, long a mark of manly prowess. The masculine cult of the late 19th century idolized famous frontiersmen, hunters, and trappers. In fact, when

Roosevelt and his buddies formed a hunting club in 1887, they called it the BOONE AND CROCKETT CLUB, after the legendary frontiersmen Daniel Boone (1734–1820) and Davy Crockett (1786–1836). Membership was restricted to men of wealth and social standing, but more than that, a prospective member had to have hunted with a rifle and killed "in fair chase" a large game animal, such as a wolf, bear, or deer. This may sound like innocent fun; men will be boys. But when elite men appropriated hunting as a "manly sport," they transformed those who hunted or trapped for food and income into "poachers." Labeled outlaws, these locals then challenged the emerging conservation movement with new, working-class notions of masculinity. Poaching, writes the historian Karl Jacoby, became for the rural male "a test of his bravery, of his knowledge of the local landscape, of his skill as a hunter and tracker"; in short, poaching became a mark of manhood. Thus hunting began to measure masculinity at the turn of the 20th century, but the form that "manly hunting" took depended on one's social class.

The consumption of nature through hunting engendered competing notions of manliness, but it also nurtured changing definitions of womanhood. Until well into the 20th century, most well-dressed Euro-American men and women wore hats, often ornamented with the fur, feathers, and flesh of animals. Such ornamentation led to the near extinction of whole species of mammals and birds. A vogue for beaver-felt hats that began in 17th-century Europe nearly eradicated North American beavers by 1830 and over time drained the valuable wetlands that the rodents helped create and maintain. But as manufacturers switched to wool felt, fashionable women took to wearing bonnets ornamented with feathers and even whole birds, endangering egrets, terns, herons, and others with showy plumage.

Fortunately for the wildfowl, a gaggle of women flew to the rescue during the early years of the Progressive Era. Women were significant to the conservation movement at the turn of the 20th century, though often overshadowed in the historical literature by such men as Theodore Roosevelt, GIFFORD PINCHOT, and JOHN MUIR. The General Federation of Women's Clubs, for example, established departments of forestry, waterways protection, and public health, all designed to harness the moral power of womanhood. The members of one New Hampshire women's club committed themselves to "preserving God's gift of exceeding beauty to our hills and valleys" and ultimately succeeded in preserving Franconia Notch State Park in the White Mountains in New Hampshire (quoted in Jarvis, 87). Other clubs worked to protect the Sequoia trees and redwoods of northern California, a state forest reserve around Mount Katahdin in Maine, Rocky Mountain National Park in Colorado, and much more.

As it became clear that something so frivolous as fashion threatened whole species of birds, a group of prominent Bos-

ton women founded the AUDUBON SOCIETY in 1896. Drawing on gendered ideas about femininity, they argued that pinning the dead bodies of birds on bonnets debased natural feminine beauty and, monstrously, encouraged the murder of mother birds and their young. In mobilizing against the fad for bird hats, women fostered an "essential shift into new ways of thinking about nature," according to the historian Jennifer Price. They created a new language for 20th-century conservation, one that focused on nature's beauty and economic value, on the potential of wild animals as role models and their status as God's creatures, and on the moral superiority of conservationists. The women's campaign spurred Congress in 1900 to pass the landmark Lacey Act, which prohibited the interstate shipment of wild birds and other animals killed in violation of state hunting laws.

In fact, women have been in the vanguard of environmental politics—especially the urban environmental movement—since the Progressive Era. Forming organizations like the Garden Clubs of America, which promoted urban parks and planted trees along boulevards, progressive women worked to beautify the urban landscape, abate smoke, eliminate litter, and improve urban water quality, sewage treatment, and the disposal of solid waste. In keeping with the notion of separate spheres, these efforts seemed such a natural extension of women's domestic realm that they were collectively called municipal housekeeping. Indeed, such a label made it possible for women to assume public positions as sanitation officers, and the like. One such woman, Mildred Chadsey (1884–1940), commissioner of housing and sanitation in Cleveland, Ohio, could thus claim to be doing nothing more than housewifery writ large. "Housekeeping," she observed, "is the art of making the home clean, healthy, comfortable and attractive. Municipal housekeeping is the science of making the city clean, healthy, comfortable and attractive." Municipal housekeepers claimed the mantle of science and rationality, but their rhetoric tended to focus on health, children, aesthetics, and morality. Businessmen and politicians dismissed these issues as mere "sentimentality," a code word used to marginalize concern for the poor and downtrodden. Nonetheless, elite women's organizations, such as the Ladies Health Protective Association in Pittsburgh, helped broaden the public conception of community welfare to include environmental qualities such as clean air, water, and city streets.

