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College Edition 

Edited by ROBERT FINCH
and JOHN ELDER
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WILLIAM BARTRAM

1739-1823

William Bartram's Travels Through North & South Carolina, Georgia, East & West Florida, the Cherokee Country, the Extensive Territories of the Muscogulges, or Creek Confederacy, and the Country of the Chactaws (1791) has entranced readers from its first publication to the present day. Mangrove swamps and alligators, poisonous snakes and wolves seem to have been as delightful to Bartram, by the very fact of their existence, as they would have been terrifying to one more concerned with protecting his own existence. Joy was inseparable from the study of nature for Bartram, and he frequently weaves Linnaean nomenclature into his rhapsodic descriptions in ways that express a litany of praise. Such a blending of precision with adoration marks his account of the "crystal basin," which is included here. This passage so impressed Coleridge that he worked a number of details from it into his description of the enchanted landscape in "Kubla Khan."

As the full title of Bartram's book indicates, he was also interested, in a particular and discriminating sense, in the native peoples of the Southeast. We can be grateful for the presence in our early literature of nature of a few writers like Bartram and Thoreau, who combined a vivid and informed love of the land with respect for the cultures that had evolved within it before the coming of white settlers.

FROM TRAVELS THROUGH NORTH & SOUTH CAROLINA, GEORGIA, EAST & WEST FLORIDA, . . .

[Ephemerid]

* * * Early in the evening, after a pleasant day's voyage, I made a convenient and safe harbour, in a little lagoon, under an elevated bank, on the West shore of the river; where I shall entreat the reader's patience, whilst we behold the closing scene of the short-lived Ephemerid, and communicate to each other the reflections which so singular an exhibition might rationally suggest to an inquisitive mind. Our place of observation is happily situated under the protecting shade of majestic Live Oaks, glorious Magnolias, and the fragrant Orange, open to the view of the great river and still waters of the lagoon just before us.

At the cool eve's approach, the sweet enchanting melody of the feathered songsters gradually ceases, and they betake themselves to their leafy coverts for security and repose.

Solemnly and slowly move onward, to the river's shore, the rustling clouds of the Ephemerid. How awful the procession! innumerable millions of winged beings, voluntarily verging on to destruction, to the brink of the grave, where they behold bands of their enemies with wide open jaws, ready to receive them. But as if insensible of their danger, gay and tranquil each meets his beloved mate in the still air, imitatively bedecked in their new nuptial robes. What eye can trace them, in their varied wanton amorous chaces, bounding and fluttering on the odorous air! With what peace, love, and joy, do they end the last moments of their existence!

I think we may assert, without any fear of exaggeration, that there are annually of these beautiful winged beings, which rise into existence, and for a few moments take a transient view of the glory of the Creator's works, a number greater than the whole race of mankind that have ever existed since the creation; and that, only from the shores of this river. How many then must have been produced since the creation, when we consider the number of large rivers in America, in comparison with which, this river is but a brook or rivulet.

The importance of the existence of these beautiful and delicately

Travels Through North & South Carolina, Georgia, East & West Florida, the Cherokee Country, the Extensive Territories of the Muscogulges, or Creek Confederacy, and the Country of the Chactaws (Philadelphia: James and Johnson, 1791).

formed little creatures, whose frame and organization are equally wonderful, more delicate, and perhaps as complicated as those of the most perfect human being, is well worth a few moments contemplation; I mean particularly when they appear in the fly state. And if we consider the very short period of that stage of existence, which we may reasonably suppose to be the only space of their life that admits of pleasure and enjoyment, what a lesson doth it not afford us of the vanity of our own pursuits!

Their whole existence in this world is but one complete year: and at least three hundred and sixty days of that time they are in the form of an ugly grub, buried in mud, eighteen inches under water, and in this condition scarcely locomotive, as each larva or grub has but its own narrow solitary cell, from which it never travels or moves, but in a perpendicular progression of a few inches, up and down, from the bottom to the surface of the mud, in order to intercept the passing atoms for its food, and get a momentary respiration of fresh air; and even here it must be perpetually on its guard, in order to escape the troops of fish and shrimps watching to catch it, and from whom it has no escape, but by instantly retreating back into its cell. One would be apt almost to imagine them created merely for the food of fish and other animals. * * *

[Encounters with Alligators]

* * * The evening was temperately cool and calm. The crocodiles began to roar and appear in uncommon numbers along the shores and in the river. I fixed my camp in an open plain, near the utmost projection of the promontory, under the shelter of a large live oak, which stood on the highest part of the ground, and but a few yards from my boat. From this open, high situation, I had a free prospect of the river, which was a matter of no trivial consideration to me, having good reason to dread the subtle attacks of the alligators, who were crowding about my harbour. Having collected a good quantity of wood for the purpose of keeping up a light and smoke during the night, I began to think of preparing my supper, when, upon examining my stores, I found but a scanty provision. I thereupon determined, as the most expeditious way of supplying my necessities, to take my bob and try for some trout. About one hundred yards above my harbour began a cove or bay of the river, out of which opened a large lagoon. The mouth or entrance from the river to it was narrow, but the waters soon after spread and formed a little lake, extending into the marshes: its entrance and shores within I observed to be verged with floating lawns of the pistia and nymphæa and other aquatic plants; these I knew were excellent haunts for trout.

The verges and islets of the lagoon were elegantly embellished with flowering plants and shrubs; the laughing coots with wings half spread were tripping over the little coves, and hiding themselves in the tufts of grass; young broods of the painted summer teal, skimming the still surface of the waters, and following the watchful parent unconscious of danger, were frequently surprised by the voracious trout; and he, in turn, as often by the subtle greedy alligator. Behold him rushing forth from the flags and reeds. His enormous body swells. His plaited tail brandished high, floats upon the lake. The waters like a cataract descend from his opening jaws. Clouds of smoke issue from his dilated nostrils. The earth trembles with his thunder. When immediately from the opposite coast of the lagoon, emerges from the deep his rival champion. They suddenly dart upon each other. The boiling surface of the lake marks their rapid course, and a terrific conflict commences. They now sink to the bottom folded together in horrid wreaths. The water becomes thick and discoloured. Again they rise, their jaws clap together, re-echoing through the deep surrounding forests. Again they sink, when the contest ends at the muddy bottom of the lake, and the vanquished makes a hazardous escape, hiding himself in the muddy turbulent waters and sedge on a distant shore. The proud victor exulting returns to the place of action. The shores and forests resound his dreadful roar, together with the triumphing shouts of the plaited tribes around, witnesses of the horrid combat.

My apprehensions were highly alarmed after being a spectator of so dreadful a battle. It was obvious that every delay would but tend to increase my dangers and difficulties, as the sun was near setting, and the alligators gathered around my harbour from all quarters. From these considerations I concluded to be expeditious in my trip to the lagoon, in order to take some fish. Not thinking it prudent to take my fusée with me, lest I might lose it overboard in case of a battle, which I had every reason to dread before my return, I therefore furnished myself with a club for my defence, went on board, and penetrating the first line of those which surrounded my harbour, they gave way; but being pursued by several very large ones, I kept strictly on the watch, and paddled with all my might towards the entrance of the lagoon, hoping to be sheltered there from the multitude of my assailants; but ere I had half-way reached the place, I was attacked on all sides, several endeavouring to overset the canoe. My situation now became precarious to the last degree: two very large ones attacked me closely, at the same instant, rushing up with their heads and part of their bodies above the water, roaring terribly and belching floods of water over me. They struck their jaws together so close to my ears, as almost to stun me, and

