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Special Feature: *Two-fers/Twofers*

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Voice in the Whirlwind

1

On an overcast July morning, Spirit Lake bore an eerie serenity. From a trail on the ridge high above its southeast shore, the water looked opaque, slate-gray verging on black. But when I glanced at the lake's northeast arm, the water disappeared. There, a great raft of logs from trees the blast uprooted thirty years before floated bleached and bare. By noon, the wind would have nudged it out again, like an island of matchsticks set adrift, as if the bones of those lost trees could not find rest. This was my first visit to Mount St. Helens in Washington State's southern Cascades, but already I was at a loss. In the blast zone, evidence of havoc still held sway: fire-scoured, snag-littered ridges; cavalcades of blow-downs; endless carpets of pumice and ash; and the lake with its floating dead. The landscape set me at odds. Curious, even adventurous, I still walked uneasily. The aftershocks had ended, but not the sense of dread.

Facts I encountered defied conceivable scale. How could I envision a cataclysm of this intensity? Many times greater than those at Hiroshima and Nagasaki, the blast emitted a hurricane of scathing vapor—over six hundred degrees Fahrenheit—that in mere minutes incinerated virtually every living thing in its path, including fifty-seven people, countless deer, elk, and smaller mammals, along with birds, fish, and amphibians. A film clip or snapshot I could look at, but such views are external. Imagine being trapped inside a furnace nearly two miles high when it blew its stack. Or envision three billion cubic yards of upheaval—almost half a mountain—of rock, forest, snowmelt, mud, and ash barreling into the Toutle River Valley and Spirit Lake like a stampede of fire-breathing beasts. The natural violence that occurred here

seemed unsayable. After three decades, the blast zone still looked bleak. Even newcomers sensed the terrible reach of the devastation.

The trail between Donnybrook and Windy Ridge afforded me views of what lay close at hand. In some places, pockets of new growth defied the larger barrens. Scrub alder choked the draws, and patches of grass, brush, and wildflowers hemmed the route. Here the living and the dead mingled, and by turns my feelings rose and fell. The charred trunk of an old conifer stood scabbed with lichen, its roots quilted with moss; lupine and fireweed sprouted through pumice like flames from a corpse. So the wasteland harbored signs of rebirth as well as ruin. I felt like a sailor who had stepped ashore on what looked like a moonscape but turned out to be a vast creature waking from sleep.

Thanks to a cooperative venture of the U.S. Forest Service and the Spring Creek Project (a convening organization for environmental science, philosophical analysis, and the written word, housed at Oregon State University), I joined other writers and humanities scholars—twelve of us in all—at the week-long Mount St. Helen's Field Pulse of July 2010. The Pulse is a gathering of scientists, technicians, and fieldworkers from many agencies and universities who converge on the mountain every five years to monitor ecosystems, share research, and record further data about flora, fauna, and landforms in the wake of the blast. They include biologists, botanists, zoologists, geologists, soil scientists, and forest ecologists, and some of them bring teams of student researchers along.

Prior to the Field Pulse, I had known scientists as friends and colleagues, but never as practitioners in the field. Short of an enduring curiosity about the natural world, I was an amateur: a poet among technicians; a lover of words hobnobbing with the masters of fact. I wondered how, or whether, we writers and scholars would fit in with professional scientists, and what common ground, if any, the blast zone might afford us.

2

When members of the Pulse first traveled by bus into the blast zone, I met Mike Allen. A middle-aged, bearded, jovial-looking fellow wearing a ball cap and commanding an infectious grin, he welcomed me into the seat beside him. He and his wife, Edie, who sat across the aisle, were biologists from the

University of California at Riverside. They had studied flora and fauna at St. Helens regularly during the three decades since the eruption.

When I learned that Mike's specialty was mycology, I asked how he got interested in fungi. "At first, because I could *see* them," he replied. "I enjoy firsthand observing, with a lens or the naked eye. Turns out I'm right-handed, with a bad right eye, but that worked to my advantage." In college Mike loved using an old monocular microscope. When he peered into the lens with his left eye, he could sketch what he saw with his right hand, with the help of his weak eye.

