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by Kierán Suckling : Center for Biological Diversity

Three Catastrophes, One Sky

One-hundred and sixty million years before you were born, there was a collision in the inner main asteroid belt. A rock 110 miles in diameter smashed into another half its size with a terrible force, shattering both into hundreds of thousands of pieces. Most of the debris is still safely orbiting the sun within the asteroid belt, but due to the aptly named Yarkovsky and YORP effects, a few mountain-size pieces escaped. Following an interplanetary arc of some hundred million miles, they were eventually captured by the Earth's gravitational field.

One shard plowed into the moon about 108 million years ago, creating the immense Tycho Crater, whose radiating lines are visible to the human eye. Forty-three million years later, another piece slammed into the tip of the Yucatan Peninsula, driving the dinosaurs extinct.

The Tycho Crater on the moon's southern hemisphere was caused by an asteroid shower which also struck the Earth, driving most dinosaurs to extinction 65 million years ago. Photo courtesy NASA.

When this chain of events was initiated, most of the dinosaurs who would suffer its consequences were not yet come into existence. They evolved in the shadow of their own extinction, while death arced toward them for a hundred million years with mathematical precision.

Nothing stood between them and the asteroid.

On December 26, 2004, a seabed earthquake erupted near the Island of Nias off the Sumatran coast. Registering a 9.1, it was the third-largest earthquake known to man. Tsunamis radiating from its epicenter killed over 225,000 people along the Indian Ocean shoreline from Kenya to Indonesia.

To reach land in the Indian Ocean, a tsunami must pass through mangrove forests. It will first encounter red mangroves with prominent airborne roots propped above the water, then, just inland, black mangroves with pneumatophores poking up through the mud like straws grasping for air, then white mangroves, then—as the coast transitions to solid ground—buttonwood mangroves. Mangroves are the tropical coast overstory, protecting everything below and behind from sun, wind, and water. They take the brunt of hurricanes and tsunamis. And when healthy, they greatly reduce inland damage.

In 1960 a tsunami slammed into healthy mangrove forests on the Bangladesh coast, which absorbed so much of its force that no humans were killed. The mangroves were later cut down to make way for shrimp farms. When another tsunami of the same magnitude hit the area in 1991, it barreled over the farms without slowing. Thousands were killed.

Shrimp farms fragmenting a Malaysian mangrove forest.
Photo courtesy *Shrimp News*.

The five countries hit hardest by the 2004 tsunami had cleared 26 percent of their mangroves between 1980 and 2000. Since the 1960s, Thailand cleared over 156,000 acres for aquaculture, industrial development, and to produce sandy, tourist-friendly beaches. Java cleared 70 percent of its mangroves during this period, Sulawesi 49 percent, Sumatra 36 percent, and India over 66 percent. Singapore and the Philippines have lost over 90 percent of their mangroves.

In the Andaman Islands, which have extensive, nearly intact mangroves, only seven percent of villages hit by the 2004 tsunami were devastated. In areas where mangroves were replaced by aquaculture and tourist beaches, 80 to 100 percent of villages were devastated. A similar pattern occurred in southern Sri Lanka, where 23,588 were killed. Nias, which has protected its mangroves fairly well, suffered relatively few deaths though sitting at the epicenter of the quake.

The sun is a catastrophe waiting to happen. Harboring 99.8 percent of the mass of the solar system, its core burns at 27 million degrees, emitting 63 million watts per square meter. Its energy drops off in accordance with the inverse square law, so by the time it smashes into the Earth's outer atmosphere, it is projecting just 342 watts per square meter. Lest that sound inconsequential, consider that it would take 1.7 billion large power plants to produce that much energy.

If the sun's energy were to penetrate and remain in the biosphere, every living thing would be burned to a crisp in a Venus-like environment. If it reflected back to space too quickly, every living thing would freeze in a Mars-like environment. This doesn't happen because 31 percent of solar energy is directly reflected back into space, and the rest leaks back out as heat, after warming the planet to a level that can sustain life. It is a zero sum budget over the long term, and has to be for life to exist.

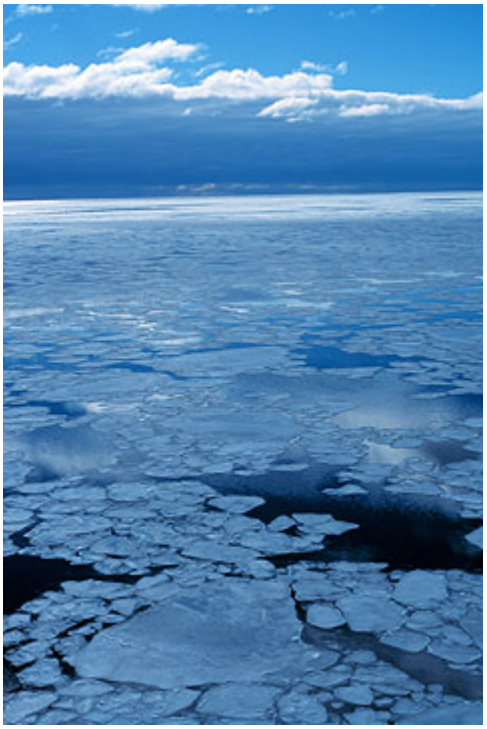
By changing the composition of the atmospheric overstory, however, we're preventing it from properly modulating incoming solar radiation. Thus the planet is steadily heating up and the oceans are acidifying with catastrophic results.

For at least 800,000 years—and likely much longer than that—atmospheric carbon dioxide has averaged 230 parts per million and had never exceeded 299 ppm. It is now 385 ppm and growing

due to burning of fossil fuels (which emit carbon) and degradation of forests and soils (causing them to absorb less carbon). At the current growth rate, atmospheric carbon will top 470 ppm by mid-century.

To put that in perspective, humans and polar bears have existed for just 250,000 years. Both evolved and are only known to have survived in an atmosphere with less than 300 ppm of carbon dioxide. Polar bears are now going extinct because carbon levels above 350 ppm are causing their habitat to melt away.

Humans have long labored under the illusion that we live on an energetically benign Earth. In fact we live beneath vegetative and atmospheric overstories that protect us from incoming waves of enormous energy. It is not clear that humans, or at least advanced human societies, can exist if those canopies are destroyed or degraded. Bruce Willis fantasies notwithstanding, we can do nothing about asteroid pulses. But with great effort we can restore coastal mangroves, and with a monumental effort, we can scale back atmospheric carbon level to 350 ppm by reducing our net carbon emissions to zero (or less). Reversing the course of global warming is not only the greatest challenge of our generation; it is the most uniquely singular challenge in the history of the human race. Everyone is threatened, everyone is part of the solution. There is but one sky.



Scientific models indicate summer sea ice in the Arctic will disappear by 2030. Actual melting is more rapid and may lead to an ice-free summer Arctic within 5 to 10 years.
Photo by Michael VanWoert, courtesy NOAA.

Kierán Suckling is a philosopher and the director the Center for Biological Diversity, a national endangered species protection group which has won Endangered Species Act protection for the polar bear and hundreds of other creatures great and small. The Center is currently focused on helping imperiled plants and animals adapt to climate change while ensuring that carbon, methane, and black carbon emissions are reduced as fast and deeply as possible. Suckling writes widely on the cultural importance of biological diversity.

Column: The Literal Landscape

by Simmons B. Buntin, Editor/Publisher, *Terrain.org*

The Essential Landscape of Memory

My strongest memories are of events and experiences born of landscape. My six-year-old self creeps along the rough grass and thick sycamores edging a creek on my mother's central Kentucky farm, where I search for arrowheads. My eleven-year-old self wanders a wide, cut-banked arroyo through the Santa Catalina foothills north of Tucson, where green-barked palo verde branches shine like the wild verdure gates of an Arizona Eden. My sixteen-year-old self steers a canoe beneath the moss-laden branches of cypress and sumac on central Florida's Juniper Creek—eyes shaded against silver reflections, wary of cottonmouths but keen, too, for the turquoise flash of striped bass and spotted gar. Tied to each landscape is an incident of sorts: sifting for Indian artifacts, fleeing family turmoil, paddling beneath heavy canopy with friends. It is not a stretch, for the more intense memories particularly, to call them *sagas*, spanning single incidents and strings of memories that navigate the dark evenings of my mind like a skein of clamorous geese.

"Memory is a set of sagas we live by," writes Ivan Doig in *This House of Sky*. The sagas often arise from landscape—for Doig, it is the spare Montana landscape of his youth; for James Baldwin, whose memoir *Notes of a Native Son* speaks from the grittier urban end of the landscape spectrum, it is the Brooklyn ghetto. Whether urban, suburban, or rural is of little importance. Scratch that: the nature of the landscape, in fact, matters immensely. Regardless of its specific geography, however, landscape is frequently the defining feature of memoir. While it is not possible to craft memoir completely absent of landscape, in modern literary memoir landscape usually plays a critical role.

Years removed from *This House of Sky*, Doig now suggests a wider view, concluding that "writers of caliber can ground their work in specific land and lingo and yet be writing of that larger country: life." Baldwin agrees, in a sense, when he says, "Know from whence you came. If you know whence you came, there are absolutely no limitations to where you can go." By knowing the landscape from which the writer comes, and then grounding his or her work in it, the memoirist interrogates and reflects not only on the memory as it pertains to the writer's own life, but also as it applies to the wider audience—the reader and beyond. But what, really, is the landscape of that larger country, the landscape of memory—and how is it known?

Landscape is not two-dimensional; it is not simple *setting*. Setting is defined, in the context of literature, as "the locale or period in which the action of a novel, story, etc., takes place." It is also defined as "the surroundings or environment of anything." It is difficult to imagine a much broader

definition. But landscape as the crux of memory and memoir is not so much measured by breadth and width as it is by its depth. That is, landscape runs deep—to the core of the writer, to the core of the place. Additionally, landscape serves not only as the painted backdrop, but also as the writer's continuous link to the memory's source. In a metaphorical sense, landscape is the soil and the writer is the seed and subsequent plant. The plant is always nurtured from the soil, and also from the atmosphere, which likewise are composed of elements of the plant. The official definitions of landscape, though, don't render this linkage. Rather, they claim that landscape is "an expanse of scenery that can be seen in a single view" or "the aspect of the land characteristic of a particular region."

Characteristic may get to the core of landscape if the word is all-inclusive, but rendering it so makes the definition so wide as to be useless. Better to focus on other, definable core components: geology, climate, ecology, culture, history. Here, the problem is the opposite: the *ologies* slip into silos that, though overlapping in such broader areas as ecology, nonetheless do not equal landscape's full sum. Still, ecology bears further exploration.

I recall from my freshman year studying wildlife biology at Colorado State University that ecology is complex enough to seemingly represent all of landscape's components. Indeed, it is tempting to use its definition as a substitute for landscape: "The science of the relationships between organisms and their environments." Yet the definition falls flat if for no other reason than it promotes science at the expense of art and creativity. Though they are by no means mutually exclusive—art often succeeds because of science, as architecture can prove—landscape as the crux of memory relies in large part on craft, art, and (Carl Jung might argue) on the unconscious, which is the spirit's link to the broader universe.

If landscape represents both place and the writer's visceral connection to memory's source, then knowing landscape requires not only an interrogation of and reflection on the memory itself (the traditional definition of memoir), but also interrogation and reflection on the literal place. How place is interrogated, especially when the landscape of youth has changed as is so often the case, depends in large part on how willing the writer is to explore him- or herself. Yet isn't *self* fundamentally the same as memory, so that we've come full circle?

A recent experience developing an essay on the passing of my Swedish mother answers this seeming paradox, and that answer is *no*. In the piece, I wove two supporting themes into the plait of my mother's death: traffic roundabouts, which are compared with the roundabout nature of my mother's later years, and the responsibility of children caring for their aging parents. Additionally, two landscapes were involved: Tucson, my home, and Allonö, in southern Sweden, my mother's

girlhood home. In early drafts, I wrote about the Sonoran desert landscape of Tucson both from memory and primary experience. I simply walked out my door to find the saguaros, flocks of sparrows, and dense patches of prickly pear that provided not only setting but deeper meaning—the habitat of a roundabout down the street as one metaphor in my mother's life. I also wrote about the Swedish landscape of my mother's youth—yet here I had scant experience and research could only take me so far. Though I could draw imagery from old photographs and a very sketchy memory (mine), it wasn't until I shared a later draft with my siblings that this foreign landscape took its necessary shape and meaning with their vital input.

My self was real and present, but my memories floundered, at least in the context of my mother's Sweden. It is not so much a failing as a lack of capability. Memory is usually flawed, for even if we have the full capacity to recall every detail, we rarely do. And in transcribing it, for the sake of readability and art, memory is compressed, adjusted. The adage that each person is actually three—the way one sees oneself, the way others see that person, and the way he or she really is—applies also to memory, but is constrained even further. Memory is not only three events—how I remember it, how another remembers it, and how it really was—but also how it is manifested in the writing. Interrogating self is therefore not the same as interrogating memory, though both are necessary for memoir.

Here landscape returns, for it is not only critical to memory and so memoir, but also serves as a guide. Place triggers memories through the senses: the peculiar sound of a tractor mower sends me whirling, knees thrashed from slicing through the pelvis-high grass of those rolling Kentucky pastures; the smell of creosote prior to a summer rainstorm brings me back to the brambly desert edges of a wide arroyo along Fort Lowell Park; skillet-soaked hash browns return the saturated taste of my mother's *pitti-pitti-pan-pan*, a fried mix of potatoes and ham heaped onto paper plates, doubled up to hold the grease, as I sit at the uneven wooden dining table of our Ocala home following a canoe trip.

Landscape is best explored, when possible, by returning to the place, even if it has changed. Sometimes the change itself triggers additional memories, or else creates a juxtaposition warranting further interrogation—an unanticipated and possibly delightful trek in the memoir and the writer. If return isn't possible, the writer's memory tested against research and conversations or interviews may serve his or her needs, though these should be standard approaches either way. Otherwise, like any component of writing, it's a question of sense and, too, no small amount of luck—something nestled, I suspect, next to memory's source.

My strongest memories are of events and experiences born of landscape, of sagas centered on place,

of knowledge embedded in the soils and plants and animals, reflected in parks and buildings and roadways, taught by family and teachers and community—and driven by the self. Landscape is not memory, but comprises more than mere scenery, supporting and guiding us if only we choose to acknowledge and question it. In the questioning, we find that the essential landscape of memory, of memoir, resides inside as surely as out.

Simmons B. Buntin is the founding editor of *Terrain.org: A Journal of the Built & Natural Environments* and writes a bi-weekly online editorial for *Next American City* magazine. His first book of poetry, *Riverfall*, was published in May 2005 by Ireland's Salmon Poetry. Recent work has appeared in *Weber Studies, Isotope, Orion*, and *South Dakota Review*. New work is forthcoming in *Mid-American Review, Whiskey Island Magazine*, and *Elsewhere*. Catch up with him at www.SimmonsBuntin.com.

Column: Bull Hill
by David Rothenberg, *Terra Nova* Editor

NightinGala

Towards the end of *Why Birds Sing* I come to the answer to the title question: Birds sing for the same reasons people do, because they have to, and we must. Music cannot be stopped. This doesn't mean bird song has nothing to do with attracting mates and defending territories, but the function doesn't explain the beauty of the song. To delve deeper into the music, science and art must work together to try for the greatest human understanding of nature that is possible.

Okay, said some critics, you tell us what should be done in your book, so why not go out and do it? That is why I came up with the idea of the *NightinGala*, a gathering of select musicians and scientists deep in the understory of the Finnish forest, just an hour outside Helsinki at the retreat center of the Sibelius Academy, the greatest music school in the North. It took two years to find a time where the most qualified musicians, composers, scientists, and zoomusicologists could gather together, but we did it, just last month: www.umweb.org/nightingala.

The song of the nightingale, that most poetically praised of European songbirds, has long been studied by biologists, mostly in Germany, because the birds thrive in captivity and use and learn their music in very defined, specific ways that can teach us much about vocal learning in general. Artistically, these birds have offered centuries of passionate inspiration because their sound is among the loudest and most complex in the forest, with a force of delivery that cannot be ignored.

I first heard nightingales in the arbors of Helsinki ten years ago, where the springtime nights are hardly dark at all. I was amazed that this bird, which I thought I knew well from the words of Shakespeare, Keats, Coleridge, and Wordsworth, sounded so different than I expected. Expecting beautiful, tumbling melodies, I was surprised to hear electro-like tones, repeating rhythms, almost like a DJ scratching records or break beats from an alien world. When I play nightingale songs for my students, they think it's the latest techno music from Berlin, certainly not a bird. Is it possible that this song sounds more musical to us in the 21st century than ever before?

Dietmar Todt and Henrike Hultsch have studied nightingales in Germany for decades, both in the wild and in captivity. Because of their work and the work of their students, more is known about the singing behavior of these famous birds than of any other species with so complex a song.

There are three distinct ways nightingale sing and countersing to each other, beginning late at night and ending by dawn in the first weeks of spring. Most males are "**inserters**," meaning that they wait about one second after a neighbor's song finishes before starting their own. Songs alternate between one bird and another. Then there are "**overlappers**," who start their song about one second after their neighbor begins, as if to cover up or jam the neighbor's signal. It may be some kind of threat or a mask of the first song, cutting into his air time. Then there are "**autonomous singers**," who sing and sing according to their own schedule, paying no heed to what any nearby nightingales are doing.

Each nightingale sings a series of phrases one after another in preferred patterns. Todt and Hultsch called these recurring groups of phrases "packages." They began to imagine how the bird might be thinking through its phrases:

To explain our results on package formation in nightingales, we postulate two kinds of processes: 1. *A parsing process*. We assume that nightingales possess a gating mechanism that passes only a limited number of successively heard song types, and so generates unit-related segmentation of a long sequence of learning stimuli. 2. *A storing process*. We assume that nightingales possess several submemories, each of which can be supplied with data provided "package-wise" by the gating mechanism. These submemories process the received information in parallel and in a way which explains (1) the sequential association observed among song types in the package, and (2) the development of novel song types observes as recombinations of acoustic material stemming from song types in the same package.

Described like this, the bird definitely sounds like a machine! Is that really how his brain his working while he sings? A musician might call these packages progressions or the song form. This would suggest a definite level of musical intelligence in the bird, making it sound less like a computer program and more like a musical being.

The most musical reverence for nightingale song comes not from Europe, but from, surprisingly, Afghanistan. Nightingales have long had a central role in the musical mythology of Afghan culture. It is the bird of thousand stories, *hazâr dastân*, singing turn by turn, *rad bâ rad*, always changing its song. Calling a musician a nightingale is the highest form of praise—the greatest often have the word *bolbol* added to their names as an ultimate honor. In less fundamentalist days, when music was not chastised or banned, bird song was considered a form of *zikr*, or remembrance of God, like a muezzin's prayer. The meaning echoes more in the repetition than in the words themselves. All

bird species have their own *zikr*, all praising Creation, and the *bolbol* is the master bird who never repeats himself, always coming up with new names for God. This gives bird song the highest honor in a devotional culture, a loftier purpose than biology has so far allowed.

Despite this reverence, Afghan musicians have not made much specific use of bird song in their melodies or forms. John Baily, one of Europe's greatest authorities on the musical culture of Afghanistan, brought a recording of English nightingale song and played it to some Afghan refugee musicians living in Pakistan in 1994. They were immediately excited.

These drummers responded to the taped bird song using the "drum language" of spoken *bhols*, in which players speak the patterns they later play on the tabla. To these musicians, the nightingale's phrase was a fully stuctured tabla solo, easy to assimilate and respond to. But their tradition had not explicitly made use of nightingale rhythms before.

The end result sounds like a new kind of interspecies music, part nightingale—with the relentless call-and-response not trying to go anywhere or conclude—and the musicians caught in the web of the challenge, trying to play exactly what is heard and to take it to some other, human level.

At the NightinGala we heard scientists report their latest experiments, and composers presented their analysis of the nightingale's song as if it were music. My main wish was for these two approaches to human knowledge to recognize that on their own, they are each incomplete, and that neither is more objective or unbiased than the other. Musicians find form and beauty in the sound, and it is not only their own opinion or human culture that brings that. No less an authority than Charles Darwin appreciated the music that lies out there in nature. In *The Descent of Man*, Darwin wrote that birds "have strong affections, acute perception, and a taste for the beautiful." He was convinced that females of many species have an innate aesthetic sense, and prefer certain traits simply because they like them. "That animals utter musical notes is familiar to every one, as we may daily hear in the singing of birds." Darwin knew there was an elegance to these sounds that no amount of deciphering of the song as language could touch.

Out in the forest as we came out from the sauna at two a.m. and jumped into the lake, we heard the song, unmistakable, echoing across the far end of the still water from deep in the tall pine trees. Package formation in the brain? An animal's call to prayer? The distant beat from a woodland dance club? Nightingale song remains some of the oldest music we know, millions of years older than anything human, as a matter of fact. It's so old that it still sounds like it comes from the future. We may never figure it out, but there can be no task more noble than to keep on trying.

David Rothenberg is the author of *Thousand Mile Song: Whale Music in a Sea of Sound*, *Why Birds Sing: A Journey through the Mystery of Bird Song*, *Sudden Music: Improvisation, Art, Nature*; *Always the Mountains*; *Hand's End: Technology and the Limits of Nature*; and others. He was the editor of the journal *Terra Nova: Nature & Culture*, and has edited the various *Terra Nova* books based on the journal. He is also a composer and jazz clarinetist, and has six CDs. David is professor of philosophy and music at the New Jersey Institute of Technology.

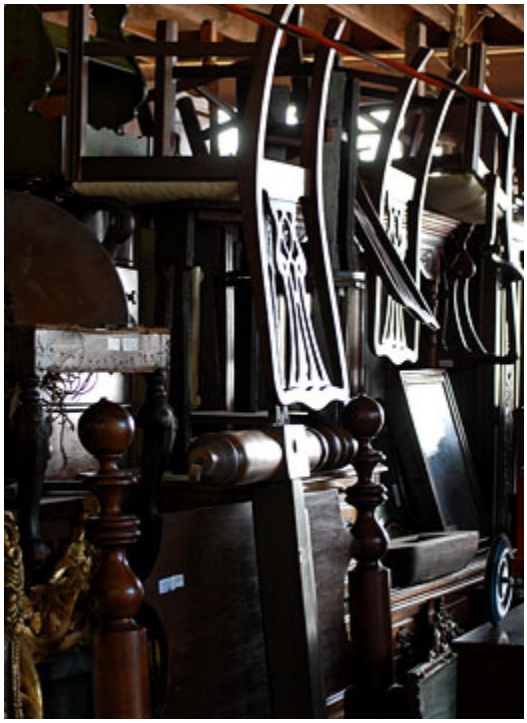
Column: Plein Air

by Deborah Fries, *Terrain.org* Editorial Board Member

Out in the Field, Under the Tent

From behind us, the Floor Guy with the portable mike calls out "Lot number four-one-seven—you got the pistol here, wine jug, some flatware," and the auctioneer begins his cadenced *gimmetententententen, huminahuminahuminahumina*. Jeff and I are standing on the dock at one of three auction houses clustered within as many miles in Gloucester County, New Jersey. A painfully thin standard poodle wanders through the crowd, nuzzling our legs.

