CHAPTER 1

Scenes of Human Diminishment in Early American Natural History

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In *Nature* (1836), the foundational text for the movement that would later come to be known as Transcendentalism, Ralph Waldo Emerson wrote:

> The instincts of the ant are very unimportant considered as the ant's; but the moment a ray of relation is seen to extend from it to man, and the little drudge is seen to be a monitor, a little body with a mighty heart, then all its habits, even that said to be recently observed, that it never sleeps, become sublime.[1]

Emerson was uncomfortable around animals, even if they were household pets. His daughter Edith reports that once, when she had left her pet parrot outside during a thunderstorm and the bird wanted to get in, her father, realizing that there was no one else to help, reluctantly went out and saved the frightened creature. When Edith returned from wherever she had gone, he reprimanded her: "Your green cat [*sic*] was much troubled by the storm . . . I offered her her cage, and she stepped into it with gratitude."[2]

No wonder that the ant receives even more condescension from Emerson. Viewed by itself, the tiny insect doesn't amount to much, a fragile little body, easily ignored or destroyed, driven by "very unimportant" instincts. Once we relate it to our own world, though, these same instincts suddenly become important, and "the little drudge" becomes a monitor, that is, a kind of mirror, reflecting what is best in us: our ability to work hard, even to go without sleep if needed.[3] Once we marry it to human history, and only then, natural history makes sense. As a former minister, Emerson would have been familiar with Proverbs 6: 6–8: "Go to the ant, thou sluggard; consider her ways, and be wise: Which having no guide, overseer, or ruler, provideth her meat in the summer, and gathereth her food in the harvest." But it seems that he is turning that advice around, telling the ant to go to man if it wants to be wise. In fact, the reader gets the feeling that there is more than a little irony behind Emerson's elevation of that "little drudge," with "*all* its habits" (my emphasis), to sudden, undeserved sublimity. Let us anthropomorphize if we

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must, he seems to be saying, but let us also remember that it's just a metaphor, and metaphors are not made by ants but by humans.[4]

In this chapter, I am interested in a strand of early American natural history writing that challenges such human exceptionalism, which was the norm in much of nineteenth-century science until the publication of Charles Darwin's *On the Origin of Species* (1859) and even after that. My focus will be on moments in which comfortable anthromorphisms break down, the direction of the "ray of relation" is disturbed, reversed, or ruptured, and nonhuman living beings are recognized as inhabiting a world of their own, not because they lack something humans have ("mechanomorphism," in Greg Garrard's typology) or because they are – the rarer option – considered superior to us (Garrard's "allomorphism").[5]

Arguably, even the most categorical rejection of anthropomorphic thinking takes place within the general framework of the human need to make sense of the world. Current discussions of the Anthropocene acknowledge, despite lingering disagreements over when it all began, the irreducible, ubiquitous, and irreversible impact of human actions on the planet.[6] "We live," Alfred Russel Wallace, the co-discoverer of evolution, had observed as early as 1876, "in a zoologically impoverished world, from which all the hugest, and fiercest, and strangest forms have recently disappeared."[7] My examples, drawn from the work of William Bartram (1739–1823), John James Audubon (1785–1851), and Susan Fenimore Cooper (1813–1894), offer an important, if perhaps ultimately futile, corrective to the trend identified by Wallace. Shrinking the human observer as they enlarge the natural world, imagining human diminishment amid scenes of natural wonder, they also imagine, pace Emerson, human history as firmly circumscribed by natural history and not the other way around.[8] Charlotte Porter and Thomas Hallock, among others, have shown that natural history provided a forum for outsiders such as the failed indigo farmer William Bartram, the Haitian-born French immigrant John James Audubon, and the self-taught nature enthusiast Susan Fenimore Cooper to raise questions about the expansionist ambitions of the early American republic.[9] But they did more than that: this chapter argues that, in asking such questions, early American naturalists adopted an epistemological model significantly different from academic natural history, with its insistence on the centrality of the human point of view as it had been imported from Europe.[10]