I expected every moment to be dragged out of the boat and instantly devoured. But I applied my weapons so effectually about me, though at random, that I was so successful as to beat them off a little; when, finding that they designed to renew the battle, I made for the shore, as the only means left me for my preservation; for, by keeping close to it, I should have my enemies on one side of me only, whereas I was before surrounded by them; and there was a probability, if pushed to the last extremity, of saving myself, by jumping out of the canoe on shore, as it is easy to outwalk them on land, although comparatively as swift as lightning in the water. I found this last expedient alone could fully answer my expectations, for as soon as I gained the shore, they drew off and kept aloof. This was a happy relief, as my confidence was, in some degree, recovered by it. On recollecting myself, I discovered that I had almost reached the entrance of the lagoon, and determined to venture in, if possible, to take a few fish, and then return to my harbour, while day-light continued; for I could now, with caution and resolution, make my way with safety along shore; and indeed there was no other way to regain my camp, without leaving my boat and making my retreat through the marshes and reeds, which, if I could even effect, would have been in a manner throwing myself away, for then there would have been no hopes of ever recovering my bark, and returning in safety to any settlements of men. I accordingly proceeded, and made good my entrance into the lagoon, though not without opposition from the alligators, who formed a line across the entrance, but did not pursue me into it, nor was I molested by any there, though there were some very large ones in a cove at the upper end. I soon caught more trout than I had present occasion for, and the air was too hot and sultry to admit of their being kept for many hours, even though salted or barbecued. I now prepared for my return to camp, which I succeeded in with but little trouble, by keeping close to the shore; yet I was opposed upon re-entering the river out of the lagoon, and pursued near to my landing (though not closely attacked), particularly by an old daring one, about twelve feet in length, who kept close after me; and when I stepped on shore and turned about, in order to draw up my canoe, he rushed up near my feet, and lay there for some time, looking me in the face, his head and shoulders out of water. I resolved he should pay for his temerity, and having a heavy load in my fuscé, I ran to my camp, and returning with my piece, found him with his foot on the gunwale of the boat, in search of fish. On my coming up he withdrew sullenly and slowly into the water, but soon returned and placed himself in his former position, looking at me, and seeming neither fearful nor any way disturbed. I soon dispatched him by lodging the contents of my

gun in his head, and then proceeded to cleanse and prepare my fish for supper; and accordingly took them out of the boat, laid them down on the sand close to the water; and began to scale them; when, raising my head, I saw before me, through the clear water, the head and shoulders of a very large alligator, moving slowly towards me. I instantly stepped back, when, with a sweep of his tail, he brushed off several of my fish. It was certainly most providential that I looked up at that instant, as the monster would probably, in less than a minute, have seized and dragged me into the river. This incredible boldness of the animal disturbed me greatly, supposing there could now be no reasonable safety for me during the night, but by keeping continually on the watch: I therefore, as soon as I had prepared the fish, proceeded to secure myself and effects in the best manner I could. In the first place, I hauled my bark upon the shore, almost clear out of the water, to prevent their oversetting or sinking her; after this, every moveable was taken out and carried to my camp, which was but a few yards off; then ranging some dry wood in such order as was the most convenient, I cleared the ground round about it, that there might be no impediment in my way, in case of an attack in the night, either from the water or the land; for I discovered by this time, that this small isthmus, from its remote situation and fruitfulness, was resorted to by bears and wolves. Having prepared myself in the best manner I could, I charged my gun, and proceeded to reconnoitre my camp and the adjacent grounds; when I discovered that the peninsula and grove, at the distance of about two hundred yards from my encampment, on the land side, were invested by a cypress swamp, covered with water, which below was joined to the shore of the little lake, and above to the marshes surrounding the lagoon; so that I was confined to an islet exceedingly circumscribed, and I found there was no other retreat for me, in case of an attack, but by either ascending one of the large oaks, or pushing off with my boat.

It was by this time dusk, and the alligators had nearly ceased their roar, when I was again alarmed by a tumultuous noise that seemed to be in my harbour, and therefore engaged my immediate attention. Returning to my camp, I found it undisturbed, and then continued on to the extreme point of the promontory, where I saw a scene, new and surprising, which at first threw my senses into such a tumult, that it was some time before I could comprehend what was the matter; however, I soon accounted for the prodigious assemblage of crocodiles at this place, which exceeded every thing of the kind I had ever heard of.

How shall I express myself so as to convey an adequate idea of it to the reader, and at the same time avoid raising suspicions of my verac-

ity? Should I say, that the river (in this place) from shore to shore, and perhaps near half a mile above and below me, appeared to be one solid bank of fish, of various kinds, pushing through this narrow pass of St. Juan's into the little lake, on their return down the river, and that the alligators were in such incredible numbers, and so close together from shore to shore, that it would have been easy to have walked across on their heads, had the animals been harmless? What expressions can sufficiently declare the shocking scene that for some minutes continued, whilst this mighty army of fish were forcing the pass? During this attempt, thousands, I may say hundreds of thousands, of them were caught and swallowed by the devouring alligators. I have seen an alligator take up out of the water several great fish at a time, and just squeeze them betwixt his jaws, while the tails of the great trout flapped about his eyes and lips, ere he had swallowed them. The horrid noise of their closing jaws, their plunging amidst the broken banks of fish, and rising with their prey some feet upright above the water, the floods of water and blood rushing out of their mouths, and the clouds of vapour issuing from their wide nostrils, were truly frightful. This scene continued at intervals during the night, as the fish came to the pass. After this sight, shocking and tremendous as it was, I found myself somewhat easier and more reconciled to my situation; being convinced that their extraordinary assemblage here was owing to the annual feast of fish; and that they were so well employed in their own element, that I had little occasion to fear their paying me a visit.

It being now almost night, I returned to my camp, where I had left my fish broiling, and my kettle of rice stewing; and having with me oil, pepper, and salt, and excellent oranges hanging in abundance over my head (a valuable substitute for vinegar) I sat down and regaled myself cheerfully. Having finished my repast, I rekindled my fire for light, and whilst I was revising the notes of my past day's journey, I was suddenly roused with a noise behind me toward the main land. I sprang up on my feet, and listening, I distinctly heard some creature wading the water of the isthmus. I seized my gun and went cautiously from my camp, directing my steps towards the noise: when I had advanced about thirty yards, I halted behind a coppice of orange trees, and soon perceived two very large bears, which had made their way through the water, and had landed in the grove, about one hundred yards distance from me, and were advancing towards me. I waited until they were within thirty yards of me: they there began to snuff and look towards my camp: I snapped my piece, but it flashed, on which they both turned about and galloped off, plunging through the water and swamp, never halting, as I suppose, until they reached fast land, as I could hear them

leaping and plunging a long time. They did not presume to return again, nor was I molested by any other creature, except being occasionally awakened by the whooping of owls, screaming of bitterns, or the wood-rats running amongst the leaves.

The wood-rat is a very curious animal. It is not half the size of the domestic rat; of a dark brown or black colour; its tail slender and shorter in proportion, and covered thinly with short hair. It is singular with respect to its ingenuity and great labour in the construction of its habitation, which is a conical pyramid about three or four feet high, constructed with dry branches, which it collects with great labour and perseverance, and piles up without any apparent order; yet they are so interwoven with one another, that it would take a bear or wild-cat some time to pull one of these castles to pieces, and allow the animals sufficient time to secure a retreat with their young.

The noise of the crocodiles kept me awake the greater part of the night; but when I arose in the morning, contrary to my expectations, there was perfect peace; very few of them to be seen, and those were asleep on the shore. Yet I was not able to suppress my fears and apprehensions of being attacked by them in future; and indeed yesterday's combat with them, notwithstanding I came off in a manner victorious, or at least made a safe retreat, had left sufficient impression on my mind to damp my courage; and it seemed too much for one of my strength, being alone in a very small boat, to encounter such collected danger. To pursue my voyage up the river, and be obliged every evening to pass such dangerous defiles, appeared to me as perilous as running the gauntlet betwixt two rows of Indians armed with knives and firebrands. I however resolved to continue my voyage one day longer, if I possibly could with safety, and then return down the river, should I find the like difficulties to oppose. Accordingly I got every thing on board, charged my gun, and set sail, cautiously, along shore. As I passed by Battle lagoon, I began to tremble and keep a good look-out; when suddenly a huge alligator rushed out of the reeds, and with a tremendous roar came up, and darted as swift as an arrow under my boat, emerging upright on my lee quarter, with open jaws, and belching water and smoke that fell upon me like rain in a hurricane. I laid soundly about his head with my club, and beat him off; and after plunging and darting about my boat, he went off on a straight line through the water, seemingly with the rapidity of lightning, and entered the cape of the lagoon. I now employed my time to the very best advantage in paddling close along shore, but could not forbear looking now and then behind me, and presently perceived one of them coming up again. The water of the river hereabouts was shoal and very

clear; the monster came up with the usual roar and menaces, and passed close by the side of my boat, when I could distinctly see a young brood of alligators, to the number of one hundred or more, following after her in a long train. They kept close together in a column, without straggling off to the one side or the other; the young appeared to be of an equal size, about fifteen inches in length, almost black, with pale yellow transverse waved clouds or blotches, much like rattlesnakes in colour. I now lost sight of my enemy again.