It's a warm summer morning and even though we are only twenty miles southwest of downtown Philadelphia, it feels as though we are hundreds of miles from urban life, here in this sandy expanse of rain-puddled yard and slept-in semis, the scents of an on-lot septic system mixing with cigarettes and mildew. Time seems suspended in this tableau, even as porters in red tee shirts rapidly move the merchandise through its paces: show it, sell it, move it out.



Two auctions are underway: outside, where lesser goods have been left in the elements too long; and inside, where the auctioneer is pushing box lots of household detritus through the great anaconda of aftermarket commerce. With an advertised inventory of over 4,000 items, it will be a long day for the dealers who are waiting for furniture.

This is a world Jeff introduced me to eleven years ago. This is not the *Antiques Road Show*. David Rago, Suzanne Perrault, Richard Wright, and that guy from the Philadelphia Print Shop may be within shouting distance, but it's fair to say they are not here today among the regulars who pick through rows of stuff along Repaupo Station Road.

This is where our dead parents' mahogany dining tables and bedroom suites are stacked floor to ceiling, a dark aggregation of a generation's love of Duncan Phyfe

transformed into a niche market for Southerners, who still appreciate what dealers call *brown furniture.* This is where Boomers' toys mix with porch gliders and planters and paper ephemera, their provenance forever lost. Here, experts in antiques and collectibles who are unknown to public television audiences sift through musty, broken goods to find items worthy of retail, eBay, or another auction. Patient and indifferent to the heat, today some of them may find an important antique hidden within a pile of dreck.

"Go Green," says the auction house website, "Buy antiques and used furniture." I was shocked and saddened the first time I saw this morgue of worldly goods, filled with a familiar assembled proof of past lives. Now I see how this is a mine, a field, a river of raw materials that can be salvaged, harvested, valued. Here, in this supply-side world that opens its doors twice a month, Jeff has spotted something good in a box lot and we're waiting for it to be auctioned.

"Three-o-seven-nine-zero. Nice trains here now—Lionel, Shell—real nice stuff now, Jerry. Pay attention," says the Floor Guy.

They *are* paying attention, at least the Toy Guy is. This is a place where buyers have sharp eyes, quick reactions, and personal knowledge augmented by laptops. They marry discernment with intuition and risk: they take a shot.

I don't know how they do it. With the exception of five months, when the magazine that employed me folded and I tried my hand at freelancing until a real job came along, I've always worked for others. I've worked in offices where someone else signed the lease, purchased the furniture and computers, ordered the supplies, paid for an assortment of benefits, gave me an access card, monitored how I spent my time, then compensated me for it, with taxes deducted.

And so when, for almost a decade, I found myself in the company of a man who had always been self-employed, I tried to understand how we were different: where our motivations came from; what we desired, feared, were willing to sacrifice; how we got up in the morning and went about our days.

I watch the people around me who have chosen this life. They seem hungry, but not desperate. A guy in a white tee shirt that says "King of the Freakin' Remote" is silently buying almost every box lot that is being auctioned inside. He doesn't talk to anyone. Porters stack the objects of his appetite into a pile that is getting too large to walk around.

Like the remote king, Jeff is a hunter. He's been in the business a long time, knows what he's doing and right now he is scouting and gathering for his next trip to Massachusetts, living in the ordinary

time between selling at the May, July, and September Brimfield Antique Shows. In a few weeks, he will be under a tent, out in one of the 21 fields along Route 20, where 5,000 dealers bring their wares to New England's largest fresh air marketplace.

For months, it has cost him more than $100 to fill the gas tank of his Ford Econoline van. The expenses for each of this summer's trips are urgent reminders of the need to adapt to a changing economy. He's the Lamp Guy, who's been tweaking his inventory, cutting back on buying what he loves in favor of seeking out what will sell. He's in a self-imposed moratorium on Victorian lighting, making tentative forays into new markets.

Hyper-verbal and descriptive, even he has trouble explaining the fish phenomenon. This spring, he bought a piece of metal wall art at auction for a song. It had "the look" that might sell, a look uncomfortably reminiscent of something his parents might have hung in their northeast Philadelphia home in the 1960s. When he unpacked it at Brimfield, the modernist dealers were all over him. He sold it for $200 when the field opened. Later in the day, he saw the welded school of fish propped on a sofa, eternally chasing each other, tagged $500.

In this new market for old goods, resilience has also meant letting go. In 2008, he relinquished the overhead of operating a retail store. After more than a decade of sole proprietorship, he exchanged waiting for customers for the relative freedom of wholesaling, eBay, and selling at profitable shows. His new rules allow him to engage in just-in-time commerce. In May, when he returned from Massachusetts with goods that didn't sell, he made a quick decision to set up at the flea market in Lambertville, New Jersey. It had been twenty years since he'd sold in that venue, but it was a practical move that lightened his van and fattened his wallet.

Between bidding, Jeff and his auction buddies gossip about big scores and losses, business ethics and ailments. Most of their relationships seem to accommodate the inevitable competitions. They bid against each other. They are independent contractors, willing to get up while the rest of us sleep, to eschew sentimentality in favor of a democratic, material world where a person with drive can acquire the knowledge needed to recognize value and develop an aesthetic. They are risk-takers who love the hunt, the deal, the action.

Most of his friends in the business are over fifty now, and without dreams of cushy retirement. They buy and sell to each other, indifferent to an economy that is avoiding discretionary purchases. They never dust off resumes, peruse job ads, expect the world to take care of them. To outsiders like me,

it seems that they can make something from nothing. Their freedom is real, but grounded: most have accumulated their security in a huge physical reality of weighty things that must be warehoused, must remain marketable.

The open-air market has always offered resourceful spirits the chance to prevail. While some of us fret over an economy we can't affect, others keep selling what will sell. Somewhere where overhead is a party tent or leaky pavilion roof, thousands of self-employed merchants will spend the next few months engaged in outdoor, itinerant commerce. At the low end, they have set up in the rain in a crumbling parking lot to sell tube socks, tomato plants, and hands-free head sets. At the high end, they are selling $12,000 chandeliers and $5,000 paintings in shady meadows.

The dealers here today are tougher than office workers. Some drove through the night to get to this Sunday morning auction. Players, poker-faced about their knowledge, they are buying to sell, handling desirable goods with feigned disaffection. They eat breakfast sandwiches bought from a food truck, joke with each other, keep track of what they want.

Finally, Jeff bids on the item he's been waiting for and wins. *Huminahumina,* we're done here. We have two more auction houses to visit and more stuff to preview before noon. At the next one, we may run into Joel the Instrument Guy, who might lecture us on the value of collecting old masters' prints, or Jimmy the Art Guy, who may reveal how he's stayed ahead of the game, amassing modern art on spec. One of them could be thinking about investing in old, 4-cylinder Japanese cars, which could be the Next Big Thing.

Deborah Fries is the author of *Various Modes of Departure* (Kore Press, Tucson). In addition to writing and teaching, her professional life has included journalism, and public affairs for transportation and environmental issues. She is working on a second book of poetry and a collection of short fiction.

Interview

Terrain.org interviews Charles Simic
poet laureate

by Michael J. Vaughn

Charles Simic.
Photo by Star Black, courtesy Academy of American Poets.

About Charles Simic

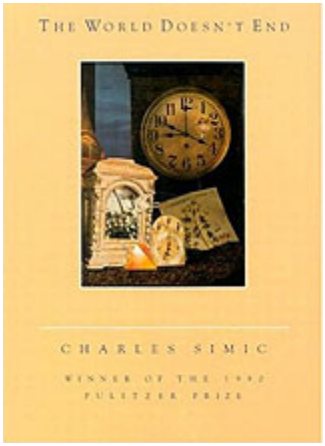
My only meeting with Charles Simic was—much like his poetry—surreal and brief. Arriving at UC Berkeley on St. Patrick's Day, 1993, I realized I had nothing for him to sign. (As a Simic evangelist, I routinely gave away his books to anyone who expressed an interest.) Rooting around in my back seat, the only thing I could find was a baseball. To his credit, Simic barely blinked an eye at my spherical offering, and today it sits in one of those plastic-globe trophy holders on my mantel.

Of course, what I had already received from Simic was vastly more important: a vision of what poetry could be. This came in the form of his 1990 Pulitzer-winning collection of prose poems, *The World Doesn't End* (Harvest Books, 1989). Simic took the plainest form available—the common prose paragraph—and filled it with one startling image after another, using everyday language and a sculpted brevity to seemingly double the firepower of each word. The book also revealed a rich wry, humor; the selection that always comes back to me describes a childhood so impoverished that he "had to take the place of the bait in the mousetrap."

"These are dark and evil days," the mouse told me as he nibbled my ear.

I came to understand that Simic's use of surreality was not the wild, world-shifting experiments deployed by the initial Surrealist movement of the early 20th century. It arrived, rather, in brief, image-laden flights that were used to expand and enrich the discourse of an otherwise "normal"

poem. "The poems are like self-developing Polaroids," wrote a reviewer for the *New York Review of Books*, "in which a scene, gradually assembling itself out of unexplained images, suddenly clicks into a recognizable whole."



Simic was born in Belgrade, Yugoslavia in 1938, and spent much of his early childhood under the shadow of World War II. During the 1941 bombing of Belgrade, a blast next door threw him off his bed and knocked him unconscious. He emigrated to the United States with his family at the age of 16. He grew up in Chicago and received his B.A. from New York University. He is professor emeritus of American literature and creative writing at the University of New Hampshire, and lives on the shore of Bow Lake in Strafford, New Hampshire.

Along with the Pulitzer, Simic has received a MacArthur Fellowship (1984-89) and a Wallace Stevens Award (2007). He is co-editor of the *Paris Review*, and has also worked as a translator, essayist, and philosopher. In 2006, New York Review Books reprinted his 1992 tribute to American collage artist Joseph Cornell, *Dime-Store Alchemy*. His most recent poetry collection, *That Little Something*, was released by Harcourt in early 2008.

On August 2, 2007, Simic was named the 15th Poet Laureate of the United States, a position that carries a $35,000 honorarium but no specific requirements.

Our interview was carried on through an email correspondence. No baseballs were exchanged.

Interview

Terrain.org: In many of the news articles about your laureate announcement, your work was described as "dark." That doesn't seem entirely accurate.

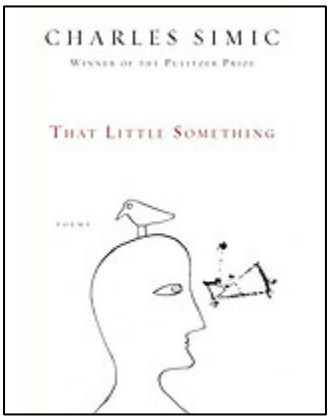
Charles Simic: I'm a cheerful pessimist. Life is wonderful, but every day we are surrounded by tragedies, if not ours then other people's. It's up to the reader to figure out how it all comes out from poem to poem. I simply report my own sense of the world, its beauties and its evils.

Terrain.org: Speaking of beauties and evils, many of your poems seem to take place late at night, and to elevate common settings and objects to an almost sacred level. Is this one of a poet's jobs, to illuminate the unobserved, the taken-for-granted?

Charles Simic: Yes, it is. We see little ordinarily of what is around us. A good poem restores our sight and our hearing. That is, indeed, one of the achievements of poetry. I always liked rundown stores in impoverished neighborhoods: pawnshops, pet shops, groceries, barber shops, greasy spoons. I've written all my life about them. As for late-night settings in my poems, it's my lifelong insomnia speaking. I'm usually up when everyone else is snoring away.

Terrain.org: Like many, I first discovered your writing in *The World Doesn't End*, your collection of prose poems. There's something about those plain-looking paragraphs, so packed with imagery—how did this collection come about?

Charles Simic: These "poems" were not intentionally written as prose poems. They were scribbled over many years in my notebooks and later found by me. Of course, once I got interested in them, I tinkered endlessly to get them right. The nice thing about that book is that I had no idea I was writing it, so I could be free as never before.



Terrain.org: Another aspect of that book is the use of surreal imagery. But surreality seems to be ever rarer these days. Do you have a hard time getting your students to take these "flights" in their work?

Charles Simic: They are not used to using imagination. Most have plenty of it, but they are embarrassed by it, so my job is to convince them it's all about taking chances, risking making a fool of oneself and going for broke. Otherwise, why write?

Terrain.org: The brevity of your poems, the feeling that they have been sculpted down to their essences, is breathtaking. Does this come through hard work, or is your approach minimalist and spare from the beginning?

Charles Simic: I revise endlessly and yes, in the process, my poems get shorter and shorter. At some point, I realize that whatever I had there is all the poem needs. The challenge of saying "everything" in a few words continues to tempt me.

Terrain.org: The line break seems to be the most confusing aspect—to the beginning poet—of free verse. Some poets use them to jar the reader or throw off the usual rhythms of speech, whereas yours are supremely smooth and unobtrusive. Is this intentional, or just the way they come out?

Charles Simic: I take great care with my line breaks as I revise the poem. I tinker with them endlessly. The ideal is to make the reader forget that they are reading a poem.

Terrain.org: You wrote a book of essays and poems on the collage artist Joseph Cornell. Do you generally find inspiration from artists and musicians? Do you find yourself applying the senses of music to the sounds of your words?

Charles Simic: Not music. I listen to it all the time, but for the music of language, I read the great poets of the past rather than listen to Bach. As for other arts, photography and the movies have always been important to me as well as painting since I love images.

Terrain.org: What is it about Cornell's work that appealed to you?

Charles Simic: The collage technique. The notion that objects found by chance can make a work of art.

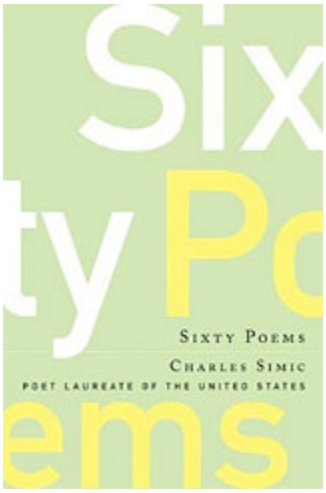
Terrain.org: Who are your favorite poets?

Charles Simic: Emily Dickinson, Robert Frost, and Wallace Stevens.

Terrain.org: Have you ever been tempted to write traditional verse?

Charles Simic: I wrote some poems in rhyme and meter when I was younger. I may do it again.

Terrain.org: Is there a favorite kind of music you listen to while working?



Charles Simic: The sound of pots and pans while my wife is making dinner.

Terrain.org: Is there something particular that drew you to New Hampshire?

Charles Simic: It was a job at first, but then I grew to love the place.

Terrain.org: Is there a favorite recreation that you pursue when you need to harvest ideas?

Charles Simic: Walking.

Terrain.org: Do you find bits of your Yugoslavian childhood—or aspects of the culture—showing up in your work?

Charles Simic: I left Yugoslavia 54 years ago, have written about my childhood now and then, but rarely think about it any more. It wasn't the culture that made an effect on me, but bombs falling on my head from 1941 to 1944, plus all the other nasty things that went on in occupied Belgrade.

Terrain.org: Do you enjoy giving public readings? Do you find yourself editing poems after reading them out loud?

Charles Simic: I have given over 1,000 readings in 40 years, so yes I do enjoy it. And, of course, I change poems as I read them and have always done so.

Terrain.org: What's the most frequent piece of advice that you give to young poets?

Charles Simic: To read everything.

Terrain.org: What's the biggest single obstacle standing between the average American and poetry?

Charles Simic: Education. Not enough poetry is being read in school, even though children love poetry.

Michael J. Vaughn is the author of the comic sex mystery *Double Blind*, the novel-with-poems *Rhyming Pittsburgh*, and a regular contributor to *Writer's Digest* and *Publishers Weekly*. His poems have appeared in *Many Mountains Moving, The Montserrat Review*, and *Terrain.org*.

UnSprawl Case Study

by Petra Spiess

Overview

Bradburn Village is a $220 million, 125-acre New Urbanist community located in suburban Westminster, Colorado. Four distinct neighborhoods are an easy walk from a pedestrian-friendly village core—with shops, restaurants, office space, live/work units, and a mix of a residences interspersed with parks and community centers, adjacent to a regional open space trail system. Of the more than 300 single-family homes, 42 will be solar-powered, making Bradburn Village host to the largest solar-powered neighborhood in Colorado, according to representatives of McStain Homes. A total of 865 residential units is expected at buildout.

Aerial conceptual drawing of the Bradburn Green at Bradburn Village.
Graphic courtesy Duany Plater-Zyberk & Company.

Though situated close to employment centers and halfway between downtown Denver and Boulder,

Bradburn Village draws many who prefer to work from home. One resident noted in a recent *Boulder Daily Camera* article that within one block, he knows five neighbors who work at home like himself. Additionally, he notes, "Bradburn is designed around community. Everyone introduces themselves. Everyone's invested not just financially, but for the quality of life. We wanted to raise our kids here; there aren't many places left where the environment is such an important part of life."

Usable front porches and a variety of vernacular architecture define Bradburn Village's streetscapes.
Photo courtesy Continuum Partners.

Community History

Continuum Partners—which is "dedicated to creating ecologically sustainable human habitats of extraordinary character and enduring value," according to its marketing materials—sought to build a project incorporating the principles of traditional neighborhood design in the greater Denver metropolitan area. Previously, Continuum's focus was on smaller urban projects near central Denver, including Union Station, 16 Market Square, and the downtown redevelopment of Lakewood known as Belmar, west of Denver. For this project, the developer originally looked south, but suburban areas like Highlands Ranch—featured more than a decade ago in *National Geographic* as the epitome of America's sprawling suburbs—offered little in the way of innovative land-use opportunities. Continuum located the current parcel in the northern Denver metropolitan area, where the City of Westminster was also seeking to create a smart growth community.

The parcel was originally an actively farmed wheat field, bordered on two sides by the city-maintained Dry Creek Open Space, featuring more than forty miles of trails. Continuum purchased the land in 2000, when it began working with the city to change Westminster's single-use zoning codes to allow for a New Urbanist development.

Continuum's first challenge was updating those codes. "The city knew that it wanted something like this," says Kevin Foltz, Continuum Partners director of development. "We showed them many projects that town planners Duany Plater-Zyberk & Company had designed. The city liked the designs, but the existing zoning wouldn't allow for it."

Though some innovative projects and visualization efforts were ongoing in Westminster, the city had no experience with comprehensive mixed-use neighborhoods. Denver's suburban areas are typically characterized by car-dependent housing and strip malls, and Westminster was no exception. In order to better understand Continuum's New Urbanist proposal—which included design work by Duany Plater-Zyberk and Civitas—several City of Westminster representatives visited one of the nation's first and most successful New Urban projects: Kentlands in Gaithersburg, Maryland.

Over the next year, Continuum worked with the city to modify zoning for the parcel that would allow for higher-density mixed uses. Construction then began in 2001 with a promising start, but a combination of the effects of September 11, 2001, and the collapse of the high-tech bubble significantly slowed the region's economy and Bradburn Village construction. "Everything was moving well, but Sept 11th changed that," says Foltz.

Bradburn Village site plan. Click image for larger view.
Graphic courtesy Continuum Partners.

Continuum had the opportunity to sell the bulk of the remaining lots to a large production builder that likely would not stay true to the nontraditional design of the project. Despite the economic pressure, however, Continuum remained. "We have taken huge hits in interest, but we think it would have been a devastating blow both to sustainability and to the project's overall vision if we sold part of the neighborhood," Foltz says.

Retail street in the Village Core.
Photo by Petra Spiess.

The Neighborhoods

The design for Bradburn Village was created by Duany Plater-Zyberk and Civitas and consists for four neighborhoods ranging from high-density urban to low-density suburban, each with its own park:

Village Core

Bisected by Main Street, the Village Core fronts 120th Avenue, the primary access into the project. Designed around "the look and feel of a small town 'Main Street' where residents can walk from their homes to shop, eat, and work," according to marketing materials, the Village Core, at buildout, will offer nearly 200,000 square feet of retail, restaurant, and office space and 9,000 square feet of restaurant out-parcels. A number of businesses have already located along Main Street, including cafes, salons, a coffee shop, a tavern, a variety of restaurants, and a bank.

The Village Core also features a large plaza and Main Street square, a community center with pool, a church, multistory rowhouse apartments and live/work units, single-family townhomes, and Cherrington Park, named after Linda Cherrington, an original member of the Westminster Historical Society and one of the leading ladies in the city's early education system.

Two areas of offices further define the Village Core. The Main Street Offices occupy the second and third floors above Main Street's shops and restaurants, ranging from 1,000 to 15,000 square feet. And the Rowhouse Offices are two-story buildings designed for professional uses such as physicians, attorneys, and design firms. Additionally, larger-footprint retail will be added to to the west end of the commercial district, and construction both on a mixed-use building (retail below, condominiums above) and on an event center that will host wedding receptions, office meetings, and corporate events will begin this year.

DeSpain Park

At the core of the DeSpain Park neighborhood is DeSpain Park, named after the first permanent settler in Westminster, Pleasant DeSpain, who in 1870 built a home on 160 acres at what is now 72nd Avenue and Lowell Boulevard. As other settlers arrived, the area became known as DeSpain Junction. The neighborhood is bounded to the north by the Village Core, to the west by Bradburn Green, and to the east by Dry Creek Open Space. It is comprised of single-family homes.

The church at the Village Core, with Bradburn Village's preschool in the foreground.
Photo courtesy My Neighborhood Insider.