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On July 8, 1851, Thomas Carlyle wrote to Ralph Waldo Emerson, "Do you know *Bartram's Travels*? This is of the Seventies or so; treats of *Florida*

chiefly, has a wondrous kind of floundering eloquence in it; and has grown immeasurably *old*."[11] Carlyle wasn't right about the publication date or the geographical range of Bartram's book, but his characterization of Bartram's eloquence still rings true today. There is no evidence that Emerson took the bait and read what the literary historian William Hedges would later call "the most astounding verbal artifact of the early republic."[12] When *Travels*, or, to quote the complete title, *Travels through North and South Carolina, East & West Florida, the Cherokee Country, the Extensive Territories of the Muscogulges or Creek Confederacy, the Country of the Chactaws*, appeared in 1791, it defied easy categorizations. The book was based on the four years Bartram had spent traveling through North Carolina, Georgia, Florida, and Louisiana, through swamps, prairies, and subtropical forests, paddling across lakes, hiking along coastlines and river banks, fighting off water-belching alligators and interacting with deadly rattlesnakes (he did "dispatch" one of them but only reluctantly so, insisting that they were "magnanimous" creatures and would cause no injury unless attacked). But the finished book, weighed down by the sheer mass of exuberant paeans to the beauties of southern nature, stuffed with incantatory lists of plants and animals as well as admiring descriptions of encounters with members of the Creek, Choctaw, and Cherokee nations, far exceeded the genre of the travel report. Billy Bartram's talents as a draftsman had long been known – that is why the wealthy British plant enthusiast John Fothergill had agreed to sponsor his southern sojourn in the first place – but with *Travels* he had emerged as an American writer of the first order.

Bartram's remarkable eye for detail is particularly evident when he turns his attention to the smallest things in nature, such as the "ephemera" or mayflies (likely *Hexagenia orlando*) he noticed along the banks of the lower St. Johns River in East Florida in 1774. As he recalls it, the scene has a self-consciously staged quality, but the irony of the set-up is evident from the beginning. For what is Bartram – or the persona he has created for the purposes of this narrative – watching from his convenient vantage point on the shore? Animals so tiny that they can barely be seen, except in bulk. As Bartram describes them, the mayflies, appearing in a never-ending stream, emerge in the morning "from the shallow water near shore," taking flight immediately or, more commonly, creeping up the grass along the shore, "where remaining for a short time, as they acquired sufficient strength, they took their flight also, following their kindred to the main land."[13] And then Bartram doesn't really see them anymore. In the evening, though, he returns to appreciate what he calls "the closing scene of the short-lived

Ephemera."[14] He has anticipated that scene before, those "clouds of innumerable millions" of little flies, "swarming and wantoning in the still air,"[15] the water of the river churning with the agitated bodies of fish and frogs straining to catch them as they are about to land. But now, as he sits down in the shade of magnificent live oaks, lush magnolias, and sweet-smelling orange trees, the spectacle acquires new intensity for him and, presumably, for the reader, as we are invited to sit down beside him. There's even a kind of overture, as in a film score written to accompany a nature documentary: the "feathered songsters" in the trees gradually cease their music, retiring for the night. Now cue the final act, in which the mayflies have sex and die.

Though this is not, of course, how Bartram puts it. "As if insensible to their danger, gay and tranquil each meets its beloved mate, . . . inimitably bedecked in their new nuptial robes, . . . bounding and fluttering on the odoriferous air."[16] The almost comically humanizing language wears its inappropriateness on its sleeve, as it were. After all, Bartram is talking about insects here, about behavior he cannot really see, as he readily admits ("what eye can trace them"), thus reminding the reader, in passing, of the unbridgeable distance between the observer and his subject. When the mayflies die (the females after depositing their eggs in the river), their entire winged life has lasted barely a day. In the primordial, oozy slime of the riverbed, enveloped in scum and mud, the eggs hatch; over the coming months, the nymphs, "caviar to all the other inhabitants of the stream," as a contemporary fishing guide remarks, fight to stay until they're ready to emerge and the whole cycle begins again.[17]