Still keeping close along shore, on turning a point or projection of the river bank, at once I beheld a great number of hillocks or small pyramids, resembling hay-cocks, ranged like an encampment along the banks. They stood fifteen or twenty yards distant from the water, on a high marsh, about four feet perpendicular above the water. I knew them to be the nests of the crocodile, having had a description of them before; and now expected a furious and general attack, as I saw several large crocodiles swimming abreast of these buildings. These nests being so great a curiosity to me, I was determined at all events immediately to land and examine them. Accordingly, I ran my bark on shore at one of their landing-places, which was a sort of nick or little dock, from which ascended a sloping path or road up to the edge of the meadow, where their nests were; most of them were deserted, and the great thick whitish egg-shells lay broken and scattered upon the ground round about them.

The nests or hillocks are of the form of an obtuse cone, four feet high and four or five feet in diameter at their bases; they are constructed with mud, grass and herbage. At first they lay a floor of this kind of tempered mortar on the ground, upon which they deposit a layer of eggs, and upon this a stratum of mortar, seven or eight inches in thickness, and then another layer of eggs; and in this manner one stratum upon another, nearly to the top. I believe they commonly lay from one to two hundred eggs in a nest: these are hatched, I suppose, by the heat of the sun; and perhaps the vegetable substances mixed with the earth, being acted upon by the sun, may cause a small degree of fermentation, and so increase the heat in those hillocks. The ground for several acres about these nests shewed evident marks of a continual resort of alligators; the grass was every where beaten down, hardly a blade or straw was left standing; whereas, all about, at a distance, it was five or six feet high, and as thick as it could grow together. The female, as I imagine, carefully watches her own nest of eggs until they are all hatched; or perhaps while she is attending her own brood, she takes under her care and protection as many as she can get at one time, either from her own particular nest or others; but certain it is, that the

young are not left to shift for themselves; for I have had frequent opportunities of seeing the female alligator leading about the shores her train of young ones, just as a hen does her brood of chickens; and she is equally assiduous and courageous in defending the young, which are under her care, and providing for their subsistence; and when she is basking upon the warm banks, with her brood around her, you may hear the young ones continually whining and barking like young puppies. I believe but few of a brood live to the years of full growth and magnitude, as the old feed on the young as long as they can make prey of them.

The alligator when full grown is a very large and terrible creature, and of prodigious strength, activity and swiftness in the water. I have seen them twenty feet in length, and some are supposed to be twenty-two or twenty-three feet. Their body is as large as that of a horse; their shape exactly resembles that of a lizard, except their tail, which is flat or cuneiform, being compressed on each side, and gradually diminishing from the abdomen to the extremity, which, with the whole body is covered with horny plates or squammæ, impenetrable when on the body of the live animal, even to a rifle ball, except about their head and just behind their fore-legs or arms, where it is said they are only vulnerable. The head of a full grown one is about three feet, and the mouth opens nearly the same length; their eyes are small in proportion, and seem sunk deep in the head, by means of the prominence of the brows; the nostrils are large, inflated and prominent on the top, so that the head in the water resembles, at a distance, a great chunk of wood floating about. Only the upper jaw moves, which they raise almost perpendicular, so as to form a right angle with the lower one. In the fore-part of the upper jaw, on each side, just under the nostrils, are two very large, thick, strong teeth or tusks, not very sharp, but rather the shape of a cone: these are as white as the finest polished ivory, and are not covered by any skin or lips, and always in sight, which gives the creature a frightful appearance: in the lower jaw are holes opposite to these teeth, to receive them: when they clap their jaws together it causes a surprising noise, like that which is made by forcing a heavy plank with violence upon the ground, and may be heard at a great distance.

But what is yet more surprising to a stranger, is the incredible loud and terrifying roar, which they are capable of making, especially in the spring season, their breeding time. It most resembles very heavy distant thunder, not only shaking the air and waters, but causing the earth to tremble; and when hundreds and thousands are roaring at the same time, you can scarcely be persuaded, but that the whole globe is violently and dangerously agitated.

An old champion, who is perhaps absolute sovereign of a little lake or lagoon (when fifty less than himself are obliged to content themselves with swelling and roaring in little coves round about) darts forth from the reedy coverts all at once, on the surface of the waters, in a right line; at first seemingly as rapid as lightning, but gradually more slowly until he arrives at the centre of the lake, when he stops. He now swells himself by drawing in wind and water through his mouth, which causes a loud sonorous rattling in the throat for near a minute, but it is immediately forced out again through his mouth and nostrils, with a loud noise, brandishing his tail in the air, and the vapour ascending from his nostrils like smoke. At other times, when swollen to an extent ready to burst, his head and tail lifted up, he spins or twirls round on the surface of the water. He acts his part like an Indian chief when rehearsing his feats of war; and then retiring, the exhibition is continued by others who dare to step forth, and strive to excel each other, to gain the attention of the favourite female.

Having gratified my curiosity at this general breeding-place and nursery of crocodiles, I continued my voyage up the river without being greatly disturbed by them. In my way I observed islets or floating fields of the bright green Pistia, decorated with other amphibious plants, as Senecio Jacobea, Persicaria amphibia, Coreopsis bidens, Hydrocotyle fluitans, and many others of less note. * * *

[*The Crystal Bason*"]

* * * I now directed my steps towards my encampment, in a different direction. I seated myself upon a swelling green knoll, at the head of the crystal bason. Near me, on the left, was a point or projection of an entire grove of the aromatic *Illicium Floridanum*; on my right, and all around behind me, was a fruitful Orange grove, with Palms and Magnolias interspersed; in front, just under my feet, was the enchanting and amazing crystal fountain, which incessantly threw up, from dark, rocky caverns below, tons of water every minute, forming a bason, capacious enough for large shallows to ride in, and a creek of four or five feet depth of water, and near twenty yards over, which meanders six miles through green meadows, pouring its limpid waters into the great Lake George, where they seem to remain pure and unmixed. About twenty yards from the upper edge of the bason, and directly opposite to the mouth or outlet of the creek, is a continual and amazing ebullition, where the waters are thrown up in such abundance and amazing force, as to jet and swell up two or three feet above the common surface: white sand and small particles of shells are thrown up with the waters,

near to the top, when they diverge from the centre, subside with the expanding flood, and gently sink again, forming a large rim or funnel round about the aperture or mouth of the fountain, which is a vast perforation through a bed of rocks, the ragged points of which are projected out on every side. Thus far I know to be matter of real fact, and I have related it as near as I could conceive or express myself. But there are yet remaining scenes inexpressibly admirable and pleasing.

Behold, for instance, a vast circular expanse before you, the waters of which are so extremely clear as to be absolutely diaphanous or transparent as the ether; the margin of the bason ornamented with a great variety of fruitful and floriferous trees, shrubs, and plants, the pendant golden Orange dancing on the surface of the pellucid waters, the balmy air vibrating with the melody of the merry birds, tenants of the encircling aromatic grove.

At the same instant innumerable bands of fish are seen, some clothed in the most brilliant colours; the voracious crocodile stretched along at full length, as the great trunk of a tree in size; the devouring garfish, inimical trout, and all the varieties of gilded painted bream; the barbed catfish, dreaded sting-ray, skate, and flounder, spotted bass, sheeps head and ominous drum; all in their separate bands and communities, with free and unsuspecting intercourse performing their evolutions: there are no signs of enmity, no attempt to devour each other; the different bands seem peaceably and complaisantly to move a little aside, as it were to make room for others to pass by.

But behold yet something far more admirable, see whole armies descending into an abyss, into the mouth of the bubbling fountain: they disappear! are they gone for ever? I raise my eyes with terror and astonishment; I look down again to the fountain with anxiety, when behold them as it were emerging from the blue ether of another world, apparently at a vast distance; at their first appearance, no bigger than flies or minnows; now gradually enlarging, their brilliant colours begin to paint the fluid.

Now they come forward rapidly, and instantly emerge, with the elastic expanding column of crystalline waters, into the circular bason or funnel: see now how gently they rise, some upright, others obliquely, or seem to lie as it were on their sides, suffering themselves to be gently lifted or borne up by the expanding fluid towards the surface, sailing or floating like butterflies in the cerulean ether: then again they as gently descend, diverge and move off; when they rally, form again, and rejoin their kindred tribes.

This amazing and delightful scene, though real, appears at first but as a piece of excellent painting; there seems no medium; you imagine

the picture to be within a few inches of your eyes, and that you may without the least difficulty touch any one of the fish, or put your finger upon the crocodile's eye, when it really is twenty or thirty feet under water.

