

Art and the Balance of Nature:

An Historical Overview

What a world

where lotus flowers

are ploughed into a field

—Issa (Japanese poet, 1763–1827)

THE PHYSICAL GRANDEUR AND FORCES OF NATURE have always inspired both awe and fear in people. All through the ages, attempts were made to understand and harness its powers for human advantage. From the first prehistoric tools shaped over two million years ago to the current experiments in genetic engineering, humans have modified nature.

As early peoples transformed the environment, they developed spiritual beliefs that mediated a balanced relationship with the earth. A supernatural unity with the world of animals was experienced by hunters-and-gatherers. Agricultural communities venerated the sacred tree and the Great Goddess to ensure continuity of the seasons and fertility of the land. In these preindustrial societies, objects of art dramatized myths and rituals that revolved around the life-generating powers of nature — growth, death, and renewal. To convey the mysterious and sacred essence of the terrestrial and celestial realms, art, as well as dance and music, evolved as an integral part of life. Over the centuries, the intimate relationship previously established between people, animals, and the earth eroded. This estrangement accelerated during the Industrial Revolution. Many artists, however, continued to maintain and communicate the essential bond with nature.

When overlaying environmental history with the history of art, there often exists a striking correlation between changes in the physical environment and the emergence of new art forms and images. Several significant developments in art appear to coincide with periods characterized by environmental stress. Some of the topics examined in this chapter include: the depiction of animals in hunting-and-gathering societies; the image of the sacred tree, sculptures of the Great Goddess, and the introduction of landscape painting during the evolution of agriculture; and the efflorescence of landscape painting and the emergence of photojournalism in the industrialized world.

In the beginning, changes to the landscape were limited in scope and initiated relatively slowly by people living in small populations. By contrast, the rapid pace and global scale of the current destruction of nature is without precedent. Artists, society's most sensitive observers of internal and external realities, can help us to understand and renew our vital connection to the earth.

HUNTING AND GATHERING SOCIETIES: THE SACRED ANIMALS

Fire was prehistoric people's most effective tool in altering the environment and establishing social life. Harnessing the powers of fire for warmth, cooking, and protection cast the hearth as the center of communal living. Used to make tools and to clear forests to increase the visibility of prey, fire expanded man's hunting abilities. It helped relieve early hunters-and-gatherers from the incessant pressures of survival. People could now direct more of their energies inward, and a spiritual awareness of themselves in relationship to nature and their environment emerged.

The individual responsible for the physical, emotional, and spiritual well-being of the group was the shaman, who is still a powerful figure among contemporary hunters-and-gatherers. Shamans are visionaries whose prophetic dreams and powerful sense of intuition, identified at a young age, distinguish and separate them from other members of society. They are responsible for healing, as well as for maintaining the rituals that foster a group's cohesion. Most often, the shaman is also the artist, using objects of art to illuminate the meaning and to heighten the drama of ceremonies (FIG. 2).

The first works of art, painted in manganese and iron-oxide pigments on the walls of caves in western Europe, were created by shamans who sought to perpetuate the spiritual and physical bond between humans and nature (FIG. 3).² Dating from almost 25,000 years ago, cave paintings of animals symbolize the sublime forces of nature. The animals — horses, bison, aurochs, mammoths, ibex, red deer — were perceived to possess supernatural properties.

Early peoples, in constant and intimate interaction with nature, recognized the extraordinary powers that set animals apart from them. The strength of the bison, mammoth, and bear; the speed of the red deer and lion; the abil-

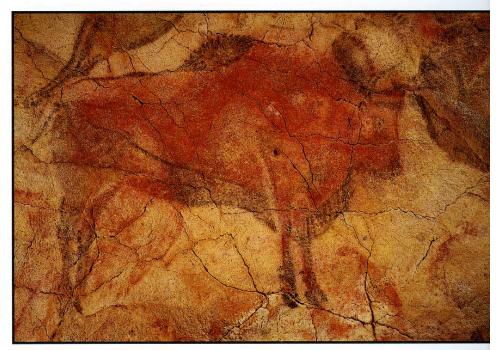
ity of birds to fly and fish to swim must have inspired a sense of awe and admiration for the very attributes that humans were denied. In the cave paintings, the shaman-artists have captured the essence of these animals, depicting their powerful physiques swelling with vitality. The poses and compositions vary; they are heroically grounded to the earth or endowed with the freedom of agile movement. Through an intense

identification with these animals, which embodied the divine forces of nature, it is likely that early man and woman entered into a sacred union with animals and the cosmos.³

The caves may have functioned as religious sanctuaries where spiritual beliefs, centered on establishing harmony with nature, especially the animal kingdom, were assimilated by younger members of the group through rites of initiation. The animal images appear to correspond to concepts of balance, fertility, and regeneration. By pairing particular animals, often accompanied by abstract sexual symbols, artists suggested a complimentary division of the world into male and female counterparts similar to the yin/yang philosophy of Taoism.4 The lessons learned from the cave art and rituals may have guided the group's behavior and inspired a hunting ethic based on preserving the female of the species in order to maintain the stability of the herd.



2 • Tlinget, Raven Rattle, 19th century



3 • Bison from the Cave of Altamira, Spair ca. 15,000–10,000 B.C.



4 • Senufo, Ivory Coast, Africa, Bird, 19–20th century

Whether through man-made pressures or changes of climate and habitat, some species of large mammals, like the bison, became endangered. Extinctions may have occurred in Europe and northern Asia about 20,000 to 10,000 years ago, coinciding with the great age of cave art. Could these images be a response, along with rituals, to their diminishing numbers? By regarding these animals as sacred, early peoples may have refrained from killing too many of them. The fact that the majority of animals portrayed in caves were only occasionally eaten is perhaps evidence of the respect they were accorded as well as their scarcity. They might have been consumed on the occasion of a sacramental feast at which the animal and human identities merged. Such ceremonies would have further distinguished these animals from ordinary prey.

The reverence for animals in prehistoric times can also be understood by studying the customs and myths of later hunters-and-and-gatherers, whose identification with animals has always been intense (FIGS. 2, 4). The Senufo of Africa and the Tlingets of North America, for example, bonded with particular animals, which anthropologists call "totems." Totemic animals were considered brothers or sisters, and clan members referred to themselves by the animal's name. The spirit or soul of a person was believed to reside in the totemic animal for safekeeping. Death to the animal was believed to result in death to a family member, and thus these animals were rarely eaten. As a system of beliefs, totemism may have helped to balance the ecosystem by maintaining the supply of particular animals.⁸

The ritual veneration of a particular animal or plant also served as a means of fostering identity and communal bonding among members of a clan. Totemism stimulated a wealth of cosmological legends, as the founding ancestor was usually an incarnation of the totemic animal. The worship of animals and the development of totemism thus served spiritual, social, and ecological functions.

On the coast of the American Pacific Northwest, shaman-artists created impressive ceremonial objects that are based almost exclusively on animals (FIG. 2). On raven rattles created by the Tlingets, the intimate connection between people and the animal world is literally depicted, as the shaman lies on the raven's back and puts his tongue into the bird's beak. The infusion of the animal spirit into that of the human would then be transferred to other tribal members during the ceremony where this rattle was used. The raven — a bird believed to have created the sun and the heavens — is abstractly portrayed to convey its spiritual essence. Expressively patterned in bold colors, its body is streamlined to suggest the power of flight. The artist imbues the raven with a fearsome and magnificently commanding presence by emphasizing the eyes and open beak.

