Cohabiting Earth

Seeking a Bright Future for All Life

Edited by

JOE GRAY AND EILEEN CRIST

SUNY PRESS 2024

Introduction

Undoing Earth's Humanization

Eileen Crist and Joe Gray

> In the course of history, there comes a time when humanity is called to shift to a new level of consciousness, to reach a higher moral ground. A time when we have to shed our fear and give hope to each other. That time is now.
>
> —Wangari Maathai (2004)

The existential catastrophes that we are witnessing today—from pollution, depletion of fresh water, and degradation of soils, to extinctions, paroxysms of forest fires, and climate breakdown—clearly demonstrate that human well-being is in lockstep with that of nature's broader whole. For just as humanity's planetary overreach is devastating nonhuman populations everywhere, it is also gravely jeopardizing the prospects of a human future worth living. There is no "humans versus nature" trade-off: the thriving and malaise of both are inseparably entwined. It follows that the only effective solutions to the dire predicament shared by Earth's living communities will be those that strive for harmony between human presence and the rest of nature. At this moment in our history, though, we are badly off track, as evidenced, not least, in the expanding technosphere and the unfolding mass extinction event (Ceballos & Ehrlich, 2018; Elhacham et al., 2020).

In recent work, Sean Maxwell and colleagues reveal that the two key drivers of the extinction crisis are the killing of wild beings and

agricultural expansion (Maxwell et al., 2016). Through the fatal impacts of these activities on habitats, species, and individuals, coupled with other formidable drivers such as infrastructural expansion, mass toxification, and anthropogenic changes in weather and seasonal patterns, we have forced life on Earth into a death spiral. The toppling of exploitation as modern humanity's modus operandi is long overdue. We must step down from our position of domination and begin to thrive alongside the countless others with whom we share the planet. In order to do so, we need nothing short of a new view of Earth and a new human identity that will enable us to cohabit Earth with grace and generosity. If we fail in this goal, then all is lost sooner or later.

Certain indicative Earth system trends warrant rehearsing. Some 80 to 90 percent of big fish have been destroyed. An average of nearly 70 percent of wild animal populations have been extinguished. Since 1870, half of the live coral reef cover has disappeared. With a 2°C warming above preindustrial levels, scientists estimate that coral reefs may decline to one percent of their former cover and the majority of terrestrial species will see their ranges shrink dramatically. Human plus domestic animal biomass now comprise 96 percent of the global vertebrate biomass, leaving a mere four percent for the wild ones. Yearly, 300 to 400 million tons of industrial toxic waste are dumped into Earth's waters (IPBES, 2019).

These catastrophic trends, among others, are not even static catastrophes, since humanity's demand for food, water, farm animal feed, energy, timber, metals, and other materials is expected to increase substantially over the coming decades, as are anthropogenic waste and pollution output. As unprecedented and foreboding as the facts confronting us are, however, they remain mostly unheeded by governments and policymakers. Relatedly, it is fair to say as a general statement that these dire trends are only vaguely (if at all) perceived by the public. Many people worldwide continue to ignore the precipitous decline of the planet's living systems and wild beings. The reasons for the disconnect include, but go well beyond, urbanization and ecological illiteracy: much of humanity inhabits today's catastrophic trends as the *reality* of Earth's humanization; and Earth's humanization is starkly displayed in the expansion of the technosphere.

The technosphere today has become the planetary sea, while what remains of wild and free nature—that is, of the autonomous and self-governed nonhuman domain—resembles islands. Further, these islands are shrinking and becoming evermore degraded. Meanwhile the modern technosphere, especially since the turn of the 20th century, has been expanding

in leaps and bounds. The technosphere is defined as the totality of the human-built environment and objects. It includes everything manmade, such as houses, airports, highways, ships, cars, paper, pavement, kitchenware, factories, the electric grid, clothing, electronic devices, and so on and so forth. Nothing delivers more formidably and viscerally the reality of Earth's humanization as the technosphere's nonstop, sprawling march.