Perhaps the best known of the municipal housekeepers were the women at Hull-House, a "settlement house," or community center, which provided social services for Chicago's poor immigrants. JANE ADDAMS (1860–1935), the founder, and her colleagues FLORENCE KELLEY (1859–1932) and ALICE HAMILTON (1869–1970) pioneered the systematic study of urban and industrial environmental injustice. Drawing maps, the social reformers documented the distribution of ethnic groups; population density; infant mortality; hous-

ing, sanitation, and flooding conditions; and the incidence of diseases such as typhoid. Their work uncovered the political corruption that allowed slum conditions to prevail in immigrant neighborhoods and inaugurated a nascent environmental justice movement that challenged male bastions of power. As a result of their efforts, the city of Chicago hired a new sanitation inspector, who demolished dilapidated buildings and illegal privies, removed garbage, and abated squalor. Hamilton went on to investigate the hazards that the lead industry posed to industrial workers and documented the disfiguring dangers of the radium in luminous paint, which female dial painters used to make watches and clocks. Soon she became the leading investigator of industrial toxins in the United States, with an appointment as assistant professor of industrial hygiene—the nation's first—at Harvard University and the publication of *Industrial Poisons in the United States* (1925), which drew connections among class, race, gender, the environment, and the body.

Pollution reform efforts became so closely associated with women in the early 20th century that the men who participated in the movement risked being labeled effeminate. Thus, the first national organizations to fight for the abatement of smoke pollution effectively excluded women by requiring professional credentials for membership. (The American Forestry Association likewise excluded women in the 1910s, fearful that women's involvement would hurt its reputation as an organization for rational, scientific foresters.) Male anxieties about attacks against their masculinity, argues the historian Adam Rome, had a marked effect on the ways in which men framed the discussion of environmental issues, with lasting consequences for environmental movements.

THE NEW DEAL

Anxieties about masculinity saw their full expression during the GREAT DEPRESSION, when prolonged unemployment seemingly emasculated the nation's labor force. Less than a month after taking office in 1933, President FRANKLIN D. ROOSEVELT (1882–1945) created the Civilian Conservation Corps (CCC), proclaiming that it would not only provide jobs but also turn boys into men. Here he echoed the ideology of his distant cousin, Theodore, who believed the "Strenuous Life" created real men. The CCC, one of several NEW DEAL conservation programs, employed nearly three million young men, aged 17 to 25, between 1933 and 1942. They planted trees and fought fires in national forests, constructed trails in national parks, and built erosion-control dams on farms. In the process, they restored their own bodies and recaptured their sense of manhood. Most of the men were from poor urban neighborhoods, and they arrived undernourished, sickly, and downright scrawny. Their underdeveloped, hollow-chested bodies led some of the enrollees to

question their own masculinity. One young man admitted that he had been "unsteady, groping, unsure" before joining the CCC. "I had doubted my right to call myself a man" (quoted in Maher, 93). In apparent agreement, the agency's promoters focused as much on the restoration of male bodies as they did on the conservation of natural resources. Healthy, virile (and white) male bodies became symbols for the nation's own strength and energy. The image of the shirtless, muscular male swinging an ax appeared again and again in newspapers and magazines, signifying a strengthened nation.

POST-WORLD WAR II AMERICA

America emerged from the Great Depression and World War II strong and muscular, but also, in important ways, feminized. Symbolized by the television characters June Cleaver (on *Leave It to Beaver*) and Donna Stone (on *The Donna Reed Show*), stay-at-home mothers and their families moved to sprawling postwar suburbs, their curvilinear streets lined with rambling ranch houses and "little boxes made of ticky tacky" (as the songwriter Malvina Reynolds famously called them). Suburban life—with women gathering for coffee klatches, men grilling on the barbeque, and children playing on expansive lawns—became the much-touted American dream. Americans had been moving to suburbs since the early 19th century, but this movement exploded in the postwar era, with profound consequences. Bulldozers gobbled up hillsides, woodlands, wetlands, and flood plains, thereby altering WATERSHEDS, promoting soil EROSION, and facilitating flooding. Sprawl drove demand for automobiles, gasoline, and an expansive INTERSTATE HIGHWAY SYSTEM. And houses had an array of electric appliances—refrigerators, ranges, washers, and dryers—that promised to alleviate the drudgery of housework but sparked an enormous electric bill. To make matters worse, septic tanks contaminated groundwater, and leafy green LAWNS soaked up a witches' brew of petrochemicals that the biologist and best-selling nature writer RACHEL CARSON called "elixirs of death."