Mayham Park

The Mayham Park neighborhood is named for Henry T. Mayham, who in 1890 convinced the Denver Presbytery to build a Presbyterian University on land that he owned. The school was incorporated as Westminster University of Colorado and classes began in 1908. The large red sandstone building still stands on Westminster's Crown Point, and is now the Belleview College and Preparatory School. In addition to the park, the neighborhood features single-family homes west of the Bradburn Green and south of the Village Core.

Madison Park

Madison Park neighborhood is the largest and least dense, featuring larger lots for production and custom homes that range in price from $400,000 to over $1 million. It is bounded on the north by Bradburn Green and the two other predominantly single-family neighborhoods and on its other edges by the large community park, the community gardens and apple orchard, and the Dry Creek

Open Space. The neighborhood is named after the Madison Orchard, home to apple and cherry orchards through the early 1920s.

Commercial and live/work architecture in Bradburn Village.
Photo by Petra Spiess.

Green Homes, Green Neighborhood

The homes at Bradburn Village are predominantly modeled after three vernacular Front Plains styles: Denver Prairie, Craftsman, and Farmhouse. Similar to other traditional neighborhood developments, Bradburn Village features front porches, alley-loaded garages, wide sidewalks set off streets, a grid-based system of narrow streets, and parks. The project includes a combination of production and custom builders, with custom homes often sitting adjacent to production homes. Ensuring a variety of architecture can be a challenge for production-built homes, so Continuum instituted an "anti-monotony" criteria that dictates where particular home styles may be built and mandates change of exterior elevation features such as brick columns, wrapped porches, and colors on adjacent homes. In addition to the vernacular styles, residential architecture incorporates Victorian, Italianate, Colonial, and modern designs.

The homes themselves feature high-speed wiring and other innovative and sustainable architecture features, such as carriage homes above garages and active solar photovoltaic panels with net-metering that will allow outfitted homes to sell electricity back to the utility during the day. Additionally, all are "built green"—homebuilders participate in the Colorado Built Green program, which in addition to energy- and water-efficient features for homes, often means buyers can gain access to reduced mortgage rates. In general, the Colorado Built Green program strives for:

- Better home energy efficiency
- Healthier indoor air
- Reduced water usage

Bright colors and vernacular architecture define the homes at Bradburn Village.
Photo courtesy My Neighborhood Insider.

- Preserving natural resources in construction and the homes themselves
- Incorporating durable materials into the homes

Bradburn Village park and homes.
Photo by Petra Spiess.

Bradburn Village features at least fifteen distinct homebuilders, including builders such as New Town Builders who have homes in other New Urbanist projects, like Stapleton. Lots for single-family homes generally range from 4,000 to 10,000 square feet. All homes are also within a five- to ten-minute walk from the Village Core.

As a community, Bradburn Village distinguishes itself from other Denver-area neotraditional projects because of its size. "The one thing that I always come back to is that the scale of Bradburn is so unique," says Foltz. "To be able to pull off this mix of uses and architectural diversity—we really have four distinct neighborhoods—plus the parks, connection to open space, and a commercial area, is impressive. And to do that all with 800 units instead of two- or three-thousand."

"You don't get lost in Bradburn," he concludes. John Koliopoulos, a resident who moved to Bradburn Village from a nearby, high-end subdivision, agrees. "It was right at so many levels," he says, speaking both of his new cottage home in the Madison Park neighborhood, built by the New Providence Company, and the community in general. "It is a walking community, quaint and hospitable, with garages in the back. It's open and airy, with the blend of residential and commercial, open space, a lot of families and children, shared space on the park. It's not a cookie-cutter house, and yet there's an architectural cohesiveness to the neighborhood."

Party on a park—a regular occurrence at Bradburn Village.
Photo courtesy My Neighborhood Insider.

A Social Community

There's been much debate about the "social engineering" aspects of traditional neighborhood design. In Bradburn Village, though, there's little doubt by the developers or residents that amenities and town design—usable front porches,

Bradburn Village Home Styles

Craftsman

Craftsman homes seem quintessentially American, but it was the British Arts and Crafts movement, with its emphasis on craft and natural materials, that inspired the design. Gustav Stickley's magazine, *The Craftsman*, helped spread the word in the U.S. in the early 1900s. The Craftsman homes feature rustic, exposed rafters, ridge beams, and window frames. Other signature elements include shallow-pitched roofs, deeply overhanging eaves, and tapered columns.

Denver Prairie

Take Frank Lloyd Wright's Prairie home and mix it with the two-bay Denver Four-Square and you get Denver Prairie: a taller, boxier version of the great 20th century architect's breakthrough style. Wright's low, flat designs were meant to reflect the Midwestern prairie. Denver Prairies, popular in the region during the 1910s and 1920s, tend to have wide windows and shallow hip roofs. Sometimes they feature leaded glass, flat roofs, and tapered columns, but they always feel solid and stable.

Farmhouse

This architectural style embodies early 20th century rural American practicality and simplicity. Farmhouse's unpretentious design allows it to stand on its own, or assume an occasional flourish without seeming overdone. Maybe that means supplementing a home with picturesque, smaller additions. Or adding slightly arched windows. Either way, there's a timeless charm to this plain, vertically-oriented style, with its steeply pitched roof, symmetrical gables, and repetitive array of tall windows.

Source: Continuum Partners, via Bradburn Village website.

pocket parks, wide sidewalks, short setbacks, smaller home lots, and interesting places to walk to—work to bring neighbors together.

Bradburn Village brims with both planned and spontaneous community events. Every Friday evening during the summer, for example, residents gather at a neighborhood park for a "park party," where adults socialize while children play. A stroll around Bradburn Village on a pleasant evening finds scads of people out walking dogs, patronizing neighborhood businesses, talking with neighbors on their porches while neighborhood kids ride bikes up and down the streets. Because the community's design encourages people to be outside in shared public spaces instead of their own, secluded backyards, cut off from their neighbors, residents in Bradburn Village generally know each other and interact frequently.

Just the Facts

Bradburn Village in Westminster, Colorado

- 125-acre mixed-use community comprised of 4 neighborhoods
- Located in a northwest suburb of Denver, Colorado
- $220 million project
- 865 residential units at buildout, including single-family homes, townhomes, condominiums, apartments, and live/work units
- Residential lots are approximately 66% built out
- Homes are built to Colorado Green Built standards, including some active solar
- Village Core will offer nearly 200,000 square feet of retail, restaurant, and office space and 9,000 square feet of restaurant out-parcels
- Contains 9 parks and 2 community centers, plus community gardens and an orchard
- Adjacent to city-maintained Dry Creek Open Space, with its own extensive set of trails
- Adjacent K-12 charter school is within easy walking distance, and a space in the project itself is set aside for a future elementary school
- Designed by Duany Plater-Zyberk & Company; Civitas
- Developed by Continuum Partners

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For more information, visit the Bradburn Village website at www.BradburnVillage.com.

Petra Spiess is a Westminster-based freelance writer who cut both her gas bill and carbon footprint by moving from a typical sprawl subdivision to Bradburn Village.

ARTerrain Gallery

Twelve conceptual nature drawings by Suzanne Stryk

Suzanne Stryk was born in Chicago and grew up in the prairie state of Illinois, where as a child she'd hide in tall grasses pretending to be Meriwether Lewis observing a new bird or bug. In 1986 she left the Midwest to settle with her husband and son in the "salamander capitol of the world," southwest Virginia. Without knowing she had connections to the city, a Virginia curator once said her art seemed Chicagoan—strongly figurative with a touch of surrealism—and she's been puzzling about that recognition ever since, wondering how place roots itself in the psyche.

Since 1990 Suzanne's shown her conceptual nature paintings in over 40 solo exhibits throughout the country. Her installation *Genomes and Daily Observations* was exhibited in 2007 at the Morris Museum of Art (Georgia), and later that year she showed a new series of paintings, *Green Evolution*, at the United States Botanic Garden Gallery (Washington, D.C.). Her images have appeared in numerous publications, including *Art Papers*, *New American Paintings*, and *Writing the Future: Progress and Evolution* (MIT Press), with full portfolios in *Orion*, *Shenandoah*, and *Ecotone*.

A number of her paintings have been acquired by permanent collections, encouraging her to feel that "if the world as we know it continues, a few of my images might be there for those who care." These venues vary from The Art Museum of Western Virginia and The Tennessee State Museum to the National Academy of Science (Washington, D.C.). The Smithsonian's National Air and Space Museum recently added one of Suzanne's paintings to its *Art and Flight* collection. "It's nice to think my homage to bird flight is nestled beside all those metal flying machines," says the artist, "reminding people the invention of flight was long before us."

In 2005 the William King Regional Art Center, an affiliate of the Virginia Museum of Fine Arts, organized her mid-career survey—*Second Nature: The Art of Suzanne Stryk*. "This was a milestone in my life. Preparing for it made me aware of my own evolution as an artist," she states, "and helped me discover my *own* natural history." Beginning with her gouache painting *Prairie Cycle* from the early 1990s, the exhibit was brought up to the moment with the sculpted nest and bird in *Little Wing* (2005). It even

had one slightly surreal painting of a salamander.

Suzanne's *ARTerrain* portfolio is a new series of drawings using freely applied plant stains (made from walnuts and coffee) along with acrylic and pencil for the details of animals. "I see the drawings as a dialogue—as in life itself—between the overwhelming tangle of life and the crisp, if fragmentary, vision emerging from it." These works include creatures found around the artist's home turf in the Blue Ridge Mountain region. "Among all the chaos of leafy growth I might discover a warbler, snail, or a salamander, and for a brief moment our lives intersect," she says. "That's a magical moment for me."

For more information on the artist, visit www.SuzanneStryk.com.

View full ARTerrain Gallery online at www.terrain.org/arterrain/22.

Poetry by Leonore Wilson

Vetch

To spill as these
over the once incendiary hills,
rich brimstone
of beauty,
purple as a cup
of blueblood—
this is what the body wants,
all haunch
like a cord of bucks
running—
there are no boundaries
in the dumb
animal heart,
there is only this
blossom after blossom.
How to believe in the quick
lithe earth
when the body is a mandate
of terrible wills,
how to wind and braid
over stone and leaf,
crash as veils do
ledge upon ledge
like a fission of
of libations—
O purple world
of pulse and panicles,
the geese migrate
one by one,
the great blue heron
tempers the stream
with his shadow—
all ascension
and release.
What cumbersome bones
under our skins
we have,
what cells drone
in the wild escarpment
of our brains.

The Roses

Against the window will not bloom—
they see us face to face,
bellies, hips, thighs
leg over leg like bent blossoms;
they see us in the early morning
devoted to union, as if the rain and
mist of our song could hover
in mid-air like the eight-string
burgeoning of the thrush's
voice, or the fecund blending
of the summer grasses
as they bend and roll
in the threshing tail
of a strong north wind;
the roses would climb halfway
up the trellis and hang
as if suspended there, voyeurs
arched high, bewildered, peering
like children seeing sex
for the first time, shaken awake,
hearing heaven itself twisting
and moaning, a cry in the far shed
of dawn, when sperm and egg
met, when their parents' blood flowed
backwards as it did once
into their own soft eyes.

First Lover

I left my wilderness for college,
came out of the house of my youth
toward knowledge, my body
fire and wind and water and
darkness, meaning it
desired, meaning it wanted to be
touched which to me
meant love or holiness or
waves smashing against cliffs,
meaning I thirsted:
I wanted to acquire
immutable beauty. I was a creature
of dust and earth and grass stricken dumb
like a ewe lamb. I told
myself, have courage!
I told God I was wholly determined
to be broken,
I knew those who descended into
sin and glowed in perfect light,
so when my first lover
understood my weakness,
he did what I knew he would:
he carried me off with his incessant
singing, anointed me,
then stuck a goad
right through my heart.

Leonore Wilson lives on the family ranch in Northern California. She teaches at a local college. Her work has been in such magazines as *Quarterly West*, *Third Coast*, *Madison Review*, *Poets Against the War*, *Laurel Review*, and *13th Moon*.

Poetry by Twilight Greenaway

Commute

To make substitution or exchange. To pay less upfront.
To travel as a single vertebrae in the body of a steady snake.
The same trip like a sibling, hated in the morning,

loved in afternoon. We slip silent over jagged bay inlets,
this Pacific-once-removed. Or the braking breaks us.
Stutters the worst from each of us.

In the rain, we imagine the land like it was before becoming
these banks of road. Knobby-kneed birds on the edgeline inch closer.
Native grasses look stiff and outnumbered.

What is left of ourselves, our outdoors.
And yet when watching a flood of orange morning headlights
from behind, they always look warmer

than the ones coming toward on the down slope,
in the low drizzle. We carry it, each in a private indoors,
then bring it home at the end of the day.

We get the blurred background we pay less for.
But like to imagine at least several flights of stairs between
what lives and merely looks the part.

To notice the negative space as it opens.
This knocking, at once loving the wall,
while preparing to hammer.

San Francisco 2007

The waves bruise with what rises
and blurs, like an appendix,
that worm of an add-on,
when it bursts, and just as black.

Soon, the skimming away at our
comfort, our rising debt.

We, too, will spill open
and black up the edges,
saturate down to the wings,
and put forth put forth put forth.

The days of restrained,
containable using up are through,
but we have gallons left to gush.

Twilight Greenaway is a journalist and poet living in the San Francisco Bay Area. Her poems have been published in journals such as *Blackbird*, *Ninth Letter*, and *Caketrain*. Visit http://twilightgreenaway.typepad.com to learn more.

Poetry by Paul Hostovsky

The Soul's Insistence

The soul likes to go grocery shopping
so it tags along with the body
but the body is tired for its part and only
needs some milk and some aluminum foil.

How about some lemons, says the soul,
standing among the pyramids of fruit
which the body knows aren't really pyramids
because it's all done with mirrors. But the soul

is standing among the pyramids telling the body
it needs lemons. And the body is tired
of the soul telling the body what it needs
when it doesn't even know the difference between

pyramids and produce, lemons and mirrors, needs
and desires. The soul has no idea, thinks the body,
and says as much out loud, or maybe only
sotto voce, so the soul mishears, the soul misunderstands

and says to the body, yes they do have pears,
pointing admiringly at another perfect pyramid.

The Day My Uncle Hank Sat Down to Lunch with Helen Keller in a Café in the Philippines, August 1948

it was raining,
but raining so hard that he couldn't
see what his hands were doing
in front of his own face, so he climbed
carefully down from the truss
of the cantilever bridge he was building
with the Army Corps of Engineers outside
Manila, and made his way into the city
under friends' umbrellas twirling
toward the brothels mostly, but Uncle
Hank who was always more hungry than horny
headed for Fagayan's for a bowl of beef stew.

Helen was building bridges too, she told him—
"bridges out of Braille dots" (visiting schools
for the blind all over Asia). Then she smiled
and turned to Polly Thomson sitting beside her
(Annie Sullivan dead 10 years already)
and asked her if the young American soldier
sharing their table in the crowded café
with its red-and-white checkered tablecloths,
sounds of Tagalog, Spanish, English mixed
with the clacking curtain of rain filling the doorway—
was smiling at her Braille joke. Yes, he was

but he couldn't see what her hand was doing—
the fitfully pecking bird of Polly's hand
fingerspelling into Helen's palm—to make
the words, *his* words, almost as fast as he was saying them:
"How do you do that? That, with your hand… How
does she understand?" And so it happened
that my mother's youngest brother Henry Weiss,
who hadn't written home in over six
months, learned the American Manual
Alphabet from its most famous reader,
over beef stew, brown bread and beer,
on a rainy day in Manila, and now had something

to write home about. Of course he'd heard
of Helen Keller—who hadn't?—but here
she was, older, stouter, and drinking
a beer, and sitting across from him, holding
his hand now, molding it, arranging his
fingers and thumb into the shapes of the letters
one by one, teaching him her tactile
ABCs. And her hands were large and strong
for a woman's hands, and she smelled good too,
and to see his eyes smiling when he told it
to my mother, whose eyes smiled telling it
to me years after, the way her generous
bosom swelled above the checkered tablecloth
as she leaned in close to Uncle Hank
and shaped and sculpted and praised,

it aroused in him something he never quite
got over. And walking back to the barracks
in the pouring rain, gazing down at his right
hand still practicing the letters, feeding them
to his left, which he cupped like a nest under them,
he must have looked to anyone observing him
like a man bent over his own praying hands;
or a man wringing his hands, for love; or maybe
a man who has just found something small
and glinting, and of great value on the way
to wherever it was he was going, and pausing
in the middle of the road now, he considers
this strange, new, marvelous light it casts
on his hands, on the road, on his whole life.

— From *Bird in the Hand* by Paul Hostovsky

Paul Hostovsky has been featured on *Poetry Daily, Verse Daily*, and *The Writer's Almanac*. He has two poetry chapbooks, *Bird in the Hand* (Grayson Books 2006) and *Dusk Outside the Braille Press* (Riverstone Press). A full-length collection, *Bending the Notes* (Main Street Rag) will be published in 2009. Learn more at www.paulhostovsky.com.

Poetry by Elizabeth Simson

Day Job at the Municipal Airport

A slow-throated swallow sings
in the birches, braced and bare.
Across the airfield, nervous hares
dart before the planes. In winter fog
the radio tower's beacon sweeps the sky,
Cyclops swiveling on a barstool.

I eat a bright orange for my breakfast.
Mass of flesh and rind, it splits under my teeth
in one easy motion of surrender.
Along the road, early tulips,
their sunrise colors sullied
by passing trucks, bend their muddy heads.

The way I love these tulips
is not the same as desire,
at least I mean it to be civilized,
realistic. Isn't every day a danger?
In the end, I don't expect
anything in this world to save me.

Beneath the Forest

Darkness grinds stone underground,
a fine powder, and we walk above,
restless, feel the leaves shift, a little
stumble. Here and there, an untidy
heap of stump breeds mushrooms
in a sudsy foam, seems ready to
dissolve, but we walk on,
measure the swell of the river,
calculate drops in the snow line,
the temperament of weather.
Darkness goes on gnashing its
jaws, and when our dreams break,
sharp and uneven, we blink back,
push back into darkness and find
our mouths filled with sand, our
eyes awash in ashes.

Elizabeth Simson is the author of *Sea Change* (Finishing Line Press, 2005) and has had poetry appear in such publications as *Atlanta Review* and *Comstock Review*. In addition to editing the quarterly newsletter for the Oregon State Poetry Association, she serves on the board of directors for Gertrude Press. Visit her website at www.poemfish.com.

Poetry by Joanna Gardner

From the Vantage of the Patio

Midnight, a lone coyote's aria,
  our edge-on view of the galaxy
twining across the sky.
  What does marriage mean

past photographs and rings?
  Shooting stars weigh in
as each of us exerts
  a curve on the night,

three blue troughs of gravity.
  Even though the air is still
a storm whistles through
  our bodies, a gale of dark matter

gusting with secrets spoken
  and held, invisibilities
that keep the Milky Way
  from flying apart. In wind like this

the holiness of being extends to blindness
  and delusion. But why would we
live in pools of the universe
  if not to let some clarity accrue?

The Shadows of Doubt

You tell me you haven't a shadow of doubt,
You tell me you haven't a shadow at all.
Mine is the shadow that's cast by the clouds.

You sway back and forth when the messenger shouts,
You never make room for a wandering soul,
You can't since you haven't a shadow of doubt.

My fingertips bleed when I scratch at the ground,
I touch every footprint and tug at the veil,
Mine is the shadow that's cast by the clouds.

I catch you adjusting your pre-emptive shroud,
You stare at the phone as you wait for the call
And swear that you haven't a shadow of doubt.

They pass me the wine and the earth remains round.
If you are the rapture then I am the fall.
Mine is the shadow that's cast by the clouds.

You've called to the sky, your feet left the ground.
I've carried my spear down a dimly lit hall.
You tell me you haven't a shadow of doubt,
Mine is the shadow that's cast by the clouds.

Joanna Gardner lives in New Mexico with two dogs and one husband. Her fiction and poetry have appeared in *Rosebud, The Rose & Thorn, Reflection's Edge, Flutter*, *South Dakota Review*, and others. You can visit her online at www.joannagardner.com.

Poetry by Kathryn Kirkpatrick

Strange Meeting

Is this how an animal feels
on the other side of a human eye?

I was a woman speaking
to men I didn't know.

Large and strong, they
knew about power
in ways I may never

I sat framed and assessed
no threat a square jaw decided
negligible bent knuckles said

I looked back through my animal
eye, saw

the slit throat of the cow
in the leather shoe

the poisons deep in the soil
where the cotton grew

the felled trees
of the papers stacked

the mountains leveled
in the electric hum of light and heat
where we sat.

I saw clearly
all they had done and would do
to make a world we'd be losing fast.

I saw why it was lost.
And I saw how we would lose it.

Raised in the nomadic subculture of the U.S. military, **Kathryn Kirkpatrick** was born in Columbia, S.C., and grew up in the Phillipines, Germany, Texas, and the Carolinas. Today she lives in Vilas, N.C., and is professor of English at Appalachian State University. Her poetry collections are *The Body's Horizon* (Signal Books, 1996), *Beyond Reason* (Pecan Grove Press, 2004), and *Out of the Garden* (Mayapple Press, 2007).

Poetry by Sarah Sarai

Incorporeal

You sense a little
twist in the divine's
rightish buttock or in Her
sense of a rightish buttock as
She and Herself are ideas
She concocted and you and I agreed
match circumstances

Those being corporeality of life
accounting for headaches when you
sleep with windows sealed and heat
cranked high thus

So for ourselves we concoct
buttocks also elbows that tingle
oh awful when banged in the
magical place

An idea only is She an
impulse defying all impulse
a start that is good without being
there ever beginning and having

In her fleshy and bodiless
spread of a grabbed ass
a no-see-um event or
on the foot's sole an arrow
marked "sinus" which points

Unto the inexplicable notion
of Her smile as a force centrifugal
She created or whimmed
into life so we'd wander toward
the absolutely amazingness
of She Herself forming such
a thing as pine boughs shaken
by burning cold winds when
we're all alone and looking up

Remorse

When he lumbered in the way of men
who use their hands to till earth,
he knocked a rough doorway
and sobbed for unfairness and
the slaying. Dull, trembling,
he threw on three pelts against
a desert night, and feared heaven's
white stars. We've all killed our brother.

The dead roam through us.
We toss beneath old gods' blazing navigation.
Cain? It's morning. He bites a sweet seedy fig.

Birth is the Last Exit

Return:
It means answer
it means summary
it means account.
Down the elastic passage
to a life too elastic
to control. Soon a wisp
up white tunnel glowing.

