Heaven and Earth in Jest

I used to have a cat, an old fighting tom, who would jump through the open window by my bed in the middle of the night and land on my chest. I'd half-awaken. He'd stick his skull under my nose and purr, stinking of urine and blood. Some nights he kneaded my bare chest with his front paws, powerfully, arching his back, as if sharpening his claws, or pummeling a mother for milk. And some mornings I'd wake in daylight to find my body covered with paw prints in blood; I looked as though I'd been painted with roses.

It was hot, so hot the mirror felt warm. I washed before the mirror in a daze, my twisted summer sleep still hung about me like sea kelp. What blood was this, and what roses? It could have been the rose of union, the blood of murder, or the rose of beauty bare and the blood of some unspeakable sacrifice or birth. The sign on my body could have been an emblem or a stain, the keys to the kingdom or the mark of Cain. I never knew. I never

knew as I washed, and the blood streaked, faded, and finally disappeared, whether I'd purified myself or ruined the blood sign of the passover. We wake, if we ever wake at all, to mystery, rumors of death, beauty, violence. . . . "Seem like we're just set down here," a woman said to me recently, "and don't nobody know why."

These are morning matters, pictures you dream as the final wave heaves you up on the sand to the bright light and drying air. You remember pressure, and a curved sleep you rested against, soft, like a scallop in its shell. But the air hardens your skin; you stand; you leave the lighted shore to explore some dim headland, and soon you're lost in the leafy interior, intent, remembering nothing.

I still think of that old tomcat, mornings, when I wake. Things are tamer now; I sleep with the window shut. The cat and our rites are gone and my life is changed, but the memory remains of something powerful playing over me. I wake expectant, hoping to see a new thing. If I'm lucky I might be jogged awake by a strange bird call. I dress in a hurry, imagining the yard flapping with auks, or flamingos. This morning it was a wood duck, down at the creek. It flew away.

I live by a creek, Tinker Creek, in a valley in Virginia's Blue Ridge. An anchorite's hermitage is called an anchor-hold; some anchor-holds were simple sheds clamped to the side of a church like a barnacle to a rock. I think of this house clamped to the side of Tinker Creek as an anchor-hold. It holds me at anchor to the rock bottom of the creek itself and it keeps me steadied in the current, as a sea anchor does, facing the stream of light pouring down. It's a good place to live; there's a lot to think about. The creeks-Tinker and Carvin's-are an active mystery, fresh every minute. Theirs is the mystery of the continuous creation and all that providence implies: the uncertainty of vision, the horror of the fixed, the dissolution of the present, the intricacy of beauty, the pressure of fecundity, the elusiveness of the free, and the flawed nature of perfection. The mountains—Tinker and Brushy, McAfee's Knob and Dead Man—are a passive mystery, the oldest of all. Theirs is the one simple mystery of creation from nothing, of matter itself, anything at all, the given. Mountains are giant, restful, absorbent. You can heave your spirit into a mountain and the mountain will keep it, folded, and not throw it back as some creeks will. The creeks are the world with all its stimulus and beauty; I live there. But the mountains are home.

The wood duck flew away. I caught only a glimpse of something like a bright torpedo that blasted the leaves where it flew. Back at the house I ate a bowl of oatmeal; much later in the day came the long slant of light that means good walking.

If the day is fine, any walk will do; it all looks good. Water in particular looks its best, reflecting blue sky in the flat, and chopping it into graveled shallows and white chute and foam in the riffles. On a dark day, or a hazy one, everything's washed-out and lackluster but the water. It carries its own lights. I set out for the railroad tracks, for the hill the flocks fly over, for the woods where the white mare lives. But I go to the water.

Today is one of those excellent January partly cloudies in which light chooses an unexpected part of the landscape to trick out in gilt, and then shadow sweeps it away. You know you're alive. You take huge steps, trying to feel the planet's roundness arc between your feet. Kazantzakis says that when he was young he had a canary and a globe. When he freed the canary, it would perch on the globe and sing. All his life, wandering the earth, he felt as though he had a canary on top of his mind, singing.

West of the house, Tinker Creek makes a sharp loop, so

that the creek is both in back of the house, south of me, and also on the other side of the road, north of me. I like to go north. There the afternoon sun hits the creek just right, deepening the reflected blue and lighting the sides of trees on the banks. Steers from the pasture across the creek come down to drink; I always flush a rabbit or two there; I sit on a fallen trunk in the shade and watch the squirrels in the sun. There are two separated wooden fences suspended from cables that cross the creek just upstream from my tree-trunk bench. They keep the steers from escaping up or down the creek when they come to drink. Squirrels, the neighborhood children, and I use the downstream fence as a swaying bridge across the creek. But the steers are there today.

I sit on the downed tree and watch the black steers slip on the creek bottom. They are all bred beef: beef heart, beef hide, beef hocks. They're a human product like rayon. They're like a field of shoes. They have cast-iron shanks and tongues like foam insoles. You can't see through to their brains as you can with other animals; they have beef fat behind their eyes, beef stew.

I cross the fence six feet above the water, walking my hands down the rusty cable and tightroping my feet along the narrow edge of the planks. When I hit the other bank and terra firma, some steers are bunched in a knot between me and the barbedwire fence I want to cross. So I suddenly rush at them in an enthusiastic sprint, flailing my arms and hollering, "Lightning! Copperhead! Swedish meatballs!" They flee, still in a knot, stumbling across the flat pasture. I stand with the wind on my face.

When I slide under a barbed-wire fence, cross a field, and run over a sycamore trunk felled across the water, I'm on a little island shaped like a tear in the middle of Tinker Creek. On one side of the creek is a steep forested bank; the water is swift and deep on that side of the island. On the other side is the level field I walked

through next to the steers' pasture; the water between the field and the island is shallow and sluggish. In summer's low water, flags and bulrushes grow along a series of shallow pools cooled by the lazy current. Water striders patrol the surface film, crayfish hump along the silt bottom eating filth, frogs shout and glare, and shiners and small bream hide among roots from the sulky green heron's eye. I come to this island every month of the year. I walk around it, stopping and staring, or I straddle the sycamore log over the creek, curling my legs out of the water in winter, trying to read. Today I sit on dry grass at the end of the island by the slower side of the creek. I'm drawn to this spot. I come to it as to an oracle; I return to it as a man years later will seek out the battlefield where he lost a leg or an arm.

A couple of summers ago I was walking along the edge of the island to see what I could see in the water, and mainly to scare frogs. Frogs have an inelegant way of taking off from invisible positions on the bank just ahead of your feet, in dire panic, emitting a froggy "Yike!" and splashing into the water. Incredibly, this amused me, and, incredibly, it amuses me still. As I walked along the grassy edge of the island, I got better and better at seeing frogs both in and out of the water. I learned to recognize, slowing down, the difference in texture of the light reflected from mud bank, water, grass, or frog. Frogs were flying all around me. At the end of the island I noticed a small green frog. He was exactly half in and half out of the water, looking like a schematic diagram of an amphibian, and he didn't jump.

He didn't jump; I crept closer. At last I knelt on the island's winter killed grass, lost, dumbstruck, staring at the frog in the creek just four feet away. He was a very small frog with wide, dull eyes. And just as I looked at him, he slowly crumpled and began to sag. The spirit vanished from his eyes as if snuffed. His skin

emptied and drooped; his very skull seemed to collapse and settle like a kicked tent. He was shrinking before my eyes like a deflating football. I watched the taut, glistening skin on his shoulders ruck, and rumple, and fall. Soon, part of his skin, formless as a pricked balloon, lay in floating folds like bright scum on top of the water: it was a monstrous and terrifying thing. I gaped bewildered, appalled. An oval shadow hung in the water behind the drained frog; then the shadow glided away. The frog skin bag started to sink.

I had read about the giant water bug, but never seen one. "Giant water bug" is really the name of the creature, which is an enormous, heavy-bodied brown bug. It eats insects, tadpoles, fish, and frogs. Its grasping forelegs are mighty and hooked inward. It seizes a victim with these legs, hugs it tight, and paralyzes it with enzymes injected during a vicious bite. That one bite is the only bite it ever takes. Through the puncture shoot the poisons that dissolve the victim's muscles and bones and organs—all but the skin—and through it the giant water bug sucks out the victim's body, reduced to a juice. This event is quite common in warm fresh water. The frog I saw was being sucked by a giant water bug. I had been kneeling on the island grass; when the unrecognizable flap of frog skin settled on the creek bottom, swaying, I stood up and brushed the knees of my pants. I couldn't catch my breath.

Of course, many carnivorous animals devour their prey alive. The usual method seems to be to subdue the victim by downing or grasping it so it can't flee, then eating it whole or in a series of bloody bites. Frogs eat everything whole, stuffing prey into their mouths with their thumbs. People have seen frogs with their wide jaws so full of live dragonflies they couldn't close them. Ants don't even have to catch their prey: in the spring they swarm over newly hatched, featherless birds in the nest and eat them tiny bite by bite.

That it's rough out there and chancy is no surprise. Every live thing is a survivor on a kind of extended emergency bivouac. But at the same time we are also created. In the Koran, Allah asks, "The heaven and the earth and all in between, thinkest thou I made them in jest?" It's a good question. What do we think of the created universe, spanning an unthinkable void with an unthinkable profusion of forms? Or what do we think of nothingness, those sickening reaches of time in either direction? If the giant water bug was not made in jest, was it then made in earnest? Pascal uses a nice term to describe the notion of the creator's, once having called forth the universe, turning his back to it: Deus Absconditus. Is this what we think happened? Was the sense of it there, and God absconded with it, ate it, like a wolf who disappears round the edge of the house with the Thanksgiving turkey? "God is subtle," Einstein said, "but not malicious." Again, Einstein said that "nature conceals her mystery by means of her essential grandeur, not by her cunning." It could be that God has not absconded but spread, as our vision and understanding of the universe have spread, to a fabric of spirit and sense so grand and subtle, so powerful in a new way, that we can only feel blindly of its hem. In making the thick darkness a swaddling band for the sea, God "set bars and doors" and said, "Hitherto shalt thou come, but no further." But have we come even that far? Have we rowed out to the thick darkness, or are we all playing pinochle in the bottom of the boat?

Cruelty is a mystery, and the waste of pain. But if we describe a world to compass these things, a world that is a long, brute game, then we bump against another mystery: the inrush of power and light, the canary that sings on the skull. Unless all ages and races of men have been deluded by the same mass hypnotist (who?), there seems to be such a thing as beauty, a grace wholly gratuitous. About five years ago I saw a mockingbird make a

straight vertical descent from the roof gutter of a four-story building. It was an act as careless and spontaneous as the curl of a stem or the kindling of a star.

The mockingbird took a single step into the air and dropped. His wings were still folded against his sides as though he were singing from a limb and not falling, accelerating thirty-two feet per second per second, through empty air. Just a breath before he would have been dashed to the ground, he unfurled his wings with exact, deliberate care, revealing the broad bars of white, spread his elegant, white-banded tail, and so floated onto the grass. I had just rounded a corner when his insouciant step caught my eye; there was no one else in sight. The fact of his free fall was like the old philosophical conundrum about the tree that falls in the forest. The answer must be, I think, that beauty and grace are performed whether or not we will or sense them. The least we can do is try to be there.

Another time I saw another wonder: sharks off the Atlantic coast of Florida. There is a way a wave rises above the ocean horizon, a triangular wedge against the sky. If you stand where the ocean breaks on a shallow beach, you see the raised water in a wave is translucent, shot with lights. One late afternoon at low tide a hundred big sharks passed the beach near the mouth of a tidal river in a feeding frenzy. As each green wave rose from the churning water, it illuminated within itself the six- or eight-foot-long bodies of twisting sharks. The sharks disappeared as each wave rolled toward me; then a new wave would swell above the horizon, containing in it, like scorpions in amber, sharks that roiled and heaved. The sight held awesome wonders: power and beauty, grace tangled in a rapture with violence.

We don't know what's going on here. If these tremendous events are random combinations of matter run amok, the yield of millions of monkeys at millions of typewriters, then what is it in us, hammered out of those same typewriters, that they ignite? We don't know. Our life is a faint tracing on the surface of mystery, like the idle, curved tunnels of leaf miners on the face of a leaf. We must somehow take a wider view, look at the whole landscape, really see it, and describe what's going on here. Then we can at least wail the right question into the swaddling band of darkness, or, if it comes to that, choir the proper praise.

At the time of Lewis and Clark, setting the prairies on fire was a well-known signal that meant, "Come down to the water." It was an extravagant gesture, but we can't do less. If the landscape reveals one certainty, it is that the extravagant gesture is the very stuff of creation. After the one extravagant gesture of creation in the first place, the universe has continued to deal exclusively in extravagances, flinging intricacies and colossi down aeons of emptiness, heaping profusions on profligacies with ever-fresh vigor. The whole show has been on fire from the word go. I come down to the water to cool my eyes. But everywhere I look I see fire; that which isn't flint is tinder, and the whole world sparks and flames.

I have come to the grassy island late in the day. The creek is up; icy water sweeps under the sycamore log bridge. The frog skin, of course, is utterly gone. I have stared at that one spot on the creek bottom for so long, focusing past the rush of water, that when I stand, the opposite bank seems to stretch before my eyes and flow grassily upstream. When the bank settles down I cross the sycamore log and enter again the big plowed field next to the steers' pasture.

The wind is terrific out of the west; the sun comes and goes. I can see the shadow on the field before me deepen uniformly and spread like a plague. Everything seems so dull I am

amazed I can even distinguish objects. And suddenly the light runs across the land like a comber, and up the trees, and goes again in a wink: I think I've gone blind or died. When it comes again, the light, you hold your breath, and if it stays you forget about it until it goes again.