The Senufo, living on the Ivory Coast of Africa, identify with the hornbill, emblematic of power and intelligence (FIG. 4). The bird is often depicted pregnant, symbolizing the fertility and continuity of the tribe and the natural world. In this image, the artist synthesizes male and female forms; the elegantly elongated beak, referring to the phallus, dips into a swelling body, which is painted with triangulated waves to suggest feathers and movement. As in the image of the raven, the hornbill is abstractly defined. This merging of abstraction and naturalism is a means by which the artist could capture the spirit of the animal. Stylistically removing the animal from the realities of natural appearance, the artist was able to suggest its sacred aspect.

THE DEVELOPMENT OF AGRICULTURE: THE SACRED TREE AND THE GREAT GODDESS

The environmental changes induced by hunters-and-gatherers were small in comparison to those introduced by agriculture, the next stage of human development. The domestication of plants and animals first originated in southwest Asia 9,000 years ago; it emerged in southeast Asia 8,000 years ago and independently in Meso-America 7,000 years ago. With the advent of agriculture, nature was radically transformed. Society's life-style, religious ideas, and art forms reflected a newly defined relationship between the earth and its human inhabitants.

As agriculture developed, animals such as sheep, goats, oxen, and cows were tamed by people who then became their caretakers (FIG. 5). Herds became the property of particular families or communities, thus establishing the concept of ownership and a more servile relationship of animals to

human beings. The animal provided food and clothing, fertilizer for the crops, transportation, power to pull the plow, and a means of trade or barter. As beasts of burden, they were given proper care and attention.

In some agricultural societies, the animal is still considered sacred. The cow is revered in India where the Hindu religion prohibits its killing. This status evolved from society's need for plow animals and dung for fuel. In southeast Asia, the elephant is also revered and plays an important role in legend and myth. Animals were not killed or used indiscriminately. Even today, in many societies, when animals are killed, a prayer or ceremony of thanksgiving is enacted, intended to appease nature for this trespass of its domain.

Although nature was still worshiped, planting required dramatic alterations to the landscape. Intensive agriculture usually results in soil depletion, and this may have contributed to the collapse of the agricultural civilizations of Mesopotamia and of the Maya in Mexico.¹¹ During this period of environmental stress in many parts of the world, artists introduced the image of the tree, which reflected creation myths and symbolized the rejuvenation of nature. Art and ritual no doubt served to provide assurances of stability and guidance in these times of hardship.

Agriculture involved clearing forests, leaving behind clusters of trees that probably assumed the status of sacred groves (FIG. 5). In the Egyptian tomb of Sennedjen (Nineteenth dynasty), a painting portrays a husband and wife plowing



5 • Sennedjen and his wife plowing and sowing in the field, Tomb of Sennedjen (detail from East Wall), 19th Dynasty



 Hathor as tree goddess giving birth to the in. ca. 600 B.C.



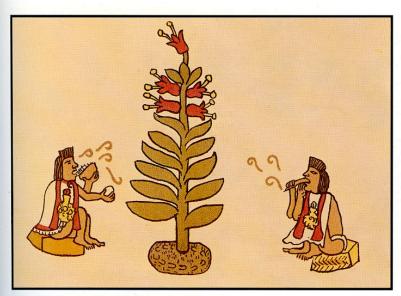
7 • Winged beings worshiping the sacred tree, and eagle-headed, winged beings pollinating the sacred tree, 885–860 B.C.

the earth and sowing seeds. Below this image is a row of date palms, revered by the Egyptians. In such groves, shrines were often erected so that people could communicate directly with the gods and goddesses of nature. (FIG. 12). These groves also functioned as protective habitats for wildlife, since extinction could result from land clearance. During the reign of King As'oka of India almost 2,300 years ago, forests were set aside as preserves for elephants.¹²

The image of the sacred tree in art emerged in Mesopotamia during the fourth millennium, when the introduction of the plow permitted the cultivation of large tracts of land.¹³ In the history of art, the sacred tree later appears in Egypt, India, and Meso-America, three other areas in the world where deforestation was rampant.

Depictions of the sacred tree provided a crucial connecting link with origin myths, which celebrated the tree as a source of all life. Worship of the tree is prevalent worldwide — among Native North Americans, ancient Babylonians, Mayans, Aztecs, and early Scandinavians, Indians, and Egyptians. In ancient myths, the tree holds the many layers of the universe together by emerging from deep within the earth and reaching skyward toward the heavens. Firmly rooted in the ground and shedding and growing new leaves each year, the tree symbolizes stability, continuity, and rebirth.

The image of the sacred tree grounded people to the past and fostered a sense of emotional and physical well-being in the present. In many works of art, people receive power and strength from the tree as they reverently acknowledge its force in guiding their destinies (FIG. 6). On a bronze vessel from ancient Egypt, the sun is born from the head of the tree goddess, Hathor, whose physical identity merges with that of the tree. Her body becomes the trunk and her arms one of its many radiating branches. She is the life-force from which the cosmos emerges. The artist



18 · Offering to a tree, from Mexican codex, 16th century

portrays two worshipers on either side who hold out their hands to receive her energy and power. 15

Well aware of its power as symbol, the kings of Assyria may have later appropriated the image of the sacred tree to legitimize their political rule (FIG. 7). In reliefs from the Northwest Palace of Ashurnasirpal II, the king is portrayed in several relief panels along with winged divinities who perform a ritual invoking the sacred tree. The eagle-headed genii pollinate the tree to ensure the survival of both tree and ruler. These images suggest the king's responsibility for administrating the daily rituals required to perpetuate the fecundity of nature, from which came the wealth of his domain.

In Meso-America, rituals associated with the sacred tree were similarly intended to ensure the fertility of plants and trees. A drawing from a Mexican codex, created immediately after contact with Europeans, illustrates a traditional ceremony that survived through the sixteenth century (FIG. 8). Here, the artist exaggerates the fruit of the tree, especially its reproductive parts. The two people who sit beside its flowering branches imbibe and eat in an act of thanksgiving for the bountiful harvest. This image may also relate to the Aztec and Mayan origin myth that describes a flat and multilayered earth resting on five sacred trees — one at the center and four corresponding to the corners or directional loci. ¹⁶

The identification of the sacred tree with the Great Goddess appears in many cultures. On the Vedika Pillar from Bharut in Madhya Pradesh, an Indian goddess symbolizes the life-generating energy of the tree (FIG. 9). As in Egyptian art, the goddess and tree are physically entwined. Her breasts swell like the lush fruit on the branch that she grasps above her head. They form a unified entity whose vitality is communicated by an elegant and sinuous composition.

Rituals and art celebrating the sacred tree represent only one aspect of nature worship that sustained agricultural societies. Art and religion also reflect an inti-



9 • Vedika pillar with tree goddess, 100–80 B.C



 Serpent Goddess (Priestess?) from ossos, ca. 1600 B.C.

mate and mystical union between people and the Great Goddess, who embodied the natural cycles of birth and death. Ceremonies in her honor were designed to perpetuate this steady rhythm so necessary for the propagation of crops. Artists created sculptural figurines of the goddess to help communicate with the forces of nature (FIG. 10). Artworks like the Minoan Serpent Goddess (ca. 1600 B.C.) from Crete accompanied seasonal rituals invoking abundance and renewal. This sculpture may portray either a goddess or a priestess engaged in a rite in her honor. The wide, staring eyes indicate a trancelike state, an entry into the spirit world. Bare breasted and assuming a commanding posture, she holds snakes in both hands. The serpents may have been part of the ceremony or may symbolize regeneration, since they periodically shed and acquire new skin. Indicating the presence of water, the snake also can be understood as a life-generating force.¹⁷

The worship of the Great Goddess reflected women's power to perpetuate the species. The earth subsequently became synonymous with and symbolic of the womb. To penetrate, violate, or gouge the earth was blatantly sacrilegious. In recognition of the land's revered status, early miners offered sacrifices, abstained from sexual relations, and fasted before digging into the ground.¹⁸

The development of agriculture thus bequeathed an organic, nurturing conception of nature; it also sowed the seeds from which blossomed the first cities and civilizations. When wild grains were domesticated and planted in prepared fields, people were able to settle permanently in villages. Surplus harvests, along with milk from domesticated cows, caused increases in population, and this in turn required more land for cultivation, setting off a spiraling cycle that continues to this day.