And although this paradise of fish may seem to exhibit a just representation of the peaceable and happy state of nature which existed before the fall, yet in reality it is a mere representation; for the nature of the fish is the same as if they were in Lake George or the river; but here the water or element in which they live and move, is so perfectly clear and transparent, it places them all on an equality with regard to their ability to injure or escape from one another; (as all river fish of prey, or such as feed upon each other, as well as the unwieldy crocodile, take their prey by surprise; secreting themselves under covert or in ambush, until an opportunity offers, when they rush suddenly upon them;) but here is no covert, no ambush; here the trout freely passes by the very nose of the alligator, and laughs in his face, and the bream by the trout.

But what is really surprising is, that the consciousness of each other's safety, or some other latent cause, should so absolutely alter their conduct, for here is not the least attempt made to injure or disturb one another. * * *



ALEXANDER WILSON

1766-1813

Emigrating from Scotland as an adult, Wilson fell in love with the wildlife of his adopted country and was soon roaming the woods of Pennsylvania studying and painting birds. With the publication of his seven-volume American Ornithology between 1808 and 1814, he gained an authority in the field that caused even Jefferson to write to him with his naturalist questions. Nonetheless, Wilson was often in conflict with other ornithologists of his day and criticized them publicly. The love of nature, like other forms of love, can turn to jealousy. Yet within Wilson's proprietary feelings about American birds, there may also have been the

more positive element of protective loyalty to old relationships. Joseph Kastner describes an incident, just a few years after Wilson's arrival in America, when he bitterly complained about some birds shot by Charles Willson Peale and his son Rubens in their own naturalist pursuits. "One of the victims was a cardinal he knew well: it would come and sing at his window every morning."

FROM AMERICAN ORNITHOLOGY; OR, THE NATURAL HISTORY OF THE BIRDS OF THE UNITED STATES

IVORY-BILLED WOODPECKER

This majestic and formidable species, in strength and magnitude, stands at the head of the whole class of Woodpeckers hitherto discovered. He may be called the king or chief of his tribe; and Nature seems to have designed him a distinguished characteristic, in the superb carmine crest, and bill of polished ivory, with which she has ornamented him. His eye is brilliant and daring; and his whole frame so admirably adapted for his mode of life, and method of procuring subsistence, as to impress on the mind of the examiner the most reverential ideas of the Creator. His manners have also a dignity in them superior to the common herd of Woodpeckers. Trees, shrubbery, orchards, rails, fenceposts, and old prostrate logs, are alike interesting to those, in their humble and indefatigable search for prey; but the royal hunter now before us, scorns the humility of such situations, and seeks the most towering trees of the forest; seeming particularly attached to those prodigious cypress swamps, whose crowded giant sons stretch their bare and blasted, or moss-hung, arms midway to the skies. In these almost inaccessible recesses, amid ruinous piles of impending timber, his trumpet-like note, and loud strokes, resound through the solitary, savage wilds, of which he seems the sole lord and inhabitant. Wherever he frequents, he leaves numerous monuments of his industry behind him. We there see enormous pine-trees, with cart-loads of bark lying around their roots, and chips of the trunk itself in such quantities, as to suggest the idea that half a dozen of axemen had been at work for the whole morning. The body of the tree is also disfigured with such numerous and so large excavations, that one can hardly conceive it pos-

dreadful cataract, or the roaring of distant thunder. Alternate pity and admiration harrowed up in my bosom and my brain, many a hidden thought, and amongst them a few of the beautiful notes that were once sung, and exactly in point: *'Quadrupedante putrem sonitu quatit ungula campum.'* Even such was the din amidst the quadrupeds of these vast plains. And from the craggy cliffs of the Rocky Mountains also were seen descending into the valley, the myriad Tartars, who had not horses to ride, but before their well-drawn bows the fattest of the herds were falling. Hundreds and thousands were strewed upon the plains—they were flayed, and their reddened carcasses left; and about them bands of wolves, and dogs, and buzzards were seen devouring them. Contiguous, and in sight, were the distant and feeble smokes of wigwams and villages, where the skins were dragged, and dressed for white man's luxury! where they were all sold for *whiskey*, and the poor Indians laid drunk, and were crying. I cast my eyes into the towns and cities of the East, and there I beheld buffalo robes hanging at almost every door for traffic; and I saw also the curling smokes of a thousand *Stills*—and I said, 'Oh insatiable man, is thy avance such! wouldst thou tear the skin from the back of the last animal of this noble race, and rob thy fellow-man of his meat, and for it give him poison!' * * *



RALPH WALDO EMERSON

1803-1882

In the development of American nature writing, Emerson is generally given credit for having inspired such major figures as Thoreau, Burroughs, Whitman, and Muir. There is no question that his first book, Nature, published in 1835, had enormous influence on the course of the genre, and the opening sections remain powerful statements of the American imperative to "enjoy an original relation to the universe." The prevailing notion of Emerson, though, is that he was primarily an abstract philosopher and armchair naturalist who preferred his nature warmed-over, and except for some of his poems he is rarely anthologized as a nature writer. In his extensive Journals, however, he reveals himself as an original observer and vivid

recorder of local natural phenomena. His frequent, affectionate visits to Walden Pond remind us that Emerson was no mere absentee landlord of that famous piece of waterfront.

From NATURE

Nature is but an image or imitation of wisdom,
the last thing of the soul, nature being a thing
which doth only do, but not know. — PLOTINUS

(Motto of 1836)

A subtle chain of countless rings
The next unto the farthest brings;
The eye reads omens where it goes,
And speaks all languages the rose;
And, striving to be man, the worm
Mounts through all the spires of form.
(Motto of 1849)

INTRODUCTION

Our age is retrospective. It builds the sepulchres of the fathers. It writes biographies, histories, and criticism. The foregoing generations beheld God and nature face to face; we, through their eyes. Why should not we also enjoy an original relation to the universe? Why should not we have a poetry and philosophy of insight and not of tradition, and a religion by revelation to us, and not the history of theirs? Embosomed for a season in nature, whose floods of life stream around and through us, and invite us, by the powers they supply, to action proportioned to nature, why should we grope among the dry bones of the past, or put the living generation into masquerade out of its faded wardrobe? The sun shines today also. There is more wool and flax in the fields. There are new lands, new men, new thoughts. Let us demand our own works and laws and worship.

Undoubtedly we have no questions to ask which are unanswerable. We must trust the perfection of the creation so far as to believe that whatever curiosity the order of things has awakened in our minds, the order of things can satisfy. Every man's condition is a solution in hieroglyphic to those inquiries he would put. He acts it as life, before he

Nature (Boston: J. Monroe, 1836).

apprehends it as truth. In like manner, nature is already, in its forms and tendencies, describing its own design. Let us interrogate the great apparition that shines so peacefully around us. Let us inquire, to what end is nature?

All science has one aim, namely, to find a theory of nature. We have theories of races and of functions, but scarcely yet a remote approach to an idea of creation. We are now so far from the road to truth, that religious teachers dispute and hate each other, and speculative men are esteemed unsound and frivolous. But to a sound judgment, the most abstract truth is the most practical. Whenever a true theory appears, it will be its own evidence. Its test is, that it will explain all phenomena. Now many are thought not only unexplained but inexplicable; as language, sleep, madness, dreams, beasts, sex.

Philosophically considered, the universe is composed of Nature and the Soul. Strictly speaking, therefore, all that is separate from us, all which Philosophy distinguishes as the NOT ME, that is, both nature and art, all other men and my own body, must be ranked under this name, NATURE. In enumerating the values of nature and casting up their sum, I shall use the word in both senses;—in its common and in its philosophical import. In inquiries so general as our present one, the inaccuracy is not material; no confusion of thought will occur. *Nature*, in the common sense, refers to essences unchanged by man; space, the air, the river, the leaf. *Art* is applied to the mixture of his will with the same things, as in a house, a canal, a statue, a picture. But his operations taken together are so insignificant, a little chipping, baking, patching, and washing, that in an impression so grand as that of the world on the human mind, they do not vary the result.

I. NATURE

To go into solitude, a man needs to retire as much from his chamber as from society. I am not solitary whilst I read and write, though nobody is with me. But if a man would be alone, let him look at the stars. The rays that come from those heavenly worlds will separate between him and what he touches. One might think the atmosphere was made transparent with this design, to give man, in the heavenly bodies, the perpetual presence of the sublime. Seen in the streets of cities, how great they are! If the stars should appear one night in a thousand years, how would men believe and adore; and preserve for many generations the remembrance of the city of God which had been shown! But every night come out these envoys of beauty, and light the universe with the admonishing smile.