In Madison Square
greens on a wavelength
with browns arranged
by orders of sobering
joy—the squirrel's
disregard for mortality
as she darts seeking and
sequestering so tomorrow
is not empty so today
is well-spent in late
autumn's sentient light.

Sarah Sarai is the love child of Antelope Valley and the Hudson River. She's had poems in *The Minnesota Review, The Threepenny Review, Main Street Rag, The Columbia Review, Fine Madness, PANK*, and others; her short stories are in *Weber Studies, The Houston Literary Review*, *Weber Studies, VerbSap,* and others. Read on at www.myspace.com/sarahsarai.

Poetry by Lee Passarella

Call of the Wild

Hot July, in a valley of the Shadow:
a hill once packed with pine and oak
tight as a pile of cordwood, gone

to make my company's new office park
—the Campus, as it's jocularly called,
this Cadmus' field of macadam and tinder

grass. Behind the place, from a dying
tulip tree—forest leftover, anorexic slip
all raw long bones and hip blades tottering

above ten lanes of Interstate—a red hawk
calls its mate half a mile away. A mournful
cloying *cheecheechee*: crazy mismatch

to the bulk of this tented *thing* that lurches
and kites downwind, like a jinni haunting
a spot where death is a dream of shade....

This week, we filled the swimming pool
at home, our tiny garden by the backdoor
ankle deep with the overflow. Each hot

parched night we hear the frogs
croon love songs in the brief wetland
formed from our profligate days.

Lee Passarella's poetry has appeared in *Chelsea*, *Cream City Review*, *Louisville Review*, and elsewhere. Passarella has two books of poetry: *Swallowed up in Victory* (Burd Street Press, 2002) and *The Geometry of Loneliness* (David Robert Books, 2006); his chapbook is *Sight-Reading Schumann* (Pudding House Publications, 2007). Passarella serves as literary editor for *Atlanta Review* and *FutureCycle Poetry* magazines.

Poetry by Nancy Takacs

The Bear Feeder

I knew I had to take it in at night,
but forgot, looking at the stars.
I heard it crush
under a bear's foot
or at least I thought
this while I slept.
I woke early
and fed the cats
their cream and one
fish liver. The light
hadn't come up yet
over the meadow of little
bluestem and wild
strawberry, some fading
lupine. I could see
the shoulder of an island,
and the soft gray
earth of Superior
though there was still a mist.
I sat outside near the fiery
geranium leaning away
inside the same pot
from the blue
lobelia that is tricky
to grow; it needs more cold
for its darkest blue.
There was a bear.
No, it was a hole
in the maples.
I was wishing
for a bear.
Then as the lake lit up,
and the birds began,
I saw the feeder
on the ground, broken,

a splash of gold seed,
overnight most
of the great harvest
already eaten.

I looked for her prints
in the sand, under
the shepherd's hook
where I hung the feeder,
and picked up the globe
that was first cracked,
then bitten. I felt inside
the steps she took
from the hemlocks
across the native seed grass
we planted, just beginning
to break out of its clay.
The prints were much longer
than my hand, not as deep
as my heel. I could not
slip my fingertips inside
the fine claws. She had
crossed what will be a small
yard surrounded by raspberries,
ferns, and red lilies,
then she went down the hill
where one day she can live
in woods when they grow
big enough for bear.
She knew what she was
looking for, and it was
easy, to pick up the hive
of seeds and run a claw,
let them fall, tongue them
in the sand, these seeds
she spread overnight
in a long curve,
licked into wet clay
licked hard, planted now
in our soil.

Waterfall

It makes me think I'm not alone.

It makes me think I'm alive.

I can feel death,

know death.

It makes me hurt,

billowing over the universe.

It loves volcanoes,

tolerates hurricanes,

bores the eye's shoulder,

a volcanic inching heart,

the universe's sucking rhythm,

its own edge worn to a new edge

miles back. The frush

creeps and turns, senses the fall,

how one lights up,

how one goes home in the dark.

Nancy Takacs lives near the San Rafael Swell in Price, Utah, and also spends time in Bayfield, Wisconsin, near Lake Superior. She is the author of *Preserves* (City Art Press); and chapbooks *Pale Blue Wings* (Limberlost Press) and *Wild Animals* (Outlaw Artists Press). Limberlost will publish *Juniper* in September 2008.

Poetry by Christine Klocek-Lim

Boulder Caves

— for my sons

Mostly, it was the dark that interested them.
The cracks and the dim wind that blew
inwards, down into the cold earth.
Not the high trails vined with blooming
rhododendron. Not the sky.
Mystery called them and they crawled
over rocks to answer.

It was the ease with which they went down
that bothered me. Their slim bones fit
where mine could not and they thought
nothing of it though I could tell that balance
was crucial. Sometimes, if I leaned over
the ledge far enough, I could see briefly
into the dark and a foot or a finger would
appear, the skin soft against the stone
as they moved deeper.

In the end, they disappeared into the silence
and there was nothing I could do. The young
go where they please because the spirit
demands it. I waited a long time for them
to return, their hair mud-dappled.
Their eyes shaded with knowledge
I had forgotten.

Christine Klocek-Lim's poems have recently appeared in *Nimrod*, *The Pedestal Magazine, Philadelphia Poets*, and the anthology *Riffing on Strings: Creative Writing Inspired by String Theory*. In 2006, her work was selected as a finalist for *Nimrod*'s Pablo Neruda Prize for Poetry. She is editor of the online journal, *Autumn Sky Poetry*, and her website is www.novembersky.com.

Poetry by Karla Linn Merrifield

"Groping for the Spirit"

In memoriam — Archie Carr, 1909-1987

I.

Welcome to the vaulted rooms
of Southern woods,
of primordial
gloom, illuminated
glory.

Oh, most influential flora
in the Southeastern landscape,
most widespread,
most distinctive!

Yes, *Tillandsia usneoides*—
no moss at all—but finest drapery
of epiphyte enchantment.

No, not a parasite
despite its gothic demeanor, but
a most abundant bromeliad.

Pineapple cousin, orchid sister,
of tiniest greenish-yellow blooms,
faintly sweetens quiet nights.

Note frosting of minute pointy scales
—nutrient-snatching dust catchers—
effective chlorophyll mask.

Observe if you can
feathery floating seeds
windblown far and wide across
Dixieland.

Not a plant apart
but live oaks' boon companion,
festooning those bishop trees.

None too picky, either:
partial to cypress too—
silver gowns for swamp owls.

Forest's *bella senorita*
like a mermaid coifed in seaweed
tosses wind-combed tresses.

II.

Shimmying to languorous drums,
paleo-Indian girl
swivels her hips
in mossy skirts.

Did Tumucuan mothers
once cushion their cradles
—and babies' graves—
with "Spanish moss?"

Never a simple species
to name: *barbe en Français*,
beard of the enemy.

Not inappropriately as well
called by conquistadors *peluca francesca*,
enemy's wig, *por favor*.

No longer upholstery
and horse collar stuffing,
stuff for cordage—
frizzly, black, stringy.

Nor by any means
forlorn gray curtains
once worth six cents a pound.

Take mud, mix in dat moss,
git good walls for dem slave shanties.

Wise women, shamans found
it useful for edema, hemorrhoids,
the weak of heart.

III.

She remembers the last voices of
ivory-billed woodpecker,
Carolina parakeet,
passenger pigeon.

She recalls dire wolves
gone like ancient aborigines
to the Great Hunting Ground.

Above, she espies
introspective spadefoot frogs'
spare nocturnal activity:
one hop, maybe two.

A few braids
as finishing touches
—shag carpeting—
for cozy swallowtail kite nests.

Three bat species
soften their sleeping crannies
with it in caves, on limbs.

She studies rat snakes,
coral snakes scaling branches
for flightless newborn flying squirrels.

But look all you might;
you won't find any
biting chiggers, ticks, mites.

IV.

Untangle now
these filigreed strands;
find within this ubiquitous botanical
poetry's *rara flora*.

Karla Linn Merrifield is poetry editor of *Sea Stories*, and has published in such publications as *CALYX, Earth's Daughters, The Kerf,* and *Elegant Thorn Review*. She edited *The Dire Elegies: 59 Poets on Endangered Species of North America* (FootHills Publishing, 2006) and her newest book of poems is *Godwit: Poems of Canada* (FootHills Publishing, 2008). She recently held her first one-woman photographic-poetry exhibit, with accompanying chapbook, and teaches writing at SUNY College at Brockport.

Poetry by John Estes

Creamline

If there's a kindness
similar to milk,
it better be the raw kind,
pulled straight from
a vein-throbbed
taut and bloated utter
nutrients intact,
illegal to sell
unless, like us,
you have anarchist-
green-grocers who keep
a local-food shop
where it's kept,
when available,
in the dairy case
in unmarked bottles.

So that I may hope,
do good and
dwell on the earth—
the sole demands
if boiled down the galactic
grammatic I-Am

saw fit to impose—
give me this brand
of beefy care,
grass-fed preferred,
so I might be
strong to give it.
But if I must settle,
as most often
I must, I'll take it
pasteurized but
unhomogenized:
heated and fortified
as legislated
but left in need
of shaking.

John Estes teaches at the University of Missouri and is poetry editor of *Center: A Journal of the Literary Arts.* Recent poems have appeared or are forthcoming in *Circumference, LIT, West Branch, Notre Dame Review*, and others. His chapbook, *Breakfast with Blake at the Laocoön*, is available from Finishing Line Press.

Poetry by Gretchen Primack

Alan Anderson, 3A

Someone's snapped a pink
tutu around the earth's middle,
and don't think she isn't
ready to close shop, turn
the stools onto the bar and sweep
us the hell out of here. Everyone
at my table is ready and willing.
Someone at the next squeezes
a fiver under the tutu's elastic.
It's hot in here, ever hotter,
and the heat is breaking the mantle,
and the floor is seizing, and the partridge
is draining its sawdust, and the bass's glass
eye is melting, and the sad burgers
congeal in their fat behind the bar.
They are her daughters, you know,
who comprise them, they are kneaded
of the blood of her children, nothing
gentle about it. *Out.* And what
ceremony would change her mind?
What could be undone, and what done?

Gretchen Primack's publication credits include *The Paris Review*, *Prairie Schooner*, *FIELD*, *Best New Poets 2006*, and others. Her chapbook, *The Slow Creaking of Planets*, is freshly minted from Finishing Line Press. She teaches and advises at two maximum-security prisons through the Bard Prison Initiative. Her website is www.gretchenprimack.com.

Essay

by Heather Killelea McEntarfer

Joe Holt's troubles didn't begin the summer of 1957. But when he thinks back, that's where he lingers. Late summer, 1957, his cousin tearing down a country road, crying and shouting: *Lord have mercy!* Late summer of 57: the summer hell slipped the grasp of the devil himself, and settled contentedly in the Holt family home.

It was a Saturday. Joe, fourteen, had been shipped to his father's family in the backwoods of eastern Carolina—a little vacation, he'd been told. That day, his relatives had visited an aunt who owned a television. Joe had decided to stay home. He was a city kid, after all, and television old news. Hardly worth a quarter of a mile.

But then his cousin rushed through the front gate, hysterical. *Lord have mercy!*

"What's the matter with you?" Joe asked.

"It's all over the television! Oh, Lord have mercy, they gonna destroy ya'll's house!"

Raleigh does not remember Joe Holt. The family that made television in eastern Carolina, 1957, slipped from the narrative of a city willingly—or something close to willingly. In a city just as eager to forget, that story fell to fragments. A misgiving here; tight tug of anger there. Typed lines in old records, bound and shelved. A story that, for nearly half a century, no one chose.


USAF Lieutenant Colonel Joe Holt.
Photo courtesy JoeHoltStory.com.

You could say that story begins in August 1956. Raleigh. Two years after *Brown v. Board of Education*, and Joe Holt still rode the city bus across town everyday to Ligon, the black school, rather than the nearby Daniels' Junior High. His parents wanted Joe to attend Daniels'; after all, the law said he could. Local black lawyers hoping to enforce that law were seeking just such a family. Joe was thirteen, entering the ninth grade.

That November, the family made *The Raleigh Times.* They posed together: Elwyna hovered above husband and son and pursed her lips a bit, as if hiding some ironic amusement. Little Joe, as he was known, leaned in on the other side of his father, long face solemn. And in the middle, Joe, Sr. Perfectly straight, shoulders back, eyes narrowed and the hint of a smile on closed lips. "I intend to see this thing through," he said. "We are not going to stop now."

It was a Joe, Sr. kind of a thing to say.

"Perhaps this strikes every boy about his dad," Holt says now, "but my dad stood tall, as a man. It was a matter of pride to him as a man that he stood his ground. To me, he was the epitome of strength, both physically and in character. He was strong, and he stood tall."

Joe, Sr. grew up in eastern North Carolina, where Joe visited that summer of 57. Out there, a city boy like Joe, on childhood visits, could collect attitudes and anecdotes, stockpile them the way children do with random treasures: rubber bands and buttons and shards of colored rock. Hide them in bulging pockets or the folds of a tree; spread them out later for examination. There was the way, in that community, white folk lived among the blacks, if not *too* close. The way you could address a white man by his first name, no Mr. This or Mr. That cluttering up the conversation. You couldn't get away with that in Raleigh. Still, Holt says he never saw his father *subordinate* himself to anyone.

Elwyna, Joseph, and Joe Holt.
Photo courtesy, RCM/Joseph H. Holt, Jr., and the Raleigh City Museum.

Joe Sr. found a match in Elwyna. She was, Holt says, intellectual, cultured, refined. She knew her rights. A local schoolteacher, Elwyna wrote the application to Daniels', arguing that Daniels' was closer than Ligon. It was—with better facilities and books that weren't hand-me-downs. But for the Holts, admission to the white school was not about convenience, nor even entirely about facilities. It was about their son not being made to feel unworthy. As long as you went to Ligon High School, Holt says, "You still carried with you: this school is for you; *that* school is for our white kids."

Joe Holt's application to Daniels' Junior High was denied. According to the city school superintendent, it was not the time for that.

The next year, 1957, the family tried again. Too old now for junior high, Joe applied to Broughton High School.

This time was harder.

Rules sprang up, thick as kudzu. School transfer policies before 1956 were not particularly complex; school transfer had never posed a problem. A year earlier, Elwyna sat down in August and wrote the superintendent a letter. School board minutes show that other parents requested transfers in the same way.

But by 1957, things had changed. The Holts had happened. The Board's new Pupil Assignment Policy required forms, signatures, notaries. The Holts made the deadline with time to spare.

But Joe Holt remembers another rule: in order for any school board decision to be made, a certain number of members needed to be present. Joe's application reached the board in June 1957, and it was a funny thing, those summer months: each time the Holt matter came up, seemed there weren't enough board members present to make a decision one way or the other.

June 11, 1957: Upon motion by Mr. Martin, seconded by Mr. Powell, action on this application was deferred until the next meeting of the full board.

So the Holts waited. Meanwhile, the harassment that had begun late fall of 56 reached a screaming pitch. Hate mail, bomb threats, phone calls all through the night, *every* night. What's more, the Holts felt even the black community had averted its eyes. Before his application, Holt says, his parents had been accepted members of Raleigh's black community, their names cropping up on guest lists for events and socials.

And then, this strange silence. We live today in a world that's known the Sixties, a world in which African-American resistance to racism has become an integral shade in the collective hue of American history, American politics: a shade without which we wouldn't know ourselves. That's not to say resistance is new, nor even that it's entirely safe. Just that it's easy to forget how dangerous it was. There were hands in the night that could ring your house with gasoline, pour poison down your well, string you from a tree and set you aflame. Emmett Till was whispered as a warning to young boys. And danger was catching: a disease transferred not through a cough, but an unwise smile on the bus. Joe, fourteen, didn't notice it so much. But his parents began to sense that friends were distancing themselves.

Joe Holt understands that distance now—understands the fear. Still, it hurt. Dr. Prezell Robinson served as academic dean of Raleigh's historically black St. Augustine's College in 1957. In Robinson's memory, most of Raleigh's black community supported the Holts. But Robinson also remembers the fear. The "White Citizen's Council," he says, did everything it could to intimidate black people who supported Joe Holt.

The threats regarding jobs weren't idle; by that summer of 57, Joe, Sr. had lost his own job and begun a series of odd jobs that tended to dry up as bosses realized just whom they had on their hands. His periodic joblessness left Elwyna the family's sole breadwinner, her teaching job precarious at best. And as the fight wore on, Elwyna bore the brunt of the verbal abuse directed toward the family. She answered the phone, fielded the name-calling and threats. Joe watched his mother, saw how the very way she moved about the house changed. Jittery, on edge. He swears now that his mother was on the verge of a nervous breakdown.

And Joe? Joe Holt was a boy. In *The Raleigh Times* photo, his eyes catch you. His parents look off a bit to the right, but Joe stares straight at you, eyes solemn and deep. He was a serious, quiet kid. He understood his family's fight, and he wanted it. He says he never wished his parents would just let the whole thing drop. He says he was still able to hang out with the boys, get into mischief.


Brownell Orders Probe Of Mississippi Voting
NATION SHOCKED, VOW ACTION
IN LYNCHING OF CHICAGO YOUTH
'Murder,' White Says; Promises Prosecution
Urge Eisenhower To See That 'Justice Is Served'
Chicago Defender
NATIONAL
Blood On Their Hands ...

Visiting from his home in Chicago, Emmett Till was murdered at the age of 14 in Money, Mississippi. The lynching is one of the leading events motivating the American Civil Rights Movement.
Photo courtesy PBS.org.

He also calls those four years the most stressful in his life.

"When you are in a subordinate position like blacks are," Holt says, "you have been conditioned, unfairly, to feel that you have to be perfect in order to be accepted, where a white person doesn't have to think twice about it. I knew that I was like in a fishbowl. I was a black kid that everybody—every black person in Raleigh that I knew—was looking at as somebody special. I felt I needed to be a genius, okay? So that I wouldn't let anybody down. I wasn't a genius. Okay? I was a good student—but I wasn't a genius."

Joe worried about his parents and his grades. But as far as actually *going* to the white school, it wasn't Broughton that scared him the most. Maybe that was too far off in the distance—unimaginable, really, in North Carolina, 1957. Maybe Joe's fear latched on to something he could imagine. At any rate, what scared Joe Holt during the summer of 57, as the school board stalled and his parents worried and the phone raged in the night—what scared him was the prospect of going before the school board for his transfer request. To go to a hearing, surrounded by whites, not knowing what they might ask? Maybe they'd make him work out an equation, differential calculus or something. He didn't know. He knew from intuition and experience that anything he said that didn't satisfy that board would be exaggerated. Maybe headlined in the paper, whispered and frowned over by the black community he believed was counting on him.

The worry followed him out of Raleigh to his aunt and uncle's house, a fear he couldn't say, lest anybody see it as unwillingness. Joe Holt was willing to go to Broughton. But now he had to go to some sort of damn *inquisition*?

And then the trip down east, and his cousin flying down that dirt road, carrying on about dynamite and fire and Joe's parents on TV.

Joe didn't believe her at first. He thought he was on vacation. He didn't know about the woman back home who'd overheard something somewhere and issued Elwyna a warning: *Get Little Joe outta here*.

He shook his head. "You didn't see them on television. C'mon."

The cousin insisted. "They were on *TV*, Joe! They had a picture of them right there at your house!"

It took Joe a while to believe her. When he did, he said, *God.* He'd been trying not to think about anything related to Raleigh or school boards, but the terror in his cousin's eyes was real. Within 48 hours, Joe's parents had joined him down east. They were quiet, and Joe was too. He worried, but his parents were usually open with him. Joe figured whatever they wanted to tell him, they'd tell him.

And if they didn't tell him anything, that meant Dad had it under control.

One night, though, he stood out on the front porch with his father and his Uncle David. Little Joe was silent, but his uncle and father began to speak.

His uncle asked, "Do you think you really need to go through with this thing?"

Broughton High School in Raleigh, N.C.
Photo courtesy David Voisey.

Joe remembers his father saying, "David, I'm going through with it." And, "Everything'll be alright."

And then his uncle said something that surprised Little Joe. Here was this big strong farmer, formed on the same parcel of earth that had formed Joe, Sr., and both with cores like pillars of oak: big on strength and fortitude, but not necessarily on sensitivity. Little Joe didn't picture his Uncle David as big on reading people either, and he'd been working so hard to hide his fear.

But there was his uncle on that porch, saying, "I'm not sure you ought to put Little Joe in that situation."

Joe was silent. There were words on his tongue, but they could have been misconstrued: a worrisome prospect in a world where a child did not correct his elders. If his father and uncle got the idea that Joe wanted to back off the fight, there would have been no respectable way to set them straight. But in the silence that followed, Joe's father went quiet. Finally, Little Joe *did* speak, something along the lines of, "Well, I wonder what they're gonna ask me?"

His father stayed quiet a while longer. Joe felt him searching, running the words of his brother and son against that oak, as if he'd find an answer carved into some unexpected nook. Maybe he did. When he spoke, it was the Big Joe his family knew.

"Hell, no," he said, "you're not going down there in front of that damn board."

Back in Raleigh, the Holts' lawyers agreed. Listen, they said, we're your lawyers. We have power of attorney. There's no reason for you to go down there. In fact, the Holts' lawyer, Herman L. Taylor, thought Joe's intuition sound.

"In those days," Taylor would say later, "they used every ruse they could find to delay, and one reason we didn't want your father and his parents to go to that school board meeting was that we knew that they wanted to get them there and try to intimidate them, brow-beat 'em, see, and put them through all kinds of torture. And as their lawyers, it was our business to shield them from that."

The decision would prove critical.

The school board finally addressed Joe Holt's application in August of 1957, when it ruled, "*In the interest of the public, and in the best interest of the Raleigh City Schools, and for the welfare of Joseph Hiram Holt, Jr.,…*" Joe would not be allowed into Broughton.

The Holts filed suit in federal court, but in September of Joe's junior year at Ligon, the court denied the application. The official, legal ruling? Joe couldn't go because of the Holt family's "failure to exhaust all administrative remedies before the law."

In other words: Joe hadn't gone before the board.

White parents wouldn't allow their children to ride the school bus with this girl, the first African-American to attend an integrated school in Charlotte, N.C.
Photo courtesy *Charlotte Observer*.