A 2020 *Nature* publication took the world by storm in its sobering quantification of technospheric growth. In 1900, the mass of the technosphere was three percent of Earth's biomass. By 2020, the technosphere exceeded the weight of all living beings. Buildings and infrastructure now outweigh all the trees and shrubs of the world, while the total amount of plastic weighs twice as much as all terrestrial and marine animals combined. Today, the amount of stuff made *each week* is roughly equivalent to the weight of the entire human population. Looking toward the near future, present trends continuing, the mass of human stuff will grow to three times the planet's biomass by 2040 (Elhacham et al., 2020). Briefly stated, the industrial technosphere of modern humanity, composed of some eight billion people connected within a global consumer capitalist system, trading prodigiously, is driving planetwide humanization.

The humanization of the planet means the modern human remaking of the world as the dominant ontology. Technospheric takeover fills the world with human structures, objects, and traces. Human representations, perhaps most especially every kind of mapping and signposting under the sun, further consolidate the technosphere's restructuring of the world as "reality." The mass of manmade physical and symbolic trappings absorb and rivet human attention. Technosphere-dominated reality comes to appear as "natural" reality, and human beings soon lose the capacity to imagine human life and inhabitation differently than in the modality of dominance—that is, as a center (human) to periphery (nonhuman) relationship. Modern humanity, ensnared by what seems like an uncontrollably sprawling technosphere, finds itself within an impoverished and receding *biosphere* (the latter term meaning the living portion of the planet). Humanity itself thus becomes swallowed up within a human-colonized world of its own making. What's more, the emerging facts of a looming mass extinction, rapid climate change, and global-scale toxification speak volumes: it is not going to be the hoped-for "good Anthropocene" (Asafu-Adjaye et al., 2015).

Humanization has many layers. The coarsest involves the takeover and conversion of land and seas for settlements, agriculture, industrial

fishing, production and consumption centers (like factories and malls), highways (and dirt) roads, airports and seaports, cables and pipelines, and so on. Correspondingly, all the waste—virtually all of the technosphere turns into waste—is extravagant and unassimilable by Earth: trash, pesticide and nitrogen pollution, e-waste, plastic and lost industrial fishing gear in the ocean, greenhouse gases and industrial effluents, and assorted toxins (such as pharmaceuticals). As the technosphere marches on, the humanized world becomes foregrounded and thereby inescapable to human attention. By the same token, the natural world becomes backgrounded, appearing subliminally as the stage for the technosphere's exhibition and advances. Attempts by people to escape into the receding wild biosphere, to find some respite from the human buzz, are increasingly met with the experience of trash, signs, infrastructure, and mechanical or other human noise. Father of modernity Francis Bacon is often credited with coining the expression "human empire." Yet we fail equally often to acknowledge that Bacon's dream is coming to fruition and his estate—though bound to be fleeting—is imminent.

A political ecology is taking shape "under the radar" of the modern human producing it. Geographical space appears de facto as human property. The nonhuman wild and free world recedes, declines, and disappears often without note or record; such ecological vanishing acts are variously described in science as the declining ecological baseline, empty landscape syndrome, defaunation, critical endangerment, and extinction. "Reality" increasingly presents itself as the ontological province of the human, in conversation with itself. Simultaneously, the nonhuman domain appears, and is linguistically coded, as resource and service provider. All of these political ecology dimensions, as cognitions and lived experiences, *befall* the human. They are not choices that humanity as a whole has consciously made but rather supervene from humanity's ontological entrapment within a human-supremacist Earth regime. To call it a regime is no mere metaphor: human supremacy is a regimented status quo, entrenched on the ground of human–nonhuman unequal power, codified in language, law, and "common sense," which robs nonhuman places and beings of their autonomy and imposes upon them an existence regime over which they have no choice.

At a biological level, humanization produces *deep monoculture*. The nonhumans who survive in abundance do so at the beck and call of human demands and allowances. Among the abundant nonhuman animals are the so-called livestock (now over 60 percent of the aforementioned

96 percent of human plus domestic animal biomass). Among the abundant plants are (genetically) modified crops that "feed the world" from croplands globally occupying an area the extent of Africa and South America combined. The livestock are being bred to endure the torments and feed the coffers of factory farms. While many people object to describing those industrial animal agriculture production sites as "concentration camps," the analogy suggests itself. Meanwhile, the expanding croplands sponsor the poisoning of the world: hundreds of millions of tons of glyphosate, for example, are dumped yearly into the world. Insect populations—so critical to everything—are suffering annihilation from glyphosate and a galaxy of other agrichemicals. Annihilation is also suffered by estuaries, rivers, streams, lakes, and wetlands.