The mayfly episode is most commonly read as a memento mori, illustrating, through the analogy of insect life, the vanity of all human aspirations, or, put more positively, as an encouragement, since our time is short, to "seize the day" and to appreciate, even in that short amount of time we're given, the glory of God's works. Let us contemplate the ephemeral mayflies, he admonishes the reader, ever so gently wagging his finger, "and communicate to each other the reflections which so singular an exhibition might rationally suggest to an inquisitive mind."[18] The latter remark especially appears to have been intended as a counterpoint to the effusive poetry of other parts. In its studied, almost boring vacuousness, Bartram's interjection is an example – one of several similar ones inserted, at strategically important points, into the book – of Bartram delivering what his contemporaries would have expected him to say: a reminder that one should never look at nature without deriving some uplifting lesson from it. Scholars have, for the most part, been content to follow Bartram's

prompt, virtually ignoring the exciting double-voicedness of his writing.[19] "In the life cycle of these flies," writes Larry Clarke, "Bartram finds a moral lesson on the transience of life's pleasures."[20] Matthew Wynn Silvis similarly argues that, in following the brief course of the mayfly's life cycle, Bartram wanted to impart to us a vision of a holistic world, one in which everything is interconnected and the mayfly and the man exist to shed light on each other.[21] One particularly creative reading sees in the precariousness of the mayflies' existence a comforting reminder to Bartram himself that the dangers facing the solitary traveler in the wilderness – a memorable example is the napping Bartram's hair's-breadth escape from an alligator's jaws[22] – are nothing compared to the troubles experienced by the mayfly.[23]

Yet there are enough indications in the mayfly episode that such readings, in which the flies are interesting only in terms of how they relate to the human world, fall short. There is the swampy riverbed from which they emerge and to which at least their eggs return, a troubling hint of dark, swampy, maternal fecundity, the world of slimy things, as S.T. Coleridge would later describe it.[24] There's the one and only purpose of the mayfly's existence, to have sex (with "pleasure and enjoyment"!) and to thus propagate the species, a somewhat unexpected reminder coming from the childless bachelor Bartram. And, finally, there's the sheer mind-boggling mass of flies (creating a powerful contrast with Bartram the solitary wanderer and observer), "a number greater than the whole race of mankind that have ever existed since the creation."[25] And that assessment, mind you, pertains only to what Bartram had witnessed in that small spot on the St. Johns River, which, as he points out, with a wonderful rhetorical flourish that would have done Thoreau proud, in the context of all the rivers on the North American continent is "but a brook or rivulet."[26]

And now the analogy that the reader has been led to believe this passage proposes becomes wobbly indeed. Mayflies are, Bartram writes, in "frame and organization . . . equally wonderful, more delicate, and perhaps as complicated as . . . the most perfect human being."[27] *Equally*, *more*, *as*, *the most*. Bartram's characterization, read properly, is subversive indeed: if the average mayfly is as complex as "the most perfect human being," doesn't this suggest, too, that the average human being is less complex than the average mayfly?

In the final paragraph of the mayflies episode, Bartram destroys whatever has remained of the lesson toward which he has dutifully gestured throughout this section. As should have been clear from the beginning,

these little creatures are as different from us as can be. What indeed could we have in common with tiny organisms that spend the majority of their lives as an "ugly grub," buried in the mud, popping up only to snatch some food?[28] In Bartram's eye, such unpleasant details, included to make the reader take a step back from the scene, do not diminish these insects. Instead, they make the pleasure-loving mayfly's existence doubly remarkable: wonderful, mysterious, a brief flash of pleasure emanating from a dark, oozy background. If there's anything these tiny creatures *can* teach us, it's our failure to understand them properly. Elsewhere in *Travels* Bartram blames a deeply human tendency to feel superior to the world around us for the decline of the human species: if Indian tribes "make war against, kill, and destroy" each other, this is no different from what "all other nations of mankind" practice, namely "the ambition of exhibiting to their fellows a superior character of personal and national valour, and thereby immortalizing themselves, by transmitting their names with honour and lustre to posterity; or revenge of their enemy, for public or personal insults; or, lastly, to extend the borders and boundaries of their territories."[29] Behold the mayfly then, wonderfully formed, perfectly adapted to the world it inhabits, making no wars on anyone, living, as far as any observer who is not a mayfly can tell, for a brief moment of intense pleasure, but living that moment in "peace, love, and joy": a dream, no doubt, but one – again, as far as human observers can tell – preferable to the fret and constant worry of human existence.