The stars awaken a certain reverence, because though always present, they are inaccessible; but all natural objects make a kindred impression, when the mind is open to their influence. Nature never wears a mean appearance. Neither does the wisest man extort her secret, and lose his curiosity by finding out all her perfection. Nature never became a toy to a wise spirit. The flowers, the animals, the mountains, reflected the wisdom of his best hour, as much as they had delighted the simplicity of his childhood.

When we speak of nature in this manner, we have a distinct but most poetical sense in the mind. We mean the integrity of impression made by manifold natural objects. It is this which distinguishes the stick of timber of the wood-cutter from the tree of the poet. The charming landscape which I saw this morning is indubitably made up of some twenty or thirty farms. Miller owns this field, Locke that, and Manning the woodland beyond. But none of them owns the landscape. There is a property in the horizon which no man has but he whose eye can integrate all the parts, that is, the poet. This is the best part of these men's farms, yet to this their warranty-deeds give no title.

To speak truly, few adult persons can see nature. Most persons do not see the sun. At least they have a very superficial seeing. The sun illuminates only the eye of the man, but shines into the eye and the heart of the child. The lover of nature is he whose inward and outward senses are still truly adjusted to each other; who has retained the spirit of infancy even into the era of manhood. His intercourse with heaven and earth becomes part of his daily food. In the presence of nature a wild delight runs through the man, in spite of real sorrows. Nature says,—he is my creature, and maugre all his impertinent griefs, he shall be glad with me. Not the sun or the summer alone, but every hour and season yields its tribute of delight; for every hour and change corresponds to and authorizes a different state of the mind, from breathless noon to grimmest midnight. Nature is a setting that fits equally well a comic or a mourning piece. In good health, the air is a cordial of incredible virtue. Crossing a bare common, in snow puddles, at twilight, under a clouded sky, without having in my thoughts any occurrence of special good fortune, I have enjoyed a perfect exhilaration. I am glad to the brink of fear. In the woods, too, a man casts off his years, as the snake his slough, and at what period soever of life is always a child. In the woods is perpetual youth. Within these plantations of God, a decorum and sanctity reign, a perennial festival is dressed, and the guest sees not how he should tire of them in a thousand years. In the woods, we return to reason and faith. There I feel that nothing can befall me in life,—no disgrace, no calamity (leaving me my eyes),

which nature cannot repair. Standing on the bare ground, — my head bathed by the blithe air and uplifted into infinite space, — all mean egotism vanishes. I become a transparent eyeball; I am nothing; I see all; the currents of the Universal Being circulate through me; I am part or parcel of God. The name of the nearest friend sounds then foreign and accidental: to be brothers, to be acquaintances, master or servant, is then a trifle and a disturbance. I am the lover of uncontained and immortal beauty. In the wilderness, I find something more dear and connate than in streets or villages. In the tranquil landscape, and especially in the distant line of the horizon, man beholds somewhat as beautiful as his own nature.

The greatest delight which the fields and woods minister is the suggestion of an occult relation between man and the vegetable. I am not alone and unacknowledged. They nod to me, and I to them. The waving of the boughs in the storm is new to me and old. It takes me by surprise, and yet is not unknown. Its effect is like that of a higher thought or a better emotion coming over me, when I deemed I was thinking justly or doing right.

Yet it is certain that the power to produce this delight does not reside in nature, but in man, or in a harmony of both. It is necessary to use these pleasures with great temperance. For nature is not always tricked in holiday attire, but the same scene which yesterday breathed perfume and glittered as for the frolic of the nymphs is overspread with melancholy today. Nature always wears the colors of the spirit. To a man laboring under calamity, the heat of his own fire hath sadness in it. Then there is a kind of contempt of the landscape felt by him who has just lost by death a dear friend. The sky is less grand as it shuts down over less worth in the population. * * *

From THE JOURNALS OF RALPH WALDO EMERSON

July 13, [1833]

I carried my ticket from Mr. Warden to the Cabinet of Natural History in the Garden of Plants. How much finer things are in composition than alone. "Tis wise in man to make cabinets. When I was come into the Ornithological Chambers I wished I had come only there. The

The Journals of Ralph Waldo Emerson, 10 vols. (Boston: Houghton Mifflin, 1909-1914).

fancy-coloured vests of these elegant beings make me as pensive as the hues and forms of a cabinet of shells, formerly. It is a beautiful collection and makes the visitor as calm and genial as a bridegroom. The limits of the possible are enlarged, and the real is stranger than the imaginary. Some of the birds have a fabulous beauty. One parrot of a fellow called *Psittacus erythropterus* from New Holland deserves as special mention as a picture of Raphael in a gallery. He is the beau of all birds. Then the humming birds, little and gay. Least of all is the *Trochilus Niger*. I have seen beetles larger. The *Trochilus pella* hath such a neck of gold and silver and fire! *Trochilus Detalandi* from Brazil is a glorious little tot, *la mouche magnifique*. Among the birds of Paradise I remarked the *Manucode* or *Paradisaea regia* from New Guinea, the *Paradisaea Apoda*, and *Paradisaea rubra*. Forget not the *Veuve à epaulettes*, or *Emberiza longicauda*, black with fine shoulder-knots; nor the *Ampelis cotinga*; nor the *Phasianus Argus*, a peacock-looking pheasant; nor the *Trogon pavoninus*, called also *Couroncou pavonin*.

I saw black swans and white peacocks; the ibis, the sacred and the rosy; the flamingo, with a neck like a snake; the toucan rightly called *rhinoceros*; and a vulture whom to meet in the wilderness would make your flesh quiver, so like an executioner he looked.

In the other rooms I saw amber containing perfect mosquitoes, grand blocks of quartz, native gold in all its forms of crystallization, — threads, plates, crystals, dust; and silver, black as from fire. Ah! said I, this is philanthropy, wisdom, taste, — to form a cabinet of natural history. Many students were there with grammar and note-book, and a class of boys with their tutor from some school.

Here we are impressed with the inexhaustible riches of nature. The universe is a more amazing puzzle than ever, as you glance along this bewildering series of animated forms, — the hazy butterflies, the carved shells, the birds, beasts, fishes, insects, snakes, and the upheaving principle of life everywhere incipient, in the very rock aping organized forms. Not a form so grotesque, so savage, nor so beautiful but is an expression of some property inherent in man the observer, — an occult relation between the very scorpions and man. I feel the centipede in me, — a cayman, carp, eagle, and fox. I am moved by strange sympathies; I say continually "I will be a naturalist."

* * *

April 11. [1834]

Went yesterday to Cambridge and spent most of the day at Mount Auburn; got my luncheon at Fresh Pond, and went back again to the woods. After much wandering and seeing many things, four snakes

gliding up and down a hollow for no purpose that I could see—not to eat, not for love, but only gliding; then a whole bed of *Hepatica triloba*, cousins of the Anemone, all blue and beautiful, but constrained by nigard nature to wear their last year's faded jacket of leaves; then a black-capped titmouse, who came upon a tree, and when I would know his name, sang *chick-a-dee-dee*; then a far-off tree full of clamorous birds, I know not what, but you might hear them half a mile; I forsook the tombs, and found a sunny hollow where the east wind would not blow, and lay down against the side of a tree to most happy beholdings. At least I opened my eyes and let what would pass through them into the soul. I saw no more my relation, how near and petty, to Cambridge or Boston; I heeded no more what minute or hour our Massachusetts clocks might indicate—I saw only the noble earth on which I was born, with the great Star which warms and enlightens it. I saw the clouds that hang their significant drapery over us. It was Day—that was all Heaven said. The pines glittered with their innumerable green needles in the light, and seemed to challenge me to read their riddle. The drab oak-leaves of the last year turned their little somersets and lay still again. And the wind bustled high overhead in the forest top. This gay and grand architecture, from the vault to the moss and lichen on which I lay,—who shall explain to me the laws of its proportions and adornments?

* * *

December 10. [1836]

Pleasant walk yesterday, the most pleasant of days. At Walden Pond I found a new musical instrument which I call the ice-harp. A thin coat of ice covered a part of the pond, but melted around the edge of the shore. I threw a stone upon the ice which rebounded with a shrill sound, and falling again and again, repeated the note with pleasing modulation. I thought at first it was the "peep, peep" of a bird I had scared. I was so taken with the music that I threw down my stick and spent twenty minutes in throwing stones single or in handfuls on this crystal drum.