It's the most beautiful day of the year. At four o'clock the eastern sky is a dead stratus black flecked with low white clouds. The sun in the west illuminates the ground, the mountains, and especially the bare branches of trees, so that everywhere silver trees cut into the black sky like a photographer's negative of a landscape. The air and the ground are dry; the mountains are going on and off like neon signs. Clouds slide east as if pulled from the horizon, like a tablecloth whipped off a table. The hemlocks by the barbed-wire fence are flinging themselves east as though their backs would break. Purple shadows are racing east; the wind makes me face east, and again I feel the dizzying, drawn sensation I felt when the creek bank recled.

At four-thirty the sky in the east is clear; how could that big blackness be blown? Fifteen minutes later another darkness is coming overhead from the northwest; and it's here. Everything is drained of its light as if sucked. Only at the horizon do inky black mountains give way to distant, lighted mountains—lighted not by direct illumination but rather paled by glowing sheets of mist hung before them. Now the blackness is in the east; everything is half in shadow, half in sun, every clod, tree, mountain, and hedge. I can't see Tinker Mountain through the line of hemlock, till it comes on like a streetlight, ping, ex nihilo. Its sandstone cliffs pink and swell. Suddenly the light goes; the cliffs recede as if pushed. The sun hits a clump of sycamores between me and the mountains; the sycamore arms light up, and I can't see the cliffs. They're gone. The pale network of sycamore arms, which a second ago was transparent as a screen, is suddenly

opaque, glowing with light. Now the sycamore arms snuff out, the mountains come on, and there are the cliffs again.

I walk home. By five-thirty the show has pulled out. Nothing is left but an unreal blue and a few banked clouds low in the north. Some sort of carnival magician has been here, some fasttalking worker of wonders who has the act backwards. "Something in this hand," he says, "something in this hand, something up my sleeve, something behind my back . . . " and abracadabra, he snaps his fingers, and it's all gone. Only the bland, blank-faced magician remains, in his unruffled coat, bare handed, acknowledging a smattering of baffled applause. When you look again the whole show has pulled up stakes and moved on down the road. It never stops. New shows roll in from over the mountains and the magician reappears unannounced from a fold in the curtain you never dreamed was an opening. Scarves of clouds, rabbits in plain view, disappear into the black hat forever. Presto chango. The audience, if there is an audience at all, is dizzy from headturning, dazed.

Like the bear who went over the mountain, I went out to see what I could see. And, I might as well warn you, like the bear, all that I could see was the other side of the mountain: more of same. On a good day I might catch a glimpse of another wooded ridge rolling under the sun like water, another bivouac. I propose to keep here what Thoreau called "a meteorological journal of the mind," telling some tales and describing some of the sights of this rather tamed valley, and exploring, in fear and trembling, some of the unmapped dim reaches and unholy fastnesses to which those tales and sights so dizzyingly lead.

I am no scientist. I explore the neighborhood. An infant who has just learned to hold his head up has a frank and forthright way of gazing about him in bewilderment. He hasn't the faintest clue where he is, and he aims to learn. In a couple of years, what he will have learned instead is how to fake it: he'll have the cocksure air of a squatter who has come to feel he owns the place. Some unwonted, taught pride diverts us from our original intent, which is to explore the neighborhood, view the landscape, to discover at least *where* it is that we have been so startlingly set down, if we can't learn why.

So I think about the valley. It is my leisure as well as my work, a game. It is a fierce game I have joined because it is being played anyway, a game of both skill and chance, played against an unseen adversary—the conditions of time—in which the payoffs, which may suddenly arrive in a blast of light at any moment, might as well come to me as anyone else. I stake the time I'm grateful to have, the energies I'm glad to direct. I risk getting stuck on the board, so to speak, unable to move in any direction, which happens enough, God knows; and I risk the searing, exhausting nightmares that plunder rest and force me face down all night long in some muddy ditch seething with hatching insects and crustaceans.

But if I can bear the nights, the days are a pleasure. I walk out; I see something, some event that would otherwise have been utterly missed and lost; or something sees me, some enormous power brushes me with its clean wing, and I resound like a beaten bell.

I am an explorer, then, and I am also a stalker, or the instrument of the hunt itself. Certain Indians used to carve long grooves along the wooden shafts of their arrows. They called the grooves "lightning marks," because they resembled the curved fissure lightning slices down the trunks of trees. The function of lightning marks is this: if the arrow fails to kill the game, blood from a deep wound will channel along the lightning mark, streak down the arrow shaft, and spatter to the ground, laying a trail

dripped on broad-leaves, on stones, that the barefoot and trembling archer can follow into whatever deep or rare wilderness it leads. I am the arrow shaft, carved along my length by unexpected lights and gashes from the very sky, and this book is the straying trail of blood.

Something pummels us, something barely sheathed. Power broods and lights. We're played on like a pipe; our breath is not our own. James Houston describes two young Eskimo girls sitting cross-legged on the ground, mouth on mouth, blowing by turns each other's throat cords, making a low, unearthly music. When I cross again the bridge that is really the steers' fence, the wind has thinned to the delicate air of twilight; it crumples the water's skin. I watch the running sheets of light raised on the creek's surface. The sight has the appeal of the purely passive, like the racing of light under clouds on a field, the beautiful dream at the moment of being dreamed. The breeze is the merest puff, but you yourself sail headlong and breathless under the gale force of the spirit.



Seeing

When I was six or seven years old, growing up in Pittsburgh, I used to take a precious penny of my own and hide it for someone else to find. It was a curious compulsion; sadly, I've never been seized by it since. For some reason I always "hid" the penny along the same stretch of sidewalk up the street. I would cradle it at the roots of a sycamore, say, or in a hole left by a chipped-off piece of sidewalk. Then I would take a piece of chalk, and, starting at either end of the block, draw huge arrows leading up to the penny from both directions. After I learned to write I labeled the arrows: SURPRISE AHEAD or MONEY THIS WAY. I was greatly excited, during all this arrowdrawing, at the thought of the first lucky passer-by who would receive in this way, regardless of merit, a free gift from the universe. But I never lurked about. I would go straight home and not give the matter another thought, until, some months later,

I would be gripped again by the impulse to hide another penny.

It is still the first week in January, and I've got great plans. I've been thinking about seeing. There are lots of things to see, unwrapped gifts and free surprises. The world is fairly studded and strewn with pennies cast broadside from a generous hand. But—and this is the point—who gets excited by a mere penny? If you follow one arrow, if you crouch motionless on a bank to watch a tremulous ripple thrill on the water and are rewarded by the sight of a muskrat kit paddling from its den, will you count that sight a chip of copper only, and go your rueful way? It is dire poverty indeed when a man is so malnourished and fatigued that he won't stoop to pick up a penny. But if you cultivate a healthy poverty and simplicity, so that finding a penny will literally make your day, then, since the world is in fact planted in pennies, you have with your poverty bought a lifetime of days. It is that simple. What you see is what you get.

I used to be able to see flying insects in the air. I'd look ahead and see, not the row of hemlocks across the road, but the air in front of it. My eyes would focus along that column of air, picking out flying insects. But I lost interest, I guess, for I dropped the habit. Now I can see birds. Probably some people can look at the grass at their feet and discover all the crawling creatures. I would like to know grasses and sedges—and care. Then my least journey into the world would be a field trip, a series of happy recognitions. Thoreau, in an expansive mood, exulted, "What a rich book might be made about buds, including, perhaps, sprouts!" It would be nice to think so. I cherish mental images I have of three perfectly happy people. One collects stones. Another—an Englishman, say—watches clouds. The third lives on a coast and collects drops of seawater which

he examines microscopically and mounts. But I don't see what the specialist sees, and so I cut myself off, not only from the total picture, but from the various forms of happiness.

Unfortunately, nature is very much a now-you-see-it, nowyou-don't affair. A fish flashes, then dissolves in the water before my eyes like so much salt. Deer apparently ascend bodily into heaven; the brightest oriole fades into leaves. These disappearances stun me into stillness and concentration; they say of nature that it conceals with a grand nonchalance, and they say of vision that it is a deliberate gift, the revelation of a dancer who for my eyes only flings away her seven veils. For nature does reveal as well as conceal: now-you-don't-see-it, now-you-do. For a week last September migrating red-winged blackbirds were feeding heavily down by the creek at the back of the house. One day I went out to investigate the racket; I walked up to a tree, an Osage orange, and a hundred birds flew away. They simply materialized out of the tree. I saw a tree, then a whisk of color, then a tree again. I walked closer and another hundred blackbirds took flight. Not a branch, not a twig budged: the birds were apparently weightless as well as invisible. Or, it was as if the leaves of the Osage orange had been freed from a spell in the form of redwinged blackbirds; they flew from the tree, caught my eye in the sky, and vanished. When I looked again at the tree the leaves had reassembled as if nothing had happened. Finally I walked directly to the trunk of the tree and a final hundred, the real diehards, appeared, spread, and vanished. How could so many hide in the tree without my seeing them? The Osage orange, unruffled, looked just as it had looked from the house, when three hundred red-winged blackbirds cried from its crown. I looked downstream where they flew, and they were gone. Searching, I couldn't spot one. I wandered downstream to force them to play their hand, but they'd crossed the creek and scattered. One show to a

customer. These appearances catch at my throat; they are the free gifts, the bright coppers at the roots of trees.

It's all a matter of keeping my eyes open. Nature is like one of those line drawings of a tree that are puzzles for children: Can you find hidden in the leaves a duck, a house, a boy, a bucket, a zebra, and a boot? Specialists can find the most incredibly well-hidden things. A book I read when I was young recommended an easy way to find caterpillars to rear: you simply find some fresh caterpillar droppings, look up, and there's your caterpillar. More recently an author advised me to set my mind at ease about those piles of cut stems on the ground in grassy fields. Field mice make them; they cut the grass down by degrees to reach the seeds at the head. It seems that when the grass is tightly packed, as in a field of ripe grain, the blade won't topple at a single cut through the stem; instead, the cut stem simply drops vertically, held in the crush of grain. The mouse severs the bottom again and again, the stem keeps dropping an inch at a time, and finally the head is low enough for the mouse to reach the seeds. Meanwhile, the mouse is positively littering the field with its little piles of cut stems into which, presumably, the author of the book is constantly stumbling.

If I can't see these minutiae, I still try to keep my eyes open. I'm always on the lookout for antlion traps in sandy soil, monarch pupae near milkweed, skipper larvae in locust leaves. These things are utterly common, and I've not seen one. I bang on hollow trees near water, but so far no flying squirrels have appeared. In flat country I watch every sunset in hopes of seeing the green ray. The green ray is a seldom-seen streak of light that rises from the sun like a spurting fountain at the moment of sunset; it throbs into the sky for two seconds and disappears. One more reason to keep my eyes open. A photography professor at the University of Florida just happened to

see a bird die in midflight; it jerked, died, dropped, and smashed on the ground. I squint at the wind because I read Stewart Edward White: "I have always maintained that if you looked closely enough you could see the wind—the dim, hardly-made-out, fine débris fleeing high in the air." White was an excellent observer, and devoted an entire chapter of *The Mountains* to the subject of seeing deer: "As soon as you can forget the naturally obvious and construct an artificial obvious, then you too will see deer."

But the artificial obvious is hard to see. My eyes account for less than one percent of the weight of my head; I'm bony and dense; I see what I expect. I once spent a full three minutes looking at a bullfrog that was so unexpectedly large I couldn't see it even though a dozen enthusiastic campers were shouting directions. Finally I asked, "What color am I looking for?" and a fellow said, "Green." When at last I picked out the frog, I saw what painters are up against: the thing wasn't green at all, but the color of wet hickory bark.

The lover can see, and the knowledgeable. I visited an aunt and uncle at a quarter-horse ranch in Cody, Wyoming. I couldn't do much of anything useful, but I could, I thought, draw. So, as we all sat around the kitchen table after supper, I produced a sheet of paper and drew a horse. "That's one lame horse," my aunt volunteered. The rest of the family joined in: "Only place to saddle that one is his neck"; "Looks like we better shoot the poor thing, on account of those terrible growths." Meekly, I slid the pencil and paper down the table. Everyone in that family, including my three young cousins, could draw a horse. Beautifully. When the paper came back it looked as though five shining, real quarter horses had been corralled by mistake with a papier-mâché moose; the real horses seemed to gaze at the monster with a steady, puzzled air. I stay away from horses now, but I can do a

creditable goldfish. The point is that I just don't know what the lover knows; I just can't see the artificial obvious that those in the know construct. The herpetologist asks the native, "Are there snakes in that ravine?" "Nosir." And the herpetologist comes home with, yessir, three bags full. Are there butterflies on that mountain? Are the bluets in bloom, are there arrowheads here, or fossil shells in the shale?

Peeping through my keyhole I see within the range of only about thirty percent of the light that comes from the sun; the rest is infrared and some little ultraviolet, perfectly apparent to many animals, but invisible to me. A nightmare network of ganglia, charged and firing without my knowledge, cuts and splices what I do see, editing it for my brain. Donald E. Carr points out that the sense impressions of one-celled animals are *not* edited for the brain: "This is philosophically interesting in a rather mournful way, since it means that only the simplest animals perceive the universe as it is."

A fog that won't burn away drifts and flows across my field of vision. When you see fog move against a backdrop of deep pines, you don't see the fog itself, but streaks of clearness floating across the air in dark shreds. So I see only tatters of clearness through a pervading obscurity. I can't distinguish the fog from the overcast sky; I can't be sure if the light is direct or reflected. Everywhere darkness and the presence of the unseen appalls. We estimate now that only one atom dances alone in every cubic meter of intergalactic space. I blink and squint. What planet or power yanks Halley's Comet out of orbit? We haven't seen that force yet; it's a question of distance, density, and the pallor of reflected light. We rock, cradled in the swaddling band of darkness. Even the simple darkness of night whispers suggestions to the mind. Last summer, in August, I stayed at the creek too late.