Failure to exhaust all administrative remedies? The phrase ran through their minds, a taunt laced with guilt and what-if's: what if Joe had just *gone*? Would the fight be over? Because, coming when it did, the court's ruling was like high water rising. Not an end; not an answer. A continuation. It meant Joe couldn't go to Broughton, at least not yet. More immediately, it meant that all of the abuse, the phone calls, the threats, the fear, would all continue. High water rising, and nothing to do but tip back your head, grab what air you could, and keep paddling. If the family thought of stopping, they did not say it. But they were tired.

Once again, they fought back. Their lawyers appealed the ruling, and finally in fall 1959—Joe's senior year—the Eastern District Court upheld the *Administrative Remedies* ruling. The Supreme Court would not hear the case; the Eastern District Court was the final recourse. A few months later Joe graduated from Ligon, and the matter was over.

Or the court's decision made it seem that way, for a while.

Raleigh does not remember Joe Holt. Raleigh tells another story—one that brings the city pride, and, in some ways, deservedly so. Joe learned about that story in September 1960, three months after he graduated from Ligon. At the kitchen table one day, he picked up the Raleigh *News and Observer*—and there, on the front page, a young black child smiled back. Seven-year-old Bill Campbell, the first black child to be admitted to a white Raleigh school.

There'd been no fanfare. The article was small, set beneath the fold. A few days later another article, tucked into the inside pages, recorded the milestone: "Raleigh's public school system was peaceably integrated Friday.…"

And it had been. On September 9, 1960, second-grader Bill Campbell arrived with his mother at Raleigh's Murphey School. In a photograph accompanying the article, a few parents and children stood along the sidewalk, watching Bill Campbell and his mother leave. They watched as though mother and son were curiosities: lonely members, perhaps, of an already-passed-by parade, this child with the pressed plaid shirt and white socks drawn up high, and the mother who clutched his hand and bent over him, protectively. They watched, and in the photograph a little boy behind Bill Campbell cocked his head.

They watched. But they were only a handful.

That week, a few letters to the editor derided Bill Campbell's admission. At the Murphey School, a few parents withdrew their children.

Within a few days, most were back.

In Little Rock, angry crowds chased nine black teenagers from the lawn of Central High. In New Orleans, six-year-old Ruby Bridges was "integrated" into an empty classroom. And in Prince Edward County, Virginia, school leaders closed down every public school in the county for five years, rather than integrate any one of those schools.

In September 1960, Raleigh's local papers focused on Hurrricane Donna pummeling the Florida Keys. Letters to the editor focused on the relative propriety of a Catholic running for president.

Three years earlier the Holts fled this city for their lives; in 1960, the public record portrays Raleigh's introduction to integrated schools as a sidenote. According to Casper Holroyd, a white Raleigh parent in 1960, that's just about right. Bill Campbell's acceptance, Holroyd says, "didn't seem to be any outlandish thing."

The claim invokes a public front. Within the Murphey school, five years passed without one black face for Bill Campbell's eyes to rest on. Within the family home, the phone erupted with threats from which the family fled, unable to trust the police. And every morning on Raleigh's streets, a small group of citizens escorted mother and son to school, protecting them from taunts, shouts, spit. Every morning a white woman called down from her porch, "*Nigger, why do you want to go to school with those children?"*

February 16, 1960: Dr. Martin Luther King speaks at the White Rock Baptist Church in Durham, N.C.
Photo courtesy *Durham Herald Sun*.

There is, to be sure, the public front—one that does justice to neither Bill Campbell nor his family. But the public front has become the story that's survived, one that takes on its own importance: the story Raleigh claims. The story of a city that had its controversies over race, no one denies that—but a city that can also point to relative calm in a time when the state and the South and the country all seemed to have gone just a little bit mad.

Bill Campbell's admission should have been a right, a good thing—and it was. But coming on the heels of the Holt family ordeal, that admission also became a twisted sort of mirror—one in which the Holts' reflection came out poorly. If the school board was willing to accept a black child in the fall of 1960, why should it not have been in the fall of 1959? Bill Campbell's acceptance lent *failure to exhaust all administrative remedies* a new legitimacy, in the black community and the Holt family. That *failure* became the story told in hushed tones: black children in Raleigh couldn't go to white schools because the Holts screwed up.

In the years that followed, the entire experience—most of all, that decision not to go before the board—haunted the Holts, silently. The late fifties became a time not talked about. A time worked over on the inside. *If we had just.... If I had only....*

Meanwhile, Raleigh's black community beheld Bill Campbell with a kind of awe: this child who carried so much into that school. Centuries of pain, and the promise of all they could imagine. Everybody needs heroes, Joe Holt says. And if the young Bill Campbell embodied an up-and-coming city and an up-and-coming people, he seemed—for a whileto have made good as an adult: in 1993, Atlanta elected him mayor. Campbell's name even cropped up on lists of potential running mates for Al Gore in 2000. When Campbell spoke at the 2002 commencement of Raleigh's historically black Shaw University, President Talbert O. Shaw told him, "You are a favorite son of Raleigh. As a boy, you were so brave."

And behind all of that: Joe Holt. Seventeen years old in September 1960. Soon he'd earn honors at St. Augustine's College. Airlift materiel into and out of Vietnam with the Air Force; forge a career; retire as lieutenant colonel. Raise, with his wife, three children who would give him three grandchildren.

But in September, 1960, he sits down at the kitchen table, unfolds the paper, and *What in the world is this?* Who *are* these people? What did they do that *we* didn't do?

The questions tormented Joe. Bill Campbell was seven years old; the timing was not the child's fault. And Joe Holt, then and now, is not by nature a vengeful man. But now, when he speaks of his family's story, and particularly of the Campbells, his voice rises in pitch. *The fiery Ralph Campbell*: that's how black people in Raleigh would come to describe Bill Campbell's father. And any thought directed by Raleigh toward the Holts? Not much, and always filtered through the Campbells: See, the people would say, *they* did it right.

If it weren't for Deborah, the story would end there. A family disgraced and then replaced in the collective memory of a city. But Deborah Holt, Joe's daughter, knew about her father's experience. And when she needed to produce a documentary to complete her masters, she began making phone calls, and rummaging through boxes in basements. What she found offered insight in all sorts of ways. Her father's head shot, for example, in Ligon's National Honor Society book, and the same photo labeled *salutatorian* in his yearbook. The same Joe Holt who speaks, in abstract terms, of segregation's degrading influence seems utterly sincere when he presents himself as merely a "good" student. Dr. Prezell Robinson, from St. Augustine's, held meetings on campus for the brightest black students in the city, including Joe, and remembers Joe's academic credentials as impressive.

And Deborah found something else: the man who answered the questions that had haunted her father's adult life. Of the three school board members who took part in that vote to reject Joe's application to Broughton, only J.W. York was alive when Deborah began her research. Deborah told York over the phone that she wanted to speak about racial integration in Raleigh. He agreed. When she arrived, York, large and jowly, greeted her pleasantly. Unbeknownst to York, Holt sat nearby in the waiting room: moral support for Deborah's most tense interview. He could hear them speak.

York began to speak proudly of Bill Campbell and Murphey Elementary. Deborah told him that was all very interesting, but she'd like to ask about Joe Holt.

J.W. York's eyes got wide.

York haggled, insisting suddenly on legal forms. But he talked. And he offered a rationale for Joe's denial that no one—Joe nor his parents nor their attorney—had ever heard. Joe Holt, York said, had been denied entrance to Broughton High School because of his *age.* "Our feeling was that when we got ready to integrate the schools, we should start at the primary level,"York says on the documentary, "so that the children would grow up being used to the integrated schools."

Not necessarily such a bad idea; Holt now believes that had he actually been allowed into Broughton, he'd likely have been hurt. But blame had been placed for forty years on his family. York was re-writing the story before his very eyes. *"They never advanced that reason to us at any time during the Holt case,"* the family's lawyer Herman Taylor tells Deborah on the documentary. *"See, they never even mentioned that."*

York was backpedaling; Holt could smell it.

Deborah's research inspired Joe. He's read other cases from the time, Raleigh's school board minutes, and the Student Assignment Policy the district passed in response to his own application to Daniels' Junior High.

That policy holds another clue. In July, the school board minutes include "*A motion by Mr. York… that Joseph Hiram Holt Jr., and his parents be requested to be present at the August 6 [school board] meeting*." But the rules in the Pupil Assignment Policy include no such requirement. They offer parents the *right* "to be heard and to present witnesses" —but nowhere do they state that to do so is a responsibility. In regards to transfer requests by white families, the minutes include no details about who was present. The Holts were "requested" to be present, yes. But that request stood up in federal court as if it were a rule.

Opening day for Bill Campbell, the first African-American to integrate Raleigh City Schools, 1960. Photo courtesy *News and Observer* Negative Collection, North Carolina State Archives.

Holt now believes that his denial into Broughton had nothing to do with *administrative remedies*, and everything to do with the fear that gripped white school boards in the years following *Brown.* He thinks district leaders hadn't decided *what* they were going to do, other than make damn sure nobody was going. He believes the acceptance of that story, in the black community and his own family, comes down in part to the timing of Bill Campbell's acceptance—and in part to history.

"The black community," Holt says, "was, at that time, not as… conscious, politically, let's say, as we later became, many of us. Many people did not want to really know the particulars, and I'll tell you why. The black man in the South lived under a system whereby he was subject to the whims of the white man; he was subject to the white man's capriciousness. During slavery, black people learned to know as little about anything that the white man found disfavorable in respect to race situations—to know as little about it as I can. 'I don't know anything about that.' You learned to distance yourself—because if you don't know anything about it, you can't give away, even unintentionally, any information. Nobody can sense by watching you, or baiting you.

And everybody was so interested, certainly, in a breakthrough, and the breakthrough was supposed to begin in the schools. And blacks just like me felt like, if the white man says that there's something that you should have done and you didn't do it, then damn it, you should have done that. It makes us all look bad if one of us doesn't comply with the man's rules."

Slavery's legacy in Raleigh was like a ghost with two hands: one clenched with white fear and prejudice, the other with black fear and self-preservation. In the late fifties, both hands latched onto the Holts and held tight.

What changed by September 1960? History again, Holt says. This was four years after his initial application, six years after *Brown.* Changes had begun elsewhere in the state; Raleigh had begun to lag behind. By 1960, Holt believes, those changes had reached a school board that *was* comparatively forward-thinking.A board so very forward-thinking, perhaps, that no one thought or had the courage or the compassion to look back: to examine what had been done, what had been said, and who'd been hurt.

What Joe Holt wants now is for people to know what happened. To remember. He wants to rewrite the story. He and Deborah have begun that work through the documentary, which aired on Raleigh's UNC-TV, and through local speaking engagements. And as a recent Christmas present, his children made him a web site: www.joeholtstory.com.

And so it is largely through the work of his children that Holt finds himself able to honor his parents—which is what he really wants to do. Joe, Sr. and Elwyna are gone now. Joe Holt, Jr. finds himself caught in that old role reversal: protector of the parents who fought so hard for him. He cannot change the past. He can't undo the worry, the isolation, the disappointment. But he can make sure no one else undoes them either. He wants what the Campbells have always had: a place in the history of a people. *Integration in Raleigh did not happen without some people catching hell,* he says. *And my family caught hell.* He wants an acknowledgment that his family played a role, that it *means* something to catch hell—even if hell, and not the glory, is all you ever get. (In the complicated stories of Joe Holt and Bill Campbell, hell and glory may always be tangled: in 2004, shortly after the Holt family received its first hints of recognition, Campbell was imprisoned on charges of racketeering and fraud.)

Protestors march through Swan Quarter, Hyde County, N.C. on February 14, 1969, to save traditionally black public schools. Photo courtesy North Carolina Museum of History.

Joe Holt does not hate Bill Campbell. But he is bitter. How could he not be? In his senior yearbook, the boy in the valedictorian picture smiles, a little shyly. Joe stares. Four years of public scrutiny, public torment, rocks hurtling toward the house and here he still is. Salutatorian. He tilts his head upward, as if he wants to take the photographer on. Only when you freeze the frame do you realize that his eyes are the same eyes that haunted *The Raleigh Times.* Joe Holt is hurt.

Nearly forty years later, in the waiting room outside the office of one of the many men who said no, Holt hears the conversation take a nasty turn. A turn that won't make the documentary's final cut, but will call up ghosts forty years old—an old story, and all its pain. A turn that will nearly send a reasonable man flying through an office door.

"After all," York says, "Bill Campbell went on to become mayor of Atlanta. What'd your *daddy*

do?"

Joe Holt recounts the story. He's a teacher now, retired colonel. Former high school salutatorian. Civil rights pioneer. Husband, father, grandfather. He repeats the words, grimaces; they're poison in his mouth.

What'd your daddy do?

Race and the (Raleigh) Wake County School District

Photo courtesy *Louisville Courier-Journal*.

Fifty years after Joe Holt struggled to win admission to Broughten High School, Raleigh's schools have taken on a different role in a new national struggle over integration. In June 2007, the Supreme Court issued a ruling that *limited* the degree to which school districts can consider race when assigning students to schools. The ruling followed more than two decades of re-segregation in U.S. schools.

Ironically, the Wake County School District (which merged with the Raleigh School District in 1976) has been widely mentioned as a model for other districts that want to remain integrated under the new ruling. Wake County integrates its students by socioeconomic status—a program that often results in racial integration, and that prevents the concentrated poverty that has been proven detrimental to student learning. Raleigh has not escaped contention over school integration—but in July 2007, *The New York Times* wrote that "The most ambitious effort [toward socioeconomic integration] and the example most often cited as a success is in the city of Raleigh, N.C., and its suburbs."

Today, Joe Holt has his own take on national integration trends. "[Segregation] was a system of exclusion and humiliation… and we're about to go back there, it seems, with this community schools thing. But if we go back to community schools, we allow them to go back to the segregated system. And blacks are gonna come out on the short end of the stick."

Regarding the trend toward re-segregation, at least, Holt appears to be right; *The New York Times* wrote in 2007 that "[m]ore than one in six black children now attend schools that are 99 to 100 percent minority."

During the 2007-2008 school year, though, nearly 30 percent of students at Broughten High School—over 600 students in all—were African-American.

Author's Note: Deborah Holt's documentary "Exhausted Remedies: Joe Holt's Story" was integral in the writing of this piece.

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Essay

Text and photos by Paul Huebener

In Santa Elena, Venezuela, there are no stop signs. Despite its location in the country's southern backwaters, the town of fruit stands and diamond peddlers is a bustling hub, home to nearly 30,000 people. Somehow, its thousands of cars, trucks, and unlicensed taxis are kept running by just two gas stations, one of which never opens. And as every intersection is unmarked, a drive through the city is a gauntlet run, made worse by the necessity of squeezing through streets narrowed by the twelve-hour gas station line-up. For pedestrians, life is Darwinian.

Frederic and I dash through a break in the traffic to arrive, sweating, in front of the Gran Café. So far so good, but after a quick glance at each other registering shared confusion, we peer uncertainly down the street. The place we need to find, we have been told, is to the left of the Gran Café.

"Which… left… do you think?" Frederic asks. The Gran Café sits on the corner of two streets, giving the word "left" eight possible meanings.

"Let's try this way," I say, and we walk in the direction that doesn't require us to cross any more streets. Soon, though, it becomes apparent that not only do we not know where we're going, but we won't necessarily recognize it when we get there.

"Do you think they'll have a sign?" I ask, knowing that Frederic won't have the answer. "I mean, is it a shop of some kind?"

"I don't know, Paul. It might be just a guy with a truck."

We try a few more lefts, and eventually come across an auto repair shop in front of which a man is rummaging through a toolbox. Frederic approaches.

"*Buenos*," he says, and continues in Spanish. "We're looking for someone to give us a ride to El

Pauji. Do you know where the place is that gives rides to El Pauji?"

"El Pauji!" the man says, sucking air through his teeth. Then, thoughtfully, he adds, "El Pauji, El Pauji."

A second man, covered in grease, rolls himself out from under a car and the two engage in an extended conversation. Finally, the first man turns to us, smiling.

"*Sí*," he says. "We can drive you to El Pauji. When do you want to leave?"

I raise my eyebrows at Frederic, who asks the man, "How much?"

"Three hundred thousand," the man replies.

Frederic passes a spider on its web on the climb up *El Abismo*.

"Three hundred thousand?"

"*Sí, sí*," he nods. "The roads are very bad."

"We don't have three hundred thousand," Frederic says.

"Well," says the man, crossing his arms. "How much do you have?"

"Very little," Frederic says as we start to back away.

"Ah," the man says, nodding. "Okay." He points up the street towards a blue awning beside the Gran Café. "You can get a ride there for twenty thousand."

"Oh!" we say. Twenty thousand Bolívars, about ten Canadian dollars, is much more appealing. Unsure how to respond to the ease with which this man has betrayed his own attempt to rip us off, we thank him and walk away.

The only person in the vicinity of the blue awning is a gruff-looking man with a beard tending a kiosk of hats. When we ask about a ride to El Pauji he gestures vaguely and mutters something that escapes my unpracticed Spanish ear.

"He says," Frederic tells me, squinting skeptically down the street, "we must talk to the man who reads the newspaper."

We walk along past a couple of diamond shops until we come suddenly across a small recess where an elderly man is sitting on a plastic chair reading a newspaper. We ask about the ride.

"*Sí*," he says slowly, his eyes returning to the paper after taking us in. "Twenty thousand. Come here tomorrow. Early early."

***El Abismo*, near the Venezuela-Brazil border.**

I had met Frederic a month earlier when we both started working for a small environmental organization on the outskirts of Santa Elena. He is a young, lanky German with long frizzy hair, and though the odd word confuses him his English is excellent. We spent a few weeks working on sustainable construction projects, taking local children on ecology field trips, and lamenting the fact that the grasslands surrounding Santa Elena were once thriving tropical forests.

When we learned during the course of our work that Santa Elena is a two-hour drive from the edge of the Amazon basin, we were determined to travel to the rainforest, and hopefully camp within it. Organizing the trip, however, proved difficult. Not only did we have to get ourselves to the tiny community of El Pauji, which lies just outside the rainforest, but we needed to have a local guide there ready to help us: a tough arrangement to make so far off the usual tourist routes. After a month of sending word through local acquaintances, we had been told that a man named Juan was waiting to take us into the rainforest.

Frederic and I arrive at the newspaper man's alcove at six o'clock the next morning, and as no one is around we sit by the curb to wait. Eventually a woman and a boy appear, and pull two chairs up to a small table in front of the diamond shop. The woman assures us that there will be a car to El Pauji very soon. She writes down our names, takes our passport numbers, and asks us for the twenty thousand Bolívars each. It's risky to pay upfront, but since she has a clipboard Frederic and I decide to assume that she's legitimate. We give her the money, and sit on the curb again to see if a car will appear or if she will disappear.

After a couple of hours the streets are loud and busy and we have been joined by another eight or ten hopeful passengers. Finally a battered Jeep pulls up, and everyone's luggage is tied onto the roof. We all squeeze onto the two small sideways benches in the rear of the vehicle, Frederic and I craning our necks against the low roof, trying to find places to situate our various limbs for the journey. By eight-thirty the Jeep is fully loaded and we depart.

At first we follow the highway south towards Brazil, but just short of the border we turn west onto a smaller road that runs along the edge of Venezuela's Gran Sabana. The Gran Sabana is a savannah landscape of patchy grasses interspersed with remaining sections of tropical forest: a different ecosystem from the famous rainforest of the Amazon, but dazzling nonetheless with its waterfalls and Morpho butterflies. Three hundred years ago this forest covered most of the area, but after several generations of logging, mining, and human-started fires, the grasslands now stretch to the horizon.

We pull up to a military checkpoint where two young soldiers with assault rifles and full-body camouflage approach our Jeep. They beckon Frederic and me to their small outpost, pepper us with questions, and search our travel packs. Our fellow passengers chat and stretch their legs until the guards are satisfied and let us go.

Soon the pavement beneath us turns to gravel and dirt, and our driver navigates a series of small metal bridges, some of which are so collapsed that he opts instead to bounce down into the ravines they are meant to cross. The grasslands on either side of us give way now and then to sections of forest, but the bursts of lush greenery are a bittersweet sight.

"How much longer do you think this forest will be here?" I ask.

"Who knows," Frederic says. "If this whole part of the country used to be forested, it must be shrinking very fast." More than once we pass smouldering clearings that have recently been slashed and burned.

After a couple of hours our driver deposits us by the side of the road and pulls away, leaving a cloud of dust. The dry earth in front of us is broken in the middle distance by a stand of trees and a few scattered houses: El Pauji.

We walk towards the trees, scanning the area for the red roof that is supposed to mark Juan's house. After a few minutes I spot a patch of red half-hidden behind foliage, and as we crest a small hill the structure becomes visible: red sheets of corrugated metal form a roof over an open-air frame of thin wooden poles. Some clothes and a hammock hang from the crossbeams; a collection of small stones and carving tools lies on a board alongside a few cooking utensils and herbs; a steaming pot bubbles over a firepit dug into the earth.

"*Ah, Buenos!*" says a voice.

We look up and see that a row of poles fixed horizontally seven feet in the air gives the structure a second story just under the sheet metal roof. A man who had been hidden in shadow climbs down onto the ground and grins.

Foreigners take bread and fruit into the rainforest. Juan takes a gun and roasts pheasants.

"*Buenos, Juan?*" Frederic asks.

"*Sí,*" Juan says, holding out his hand. "*Como esta?*" Wearing only black surfer shorts and a carved necklace, Juan is a bronze-skinned man in his early thirties. His black hair is tied back in a ponytail. As a member of the indigenous Pemón, Juan is probably more comfortable in the native dialect, but for us he speaks Spanish.

"You are ready to go into the forest?" Juan asks, nodding. "Yes, we will go to the forest. My brother too—he will carry your things. First we have some food, yes?"

Juan serves us spaghetti and thick tomato sauce from the pot on the firepit, and explains that the three of us can leave as soon as we finish eating.

"Shouldn't we wait for your brother?" Frederic asks. "We could really use his help with our tent and food."

"No, no," Juan says. "Don't worry. We will leave your tent and your food here. When my brother gets here he will see that we have gone, and he will bring your things into the forest for you."

"Um… Are you sure?" Frederic asks. We look uneasily towards our packs, the awkward tent, and our collection of muesli, bread, and fruit—not to mention the canned sardines, which for some reason are ubiquitous in Santa Elena. Even the short walk to Juan's house has drenched us with sweat in the equatorial heat, and we have several hours of difficult hiking ahead of us. We might not make it if we try to carry everything ourselves, but arriving in the rainforest with no supplies is a worrying thought.

"We really need the tent and the food," I say.