Mike found bacteria boring—"too small to see much"—but fungi and algae enchanted him, and with the aid of a hand lens, he could observe them in the field. He relished conundrums in the plant world. "A lichen is a fungus and an alga that have shacked up. You find one or the other depending on what you look for." Gradually, I realized Mike not only *studied* fungi—he *loved* them. He grasped their behavior not just intellectually, but emotionally, as if plant and researcher were kin. As a poet, I had often mulled over connections between the creative process and organic growth. In the dark labyrinth—of soil, enzymes, moisture, and warmth—a plant gradually emerges from its seed. Similarly, a poem arises from the shadowy recesses of consciousness, in which inklings of rhythm, sound, and sense gradually converge. Composed of vocal, psychic, and ideational strands, this interplay gives expression to a powerful, if largely mysterious, order. At Mount St. Helens, as I observed the Allens and their team at work, and engaged others in the Field Pulse, my understanding of creativity deepened. At times it seemed that, granting our different routes, we were all trying to bring into the open what lay hidden.

A leading authority on mycorrhizal fungus, Mike Allen began his research at St. Helens in pursuit of a key question. Shortly after the eruption, only a few lupine plants had reappeared in the blast zone, and they struggled to take hold. What held them back? he wondered. Knowing that heat from the blast had charred the soil many feet down, wiping out bacteria, rhizomes, and fungi, and that lupine are nitrogen-fixers assisted by mycorrhizae, a favorite food of pocket gophers common before the blast, Mike designed an experiment.

In the summer of 1981, in the parched land north of the crater that is now called the Pumice Plain, Mike could find only two small patches of lupine. Knowing the current habitat wouldn't support gophers, he framed a hypothesis. Would a pocket gopher, if it were present, tunnel under the lupine in search of fungi, stir up a "garden mix" of buried seeds, mycelial spores, and

excreta, and mix them with the ash to spur new growth? To find out, he captured a gopher, ferried it by helicopter to a spot near a lupine plant, left it there for twenty-four hours, then recaptured the gopher and returned it to its former habitat.

One year later, he found the first recorded mycorrhizal fungus in the blast zone and the following year the first vole (another feaster on mycorrhizae). During this time, a burst of lupine growth in the area confirmed his hunch, and a significant link in the web of life here came to light—the strand of lupine-gopher-vole-fungi.

On the day I accompanied Mike, Edie, and four of their students on the trail near Spirit Lake, signs of new growth seemed paltry and scattered. The larger devastation still held my attention. But the Allens took a longer view, focusing on what lay close at hand or hidden under the soil's surface. As I scanned the ravaged barrens around Spirit Lake, Mike, who walked a few yards ahead, scrutinized an exposed bank of the trail. "Hey, Bill," he hollered—"find a lupine young enough to yank up. Wait a sec—I think I've got one." He knelt on the slope and tugged at the rootstalk of a plant with blue pea-flower blossoms. "Not as young as it looks," he grunted. Tough, fibrous, thick as heavy twine, the root clung tenaciously to a thin layer of soil on the rock face.

After he removed the plant, Mike cut out a length of root with his pocketknife so I could view it with a hand lens. "See those little whitish nodes with hairlike tufts wrapped around bits of pumice? They're clumps of mycelia: chemically, small bundles of nitrogen and strings of phosphorous. If you look close, you can make out red nodules—they're infected with bacteria—and slender fungal threads." With Mike's help, squinting at a lupine root, I began to see what I was looking at. Afterward, the dirt I brushed from my hands felt like the vital stuff of life.

The Allens' students, two in botany and two in biology, also inspected soils, rocks, and plants. Scrub alder, willow, huckleberry, lupine, fireweed, and paintbrush were signs of early succession. What ecologists once thought would remain a sterile waste may one day flourish as woods again.