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William Bartram's *Travels* had a considerable influence on both literary and natural history. While his fantastical descriptions of lush southern landscapes and lagoons alive with shimmering fish and roaring alligators have inspired poets from Coleridge to W.S. Merwin, his lists of birds, the most complete inventory then available, jumpstarted American ornithology and inspired America's first professional observer of birds, Alexander Wilson (1766–1813), whom Bartram mentored. And even though Wilson's competitor and successor John James Audubon, the creator of the magnificent plates collected in *The Birds of America* (1827–1838), rejected both Bartram's "*flowery sayings*" and what he saw as Wilson's many inaccuracies, his own work would hardly have been possible without Bartram's efforts.[30]

In addition to the massive *The Birds of America* and the less ambitious sequel on mammals, *Viviparous Quadrupeds of North America* (1845–1848), finished by Audubon's sons and his friend John Bachman, Audubon père also produced more than 3,000 pages of essays, published as *Ornithological*

Biography (1831–1839), the most comprehensive account of American bird behavior ever attempted and soon to be one of the primary reference sources for Darwin's *The Descent of Man* (1871). Audubon's prose, revised into literary respectability by his collaborator, William McGillivray, is often hardly less flowery than Bartram's, and he further resembles his predecessor in the close attention he pays to the role of the human observer. Consider the following passage in his essay on the ruby-throated hummingbird, published in 1831. Unlike Bartram, Audubon does not offer the reader a ringside seat in his visual theater but invites her to recreate, in her imagination, what only he has seen directly:

> Could you, kind reader, cast a momentary glance on the nest of the Humming Bird, and see, as I have seen, the newly hatched pair of young, little larger than humble-bees, naked, blind, and so feeble as scarcely to be able to raise their little bill to receive food from the parents; and could you see those parents, full of anxiety and fear, passing and repassing within a few inches of your face, alighting on a twig not more than a yard from your body, waiting the result of your unwelcome visit in a state of the utmost despair, – you could not fail to be impressed with the deepest pangs which parental affection feels on the unexpected death of a cherished child. Then how pleasing it is, on your leaving the spot, to see the returning hope of the parents, when, after examining the nest, they find their nurslings untouched! You might then judge how pleasing it is to a mother of another kind, to hear the physician who has attended her sick child assure her that the crisis is over, and that her babe is saved.[31]

The visual drama involving author and reader begins as a hypothetical event: "could you . . . cast"; "[could you] see, as I have seen." And this is perhaps as it ought to be: Audubon is asking the reader to imagine, from the comfort of her home, something incomparably small (though not quite as small as Bartram's mayflies): freshly hatched hummingbird babies, coming from an egg the size of a jellybean, are barely larger than a thumbnail. As Audubon's adds behavioral detail (the fact that the young hummingbirds can scarcely lift their beaks high enough to eat) and measurements ("within a few inches of your face"; "a twig not more than a yard from your body"), the imagined event becomes real, as does the anxiety of the parents at this "unwelcome" interruption of their domestic life. Emily Dickinson called the hummingbird's flight "a route of evanescence," a spectacle that is over before we know it has passed us, but Audubon places these elusive birds right before us, at eye level.[32]

The second-person pronoun, the rhetorical form of address so often employed by Audubon, creates a terrific sense of intimacy between author

and reader, and the measurements he includes, with their suggestion of closeness, further reduce the distance between the actual observer (the author) and the potential observer (the reader). The encounter is not a happy one – our presence causes the birds pain and anxiety, and, as we keep looking on, anticipated disaster appears to turn into tragic loss: we see the parents lamenting the "unexpected death of a cherished child." Note that Audubon represents this emotion not as something we recognize because it is familiar to us from our own experience, but as if we had come across it for the first time among the hummingbirds: our reference point is the experience of animals, not of humans. This is a fiction, of course, but – to use a phrase by Wallace Stevens, master of the defamiliarizing point of view – it is a "necessary" one.[33] And it is one that Audubon would continue to enforce.