Urbanism and the Emergence of Landscape Painting

In both China and Europe, the art of landscape painting evolved in conjunction with the growth of cities and expendable wealth. Landscape paintings were as intrinsic to the perpetuation of society's beliefs and values as were the artworks created by hunters-and-gatherers and early agriculturalists. Although divorced from ritual and ceremony, landscape painting reinforced the spirituality of urban dwellers, who were farther removed than their fellow countrymen from the sacred forces of nature. These paintings inspired respect for and an appreciation of nature's vitality. Symbolically, they reconnected people to the land as cities expanded and deforestation accelerated.

By communicating the beauty and revitalizing essence of nature, artists reminded urban patrons of its power, and permitted them to experience it vicariously. The images in landscape paintings represented and symbolized freedom, which contrasted to the confining spaces and daily routine of city life. In Pompeiian villas, artists created magnificent illusions of nature by painting landscapes on walls to simulate natural vistas (FIG. II). In the *Casa del Bracciale d'Oro*, lush vegetation, wildflowers, and fruit-bearing trees that attract a myriad of birds are composed beneath portraits of the residents. Through careful observation and naturalistic detailing, the artist communicates the density of growth and an atmospheric breadth of space.

The first landscape paintings appeared in Rome during the first century B.C. Their introduction coincides with environmental stress — the overcultivation of land and deforestation, which may have contributed to the decline of both Greece



II • Garden with plants and birds, Casa del Bracciale d'Oro, Pompeii

and Rome.¹⁹ George Perkins Marsh, considered the father of American environmentalism, describes in his seminal book *Man and Nature* (1864) how the cities of Greece and the Roman Empire decimated their forests for shipbuilding, fuel, and agriculture.

The paintings from Pompeii reflect this environmental condition (FIG. 12). Artists often depict a denuded landscape with a religious shrine located in a small forest grove or near a sacred tree. In many works, a figure, accompanied by a goat, approaches the altar in a posture of sacrificial offering. These paintings illustrate the ritual communion with nature that continued to exist in a highly advanced civilization.

Landscape painting also fulfilled the spiritual yearnings of urban patrons in China, where it emerged and evolved as a genre during the eighth through tenth



 Sacro-idyllic landscape with pherd and goats (detail), from Pompeii

centuries (FIG. 13). In contrast to the public display of Pompeiian landscapes on building walls, Chinese landscapes were painted on silk scrolls and were designed to be read by unfolding each scene sequentially. This format encouraged an atmosphere of intimacy and private communion with the landscape image. Creating and viewing such works required a state of meditation in which artist and patron were able to perceive the balance and mysteries of nature.²⁰

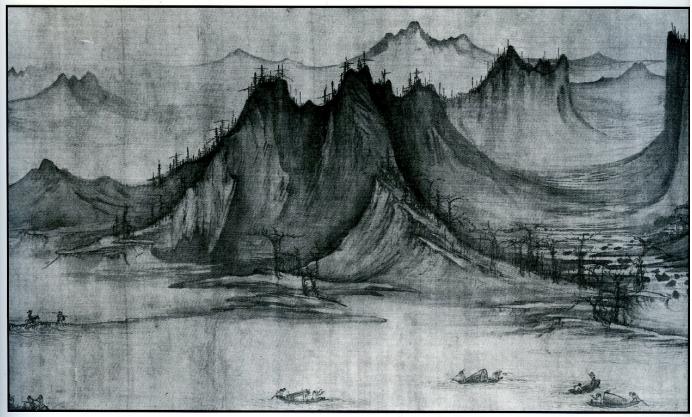
Chinese (and later Japanese) landscape paintings reflect the Taoist belief in a unity with all life. This state of harmony could be achieved through the direct contemplation of nature. Artists were often scholars and philosophers who infused their landscape paintings with the mystical and transcendental spirit of the cosmos. By depicting mountains shrouded in mists and seemingly infinite spaces, artists such as Hsü Tao-ning (ca. 970–1052) expressed the majesty and vastness of nature. Although dwarfed by the setting, the figures of people are harmoniously integrated into the scene. The sublimity of Chinese landscapes was unmatched in Western art until the nineteenth century when mountains became popular subjects.

In the West, the influence of monotheistic religious doctrine discouraged landscape painting, and it suffered an eclipse of fourteen hundred years before reappearing during the late Middle Ages. The Catholic church forbid the worship of the gods and goddesses that had once personified the forces of nature. The biblical legend of God's banishment of Adam and Eve from the Garden of Eden further distanced human beings from the natural world (FIG. 14). In Giovanni

di Paolo's (ca. 1403–1482) Expulsion from Paradise (1445), an archangel expels man and woman from a fertile grove of orange trees and wildflowers. Above them is the figure of God, omnipotent and enveloped in golden light, floating on the wings of angels. He points to their new home: a disc representing the Earth, barren, scarred by mountains, and sealed in celestial spheres and astrological signs of the zodiac. Although the artist faithfully translates the biblical text, he also depicts the beauty of nature through the careful observation of its details.

The Bible proclaimed man's divinely given dominion over the earth and was often used to justify nature's brutal exploitation. The contemporary artist Paulette Nenner (1949–1988) interprets the schism between humans and nature that resulted from the influence of Christianity (FIG. 15). In her controversial sculpture *Crucified Coyote* (1981), the animal substitutes for the figure of Christ. Wantonly killed by human beings who consider it a threat to cattle, the coyote is interpreted as a martyred figure.

By comparison to Western religions, Eastern beliefs appear to offer a more balanced view of the human relationship to nature. However, Chinese civilization engaged as much as did the Western world in deforestation and dramatic alterations to the landscape. In China, rice cultivation required the clearing of virgin forests and the practice of terracing denuded foothills. This pattern was repeated



13 • Hsü Tao-ning, detail from Fishermen (Yü-fu), ca. 1000

in India, despite the fact that Hinduism regards all life as sacred, and in Japan, even though Buddhism and Shintoism express similar ethical principles.

The daily interaction between people and the natural world, portrayed in Chinese landscape painting, makes a rare, early appearance in Ambrogio Lorenzetti's (1285–ca. 1348) fresco painting, *The Effects of Good Government in the City and the Country* (1337–39). In a detail from this work, the relationship between farming and wilderness and city and country is panoramically portrayed (FIG. 16). Using bird's-eye perspective, the artist documents the expansion of agriculture into the distant hills, which shield a few remaining forest groves. The painting also shows the close connection of city residents to the countryside, which offered fresh air and open space nearby. This symbiotic relationship would degenerate during and after the Industrial Revolution.