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Where Tinker Creek flows under the sycamore log bridge to the tear-shaped island, it is slow and shallow, fringed thinly in cattail marsh. At this spot an astonishing bloom of life supports vast breeding populations of insects, fish, reptiles, birds, and mammals. On windless summer evenings I stalk along the creek bank or straddle the sycamore log in absolute stillness, watching for muskrats. The night I stayed too late I was hunched on the log staring spellbound at spreading, reflected stains of lilac on the water. A cloud in the sky suddenly lighted as if turned on by a switch; its reflection just as suddenly materialized on the water upstream, flat and floating, so that I couldn't see the creek bottom, or life in the water under the cloud. Downstream, away from the cloud on the water, water turtles smooth as beans were gliding down with the current in a series of easy, weightless pushoffs, as men bound on the moon. I didn't know whether to trace the progress of one turtle I was sure of, risking sticking my face in one of the bridge's spiderwebs made invisible by the gathering dark, or take a chance on seeing the carp, or scan the mud bank in hope of seeing a muskrat, or follow the last of the swallows who caught at my heart and trailed it after them like streamers as they appeared from directly below, under the log, flying upstream with their tails forked, so fast.

But shadows spread, and deepened, and stayed. After thousands of years we're still strangers to darkness, fearful aliens in an enemy camp with our arms crossed over our chests. I stirred. A land turtle on the bank, startled, hissed the air from its lungs and withdrew into its shell. An uneasy pink here, an unfathomable blue there, gave great suggestion of lurking beings. Things were going on. I couldn't see whether that sere rustle I heard was a distant rattlesnake, slit-eyed, or a nearby sparrow kicking in the dry flood debris slung at the foot of a willow. Tremendous action

roiled the water everywhere I looked, big action, inexplicable. A tremor welled up beside a gaping muskrat burrow in the bank and I caught my breath, but no muskrat appeared. The ripples continued to fan upstream with a steady, powerful thrust. Night was knitting over my face an eyeless mask, and I still sat transfixed. A distant airplane, a delta wing out of nightmare, made a gliding shadow on the creek's bottom that looked like a stingray cruising upstream. At once a black fin slit the pink cloud on the water, shearing it in two. The two halves merged together and seemed to dissolve before my eyes. Darkness pooled in the cleft of the creek and rose, as water collects in a well. Untamed, dreaming lights flickered over the sky. I saw hints of hulking underwater shadows, two pale splashes out of the water, and round ripples rolling close together from a blackened center.

At last I stared upstream where only the deepest violet remained of the cloud, a cloud so high its underbelly still glowed feeble color reflected from a hidden sky lighted in turn by a sun halfway to China. And out of that violet, a sudden enormous black body arced over the water. I saw only a cylindrical sleekness. Head and tail, if there was a head and tail, were both submerged in cloud. I saw only one ebony fling, a headlong dive to darkness; then the waters closed, and the lights went out.

I walked home in a shivering daze, up hill and down. Later I lay open-mouthed in bed, my arms flung wide at my sides to steady the whirling darkness. At this latitude I'm spinning 836 miles an hour round the earth's axis; I often fancy I feel my sweeping fall as a breakneck arc like the dive of dolphins, and the hollow rushing of wind raises hair on my neck and the side of my face. In orbit around the sun I'm moving 64,800 miles an hour. The solar system as a whole, like a merry-go-round unhinged, spins, bobs, and blinks at the speed of 43,200 miles an hour along a course set east of Hercules. Someone has

piped, and we are dancing a tarantella until the sweat pours. I open my eyes and I see dark, muscled forms curl out of water, with flapping gills and flattened eyes. I close my eyes and I see stars, deep stars giving way to deeper stars, deeper stars bowing to deepest stars at the crown of an infinite cone.

"Still," wrote van Gogh in a letter, "a great deal of light falls on everything." If we are blinded by darkness, we are also blinded by light. When too much light falls on everything, a special terror results. Peter Freuchen describes the notorious kayak sickness to which Greenland Eskimos are prone. "The Greenland fjords are peculiar for the spells of completely quiet weather, when there is not enough wind to blow out a match and the water is like a sheet of glass. The kayak hunter must sit in his boat without stirring a finger so as not to scare the shy seals away. . . . The sun, low in the sky, sends a glare into his eyes, and the landscape around moves into the realm of the unreal. The reflex from the mirrorlike water hypnotizes him, he seems to be unable to move, and all of a sudden it is as if he were floating in a bottomless void, sinking, sinking, and sinking. . . . Horror-stricken, he tries to stir, to cry out, but he cannot, he is completely paralyzed, he just falls and falls." Some hunters are especially cursed with this panic, and bring ruin and sometimes starvation to their families.

Sometimes here in Virginia at sunset low clouds on the southern or northern horizon are completely invisible in the lighted sky. I only know one is there because I can see its reflection in still water. The first time I discovered this mystery I looked from cloud to no-cloud in bewilderment, checking my bearings over and over, thinking maybe the ark of the covenant was just passing by south of Dead Man Mountain. Only much later did I read the explanation: polarized light from the sky is very much weakened by reflection, but the light

in clouds isn't polarized. So invisible clouds pass among visible clouds, till all slide over the mountains; so a greater light extinguishes a lesser as though it didn't exist.

In the great meteor shower of August, the Perseid, I wail all day for the shooting stars I miss. They're out there showering down, committing hara-kiri in a flame of fatal attraction, and hissing perhaps at last into the ocean. But at dawn what looks like a blue dome clamps down over me like a lid on a pot. The stars and planets could smash and I'd never know. Only a piece of ashen moon occasionally climbs up or down the inside of the dome, and our local star without surcease explodes on our heads. We have really only that one light, one source for all power, and yet we must turn away from it by universal decree. Nobody here on the planet seems aware of this strange, powerful taboo, that we all walk about carefully averting our faces, this way and that, lest our eyes be blasted forever.

Darkness appalls and light dazzles; the scrap of visible light that doesn't hurt my eyes hurts my brain. What I see sets me swaying. Size and distance and the sudden swelling of meanings confuse me, bowl me over. I straddle the sycamore log bridge over Tinker Creek in the summer. I look at the lighted creek bottom: snail tracks tunnel the mud in quavering curves. A crayfish jerks, but by the time I absorb what has happened, he's gone in a billowing smokescreen of silt. I look at the water: minnows and shiners. If I'm thinking minnows, a carp will fill my brain till I scream. I look at the water's surface: skaters, bubbles, and leaves sliding down. Suddenly, my own face, reflected, startles me witless. Those snails have been tracking my face! Finally, with a shuddering wrench of the will, I see clouds, cirrus clouds. I'm dizzy, I fall in. This looking business is risky.

Once I stood on a humped rock on nearby Purgatory Mountain, watching through binoculars the great autumn

hawk migration below, until I discovered that I was in danger of joining the hawks on a vertical migration of my own. I was used to binoculars, but not, apparently, to balancing on humped rocks while looking through them. I staggered. Everything advanced and receded by turns; the world was full of unexplained foreshortenings and depths. A distant huge tan object, a hawk the size of an elephant, turned out to be the browned bough of a nearby loblolly pine. I followed a sharpshinned hawk against a featureless sky, rotating my head unawares as it flew, and when I lowered the glass a glimpse of my own looming shoulder sent me staggering. What prevents the men on Palomar from falling, voiceless and blinded, from their tiny, vaulted chairs?

I reel in confusion; I don't understand what I see. With the naked eye I can see two million light-years to the Andromeda galaxy. Often I slop some creek water in a jar and when I get home I dump it in a white china bowl. After the silt settles I return and see tracings of minute snails on the bottom, a planarian or two winding round the rim of water, roundworms shimmying frantically, and finally, when my eyes have adjusted to these dimensions, amoebae. At first the amoebae look like muscae volitantes, those curled moving spots you seem to see in your eyes when you stare at a distant wall. Then I see the amoebae as drops of water congealed, bluish, translucent, like chips of sky in the bowl. At length I choose one individual and give myself over to its idea of an evening. I see it dribble a grainy foot before it on its wet, unfathomable way. Do its unedited sense impressions include the fierce focus of my eyes? Shall I take it outside and show it Andromeda, and blow its little endoplasm? I stir the water with a finger, in case it's running out of oxygen. Maybe I should get a tropical aquarium with motorized bubblers and lights, and keep this one for a

pet. Yes, it would tell its fissioned descendants, the universe is two feet by five, and if you listen closely you can hear the buzzing music of the spheres.

Oh, it's mysterious lamplit evenings, here in the galaxy, one after the other. It's one of those nights when I wander from window to window, looking for a sign. But I can't see. Terror and a beauty insoluble are a ribband of blue woven into the fringes of garments of things both great and small. No culture explains, no bivouac offers real haven or rest. But it could be that we are not seeing something. Galileo thought comets were an optical illusion. This is fertile ground: since we are certain that they're not, we can look at what our scientists have been saying with fresh hope. What if there are really gleaming, castellated cities hung upside-down over the desert sand? What limpid lakes and cool date palms have our caravans always passed untried? Until, one by one, by the blindest of leaps, we light on the road to these places, we must stumble in darkness and hunger. I turn from the window. I'm blind as a bat, sensing only from every direction the echo of my own thin cries.

I chanced on a wonderful book by Marius von Senden, called *Space and Sight*. When Western surgeons discovered how to perform safe cataract operations, they ranged across Europe and America operating on dozens of men and women of all ages who had been blinded by cataracts since birth. Von Senden collected accounts of such cases; the histories are fascinating. Many doctors had tested their patients' sense perceptions and ideas of space both before and after the operations. The vast majority of patients, of both sexes and all ages, had, in von Senden's opinion, no idea of space whatsoever. Form, distance, and size were so many meaningless syllables. A patient "had no idea of depth, confusing it with roundness." Before

Pilgrim at Tinker Creek

the operation a doctor would give a blind patient a cube and a sphere; the patient would tongue it or feel it with his hands. and name it correctly. After the operation the doctor would show the same objects to the patient without letting him touch them; now he had no clue whatsoever what he was seeing. One patient called lemonade "square" because it pricked on his tongue as a square shape pricked on the touch of his hands. Of another postoperative patient, the doctor writes, "I have found in her no notion of size, for example, not even within the narrow limits which she might have encompassed with the aid of touch. Thus when I asked her to show me how big her mother was, she did not stretch out her hands, but set her two indexfingers a few inches apart." Other doctors reported their patients' own statements to similar effect. "The room he was in ... he knew to be but part of the house, yet he could not conceive that the whole house could look bigger"; "Those who are blind from birth . . . have no real conception of height or distance. A house that is a mile away is thought of as nearby, but requiring the taking of a lot of steps. . . . The elevator that whizzes him up and down gives no more sense of vertical distance than does the train of horizontal."

For the newly sighted, vision is pure sensation unencumbered by meaning: "The girl went through the experience that we all go through and forget, the moment we are born. She saw, but it did not mean anything but a lot of different kinds of brightness." Again, "I asked the patient what he could see; he answered that he saw an extensive field of light, in which everything appeared dull, confused, and in motion. He could not distinguish objects." Another patient saw "nothing but a confusion of forms and colors." When a newly sighted girl saw photographs and paintings, she asked, "'Why do they put those dark marks all over them?' 'Those aren't dark marks,' her mother explained,

'those are shadows. That is one of the ways the eye knows that things have shape. If it were not for shadows many things would look flat.' 'Well, that's how things do look,' Joan answered. 'Everything looks flat with dark patches.'"

But it is the patients' concepts of space that are most revealing. One patient, according to his doctor, "practiced his vision in a strange fashion; thus he takes off one of his boots, throws it some way off in front of him, and then attempts to gauge the distance at which it lies; he takes a few steps towards the boot and tries to grasp it; on failing to reach it, he moves on a step or two and gropes for the boot until he finally gets hold of it." "But even at this stage, after three weeks' experience of seeing," von Senden goes on, "space,' as he conceives it, ends with visual space, i.e. with color-patches that happen to bound his view. He does not yet have the notion that a larger object (a chair) can mask a smaller one (a dog), or that the latter can still be present even though it is not directly seen."

In general the newly sighted see the world as a dazzle of color-patches. They are pleased by the sensation of color, and learn quickly to name the colors, but the rest of seeing is tormentingly difficult. Soon after his operation a patient "generally bumps into one of these color-patches and observes them to be substantial, since they resist him as tactual objects do. In walking about it also strikes him—or can if he pays attention—that he is continually passing in between the colors he sees, that he can go past a visual object, that a part of it then steadily disappears from view; and that in spite of this, however he twists and turns—whether entering the room from the door, for example, or returning back to it—he always has a visual space in front of him. Thus he gradually comes to realize that there is also a space behind him, which he does not see."

The mental effort involved in these reasonings proves over-

whelming for many patients. It oppresses them to realize, if they ever do at all, the tremendous size of the world, which they had previously conceived of as something touchingly manageable. It oppresses them to realize that they have been visible to people all along, perhaps unattractively so, without their knowledge or consent. A disheartening number of them refuse to use their new vision, continuing to go over objects with their tongues, and lapsing into apathy and despair. "The child can see, but will not make use of his sight. Only when pressed can he with difficulty be brought to look at objects in his neighborhood; but more than a foot away it is impossible to bestir him to the necessary effort." Of a twenty-one-year-old girl, the doctor relates, "Her unfortunate father, who had hoped for so much from this operation, wrote that his daughter carefully shuts her eyes whenever she wishes to go about the house, especially when she comes to a staircase, and that she is never happier or more at ease than when, by closing her eyelids, she relapses into her former state of total blindness." A fifteen-year-old boy, who was also in love with a girl at the asylum for the blind, finally blurted out, "No, really, I can't stand it anymore; I want to be sent back to the asylum again. If things aren't altered, I'll tear my eyes out."

Some do learn to see, especially the young ones. But it changes their lives. One doctor comments on "the rapid and complete loss of that striking and wonderful serenity which is characteristic only of those who have never yet seen." A blind man who learns to see is ashamed of his old habits. He dresses up, grooms himself, and tries to make a good impression. While he was blind he was indifferent to objects unless they were edible; now, "a sifting of values sets in . . . his thoughts and wishes are mightily stirred and some few of the patients are thereby led into dissimulation, envy, theft and fraud."