The wild nonhumans who are able to persist in a humanized world are the ones who can prowl in the shadowy edges or parasitize upon humans, species that tend to be generalist, versatile, cunning, and swift in reproduction. All other wild beings are squeezed into smaller and smaller spaces, dwindled to minimal numbers, managed with a heavy hand, hunted, poached, fished, subjected to extermination programs, evicted out of their habitats, or extinguished outright. For example, the fish have suffered catastrophic declines and destruction of their habitats. Even recreational fishing, now motorized and technologically equipped, contributes handily to the destruction. Ancient forests are still falling to agriculture, logging, and mining. Wild places and wild creatures are constantly subject to the collateral damage of pollution, climate change, roadkill, and sprawl.

Humanization, in brief, is the monoculture of modern humans plus nonhuman beings who survive *for* them and *despite* them. The diversity of the natural world that scientists call biodiversity—meaning the variety of beings, places, and relations that planet Earth creates—is vanishing, and along with it are disappearing all the strands of meaning that weave the planet we inhabit into a cosmos of interdependent coexistence. This irremediable undoing is the meaning and reality of the Sixth Mass Extinction.

The humanization of Earth produces a false consciousness of Earth and humanity. The supremacist human gone global temporarily shapes an ontology of Earth as ostensibly human-owned, which subsequently is experienced and lived by humanity as reality. In parallel to the entrenched normal of Earth ownership—wherein all beings and places are tagged as subject to human action—the human-supremacist identity that forges all this itself becomes objectified. The planet conqueror appears as "the

natural human." The double danger for humanity is to find itself engulfed in the false consciousness of Earth and of itself: to blithely bequeath a mass extinction event to all posterity, while becoming lost in an anthropological hall of mirrors and a constructed world of increasing scarcity of "resources." In this world, inevitably, *as we are seeing*, militarism and militarist ventures dangerously multiply, spurred by nationalisms and profiteering and legitimated by the fear and aggression that humanization-produced scarcity brews.

Humanization (now bearing the geological label "Anthropocene") yields empty world syndrome. Grimly enough, it used to be that the world was full of wild animals, indigenous peoples, pristine streams and lakes, rivers with more fish than water, living coastal waters and estuaries, and unbounded ecologies. That life-filled world was perceived by colonial settlers (human supremacists) as *empty*. The code "empty" signified "ripe for the takeover." In the bitterest of ironies, after nature's takeover the world *actually* becomes empty of its biospheric exuberances: it becomes empty of wild animal abundances and diversities, divested of their meaning-*full* manifestations such as tracks, dens, nests, burrows, spectacles, songs, and cries. The world becomes empty of indigenous human ways and their nonmodern modes of knowledge, cognition, worldview, stories, and languages; such modes fall into extinction. The world becomes empty of ecologies, such as expanses of grasslands, continental shelves, and forests, as well as of lush ecotones, those biodiversity crossroads where ecologies flow unhindered into one another, such as in estuaries, coastal forests, riparian zones, and wetlands. In other words, Earth becomes bereft of the rich ways it makes itself and is divested of life's abundances, diversity, complexity, biodisparity, and intricate coexistence. And yet, we may still lean into the memory of life's fullness, and that leaning will open the path. We cannot bring back the Holocene. But we can choose to give this *in potentio* fullness-of-world its freedom to remake itself richly and diversely again.

Through the technosphere's engulfment of the face of Earth, humanity loses a cosmic view, the understanding that we inhabit a planet within a vast and inhospitable universe, a lovely planet with a onetime treasure of Earth's remaining biodiversity. Humans, in their supremacist identity of reigning over all, lose the capacity to participate in the web of life, to be wide awake to its preciousness, fragility, and self-being. The Indian mythological concept of "Indra's net," which imagines creation as uncountable jewels strewn connectedly on an infinite web, has no semiotic hold on

modern humanity, which cannot see itself as one jewel among countless others but behaves instead with insolence and arrogance, as if it were the net itself. What is lost, and subsequently manifests as cascades of hollow words, is the sacredness of existence and the intrinsic value of every life form and every being. From mere words, we may lift such existential and ethical presentiments into our calling. We may ask ourselves, truly, What does this vibrant, without-a-second living world entreat of us and inspire us to become?