During the seventeenth century, landscape painting reemerged throughout Europe as a popular genre. Artists painted a variety of motifs — rocky outcrops, waterfalls, marshes, the sea — to influence mood, instill drama, and elevate thoughts. Although based on sketches from nature, landscape paintings were composed of imaginary views that became formularized. Claude Gelée, known as Claude Lorrain (1600–1682), and Nicolas Poussin (1594–1665) developed styles that

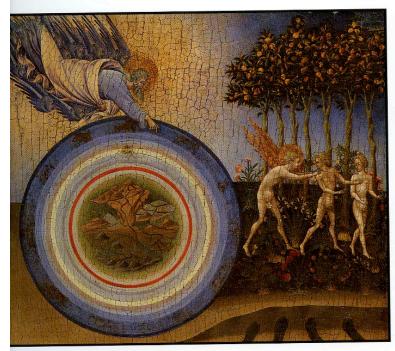
Man models himself after Earth.

Earth models itself after Heaven.

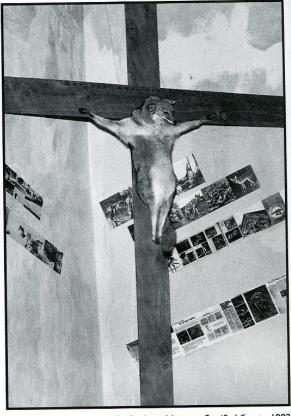
Heaven models itself after Tao.

And Tao models itself after Nature.

-from The Lao Tzu (Tao-te-ching)



I4 • Giovanni di Paolo, The Creation of the World and the Expulsion from Paradise predella panel), 1445



15 • Paulette Nenner, Crucified Coyote, 1982

were widely adapted by later generations of artists and influenced the direction of landscape painting. Their works offered an idealized and Arcadian vision of nature — timeless, ordered and free from strife — as a form of solace in an increasingly complex world. By contrast, the landscapes of Jacob van Ruisdael (1628/29–1682) reflected the earth's dynamic and changing aspects, providing a more realistic model of the world.

THE INDUSTRIAL REVOLUTION: THE CULMINATION OF LANDSCAPE PAINTING, CITY SCENES AND INDUSTRIAL LANDSCAPES, IMAGES FROM THE DUST BOWL

The Industrial Revolution initiated a new, more insidious period of abuse and depletion of nature that continues unabated to this day. When coal was first mined to fuel the steam-generated engine — which was perfected by James Watt in 1769 — a degradation in the quality of life began. However, atmospheric pollution from the burning of hydrocarbons and water tainted by the effluents of industry were noted by residents and visitors to London as early as 1661, when John Evelyn (1620–1706), one of the founders of the Royal Society, wrote a treatise on air pollution. According to Evelyn, pulmonary problems accounted for 50 percent of the



16 • Ambrogio Lorenzetti, Effects of Good Government in the City and Country (detail from scenes in the countryside), 1337–39

deaths in London. Such consequences of environmental degeneration sharpened the contrast between the city and countryside. Agriculture was also affected as steam-powered machines replaced human labor and propelled the cultivation of ever-larger tracts of land. Deforestation accelerated, and populations continued to explode as rural residents were forced to relocate to expanding cities, which now housed factories.

These environmental changes mirrored an entirely new philosophy that substituted an organic conception of nature, based on agricultural societies' dependence on the rhythms of the seasons, with a mechanistic one, based on the new machines that propelled early capitalism and industrialization. Reflecting a growing distance from nature, this new philosophy defined God and the cosmos through analogy to a giant clock, autonomous and anonymous.²³

Many artists and literary figures rejected this mechanical view of the universe. The Romantic school of literature emerged as poets like Lord Byron (1788–1824) and William Blake (1757–1827) steeped their writings in a rapturous reverence for nature. In Europe and the United States, artists responded by painting the wonders of nature that they discovered while exploring all corners of the earth. By joining navigational explorations and survey teams, they were able to paint every type of terrain on all continents, including Antarctica. They documented unusual topographies and exotic lands through drawings that later became the foundation for large-scale paintings completed in the studio. Their work reflected a new interest in the natural sciences, which flourished during this time. Landscape artists observed the intricate workings of nature in the same spirit that sparked new discoveries in geology, geography, and biology. Although motivated to capture the reality of site, artists experienced and romantically interpreted its transcendental aspect, and viewers were able to lose themselves in nature's mystery and drama.

To see the world in a grain of sand,

And a heaven in a wild flower;

Hold infinity in the palm of your han

And eternity in an hour.

-William Blake

(from Songs of Innocence, 1801-3)



7 • Frederic Edwin Church, La Magdalena Scene on the Magdalena), 1854

live not in myself, but I become

Portion of that around me; and to me

High mountains are a feeling, but the hum

Of human cities torture . . .

—Lord Byron

(from Child Harold's Pilgrimage, 1816)

During the nineteenth century, landscape painting reached its apogee in Europe and the United States. At no other time in Western history had nature stimulated so many artists and varieties of subjects.

Mountains, symbols of wilderness and once considered by Christian theologians as too dismal and ungodly a setting for human beings, inspired some of the greatest works of nineteenth-century Romantic art by Joseph Mallord William Turner (1775-1851), Caspar David Friedrich (1774-1840), and Frederic Edwin Church (1826-1900), among others. Landscape paintings of the Alps, Scandinavia, the Rockies, and the Andes encouraged tourism to these regions. Artists often made topographical sketches that were later engraved and colored and then published in travel guides. So began the age of the travelogue and the pin-

nacle of the sublime in art. All of these works interpreted nature's majesty and awesome character. Through art and travel, people rediscovered the sacred in nature.

Artists like Frederic Edwin Church, Martin Johnson Heade (1819–1904), and François-Auguste Biard journeyed to South America and recognized the importance of the rain forest as a vast encyclopedia of knowledge and a source of beauty long before the current public concern for its preservation (FIG. 17). Despite the hardships of intense heat and mosquitoes, they penetrated into the primeval jungle to sketch and describe exotic plants, fauna, and indigenous tribes. For them, it was still an unknown world that offered challenging, new information to present to the public. All of these artists were inspired by the great naturalist-explorer, Alexander von Humboldt (1769-1859), who traveled through Central and South America for five years and wrote an influential compendium of natural history titled Cosmos (5 vols., 1845-62). Here Humboldt described the harmonies existing within the complexities of nature and pronounced the limitless opportunities that the tropics offered artists both as a visual resource and for spiritual enlightenment. In Church's La Magdalena (Scene on the Magdalena)(1854), the naturalistic details of vegetation and a vast panorama, encompassing mountains, rivers, and virgin forests, are bathed in the light of divinity. For the artist, South America was the quintessence of God's creation in its magnificent abundance of life and its varied topography.

Not only was nature admired for her awesome and majestic spectacles but also for the places that offered serenity and solitude. Artists like Theodore Rousseau (1812–1867), who painted outside Paris in the forest of Fountainebleau, discovered the "voice of the trees" in nature's more intimate enclaves. Here he experienced nature's spiritual essence. The desire for a more direct contact with the earth led Rousseau and other artists to paint extensively outdoors in oil for the first time in

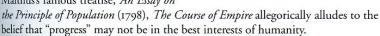
the history of the landscape tradition. This revolutionary method inspired the movement that came to be called Impressionism.

Although many artists were alarmed at the rapid rate of deforestation and urban growth, they seldom communicated this through their paintings. Instead, they responded by expressing a renewed reverence for nature. Their landscapes preserved for the future those sites in nature that were rapidly disappearing.