"Good work, Rebecca!" Edie saluted a young botany major who held what looked like a miniature forest in her palm. "Our cryptogamist," Edie grinned, and as I approached, Rebecca offered her hand, both in welcome and to reveal her find. From a damp crevice on the ledge she had gathered miniature specimens of fungi, mosses, and lichens. Such plants form the primitive layer of the soil's crust, Edie explained. They are primal reproducers, containing no flowers

or seeds, and dispersing by means of spores. Rebecca had gathered plants that, in the wake of the blast's scorching of life, formed a spongy quilt of earth crust, the parent matter of soil-making. Three decades after the eruption, the blast zone remained badly scoured, but under the surface of the soil, life was in ferment. This trailside slope was a mini-laboratory of new growth. The creature on which we walked had stretched and yawned.

The peak, on the other hand, looked desolate, a treeless, ash-swept dome with half its face blown off. Though it was dormant now, thermal activity would inevitably recur. Historically, and prehistorically, St. Helens has been the most active volcano in the Cascade range, and geologists believe she's remained true to her earlier habits. For the Allens and other scientists, the wake of the 1980 eruption brought new labor pangs. Here, nature was starting over. The blast zone offered the challenge of what one geologist called "primary inquiry": the researcher had to engage in raw seeing, suspending common assumptions about land, creatures, and people. At Mount St. Helens things were topsy-turvy. Jerry Franklin, a renowned forest ecologist at the Pulse, explained that growth in the Cascades had worked not from the earth up, but from the sky down. Over many centuries, the rain (and reign) of volcanic ash—soil that falls from the sky—had fertilized birth and rebirth. Here facts may have seemed to support Chicken Little's alarm, but in truth disaster held the promise of new growth.

3

Three days into the Field Pulse, at our camp near Randle, Washington, I joined Mike and Edie's team to view specimens. On a trestle table, Mike opened his laptop and showed us photographs he had taken with a USB microscope. Its lens is placed underground for an "in-house" glimpse of subterranean life, the primal "understory." The subjects in these photos were lupine roots intertwined with fungal hyphae (the threadlike runners between what Mike called "gaggles" of nuclei). At first, all I made out were ragged shapes twisted and folded on the computer screen, but when Mike traced the pathway of a hypha with his finger, I began to see it—a thin whitish strand woven among tufts of root hairs and gnarled fibers.

Direct observation in fieldwork is primary for Mike's research, but I was surprised to learn that for some scientists such observing is secondary, at times even ignored. "Some of my colleagues don't believe I can *see* these hyphae," he confided. "They don't believe their eyes, only chemical confirmation." Such a

researcher is content to extract a tissue sample with a syringe and head back to the laboratory. While Mike and his team relied on chemical analysis in their work, they also acknowledged distinctive features of a given landscape, or niche, down to a small scale. They sought plants in their preferred habitats, dug up specimens, and studied them hands-on. In effect they engaged in a working relationship with flora, soil, and landscape, and got dirty doing it.

As Mike drove our group back to camp, he explained more about the current climate of environmental research. "There are two major competing views of an ecosystem now," he said. "One holds that it has a definable shape and structure, and the other sees it as a system of dynamic processes. The former excludes time from the equation, while the latter tries to embrace it. The two models have implications for both field management and grant funding. I'm a hands-on, process guy, but, frankly, it's hard to manage a process. You can never be quite sure where it's going, though you can make educated guesses. Sometimes it's tempting to pretend that life stays in one place and always behaves the same. But you and I know life 'happens' when you least expect it. St. Helens has proved that."