In the chapters presented in this book, we offer a way to voice the living world's entreaty and inspiration: that we may discover *the beauty way* of inhabiting Earth with restraint, respect, and reverence, and through this learn, or *re*learn, that we are one jewel in the web of existence, and not the net. Otherwise, humanity forfeits the reality and still-extant possibility of preserving a pristine and beautiful biosphere within which we can be contained and life-supported. A world where we forfeit the restless and entitled modality of treating the ecosphere as "frontier" to encroach upon, extract from, and conquer.

Are these unrealistic aspirations? Should we not just throw in the towel now? The answer to both questions is a resounding *no*. Erazim Kohák, in *The Embers and the Stars* (Kohák, 1984: 91), observes, "If, in the course of the last three centuries, we have become increasingly marauders on the face of the earth rather than dwellers therein, it is not because we have become more distinctively human, more distinctively cultured, but rather because we have become less so." Furthering this, David Abram, in the *Spell of the Sensuous*, refutes the notion that "a generally exploitative relation to the rest of nature is part and parcel of being human" (Abram, 2017: 93). Indigenous cultures, he notes, have derived the sustenance that they need over long periods of time without overwhelming their local ecologies. Furthermore, he adds, native peoples often show a profound solidarity with their lands, while practicing restraint, respect, and reverence for the other species who inhabit them. There is a pressing need, in the words of Ngozi Unuigbe, "to learn from the wisdom of the world's indigenous people, accumulated over millennia of living sustainably within ecosystems" (Unuigbe, 2023: 5).

In this way, it needs to become better and widely understood that the modern human monoculture will not endure for long, because monoculture is not nature's way. We can still make the turning toward another human identity and inhabitation, undoing human monoculture as our free choice grounded in consciously favoring the beauty way. Then we have a

chance to avert the suffering of the accruing penalties of humanization's totalitarianism, and the boomeranging of this on humanity with equally devastating force.

The route to a new identity for our species will comprise fundamental changes across the gamut of human existence, as shown through the diverse contributions to the present book. Arranged thematically into three broad sections—restraint, respect, and reverence—the chapters are summarized below.

Restraint

To reweave ourselves equitably within the web of life demands from us restraint in our relations with the more-than-human world. This motivation for the sake of all-species justice will support us to downscale our presence and activities, thus freeing the natural world expansively to take over the reins of Earth system variables (such as biochemical cycles, biodiversity, and climate) once again.

At this pivotal historical moment, we can choose to exercise reproductive restraint in order to end ecologically devastating human population growth and gradually reduce our numbers. Nandita Bajaj and Kirsten Stade approach the population question by deconstructing the pervasive pronatalist forces that, subtly or forcefully, coerce reproductive behavior and drive continued population growth. Dismantling the pronatalist bias—globally prevalent in the arenas of culture, politics, business, and religious institutions—will achieve genuine human reproductive autonomy and authentic choice regarding the question of parenthood. Bajaj and Stade argue that we must supersede the inculcated view of childbearing as "biological destiny," and as the default life choice for women and men, both for the sake of realizing human freedom at a deep level and for reversing the mindless, disrespectful, and catastrophic growth of the global population.

Luke Philip Plotica tackles the issue of restraint in consumption by piercing through the mirage of "green consumerism" as solution to the ecological crisis, urging us instead to reduce our overall consumption and to question consumerism as a way of life. As a general rule, we are conditioned to think of restraint as deprivation, as rescinding human freedom and potential. On the contrary, Plotica argues, restraint and critical thinking around consumption can infuse new existential meaning and

fulfillment into human life. Bending the imagination in favor of restraint lets us encounter the latter as freedom from clutter and the compulsions of consumerism, opening a new direction toward reenchanting our lives and elevating our well-being without the acquisition or mediation of commodities. Turning away from habitual consuming, and toward the primacy of simply being, promises humanity being reborn into an elegant yet simple material culture, by means of mindfully "identifying our needs and scrutinizing our wants," while seeking enduring satisfaction in relationships with Earth's beings, places, and one another.