Juan laughs. "Don't worry. He will find us."

We decide to divide as much food as we can between us, and leave the rest of it sitting beside the tent. Frederic and I have noticed that Juan doesn't seem to have any food himself, and we point out that the food we are carrying won't last the three of us very long.

Juan laughs again. "This food is for you," he says. "I don't bring food into the forest."

With this, he sets aside his empty spaghetti plate and produces a small rifle and a package of bullets. He mimes aiming the gun into the forest and pulling the trigger. Grinning, he nods lazily, then stands up; we're ready to go.

Leaving Juan's house and his small patch of forest behind, we walk south across dry, dusty earth. Passing a couple of houses that mark the edge of El Pauji, we cross an old gravel runway for light aircraft, overgrown with grasses. Soon we reach the base of a massive ridge that rises steeply in front of us and extends indefinitely in either direction. We begin to climb.

After the better part of an hour clambering up the wall of rock and scrubby bush we are relieved when the terrain levels out, marking the peak of the ridge. As we approach the sharp cliff edge that now drops away in front of us we are stunned by the sight. Beyond the cliff, hundreds of feet below us, and reaching to the far horizon, is the rainforest.

"*El Abismo*," Juan says.

An abyss it certainly is, not bottomless, but staggering. At the top of this ridge we stand at the boundary between two worlds: behind us the dusty savannah in which scattered sections of tropical forest fight to hold their ground; in front of us an immense blanket of rainforest so thick that even the rivers Juan points to are invisible beneath the canopy. I am amazed, given our height, that we can hear the steady clamour of a thousand cicada chirps rising through the foliage. Hazy hills in the distance mark the edge of the field of view.

"Those hills are the beginning of Brazil," Juan tells us, gesturing to the far horizon. "To walk there takes two weeks. And see, over here, is Icabaru."

A well-camouflaged snake on the rainforest floor.

We follow Juan's gaze down to a small bare section in the rainforest on our right hand side, partially obscured by the cliff face. I have heard of Icabaru, a mining community built into the floor of the rainforest.

"They cut down the forest to reach new mining areas," Juan says. "That town is getting bigger."

"Are they allowed to cut down the rainforest just like the forest in the Gran Sabana?" I ask.

"No one stops them," Juan says. "The

government, maybe, is going to restrict them sometime. They are thinking about it. But the miners will not stop—they want the jewels."

I think of my friend Howard who had taken me along to a jewelry shop back in Santa Elena, thrilled that he had found a great deal on diamonds. Neither of us had realized that the shop owner was, in effect, selling the rainforest.

We walk along the top of the ridge until we come across a rough trail winding down the side of the cliff. Juan leads the way over the edge and begins to navigate a series of switchbacks, warning us to watch our footing on the steep rock. Stopping for a rest halfway down, Frederic and I ask Juan if he goes into the rainforest often.

"I've spent half my life in the rainforest," he says. "My parents taught me how to survive in the forest, and I like it there. I was even in the forest when I was in the womb. You need to know what you're doing in there, but it is a peaceful place. Do you like monkeys? We will see some monkeys. Araguato monkeys, they travel in groups through the trees. Listen."

Juan points to a spot in the forest below, and we wait. After a few seconds the hollow sound of a distant wind reaches us. It gains strength, and becomes a howl that rises to a crescendo as though a storm were sending ferocious gusts through the forest, though none of the trees appears to move. The noise fades to a whisper, then picks up again.

"Those are the araguato monkeys?" Frederic asks. "The sound is incredible. How did you know they were going to start?"

Juan laughs, nodding. "You learn how to listen in the forest," he says.

We continue down the hill, and the incline gradually begins to level out. Pushing our way through tall grasses and shrubs, we are unable to see very far ahead, and quite suddenly we find ourselves working our way through dense trees, palms, and fronds: we have entered the rainforest. The hot sticky air is now close and heavy on our sweaty skin, but as we enter the trees the dazzling rays of the sun are blocked, and we relish the shade.

This close to the equator there are no summers and winters—only wet and dry seasons—which means that for the trees here the process of growing and shedding leaves is not seasonal but continuous. With a constant supply of spent leaves the forest floor is in perpetual autumn: our feet shuffle through yellows, browns, dark reds, and purples. But from a couple of inches off the ground all the way to the dappled treetops the forest flourishes in the bright and varied greens of tropical summer. Leaves as wide as beachballs float back and forth over our heads, creating shifting patterns of light as though underwater. Butterflies twirl silently around us in reds, blacks, yellows, greens, and iridescent blues. The sharp electric buzz of the cicadas is everywhere.

Juan stops, turning towards us with his fist outstretched. "Look," he says. "This one wants to drink your blood." He opens his hand, revealing a large black fly which twitches, then launches itself into

the canopy. Frederic and I gape for a moment, then laugh at Juan's showing off.

We walk further into the forest, and though the downward slope is not as steep here, the ground is slippery with wet soil and leaves. We cross one shallow stream, and then another, and eventually reach a small clearing which Juan obviously uses regularly as a camp. In the centre of the clearing a few wooden poles are bound together, holding up a tarp to give shelter. Frederic and I drop our packs onto the ground and take long drinks from our water bottles.

A birdcall rings out nearby, followed by an answer. "Toucans," says Juan, smiling. "There are many toucans here." I peer into the trees, but there is no way to see them. When the toucans call to each other again, though, the startling cry makes me feel as though seeing the birds may not be the best way to experience them at all. Their call, serrated to cut through the foliage, is a wondrous sound.

Juan begins to build a fire, and explains that the smoke will serve two purposes. "The mosquitoes don't like the smoke, so it will keep them away," he says. "And it tells the jaguar that we are in the area, so he will stay away too."

"Have you seen jaguars here?" Frederic asks.

"Yes, two of them," Juan says. "But you don't see them very often—they don't like people. Usually you hear them. And when you hear them, then you know it's a good thing they stay away from people. When they roar they make the earth shake."

Juan's brother watches for toucans.

It occurs to me that while a tent would hardly protect us from any errant jaguars, it would potentially at least keep out the mosquitoes, but Juan's brother's continued absence means we might be spending the night on the forest floor. And as the afternoon sunlight filtering into our clearing is already growing dim, I raise my concern to Juan.

"No problem," he says, digging through his pack. "You can use my tent."

"You mean you had a tent all this time?"

"Yes, but I don't use it. I sleep in my hammock."

"Okay," says Frederic, laughing.

We prepare a meal from the food we have with us, and soon we are in darkness. Tired from the hot journey, and grateful for the short equatorial twilight, Frederic and I fall asleep inside the tent. My mind passes the hours with dreams of busy streets and malaria.

An explosion and a flash of light shatter my sleep. Heart pounding, I can do nothing for several seconds but wait for the ringing in my ears to die down. It is the middle of the night—I can see nothing. I realize that the flash of light was an image pressed onto my retinas by my own convulsing eyelids. I hear voices outside the tent, then a second gunshot shatters the night, knocking me flat. I scramble out of the tent, and by the dying firelight I see that a new hammock now hanging beside Juan's contains a man, leisurely swinging on his back, aiming a rifle into the trees.

"*Hola!*" he says, grinning. He puts down his bottle of rum in order to shake my hand.

"*Hola,*" I say, rather weakly.

"This is my brother," Juan says, also grinning. "Don't worry, no problem here. The gun will keep away the jaguars. My brother will teach you all the tricks. If you want to keep away the jaguars you bring a gun to scare them, and they hate bad smells, so you need to smoke a lot of cigarettes and eat a lot of garlic."

"And drink coffee," Juan's brother adds, brandishing the rum. "Coffee?" he asks, offering me the bottle.

"No thank you," I say.

I climb back into the tent and wrestle into my sleeping bag. Frederic releases a deluge of swear words and we lie in the darkness, our breathing slowly returning to normal.

"Did he at least bring the food?" Frederic asks.

"I have no idea."

When the tent glows with dawn the next morning I clamber out to find our clearing blanketed in mist, already starting to burn off in the sun. Juan has disappeared, but his brother is still lying in the second hammock. As I approach I realize that I don't know this man's name, but it seems inappropriate to ask now that we've been on such intimate terms.

"Good morning!" he says, reaching down towards the bottle of rum. "Coffee?"

"No thanks," I say. I prepare some muesli for breakfast, and Frederic joins me. Juan's brother turns

down our offer of food, and contents himself instead with a swig of rum.

With a full day in the rainforest ahead of us, and food in our stomachs, Frederic and I find ourselves able to laugh about the night's firearm demonstration. Our chuckling is cut short, though, by another gunshot. This one comes from some distance away inside the forest.

A few minutes later Juan appears holding his gun and a dead pheasant. He builds a fire, plucks the bird, and roasts it. He gives Frederic and me a small piece to sample, but puts the rest aside without eating any himself.

"For my sister," he says, smiling, as he eats a banana he has found somewhere.

The only way out of the rainforest is to climb *El Abismo*.

The four of us set out on a hike taking just a daypack with the essential water, fruit, and rum. As soon as we leave camp we hear a toucan call and look up to see two toucans flying from one tree to another, their enormous beaks distinguishing their shape against the bright sky. A third toucan call startles me: this one comes from Juan as he cups his hands in front of his mouth. The toucans call again, and are joined by several more members of their flock, all chattering to one another as they choose shady perches in the canopy.

We continue into the forest, making our way between tree trunks and giant fronds. We wade across a stream, and on the far side Juan bends down to show us a series of indentations in the mud.

"Jaguar footprints," he says. "The jaguar was here recently."

We find our way up a gentle slope, and Juan leads us on. I try to keep track of our direction, but soon realize I would not be able to find my way back to camp alone. Juan, though, knows exactly where he is.

"A little farther," he says.

Soon we come to the edge of a bluff overlooking a river much larger than the streams we have crossed. We pause for a lunch of fruit, and listen to the chirps and rustlings of the forest and the gurglings of the river. A large fluttering shadow passes over us, and we look up to see a flock of long, elegant birds coasting overhead. Their grand wingspan and long tails make them look like *Archaeopteryx*, or flying dinosaurs.

"Guacamaya birds," says Juan, as the parrots disappear behind the canopy. "They are endangered. It is worrying to see them this close to the mines, where they may not be safe. But better than not seeing them at all. You know," he continues, "my grandfathers were hunters. The Pemón at that time wore only thongs. The men would have five spouses. They hunted with arrows, of course. Things were different." He peers north, where the towering wall of *El Abismo* is just visible in the distance through the trees. "Now we have left most of those ways behind. Some of us still hunt, but it's getting difficult. There aren't as many animals as there used to be, at least in the Gran Sabana."

"Is it true that the Pemón came from the Caribbean a few hundred years ago?" I ask.

"Well," Juan says, "That's what they tell us in the history, in the books. I think it is true, but…" he pauses. "We don't know."

"Are there Pemón stories that tell about the past?"

"Oh, there are some. My grandmother used to tell them. But I don't remember them so good."

Juan's brother waits for his guests to catch their breaths.

In Santa Elena I had talked with Manfred, the founder of the environmental organization, about recent changes in Pemón culture. He told me the Pemón were famous for basket weaving, but that he never saw any of his Pemón friends making the traditional baskets. When he asked about it, he found that the weaving skills had mostly been forgotten except among a handful of elders. So Manfred, a foreigner, set up a workshop for the elders to teach basket making to the younger generation. His intentions were good, but I wonder if the nostalgia he feels for a lifestyle he has never experienced may be misplaced. The Pemón are navigating an *abismo* of their own as they make the jarring transition into 21st century globalization, and keeping things the same as they used to be isn't an option. Maybe Manfred is realizing now that the basket weaving isn't going to work for them any more: that new traditions will have to emerge. Of course, as a Canadian who feels nostalgia for the Venezuelan rainforest, I'm hardly one to criticize his meddling.

"We still speak our language though," Juan says. "Our children learn our language first, and Spanish second. People are mostly happy in our villages."

"That's good," I say. "And what about the rainforest? Do you think it will last?" I don't voice the feeling in my gut, that the loss of the rainforest may be something we will soon have to accept, like our own mortality.

"A lot of the forest is being destroyed. But right now there is still a lot of forest left, too." He gestures south towards Brazil. "You can walk for weeks and not leave the forest." He considers for a moment as we watch the flow of the river. "It will depend on what people want," he says. "If they want jewels or if they want the forest."

I am about to point out that most rainforest clearcuts are done not to find jewels, but to produce timber, create cattle lots, or grow feed for fast-food chickens. But maybe these things are jewels, too, in a way. Juan is saying that Santa Elena and the rest of the world would do well to internalize sustainability, and put up a few psychological stop signs. But this, of course, we have long known.

I glance at Juan's brother sitting to one side, and see that he has quietly been doing some weaving of his own. He has torn a long piece of soft bark into thin strips, and woven them together into a small tube.

"Here," he says, holding one end of the tube out towards Frederic, indicating that Frederic is to insert a finger. Frederic sticks his finger in the tube and can't get it out again. The harder he pulls the more the tube tightens and squeezes. He chuckles.

"This is a girlfriend catcher," says Juan's brother. "I will show you how to make one. Then you can catch a girlfriend." It's not exactly a traditional Pemón basket, but it has its uses.

On the walk back to camp, Juan's promise of araguato monkeys is fulfilled when a band of them jump and crash through the canopy overhead. The thick foliage hides them from view, so we scramble along in their wake hoping for a clearer line of sight, Juan and his brother making short imitation calls. Several times we catch glimpses of brown furred bodies leaping overhead before the band outpaces us and we are left alone.

Back at camp, Frederic and I ease our own sweaty and aching bodies in the deliciously cool stream. Sick of the chemical taste of purification tablets, I give in to the tempting water and drink and drink.

The next morning it's time to pack up. We leave the camp and begin the long walk back towards *El Abismo*, knowing that this time we will have to climb up the cliff face instead of down. When we stop for a rest not far from the edge of the forest, Juan points to a group of termites scurrying across the leaf-strewn floor.

"It will rain at twelve today," he says simply.

We notice a plump anteater, which avoids us by climbing a tree at an entirely unalarmed pace. Then we emerge from the forest into a shining white mist. At the top of *El Abismo* we pause and look

back out over the rainforest, now bathed in low clouds. I am struck by a vision of the mist clearing to reveal a dusty savannah stretching to the horizon: of a rainforest lost to quick cash or global warming's fires. The cicadas clamor.

The author rests at the boundary between savannah and rainforest.

to Santa Elena should arrive any day now."

Collapsing onto a bench a few hours later back in El Pauji, Frederic and I thank Juan and his brother for guiding us.

"I'm glad you enjoyed it," Juan says. "You seemed desperate to see the rainforest."

"I was," I say. "I don't know if I'll have another chance."

Juan and his brother shake our hands and walk in the direction of Juan's house. They turn out of sight as the first drops of rain begin to fall.

"It's 12:06," Frederic says. "Our ride back

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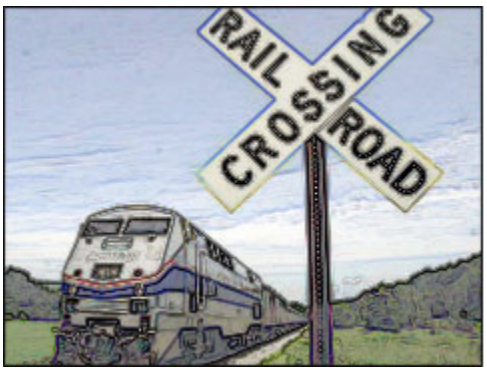
Essay



Waiting for the Train

by Deirdre Duffy

The moment we crossed the threshold, I knew something was wrong: it was a crystalline June day, and yet the terminal was full of dour-faced people. At the Amtrak counter, the clerk took our tickets and swiped my credit card, handing everything back without meeting my eyes. "Due to the derailment," he said, "you'll be taking a motor coach to Eugene to meet your train."

Derailment? I tried to ask a question, but before I could shape the words, he'd moved on to the person behind us. Surveying the hostile looks around the room, my children and I chose a bench in the center of the terminal, next to a hay wagon. "We're going to Disneyland," my daughter said to a couple watching us settle in. Tight lipped, they ignored her.

To pass the time, I studied the sandwich boards standing in the wagon's bed. Covered with text and pictures depicting the Seattle station's past, they described how—due to generous grants from private benefactors and the federal government—the building was being restored to its former glory. "Look up," one of the boards instructed. "Notice the extravagant use of stone in the original façade."

I looked up, at a dropped ceiling made of yellowing acoustic tiles crisscrossed by thin metal bars. A few rows over, several ceiling tiles were missing. On the other side of the hole, the ceiling receded into darkness. I couldn't see any stone.

I looked back at the photos: one depicted smartly dressed people, flanked by towering columns and strolling through a wide concourse. Another featured small groups clustered along an imposing balcony, looking down at a grand chandelier. I scanned the room again: with its low, plain ceiling, harsh lighting, and glossy, sheet-rocked walls, it was the epitome of Greyhound bus décor. It was hard to fathom why anyone would think such insipid modernity an improvement over the original design. But clearly, somebody had.

King Street Station in downtown Seattle, Wash.
Original photo courtesy Flickr Commons.

Completed in 1906, the King Street Station was designed by the architectural firm of Reed and Stem of St. Paul, Minnesota, the same firm that designed Grand Central Station in New York City. Commissioned by James J. Hill, railway magnate and owner of the Great Northern Railroad, it was built at a time when rail travel nationwide was at its peak. At the turn of the century, the massive scale of the nation's largest rail stations was intended to present city visitors with an impression of largess, and as originally built, King Street Station might have done so. But it might also have confused them: with its Railroad Italianate details—a looming clock tower, marble and plaster ornamentation, and its cavernous, echoing concourse—it reflected the building traditions of Europe, not the contours of an American outpost. Who were Seattle's people? What was their history? What sort of place was this land by the Salish Sea? The station, as originally built, answered none of these questions.

I studied the kiosk photos again. In one, a gathering of women faced the camera. Prototypical Gibson girls, hair coiffed and bodies restrained by corsets, they rebuffed my curiosity with a serious gaze. I leaned closer, seeking a story of some kind, but the image was mute on the particulars of their lives. It depicted a spacious room, sunny and inviting. The chairs looked relatively comfortable, and the décor was clean and uncluttered. Where was the mess that inevitably accompanies the dislocations of travel? I searched their faces, but at a distance of nearly one hundred years, could discern nothing.

Around us, benches were filling up. Clots of people began to congeal around the room's edges. The station had an aura of defeat about it, a feeling of pervasive sadness that the hopeful tone of the sandwich boards accentuated. I traced my finger across the images, trying to connect the concourse and the Gibson girls to the building we were in. It was difficult. From the street, the character of the building was still discernable. But from inside, its essence seemed to have vanished. There was nothing grand or inviting about the space: it seemed tired, as if something fundamental had drained away. This strange lack of energy was incongruent with my usual experience of Seattle. After all, this is a young city. Founded in November 1851, when the Denny party landed in what is now West Seattle and named it New York Alki—Alki being the Indian word for "by and by"—it took only 55 years to transform a landscape of seasonal villages and ancient trees lining an inland sea into an urban outpost, complete with a cosmopolitan train station. *Fifty-five years.* And from that point until now, only another hundred had passed. How could so much be lost in so little time? Where did all that life go?

The boarding call began. Slowly, the crowd funneled through two small doors and out onto the

loading area beyond; as we moved toward the exit, I studied the sunlight struggling to make its way in through the dirty windows lining the wall above us. I imagined it filtering between the branches of a thousand-year-old forest, finding its way to the ground, caressing the faces of people living along the Northwest waterways. What was it like, I wondered, to live in Seattle during those first 55 years, to hear the sound of trees—in a forest whose canopy constituted an ecosystem unto itself—falling by the thousands? Had the people wandering through King Street Station in its heyday witnessed the carnage of city building firsthand? If so, what did they think of it? Frozen in photographs, like flies in amber, they didn't appear distressed. But images can be misleading. I don't believe we are ever indifferent to the ecological destruction of city building: life identifies with life, no matter what we say. No. Ignoring horror is a bargain we strike with ourselves when we believe we have no other choice. And the trouble with that is, once we learn to ignore horror—at any level of scale—it is a difficult habit to unlearn.

Camille Clifford, an original "Gibson girl," circa 1905.
Original photo by W & D Downing.

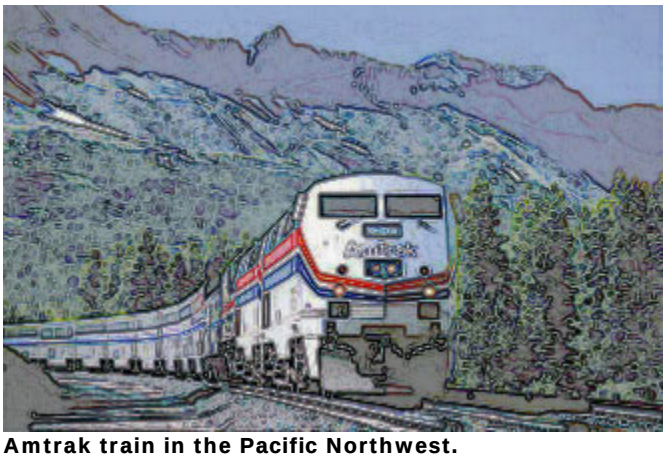
We boarded the motor coach and headed south under a clear blue sky. Outside the city, the landscape evolved into a monotony of boxy houses and large malls, punctuated occasionally by a field inhabited by a horse or barn. There was no sense of cohesion to the scenery: just miles of random structures, set on asphalt, Mount Rainier as their backdrop.

The motor coach was a study in sensory deprivation. Its tall tinted windows allowed for a panoramic view and turned the entire visual field a sickly greenish gray. And its colorful, plush seats were made of a sheared material deceptively lacking in substance: neither soft or hard, nubby nor smooth, it invited your caress and immediately disappointed it. In the decades since I'd ridden a long-distance bus, the wheezing, diesel-belching creatures of my memory had disappeared. But another aspect of my memories seemed prescient: as a child, when I took my first bus trip alone to spend the weekend with a great aunt in Omaha, I counted the towns along the way, ticking them off on my fingers to mark the distance. Terrified of missing my stop and hurtling out into the sand hills of western Nebraska, a place that sounded—to my child's ears—frighteningly desolate and alien, I was determined to track my progress visually. For the most part, my strategy was successful, as signs, streetlights, and paved roads appeared and disappeared with regularity. But near the end of my journey the edges of the countryside became muddy and confused. In some ways the landscape remained familiar, with cornfields, cattle, and open sky. And yet, oddities emerged: streetlights in place of darkness, long windowless buildings with flat roofs. It wasn't a town. It wasn't the country. What was it? I waited, with half-held breath, for ten, then twenty more minutes, marking the time with a pounding heart. As we crossed the Missouri River, the driver announced Omaha, and I resumed normal breathing. But the indecipherability of the landscape remained in my mind, troubling and insoluble.