4

Talking with the Allens and observing their work, I recalled a visit to the Museum of Modern Art in New York City years before. When I turned down a hallway, an image on the far wall took my breath. I was drawn toward a web of ragged shapes, crisscrossed with sinewy threads, limned in understated earth tones—ocher, brown, beige, tan, aluminum-gray. A brushy thicket seemed to draw me in; vortices of depth and tangles of surface formed a kind of woven interlace, composed of colors, spatial designs, and rough textures. As I got closer, the painting seemed to magnify and telescope at the same time. Pools, globs, and splotches of color formed an earthy patchwork, like camouflage, and as I continued to approach, the strands, loops, and arcs reminded me of mosses or vines. I felt part of a living fabric that twined around but also within me. The painting—roughly seventeen feet high by nine feet wide—was lavish and unbounded, yet also framed and composed. Its textures and rhythms reminded me of enmeshed fibers or tangles of twine, akin to the neural pathways of my own body.

The work was Jackson Pollock's *One: Number 31* (1950), a product of the drip technique of his late career. In these groundbreaking paintings, the art-

ist placed large canvases on the floor of his studio and, using sticks, basting syringes, and old caked brushes, "danced" around and sometimes onto them, dripping, flicking, and spattering paint in layers. Pollock used not only his hands and eyes, but the whole range of his bodily motion ("painting from the hip," some called it) along with the force of gravity and various textures of paint. The resulting field of visual patterns suggests the vibrant and fluid energy of creation taking form.

For me, Pollock's *One: Number 31* embodies the polar rhythms of life—abandonment and discipline, liquidity and solidity, speed and repose, order and wildness, the one and the many—all expressed in waves, splatters, bursts, drips, streaks, puddles, pools, and blotches of paint. His work calls into question the very nature of representation. Instead of using conventional titles, he numbered many of these "action" paintings, inviting observers to find their own fields of reference unchecked by familiar, pre-existing patterns or subjects. This way, for the viewer, discovery is fresh, as it was for the artist, via "primary inquiry."

As I watched Mike Allen trace the path of a fungal hypha on his computer screen, teasing it into focus among a weave of root nodes, hairs, and particles of earth, his actions conjured Pollock's painting. Allen's roots and Pollock's drips bore witness to the work of creative emergence: Pollock expressed it with paint, Mike Allen articulated it by observing fungi. For both, the process manifested in strands, loops, stringy amblings, and wavelike runs.

Granted, my analogy is imprecise. Technically, Mike Allen doesn't create what he sees, only locates and re-envisions it. But even when he identifies, classifies, and analyzes plant types and behaviors—tugging and touching, squinching and rubbing, in effect "seeing by feel"—he participates in the play of organic energy taking form. Digging up a root with a trowel, turning it in his hands, eyeing and re-eyeing it, researching it through a lens and eventually through scholarly study and chemical analysis, he "half-creates" its being—not just dirt and tissue, as outer facts, but the dynamic, living energies they reflect—spatial, temporal, rhythmic, and internal.

Mike Allen's probings and Pollock's spatterings reminded me, too, of the loops and flights of syntax. For a poet, whose "research" is both without and within, listening, questioning, sounding, and revising are ways through which a poem, or "verbal fugue," finds, or becomes, its form.

Like Pollock and like poets, Mike Allen admitted human consciousness—as rapport, instinct, hunch, and focused knowing—into the process of research. For him, scientific method and the human mind could be distinguished but not separated. Reason could be both analytic and intuitive, and it could engage feeling in polar interplay. Soil, as he saw it, was kin, a living, breathing being, much of it invisible or sleeping. His research conformed to scientific practice, but he worked in part as an artist does, bringing unconscious life into articulate form. His own subjectivity, though not the focus of his work, informed his care and concern. For Mike Allen, soil's other side was soul.

Mike himself was more down-to-earth about all this. When I naively asked whether fungi are widespread in the plant world, he replied, "Absolutely. The parasites in our own guts are their relatives." Maybe Mike Allen was as close to being a fungus as a human can get—though Henry Thoreau wasn't far behind: "Do I not have intelligence with the earth? Am I not partly leaves and vegetable mould myself?"