John Michael Greer explores the theme of restraint in the realm of technology. He starts with an indisputable premise: that a future of hypercomplicated technologies and limitless energy will not manifest. The fact that "fantasies of progress take precedence over sober analysis," in his words, only delays dealing with the moment of reckoning at the end of cheap abundant energy. In alignment with the other contributors, Greer submits that the restraint called for—as humanity "powers down" at the end of dense fossil-fuel energy and its sundry catastrophes—does not have to be a future of deprivation and sacrifice. The necessary closing of the fossil-fuel era can be welcomed as an opportunity to reimagine human life in slower rhythms and simpler built surroundings, while rethinking technological development as nature-harmonious ecotechnics and ingenious forms of "retrovation." Moving beyond the overproduction, consumerism, and waste excesses that fossil fuels have bankrolled, we can look toward higher aspirations, such as a global culture of high-level literacy and of fundamental human services supported by a robust ecological world. In such a future, the failures of "the civil religion of progress" give way to the return of enchantment in the emergence of new forms of human inhabitation and ecological renewal.

The chapters by Clive Spash and Samuel Alexander focus more concertedly on economic life. Spash methodically deconstructs mainstream attempts to build a sustainable global society by reforming capitalist market forces—the very forces that have unraveled planetary integrity. This approach, he argues, is an exercise in oxymoronic reasoning, hypocritical or at best self-defeating policy, and loss of precious time. Earth and humanity's fragile situation demand the courage and clarity to pursue, without further delay, the one pathway that can make a real difference and avert a myriad of catastrophes: We need to shrink the production of stuff, ramp down the technosphere, lower our consumerist demands, and—pursuant of these economic goals—decelerate and reverse population growth. Alexander

extends the exploration of human economic life by querying meaning. He contends that consumerism—even if hypothetically achievable by billions of people without ecological collapse—is a false vision of prosperity and a sure path to meaninglessness in human life. He ventures the argument that aesthetics—meaning a human life devoted to beauty and immersion in the beauties of nature—is the ground of fulfilling our existence. The thrust of this passionate perspective, which he sums up in the acronym S M P L C T Y, is that global humanity can create an elegant, sufficient, nonconsumerist, beautiful material culture wherein human life, through the practice of consciously embraced simplicity, can find authentic existential meaning. The economy of an ecological civilization chooses to retain and mirror the beauty of diverse and abundant life on Earth.

Respect

In an anthropocentric world, respect appears as a value created by humans to ethically regulate relationships, but in an Earth-centered context respect emerges in a new and deeper light. Respect organically *arises*, for it resides in what Freya Mathews calls "the normative logic" of ecological relations. In her chapter, Mathews finds the essential origin and work of respect within self-renewing ecological systems where organisms, and by extension species, in obeisance to life's imperatives to survive and grow, follow the ways of "accommodation" and "least resistance" toward one another. Living beings—contrary to a still prevailing social Darwinist view—*avoid* unnecessary competition and conflict with one another, thus circumventing a squandering of their life force in confrontations. In an ecological reality of *interdependence*—the hallmark of life's resilience over eons—ecocompositional designs emerge and consolidate wherein living beings sustain each other's existence through nutrient flows and an attending etiquette of coexistence. Breaking through the stale Western notion of a supposed gulf between the "is" and the "ought," Mathews points out that life's very design contains an inherent "ought." Indigenous people understood well this normative dimension of ontological relations and followed nature's command (Law) by means of intimate attunement with their surroundings and through elaborating worldviews and stories that recognize the inherent standing and contributions of all life. Following the native wisdom way, we contemporaries are called to recover this vision of nature's moral

law, which is natural relations manifesting as mutual accommodations and reciprocities expressed as tolerance, easefulness, and avoidance of competition. Such is nature's etiquette, summed and summoned through the word "respect" in human language. Through this flow of coexistence, as nature's way, we may seek to reestablish focus toward the more-than-human world as well as toward one another.