On the other hand, many newly sighted people speak well of

the world, and teach us how dull is our own vision. To one patient, a human hand, unrecognized, is "something bright and then holes." Shown a bunch of grapes, a boy calls out, "It is dark, blue and shiny. . . . It isn't smooth, it has bumps and hollows." A little girl visits a garden. "She is greatly astonished, and can scarcely be persuaded to answer, stands speechless in front of the tree, which she only names on taking hold of it, and then as 'the tree with the lights in it." Some delight in their sight and give themselves over to the visual world. Of a patient just after her bandages were removed, her doctor writes, "The first things to attract her attention were her own hands; she looked at them very closely, moved them repeatedly to and fro, bent and stretched the fingers, and seemed greatly astonished at the sight." One girl was eager to tell her blind friend that "men do not really look like trees at all," and astounded to discover that her every visitor had an utterly different face. Finally, a twenty-two-old girl was dazzled by the world's brightness and kept her eyes shut for two weeks. When at the end of that time she opened her eyes again, she did not recognize any objects, but, "the more she now directed her gaze upon everything about her, the more it could be seen how an expression of gratification and astonishment overspread her features; she repeatedly exclaimed: 'Oh God! How beautiful!""

I saw color-patches for weeks after I read this wonderful book. It was summer; the peaches were ripe in the valley orchards. When I woke in the morning, color-patches wrapped round my eyes, intricately, leaving not one unfilled spot. All day long I walked among shifting color-patches that parted before me like the Red Sea and closed again in silence, transfigured, wherever I looked back. Some patches swelled and loomed, while others vanished utterly, and dark marks flitted at random

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over the whole dazzling sweep. But I couldn't sustain the illusion of flatness. I've been around for too long. Form is condemned to an eternal danse macabre with meaning: I couldn't unpeach the peaches. Nor can I remember ever having seen without understanding; the color-patches of infancy are lost. My brain then must have been smooth as any balloon. I'm told I reached for the moon; many babies do. But the color-patches of infancy swelled as meaning filled them; they arrayed themselves in solemn ranks down distance which unrolled and stretched before me like a plain. The moon rocketed away. I live now in a world of shadows that shape and distance color, a world where space makes a kind of terrible sense. What gnosticism is this, and what physics? The fluttering patch I saw in my nursery window-silver and green and shape-shifting blue-is gone; a row of Lombardy poplars takes its place, mute, across the distant lawn. That humming oblong creature pale as light that stole along the walls of my room at night, stretching exhilaratingly around the corners, is gone, too, gone the night I ate of the bittersweet fruit, put two and two together and puckered forever my brain. Martin Buber tells this tale: "Rabbi Mendel once boasted to his teacher Rabbi Elimelekh that evenings he saw the angel who rolls away the light before the darkness, and mornings the angel who rolls away the darkness before the light. 'Yes,' said Rabbi Elimelekh, 'in my youth I saw that too. Later on you don't see these things anymore."'

Why didn't someone hand those newly sighted people paints and brushes from the start, when they still didn't know what anything was? Then maybe we all could see color-patches too, the world unraveled from reason, Eden before Adam gave names. The scales would drop from my eyes; I'd see trees like men walking; I'd run down the road against all orders, hallooing and leaping.

* * *

Seeing is of course very much a matter of verbalization. Unless I call my attention to what passes before my eyes, I simply won't see it. It is, as Ruskin says, "not merely unnoticed, but in the full, clear sense of the word, unseen." My eyes alone can't solve analogy tests using figures, the ones which show, with increasing elaborations, a big square, then a small square in a big square, then a big triangle, and expect me to find a small triangle in a big triangle. I have to say the words, describe what I'm seeing. If Tinker Mountain erupted, I'd be likely to notice. But if I want to notice the lesser cataclysms of valley life, I have to maintain in my head a running description of the present. It's not that I'm observant; it's just that I talk too much. Otherwise, especially in a strange place, I'll never know what's happening. Like a blind man at the ball game, I need a radio.

When I see this way I analyze and pry. I hurl over logs and roll away stones; I study the bank a square foot at a time, probing and tilting my head. Some days when a mist covers the mountains, when the muskrats won't show and the microscope's mirror shatters, I want to climb up the blank blue dome as a man would storm the inside of a circus tent, wildly, dangling, and with a steel knife claw a rent in the top, peep, and, if I must, fall.

But there is another kind of seeing that involves a letting go. When I see this way I sway transfixed and emptied. The difference between the two ways of seeing is the difference between walking with and without a camera. When I walk with a camera I walk from shot to shot, reading the light on a calibrated meter. When I walk without a camera, my own shutter opens, and the moment's light prints on my own silver gut. When I see this second way I am above all an unscrupulous observer.

* * *

It was sunny one evening last summer at Tinker Creek; the sun was low in the sky, upstream. I was sitting on the sycamore log bridge with the sunset at my back, watching the shiners the size of minnows who were feeding over the muddy sand in skittery schools. Again and again, one fish, then another, turned for a split second across the current and flash! the sun shot out from its silver side. I couldn't watch for it. It was always just happening somewhere else, and it drew my vision just as it disappeared: flash, like a sudden dazzle of the thinnest blade, a sparking over a dun and olive ground at chance intervals from every direction. Then I noticed white specks, some sort of pale petals, small, floating from under my feet on the creek's surface, very slow and steady. So I blurred my eyes and gazed towards the brim of my hat and saw a new world. I saw the pale white circles roll up, roll up, like the world's turning, mute and perfect, and I saw the linear flashes, gleaming silver, like stars being born at random down a rolling scroll of time. Something broke and something opened. I filled up like a new wineskin. I breathed an air like light; I saw a light like water. I was the lip of a fountain the creek filled forever; I was ether, the leaf in the zephyr; I was flesh-flake, feather, bone.

When I see this way I see truly. As Thoreau says, I return to my senses. I am the man who watches the baseball game in silence in an empty stadium. I see the game purely; I'm abstracted and dazed. When it's all over and the white-suited players lope off the green field to their shadowed dugouts, I leap to my feet; I cheer and cheer.

But I can't go out and try to see this way. I'll fail, I'll go mad. All I can do is try to gag the commentator, to hush the noise of useless interior babble that keeps me from seeing just as surely as a newspaper dangled before my eyes. The effort is really a discipline requiring a lifetime of dedicated struggle; it marks the literature of saints and monks of every order East and West, under every rule and no rule, discalced and shod. The world's spiritual geniuses seem to discover universally that the mind's muddy river, this ceaseless flow of trivia and trash, cannot be dammed, and that trying to dam it is a waste of effort that might lead to madness. Instead you must allow the muddy river to flow unheeded in the dim channels of consciousness; you raise your sights; you look along it, mildly, acknowledging its presence without interest and gazing beyond it into the realm of the real where subjects and objects act and rest purely, without utterance. "Launch into the deep," says Jacques Ellul, "and you shall see."

The secret of seeing is, then, the pearl of great price. If I thought he could teach me to find it and keep it forever I would stagger barefoot across a hundred deserts after any lunatic at all. But although the pearl may be found, it may not be sought. The literature of illumination reveals this above all: although it comes to those who wait for it, it is always, even to the most practiced and adept, a gift and a total surprise. I return from one walk knowing where the killdeer nests in the field by the creek and the hour the laurel blooms. I return from the same walk a day later scarcely knowing my own name. Litanies hum in my ears; my tongue flaps in my mouth Ailinon, alleluia! I cannot cause light; the most I can do is try to put myself in the path of its beam. It is possible, in deep space, to sail on solar wind. Light, be it particle or wave, has force: you rig a giant sail and go. The secret of seeing is to sail on solar wind. Hone and spread your spirit till you yourself are a sail, whetted, translucent, broadside to the merest puff.

When her doctor took her bandages off and led her into the garden, the girl who was no longer blind saw "the tree with

the lights in it." It was for this tree I searched through the peach orchards of summer, in the forests of fall and down winter and spring for years. Then one day I was walking along Tinker Creek thinking of nothing at all and I saw the tree with the lights in it. I saw the backyard cedar where the mourning doves roost charged and transfigured, each cell buzzing with flame. I stood on the grass with the lights in it, grass that was wholly fire, utterly focused and utterly dreamed. It was less like seeing than like being for the first time seen, knocked breathless by a powerful glance. The flood of fire abated, but I'm still spending the power. Gradually the lights went out in the cedar, the colors died, the cells unflamed and disappeared. I was still ringing. I had been my whole life a bell, and never knew it until at that moment I was lifted and struck. I have since only very rarely seen the tree with the lights in it. The vision comes and goes, mostly goes, but I live for it, for the moment when the mountains open and a new light roars in spate through the crack, and the mountains slam.



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It is the first of February, and everyone is talking about starlings. Starlings came to this country on a passenger liner from Europe. One hundred of them were deliberately released in Central Park, and from those hundred descended all of our countless millions of starlings today. According to Edwin Way Teale, "Their coming was the result of one man's fancy. That man was Eugene Schieffelin, a wealthy New York drug manufacturer. His curious hobby was the introduction into America of all the birds mentioned in William Shakespeare." The birds adapted to their new country splendidly.

When John Cowper Powys lived in the United States, he wrote about chickadees stealing crumbs from his favorite flock of starlings. Around here they're not so popular. Instead of quietly curling for sleep, one by one, here and there in dense shrubbery,

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as many birds do, starlings roost all together in vast hordes and droves. They have favorite roosting sites to which they return winter after winter; apparently southwest Virginia is their idea of Miami Beach. In Waynesboro, where the starlings roost in the woods near the Coyner Springs area, residents can't go outside for any length of time, or even just to hang laundry, because of the stink—"will knock you over"—the droppings, and the lice.

Starlings are notoriously difficult to "control." The story is told of a man who was bothered by starlings roosting in a large sycamore near his house. He said he tried everything to get rid of them and finally took a shotgun to three of them and killed them. When asked if that discouraged the birds, he reflected a minute, leaned forward, and said confidentially, "Those three it did."

Radford, Virginia, had a little stink of its own a few years ago. Radford had starlings the way a horse has flies, and in similarly unapproachable spots. Wildlife biologists estimated the Radford figure at one hundred fifty thousand starlings. The people complained of the noise, the stench, the inevitable whitewash effect, and the possibility of an epidemic of an exotic, dust-borne virus disease. Finally, in January, 1972, various officials and biologists got together and decided that something needed to be done. After studying the feasibility of various methods, they decided to kill the starlings with foam. The idea was to shoot a special detergent foam through hoses at the roosting starlings on a night when weathermen predicted a sudden drop in temperature. The foam would penetrate the birds' waterproof feathers and soak their skins. Then when the temperature dropped, the birds would drop too, having quietly died of exposure.

Meanwhile, before anything actually happened, the papers were having a field day. Every crazy up and down every mountain had his shrill say. The local bird societies screamed for blood—the

starlings' blood. Starlings, after all, compete with native birds for food and nesting sites. Other people challenged the mayor of Radford, the Virginia Tech Wildlife Bureau, the newspaper's editors and all its readers in Radford and everywhere else, to tell how THEY would like to freeze to death inside a bunch of bubbles.

The Wildlife Bureau went ahead with its plan. The needed equipment was expensive, and no one was quite sure if it would work. Sure enough, on the night they sprayed the roosts the temperature didn't drop far enough. Out of the hundred and fifty thousand starlings they hoped to exterminate, they got only three thousand. Somebody figured out that the whole show had cost citizens two dollars per dead starling.

That is, in effect, the story of the Radford starlings. The people didn't give up at once, however. They mulled and fussed, giving the starlings a brief reprieve, and then came up with a new plan. Soon, one day when the birds returned at sunset to their roost, the wildlife managers were ready for them. They fired shotguns loaded with multiple, high-powered explosives into the air. BANG, went the guns; the birds settled down to sleep. The experts went back to their desks and fretted and fumed some more. At last they brought out the ultimate weapon: recordings of starling distress calls. Failure. YIKE OUCH HELP went the recordings; snore went the birds. That, *in toto*, is the story of the Radford starlings. They still thrive.

Our valley starlings thrive, too. They plod morosely around the grass under the feeder. Other people apparently go to great lengths to avoid feeding them. Starlings are early to bed and late to rise, so people sneak out with grain and suet before dawn, for early rising birds, and whisk it away at the first whiff of a starling; after sunset, when the starlings are safely to roost bothering somebody else, they spread out the suet and grain once again. I don't care what eats the stuff. * * *

It is winter proper; the cold weather, such as it is, has come to stay. I bloom indoors in the winter like a forced forsythia; I come in to come out. At night I read and write, and things I have never understood become clear; I reap the harvest of the rest of the year's planting.

Outside, everything has opened up. Winter clear-cuts and reseeds the easy way. Everywhere paths unclog; in late fall and winter, and only then, can I scale the cliff to the Lucas orchard, circle the forested quarry pond, or follow the left-hand bank of Tinker Creek downstream. The woods are acres of sticks; I could walk to the Gulf of Mexico in a straight line. When the leaves fall the striptease is over; things stand mute and revealed. Everywhere skies extend, vistas deepen, walls become windows, doors open. Now I can see the house where the Whites and the Garretts lived on the hill under oaks. The thickly grown banks of Carvin's Creek where it edges the road have long since thinned to a twiggy haze, and I can see Maren and Sandy in blue jackets out running the dogs. The mountains' bones poke through, all shoulder and knob and shin. All that summer conceals, winter reveals. Here are the birds' nests hid in the hedge, and squirrels' nests splotched all over the walnuts and elms.

Today a gibbous moon marked the eastern sky like a smudge of chalk. The shadows of its features had the same blue tone and light value as the sky itself, so it looked transparent in its depths, or softly frayed, like the heel of a sock. Not too long ago, according to Edwin Way Teale, the people of Europe believed that geese and swans wintered there, on the moon's pale seas. Now it is sunset. The mountains warm in tone as the day chills, and a hot blush deepens over the land. "Observe," said da Vinci, "observe in the streets at twilight, when the day is cloudy, the loveliness and tenderness spread on the faces of men and women." I have

seen those faces, when the day is cloudy, and I have seen at sunset on a clear winter day houses, ordinary houses, whose bricks were coals and windows flame.