5

The week at "Volcano Camp," as some of us playfully called the Pulse, was intense. We joined scientists at work in the field, heard formal and informal talks by experts on the ecology of the blast zone, and attended films and evening presentations. As I took notes, listened, observed, and spoke with others, questions rose in a flood. Are threads of fungi woven among roots, and the interactions between the two, analogous to human creativity? Does imagination express itself in the natural world, which, since we are nature too, is both within and without us? When observing a "natural" process, can we engage the perceptions and aptitudes we use to appreciate a painting, symphony, or poem? And can the subsequent insights be utilized in scientific research? In spite of the idea that plants and humans inhabit different orders, do fungi express what, in effect, is a mode of consciousness? Do so-called natural laws reflect a form of consciousness that may itself be changing?

One night at dinner, the group I sat with discussed the nature and limits of scientific research. Two of us were writers, one a professor of landscape architecture, and the other two university biologists (a botanist and a plant ecologist). Our talk turned to the idea of science as a passionate pursuit. The ecologist explained that although passion might fuel his interest in a project or question, his private feelings weren't relevant to procedures of a repeatable

experiment with publicly shared results. But, he added, "that doesn't stop me from speculating on open or controversial questions, such as, where, concerning lichens, does the fungi part stop and the algae part begin?" To further clarify the nature of subjectivity in research, the botanist noted that scientific terminology may seem neat and tidy to a layperson, but can in fact be problematic or even fuzzy. He used aspens as an example. "An entire stand of these trees, connected underground by a central rhizome from which they all sprouted, could be termed a single organism." One writer ventured an analogy: "That reminds me of the idea of the unconscious mind, in which a generic pattern, or archetypal image, can break into numerous and seemingly isolated individual minds."

The question of passion and how it did or didn't mix with scientific practice remained unresolved. One of the writers asked a last pair of questions: "I'm out of my league here, but doesn't particle physics reveal that the mere presence of an observer can determine the results of an experiment in a given time and place? And isn't that presence necessary for there to be any results at all?" There was a moment of silence after this, and then our discussion tapered off. But questions seemed to hover around us. Against the click of utensils and plates at the table, somewhere in the darkness of the woods, beyond the canopy of the dining tent, answers seemed to lie unspoken. In the presence of the mountain, they were almost palpable.

6

During the Field Pulse, issues of healing often arose. All of us sensed grave threats to the planet. A pair of English professors from Colorado had become activists who led seminars on climate change. A world-renowned old-growth ecologist lamented that major American timber companies were restructuring in order to reap tax advantages by liquidating large holdings of forest land. A writer from New York City, who had lived near the twin towers on 9/11, explored social implications of catastrophe: Could insights about the recovery at St. Helens complement the treatment of disaster victims? Could the science of disturbance-ecology supplement grief- or post-traumatic stress therapy?

I recalled a psychotherapist who begins her sessions with each new patient by asking, "Are you aware that the planet is dying?" Outlandish as it may sound, her question, with its implicit claim, demands sober reflection. With the well-documented global decline of species, widespread patterns of

weather disruption attributed to climate change, and continuing assaults from industrialized nations on forests, watersheds, and oceans, the notion of a slow death, given the current course, may be exactly the point. And more emphatically, the therapist asks that her patient view his or her own life humbly, as part of the larger whole—and be responsible for them both.

I thought of the work of Mike and Edie Allen, and how fungi and lichen, as primitive forms of life, reveal plant development in its early stages, forming a cradle of soil for later and more varied growth. Like a creation myth in which order emerges from chaos, the volcano some called The Lady and some Loowit (Klickitat for "smoking mountain") was guiding us, and the path she offered, born of catastrophe, was both precarious and promising.

"A disaster of this magnitude pushes human reason to its limits," a geologist at the Pulse remarked. "It's as if we're starting over, and the rules of the game have changed." The few fish and invertebrates that survived in the blast zone were adapting to new habitats and new diets; people accustomed to wilderness as a source of peace and solitude were adjusting to massive destruction. I thought of Job's Voice in the Whirlwind: "Have you stood at the gates of doom / or looked through the gates of death? / Have you seen to the edge of the universe?"