For Reed Noss, respect inheres in the recognition that the land—in Aldo Leopold's sense of the living world and the creatures who compose it—is an intrinsic good and a community within which we belong. This understanding aligns with the conservation imperative, and its cornerstone components of protected areas, ecological restoration, and rewilding. To counter the forces of humanization, which as deep monoculture runs the logic of nature aground and constitutes a big show of disrespect, we must create sanctuaries where nonhuman species and communities may continue to exist. How much nature protection does our current distorted reality demand? According to Noss that depends on the ecoregion in question, but the general-level response is between 25 and 75 percent of all representative ecosystems. Spatially generous landscape (and seascape) protection will ensure that extant ecologies continue to thrive, and that large carnivores will have the expansive areas they need to persist. Yet nature protection, as well as ecological restoration and rewilding, will be effective only if we simultaneously address the ultimate threats to nature, which, as Noss points out, are overconsumption, overpopulation, and anthropocentric blindness to the goodness of a biodiverse world. In protecting the world as the world demands, and simultaneously downscaling our own presence and activities, we practice respect for the world that birthed us and holds us. Through the renunciation of constant encroachment and killing, we also find our own dignity and self-respect.

Tarik Bodasing carries this line of reasoning forward with a special focus on Africa, particularly the desperate predicament of the continent's carnivores. Consumerism displays its toxic face in the practices of trophy hunting, wet markets, and wildlife poaching that have become a reign of terror and a form of nonhuman "cleansing" for our animal brothers and sisters in Africa and globally. The lack of respect for the being of the world itself echoes in human depravity and human inequity. The preservation and recovery of Africa's (and the whole world's) expanses of grasslands, shrublands, and forests demands a revolution of heart: the end of wet markets and demand for animal parts in urban centers, within and outside

Africa; the necessity of contracting the livestock population worldwide; the need to address rapid population growth, seeing its incompatibility with conserving Africa's exquisite nature; and the expansion of protected areas to save the continent's natural heritage and beauty.

Eileen Crist's chapter focuses on the state of the global ocean and the profound reparative work it is due. She details ecological knowledge of former abundances of marine biodiversity and its bludgeoning by industrial fishing. Ocean-wide pollution, acidification, and above all marine life destitution call for work on several levels. Most important is large-scale marine protection: we must start with full protection of the high seas stitched to an interconnected network of protected areas along coasts, estuaries, islands, and continental shelves. In parallel, the consumer world, which bears the brunt of responsibility for marine life devastation, must end subsidizing industrial fishing and trading fish so recklessly, while its citizens can choose to stop consuming seafood or eat it sparingly. Industrial fishing, an egregiously extractivist and ecologically disrespectful activity, must be abolished in favor of the reinstatement of the ecotechnics of artisanal fishing, which is equitable, artful, and respectful of the seas in its modest ecological impact. The most important precondition for heeding these reparative actions and policies is the human recognition of the inherent majesty of the living ocean, which alone can awaken the desire to reinstate and protect it.

The modern food system is devastating Earth's living systems—most especially biodiversity, climate, fresh water, and soils—and violates all decency in the treatment of farm animals, wild beings, and disempowered people whose lands have been stolen and are left with low-quality, contaminated food. Ryan Andrews looks to a future of sustainable and ethical food production. The collective well-being of Earth and all her residents, he argues, hinges on how we approach food in the coming decades. There is much to be changed in the status quo of food production, including shifting away from materials- and energy-intensive food processing, packaging, and trading. Andrews structures his chapter around three key ideas for transformation: one, that eaters will emphasize a variety of minimally processed plant-based foods; two, that farming will be built around agroecological regenerative systems; and, three, that food will be valued and not wasted. A mostly plant-based, whole-food diet, where practicable, will nourish human beings, and will also allow the lowering of the global numbers of farm animals, who, returned to farms, can live

in synergy with cultivated plants, soil, food scraps, and other dimensions of farm life. Embracing agroecology means modeling agricultural systems on ecological principles, including diversification, nutrient cycling, animal–plant beneficent feedback loops, soil building, and sensitivity to local and regional biogeography. Food grown with deep respect for the land—from its ground of soil to the needs of its wildlife—can be received as sacred nourishment by human beings in gratitude for Earth's fertility.