As we quickly end our disruptive visit, driven out by our guilt about damage we haven't even done yet, the birds' palpable relief helps us understand or "judge" the delight we might feel when it is our turn and a doctor gives *us* good news about our children. This is a small but not unimportant reversal: as Audubon puts it here, it is only after we have witnessed the pain felt by an animal mother that we will be able to understand the relief felt by us – or a human mother ("a mother of another kind") – in a situation where *our* offspring is in danger.[34]

Now Audubon *had* experienced such a danger twice (and with tragic outcomes). He had lost two very young daughters, Rose when she was still a baby and Lucy at the age of two. Given such likely resonances, it seems strange for Audubon to have framed his story of a visit to the hummingbirds' nest as leading to some sort of a lesson the birds can teach *us* about *our* behavior, rather than the other way around. Anthropomorphism is a tool intended to reduce the distance between humans and animals, in order to take the latter's strangeness away. In this passage, Audubon's use of "ornithomorphism" (if the coinage is permitted) doesn't serve the purpose of making the nonhuman world more comfortably familiar to us human beings; instead, it defamiliarizes emotions we think we all know (grief, death, concern about family) and locates their origin elsewhere, among the animals. Read carefully, the primary purpose of comparing the human-inflicted pain of the hummingbird parents to the "pangs" felt by a human mother who might lose, or has already lost, her child, is not to get us closer to the birds but, quite bluntly, to make us, after a few stolen glances, leave them alone.

Audubon's plates in *The Birds of America* also feature a world in which birds are the primary residents. Like his texts, they shimmer with his

appreciation for the birds' outlandish beauty. But Audubon cared about his backgrounds, too, employing other artists to help him place his birds in appropriate habitats. Remarkably, quite a few of Audubon's compositions contain evidence of human presence and activity, ranging from the small woodcutter's cabin in the plate showing a Swainson's hawk (*The Birds of America*, plate 372) to the elaborate view of Charleston, South Carolina, in the plate featuring two long-billed curlews (painted by Audubon's assistant, the landscape painter George Lehman; *The Birds of America*, plate 231). Similarly, in the plate depicting two canvasbacks, the birds in the foreground frame the view of Baltimore in the distance, as if Audubon wanted to invite us, mockingly, to go see Baltimore from a duck's point of view (*The Birds of America*, plate 301, Figure 1.1). Audubon's compositions, as art historian Alan Braddock has pointed out, thus disrupt the humanistic convention of landscape aesthetics in which the environment is seen from a human perspective only.[35]

In *The Birds of America* and *Viviparous Quadrupeds of North America*, Audubon's miniaturized representations of the human presence ask us to

Figure 1.1 Robert Havell, Jr. after John James Audubon, *Canvas backed Duck*. Aquatint Engraving. 1833. *The Birds of America*, plate 301. Detail. Courtesy, Lilly Library

imagine a world in which we are bit players only: not the owners of the landscape, but trespassers. The snowy egrets of South Carolina, for example, greet the human intruder with dismissive silence, as Audubon notes in the essay accompanying the plate: "they rise silently on the wing, alight on the trees near, and remain there until you depart."[36] In Audubon's watercolor, painted in the early spring of 1832, George Lehman included, at far right, a small plantation house and, closer to the bird and partially obscured by a ridge, the diminutive figure of a hunter in a tricornered hat who is clutching a matchstick-sized gun – an ironic contrast with the glorious, white-feathered beauty of the magnificent egret in the foreground (*The Birds of America*, plate 242).

If that hunter wasn't intended to represent Audubon, there can be little doubt about the tiny figure on the left in Audubon's 1833 watercolor of the golden eagle, now held by the New-York Historical Society. With a dead young eagle strapped to his back, Audubon has painted himself moving down a log that has been put across a deep chasm. As the hunter is laboriously descending, steadying himself with what looks like a small pickaxe, the real subject of the painting, an enormous female golden eagle, is ascending, a bleeding white hare in her talons. Not much ingenuity is required to figure out the story this painting sets out to tell: a mother's efforts to feed her baby have been thwarted by human intervention. The contrast between the godlike bird dominating the watercolor (some scholars think Audubon was inspired by Jacques-Louis David's painting *Napoleon Crossing the Alps*, 1801) and the small, cradle-robbing human might have been too blatant for Audubon's engraver Robert Havell, Jr. He removed the figure from the plate, leaving in place the empty log, which now, with no one straddling it, looks rather irrelevant.[37]