No, I haven't, I told myself. Maybe Job and the mountain were as close as I could get. I recalled a Buddhist proverb: "Chaos should be regarded as extremely good news."

I was here to learn about the Smoking Lady and what science could say about her, not to impose my own views. Science was telling us a great deal—about the scale and intensity of volcanism, the range and diversity of recovering species, and the obstacles these species faced. Psychological effects of catastrophe, on the other hand, were unquantifiable. I sensed a foreboding presence here, but not one I could easily explain.

Christine Colasurdo, a writer from Portland and an inveterate hiker, had spent many summers at St. Helens when she was young. She still found the blast heart-wrenching. It destroyed her family's cabin along with her favorite swimming holes, hide-outs, and forest trails. As a naturalist, she also sensed renewal. "So many wildflowers are coming back now, it's hard for botanists to keep up with them," she exclaimed as we hiked the Pumice Plain. "The blast zone was never really dead, just turned upside down and inside out. It's taking the place a long time to reawaken, but now we're beginning to see The Lady was only sleeping."

7

On the last day of the Pulse, Charles Goodrich, the coordinator of the Spring Creek Project, drove four of us writers into the blast zone for a hike down to Spirit Lake. We packed lunches and planned to spend several hours there, poking around, meditating, taking notes. The morning was warm. As we trudged down the switchback through scrub alder near Harmony Falls, dust rose behind us like smoke. After a week of tent camping, hiking, writing, conferring, observing, and hearing presentations, we all craved downtime. "We'll reconnoiter at the falls about 1 PM," Charles hollered as we separated.

On the shore of Spirit Lake, I nestled against a massive log the blast had left stranded. Above me, on the great bleached trunk, two young girls from a French family that had passed us on the way down tiptoed back and forth. "*Froid, froid*," their mother chimed a stone's throw away. She had dipped her bare foot into the lake's icy water. After the father took snapshots, the family headed back up the trail. For them Harmony Falls may have amounted to a scenic tourist stop, one of many in the American landscape, a place to dally a while, take a few pictures, and hurry on from. I realized then that the Pulse, though it had lasted just a week, had allowed us to be more than tourists. We stayed awhile, and in the face of destruction, in a place where others, human and nonhuman, had lived, suffered, and died, we were granted some time, not as a horizontal series of events, but as a kind of vertical presence, in which we dwelled. Most of our memories of the mountain, I suspected, would dim to a kaleidoscopic blur, as they did for tourists; but others would stay and deepen, and a few, perhaps, if we embraced careful reflection, might take hold and pulse through our bloodstreams.

The canyon of Harmony Falls bore witness both to violent upheaval and to new life: massive upwrenched root balls and old dead trunks littered the place, scrub alder and willow flanked the trail, and wildflowers were coming back. The uneasy union of ruin and resurgence had upset my comfortable notions about wilderness landscapes and what we loosely call "the natural world." Normally wilderness inspired me as a rugged, primal presence, and I frowned on human encroachment—litter, eroded trail cuts, camp trash, motorbikes. But at Spirit Lake the intrusion was inhuman, on a scale I could hardly fathom, that seemed almost cosmic, an anonymous, natural catastrophe (from the Greek *strobes,* "whirlwind"). Wildflowers, insects, and birds were

returning, but an abiding desolation remained. Had it been present even before the blast? When a lunker rainbow—one of those transplanted here (apparently illegally) after the eruption—smacked an insect on the lake surface, I felt not exhilaration but perplexity. Fishing was prohibited now, yet the lake's once resurgent trout were dwindling again, for reasons as yet unknown.

So the miracle of the blast zone—and it was one—both inspired and chastened me. Mount St. Helens was a wilderness of ruin, a solitude of devastation, a war zone holding pockets of treasure. I felt awe in the face of a power so vast and inconceivable that it dwarfed individual human life and the routine confines of existence. The catastrophe had gutted the mountain, and now, inside me, it surged like an aftershock.