At dusk every evening an extended flock of starlings appears out of the northern sky and winds towards the setting sun. It is the winter day's major event. Late yesterday, I climbed across the creek, through the steers' pasture, beyond the grassy island where I had seen the giant water bug sip a frog, and up a high hill. Curiously, the best vantage point on the hill was occupied by a pile of burnt books. I opened some of them carefully: they were good cloth- and leather-bound novels, a complete, charred set of encyclopedias decades old, and old, watercolor-illustrated children's books. They flaked in my hands like pieces of pie. Today I learned that the owners of the house behind the books had suffered a fire. But I didn't know that then; I thought they'd suffered a terrible fit of pique. I crouched beside the books and looked over the valley.

On my right a woods thickly overgrown with creeper descended the hill's slope to Tinker Creek. On my left was a planting of large shade trees on the ridge of the hill. Before me the grassy hill pitched abruptly and gave way to a large, level field fringed in trees where it bordered the creek. Beyond the creek I could see with effort the vertical sliced rock where men had long ago quarried the mountain under the forest. Beyond that I saw Hollins Pond and all its woods and pastures; then I saw in a blue haze all the world poured flat and pale between the mountains.

Out of the dimming sky a speck appeared, then another, and another. It was the starlings going to roost. They gathered deep in the distance, flock sifting into flock, and strayed towards me, transparent and whirling, like smoke. They seemed to unravel as they flew, lengthening in curves, like a loosened skein. I didn't move; they flew directly over my head for half an hour. The flight extended like a fluttering banner, an unfurled oriflamme, in

either direction as far as I could see. Each individual bird bobbed and knitted up and down in the flight at apparent random, for no known reason except that that's how starlings fly, yet all remained perfectly spaced. The flocks each tapered at either end from a rounded middle, like an eye. Over my head I heard a sound of beaten air, like a million shook rugs, a muffled whuff. Into the woods they sifted without shifting a twig, right through the crowns of trees, intricate and rushing, like wind.

After half an hour, the last of the stragglers had vanished into the trees. I stood with difficulty, bashed by the unexpectedness of this beauty, and my spread lungs roared. My eyes pricked from the effort of trying to trace a feathered dot's passage through a weft of limbs. Could tiny birds be sifting through me right now, birds winging through the gaps between my cells, touching nothing, but quickening in my tissues, fleet?

Some weather's coming; you can taste on the sides of your tongue a quince tang in the air. This fall everyone looked to the bands on a woolly bear caterpillar, and predicted as usual the direst of dire winters. This routine always calls to mind the Angiers' story about the trappers in the far north. They approached an Indian whose ancestors had dwelled from time immemorial in those fir forests, and asked him about the severity of the coming winter. The Indian cast a canny eye over the landscape and pronounced, "Bad winter." The others asked him how he knew. The Indian replied unhesitatingly, "The white man makes a big wood pile." Here the woodpile is an exercise doggedly, exhaustedly maintained despite what must be great temptation. The other day I saw a store displaying a neatly stacked quarter-cord of fireplace logs manufactured of rolled, pressed paper. On the wrapper of each "log" was printed in huge letters the beguiling slogan, "The ROMANCE Without The HEARTACHE."

I lay a cherry log fire and settle in. I'm getting used to this planet and to this curious human culture which is as cheerfully enthusiastic as it is cheerfully cruel. I never cease to marvel at the newspapers. In my life I've seen one million pictures of a duck that has adopted a kitten, or a cat that has adopted a duckling, or a sow and a puppy, a mare and a muskrat. And for the one millionth time I'm fascinated. I wish I lived near them, in Corpus Christi or Damariscotta; I wish I had the wonderful pair before me, mooning about the yard. It's all beginning to smack of home. The winter pictures that come in over the wire from every spot on the continent are getting to be as familiar as my own hearth. I wait for the annual aerial photograph of an enterprising fellow who has stamped in the snow a giant Valentine for his girl. Here's the annual chickadee-trying-to-drinkfrom-a-frozen-birdbath picture, captioned, "Sorry, Wait Till Spring," and the shot of an utterly bundled child crying piteously on a sled at the top of a snowy hill, labeled, "Needs a Push." How can an old world be so innocent?

Finally I see tonight a picture of a friendly member of the Forest Service in Wisconsin, who is freeing a duck frozen onto the ice by chopping out its feet with a hand ax. It calls to mind the spare, cruel story Thomas McGonigle told me about herring gulls frozen on ice off Long Island. When his father was young, he used to walk out on Great South Bay, which had frozen over, and frozen the gulls to it. Some of the gulls were already dead. He would take a hunk of driftwood and brain the living gulls; then, with a steel knife he hacked them free below the body and rammed them into a burlap sack. The family ate herring gull all winter, close around a lighted table in a steamy room. And out on the Bay, the ice was studded with paired, red stumps.

Winter knives. With their broad snow knives, Eskimos used to cut blocks of snow to spiral into domed igloos for temporary shelter. They sharpened their flensing knives by licking a thin coat of ice on the blade. Sometimes an Eskimo would catch a wolf with a knife. He slathered the knife with blubber and buried the hilt in snow or ice. A hungry wolf would scent the blubber, find the knife, and lick it compulsively with numbed tongue, until he sliced his tongue to ribbons, and bled to death.

This is the sort of stuff I read all winter. The books I read are like the stone men built by the Eskimos of the great desolate tundras west of Hudson's Bay. They still build them today, according to Farley Mowat. An Eskimo traveling alone in flat barrens will heap round stones to the height of a man, travel till he can no longer see the beacon, and build another. So I travel mute among these books, these eyeless men and women that people the empty plain. I wake up thinking: What am I reading? What will I read next? I'm terrified that I'll run out, that I will read through all I want to, and be forced to learn wildflowers at last, to keep awake. In the meantime I lose myself in a liturgy of names. The names of the men are Knud Rasmussen, Sir John Franklin, Peter Freuchen, Scott, Peary, and Byrd; Jedediah Smith, Peter Skene Ogden, and Milton Sublette; or Daniel Boone singing on his blanket in the Green River country. The names of waters are Baffin Bay, Repulse Bay, Coronation Gulf, and the Ross Sea; the Coppermine River, the Judith, the Snake, and the Musselshell; the Pelly, the Dease, the Tanana, and Telegraph Creek. Beaver plews, zero degrees latitude, and gold. I like the clean urgency of these tales, the sense of being set out in a wilderness with a jackknife and a length of twine. If I can get up a pinochle game, a little threehand cutthroat for half a penny a point and a bottle of wine, fine; if not I'll spend these southern nights caught in the pack off Franz Josef Land, or casting for arctic char.

Π

It snowed. It snowed all yesterday and never emptied the sky, although the clouds looked so low and heavy they might drop all at once with a thud. The light is diffuse and hueless, like the light on paper inside a pewter bowl. The snow looks light and the sky dark, but in fact the sky is lighter than the snow. Obviously the thing illuminated cannot be lighter than its illuminator. The classical demonstration of this point involves simply laying a mirror flat on the snow so that it reflects in its surface the sky, and comparing by sight this value to that of the snow. This is all very well, even conclusive, but the illusion persists. The dark is overhead and the light at my feet; I'm walking upside-down in the sky.

Yesterday I watched a curious nightfall. The cloud ceiling took on a warm tone, deepened, and departed as if drawn on a leash. I could no longer see the fat snow flying against the sky; I could see it only as it fell before dark objects. Any object at a distance—like the dead, ivy-covered walnut I see from the bay window—looked like a black-and-white frontispiece seen through the sheet of white tissue. It was like dying, this watching the world recede into deeper and deeper blues while the snow piled; silence swelled and extended, distance dissolved, and soon only concentration at the largest shadows let me make out the movement of falling snow, and that too failed. The snow on the yard was blue as ink, faintly luminous; the sky violet. The bay window betrayed me, and started giving me back the room's lamps. It was like dying, that growing dimmer and deeper and then going out.

Today I went out for a look around. The snow had stopped, and a couple of inches lay on the ground. I walked through the yard to the creek; everything was slate-blue and gun metal and

white, except for the hemlocks and cedars, which showed a brittle, secret green if I looked for it under the snow.

Lo and behold, here in the creek was a silly-looking coot. It looked like a black and gray duck, but its head was smaller; its clunky white bill sloped straight from the curve of its skull like a cone from its base. I had read somewhere that coots were shy. They were liable to take umbrage at a footfall, skitter terrified along the water, and take to the air. But I wanted a good look. So when the coot tipped tail and dove, I raced towards it across the snow and hid behind a cedar trunk. As it popped up again its neck was as rigid and eyes as blank as a rubber duck's in the bathtub. It paddled downstream, away from me. I waited until it submerged again, then made a break for the trunk of the Osage orange. But up it came all at once, as though the child in the tub had held the rubber duck under water with both hands, and suddenly released it. I froze stock-still, thinking that after all I really was, actually and at bottom, a tree, a dead tree perhaps, even a wobbly one, but a treeish creature nonetheless. The coot wouldn't notice that a tree hadn't grown in that spot the moment before; what did it know? It was new to the area, a mere dude. As tree I allowed myself only the luxury of keeping a wary eye on the coot's eye. Nothing; it didn't suspect a thing-unless, of course, it was just leading me on, beguiling me into scratching my nose, when the jig would be up once and for all, and I'd be left unmasked, untreed, with no itch and an empty creek. So.

At its next dive I made the Osage orange and looked around from its trunk while the coot fed from the pool behind the riffles. From there I ran downstream to the sycamore, getting treed in open ground again—and so forth for forty minutes, until it gradually began to light in my leafy brain that maybe the coot wasn't shy after all. That all this subterfuge was unnecessary, that the bird was singularly stupid, or at least not

of an analytical turn of mind, and that in fact I'd been making a perfect idiot of myself all alone in the snow. So from behind the trunk of a black walnut, which was my present blind, I stepped boldly into the open. Nothing. The coot floated just across the creek from me, absolutely serene. Could it possibly be that I'd been flirting all afternoon with a *decoy?* No, decoys don't dive. I walked back to the sycamore, actually moving in plain sight not ten yards from the creature, which gave no sign of alarm or flight. I stopped; I raised my arm and waved. Nothing. In its beak hung a long, wet strand of some shore plant; it sucked it at length down its throat and dove again. I'll kill it. I'll hit the thing with a snowball, I really will; I'll make a mudhen hash.

But I didn't even make a snowball. I wandered upstream, along smooth banks under trees. I had gotten, after all, a very good look at the coot. Now here were its tracks in the snow, three-toed and very close together. The wide, slow place in the creek by the road bridge was frozen over. From this bank at this spot in summer I can always see tadpoles, fat-bodied, scraping brown algae from a sort of shallow underwater ledge. Now I couldn't see the ledge under the ice. Most of the tadpoles were now frogs, and the frogs were buried alive in the mud at the bottom of the creek. They went to all that trouble to get out of the water and breathe air, only to hop back in before the first killing frost. The frogs of Tinker Creek are slathered in mud, mud at their eyes and mud at their nostrils; their damp skins absorb a muddy oxygen, and so they pass the dreaming winter.

Also from this bank at this spot in summer I can often see turtles by crouching low to catch the triangular poke of their heads out of water. Now snow smothered the ice; if it stays cold, I thought, and the neighborhood kids get busy with brooms, they can skate. Meanwhile, a turtle in the creek under the ice is getting oxygen by an almost incredible arrangement. It sucks water posteriorly into its large cloacal opening, where sensitive tissues filter the oxygen directly into the blood, as a gill does. Then the turtle discharges the water and gives another suck. The neighborhood kids can skate right over this curious rush of small waters.

Under the ice the bluegills and carp are still alive; this far south the ice never stays on the water long enough that fish metabolize all the oxygen and die. Farther north, fish sometimes die in this way and float up to the ice, which thickens around their bodies and holds them fast, open-eyed, until the thaw. Some worms are still burrowing in the silt, dragonfly larvae are active on the bottom, some algae carry on a dim photosynthesis, and that's about it. Everything else is dead, killed by the cold, or mutely alive in any of various still forms: egg, seed, pupa, spore. Water snakes are hibernating as dense balls, water striders hibernate as adults along the bank, and mourning cloak butterflies secret themselves in the bark of trees: all of these emerge groggily in winter thaws, to slink, skitter, and flit about in one afternoon's sunshine, and then at dusk to seek shelter, chill, fold, and forget.

The muskrats are out: they can feed under the ice, where the silver trail of bubbles that rises from their fur catches and freezes in streaming, glittering globes. What else? The birds, of course, are fine. Cold is no problem for warm-blooded animals, so long as they have food for fuel. Birds migrate for food, not for warmth as such. That is why, when so many people all over the country started feeding stations, southern birds like the mockingbird easily extended their ranges north. Some of our local birds go south, like the female robin; other birds, like the coot, consider *this* south. Mountain birds come down to the valley in a vertical migration; some of them, like the chickadees, eat not only seeds

but such tiny fare as aphid eggs hid near winter buds and the ends of twigs. This afternoon I watched a chickadee swooping and dangling high in a tulip tree. It seemed astonishingly heated and congealed, as though a giant pair of hands had scooped a skyful of molecules and squeezed it like a snowball to produce this fireball, this feeding, flying, warm solid bit.

Other interesting things are going on wherever there is shelter. Slugs, of all creatures, hibernate, inside a waterproof sac. All the bumblebees and paper wasps are dead except the queens, who sleep a fat, numbed sleep, unless a mouse finds one and eats her alive. Honeybees have their own honey for fuel, so they can overwinter as adults, according to Edwin Way Teale, by buzzing together in a tightly packed, living sphere. Their shimmying activity heats the hive; they switch positions from time to time so that each bee gets its chance in the cozy middle and its turn on the cold outside. Ants hibernate en masse; the woolly bear hibernates alone in a bristling ball. Ladybugs hibernate under shelter in huge orange clusters sometimes the size of basketballs. Out West, people hunt for these overwintering masses in the mountains. They take them down to warehouses in the valleys, which pay handsomely. Then, according to Will Barker, the mail-order houses ship them to people who want them to eat garden aphids. They're mailed in the cool of night in boxes of old pine cones. It's a clever device: How do you pack a hundred living ladybugs? The insects naturally crawl deep into the depths of the pine cones; the sturdy "branches" of the opened cones protect them through all the bumpings of transit.