In the United States, Thomas Cole (1801-1848), the founder of the Hudson River School of landscape painting, did express his concern for the state of nature and the cities in a series of five paintings titled The Course of Empire (1834-36). In the first three works, Cole depicts the evolution of society from hunting-and-gathering (The Savage State) to pastoralism (The Arcadian State) and culminating in an imperial civilization (The Consummation of Empire). The fourth painting, Destruction, represents the devastation of civilization and the annihilation of an entire city populace (FIG. 18). In the final painting, titled Desolation, all that remains of a once grand city is a classical architectural column, supporting not a great building but a heron's nest (FIG. 19). All of the structures are now ruins overgrown with vegetation, and nature reclaims mastery over its domain. These paintings, like the ones similar in theme by the English artist John Martin (1789–1854), may reflect the influence of Thomas Malthus (1766-1834), who first offered a serious warning of overpopulation. Even if Cole was not responding directly to Malthus's famous treatise, An Essay on

18 • Thomas Cole, Course of Empire: Destruction, 1836

19 • Thomas Cole, Course of Empire: Desolation, 1836



As the ravage of nature continued, a new, more organic philosophy developed to counter materialism and the mechanistic view of the world. Transcen-





20 • Sanford Gifford, Hunter Mountain, Twilight, 1866

dentalism, originating in New England during the mid-nineteenth century, was a literary as well as philosophical movement that expressed faith in the divinity of nature. Ralph Waldo Emerson (1803–1882) and Henry David Thoreau (1817–1862), two of America's most important writers, professed the belief that nature was imbued with a spirit embracing and connecting all living things.

In Walden (1854), Thoreau contemplated his life in the woods by Walden Pond and asked, "Shall I not have intelligence with the earth? Am I not partly leaves and vegetable mound myself?" This statement expressed a revolutionary concept that would become one of the foundations of environmental ethics. Thoreau's ideas bear Eastern religious overtones, and the author acknowledged the influence of the Hindu religion. East and West met again a century later when Mohandas K. Gandhi (1869–1948) paid homage to Thoreau as he advocated *Ahimsa*, the belief that change can be initiated by nonviolence.

Transcendentalism may have fostered an atmosphere that encouraged artists to respond more directly to the destruction of nature by incorporating into their compositions one very important landscape motif, the tree stump (FIG. 20). As early as the 1840s, Thomas Cole, and later Sanford Robinson Gifford (1823–1880), along with other artists, transformed the image of the sacred tree that was introduced in ancient art. During earlier periods of deforestation, the artist used the tree to affirm nature's life-generating power. Now, the tree's symbolism was changed to connote the desecration of nature through human intervention.²⁴ Felled trees and



21 • Roger Brown, Lewis and Clark Trail, 1979

their remaining trunks were stark reminders of what once was considered the American continent's equivalent to the cathedrals of Europe. The destruction of the sacred tree — sacrificed to economic progress — was also noted in poems, including those of Thomas Cole and, later, Walt Whitman.

The dramatic demarcation and contrast between wilderness and human settlement is the subject of Sanford Robinson Gifford's *Hunter Mountain, Twilight* (1866) (FIG. 20). The artist's unusual composition draws the viewer immediately to the tree stumps, ruins in a field where cattle now graze. A farmhouse is nestled in a small remnant of woods for protection. In the distance, a panoramic view of the valley shows it almost completely cleared of forest. Rising smoke indicates the

Our village life would stagnate if it
were not for the unexplored forests
and meadows which surround it. We
need the tonic of wildness . . . At the
same time that we earnest to explore
and learn all things, we require that
all things be mysterious and
unexplorable, that land and sea be
infinitely wild, unsurveyed and
unfathomed by us because
unfathomable. We can never have
enough of nature.

—Henry David Thoreau

(from Walden, 1854)



Albert Bierstadt, The Last of the Buffalo,

presence of more farms. Nature could still inspire awe and Gifford communicated its transcendental powers through the golden rays of light. The twilight effect bestows a note of melancholy on the scene, as the artist poignantly refers to the demise of the vast expanse of virgin forests that once dominated the continent.

The image of the tree stump is later used by Winslow Homer (1836–1910) to express a similar ravaged state of nature. The artist, who lived in isolation along the rocky coastline of Maine and made frequent trips to the Adirondacks, understood and portrayed nature's sublime forces. In *Huntsman and Dogs* (1891, Philadelphia Museum of Art) deforestation is dramatized by a close-up view of a single tree trunk that dominates the entire composition. A trapper, dependent upon the woods for survival, sees in the stump a premonition of his own passing.

Deforestation is once again an issue that has captured the attention of contemporary artists alarmed by clear-cutting techniques that decimate vestiges of virgin lands worldwide. In *Lewis and Clark Trail* (1979), Roger Brown updates the iconography of the tree stump (FIG. 21). He lampoons clear-cutting by depicting a repetitive spiraling composition of dead stumps ascending a mountain slope. Through abstraction and a tilted perspective, the composition assumes the shape of a machine similar to a chain saw. By placing three real tree stumps on a shelf in front of the painting, Brown's message is made more concrete.

The assault on virgin trees began in the nineteenth century, propelled by the railroad, which appeared in many landscape paintings as a symbol of the speed of industrialization and the opening of the American West to development and exploitation. The period also witnessed a total disregard for human life, which resulted in the displacement of Native Americans into reservations and the annihilation of them and their culture.

Artists like George Catlin (1796–1872), recognizing that Manifest Destiny and "progress" were causing the destruction of nature and native populations, devoted their entire careers to systematically documenting indigenous peoples. One of the most important works to portray the extinction of both the Native American and the buffalo is *The Last of the Buffalo* (1888) (FIG. 22) by Albert Bierstadt (1830–1902). Instead of depicting the loss of the bison, the artist celebrates its former glorious dominance over the Plains. The animals stretch endlessly across the landscape, and the native peoples, whose culture depended upon the species for survival, are engaged in the hunt. *The Last of the Buffalo* is a glimpse into the past, an attempt to preserve for history a record of nature and life that Bierstadt experienced as a participant in Frederick W. Lander's survey expedition in 1859. However, as early as 1832, Catlin prophesied their extinction and proposed the country's first national park as a reserve for both Native Americans and the buffalo.

As forests were hacked away and entire species wiped out, artists like Bierstadt and Thomas Moran (1837–1926) escaped to areas of the continent still untouched by pioneers. Here they painted Yosemite Valley and Yellowstone, landscapes that appeared beyond man's control (FIG. 23). Viewing their paintings, people were able to transcend the harsh realities of change and progress. Many who admired and collected these works — railroad barons and industrialists — were those same people who engaged in nature's destruction. Landscape painting promoted the illusion that they lived in harmony with nature.

The majority of Western landscape paintings dating from the second half of the nineteenth century ignored the realities of conquest and exploitation of nature that were intrinsic to the success of Manifest Destiny.²⁵ Many of the artists welcomed the arrival of the railroad, since it gave them access to the natural wonders of the continent. However, it is unlikely that artists intended to communicate and contribute to a spirit of expansionism through their work. While political leaders, industrialists, and segments of the public may themselves have viewed these works as celebrating the conquest of nature, these same landscapes acted as catalysts for its preservation. Landscape painters and photographers who returned East with awesome views influenced the formation of national parks. And although the motivation for establishing these parks was, for many, primarily aesthetic rather than ecological, it was a first attempt to protect natural resources from the grips of development.