How could I make contact with the blast zone, let alone make sense of it? Maybe all I could do was submit. Scientists who had studied the Lady half their lives had said as much. They would continue working as their disciplines required, leaving issues of human creativity and imagination to those of us prone to experiment differently, for whom the depths of the crater mirrored those of our interior selves. The mountain suggested that reason and wonder could be either bed partners or strangers, and that self-awareness meant not only encountering the other, but submitting to it. As Thoreau asked, "Could a greater miracle take place than for us to look through each other's eyes for an instant?"

Mike Allen believed that an ecosystem, when viewed as a process, could surprise and startle us—that uncertainty and unpredictability were virtually guaranteed. For him a fuzzy fact or a probable hunch mattered, even when you were unsure how or why. Artists too embrace what's improbable or indefinite. Keats believed that "negative capability . . . when a man is capable of being in uncertainties, Mysteries, doubts, without any irritable reaching after fact and reason," best characterized a genius like Shakespeare. We may feel that catastrophe—and the doubt and anxiety it generates—is something to flee, but artist and scientist alike would be wise to welcome it. Catastrophe may accompany the laborious, often self-defeating, birth of a painting, poem, or provable fact. It is the dark night of the soul, which, though it may destroy us, is a requisite to wisdom. The blast zone at Mount St. Helens is Ezekiel's valley of dry bones, and if we embrace it, maybe the bones will speak. Walking on Leviathan's spine, maybe we will hear Mystery, as the Voice in the Whirlwind.

Climbing the granite slabs along Harmony Falls, I stumbled upon human ashes strewn on sand near the creek. They were graced with the now faded petals of a yellow rose. Here was a scale of loss I could begin to fathom. The ashes spoke of dissolution, but the flowers of commemoration. I thought of the remains of Harmony Falls Lodge nearby, now buried under some 150 feet of water, and of the belief of some local tribes that Spirit Lake is bad medicine.

As the week ended, the dread I felt hadn't left me, but it had deepened. I nurtured a creative restlessness, a ferment of curiosity and resolve. Maybe this was the mountain's way. To be alive is to be restless, or "dis-eased," building up, breaking down, bursting into new forms, like an eruption of fire and ash.

"Be in search of the wild," said the Smoking Mountain. It spoke a fire-and-brimstone version of the Gnostic Gospel of Thomas: "If you bring forth what is within you, what you have will save you. If you do not bring forth what is within you, what you do not have within you [will] destroy you."

On a ledge near the cascading falls, among lupine, paintbrush, arnica, and fireweed—primary plants in the resurgent landscape—I sat down to rest. Lulled by the water's chuckle and slap, I was about to doze, when a frenzied whirring arose. A pair of rufous hummingbirds hovered barely a foot away. Did they take me for some lanky, grizzled flower? For a second, trying to grasp what the birds felt, I imagined floating out into the wing-charged air. But the vision fled, and the pair darted to shelter in the alder scrub. I lay back and slept, briefly and dreamlessly.

Waking, I glanced at my watch—a trifle now, like a strange toy—then rose, stretched, and walked out to meet the others. But a faint whirring stayed with me, a tiny yet persistent voice of the mountain—a whirlwind on a smaller scale—in which catastrophe spelled a kind of irrepressible song.

Sources and Notes

Mitchell, Stephen, trans. *The Book of Job*. New York: Harper Perennial, 1992.
Pagels, Elaine. *The Gnostic Gospels*. New York: Vintage, 1989.
Thoreau, Henry David. *The Variorum Walden*. Edited by Walter Harding. New York: Twayne Publishers, 1962.

For engaging introductions to the St. Helens story, which include questions raised by scientific research, see *In the Blast Zone: Catastrophe and Renewal on Mount St. Helens*, ed. by Charles Goodrich, Kathleen Dean Moore, and Frederick J. Swanson (Corvallis: Oregon State University Press, 2008);

and *Return to Spirit Lake: Life and Landscape at Mount St. Helens*, by Christine Colasurdo (Astoria, OR: Radiolarian Press, 2010).

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