I crossed the bridge invigorated and came to a favorite spot. It is the spit of land enclosed in the oxbow of Tinker Creek. A few years ago I called these few acres the weed-field; they grew mostly sassafras, ivy, and poke. Now I call it the woods by the creek; young tulip grows there, and locust and

oak. The snow on the wide path through the woods was unbroken. I stood in a little clearing beside the dry ditch that the creek cuts, bisecting the land, in high water. Here I ate a late lunch of ham sandwiches and wished I'd brought water and left more fat on the ham.

There was something new in the woods today—a bunch of sodden, hand-lettered signs tied to the trees all along the winding path. They said "SLOW," "Slippery When Wet," "Stop," "PIT ROW," "ESSO," and "BUMP!!" These signs indicated an awful lot of excitement over a little snow. When I saw the first one, "SLOW," I thought, sure, I'll go slow; I won't screech around on the unbroken path in the woods by the creek under snow. What was going on here? The other signs made it clear. Under "BUMP!!" lay, sure enough, a bump. I scraped away the smooth snow. Hand fashioned of red clay, and now frozen, the bump was about six inches high and eighteen inches across. The slope, such as it was, was gentle; tread marks stitched the clay. On the way out I saw that I'd missed the key sign, which had fallen: "Welcome to the Martinsville Speedway." So my "woods by the creek" was a motorbike trail to the local boys, their "Martinsville Speedway." I had always wondered why they bothered to take a tractor-mower to these woods all summer long, keeping the many paths open; it was a great convenience to me.

Now the speedway was a stillnessway. Next to me in a sapling, a bird's nest cradled aloft a newborn burden of snow. From a crab apple tree hung a single frozen apple with blistered and shiny skin; it was heavy and hard as a stone. Everywhere through the trees I saw the creek run blue under the ledge of ice from the banks; it made a thin, metallic sound like foil beating foil.

When I left the woods I stepped into a yellow light. The sun behind a uniform layer of gray had the diffuse shine of a very much rubbed and burnished metal boss. On the mountains the wan light slanted over the snow and gouged out shallow depressions and intricacies in the mountains' sides I never knew were there. I walked home. No school today. The motorbike boys were nowhere in sight; they were probably skidding on sleds down the very steep hill and out onto the road. Here my neighbor's small children were rolling a snowman. The noon sun had dampened the snow; it caught in slabs, leaving green, irregular tracks on the yard. I just now discovered the most extraordinary essay, a treatise on making a snowman. "... By all means use what is ready to hand. In a fuel-oil burning area, for instance, it is inconceivable that fathers should sacrifice their days hunting downtown for lumps of coal for their children's snowmen's eyes. Charcoal briquettes from the barbecue are an unwieldy substitute, and fuel oil itself is of course out of the question. Use pieces of rock, brick, or dark sticks; use bits of tire tread or even dark fallen leaves rolled tightly, cigarwise, and deeply inserted into sockets formed by a finger." Why, why in the blue-green world write this sort of thing? Funny written culture, I guess; we pass things on.

There are seven or eight categories of phenomena in the world that are worth talking about, and one of them is the weather. Any time you care to get in your car and drive across the country and over the mountains, come into our valley, cross Tinker Creek, drive up the road to the house, walk across the yard, knock on the door and ask to come in and talk about the weather, you'd be welcome. If you came tonight from up north, you'd have a terrific tailwind; between Tinker and Dead Man you'd chute through the orchardy pass like an iceboat. When I let you in, we might not be able to close the door. The wind shrieks and hisses down the valley, sonant and surd, drying the puddles and dismantling the nests from the trees.

Inside the house, my single goldfish, Ellery Channing, whips around and around the sides of his bowl. Can he feel a glassy vibration, a ripple out of the north that urges him to swim for deeper, warmer waters? Saint-Exupéry says that when flocks of wild geese migrate high over a barnyard, the cocks and even the dim, fatted chickens fling themselves a foot or so into the air and flap for the south. Eskimo sled dogs feed all summer on famished salmon flung to them from creeks. I have often wondered if those dogs feel a wistful downhill drift in the fall, or an upstream yank, an urge to leap ladders, in the spring. To what hail do you hark, Ellery?—what sunny bottom under chill waters, what Chinese emperor's petaled pond? Even the spiders are restless under this wind, roving about alert-eyed over their fluff in every corner.

I allow the spiders the run of the house. I figure that any predator that hopes to make a living on whatever smaller creatures might blunder into a four-inch square bit of space in the corner of the bathroom where the tub meets the floor, needs every bit of my support. They catch flies and even field crickets in those webs. Large spiders in barns have been known to trap, wrap, and suck hummingbirds, but there's no danger of that here. I tolerate the webs, only occasionally sweeping away the very dirtiest of them after the spider itself has scrambled to safety. I'm always leaving a bath towel draped over the tub so that the big, haired spiders, who are constantly getting trapped by the tub's smooth sides, can use its rough surface as an exit ramp. Inside the house the spiders have only given me one mild surprise. I washed some dishes and set them to dry over a plastic drainer. Then I wanted a cup of coffee, so I picked from the drainer my mug, which was still warm from the hot rinse water, and across the rim of the mug, strand after strand, was a spider web.

Outside in summer I watch the orb-weavers, the spiders at

their wheels. Last summer I watched one spin her web, which was especially interesting because the light just happened to be such that I couldn't see the web at all. I had read that spiders lay their major straight lines with fluid that isn't sticky, and then lay a nonsticky spiral. Then they walk along that safe road and lay a sticky spiral going the other way. It seems to be very much a matter of concentration. The spider I watched was a matter of mystery: she seemed to be scrambling up, down, and across the air. There was a small white mass of silk visible at the center of the orb, and she returned to this hub after each frenzied foray between air and air. It was a sort of Tinker Creek to her, from which she bore lightly in every direction an invisible news. She had a nice ability to make hairpin turns at the most acute angles in the air, all at topmost speed. I understand that you can lure an orb-weaver spider, if you want one, by vibrating or twirling a blade of grass against the web, as a flying insect would struggle if caught. This little ruse has never worked for me; I need a tuning fork; I leave the webs on the bushes bristling with grass.

Things are well in their place. Last week I found a brown, cocoonlike object, light and dry, and pocketed it in an outside, unlined pocket where it wouldn't warm and come alive. Then I saw on the ground another one, slightly torn open, so I split it further with my fingers, and saw a pale froth. I held it closer; the froth took on intricacy. I held it next to my eye and saw a tiny spider, yellowish but so infinitesimal it was translucent, waving each of its eight legs in what was clearly threat behavior. It was one of hundreds of spiders, already alive, all squirming in a tangled orgy of legs. Not on me they won't; I emptied that pocket fast. Things out of place are ill. Tonight I hear outside a sound of going in the tops of the mulberry trees; I stay in to do battle with—what? Once I looked into a little wooden birdhouse hung from a tree; it had a pointed roof like an Alpine cottage, a peg perch, and a

neat round door. Inside, watching me, was a coiled snake. I used to kill insects with carbon tetrachloride—cleaning fluid vapor—and pin them in cigar boxes, labeled, in neat rows. That was many years ago: I quit when one day I opened a cigar box lid and saw a carrion beetle, staked down high between its wing covers, trying to crawl, swimming on its pin. It was dancing with its own shadow, untouching, and had been for days. If I go downstairs now will I see a possum just rounding a corner, trailing its scaled pink tail? I know that one night, in just this sort of rattling wind, I will go to the kitchen for milk and find on the back of the stove a sudden stew I never fixed, bubbling, with a deer leg sticking out.

In a dry wind like this, snow and ice can pass directly into the air as a gas without having first melted to water. This process is called sublimation; tonight the snow in the yard and the ice in the creek sublime. A breeze buffets my palm held a foot from the wall. A wind like this does my breathing for me; it engenders something quick and kicking in my lungs. Pliny believed the mares of the Portuguese used to raise their tails to the wind, "and turn them full against it, and so conceive that genital air instead of natural seed: in such sort, as they become great withal, and quicken in their time, and bring forth foals as swift as the wind, but they live not above three years." Does the white mare Itch in the dell in the Adams' woods up the road turn tail to this wind with white-lashed, lidded eyes? A single cell quivers at a windy embrace; it swells and splits, it bubbles into a raspberry; a dark clot starts to throb. Soon something perfect is born. Something wholly new rides the wind, something fleet and fleeting I'm likely to miss.

To sleep, spiders and fish; the wind won't stop, but the house will hold. To shelter, starlings and coot; bow to the wind.



The Fixed

Ι

I have just learned to see praying mantis egg cases. Suddenly I see them everywhere; a tan oval of light catches my eye, or I notice a blob of thickness in a patch of slender weeds. As I write I can see the one I tied to the mock orange hedge outside my study window. It is over an inch long and shaped like a bell, or like the northern hemisphere of an egg cut through its equator. The full length of one of its long sides is affixed to a twig; the side that catches the light is perfectly flat. It has a dead straw, dead weed color, and a curious brittle texture, hard as varnish, but pitted minutely, like frozen foam. I carried it home this afternoon, holding it carefully by the twig, along with several others—they were light as air. I dropped one without missing it until I got home and made a count.

Within the week I've seen thirty or so of these egg cases in

a rose-grown field on Tinker Mountain, and another thirty in weeds along Carvin's Creek. One was on a twig of tiny dogwood on the mud lawn of a newly built house. I think the mail-order houses sell them to gardeners at a dollar apiece. It beats spraying, because each case contains between one hundred twenty-five to three hundred fifty eggs. If the eggs survive ants, woodpeckers, and mice—and most do—then you get the fun of seeing the new mantises hatch, and the smug feeling of knowing, all summer long, that they're out there in your garden devouring gruesome numbers of fellow insects all nice and organically. When a mantis has crunched up the last shred of its victim, it cleans its smooth green face like a cat.

In late summer I often see a winged adult stalking the insects that swarm about my porch light. Its body is a clear, warm green; its naked, triangular head can revolve uncannily, so that I often see one twist its head to gaze at me as it were over its shoulder. When it strikes, it jerks so suddenly and with such a fearful clatter of raised wings, that even a hardened entomologist like J. Henri Fabre confessed to being startled witless every time.

Adult mantises eat more or less everything that breathes and is small enough to capture. They eat honeybees and butterflies, including monarch butterflies. People have actually seen them seize and devour garter snakes, mice, and even hummingbirds. Newly hatched mantises, on the other hand, eat small creatures like aphids and each other. When I was in elementary school, one of the teachers brought in a mantis egg case in a Mason jar. I watched the newly hatched mantises emerge and shed their skins; they were spidery and translucent, all over joints. They trailed from the egg case to the base of the Mason jar in a living bridge that looked like Arabic calligraphy, some baffling text from the Koran inscribed down the air by a

fine hand. Over a period of several hours, during which time the teacher never summoned the nerve or the sense to release them, they ate each other until only two were left. Tiny legs were still kicking from the mouths of both. The two survivors grappled and sawed in the Mason jar; finally both died of injuries. I felt as though I myself should swallow the corpses, shutting my eyes and washing them down like jagged pills, so all that life wouldn't be lost.

When mantises hatch in the wild, however, they straggle about prettily, dodging ants, till all are lost in the grass. So it was in hopes of seeing an eventual hatch that I pocketed my jackknife this afternoon before I set out to walk. Now that I can see the egg cases, I'm embarrassed to realize how many I must have missed all along. I walked east through the Adams' woods to the cornfield, cutting three undamaged egg cases I found at the edge of the field. It was a clear, picturesque day, a February day without clouds, without emotion or spirit, like a beautiful woman with an empty face. In my fingers I carried the thorny stems from which the egg cases hung like roses; I switched the bouquet from hand to hand, warming the free hand in a pocket. Passing the house again, deciding not to fetch gloves, I walked north to the hill by the place where the steers come to drink from Tinker Creek. There in the weeds on the hill I found another eight egg cases. I was stunned—I cross this hill several times a week, and I always look for egg cases here, because it was here that I had once seen a mantis laying her eggs.

It was several years ago that I witnessed this extraordinary procedure, but I remember, and confess, an inescapable feeling that I was watching something not real and present, but a horrible nature movie, a "secrets-of-nature" short, beautifully photographed in full color, that I had to sit through unable to look anywhere else but at the dimly lighted EXIT signs along the walls,

and that behind the scenes some amateur moviemaker was congratulating himself on having stumbled across this little wonder, or even on having contrived so natural a setting, as though the whole scene had been shot very carefully in a terrarium in someone's greenhouse.

I was ambling across this hill that day when I noticed a speck of pure white. The hill is eroded; the slope is a rutted wreck of red clay broken by grassy hillocks and low wild roses whose roots clasp a pittance of topsoil. I leaned to examine the white thing and saw a mass of bubbles like spittle. Then I saw something dark like an engorged leech rummaging over the spittle, and then I saw the praying mantis.

She was upside-down, clinging to a horizontal stem of wild rose by her feet which pointed to heaven. Her head was deep in dried grass. Her abdomen was swollen like a smashed finger; it tapered to a fleshy tip out of which bubbled a wet, whipped froth. I couldn't believe my eyes. I lay on the hill this way and that, my knees in thorns and my cheeks in clay, trying to see as well as I could. I poked near the female's head with a grass; she was clearly undisturbed, so I settled my nose an inch from that pulsing abdomen. It puffed like a concertina, it throbbed like a bellows; it roved, pumping, over the glistening, clabbered surface of the egg case testing and patting, thrusting and smoothing. It seemed to act so independently that I forgot the panting brown stick at the other end. The bubble creature seemed to have two eyes, a frantic little brain, and two busy, soft hands. It looked like a hideous, harried mother slicking up a fat daughter for a beauty pageant, touching her up, slobbering over her, patting and hemming and brushing and stroking.