Yosemite Valley, the world's first nature preserve, was set aside as a state park in 1864, after the great groves of redwoods and sequoias were felled in California. The establishment of Yellowstone National Park followed in 1872, the year that Moran painted the *Grand Canyon of the Yellowstone*, which was purchased for a princely sum of \$10,000 by the federal government (FIG. 23). In this painting, the artist and his fellow explorers are reduced to insignificance by the eroded cliffs and giant trees. Two men, standing on the edge of a precipice, gaze across a vast chasm to a distant waterfall. Moran's elevated perspective provides the viewer with an even

It is a melancholy contemplation for one who has travelled as I have, through these realms, and seen this noble animal in all its pride and glory, to contemplate it so rapidly wasting from the world, drawing the irresistible conclusion . . . that its species is soon to be extinguished . . . What a beautiful and thrilling specimen for America to preserve and hold up to the view of her refined citizens and the world, in future ages! A nation's Park, containing man and beast, in all the wild and freshness of their nature's beauty! -George Catlin (from North American

Indians . . . 1832-39)



23 • Thomas Moran, Grand Canyon of the Yellowstone, 1872

greater panorama, which includes the Rocky Mountains and the steam of erupting geysers. Although not nearly large enough to accommodate the vast numbers of people who visit today, these national parks were essential components of an early conservation effort. It is true that economic considerations of tourism were partly responsible for their establishment, but so also were the efforts of such people as John Muir (1838–1914), naturalist and founder of the Sierra Club, who believed in the importance of wilderness for its own sake and devoted his life to preserving the Sierra Mountains.

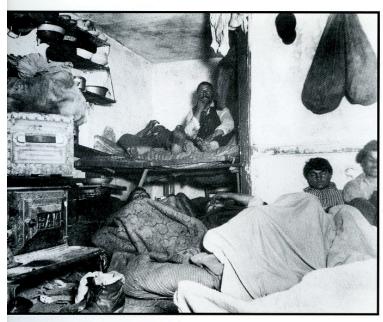
It is not surprising that the National Parks movement was initiated by Easterners who lived in big cities. People like Frederick Law Olmsted (1822–1903), land-scape architect of New York City's Central Park and one of the first advocates of wilderness preservation, directly experienced the urban problems of overpopulation and shrinking open space for recreation. Lobbying for city parks subsequently became part of a growing civic movement and influenced the design of every major city in the United States. New York's Central Park is one of the masterpieces of urban planning (FIG. 24). As early as 1844, the poet, newspaper editor, and close friend of Thomas Cole, William Cullen Bryant (1794–1878), wrote several editorials in *The Evening Post* advocating a great park in the heart of New York City. However, it was not until 1857 that public officials appropriated money and designated Olmsted as the landscape architect.



24 • Central Park, Huddlestone Arch, prior 1900

Olmsted firmly believed in the importance of open spaces where a growing population could breathe fresh air, find escape from the sweltering summer heat, and experience the spiritual enlightenment afforded by natural scenery. In 1858, he described the aims and motivations that shaped his design for Central Park:

Two classes of improvements were to be planned for this purpose; one directed to secure pure and wholesome air, to act through the lungs; the other to secure an antithesis of objects of vision to those of the streets and houses, which should act remedially by impressions on the mind and suggestions to the imagination.



Jacob Riis, "Five Cents a Spot" — Lodgers
 crowded Bayard Street Tenement, ca. 1889

It is one great purpose of the Park to supply to the hundreds of thousands of tired workers, who have no opportunity to spend their summers in the country, a specimen of God's handiwork that shall be to them, inexpensively, what a month or two in the White Mountains or the Adirondacks is, at great cost, to those in easier circumstances. The time will come when New York will be built up, when all the grading and filling will be done, and when the picturesquely varied, rocky formations of the Island will have been converted into formations for rows of monotonous straight streets, and piles of erect buildings. There will be no suggestion left of its present varied surface, with the single exception of the few acres contained in the Park.²⁷

Although influenced by the picturesque and pastoral design of English landscaping so popular at the time, Olmsted did want to maintain the rural look and feel of the city's topography. This concept contrasted with more conventional city gardens, promenades, and public squares, which are designed to assert the urbanity of the city.²⁸ He took advantage of the rusticity of the site by incorporating

existing glacial rock outcrops into his design and using rough-hewn stones for bridges. The flow of water — lakes, streams, waterfalls — is a major component of the design, which heightens the natural effect. To this day, there are sections of Central Park that convey the atmosphere of the countryside. Olmstead and his Central Park influenced the City Beautiful Movement, a campaign initiated by leaders in the arts and business at the turn of the century to make cities cleaner and more livable through political reform and enlightened urban planning.²⁹

Although the deteriorating quality of city life inspired the creation of Central Park, it was not until the end of the century that the squalor in which the majority of people lived was publicly exposed (FIG. 25). In 1890, public attention was focused on the condition of life in New York City's Lower East Side by an influential book, *How the Other Half Lives*, written and photographed by Jacob August Riis (1849–1914). Riis, who began his career as a police reporter for the *New York Tribune*, accompanied health officials inspecting for overcrowded housing conditions. For five cents, people often slept in bunks and on the floor of small rooms with up to twelve men and women. The photograph titled *Five Cents a Spot*, taken with a flashlight in the middle of the night, was one of a hundred that documented the environment of newly arrived immigrants. With these photographs, Riis spearheaded a reform movement that included the passage of sanitary housing regulations and the construction of more parks and playgrounds.

A relatively recent art medium — invented only in 1839 — photography quickly became a powerful force for rallying public opinion and effecting change. The success of Riis's work inspired a generation of younger artists who consider him the father of photojournalism. Through its immediacy and sense of urgency, photojournalism aims to shock the public by exposing human and environmental problems. The work of Dorothea Lange (1895–1965) and Arthur Rothstein (b. 1915),

portraying the environmental catastrophe known as the Dust Bowl, and W. Eugene Smith (1918–1978), who documented the devastating effects of mercury poisoning on the life of the people and bay at Minamata, Japan, communicate the suffering of victims of environmental abuse (FIGS. 29, 30, 33).

Not long after Riis published How the Other Half Lives, artists began to portray the street life of the city. Their works were not enthusiastically received by art collectors, critics, or institutions because they threatened the status quo defined by academic art traditions and wealthy patrons. Until the turn of the century, artists depicted the life-style of the city's upper class their tea parties, balls, croquet games — in an exquisitely polished style. It was not until the early 1900s that a group of artists, derogatorily named the Ashcan School for the subjects they portrayed, began focusing on the other realities of the urban environment (FIG. 26). In Cliff Dwellers (1913), George Bellows (1882-1925) paints a typical New York City neighborhood of closely spaced tenements. It is a steamy summer day, and people crowd into the narrow streets shared by trolley cars, carts, and vendors. There are people everywhere, hanging out of windows

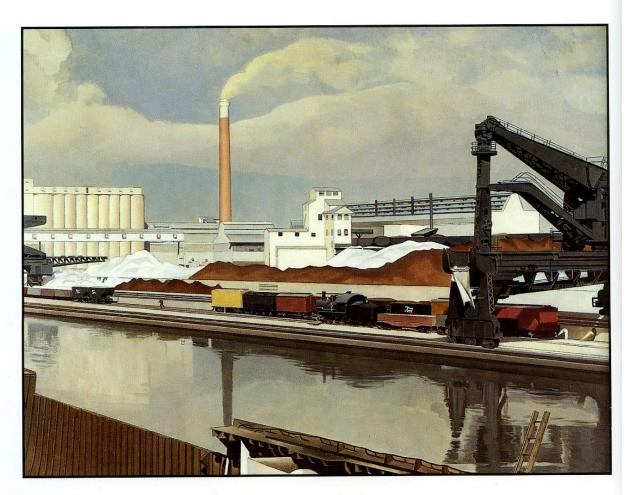
and sitting on balconies, stoops, and even the street. Using loose, expressionistic brush strokes, Bellows portrays his subject with dignity and vitality. He does not define individual personalities but seeks to capture the throng of humanity. The artist, who also illustrated articles for the socialist magazine *The Masses*, sympathized with those people who were forced by poverty to live on overcrowded, treeless streets without the means of escape enjoyed by wealthy New Yorkers.