* * *

August 4. [1837]

The grass is mown; the corn is ripe; autumnal stars arise. After ruffling all day in Plutarch's *Morals*, or shall I say angling there for such fish as I might find, I sallied out this fine afternoon through the woods to Walden Water. The woods were too full of mosquitoes to offer any hospitality to the muse, and when I came to the blackberry vines, the

plucking the crude berries at the risk of splintering my hand and with a mosquito mounting guard over every particular berry seemed a little too emblematical of general life whose shining and glossy fruits are very hard beset with thorns and very sour and good for nothing when gathered. But the pond was all blue and beautiful in the bosom of the woods and under the amber sky—like a sapphire lying in the moss. I sat down a long time on the shore to see the show. The variety and density of the foliage at the eastern end of the pond is worth seeing, then the extreme softness and holiday beauty of the summer clouds floating feathery overhead, enjoying, as I fancied, their height and privilege of motion and yet not seeming so much the drapery of this place and hour as forelooking to some pavilions and gardens of festivity beyond. I rejected this fancy with a becoming spirit and insisted that clouds, woods and waters were all there for me. The waterflies were full of happiness. The frogs that shoot from the land as fast as you walk along, a yard ahead of you, are a meritorious beastie. For their cowardice is only greater than their curiosity and desire of acquaintance with you. Three strokes from the shore the little swimmer turns short round, spreads his webbed paddles, and hangs at the surface, looks you in the face and so continues as long as you do not assault him.

August 12. [1837]

If you gather apples in the sunshine or make hay or hoe corn and then retire within doors and strain your body or squeeze your eyes *six hours after*, you shall still see apples hanging in the bright light with leaves and boughs thereto. There lie the impressions still on the retentive organ though I knew it not. So lies the whole series of natural images with which my life has made me acquainted in my memory, though I know it not, and a thrill of passion, a sudden emotion flashes light upon their dark chamber and the Active power seizes instantly the fit image as the word of his momentary thought. So lies all the life I have lived as my dictionary from which to extract the word which I want to dress the new perception of this moment. This is the way to learn Grammar. God never meant that we should learn Language by Colleges or Books. That only can we say which we have lived.

April 26. [1838]

Yesterday afternoon I went to the Cliff with Henry Thoreau. Warm, pleasant, misty weather, which the great mountain amphitheatre seemed to drink in with gladness. A crow's voice filled all the miles of air with sound. A bird's voice, even a piping frog, enlivens a solitude and makes world enough for us. At night I went out into the dark and

saw a glimmering star and heard a frog, and Nature seemed to say, Well do not these suffice? Here is a new scene, a new experience. Ponder it, Emerson, and not like the foolish world, hanker after thunders and multitudes and vast landscapes, the sea or Niagara.

* * *

May 14. [1838]

A Bird-while. In a natural chronometer, a Bird-while may be admitted as one of the metres, since the space most of the wild birds will allow you to make your observations on them when they alight near you in the woods, is a pretty equal and familiar measure.

* * *

April 9. [1840]

We walked this afternoon to Edmund Hosmer's and Walden Pond. The South wind blew and filled with bland and warm light the dry sunny woods. The last year's leaves flew like birds through the air. As I sat on the bank of the Drop, or God's Pond, and saw the amplitude of the little water, what space, what verge, the little scudding fleets of ripples found to scatter and spread from side to side and take so much time to cross the pond, and saw how the water seemed made for the wind, and the wind for the water, dear playfellows for each other,—I said to my companion, I declare this world is so beautiful that I can hardly believe it exists. At Walden Pond the waves were larger and the whole lake in pretty uproar. Jones Very said, 'See how each wave rises from the midst with an original force, at the same time that it partakes the general movement!'

September 8. [1840]

I went into the woods. I found myself not wholly present there. If I looked at a pine-tree or an aster, *that* did not seem to be Nature. Nature was still elsewhere; this, or this was but outskirts and far-off reflection and echo of the triumph that had passed by and was now at its glancing splendor and heyday,—perchance in the neighboring fields, or, if I stood in the field, then in the adjacent woods. Always the present object gave me this sense of the stillness that follows a pageant that has just gone by.

* * *

[December ? 1840]

Nature ever flows; stands never still. Motion or change is her mode of existence. The poetic eye sees in Man the Brother of the River, and in Woman the Sister of the River. Their life is always transition. Hard blockheads only drive nails all the time; forever remember; which is

fixing. Heroes do not fix, but flow, bend forward ever and invent a resource for every moment. A man is a compendium of nature, an indomitable savage; . . . as long as he has a temperament of his own, and a hair growing on his skin, a pulse beating in his veins, he has a physique which disdains all intrusion, all despotism; it lives, wakes, alters, by omnipotent modes, and is directly related there, amid essences and *billets doux*, to Himmaleh mountain chains, wild cedar swamps, and the interior fires, the molten core of the globe.

* * *

June 6. [1841]

I am sometimes discontented with my house because it lies on a dusty road, and with its sills and cellar almost in the water of the meadow. But when I creep out of it into the Night or the Morning and see what majestic and what tender beauties daily wrap me in their bosom, how near to me is every transcendent secret of Nature's love and religion, I see how indifferent it is where I eat and sleep. This very street of hucksters and taverns the moon will transform to a Palmyra, for she is the apologist of all apologists, and will kiss the elm trees alone and hides every meanness in a silver-edged darkness.

Summer, 1841

The metamorphosis of Nature shows itself in nothing more than this, that there is no word in our language that cannot become typical to us of Nature by giving it emphasis. The world is a Dancer; it is a Rosary; it is a Torrent; it is a Boat; a Mist; a Spider's Share; it is what you will; and the metaphor will hold, and it will give the imagination keen pleasure. Swifter than light the world converts itself into that thing you name, and all things find their right place under this new and capricious classification. There is nothing small or mean to the soul. It derives as grand a joy from symbolizing the Godhead or his universe under the form of a moth or a gnat as of a Lord of Hosts. Must I call the heaven and the earth a maypole and country fair with booths, or an anthill, or an old coat, in order to give you the shock of pleasure which the imagination loves and the sense of spiritual greatness? Call it a blossom, a rod, a wreath of parsley, a tamarisk-crown, a cock, a sparrow, the ear instantly hears and the spirit leaps to the trope. . . .

September, undated. [1843]

The only straight line in Nature that I remember is the spider swinging down from a twig.

February ?, 1844

That bread which we ask of Nature is that she should entrance us, but amidst her beautiful or her grandest pictures I cannot escape the *second thought*. I walked this P.M. in the woods, but there too the snowbanks were sprinkled with tobacco-juice. We have the wish to forget night and day, father and mother, food and ambition, but we never lose our dualism. Blessed, wonderful Nature, nevertheless! without depth, but with immeasurable lateral spaces. If we look before us, if we compute our path, it is very short. Nature has only the thickness of a shingle or a slate: we come straight to the extremes; but sideways, and at unawares, the present moment opens into other moods and moments, rich, prolific, leading onward without end. . . .

[July, 1844]

Geology has initiated us into the secularity of Nature, and taught us to disuse our dame-school measures, and exchange our Mosaic and Ptolemaic schemes for her large style. We knew nothing rightly, for want of perspective. Now we learn what patient periods must round themselves before the rock is formed; then before the rock is broken, and the first lichen race has disintegrated the thinnest external plate into soil, and opened the door for the remote Flora, Fauna, Ceres, and Pomona to come in. How far off yet is the trilobite! how far the quadruped! how inconceivably remote is man! All duly arrive, and then race after race of men. It is a long way from granite to the oyster; farther yet to Plato and the preaching of the immortality of the soul. Yet all must come, as surely as the first atom has two sides.

August, undated. [1848]

Henry Thoreau is like the wood-god who solicits the wandering poet and draws him into antres vast and deserts idle, and bereaves him of his memory, and leaves him naked, plaiting vines and with twigs in his hand. . . .

I spoke of friendship, but my friends and I are fishes in our habit. As for taking Thoreau's arm, I should as soon take the arm of an elm tree.

[Last days of September.] [1848]

I go twice a week over Concord with Ellery, and, as we sit on the steep park at Conantum, we still have the same regret as oft before. Is all this beauty to perish? Shall none remake this sun and wind, the sky-blue river, the river-blue sky; the yellow meadow spotted with sacks

and sheets of cranberry-pickers; the red bushes; the iron-gray house with just the color of the granite rock; the paths of the thicket, in which the only engineers are the cattle grazing on yonder hill; the wide, straggling wild orchard in which Nature has deposited every possible flavor in the apples of different trees? Whole zones and climates she has concentrated into apples. We think of the old benefactors who have conquered these fields; of the old man Moore, who is just dying in these days, who has absorbed such volumes of sunshine like a huge melon or pumpkin in the sun,—who has owned in every part of Concord a woodlot, until he could not find the boundaries of these, and never saw their interiors. But we say, where is he who is to save the present moment, and cause that this beauty be not lost? Shakespeare saw no better heaven or earth, but had the power and need to sing, and seized the dull ugly England, ugly to this, and made it amicable and enviable to all reading men, and now we are fooled into likening this to that; whilst, if one of us had the chanting constitution, that land would no more be heard of.