Audubon's final self-portrait came in one of the last compositions he was able to complete, and it's a truly strange one: in plate 78 of the *Viviparous Quadrupeds* we see an emaciated black-tailed doe (a mule deer), hurt by a small through-and-through bullet that was badly aimed, staggering away from a miniaturized hunter in the field on the left. Blood is staining the doe's lips and trickling from a small wound on her side. Unlike the hunter in the image of the snowy egret, the hunter's rifle is not pointed; indeed, he looks curiously dissociated from the damage he has wreaked, displaced by the spectacle of the dying animal in the foreground. A closer look reveals the similarities between the incompetent hunter's face and the features of the aging, toothless, sharp-faced Audubon, as captured in Mathew Brady's daguerreotype made in 1847/48 (Cincinnati Art Museum).

Audubon, to be sure, was an excellent marksman himself, a "two-legged monster, armed with a gun," as he wearily characterized himself.[38] But by the early 1830s, he had also realized that humans like him, with their logging, farming, trapping, and hunting, were actively diminishing bird populations across the continent. It is no coincidence that in his art the puniest things in nature are men holding guns.

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Like Audubon, Susan Fenimore Cooper was partial to hummingbirds, spending several seasons watching them in order to determine which flowers they prefer over others. Leisurely nature observations form the core of Cooper's *Rural Hours*, a carefully crafted, often lyrical natural history journal she published in 1850, which served as the unacknowledged model for Thoreau's *Walden* (1854). Cooper was an avid reader of the natural history writings of her predecessors. But where Bartram and Audubon had ranged far, she stayed close to home, in the village of Cooperstown, New York, which her ancestors had founded. Like Audubon, Cooper cast a jaundiced look at her contemporaries, their propensity for exploiting and destroying an environment they had never bothered to get to know properly in the first place. Walking around her hometown in January, it occurred to her that where buffalo, foxes, wolves, and rabbits had once roamed the wintry landscape, their killers now traveled in comfortable coaches, wrapped in the very furs that they had taken from the animals.[39]

Rural Hours is first and foremost a tribute to the importance of local knowledge. Cooper's slow-moving book is an almost subversive gesture, a thinly veiled critique of the paternalistic spirit that helped create the very place she writes about. Unlike Audubon, Cooper does not want to list and describe what no one else is likely to have seen. Instead, she offers her readers a long, protracted look at what is familiar or perhaps only seems familiar. An education of the senses, *Rural Hours* encourages readers to look around, teaching them where to look, how to look, and, especially, how to look critically.

One of Cooper's favorite subjects is human wastefulness, a theme she inherited from her father, the novelist James Fenimore Cooper. Recall, for instance, the poignant scene in *The Pioneers* (1823), where Cooper's protagonist, Natty Bumppo or "Leatherstocking," a hunter subsisting on the edge of the wilderness, shoots a passenger pigeon on the wing, thundering "use, but don't waste," in the direction of his fellow citizens, who have just participated in a gigantic mass slaughter of these birds, covering the

ground with more bird bodies than they will ever be able to consume.[40] As it turns out, decades later the daughter's little universe is under an even greater threat as animal species disappear, forests burn, and plants are displaced by invasive species. In *Rural Hours*, Cooper's critique of careless extraction is focused specifically on the damage her neighbors inflict on trees, whose charred remains and ragged stumps serve as a constant reminder of the high price the land pays when humans decide to grow roots and uproot the trees around them.[41]

Stories of white settlement in America follow a familiar pattern: an alleged wilderness is turned into a garden, and some of these gardens become cities, and so on. Success often depends on the erasure of the past, a process that is never complete, as occasional visits to Cooperstown of raggedy bands of Haudenosaunee remind her. Yet things are different in the nonhuman universe of the forest, where, as Cooper has observed, young and old, the present and the past, coexist in mutually sustaining relationships. One tree's death leads to another tree's new life, a cycle disturbed only by human interference. Trees are "incredibly slow," writes forester Peter Wohlleben, "their childhood and youth last ten times as long as ours."[42] If Bartram was intrigued by the minimal lifetime of his mayfly, Cooper is fascinated by the maximal lifespan of forest trees that go on living even after they have fallen down. As Cooper sees it, the dead and dying trees of America, "shivered and broken by the winds," are the country's truest ruins, surpassing the monuments that dot the landscapes of Europe.