In addition to overpopulation and the disappearance of open space, the industrial city was transformed by the introduction of the factory. During the Roaring Twenties, machines and industry seized the artist's imagination. Great wealth was generated, and many American artists depicted the power and glory of expanding technology. Most of these paintings were based on a chauvinistic pride in the industrial accomplishments of the United States. In their search for an intrinsically modern American style, which would liberate them aesthetically from the dominating influence of Europe, artists painted the skyscrapers, power plants, and factories located in or near major cities. While these artists celebrated industrial-



26 • George Wesley Bellows, Cliff Dwellers, 1913

7 • Charles heeler, American andscape, 1930



and did the Countenance Divine

Shine forth upon our clouded hills?

And was Jerusalem builded here

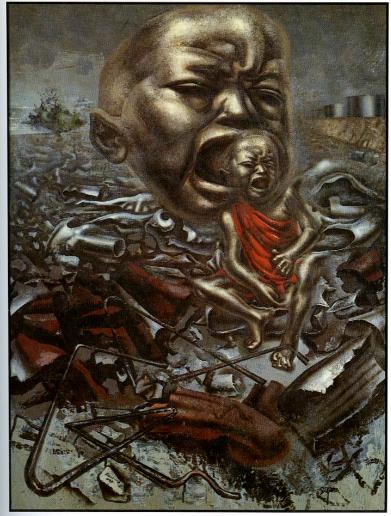
Among these dark Satanic Mills?

-William Blake (from Milton, 1804-8)

ism, many in developing countries like Mexico clearly questioned its effects on human life (FIGS. 27, 28).

By its very title, *American Landscape* (1930), a view of the Ford automobile factory in River Rouge, Michigan, Charles Sheeler (1883–1965) asserts the supremacy of the new industrial scenery. Until this time, landscapes had been composed of trees, mountains, and other natural features, which were important sources of spiritual enlightenment. In *American Landscape*, Sheeler implies that the power of religion, once associated with pantheistic nature, has now been conferred upon technology. A sense of eternity is evoked by the uncanny tranquillity and order of the scene. Pristinely composed, the painting is dominated by white, which sanitizes even the pollution from a smokestack.

American artists like Sheeler largely ignored the negative effects of industrialization. One has only to compare the Mexican artist David Alfaro Siqueiros's (1896–1974) *Echo of a Scream* (1937) to Sheeler's painting to find an alternative interpretation of industrial development. Sitting amidst the metal debris of what looks like a war-torn wasteland, a young boy cries aloud. His pain is dramatically visu-



28 • David Alfaro Siqueiros, Echo of a Scream, 1937

alized by a giant head, identical to his own, hauntingly suspended in space. In the far distance, the artist includes a view of storage tanks that suggest the new urban fortress, as well as a lone, sacred tree, symbolizing the loss of nature. Siqueiros recognized that industrialization was not necessarily synonymous with progress nor a panacea for poverty. By moving to the city in order to find employment in factories, people often experienced a sense of rootlessness and loss of individual identity. This alienation is powerfully represented in *Echo of a Scream*.

Sheeler and many other American artists depicted a utopian industrial dream devoid of flesh and blood. Popularized during the Thirties, these scenes rarely acknowledged the squalid condition of factory workers, which was documented by photojournalists like Lewis Hine (1874–1940), who photographed children in

The maintenance of the regional setting, the green matrix, is essential for the culture of cities. Where this setting has been defaced, despoiled or obliterated, the deterioration of the city must follow, for the relationship is symbiotic.

—Lewis Mumford

(from The City in History, 1961)



29 • Dorothea Lange, from An American Exodus: A Record of Human Erosion in the Thirties, 1939

sweatshops, coal mines, and factories in the eastern United States. In reality, the industrial cities of the United States were deteriorating and so was the countryside.

Although artists like Grant Wood (1892–1945) and John Steuart Curry (1897–1946) painted bucolic scenes of bountiful harvests, something sinister was happening to the land. The Plains were experiencing one of the worst ecological disasters ever instigated by man. From 1930 through 1941, eroding land and dust storms that circulated as far north as Chicago plagued farmers in Oklahoma, Texas, New Mexico, and Kansas. Although lack of rainfall was partly to blame for this environmental disaster, the farmers who overcultivated the land were largely responsible. By deep plowing and farming every spare acre, they stripped the earth of the natural vegetation that had held the soil in place.³⁰

The year of greatest damage was 1938, when over 23 million acres were depleted of two-and-a-half to five inches of topsoil. Statistics are mind boggling, but they do little to suggest the extent of tragedy. Only the photographs and paintings that



30 • Arthur Rothstein, Dust Storm, Cimarron County, Oklahoma, 1936

remain portray the trauma to people and the land (FIGS. 29–31). Photographers, sponsored by the Farm Security Administration (FSA), documented the condition of migrant workers and the environment in the southern Plains states, referred to by a news journalist as the Dust Bowl. Were it not for artists like Alexander Hogue (b. 1898), Joe Jones (1909–1963), Dorothea Lange (1895–1965), Walker Evans (1903–1975), Russell Lee (b. 1903), and Arthur Rothstein (b. 1915), as well as writers like John Steinbeck (1902–1968) whose *Grapes of Wrath* (1939) is still widely read (and even better known through the film), the Dust Bowl would have been forgotten by the public.

When the Farm Security Administration commissioned photographers Dorothea Lange and Arthur Rothstein to document the environmental and human conditions in the Plains, they were not intentionally promoting art or artists. Instead, the bureau was instituted by Franklin Roosevelt's administration to garner support for New Deal economic measures that included aid to the farm belt. Nevertheless, the photographer's imagery transcends mere documentation and political propaganda. Their works are marked by the drama and urgency of the artist's emotional response and first-hand observation. Lange represents a stark landscape that stretches into an endless vista of shifting sands (FIG. 29). The human presence is a mere echo of a previous life now abandoned. In *Dust Storm, Cimmaron County* (1936), Rothstein provides a rare glimpse of a man and his two sons as they run for shelter in a battered and partially buried building (FIG. 30). The powerful emotions evoked by this photograph derive, in part, from what is missing; earth and sky are indistinguishable from each other as the dust blankets an empty environment.

Dried by years of drought and pulverized by machine-drawn gang disc plows, the soil was literally thrown to the winds. . . . The winds churned the soil, leaving vast stretches of farms blown and hummocked. . . . They loosened the hold of the settlers on the land, and like particles of dust drove them rolling down ribbons of highway. —Dorothea Lange and Paul Schuster Taylor (from An American Exodus: A Record of Human Erosion in

the Thirties, 1939)



31 • Alexander Hogue, Mother Earth Laid Bare, 1938

The Great Plains are normally semidesert with conditions that make it difficult to farm. Originally, the area was covered with a variety of grasses that preserved the soil and supported bison, antelope, and other animals. The Comanche supported themselves in a sound ecological manner by deliberately regulating their population and adapting to the natural cycles of fertility and drought, which come and go approximately every twenty years.

The farmers who arrived from the East developed a new method called "dry farming" that could be implemented with little water. It encouraged deep ploughing and, later, investments in tractors to turn under the grasses that held the soil in place. This intensification of agriculture helped to reap more profits, which in turn caused even more available land to be so cultivated. The earth soon became vulnerable to the winds of drought.