In her chapter, Chelsea Batavia centers on the idea that humanness, per se, is not the root of environmental destruction, and that eradicating its influence over the more-than-human world, therefore, is not a proper focus for conservationists' energies. She argues that conservationists should instead focus more intently on exposing and dismantling systems of oppression, through which dominant human groups undermine, repress, exploit, and often destroy other human and nonhuman beings. The work of overturning oppression presents undeniably daunting challenges. Conservationists can be heartened and invigorated, however, in finding solidarity between their work and the work of related movements promoting justice for marginalized groups, be they nonhuman or human.

The chapter by Joe Gray and Ian Whyte focuses on outdoor recreation, starting out by observing the conflict between the deep value of human experiences in wild nature and the negative impacts these can have on nonhuman life. They identify respect for the more-than-human world as the guiding lights to lead us through this thorny territory, and explore existing codes for outdoor pursuits, including Leave No Trace and Conscious Impact Living. Gray and Whyte also explore how respect can translate into mindful choices, including restricting ourselves both spatially and temporally in the outdoors activities in which we engage. They propose that through such intentional decisions we can learn to connect with wild nature without undermining its flourishing. Finally, Gray and Whyte offer some questions that we might ask ourselves, from an ecocentric perspective, before or during recreational activities. In alignment with other contributors, Gray and Whyte show that the virtues of restraint and respect elevate, as opposed to constrict, human beings, by cultivating more nuanced appreciation of recreational impacts, attuning humans to the needs of nonhumans, exploring alternative ways of recreating if called for, and self-reflecting from the perspective of others. Thus, the authors' recommendations reveal that respect serves both the needs of the more-than-human world and the elevation of human consciousness.

Reverence

Reverence heightens the felt experience of respect for Earth and her beings by enfolding the element of awe before the natural world—indeed, before a natural world that *calls awe forth*. The chapters clustered under this heading emphasize, each in their own way, that reverence is not a human-originated value, much less a culturally specific one, projected onto nature, but rather an attitude that nature's magnificent physical and numinous presence elicits within an attentive and humble human being. The very experience of reverence, and its conceptual distillation into a word, arose within the human mind through encountering the very nature of the world that humans emerged within and inhabit.

Patrick Curry traces the modern loss of capacity for reverence in the Western intellectual tradition he characterizes as a "philosophy of death," the elaboration of a necrophilic life-hatred that paved the way to ecocidal modernity and its condemnation of the natural world into a domain of "servitude, if not outright slavery." Only by superseding the anthropocentric profanation of nature and loss of relationship with belittled "others" (banalized and turned into resources), may we rediscover enchantment—meaning sheer wonder before existence. When we open up to nature's inherent experience, Curry writes, we find that "reverence is the appropriate response." According to Curry, enchantment always entails a relational and situated receptivity to nature's intrinsic being. Enchantment expresses an awakening to reality, an experience that arises when we have learned "to love nature for its own sake." It is surely due humanity to rediscover enchantment, as we slog through the ecocidal culmination of a philosophy of death that has produced arid, devastated inner and outer landscapes in the wake of "the disenchantment of the world."

Certainly enchantment has deep ties with beauty. Matthew Calarco makes the case for an "aesthetic turn" in discourse and activism centered on the more-than-human world, one with an orientation that is fundamentally "inhumanist." Pursuing a line of thought opened up by Aristotle, and further developed by contemporary philosophers and poets such as Pierre Hadot and Robinson Jeffers, Calarco argues that attention to the wonders and beauties of the natural world, especially animals, serves as the ground for a properly inhumanist aesthetics. Such an aesthetics offers an alternative vision of the ethico-political task that faces us today, one in which our response to the contemporary diminishment and degradation

of animal life is viewed less through a lens of reparative duty and more through one of preserving beauty.

Moving from animals to plants, the chapter by Simon Leadbeater and Helen Kopnina links the plight of the world's forests today to the development of Western thinking, constituting them as quasi-inanimate resources for extraction. They explore the human behavioral changes that are called for in response to increasing scientific evidence for plant sentience, particularly that of trees. In their discourse, Leadbeater and Kopnina draw on ancient and indigenous epistemologies surrounding the plant kingdom that mesh with recent scientific findings, offering hope for a renewal of our reverence for all nature.