> Broken limbs and dead bodies of great trees lie scattered through the forests; there are spots where the winds seem to have battled with the woods – at every step one treads on fallen trunks, stretched in giant length upon the earth, this still clad in its armor of bark, that bare and mouldering, stained by green mildew, one a crumbling mass of fragments, while others, again, lie shrouded in beautiful mosses, long green hillocks marking the grave of trees slowly turning to dust.[43]

Cooper seems to revel in the language of decay as she, hiding behind the mask of impersonality ("one treads"), gingerly traverses this jungle of fallen tree bodies.

Yet on closer inspection, nothing does in fact decay here. In the enchanted world of the forest, the boundaries between life and death are fluid. In the end of trees lies their beginning: old trees take a long time dying so that young ones may flourish. They are

> frequently found growing upon these forest ruins; if a giant pine or oak has been levelled by some storm, the mass of matted roots and earth will stand

> upright for years in the same position into which it was raised by the falling trunk, and occasionally a good-sized hemlock, or pine, or beech, is seen growing from the summit of the mass, which in itself is perhaps ten or twelve feet high.[44]

Here the living hold the dying in loving, life-sustaining embrace:

> We have found a stout tree of perhaps twenty years' growth, which has sprung from a chance seed, sown by the winds on the prostrate trunk of a fallen pine or chestnut, growing until its roots have stretched down the side of the mouldering log, and reached the earth on both sides, thus holding the crumbling skeleton firmly in its young embrace.[45]

The phrase "young embrace" is particularly evocative – here death does no one part. Some trees, a familiar part of the landscape, remain standing for decades even as they die; prostrate pines preserve their sap for up to fifty years.[46] What distinguishes this wild community of trees is, precisely, that it is *not* like ours, a point reiterated a few years ago, in Wohlleben's bestselling *The Hidden Life of Trees*. We might attempt to describe that community, but compared to the natural world's webs of interdependence, any single human language – especially one that relies on familiar terms such as life and death or, for that matter, family and kinship, young and old – remains woefully inadequate.[47]

"In wildness is the preservation of the world," Thoreau wrote in his posthumously published essay "Walking."[48] Note that Thoreau, like Cooper a devotee of forest trees, isn't talking about the preservation of *wildness* but about the preservation of the *world*, to which wildness, he thinks, provides the one and only gateway. If he is right, and current research confirms it, the planet appears to be in its last throes today. The fallen log in Audubon's representation of the Golden Eagle might serve as a poignant symbol for what has been happening to the world's wild spaces. Areas untouched by human industry or agriculture are important buffers against the effects of human interference on the environment: they sequester twice as much carbon as degraded landscapes, offer refuges for threatened species, and help stabilize local weather patterns. Yet only just 23 percent of such wild landscapes remain today worldwide. In the last twenty years alone, close to 10 percent of global wilderness, an area twice the size of Alaska, has vanished. That puts additional pressure on the wild landscapes that remain, among them the forests of North America, which so fascinated William Bartram, John James Audubon, and Susan Fenimore Cooper.[49] As their example shows, the key to wilderness preservation lies not just in policy measures, as crucial as they are. What needs to come first

is a shift in how we think about what being wild and being in the wild means. For Bartram, Audubon, and Cooper, it meant confronting "the world we did not make," a phrase I have borrowed from William Cronon's iconic essay "The Trouble with Wilderness."[50] The point of such lessons in humility or, in the terms of this essay, in productive self-diminishment, would be a change in the way we think about this planet as a whole, about the humble tree in our backyard (one of Cronon's examples) as well as what remains of the rockland pines of Miami-Dade County, where the endangered Bartram's scrub-hairstreak butterfly, named after Billy Bartram's botanist father, still holds on. Crucial to such an endeavor is, as Bartram, Audubon, and Cooper knew and as William Cronon has reiterated with even more urgency today, "critical self-consciousness," a deliberate effort to "withhold our power to dominate." A project that would seem near impossible were it not for environmentally minded writers in the American grain who, for quite some time, have shown us what such a shift in perception would look like.