In Alexander Hogue's painting, *Mother Earth Laid Bare* (1938), the implement responsible for the Dust Bowl — the plow — is isolated in the foreground (FIG. 31). The scorched landscape beyond discretely assumes the sensual shape of a reclining nude woman. By melding her contours with those of the earth, Hogue refers to the ancient beliefs surrounding the worship of the nurturing Great Goddess. The artist warns that the abuse of nature results in severing our connection to life. On the horizon, the deserted farm and the single, lifeless tree are evidence of human disregard for the earth.

Almost fifty years later, Ana Mendietta (1949–1985) similarly suggests the close association between the earth and woman and the often violent abuses they both suffer (FIG. 32). In *Birth (Nacimiento)* (1982), the artist traced her own figure in the mud and shaped it into a vessel for gunpowder. During the process of lighting the explosives and watching the fire burn into the earth, the artist engaged in a ritualistic act that served as both a personal cathartic experience and a socio-political statement about the rape of woman and nature. However, the title implies a hopeful message: From the ashes emerges the renewal of life.

The tragedy of the Dust Bowl was soon forgotten as World War II drew to a close and the United States experienced a business boom that propelled the most intensive years of industrialization. The extraordinary growth of the agriculture, timber, plastics, and chemical industries created a gap by which we further distanced ourselves from nature. Everything that was once made from natural materials and was thus recyclable and degradable was replaced by synthetics, requiring huge expenditures of energy (in the form of nonrenewable fossil fuels) to produce.

The residue of the processes of production left a toxic wake of mercury, PCBs, benzenes, and heavy metals that entered streams and landfills to contaminate water supplies. Overjoyed that the economy was moving again after the years of the Great Depression, most people, including artists, barely noticed.

During the 1950s, a group of artists known as the Abstract Expressionists responded to the existential crisis of humanity, precipitated by the horrors of World War II and the atomic bomb, rather than to environmental issues. Artists like Adolph Gottlieb (1903–1974), Barnett Newman (1905–1970), and Jackson Pollock (1912–1956) interpreted the mythic images of preindustrial peoples, notably Native Americans, to express universal themes of creation and destruction. They were also concerned with formal issues of style that enabled them to develop a vocabulary distinct from that of European art.

The next major movement in art — Pop — focused on the objects of mass consumption popularized by the media. Artists like James Rosenquist (b. 1933) and Andy Warhol (1928–1987) did not engage the subject of environmentalism but rather celebrated society's affluence and absorption with

products. Through paintings, collages, sculptures, and prints of cigarettes, beer, Wonderbread, and Coca Cola, artists depicted the trappings of mid-twentieth-century life without criticism or social commentary. Their emphasis on the object was also a means to forge a new identity for art that had earlier been dominated by abstraction.

One woman, a solo voice amid this din of commerce, sounded an alarm that would effect a new awareness of nature's fragility and initiate the modern environmental movement. In 1962, Rachel Carson (1907–1964), a marine biologist, published a stirring and factual account of the effects of synthetic pesticides on life. In *Silent Spring*, Carson described the death of wildlife and the destruction of their habitat as a result of agricultural pesticides. Although she concentrated on DDT, her discourse extended to the harmful effects of all chemicals:

The contamination of our world is not alone a matter of mass spraying. Indeed, for most of us, this is of less importance than the innumerable small-scale exposures to which we are subjected day to day, year after year. Like the constant dripping of water that in turn wears away the hardest stone, this birth-to-death contact with dangerous chemicals may in the end prove disastrous. Each of these recurrent exposures, no matter how slight, contributes to the progressive buildup of chemicals in our bodies and so to cumulative poisoning. Probably no person is immune to contact with this spreading contamination unless he lives in the most isolated situation imaginable. Lulled by the soft sell and the hidden persuader, the average citizen is seldom aware of the deadly materials with which he is surrounding himself; indeed, he may not realize he is using them at all.³¹



32 • Ana Mendieta, Birth (Nacimiento), 1982



33 • W. Eugene Smith, Tomoko Uemura in her Bath, 1972, from the series Minamata, Japan 1971–75

Although the chemical companies launched a campaign to discredit Carson, *Silent Spring* influenced political and public opinion. DDT was finally banned from United States farmlands, although it continues to be produced and exported overseas to developing countries like India. The dependency on synthetic chemicals that poison insects, as well as other creatures, continues unabated to this day.

Throughout the 1960s, a period of great social and political activism, environmental concern mounted. Public pressure forced the passage of important pieces of regulatory legislation, including the Clean Air Act (1963). Lawyers banded together to establish the Environmental Defense Fund (1967), and Greenpeace was founded (1969). In 1968, television viewers were awed by the beauty and fragility of the first view of Earth from space, beamed down from Apollo VIII. The decade culminated in the first Earth Day celebration (1970), which witnessed millions of people expressing their concern for the fate of the planet.

This new environmental consciousness would be further ignited by the publication of an important book by W. Eugene and Aileen M. Smith, conceived in the tradition of Riis's *How the Other Half Lives*. His photographs and commentary in *Minamata* (1975) alerted people around the world to the tragic consequences of mercury poisoning in Minamata Bay, Japan (Fig. 33). Chisso, a chemical compa-

ny located in Minamata, had been discharging its toxic waste into the bay for over twenty years. Beginning in the 1950s, the marine life and people of the region began to be contaminated. Despite the death of over one thousand people, and protests to halt the environmental abuse, dumping continued until 1969, when a court order forced the company to accept blame for the disaster. Smith and his wife, Aileen, lived in Minamata for three years in order to experience the tragedy first-hand, photographing the bay, factory, fishing fleets, and people who suffered from the degenerative nervous system disease that directly results from ingesting mercury. These photographs helped focus public attention on the issue of water pollution. Symbolic of irresponsible industrial environmental policies, they continue to shock and alert people to the necessity of civic action and vigilance over nature and human life. They foreshadow the more recent environmental disasters that have occurred in Bhopol, India and Chernobyl, Russia.

People have always altered their environment, often creating damaging and stressful conditions that jeopardize their own survival. Early artists responded by introducing new imagery and genres that celebrated nature's powers of growth, decay, and renewal. In hunting-and-gathering and agricultural societies, art and ritual reflected the symbiotic relationship between people and the land. Understanding of this connection was subsequently lost, especially during the Industrial Revolution, and the flourishing of landscape painting represents a direct response to this schism. Like their preindustrial forebears, landscape painters communicated the spiritual and physical energies of the earth.

During the nineteenth and twentieth centuries, a few artists referred, for the first time, to the exploitation of nature. Artists also began addressing problems in the urban environment — overpopulation and the loss of open space. Photojournalism, emerging at the end of the nineteenth century and expanding its scope during the twentieth, contributed to public environmental awareness of deleterious conditions in both the city and the countryside.

Through the twentieth century, many artists continued to express the spirituality of nature through landscape painting. Artists who were more abstractly oriented — Arthur G. Dove (1880–1946), Georgia O'Keeffe (1887–1985), Charles Burchfield (1893–1967), Mark Tobey (1890–1976) — and those who realistically depicted the landscape — Andrew Wyeth (b. 1917) and Neil Welliver (b. 1929) — continued the tradition of nineteenth-century artists who preserved nature.

By contrast, only a few contemporary artists attempted to convey the damaging consequences of the widening gap between people and the natural world. This changed in the 1960s as artists responded to a growing environmental awareness by interpreting nature in radically new ways. This movement, known as "environmental art," is having a profound effect upon both art and nature.

ahead of any anti-pollution

conscience. But what we also found

in Minamata was the kind of courage

and stubborness that can encourage

other threatened people not only to

refuse to give in, but also to work at

righting their own situations.

-W. Eugene and Aileen M. Smith

(from Minamata, 1975)