Now, thirty-some years later, the view out the motor coach window confirmed that what was once strange and alien has become a commonplace feature of our landscape: our buildings are irrationally placed, and are spreading relentlessly over farmland and forest, eliminating any sense of boundaries. We often think of this as a planning issue, but perhaps we are looking through the wrong lens. Is it possible what we are doing with our landscape reflects a miscue in our relational development? After all, if you cannot tell the difference between where you are and where you are trying to go, won't the places you create reflect this?

Mount Ranier with Tacoma, Wash., in the foreground.
Original photo by Lyn Topinka, courtesy USGS.

A few hours into our journey, we stopped for lunch in a large parking lot ringed by fast food restaurants. Sitting outside Burger King, I watched my children play, relishing the feeling of sun on my skin after the fiendish bus windows that let in sunlight but none of its warmth or charm. We ate as the freeway rushed behind us, surrounded by a patch of extraordinarily green grass and hanging baskets of pink and chartreuse petunias. There were no birds. Our driver started honking, prompting me to look for a recycling bin for my salad bowl: no luck. I went inside to look for one, as the honking grew more insistent. The kids grew anxious. *Just leave it, mom. Just this once.* I carried the bowl back to the bus.



Amtrak train in the Pacific Northwest.
Original photo courtesy Amtrak.

The motor coach continued south, the landscape flattening out into farmland, dotted now and then with a decrepit barn. Periodically, clusters of houses appeared in the middle of fields. Linked largely by color scheme, lacking the shade of trees and the generosity of sidewalks, they huddled together, exposed and vulnerable. One in particular stood out. Larger than the others, and set alone on top of a rolling hill, it commanded a view of the freeway and the surrounding land. Someone was building a wrap-around deck on the second story and had skirted it with plywood, cut to resemble castle battlements and painted in a grey fieldstone pattern. The effect was oddly congruent with the location of the house, and full of irony, for what protection could there be from such a huge, unbuffered sky? Or from cars and buses

streaming by the thousands across your backyard? Why not plywood? Why not imaginary fieldstone?

By mid-afternoon, we arrived in Eugene. The motor coach disgorged us onto a slab of broken pavement between a rusty singlewide trailer and an old train station, and as more buses arrived, the graveled space between the two buildings quickly filled with people.

The old station was inaccessible, surrounded with a cyclone fence. Next to it, in front of the trailer, was a ramp, and a weathered plywood sign with the Amtrak logo on it. A few people went inside; the rest wandered toward the tracks, dragging their luggage. The air was still and hot, and after the last bus departed, quiet. For a while people continued to stand, looking up and down the tracks. When no train appeared, they began piling bags into pyramids, improvising seats and settling in for a longer wait.

The afternoon passed. We were traveling light, and didn't have any bags to sit on, so we drifted through the crowd, making our way slowly toward the old station, with its graceful roof and elegant windows. It was a lovely building, even in a state of disrepair. We walked around it, following the odd angles of the cyclone fencing. Some of the windows were broken, and debris was scattered along the edges of the fence. On its far side, facing the tracks, a sign announced its pending renovation and directed us to the trailer if we needed assistance. I studied the sign with a growing sense of irritation: like the King Street Station, someone clearly felt this building was worth renovating. But why was it allowed to fall apart in the first place? When was our wealth so unlimited that, having expended the resources—human and otherwise—to build it, we could afford such neglect? What accounts for such myopia?

The Southern Pacific Depot in Eugene, Ore.
Original photo courtesy Waymarking.com.

The Eugene train station is a survivor. Of the more than 80,000 single-sided shedless train stations built in the United States between 1890 and 1914, it is one of less than 12,000 still standing today. Completed in 1908, at the height of the era of big railroad in North America, the Eugene station was at one time a very busy place, functioning as a hub for communication, commerce, and transportation throughout the Willamette Valley. In ecological terms, it might be considered an "edge marker," denoting a place where species co-exist in proximity to a rich resource base. Similar to a watering-hole or a intermediate zone between a forest and meadow, the Eugene train station marked the place where members of two competing human sectors—agrarian and industrial—came into contact, while pursuing goals that were at times complementary and at times in conflict.

The train mediated this contact. The technology of its era, the train was frequently considered a panacea for complex human problems exacerbated by industrialization, a magic silver bullet that would ensure prosperity for the collective human community as we moved off farms and into cities. The history of its emergence matches that of all technological developments: it began with an idea, kindled in the imagination of a few—who may or may not have had utopian, democratic, fascist, or other leanings—grew to interest groups negotiating behind closed doors, was formalized in policy, then swelled by word of mouth to a pitch of excitement that, through the actions of hundreds and thousands of people who came to believe in the idea, led to the creation of the infrastructure that supported and maintained it.

Who thinks ahead when such a process gets underway? And how far ahead do they think? People fought for the right to have trains run through their settlements. Lives were lost. Immigrants and emancipated slaves were played off each other—in varying combinations—in order to ensure the completion of the rail lines. Once in place, the rails, stations, and telegraphs—presented as a shared resource—accelerated a process that has continued for more than a century: depleting local communities in service to distant ones. And this depletion did not stop with trees, minerals, and crops, but drained people away as well, leaving behind hollow towns.

Technological shifts end the way they begin: a few depart, quietly, to make their fortunes elsewhere, then gradually, the trickle becomes a river, until it is obvious to everyone that the technology—whatever it is—has passed its peak. The gold rush ends. The speculators move on. And after the froth settles, what's left are the artifacts: the crumbling, patched-over façade of a marble concourse, or the broken visage of a small shedless rail station, built in a simple Queen Anne style. Unobserved and unmourned, the buildings decay.

I looked at the train station again: it was a pleasant, humble building and I enjoyed imagining what it might be like to explore it in a renewed state. But why are we restoring it? To provide an outlet for unwarranted nostalgia? Or to find a new, higher use? Are we preparing to enshrine the past, or are we reaching for something different?

Amtrak rolls through a small town.
Original photo by Andy Tucker, courtesy National Corridors Initiative, Inc.

After hours in the sun, we longed for shade. Weaving through the crowd, between strollers, blankets, and luggage, we made our way along the rails, until we reached a lone tree at the far end of the trailer. From beneath its canopy, we had an open view across a field adjacent to the tracks. Sitting in the shade, I studied the field, taking in its tan and rust-colored grasses. Their rounded hummocks were a welcome change from the shimmering heat of the asphalt; even on such a windless day they were continually in motion, the grass heads and wildflowers bobbing as insects moved

among the stalks and petals.

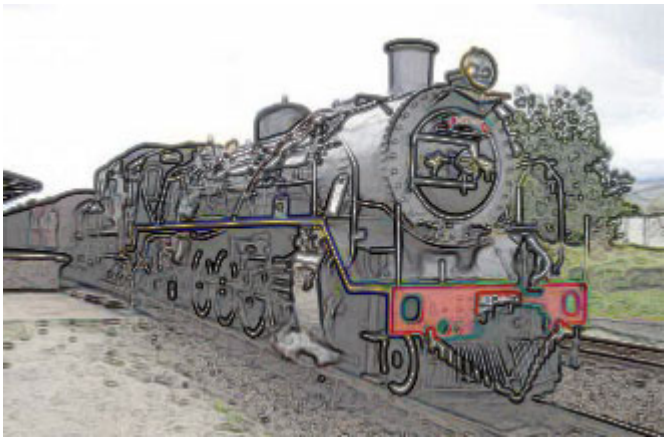
I looked back along the platform, at people sitting on suitcases and leaning against the trailer. The train station had no security barriers, metal detectors, or Department of Homeland Security personnel. What sort of policymaking was this? Were we part of some sort of freedom-fries, don't-act-until-you-have-to, decision-making matrix? Having chosen this mode of travel, it seemed we were free to come and go, free to worry (or not) about the implications of patronizing a vulnerable, decaying transportation system. We were a decidedly mixed group: pierced young people with battered duffle bags, women traveling with children, a smattering of older folks, some twenty-something guys with goatees and a cart full of musical instruments. And we appeared to be relatively unobserved. At one time, a train station like the one in Eugene might have had half a dozen employees, each visibly engaged with travelers. But not today: most likely there was an employee or two inside the trailer, sitting at a computer screen. For them, whatever was happening outside was not relevant: their work was on the screen. We were just some people, waiting for a train.

In the field, the grasses and wildflowers oscillated with life. In the late afternoon sunlight, it was a study in patience. *Plants, growing.* But one person's field is another's vacant lot, and once the station is completed, other changes will come. What will they look like? Will they be thoughtful responses to our latest technological transition, as computers relentlessly replace us? Will they be designed to mend the disconnection we've suffered since the industrial revolution? Or will they further reinforce the mass insanity of the 20th century, the fiction that food comes from grocery stores, that there is such a thing as "better living through chemistry," that community exists within the bowels of a computer? For more than a hundred years, we've lived in an economic hall of smoke and mirrors; perhaps it's fitting that our buildings force long-evaded questions about our way of life. At this historical moment, what *is* the purpose of a train station? Is it a museum? A stop on an amusement park ride? Or a community asset, defined by local needs? As we act our way into the answers to such questions, we might remember this: the Eugene station is a bellwether. Its fate is *our* fate.

The grasses continued their subtle motion, and we continued to wait. In the shade, I imagined the early settlers of Eugene, waiting along these same tracks, for news, or relatives, or goods from the outside world. I pictured them gathering to listen, patiently, to big talk from politicians on whistle-stop tours, their words dispensed from the platform of a caboose. Ultimately, the political trains stopped coming. Did the activities they encouraged benefit the local economy or its residents, consistently or sustainably? Were they ever intended to? How can we tell? And does knowing matter?

When the train arrived, the crowd applauded. As it rolled into the station, I tried to turn the clock back, to imagine a cheering crowd lining these tracks a century ago, greeting the first engine, its black carapace decorated with colored bunting. I could fix the image but not the feeling, and I wondered: Was there ever a time when we actually believed the myth of technological cure-all, or were we always pretending? I don't think we believe it now, no matter how much it's trumpeted as gospel: technology cannot save us from ourselves. The world is heating up, and there is nowhere we can run. As happened with the train, our belief in the transcendent nature of the car, and the computer, will fade, and when it does, we will be left with the things themselves.

Can we see them in their plainness? Can we find a way to value them that respects their limits, and the limits of nature? Nature's limits are our limits: we are not cars, or trains, or computers. Our history is littered with discarded technologies, things we gave our benediction to and freighted with our dreams, then cast aside: hot air balloons, wind-powered sailing ships, the radio. We have such hopes; we are so easily disappointed. What does it say about us, this tendency to throw away the things we have created? Is there no alternative to forward motion, no potential in the creations of the past?



A steam train like this one may have been greeted by cheers in Eugene a century ago.
Original photo courtesy Historical Quest.

Standing on the platform, the train beside us, I was overwhelmed with its mass and gravity. It's said that in the early days of rail, the engineers locked their engines in the shed at night. Perhaps they feared that the great beasts, their hearts of iron ore, would run loose and fail to do our bidding. If only they had: we might have learned to think more carefully about the tools we unleash upon ourselves. But the day is coming when we will have to find a better way to live, and when it does, we may find that trains, and their stations, have not outlived their usefulness after all. They may hold more than memories.

The line grew short: we were the last to step onto the aluminum stairs and climb aboard. Within minutes, the train pulled away from the station. We settled into our seats and looked out at farmland stretching to the horizon. The train gained speed. The tidy rows of plants began to blur, and as we passed a group of farmhands working in an irrigation ditch, they stopped and waved. Though I doubted they could see us, we waved in return. Funny, I thought: no one ever does that to a bus. Someday, we might consider a detail like that important when designing a transportation system. And *that*, I think, would be progress.

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Essay

by Richard Goodman

When I was sixteen, I had a summer job as a carpenter's apprentice on a construction project. I learned more than I ever imagined I would. The year was 1961, barely free from the gray, strange 1950s. The job was in Kempsville, Virginia. The place I grew up in was Virginia Beach, in southeastern Virginia, not far from Kempsville in distance, but eons away in everything else. Virginia Beach was an intimate, somewhat delicate resort town back then, not yet pillaged by motels and gaudy souvenir shops. It was home to many prominent local families whose fathers worked in Norfolk, some thirty minutes away, but who preferred to live with the sand and sea and tall slim pines and open, sun-drenched skies at the beach. Kempsville was not like that. It was a country place.

In daily life as a boy I did not meet many country people. If you drove twenty miles southwest from Virginia Beach, though, you would find yourself deep in another world, and in another era. You would find yourself driving by rich open fields with small wooden houses on the edge of these fields perched on cinderblocks near the narrow road that passed by. In the new morning and at twilight the fields sent waves of damp earthy perfume your way and up your nostrils as you passed by in your automobile. We seldom went by these fields, except when we drove to Cape Hatteras in the summer. When we did, I was enthralled. Every so often, I would see small country stores, selling chewing tobacco, R.C. Cola, Sunbeam Bread, and shotgun shells. But we never stopped. We drove on to more ocean and beach. I was ignorant of that world and of the people who populated it, close as it was.

I was full of ignorance when I went to work for Buxbaum and Warranch at their tract housing project in rural Kempsville that summer of 1961. I could only expect what I knew. Kempsville was a true country place then, but I did not yet know what that meant. I was as ignorant about carpentry as I was about country people. I'd never hammered a nail for money. I knew nothing of any carpenter's tools beyond the most basic items in a toolbox. How did I get the job? My father got me

the job. His company supplied the wooden trusses for the houses Buxbaum and Warranch built. I reported to work in mid-June, filled out a few forms, got a punch card, and was told to report to a Mr. Mosser.

Mr. Mosser was Boyd Mosser, the head carpenter. He was a limping, bent-over, irascible, toothless, tobacco-chewing man of about sixty, though he might have been seventy. He had a raspy voice that was prone to rising two or three levels when something irritated him, which was often. He would hobble toward you and demand to know why you were doing what you were doing. Because it was usually wrong. He could never remember my name. So he called me Pee Wee. The other carpenters assumed that was my name, so that's what they called me, too. I tried my best to get Mr. Mosser to remember my real name, because I didn't think Pee Wee carried the vigor and manliness I was trying to acquire that summer. But it was no good. I'd remind Mr. Mosser of my actual name, but a few minutes later he'd see me doing something wrong with what I came to recognize a classic Boyd Mosser look of frustrated irritation on his face. He'd struggle for three seconds to remember my name, give up, and, a look of pure exasperation on his face, say, "Pee Wee, what in the *hell* you doing?"

So, I was Pee Wee. I don't know why *Pee Wee.* I wasn't short, or small. But I was young, sixteen, and all the men were a lot older than I was. When Mr. Mosser said it, he stretched it out into about nine feet with his heavy rural accent: "Pee Wee, go get me a handful of ten-penny nails from that keg there." Boyd Mosser had seen scores of summer job kids like myself come and go, and he couldn't have cared less who your father, mother, or great uncle was. You were the lowest of the low, and he made sure you didn't forget it. He also made sure you worked damn hard. There were three of us that summer who worked as apprentices.

Mr. Mosser—as we called him to his face—always wore the same outfit: a pair of ancient khaki work pants and an equally ancient khaki shirt, the top two or three buttons of which were always unbuttoned. He shaved, it seemed, every three days. He wore battered brown work boots and a disheveled straw hat. His chin, parts of his chest, his shirt, his pants and his boots were stained with tobacco juice. He chewed tobacco incessantly. Because he couldn't walk that fast—I never knew why he limped—he was constantly shouting reprimands over distances. The effect was that when he would shout, the tobacco juice would often cascade out of his open mouth finding its way down his chin and shirt in streams and tributaries flowing wherever the path of least resistance took them. He seldom bothered to wipe his mouth or chin, so there was usually dried residue on his chin, stain around stain, much like the rings of a tree.

He also wasn't reticent, in general, about chewing his tobacco with his mouth open. Being toothless, he didn't always have the greatest control over the loose leaf tobacco he chewed, so some of it

would dangle out of his mouth, like strands of steak. He would actually spit from time to time, but he spit with such little effort that the short stream of tan liquid would usually land on his pants or shoes or even on the portion of his bare chest exposed by the opened shirt buttons. This did not bother him in the least. Sometimes to vex me he would stand before me as I nailed in subflooring and spit streams of leather-colored juice directly in my path so I would have to nail around, or even into, the brown pools. I tried not to look at Mr. Mosser too carefully, but it was unavoidable sometimes, particularly since he had the habit of sticking his face close to mine to make sure I understood him fully. "Do you hear me, Pee Wee?" he'd ask, his toothless mouth open, a look on his face as if he were speaking to a cocker spaniel. Then I saw things inside his mouth I did not want to see.

Mr. Mosser knew a lot about carpentry, but the carpenters who worked for him—the real carpenters, I mean—were very independent men, and most of them hated being told what to do. Still, he told them, because that was his job. These men were the first deep country people I'd ever met. The carpenters were mostly from rural Virginia. But some were from North Carolina or Maryland and even from as far away as South Carolina and Georgia. They were men with heavy slow accents, deliberate methods, and, often, deep religion and superstitions. They were not always terribly friendly. Most were cordial enough to me, though, but, more often, they were indifferent. Some could be difficult and not come to work on time, or drink on the job, but most put in a good honest day's work. And all of them knew what they were doing. Which I, of course, did not.

There was both a strength and a delicacy to these men that confused me and even bothered me. They had the kind of strength of some of the great rural products of the south: tar, pine gum, and tobacco. They were basic, effective, and strong. They were close to the land. Their hands and arms were powerful, and you could see that with great obviousness. Any fineness on their faces had been eroded by years in weather to a leathery bluntness. But when they changed from their overalls to their street clothes at the end of the day, which often they did next to the open trunk of their car, you could see baby-delicate skin on their upper arms and shoulders and back, skin that had never been exposed to the sun. It made them seem surprisingly tender, and feminine. This is what disturbed me. It didn't fit.

The subdivision project was next to a swamp, and each new lot had to be reclaimed with bulldozer, ax and shovel. Even at 9:30 a.m., the temperature was already eighty-three degrees. The heat and stink ebbed and flowed during the long hot summer day. It was a mixture of rotting cypress stumps, fetid brown water, and soggy steam from the miasmic earth. The Virginia heat released its sticky wood essence into the air. Some carpenters wore shorts, but most wore bib overalls, some with shirts, some without. Nobody escaped the heat.

A carpenter's apprentice does anything he's asked to do, including cleaning any debris around the job site, fetching whatever a carpenter wants, hauling, pulling, lifting and sometimes even hammering, even doing some real carpentry. As I said, ignorance was my constant state and companion those first weeks. It began right away.

"Git me that there stud, Pee Wee," a carpenter said to me in a mud-thick accent.

"What's a stud, sir?"

"What's a *stud?* Well, I'll be godammed. Pee Wee, ain't you never worked before?"

"Not doing this."

"She's a twobyfer, Pee Wee, eight feet, and git me one from that there pile."

I went where I was told to go, worked with whoever I was told to work for. Sometimes I worked for one carpenter for just one day, other times for another carpenter for a week or more. It all depended on how pressed the men were to get the job done, and who needed an extra hand. Some of the carpenters I got to know better than others. But, regardless, I never knew what to expect.

I learned about wood that summer, and about grace. To watch a carpenter—a real carpenter—hammer nails into wood was a wonderful sight. Some of them kept the nails in a pouch that hung form their waist. Others inserted five or six nails in their mouth at a time. Somehow, with deft magic, they were able to take the nails out, one at a time, placing the next one exactly in front of the previous one they had just hammered in without missing a beat. A good carpenter never took more than three blows to nail in a nail, more often two. It looked easy. But then it always does, with experts.

Apprentices—at least at the project where I worked—start their hammering careers with subflooring. As its name implies, subflooring goes beneath the actual floor you see, and walk on, in a house. It's usually pieces of 2 x 6 inch wood placed diagonally across the joists. Joists are heavy pieces of wood placed upright on their sides and spaced evenly from one side of the foundation to the other. The trick is to make sure the nails embed themselves into the joists. If you miss the joist, the nail will just dangle in air below. That isn't always easy—for an apprentice, anyway—because there is far more air than joist. You can't see the joist, but you can hear it by tapping the subflooring with your hammer. If the feel and sound is solid, there is a joist below, and that's where you hammer.

However, assuming there was a joist directly underneath didn't mean I could hit the nail on the head and drive it cleanly and deeply into the wood. Put the emphasis on cleanly. Nailing a nail into a resistant wood with two perfect strikes is one of the most satisfying things I've ever done, but it didn't happen often, and certainly never at the beginning. It is one of the most elemental, ancient, and universal of actions. Steel into wood. Connecting wood to wood, bonding it with a simple nail. The nail penetrating into wood has a tight but not impenetrable resistance to it. When you nail a nail into most wood—though there is some incredibly hard wood—you feel the resistance of something

that was once alive. It's almost fleshy. In fact, it takes a long time for wood to feel dead. It retains its life-like properties, its vivacity, longer than almost formerly living thing I can think of. There is a wonderful sound, too, of a nail being nailed into good wood, a timpanic echo of tone that diminishes with each blow until the nail is driven its full length into the wood. A good carpenter's hammer will only strike the nail's head and never the wood's surface. It's a marvelous thing to see a carpenter raise his arm and, with one sure arc, strike the nail's head with his hammer, fully committed, *hard,* finding that small surface assuredly and driving it down, down, down.

When I started nailing subflooring, I could never do this. Or anywhere near this. Not only that, I often missed the nail altogether. My hammer would dent the wood instead. I felt terrible when I did that, but this is why Mr. Mosser let me do this job: because subflooring would never been seen by the owner of the house. I still hated marring the wood's surface, though, and I wished I could be as sure and as graceful and as powerful as those carpenters who nailed their nails like gods. Besides, when I missed the joist below, I had to nail another nail, effectively doing the same job twice.

"Pee Wee, you ain't hit that joist but one in ten times," Mr. Mosser would say. "C'ain't you do anything?"

I learned. It took practice. It took concentration. It took mistakes.