Sean Blenkinsop presents a deeply honest appraisal of a long-term project, in collaboration with his colleagues, to "ecologize" public education and counter nature deficit disorder in British Columbia. In this project, substantial transformations have been wrought in the mode and setting of schooling, with a key goal of creating space for students to discover and respond to the cultural limits of imaginative play. Through a series of vignettes, Blenkinsop unpacks crucial student-initiated themes that have emerged from this work, including nature as coteacher, nature as colonized, and nature as supporting cultural change. The stories give us a window through which to see the educational journey of these researchers and to help us understand Blenkinsop's contention that in order to help overcome nature deficit disorder, even at the level of the individual, educators must think at the broader level of community and culture.

Finally, in her chapter, Kathleen Dean Moore offers a fitting conclusion to the section on reverence, and the book as a whole, with her poetic exploration of gratitude as a way of life. Starting out with a portrait of life around her cabin in Alaska, she explores questions about the essence of nature's gifts and what they ask of us—namely, profound gratitude built on attentiveness, gladness, and reciprocity. Moore delves into the role of humility and restraint in an ecological life and refutes the notion that we should act to oppose Earth's wounding only if we are confident of success.

Concluding Thoughts

While humanity can *seemingly* defer accountability to the ecological and ethical demands that Earth places upon us, and continue postponing a

genuine response by avoiding "the Earth question," that question will not go away. We are inescapably accountable to the devastation of nonhumans and their homes. Acquiescing to Earth's humanization—the default decision so far of modern culture at large—means consenting to the irreversible disappearance of innumerable and unique forms of beauty, knowledge, complexity, wellness, consciousness, and experience. By the same token, "destination Anthropocene" guarantees widespread human desolation and anguish, and a human identity crisis for all. Life gone missing everywhere, from the sheer momentum of entitlement and a refusal to limit the expansionism of the human enterprise, haunts Earth's landscapes and seascapes. As far as humans are concerned, the penalties are not only widespread physical suffering but also psychic pain, increasingly visible in epidemics of depression and other forms of sociopsychological malaise, and in the grieving of more and more people for Earth's integrity and our fellow Earthlings.

In this time called the Anthropocene by many, we have indeed come to "meet the enemy," but it is not us: it is not the human species or human nature. The enemy of the natural world, and of our own survival and potential as a unique lifeform, is an expansionist way of life premised on unrestraint, disrespect, and profound loss of reverence. Yet this way of life is not biologically ordained but historically contingent and inherited, ossified in political, economic, and educational institutions, and ongoingly inculcated into the social collective. The process of humanizing the planet is violent, and its endpoint unwholesome and moribund. Ours is the historical moment to awaken to the gift of belonging with a living planet and to become joyful participants who inhabit Earth with gratitude and grace.

References

Abram, D. (2017). *The Spell of the Sensuous*. Vintage Books.

Asafu-Adjaye, J., Blomqvist, L., Brand, S., et al. (2015). *An Ecomodernist Manifesto*. http://www.ecomodernism.org/

Ceballos, G., & Ehrlich, P. R. (2018) The misunderstood sixth mass extinction. *Science*, 360, 1080–81. https://doi.org/10.1126/science.aau0191

Elhacham, E., Ben-Uri, L., Grozovski, J., et al. (2020). Global human-made mass exceeds all living biomass. *Nature*, 588, 442–44. https://doi.org/10.1038/s41586-020-3010-5

IPBES (2019). *The Global Assessment Report on Biodiversity and Ecosystem Services: Summary for Policymakers*. https://ipbes.net/sites/default/files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf

Kohák, E. (1984). *The Embers and the Stars*. University of Chicago Press.

Maathai, W. (2004). Lecture on being awarded the 2004 Nobel Peace Laureate. https://www.nobelprize.org/prizes/peace/2004/maathai/lecture/

Maxwell, S. L., Fuller, R. A., Brooks, T. M., & Watson, J. E. M. (2016). The ravages of guns, nets and bulldozers. *Nature*, 536, 143–45. http://doi.org/10.1038/536143a

Unuigbe, N. (2023). What can we learn from indigenous ecological knowledge? *The Ecological Citizen*, 6, epub-089.