September 5. [1855]

All the thoughts of a turtle are turtle.



CHARLES DARWIN

1809–1882

On the *Origin of Species* (1859) introduced a comprehensive new paradigm for the life sciences and, in doing so, stimulated an enormous increase in research and in the accumulation of data. Darwin's work laid the foundation for the professional and specialized biological disciplines we know today, but his own career was shaped by very different forces. He found his formal schooling uninspiring. His naturalist collections as a boy, his long walks with the botanist James Henslow during his days at Cambridge, and, above all, his great adventure on HMS Beagle's voyage of exploration contributed much more to his eventual vision of life's evolutionary pattern.

for their children; for poverty is not only a great evil, but tends to its own increase by leading to recklessness in marriage. On the other hand, as Mr. Galton has remarked, if the prudent avoid marriage, whilst the reckless marry, the inferior members tend to supplant the better members of society. Man, like every other animal, has no doubt advanced to his present high condition through a struggle for existence consequent on his rapid multiplication; and if he is to advance still higher, it is to be feared that he must remain subject to a severe struggle. Otherwise he would sink into indolence, and the more gifted men would not be more successful in the battle of life than the less gifted. Hence our natural rate of increase, though leading to many and obvious evils, must not be greatly diminished by any means. There should be open competition for all men; and the most able should not be prevented by laws or customs from succeeding best and rearing the largest number of offspring. Important as the struggle for existence has been and even still is, yet as far as the highest part of man's nature is concerned there are other agencies more important. For the moral qualities are advanced, either directly or indirectly, much more through the effects of habit, the reasoning powers, instruction, religion, &c., than through natural selection; though to this latter agency may be safely attributed the social instincts, which afforded the basis for the development of the moral sense.

The main conclusion arrived at in this work, namely, that man is descended from some lowly organised form, will, I regret to think, be highly distasteful to many. But there can hardly be a doubt that we are descended from barbarians. The astonishment which I felt on first seeing a party of Fuegians on a wild and broken shore will never be forgotten by me, for the reflection at once rushed into my mind—such were our ancestors. These men were absolutely naked and bedaubed with paint, their long hair was tangled, their mouths frothed with excitement, and their expression was wild, startled, and distrustful. They possessed hardly any arts, and like wild animals lived on what they could catch; they had no government, and were merciless to every one not of their own small tribe. He who has seen a savage in his native land will not feel much shame, if forced to acknowledge that the blood of some more humble creature flows in his veins. For my own part I would as soon be descended from that heroic little monkey, who braved his dreaded enemy in order to save the life of his keeper, or from that old baboon, who descending from the mountains, carried away in triumph his young comrade from a crowd of astonished dogs—as from a savage who delights to torture his enemies, offers up bloody sacrifices, practices infanticide without remorse, treats his wives like slaves, knows no decency, and is haunted by the grossest superstitions.

Man may be excused for feeling some pride at having risen, though not through his own exertions, to the very summit of the organic scale; and the fact of his having thus risen, instead of having been aboriginally placed there, may give him hope for a still higher destiny in the distant future. But we are not here concerned with hopes or fears, only with the truth as far as our reason permits us to discover it; and I have given the evidence to the best of my ability. We must, however, acknowledge, as it seems to me, that man with all his noble qualities, with sympathy which feels for the most debased, with benevolence which extends not only to other men but to the humblest living creature, with his god-like intellect which has penetrated into the movements and constitution of the solar system—with all these exalted powers—Man still bears in his bodily frame the indelible stamp of his lowly origin.



SUSAN FENIMORE COOPER 1813-1894

Scholarship in the field of American nature writing has, over the past decade, brought renewed attention to a number of forgotten or neglected authors. Without doubt the most dramatic of these instances has been the rediscovery of Susan Fenimore Cooper as a pioneer in the genre. Her Rural Hours (1850) quickly went through several editions. It was a book consulted by Thoreau as he was completing Walden, and an important link between his work and the natural-history tradition represented by Gilbert White in England. But until Rochelle Johnson and Daniel Patterson brought out their 1998 edition of the original text, there had not been an unabridged printing of it since 1876. An increasing number of scholars and critics now celebrate Cooper not only as a significant early figure but also as an author whose sustained focus on one small community and on the interaction between its human and nonhuman inhabitants anticipates our contemporary bioregional movement. Loyalty, civic responsibility, a comprehensive perspective, and a good memory are

the hallmarks of Cooper's writing, and sources of inspiration for her successors whose goal is to write not only about their place on Earth but on behalf of it, as well.

FROM RURAL HOURS

Wednesday, 27th.—Charming day; thermometer 80. Towards sunset strolled in the lane.

The fields which border this quiet bit of road are among the oldest in our neighborhood, belonging to one of the first farms cleared near the village; they are in fine order, and to look at them, one might readily believe these lands had been under cultivation for ages. But such is already very much the character of the whole valley; a stranger moving along the highway looks in vain for any striking signs of a new country; as he passes from farm to farm in unbroken succession, the aspect of the whole region is smiling and fruitful. Probably there is no part of the earth, within the limits of a temperate climate, which has taken the aspect of an old country so soon as our native land; very much is due, in this respect, to the advanced state of civilization in the present age, much to the active, intelligent character of the people, and something, also, to the natural features of the country itself. There are no barren tracts in our midst, no deserts which defy cultivation; even our mountains are easily tilled—arable, many of them, to their very summits—while the most sterile among them are more or less clothed with vegetation in their natural state. Altogether, circumstances have been very much in our favor.

While observing, this afternoon, the smooth fields about us, it was easy, within the few miles of country in sight at the moment, to pick out parcels of land in widely different conditions, and we amused ourselves by following upon the hill-sides the steps of the husbandman, from the first rude clearing, through every successive stage of tillage, all within range of the eye at the same instant. Yonder, for instance, appeared an opening in the forest, marking a new clearing still in the rudest state, black with charred stumps and rubbish; it was only last winter that the timber was felled on that spot, and the soil was first opened to the sunshine, after having been shaded by the old woods for more ages than one can tell. Here, again, on a nearer ridge, lay a spot not only cleared, but fenced, preparatory to being tilled; the decayed

trunks and scattered rubbish having been collected in heaps and burnt. Probably that spot will soon be ploughed, but it frequently happens that land is cleared of the wood, and then left in a rude state, as wild pasture-ground; an indifferent sort of husbandry this, in which neither the soil nor the wood receives any attention; but there is more land about us in this condition than one would suppose. The broad hill-side, facing the lane in which we were walking, though cleared perhaps thirty years since, has continued untilled to the present hour. In another direction, again, lies a field of new land, ploughed and seeded for the first time within the last few weeks; the young maize plants, just shooting out their glossy leaves, are the first crop ever raised there, and when harvested, the grain will prove the first fruits the earth has ever yielded to man from that soil, after lying fallow for thousands of seasons. Many other fields in sight have just gone through the usual rotation of crops, showing what the soil can do in various ways; while the farm before us has been under cultivation from the earliest history of the village, yielding every season, for the last half century, its share of grass and grain. To one familiar with the country, there is a certain pleasure in thus beholding the agricultural history of the neighborhood unfolding before one, following upon the farms in sight these progressive steps in cultivation.

The pine stumps are probably the only mark of a new country which would be observed by a stranger. With us, they take the place of rocks, which are not common; they keep possession of the ground a long while—some of those about us are known to have stood more than sixty years, or from the first settlement of the country, and how much longer they will last, time alone can tell. In the first years of cultivation, they are a very great blemish, but after a while, when most of them have been burnt or uprooted, a gray stump here and there, among the grass of a smooth field, does not look so very much amiss, reminding one, as it does, of the brief history of the country. Possibly there may be something of partiality in this opinion, just as some lovers have been found to admire a freckled face, because the rosy cheek of their sweetheart was mottled with brown freckles; people generally may not take the same view of the matter, they may think that even the single stump had better be uprooted. Several ingenious machines have been invented for getting rid of these enemies, and they have already done good service in the country. Some of them work by levers, others by wheels; they usually require three or four men and a yoke of oxen, or a horse, to work them, and it is really surprising what large stumps are drawn out of the earth by these contrivances, the strongest roots cracking and snapping like threads. Some digging about the stump is

often necessary as a preliminary step, to enable the chain to be fastened securely, and occasionally the axe is used to relieve the machine; still, they work so expeditiously, that contracts are taken to clear lands in this way, at the rate of twenty or thirty cents a stump, when, according to the old method, working by hand, it would cost, perhaps, two or three dollars to uproot a large one thoroughly. In the course of a day, these machines will tear up from twenty to fifty stumps, according to their size. Those of the pine, hemlock, and chestnut are the most difficult to manage, and these last longer than those of other trees. When uprooted, the stumps are drawn together in heaps and burnt, or frequently they are turned to account as fences, being placed on end, side by side, their roots interlocking, and a more wild and formidable barrier about a quiet field cannot well be imagined. These rude fences are quite common in our neighborhood, and being peculiar, one rather likes them; it is said that they last much longer than other wooden fences, remaining in good condition for sixty years.