In 1962, Carson created a firestorm with *Silent Spring*, first serialized in the *New Yorker* magazine. The book marked the emergence of the modern environmental movement by engendering what the historian Maril Hazlett, in "Seeing Nature through Gender," called an "ecological turn" in American perceptions of the environment. Carson linked chemical toxins with human health and articulated what has come to be called the "precautionary principle," which counsels caution in the face of poorly understood ecological webs. Most importantly, by explaining how chemicals could flow from laboratories into rivers and fish, and finally into breast milk and the human bloodstream, she challenged modern assumptions of clear boundaries between nature and culture, between the environment and human bodies. In everyday and evocative language, she linked the

health of the human body to the ecological webs that wove together air, water, soil, animal flesh, and toxins such as DDT (dichlorodiphenyltrichloroethane). Dangerous chemicals, she warned, "have been found in fish in remote mountain lakes, in earthworms burrowing in soil, in the eggs of birds—and in man himself. . . . They occur in the mother's milk, and probably in the tissues of the unborn child." These chilling words, including evidence that synthetic chemicals could cross through the placenta from mother to fetus, introduced a radical critique of the scientific-military-industrial complex. Just as Carson evoked the concerns of mothers for children, both her opponents and her supporters used gendered language. The chemical industry responded by invoking the power and legitimacy of masculine scientific expertise and the male-dominated chemical industry, and by accusing Carson of inaccuracy and bias, using gendered code words such as *emotional*, *hysteria*, *spinster*, and even *witch* to discredit her. Middle-class women—members of garden clubs and local chapters of the Audubon Society—rallied to her side, many of them challenging the very premise that homemakers as consumers tacitly agreed to accept the risks of modern industrial production.

The pesticides and herbicides that these housewives decried were only one of the threats posed by the postwar suburban dream. Another took the unlikely form of the baby boom. Throughout the 1950s and 1960s, doctors prescribed DES (diethylstilbestrol), a potent synthetic estrogen, to millions of pregnant women, believing that it would reduce the risk of miscarriage, premature birth, and low birth weight. Synthetic estrogen acts as an endocrine (hormone) disrupter, which interferes with the development and health of reproductive systems in animals, including humans. Although scientists knew that DES caused cancer and problems with sexual development in laboratory animals, the U.S. Food and Drug Administration approved the drug in 1941, arguing that animal studies did not prove that the drug was unsafe for humans. At the same time that doctors prescribed DES to women, industrial-scale livestock growers implanted the hormone in cattle to promote rapid weight gain, and those hormones made their way from feed lots into waterways and the broader ecosystem. When it became clear in the 1970s that the children of those who took DES had unusually high rates of certain cancers, abnormalities in reproductive organs, and infertility, the government withdrew its approval of its use for both humans and farm animals. And yet by then, a toxic stew of industrial chemicals that mimicked estrogen—DDT (which was not banned until 1972), PCBs (polychlorinated biphenyl), certain plastics, and substances found commonly in paints, detergents, oils, toiletries, and agrochemicals—was wreaking havoc in the bodies of wildlife and humans. The historian and ecologist Nancy Langston observes that industrial chemicals that mimic estrogen may in fact be changing the very nature of our

sexual bodies. As estrogen coursed through ecosystems, male fish developed female sex characteristics, and vice versa; boys experienced unusually high rates of genital abnormalities; girls entered puberty at significantly younger ages; and women had high rates of endometriosis and uterine fibroids. Disturbingly, writes Langston in "Seeing Nature through Gender," "our most intimate reproductive environments, the places that make us most female or most male, the places we are more vulnerable and most natural, may have been hijacked by the residues of our industrial world."

The effects of estrogen disrupters remained poorly understood until the turn of the present century, but *Silent Spring* galvanized women to fight against a host of hazards including pollution, toxic waste, and nuclear fallout. From the 1960s to the present, women have stood at the forefront of an emerging urban environmental movement. To be sure, it was not an exclusively female enterprise. Both men and women fought against industrial hazards, just as both sexes worked to preserve wildlife, wilderness, and forests. Men such as Gaylord Nelson (1916–2005) and Denis Hays (1944–) organized Earth Day, which focused on urban pollution, and women eventually made up a quarter of the Hoedads, a workers' cooperative that replanted forests throughout the Pacific Northwest. And yet, the public face of the movements to protect urban environments, on the one hand, and wild and rural places, on the other, took on a gendered cast. Most environmental historians have focused on the movement to protect wild lands and creatures, leaving the urban environmental movement of the 1960s and 1970s relatively unexplored.