The male was nowhere in sight. The female had probably eaten him. Fabre says that, at least in captivity, the female will

mate with and devour up to seven males, whether she has laid her egg cases or not. The mating rites of mantises are well known: a chemical produced in the head of the male insect says, in effect, "No, don't go near her, you fool, she'll eat you alive." At the same time a chemical in his abdomen says, "Yes, by all means, now and forever yes."

While the male is making up what passes for his mind, the female tips the balance in her favor by eating his head. He mounts her. Fabre describes the mating, which sometimes lasts six hours, as follows: "The male, absorbed in the performance of his vital functions, holds the female in a tight embrace. But the wretch has no head; he has no neck; he has hardly a body. The other, with her muzzle turned over her shoulder continues very placidly to gnaw what remains of the gentle swain. And, all the time, that masculine stump, holding on firmly, goes on with the business! . . . I have seen it done with my own eyes and have not yet recovered from my astonishment."

I watched the egg-laying for over an hour. When I returned the next day, the mantis was gone. The white foam had hardened and browned to a dirty suds; then, and on subsequent days, I had trouble pinpointing the case, which was only an inch or so off the ground. I checked on it every week all winter long. In the spring the ants discovered it; every week I saw dozens of ants scrambling over the sides, unable to chew a way in. Later in the spring I climbed the hill every day, hoping to catch the hatch. The leaves of the trees had long since unfolded, the butterflies were out, and the robins' first broods were fledged; still the egg case hung silent and full on the stem. I read that I should wait for June, but still I visited the case every day. One morning at the beginning of June everything was gone. I couldn't find the lower thorn in the clump of three to which the egg case was fixed. I couldn't find the clump of three. Tracks ridged the clay, and I saw the lopped

stems: somehow my neighbor had contrived to run a tractormower over that steep clay hill on which there grew nothing to mow but a few stubby thorns.

So. Today from this same hill I cut another three undamaged cases and carried them home with the others by their twigs. I also collected a suspiciously light cynthia moth cocoon. My fingers were stiff and red with cold, and my nose ran. I had forgotten the Law of the Wild, which is, "Carry Kleenex." At home I tied the twigs with their egg cases to various sunny bushes and trees in the yard. They're easy to find because I used white string; at any rate, I'm unlikely to mow my own trees. I hope the woodpeckers that come to the feeder don't find them, but I don't see how they'd get a purchase on them if they did.

Night is rising in the valley; the creek has been extinguished for an hour, and now only the naked tips of trees fire tapers into the sky like trails of sparks. The scene that was in the back of my brain all afternoon, obscurely, is beginning to rise from night's lagoon. It really has nothing to do with praying mantises. But this afternoon I threw tiny string lashings and hitches with frozen hands, gingerly, fearing to touch the egg cases even for a minute because I remembered the Polyphemus moth.

I have no intention of inflicting all my childhood memories on anyone. Far less do I want to excoriate my old teachers who, in their bungling, unforgettable way, exposed me to the natural world, a world covered in chitin, where implacable realities hold sway. The Polyphemus moth never made it to the past; it crawls in that crowded, pellucid pool at the lip of the great waterfall. It is as present as this blue desk and brazen lamp, as this blackened window before me in which I can no longer see even the white string that binds the egg case to the hedge, but only my own pale, astonished face.

Once, when I was ten or eleven years old, my friend Judy brought in a Polyphemus moth cocoon. It was January; there were doily snowflakes taped to the schoolroom panes. The teacher kept the cocoon in her desk all morning and brought it out when we were getting restless before recess. In a book we found what the adult moth would look like; it would be beautiful. With a wingspread of up to six inches, the Polyphemus is one of the few huge American silk moths, much larger than, say, a giant or tiger swallowtail butterfly. The moth's enormous wings are velveted in a rich, warm brown, and edged in bands of blue and pink delicate as a watercolor wash. A startling "eyespot," immense, and deep blue melding to an almost translucent yellow, luxuriates in the center of each hind wing. The effect is one of a masculine splendor foreign to the butterflies, a fragility unfurled to strength. The Polyphemus moth in the picture looked like a mighty wraith, a beating essence of the hardwood forest, alienskinned and brown, with spread, blind eyes. This was the giant moth packed in the faded cocoon. We closed the book and turned to the cocoon. It was an oak leaf sewn into a plump oval bundle; Judy had found it loose in a pile of frozen leaves.

We passed the cocoon around; it was heavy. As we held it in our hands, the creature within warmed and squirmed. We were delighted, and wrapped it tighter in our fists. The pupa began to jerk violently, in heart-stopping knocks. Who's there? I can still feel those thumps, urgent through a muffling of spun silk and leaf, urgent through the swaddling of many years, against the curve of my palm. We kept passing it around. When it came to me again it was hot as a bun; it jumped half out of my hand. The teacher intervened. She put it, still heaving and banging, in the ubiquitous Mason jar.

It was coming. There was no stopping it now, January or not. One end of the cocoon dampened and gradually frayed in a furi-

ous battle. The whole cocoon twisted and slapped around in the bottom of the jar. The teacher fades, the classmates fade, I fade: I don't remember anything but that thing's struggle to be a moth or die trying. It emerged at last, a sodden crumple. It was a male; his long antennae were thickly plumed, as wide as his fat abdomen. His body was very thick, over an inch long, and deeply furred. A gray, furlike plush covered his head; a long, tan furlike hair hung from his wide thorax over his brown-furred, segmented abdomen. His multijointed legs, pale and powerful, were shaggy as a bear's. He stood still, but he breathed.

He couldn't spread his wings. There was no room. The chemical that coated his wings like varnish, stiffening them permanently, dried, and hardened his wings as they were. He was a monster in a Mason jar. Those huge wings stuck on his back in a torture of random pleats and folds, wrinkled as a dirty tissue, rigid as leather. They made a single nightmare clump still wracked with useless, frantic convulsions.

The next thing I remember, it was recess. The school was in Shadyside, a busy residential part of Pittsburgh. Everyone was playing dodgeball in the fenced playground or racing around the concrete schoolyard by the swings. Next to the playground a long delivery drive sloped downhill to the sidewalk and street. Someone—it must have been the teacher—had let the moth out. I was standing in the driveway, alone, stock-still, but shivering. Someone had given the Polyphemus moth his freedom, and he was walking away.

He heaved himself down the asphalt driveway by infinite degrees, unwavering. His hideous crumpled wings lay glued and rucked on his back, perfectly still now, like a collapsed tent. The bell rang twice; I had to go. The moth was receding down the driveway, dragging on. I went; I ran inside. The Polyphemus moth is still crawling down the driveway, crawling

down the driveway hunched, crawling down the driveway on six furred feet, forever.

Shading the glass with a hand, I can see how shadow has pooled in the valley. It washes up the sandstone cliffs on Tinker Mountain and obliterates them in a deluge; freshets of shadow leak into the sky. I am exhausted. In Pliny I read about the invention of clay modeling. A Sicyonian potter came to Corinth. There his daughter fell in love with a young man who had to make frequent long journeys away from the city. When he sat with her at home, she used to trace the outline of his shadow that a candle's light cast on the wall. Then, in his absence she worked over the profile, deepening it, so that she might enjoy his face, and remember. One day the father slapped some potter's clay over the gouged plaster; when the clay hardened he removed it, baked it, and "showed it abroad." The story ends here. Did the boy come back? What did the girl think of her father's dragging her lover all over town by the hair? What I really want to know is this: Is the shadow still there? If I went back and found the shadow of that face there on the wall by the fireplace, I'd rip down the house with my hands for that hunk.

The shadow's the thing. Outside shadows are blue, I read, because they are lighted by the blue sky and not the yellow sun. Their blueness bespeaks infinitesimal particles scattered down inestimable distance. Muslims, whose religion bans representational art as idolatrous, don't observe the rule strictly; but they do forbid sculpture, because it casts a shadow. So shadows define the real. If I no longer see shadows as "dark marks," as do the newly sighted, then I see them as making some sort of sense of the light. They give the light distance; they put it in its place. They inform my eyes of my location here, here O Israel, here in the world's flawed sculpture, here in the flickering shade of the nothingness between me and the light.

Now that shadow has dissolved the heavens' blue dome, I can see Andromeda again; I stand pressed to the window, rapt and shrunk in the galaxy's chill glare. "Nostalgia of the Infinite," di Chirico: cast shadows stream across the sunlit courtyard, gouging canyons. There is a sense in which shadows are actually cast, hurled with a power, cast as Ishmael was cast, out, with a flinging force. This is the blue strip running through creation, the icv roadside stream on whose banks the mantis mates, in whose unweighed waters the giant water bug sips frogs. Shadow Creek is the blue subterranean stream that chills Carvin's Creek and Tinker Creek; it cuts like ice under the ribs of the mountains, Tinker and Dead Man. Shadow Creek storms through limestone vaults under forests, or surfaces anywhere, damp, on the underside of a leaf. I wring it from rocks; it seeps into my cup. Chasms open at the glance of an eye; the ground parts like a wind-rent cloud over stars. Shadow Creek: on my least walk to the mailbox I may find myself knee-deep in its sucking, frigid pools. I must either wear rubber boots, or dance to keep warm.

II

Fish gotta swim and bird gotta fly; insects, it seems, gotta do one horrible thing after another. I never ask why of a vulture or shark, but I ask why of almost every insect I see. More than one insect—the possibility of fertile reproduction—is an assault on all human value, all hope of a reasonable god. Even that devout Frenchman, J. Henri Fabre, who devoted his entire life to the study of insects, cannot restrain a feeling of unholy revulsion. He describes a bee-eating wasp, the Philanthus, who has killed a honeybee. If the bee is heavy with honey, the wasp squeezes its crop "so as to make her disgorge the delicious syrup, which she drinks by licking the tongue which her unfor-

tunate victim, in her death-agony, sticks out of her mouth at full length. . . . At the moment of some such horrible banquet, I have seen the Wasp, with her prey, seized by the Mantis: the bandit was rifled by another bandit. And here is an awful detail: while the Mantis held her transfixed under the points of the double saw and was already munching her belly, the Wasp continued to lick the honey of her Bee, unable to relinquish the delicious food even amid the terrors of death. Let us hasten to cast a veil over these horrors."

The remarkable thing about the world of insects, however, is precisely that there is no veil cast over these horrors. These are mysteries performed in broad daylight before our very eyes; we can see every detail, and yet they are still mysteries. If, as Heraclitus suggests, god, like an oracle, neither "declares nor hides, but sets forth by signs," then clearly I had better be scrying the signs. The earth devotes an overwhelming proportion of its energy to these buzzings and leaps in the grass, to these brittle gnawings and crawlings about. Theirs is the biggest wedge of the pie: Why? I ought to keep a giant water bug in an aquarium on my dresser, so I can think about it. We have brass candlesticks in our houses now; we ought to display praying mantises in our churches. Why do we turn from the insects in loathing? Our competitors are not only cold-blooded, and green- and yellow-blooded, but are also cased in a clacking horn. They lack the grace to go about as we do, soft-side-out to the wind and thorns. They have rigid eyes and brains strung down their backs. But they make up the bulk of our comrades-at-life, so I look to them for a glimmer of companionship.

When a grasshopper landed on my study window last summer, I looked at it for a long time. Its hard wing covers were short; its body was a dead waxen yellow, with black-green, indecipherable marks. Like all large insects, it gave me pause,

plenty pause, with its hideous horizontal, multijointed mouth parts and intricate, mechanical-looking feet, all cups and spikes. I looked at its tapered, chitin-covered abdomen, plated and barred as a tank tread, and was about to turn away when I saw it breathe, puff puff, and I grew sympathetic. Yeah, I said, puff puff, isn't it? It jerked away with a buzz like a rasping file, audible through the pane, and continued to puff in the grass. So puff it is, and that's all there is; though I'm partial to honey myself.

Nature is, above all, profligate. Don't believe them when they tell you how economical and thrifty nature is, whose leaves return to the soil. Wouldn't it be cheaper to leave them on the tree in the first place? This deciduous business alone is a radical scheme, the brainchild of a deranged manic-depressive with limitless capital. Extravagance! Nature will try anything once. This is what the sign of the insects says. No form is too gruesome, no behavior too grotesque. If you're dealing with organic compounds, then let them combine. If it works, if it quickens, set it clacking in the grass; there's always room for one more; you ain't so handsome yourself. This is a spendthrift economy; though nothing is lost, all is spent.

That the insects have adapted is obvious. Their failures to adapt, however, are dazzling. It is hard to believe that nature is partial to such dim-wittedness. Howard Ensign Evans tells of dragonflies trying to lay eggs on the shining hoods of cars. Other dragonflies seem to test a surface, to learn if it's really water, by dipping the tips of their abdomens in it. At the Los Angeles La Brea tar pits, they dip their abdomens into the reeking tar and get stuck. If by tremendous effort a dragonfly frees itself, Evans reports, it is apt to repeat the maneuver. Sometimes the tar pits glitter with the dry bodies of dead dragonflies.

J. Henri Fabre's pine processionaries speak to the same point. Although the new studies show that some insects can on occasion strike out into new territory, leaving instinct behind, still a blindered and blinkered enslavement to instinct is the rule, as the pine processionaries show. Pine processionaries are moth caterpillars with shiny black heads, who travel about at night in pine trees along a silken road of their own making. They straddle the road in a tight file, head to rear touching, and each caterpillar adds its thread to the original track first laid by the one who happens to lead the procession. Fabre interferes; he catches them on a daytime exploration approaching a circular track, the rim of a wide palm vase in his greenhouse. When the leader of the insect train completes a full circle, Fabre removes the caterpillars still climbing the vase and brushes away all extraneous silken tracks. Now he has a closed circuit of caterpillars, leaderless, trudging round his vase on a never-ending track. He wants to see how long it will take them to catch on. To his horror, they march not just an hour or so, but all day. When Fabre leaves the greenhouse at night, they are still tracing that wearying circle, although night is the time they usually feed.