But although the stumps remaining here and there may appear to a stranger the only sign of a new country to be found here, yet closer observation will show others of the same character. Those wild pastures upon hill-sides, where the soil has never been ploughed, look very differently from other fallows. Here you observe a little hillock rounding over a decayed stump, there a petty hollow where some large tree has been uprooted by the storm; fern and brake also are seen in patches, instead of the thistle and the mullein. Such open hill-sides, even when rich and grassy, and entirely free from wood or bushes, bear a kind of heaving, billowy character, which, in certain lights, becomes very distinct; these ridges are formed by the roots of old trees, and remain long after the wood has entirely decayed. Even on level ground there is always an elevation about the root of an old tree and upon a hill-side, these petty knolls show more clearly as they are thrown into relief by the light; they become much bolder, also, from the washing of the soil, which accumulates above, and is carried away from the lower side of the trunk, leaving, often, a portion of the root bare in that direction. Of course, the older a wood and the larger its trees, the more clearly will this billowy character be marked. The tracks of the cattle also make the formation more ridge-like, uniting one little knoll with another, for when feeding, they generally follow one another, their heads often turned in one direction, and upon a hill-side they naturally take a horizontal course, as the most convenient. Altogether, the billowy face of these rude hill-sides is quite striking and peculiar, when seen in a favorable light.

But there are softer touches also, telling the same story of recent cultivation. It frequently happens, that walking about our farms, among

rich fields, smooth and well worked, one comes to a low bank, or some little nook, a strip of land never yet cultivated, though surrounded on all sides by ripening crops of eastern grains and grasses. One always knows such places by the pretty native plants growing there. It was but the other day we paused to observe a spot of this kind in a fine meadow, near the village, neat and smooth, as though worked from the days of Adam. A path made by the workmen and cattle crosses the field, and one treads at every step upon plantain, that regular path-weed of the Old World; following this track, we come to a little runnel, which is dry and grassy now, though doubtless at one time the bed of a considerable spring; the banks are several feet high, and it is filled with native plants; on one side stands a thorn-tree, whose morning shadow falls upon grasses and clovers brought from beyond the seas, while in the afternoon, it lies on gyromias and moose-flowers, sarsaparillas and cahoshes, which bloomed here for ages, when the eye of the red man alone beheld them. Even within the limits of the village spots may still be found on the bank of the river, which are yet unbroken by the plough, where the trailing arbutus, and squirrel-cups, and May-wings tell us so every spring; in older regions, these children of the forest would long since have vanished from all the meadows and villages, for the plough would have passed a thousand times over every rood of such ground.

The forest flowers, the gray stumps in our fields, and the heaving surface of our wild hill-sides, are not, however, the only waymarks to tell the brief course of cultivation about us. These speak of the fallen forest; but here, as elsewhere, the waters have also left their impression on the face of the earth, and in these new lands the marks of their passage are seen more clearly than in older countries. They are still, in many places, sharp and distinct, as though fresh from the workman's hand. Our valleys are filled with these traces of water-work; the most careless observer must often be struck with their peculiar features, and it appears remarkable that here, at an elevation so much above the great western lakes, upon this dividing ridge, at the very fountain head of a stream, running several hundred miles to the sea, these lines are as frequent and as boldly marked as though they lay in a low country subject to floods. Large mounds rise like islands from the fields, their banks still sharply cut; in other spots a depressed meadow is found below the level of the surrounding country, looking like a drained lake, enclosed within banks as plainly marked as the works of a fortification; a shrunken brook, perhaps, running to-day where a river flowed at some period of past time. Quite near the village, from the lane where we were walking this evening, one may observe a very bold formation of this kind; the bank of the river is high and abrupt at this spot, and it is scooped out into two

adjoining basins, not unlike the amphitheatres of ancient times. The central horn, as it were, which divides the two semicircles, stretches out quite a distance into a long, sharp point, very abrupt on both sides. The farther basin is the most regular, and it is also marked by successive ledges like the tiers of seats in those ancient theatres. This spot has long been cleared of wood, and used as a wild pasture; but the soil has never yet been broken by the plough, and we have often paused here to note the singular formation, and the surprising sharpness of the lines. Quite recently they have begun to dig here for sand; and if they continue the work, the character of the place must necessarily be changed. But now, as we note the bold outline of the basin, and watch the lines worked by the waters ages and ages since, still as distinct as though made last year, we see with our own eyes fresh proofs that we are in a new country, that the meadows about us, cleared by our fathers, are the first that have lain on the lap of the old earth, at this point, since yonder bank was shaped by the floods.



HENRY DAVID THOREAU

1817-1862

Thoreau not only traveled a good deal in Concord, Massachusetts, he also lived many lives in it. As schoolteacher, pencil maker, botanist, editor, surveyor, gardener, poet, lecturer, essayist, moral philosopher, political protester, travel writer, devoted brother and son, woodland hermit and village character, vegetarian and luster-after-raw-woodchuck—this most cocksure of American writers consistently refuses to be pigeonholed. The attempts of so many readers to do so spring from his propensity "to make an extreme statement, if so I may make an emphatic one." Thoreau's seeming paradoxes and contradictions are a result not of any conscious attempt at iconoclasm but of the inherent complexity of his perceptions coupled with a passion to "drive life into a corner, and reduce it to its lowest terms." The result, among other things, is one of the most condensed and energetic styles in English. Though his books sold little in his lifetime, Walden has long been recognized as one of the classics of

American literature, and Thoreau's ideas and writings have had world-wide influence.

The primary purpose of the following selections is to suggest the range of Thoreau's personality in all its complex and ambivalent guises. His first book, *A Week on the Concord and Merrimack Rivers* (1849), was based on a rowboat voyage he took with his older brother John in 1839 and was written largely during his stay at Walden Pond. One of the first in a long tradition of American river journey books, it contains superb sketches of the early New England landscape and some of Thoreau's most graceful and congenial writing. Contemplating the rivers' "healthy natural tumult" in the company of his beloved brother, he was never happier. From his masterpiece, *Walden: or Life in the Woods* (1854), we have included the chapter on "Brute Neighbors." Its descriptions of wild animals (including the famous battle of the ants) remain among the finest of their kind, groundbreaking in their consciously metaphorical overtones and Thoreau's deliberate exploration of the role of the self-aware narrator as both observer and participant.

"Walking" (1862), with its ringing defense and celebration of "wildness," has become one of the gospels of the conservation movement. The passage from *The Maine Woods* (1864), on the other hand, describing Thoreau's ascent to the summit of Mt. Katahdin, presents a startlingly different view of nature from that afforded by the domesticated fields and ponds of Concord. Here, actual rather than metaphorical wilderness shakes the very foundations of self and of human pretensions to understanding nature. In "the presence of a force not bound to be kind to man," the very structures of language seem to break down.

Finally, we have chosen some selections from the *Journals* (1906), begun when Thoreau was twenty and not published in his lifetime. The *Journals* are not a finished literary work by any means, but they contain some of his most brilliant passages. Intended as "a meteorological journal of the mind," they served, not only as a reservoir of material for his lectures and books, but also as a kind of literary laboratory. In these journal entries Thoreau is less studiously candid and more genuinely personal—revealing, for instance, a poignant attachment to his native town or taking delight in the antics of a kitten a few months before his own death at the age of forty-four. He is also less attitudinizing and more experimental toward his material, exploring radically different approaches to the same subject—sometimes on the same page. Thoreau was a keen observer of natural process, and many of the journal selections seem to intuit modern ecological principles. Of special relevance to contemporary nature writing are his lively discussions of the relative virtues of poetic and scientific approaches in natural history.