During the 1960s especially, the numbers of homemakers in the antipollution movement and their use of maternalist language gave it a female face. In the early years, before the emergence of the feminist movement, their language often echoed that of the Progressive Era. Magazines aimed at suburban homemakers encouraged women to defend their families against environmental hazards as an extension of their responsibilities as wives and mothers. *Good Housekeeping*, for example, in an article published in 1963 about the Citizen's Crusade for Clean Water, organized by the League of Women Voters, proclaimed that "the clean-up of our rivers to safeguard our precious water supply—this is the biggest housekeeping chore facing our nation today." Spurred by these magazines and Rachel Carson's example, tens of thousands of women joined environmental organizations. As did many of these women, Amy Swerdlow (1923–) explained her involvement as part and parcel with motherhood. Writing about Women Strike for Peace, which protested nuclear fallout from atmospheric weapons testing, Swerdlow averred, "This movement was inspired and motivated by mothers' love for children." When women put breakfast on the table, "they saw not only the Wheaties and milk, but they also saw

strontium 90 and iodine 131"—both of which were dangerous radioactive isotopes (quoted in Rome, "Give Earth a Chance").

While many of these environmental activists were not only white, but middle-class, one of the most famous lived in the blue-collar neighborhood of LOVE CANAL, in Niagara Falls, New York. In the 1970s, LOIS GIBBS (1951–) became a symbol of the fight waged by mothers to protect their homes from environmental danger. Caustic chemicals, chlorinated hydrocarbons, and vinyl chlorides from a long-forgotten chemical dump formed puddles in the backyards of the modest homes in Gibbs's community and oozed from their basement floors and walls, exposing residents to unusually high rates of leukemia, lymphoma, birth defects, and miscarriage. When the U.S. ENVIRONMENTAL PROTECTION AGENCY failed to take action, Gibbs organized a group of neighborhood homemakers, who protested with petition drives and publicity campaigns. Initially, they articulated economic arguments about the devaluation of their real estate and asserted the rights of citizens to "life, health, and property," but they discovered that their most effective rhetoric focused on children's health. At one point they even held a "Mother's Day Die-In," drawing on the street-theater tactics of the anti-Vietnam War movement. Even as they used the rhetoric of women's traditional gender roles to justify their activism, women in the urban environmental movement fostered the rise of feminism (though many would never call themselves feminists). Most of them described their work as both liberating and—confronted with male opponents who labeled them hysterical housewives—consciousness-raising. Through their environmental work, they developed leadership skills, mastered technical knowledge, and gained a new sense of empowerment. And they got results. Women's activism played a crucial role in the passage of landmark environmental legislation, including the CLEAN WATER ACT, the signing of a limited nuclear test-ban treaty, and the establishment of the SUPERFUND, dedicated to cleaning up toxic wastes.

Women also led the modern environmental justice movement, which arose in the 1980s to fight for poor and marginalized racial and ethnic communities that bear the burden of American society's toxic wastes and other environmental hazards. These were generally women of color, inspired by civil rights movements. Dollie Burwell organized her African-American neighbors in Warren County, North Carolina, to lie down in front of trucks carrying PCBs to a local landfill. Hazel Johnson led "toxic tours" of her South Side Chicago neighborhood, where industrial development triggered high rates of asthma, skin rashes, cancer, and kidney and liver disease. Rose Marie Augustine organized to protect poor Hispanic neighborhoods in Tucson, Arizona, from groundwater contaminants such as TCE (trichloroethylene), a known carcinogen, dumped by defense contractors in the Santa Cruz riverbed. The list goes on and on. While

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often motivated by a desire to protect the health and safety of their families, these women—mostly black, Hispanic, and Native American—drew not on maternalism but on the language of the CIVIL RIGHTS MOVEMENT, calling the practice of dumping toxic wastes and building hazardous industries in their communities “environmental racism.” The story of the environmental justice movement is still unfolding, so its full history has yet to be written. One point is clear: The significant involvement of women suggests that this history is not just about race but about gender.

Historians have largely neglected gender as a significant force in environmental history. Following a well-trodden track etched in the 19th century by GEORGE PERKINS MARSH (1801–82), who titled his classic treatise on environmental history *Man and Nature* (1864), most scholars have seen women as peripheral to a grand narrative about the transformations of the earth wrought by deforestation, industrial farming, and dam building, and the heroic efforts of a few good men to halt the damage. Nor have they viewed the men they write about as gendered creatures. And yet, bit by bit, a younger generation of historians is blazing new trails toward a gendered environmental history. Much remains to be done. Still, it seems clear that in the not too distant future, Virginia Scharff’s lament that environmental historians care exclusively about “Man and Nature” will seem like ancient history.

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