In the chill of the next morning they are deadly still; when they rouse themselves, however, they resume what Fabre calls their "imbecility." They slog along all day, head to tail. The next night is bitterly cold; in the morning Fabre finds them slumped on the vase rim in two distinct clumps. When they line up again, they have two leaders, and the leaders in nature often explore to the sides of an already laid track. But the two ranks meet, and the entranced circle winds on. Fabre can't believe his eyes. The creatures have had neither water nor food nor rest; they are shelterless all day and all night long. Again the next night a hard frost numbs the caterpillars, who huddle in heaps. By chance the first one to wake is off the track; it strikes out in a new direction, and

encounters the soil in the pot. Six others follow his track. Now the ones on the vase have a leader, because there is a gap in the rim. But they drag on stubbornly around their circle of hell. Soon the seven rebels, unable to eat the palm in the vase, follow their trail back to the rim of the pot and join the doomed march. The circle often breaks as starved or exhausted caterpillars stagger to a halt; but they soon breach the gap they leave, and no leaders emerge.

The next day a heat spell hits. The caterpillars lean far over the rim of the vase, exploring. At last one veers from the track. Followed by four others, it explores down the long side of the vase; there, next to the vase, Fabre has placed some pine needles for them to feed on. They ramble within nine inches of the pine needles, but, incredibly, wander upward to the rim and rejoin the dismal parade. For two more days the processionaries stagger on; at last they try the path laid down the vase by the last group. They venture out to new ground; they straggle at last to their nest. It has been seven days. Fabre himself, "already familiar with the abysmal stupidity of insects as a class whenever the least accident occurs," is nevertheless clearly oppressed by this new confirmation that the caterpillars lack "any gleam of intelligence in their benighted minds." "The caterpillars in distress," he concludes, "starved, shelterless, chilled with cold at night, cling obstinately to the silk ribbon covered hundreds of times, because they lack the rudimentary glimmers of reason which would advise them to abandon it."

I want out of this still air. What street-corner vendor wound the key on the backs of tin soldiers and abandoned them to the sidewalk, and crashings over the curb? Elijah mocked the prophets of Baal, who lay a bullock on a woodpile and begged Baal to consume it: "Cry aloud: for he is a god; either he is talking, or he is pursuing, or he is in a journey, or peradventure he sleepeth, and must be awaked." Cry aloud. It is the fixed that horrifies us, the fixed that assails us with the tremendous force of its mindlessness. The fixed is a Mason jar, and we can't beat it open. The prophets of Baal gashed themselves with knives and lancets, and the wood stayed wood. The fixed is the world without fire-dead flint, dead tinder, and nowhere a spark. It is motion without direction, force without power, the aimless procession of caterpillars round the rim of a vase, and I hate it because at any moment I myself might step to that charmed and glistening thread. Last spring in the flood I saw a brown cattail bob in the high muddy water of Carvin's Creek, up and down, side to side, a jerk a second. I went back the next day and nothing had changed; that empty twitching beat on in an endless, sickening tattoo. What geomancy reads what the wind-blown sand writes on the desert rock? I read there that all things live by a generous power and dance to a mighty tune; or I read there that all things are scattered and hurled, that our every arabesque and grand jeté is a frantic variation on our one free fall.

Two weeks ago, in the dark of night, I bundled up and quit the house for Tinker Creek. Long before I could actually see the creek, I heard it shooting the sandstone riffles with a chilled rush and splash. It has always been a happy thought to me that the creek runs on all night, new every minute, whether I wish it or know it or care, as a closed book on a shelf continues to whisper to itself its own inexhaustible tale. So many things have been shown me on these banks, so much light has illumined me by reflection here where the water comes down, that I can hardly believe that this grace never flags, that the pouring from ever-renewable sources is endless, impartial, and free. But that night

Tinker Creek had vanished, usurped, and Shadow Creek blocked its banks. The night-cold pulsed in my bones. I stood on the frozen grass under the Osage orange. The night was moonless; the mountains loomed over the stars. By half looking away I could barely make out the gray line of foam at the riffles; the skin tightened over the corners of my mouth, and I blinked in the cold. That night the fact of the creek's running on in the dark—from high on the unseen side of Tinker Mountain, miles away—smacked sinister. Where was the old exhilaration? This dumb dead drop over rocks was a hideous parody of real natural life, warm and willful. It was senseless and horrifying; I turned away. The damned thing was flowing because it was pushed.

That was two weeks ago; tonight I don't know. Tonight the moon is full, and I wonder. I'm pleased with my day's "work," with the cocoon and egg cases hung on the hedge. Van Gogh found nerve to call this world "a study that didn't come off," but I'm not so sure. Where do I get my standards that I fancy the fixed world of insects doesn't meet? I'm tired of reading; I pick up a book and learn that "pieces of the leech's body can also swim." Take a deep breath, Elijah: light your pile. Van Gogh is utterly dead; the world may be fixed, but it never was broken. And shadow itself may resolve into beauty.

Once, when Tinker Creek had frozen inches thick at a wide part near the bridge, I found a pileated woodpecker in the sky by its giant shadow flapping blue on the white ice below. It flew under the neighborhood children's skates; it soared whole and wholly wild though they sliced its wings. I'd like a chunk of that shadow, a pane of freshwater ice to lug with me everywhere, fluttering huge under my arm, to use as the Eskimos did for a window on the world. Shadow is the blue patch

where the light doesn't hit. It is mystery itself, and mystery is the ancients' ultima Thule, the modern explorers' Point of Relative Inaccessibility, that boreal point most distant from all known lands. There the twin oceans of beauty and horror meet. The great glaciers are calving. Ice that sifted to earth as snow in the time of Christ shears from the pack with a roar and crumbles to water. It could be that our instruments have not looked deeply enough. The RNA deep in the mantis's jaw is a beautiful ribbon. Did the crawling Polyphemus have in its watery heart one cell, and in that cell one special molecule, and in that molecule one hydrogen atom, and round that atom's nucleus one wild, distant electron that split showed a forest, swaying?

In lieu of a pinochle game, I'll walk a step before bed. No hesitation about gloves now; I swath myself in wool and down from head to foot, and step into the night.

The air bites my nose like pepper. I walk down the road, leap a ditch, and mount the hill where today I clipped the egg cases, where years ago I watched the female mantis frothing out foam. The rutted clay is frozen tonight in shards; its scarps loom in the slanting light like pressure ridges in ice under aurora. The light from the moon is awesome, full and wan. It's not the luster of noonday it gives, but the luster of elf-light, utterly lambent and utterly dreamed. I crash over clumps of brittle, hand-blown grass—and I stop still. The frozen twigs of the huge tulip poplar next to the hill clack in the cold like tinsnips.

I look to the sky. What do I know of deep space with its red giants and white dwarfs? I think of our own solar system, of the five mute moons of Uranus—Ariel, Umbriel, Titania, Oberon, Miranda—spinning in their fixed sleep of thralldom. These our actors, as I foretold you, were all spirits. At last I look to the

moon; it hangs fixed and full in the east, enormously scrubbed and simple. Our own hometown ultima moon. It must have been a wonderful sight from there, when the olive continents cracked and spread, and the white ice rolled down and up like a window blind. My eyes feel cold when I blink; this is enough of a walk tonight. I lack the apparatus to feel a warmth that few have felt—but it's there. According to Arthur Koestler, Kepler felt the focused warmth when he was experimenting on something entirely different, using concave mirrors. Kepler wrote, "I was engaged in other experiments with mirrors, without thinking of the warmth; I involuntarily turned around to see whether somebody was breathing on my hand." It was warmth from the moon.



Untying the Knot

Yesterday I set out to catch the new season, and instead I found an old snakeskin. I was in the sunny February woods by the quarry; the snakeskin was lying in a heap of leaves right next to an aquarium someone had thrown away. I don't know why that someone hauled the aquarium deep into the woods to get rid of it; it had only one broken glass side. The snake found it handy, I imagine; snakes like to rub against something rigid to help them out of their skins, and the broken aquarium looked like the nearest likely object. Together the snakeskin and the aquarium made an interesting scene on the forest floor. It looked like an exhibit at a trial—circumstantial evidence—of a wild scene, as though a snake had burst through the broken side of the aquarium, burst through his ugly old skin, and disappeared, perhaps straight up in the air, in a rush of freedom and beauty.

The snakeskin had unkeeled scales, so it belonged to a

nonpoisonous snake. It was roughly five feet long by the yardstick, but I'm not sure because it was very wrinkled and dry, and every time I tried to stretch it flat it broke. I ended up with seven or eight pieces of it all over the kitchen table in a fine film of forest dust.

The point I want to make about the snakeskin is that, when I found it, it was whole and tied in a knot. Now there have been stories told, even by reputable scientists, of snakes that have deliberately tied themselves in a knot to prevent larger snakes from trying to swallow them—but I couldn't imagine any way that throwing itself into a half hitch would help a snake trying to escape its skin. Still, ever cautious, I figured that one of the neighborhood boys could possibly have tied it in a knot in the fall, for some whimsical boyish reason, and left it there, where it dried and gathered dust. So I carried the skin along thoughtlessly as I walked, snagging it sure enough on a low branch and ripping it in two for the first of many times. I saw that thick ice still lay on the quarry pond and that the skunk cabbage was already out in the clearings, and then I came home and looked at the skin and its knot.

The knot had no beginning. Idly I turned it around in my hand, searching for a place to untie; I came to with a start when I realized I must have turned the thing around fully ten times. Intently, then, I traced the knot's lump around with a finger: it was continuous. I couldn't untie it any more than I could untie a doughnut; it was a loop without beginning or end. These snakes are magic, I thought for a second, and then of course I reasoned what must have happened. The skin had been pulled inside-out like a pecled sock for several inches; then an inch or so of the inside-out part—a piece whose length was coincidentally equal to the diameter of the skin—had somehow been turned right-side out again, making a thick lump whose edges were lost in wrinkles, looking exactly like a knot.

So. I have been thinking about the change of seasons. I don't want to miss spring this year. I want to distinguish the last winter frost from the out-of-season one, the frost of spring. I want to be there on the spot the moment the grass turns green. I always miss this radical revolution; I see it the next day from a window, the yard so suddenly green and lush I could envy Nebuchadnezzar down on all fours eating grass. This year I want to stick a net into time and say "now," as men plant flags on the ice and snow and say, "here." But it occurred to me that I could no more catch spring by the tip of the tail than I could untie the apparent knot in the snakeskin; there are no edges to grasp. Both are continuous loops.

I wonder how long it would take you to notice the regular recurrence of the seasons if you were the first man on earth. What would it be like to live in open-ended time broken only by days and nights? You could say, "it's cold again; it was cold before," but you couldn't make the key connection and say, "it was cold this time last year," because the notion of "year" is precisely the one you lack. Assuming that you hadn't yet noticed any orderly progression of heavenly bodies, how long would you have to live on earth before you could feel with any assurance that any one particular long period of cold would, in fact, end? "While the earth remaineth, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease": God makes this guarantee very early in Genesis to a people whose fears on this point had perhaps not been completely allayed.

It must have been fantastically important, at the real beginnings of human culture, to conserve and relay this vital seasonal information, so that the people could anticipate dry or cold seasons, and not huddle on some November rock hoping pathetically that spring was just around the corner. We still very

much stress the simple fact of four seasons to schoolchildren; even the most modern of modern new teachers, who don't seem to care if their charges can read or write or name two products of Peru, will still muster some seasonal chitchat and set the kids to making paper pumpkins, or tulips, for the walls. "The people," wrote Van Gogh in a letter, "are very sensitive to the changing seasons." That we are "very sensitive to the changing seasons" is, incidentally, one of the few good reasons to shun travel. If I stay at home I preserve the illusion that what is happening on Tinker Creek is the very newest thing, that I'm at the very vanguard and cutting edge of each new season. I don't want the same season twice in a row; I don't want to know I'm getting last week's weather, used weather, weather broadcast up and down the coast, old-hat weather.

But there's always unseasonable weather. What we think of the weather and behavior of life on the planet at any given season is really all a matter of statistical probabilities; at any given point, anything might happen. There is a bit of every season in each season. Green plants-deciduous green leaves-grow everywhere, all winter long, and small shoots come up pale and new in every season. Leaves die on the tree in May, turn brown, and fall into the creek. The calendar, the weather, and the behavior of wild creatures have the slimmest of connections. Everything overlaps smoothly for only a few weeks each season, and then it all tangles up again. The temperature, of course, lags far behind the calendar seasons, since the earth absorbs and releases heat slowly, like a leviathan breathing. Migrating birds head south in what appears to be dire panic, leaving mild weather and fields full of insects and seeds; they reappear as if in all eagerness in January, and poke about morosely in the snow. Several years ago our October woods would have made a dismal colored photograph for a sadist's

calendar: a killing frost came before the leaves had even begun to brown; they drooped from every tree like crepe, blackened and limp. It's all a chancy, jumbled affair at best, as things seem to be below the stars.

Time is the continuous loop, the snakeskin with scales endlessly overlapping without beginning or end, or time is an ascending spiral if you will, like a child's toy Slinky. Of course we have no idea which arc on the loop is our time, let alone where the loop itself is, so to speak, or down whose lofty flight of stairs the Slinky so uncannily walks.

The power we seek, too, seems to be a continuous loop. I have always been sympathetic with the early notion of a divine power that exists in a particular place, or that travels about over the face of the earth as a man might wander—and when he is "there" he is surely not here. You can shake the hand of a man you meet in the woods; but the spirit seems to roll along like the mythical hoop snake with its tail in its mouth. There are no hands to shake or edges to untie. It rolls along the mountain ridges like a fireball, shooting off a spray of sparks at random, and will not be trapped, slowed, grasped, fetched, peeled, or aimed. "As for the wheels, it was cried unto them in my hearing, O wheel." This is the hoop of flame that shoots the rapids in the creek or spins across the dizzy meadows; this is the arsonist of the sunny woods: catch it if you can.