I saw that the wall of a house was first assembled on its side, on the subflooring. The pieces of wood, much of it two by fours, were nailed together in an outline. Studs were nailed perpendicularly into longer two by fours, one after another. Pretty soon you had a long line of studs, from one end of the subflooring to the other, like a wood comb. Then it was time to raise this thing. Four or five men would stand at intervals and one two three we'd all lift the frame up until it was marked straight and even by a carpenter with a level. Then, as we held it upright, other carpenters would nail the bottom two by fours into the joists, and you had the beginnings of a wall. This seemed, well, primitive to me. I don't know how I expected a wall to be built, but I guess I supposed it would be something more elegant and complicated.

The housing project, Kempsville Gardens, was being wrested from land that was difficult, fetid, and primitive. It was rank, with powerful odors emanating from mucky land studded with cypresses, their fat splaying trunks and slim bodies coming to a blunt end halfway to where they were supposed to grow. They had either died or someone had cut off their upper bodies. There were many svelte tall pine trees, too. After the land had been cleared by bulldozer—because you couldn't do it any other way—then lots were apportioned and foundations had to be dug. This was basically a four-sided trench into which concrete was poured. It was upon this hardened concrete that the house

would stand. I describe this aware that many readers will already know something so basic, but I did not. It was a revelation to me. Everything I saw was new to me about how a house was built and why it was built that way.

Foundations were dug by back hoe, a machine with a large mechanical shovel that scooped the earth out, foot by foot. Or they were dug by men. In this case, two black men. They were big, strong, and silent. They dug ditches, because that's what a foundation was—a ditch that was to be filled with concrete. They used shovels, pickaxes and axes to do the job. It was mighty hard work. They wore work pants and no shirts. They both had incredibly strong bodies, with slick, muscled arms, the veins of which were prominent and looked like broken snakes. They were not young. Now that I look back, I think they must have been in their forties. When I was working on a house next to where they worked, I was able to watch them.

The ground was not kind to them. When they thrust their shovels into the earth, sometimes the dirt came up easily, though really nothing came up easily in the aggressive Virginia heat. More often, the earth didn't yield. They had to use a pickax to break it up. They would encounter massive ugly roots, and they had to hack through them with an ax, blow by blow. They worked deliberately. It was a slow pendulum kind of labor. They didn't speak to each other, not a word. Once in a while, one of them would pause and take a slow drink from a Mason jar chock full of white ice cubes and water. The other would continue working steadily away. They didn't acknowledge me, or anyone else.

Their work was admirable. At least I admired it. The sides of the trenches they hewed out of the earth had a perfect dark sleekness to them, like basalt. Those sides were militarily straight. It took them two full days to dig a foundation. It took a back hoe perhaps four or five hours. I don't know why they had men still digging foundations when they had machines. Perhaps they didn't have enough machines, and the project was behind. I understood the men were paid per foundation they dug. It wasn't much, I'm sure. I, just a sixteen-year-old novice, was probably getting paid nearly as much as they were.

It made me sad to watch them, much as I admired their strength and skill. All their work would be obliterated. Every foundation they dug would be drowned in concrete. It was hard what they did, and unheralded. Day after day, they worked like slaves in the fierce Virginia sun. I only wish I could describe the ferocity, the relentlessness of a long humid hot July day. By three o'clock you had lost the battle against the heat. You had surrendered unconditionally, and there was nothing to do but to wait until five o'clock when it was time for you to go home, blurry and beaten.

Now, 45 years later, I think about them, as I have from time to time throughout my life. Did they go home to wives? And if they did, were their wives proud of them? A man needs someone to be proud of him. He needs someone to say: "Your work is good, it's noble, it's the best in you, and I know it, even if no one else does. What you've made is good. I'm proud of what you've done. I'm proud of you." I want to tell these wives, "Yes! I saw their work. It was beautiful, elegant, precise. They made faultless trenches, and they were inspiring to look at. Yes, I know the trenches are gone and no one can see them, but the houses upon which they stand are the better for their work."

Somewhere it struck me hard the unfairness of this work going unappreciated. Something inside of that sixteen-year-old boy said: "Are you a witness? Can you describe exactly what you saw?" And the boy replied, "I'll try."

Some of the men were spooky to me. They came from towns I never heard of. Some said they were from counties, not towns.

"Where are you from?" I'd ask.

"From Talbot County. Maryland."

How could you be from a county, and not a town? What did that mean? It was the same with what they ate. I'd see them eat sandwiches, like I did, but some would eat sardines out of a tin, or pigs' feet out of a jar. I had never eaten a sardine before. One man would read the Bible during his lunchtime. Another turned on his car and played country music during his lunch hour. Some of them showed me their paychecks on Friday, mumbling and cursing.

"Look at this, Pee Wee! Where the hell the money go to? I work like a colored man all day in this heat and look what I end up with? Next to nothin'. I might as well stay home and work around the house."

This was different from my household, where my father wouldn't discuss his earnings and in fact reprimanded us for asking. It seemed the height of indiscretion, and even today money seems to me more of a taboo subject than almost anything else. But the men would show me their paychecks and soon I got to be as naked about it as they were. It seemed a communal thing, a sort of anti-boss, anti-Buxbaum and Warranch. Mr. Buxbaum would show up from time to time in a dark green Cadillac, dressed in a suit, and stand there talking not to Mr. Mosser, who was too lowly to be talked to, but to Mosser's boss. He was a man whose name I don't recall who never raised a hammer but only looked at plans and walked the site with an inspectoral eye. When the carpenters saw the green Cadillac arrive, they sneered and even hooted sometimes, as if they were prisoners and this were the warden. I soon started acting like they did, although, of course, I kept quiet about the fact that my father and Mr. Buxbaum were cut from the same cloth.

"It's that damn Bux-whatever who takes all my hard-earned money and leaves me with hardly nothin'," a carpenter would say. "And what the hell does he do? He don't even know how to use a hammer, Pee Wee. I'll be you he ain't ever held one. Bet you five dollar."

Yeah, I thought. I'll bet you he never has. Mr. Buxbaum would stay around for fifteen or twenty minutes then climb back into his Cadillac and drive off. Some of the carpenters would hoot and holler as he drove away. And I would think: Does he need all that money? Does he need that big a car? And I would wonder what he did to earn this money. Whatever it was, I wished I could jump in the back seat and run away from all this heat and sweat and this long, long day.

The carpenters were men who I simply had no context with which to understand, or to communicate. Many of them had probably never even been to a beach, never stepped foot in an ocean, may never have finished high school, or even gone to high school, had never been to a prom, or any kind of restaurant more sophisticated than a Shoney's Big Boy—had never done any of the things that defined my young life. They lived differently than I did, thought differently, wanted different things. This was new to me, and it threatened me, and excited me.

One carpenter, scrawny, with a syrup-thick country accent, continually wanted to talk to me about Jesus. "He is your King, Pee Wee. This earth ain't nothin'. Heaven is our eternal home." He had a lascivious grin and used to tell me things about his wife I didn't want to hear. He scared me. I didn't know what to say to him.

"Do you believe in Jesus, Pee Wee?" he would ask me.

"Yes, why?"

"Because He is our Savior."

I felt uneasy talking about my religion with a stranger, especially this scrawny man.

"I do believe in Jesus."

"Because if you don't accept Him as our King and Savior, you will never enter into the Kingdom of Heaven."

"Well, okay."

His look was fierce, nearly predatory.

"You do accept Him?"

"I guess so, yes."

"This ain't no joke, Pee Wee. Your college education ain't gonna help you here."

"I haven't been to college yet."

"Don't you think 'cause you got more education than me you're better'n me."

"I don't th—"

"You ain't gotta say nothin'. I know what you're thinkin'."

"Hey—I never…."

Why had he turned on me? What had I done to him?

"You just watch your step, Pee Wee."

"Okay," I said stupidly against the bitter look on his face.

That summer I watched as one house, and then another, and then another went up. They were all pretty much the same. The houses on my block in Virginia Beach were all different. Houses were supposed to be different, because that was what I knew. When I saw these houses go up, different only perhaps in color and with the addition of an extra bedroom, but still looking so similar, something in me was troubled. Isn't your house supposed to be different than my house, I wondered. It seemed to me wrong to build a house exactly the same as the next one, but my mind wasn't able to process the argument well enough to figure it out. As the houses went up, the untamed land was diminished. I can't say I noted that specifically. I was having a hard enough time learning and trying not to foul things up. But somewhere I was absorbing the disappearance of pines and cypresses and all the unruly land to be replaced by one home that looked like the next one. I hadn't had enough experience to understand what I was seeing. I just went home that summer, having learned some things about hammers and men and houses and land that have stayed with me and troubled me ever since.

I was sixteen and in great shape, but at the end of the day, I was so tired I could hardly finish my supper, even though I was famished. I'd come home and take a long shower to wash away the grime. My body felt as if it had been in a kiln all day, that the dirt and sweat had settled into my skin and been fired by the sun and become part of my body. It took great effort to wash it off. After dinner I would sit on the porch in the waning evening and listen to the nocturnal sounds of the Virginia summer, hardly able to move. Then I would limp up the stairs and instantly fall to sleep.

The smell of wood being cut, the high whine of the buzz saw, sawdust on my sweaty arms and hair—the sounds of work. Concrete being poured into foundation trenches and then smoothed out like cake icing. Men driving bulldozers all day. All in the extreme heat. This was my first experience of what *work* was, as men do it, day after day. The men did it not because they wanted to, but because they had to. They worked a very long day in a hot climate, wearying themselves,

because if they didn't, they wouldn't receive a paycheck, and they couldn't support their families. I had never experienced this. I don't think I met a single man that summer in Kempsville who loved what he was doing. The men simply did it. When it was time to quit, they packed their tools into their toolboxes, closed their car trunks, and drove off. They vanished into the late afternoon, relieved of their indentured hours. For that's how I began to see it: as indentured labor. The men had promised themselves to their masters for a certain number of hours every day, every week, every year. They had to fulfill that obligation, and they did, but when it was over each day they left that obligation with no sense of regret or pleasure.

If I learned one thing that summer, I learned this was not the way I wanted to live.

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Essay

Sunset Canto
from River of Traps

Text by William deBuys
Photographs by Alex Harris

June 21, the longest day. Tonight the stars will beam like headlights, and Scorpio will crawl along the ridge.

We'll drink and talk beneath the *portal* and wait for heat lightning, red as Antares, to flash beyond the horizon.

No car has passed for an hour. No chainsaw has growled. The melt is over, and the river is low and quiet. Not the wind, but silence rolls in from afar.

There are near sounds: a blackbird in cattails by the river, swallows mewing on the power line. The sapsucker drums in the elm.

Whoosh.

Hear that?

Whoosh.

The nighthawks are up and wooing their mates with dives. They climb to the limit of sight, then plummet until—*whoosh*—they brake within feet of the ground. Each night at dusk they make this dance, plunging in and out of sunset.

The final light blazes on the blind man's house, last house in the valley. It gleams on the transformers and the signs for Quality Oil and Chevron.

It lingers on the peaks, bare islands in a sea that laps the edges of our fields, waiting to reclaim them.

Comes the old man on his canes. Huffs as he climbs from the road. "Son of a bitchy bull, gone all the way to Orlando. Broke the fence again. Maybe tomorrow you help me bring her." The road is dusty, dry. Yes he'll take a beer.

Montoyita, how is he?

"Fine. Fine."

And Juan de Dios?

"*Todavía* the same. Weak to walk. Fine to sit."

Silence, and we watch the valley. Sound of sipping and swallowing. Sound of bottles put down on the rough cement stoop. Sound of circling nighthawks, calling *eep*, *eep*, as they hunt and swoop.

The chamisa darkens by the road. The light of the blind man's house goes out. Now a coyote starts up. Now a car.

"All right, thank you. I got to go while I can see. That *vieja* is waiting." He edges down the bank, weight on the canes, loose dirt sliding before him. He reaches the bottom, stamps his boots clean.

See you tomorrow.

"You see me tomorrow, yes. If I don't die and you don't go blind."

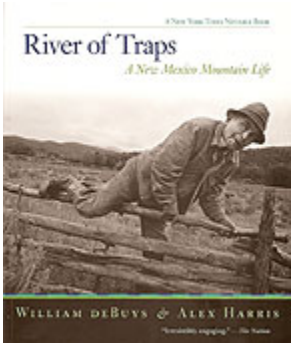
He raises high the righthand cane, a salute without looking, and shuffles down the road.

Comes now the light of the moon and the red eye of Antares, staring from the dark above the *llano*. Somewhere by the river an owl begins to hoot.

View slideshow of 16 Jacobo Romero photographs from *River of Traps* at: http://www.terrain.org/essays/22/debuys_harris.htm

"Sunset Canto" originally appeared in *River of Traps: A New Mexico Mountain Life*, text by William deBuys, photographs by Alex Harris (Trinity University Press, 2008, 1990). It is reprinted with permission.

All photographs are by Alex Harris. The photographs on this page is from "Sunset Canto." The photographs in the slideshow appear throughout *River of Traps*.



River of Traps combines words and photographs to tell the story of Jacobo Romero, an oldtime northern New Mexico villager who befriends the authors and initiates them into knowledge of land, water, and a way of life long rooted in the mountain valley that became their common home. Critically acclaimed and widely admired—it was a finalist for the Pulitzer Prize in General Nonfiction and won the Evans Biography Award—the book has been called a Western classic.

William deBuys is the author of *The Walk* and *Enchantment and Exploitation: The Life and Hard Times of a New Mexico Mountain Range*. His other books are *Valles Caldera: A Vision for New Mexico's National Preserve*, cowritten with Don J. Usner; *Salt Dreams: Land and Water in Low-Down California*; and *Seeing Things Whole: The Essential John Wesley Powell.* He is a professor of documentary studies at the College of Santa Fe.

Alex Harris is a distinguished American photographer, a professor at Duke University, and a founder of the Center for Documentary Studies and of *DoubleTake Magazine*. Harris has photographed extensiely in the American South, Alaska, Cuba, and New Mexico. He is the author or editor of 14 books, including, most recently, *The Idea of Cuba*.

Fiction

by Liz Warren-Pederson

I

He blew a tire on Route 66, on a flat stretch of scrub desert at sunrise. His instinct was to slam on the brakes; like many of his instincts, it was flawed.

His bottle of Mountain Dew, lukewarm and half empty, somersaulted through the air as his right hand joined his left to white-knuckle the wheel. The bottle bounced off the seat, spraying yellow-green liquid as he fishtailed over the blacktop.

He knew that he would have to lift his foot off the brake. As he did, he recognized something in the road: a coyote. Thin as bones, it loomed suddenly large as he bore down on it. Its eyes were amber and fierce.

He threw the wheel.

It occurred to him, as the world spun around like a carnival ride, that when it stopped he might not get off. This thought had no power over him. He let go of the wheel, and his arms whipped up around his ears of their own volition, jerking like an articulated toy. Then the roof was the floor and he was flopping upside down from the seatbelt. The position was comfortable, and comforting, and he closed his eyes.

Time passed. Thought returned. Music, tinny and strange, still issued from the speakers. *Every night my dream's the same... Same old city with a different name…* The music was accompanied at irregular intervals by a dripping sound. And footsteps, the sound lug soles make grinding desert

gravel. The footsteps paused somewhere near his head. Was that a hot breeze or hot breath blowing through the open window to touch his cheek? *Men are coming to take me away… I don't know why, but I know I can't stay…*

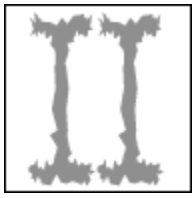
The smell of dust and body drifted into the car, and something – a thick arm – pushed past his dangling form. *There's a weight that's pressing down… Late at night you can hear can hear the sound…* The arm withdrew with the heavy set of keys from the ignition. They clipped his chin, and the smell retreated with the footsteps, headed to the rear of the car. "No," he said, but his mouth didn't move.

The sound of a key pushed solidly into the trunk lock galvanized him. He forced his eyes open, but they closed instantly, against his will. He moaned and tried again. The lock clicked home, and he heard the contents of the trunk spill out into the desert, landing hard. He willed his eyelids up, and caught a couple images, flicking like a ViewMaster. First, straight ahead: thrashed windshield, bent in, irregular blue-tinted mosaic rectangles. Next, to the right: empty green plastic bottle, resting against the interior light on the tatty perforated vinyl of the Nova's roof.

Then he heard the halting sound of something unwieldy being pulled over brush and pebbly ground. He struggled to turn his head toward the sound, made his eyelids open. Upside down, and blurry: a tall man in a plaid shirt. The bogeyman. Bright-lit in the sunrise and bald, dragging a long narrow form wrapped in a chamois-colored canvas tarp, trussed in jute. The bogeyman moved out of his line of vision; the last thing he saw was the load rebound off a rock the size of a hubcap.

He twitched, deliberately, to shake off the lethargy. The seatbelt, sharp and sturdy, cut into his neck and jaw. His right arm felt like it was filled with sand, but he concentrated until it rose up. His fingers closed around the metal latch. He mashed the button with his thumb, and tumbled suddenly in a heap onto the roof of the car, still tangled in the seatbelt. Breathing hurt. It occurred to him that he probably had a broken rib. Or more than one. He wrapped an arm around his torso, rested his forehead on the edge of the window, and closed his eyes. He heard a car coming, arriving, withdrawing – a textbook Doppler effect.

The air from its retreat rushed over the Nova. He felt the car barely rock. The hinges on the trunk squeaked, gently. Hinges. Trunk. Body. "No," he said, and this time his voice worked. Clutching his ribs tighter, he reached out the window with the other arm. He gripped the car frame. In stops and starts, he pulled himself into the sunrise. He lay on his back, knees bent. The rocks were sharp under his neck. One dug into the small of his back. The air was dry and crisp. The sun had come up hot; the heat seemed to pulse with his heartbeat. He turned over, began to crawl, then paused and finally stood. He staggered into the desert after the bogeyman.



Someone was trying to call her. She thought she knew who. Last time, the phone rang fifteen times. She didn't pick up. The caller waited five minutes and tried again. She knew it was coming, but it still made her jump and bark her shin on the coffee table, hard enough to bruise.

Sam kept the money over the couch. It was behind a plastic-framed latch-hook project his mother gave him, big as the TV set, a beach scene with a dirty white seagull. In March, when she was still expecting, she had to get up at all hours to pee. One night she came out and saw him closing up the square he'd cut out of the drywall. She didn't see what was inside, but she didn't need to. She knew. And he hadn't seen her.

Now the incessant shrill of the phone made her move faster. She was shaking when she pulled the frame off the wall and tossed it on the couch. He was a fool for his fear of the bank. He was a fool for his refusal to get an answering machine. He was a fool for marrying her. For enlisting when he did. For thinking it would all be fine when he came back. For trusting his brother. For trusting her.

"Shut up, shut up," she muttered at the phone. When it did – mid-ring – she blew out a breath of relief. She reached up and slid a fingernail into the neat crack in the drywall. She worried out his little square and let it fall. It bounced off the back of the couch, snagged on the nubby orange fabric and left a chalky streak. The opening was dark, and deeper than she expected. She reached in and felt around. There was something in plastic, wrapped tight in what seemed to be duct tape. She sought out a corner and tugged it until it tipped into her hand. A neat brick. Hefty. She set it on the couch, and reached in again. When she was done, there were three plastic-and-silver bricks, side by side.

She stood back for a minute, hugged her skinny arms around herself and bit her bottom lip. After she lost the baby, she had gone to a psychic. The psychic told her two things: one, that Sam was hiding something from her and two, that she'd do well up north, maybe Canada. Yesterday she cleaned the last motel room she'd ever clean.

She smiled, then shivered, but she wasn't cold. She didn't bother to put the wall back together again. Her suitcases were already in the bed of the pickup; she'd started packing as soon as he'd gone off to pick up his brother in the Nova. God, how she hated that car. It was from '74 and looked it. He was always cleaning it, waxing it, buffing it. One time she told him you can't polish shit. He'd come close to hitting her.

Just as she reached for the door, the money heavy in her purse, the phone rang again. She shuddered, turned back and looked at it. Sam had bragged about finding it at a yard sale for $1. It was avocado green, with a rotary dial, and deafening. What if something had gone wrong? What if it was Sam, not his brother? Her stomach clenched. She reached out, picked up the receiver and listened.

"Where have you been?"

It was his brother. She could breathe again. "At the store."

"It's done." His voice cracked. He cleared his throat and tried again. "It's done."

"OK." Her fingers twitched on the strap of her purse. "Where are you?"

"Black Canyon City."

"OK."

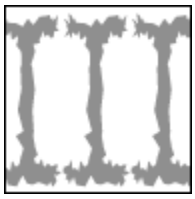
"When are you leaving?"

"Now."

"I love you," he said, uncertainly. "I'll see you in Needles."

"OK."

She hung up and left the house for the last time. The street was quiet; she didn't bother to give it a last look. She'd never been to Canada before. She reached across the bench seat, buried her hand in her purse and held onto the brick. She'd earned that money. Her hands were clean. Her hands were clean.



It had rained that afternoon. They drove east on the 60, out past Apache Junction, with the windows down. The hot air barreled in, deafening, carrying the smell of creosote and ozone. Will's hair was too long. It whipped around his eyes, stung his cheeks. He could barely make out the music. *You say it's money that we need… As if we're only mouths to feed…* He clenched and unclenched his fist. Sam was behind the wheel.

Sam drove with instinctive ease, with the absolute control of a stock car driver. He should, Will thought, he learned from the best. From their father. *I know no matter what you say… There are some debts you'll never pay…*

They pulled off the highway onto a dirt road. Sam was driving too fast. The Nova handled the washboard road like a champ. Will reached out, grasped the emergency brake and pulled it up, hard and fast. The wheels locked up. The Nova sheared sideways into the stand of weeds on the side of the road. Sam was laughing. He brought the car out of the skid one-handed, using the other hand to drop the emergency brake. He cuffed Will on the back of the head. "Son of a bitch," he said.

I can taste the fear… Lift me up and take me out of here… They rounded a long curve in the road and headed for a rocky mesa. They'd had luck there before, shooting. Will turned around and reached

into the back. His .22 was tossed on the bench seat. He dug a Mountain Dew out of the knotted plastic bag on the floor. He twisted the lid slowly, but it didn't overflow. When he went to take a swig, Sam punched the brake.

The soda shot up Will's nose, soaked his face and streaked down his neck. *Don't wanna fight, don't wanna die… Just wanna hear you cry…* "Asshole," he said. He wiped his face with the bottom of his shirt and capped the Mountain Dew. Sam pulled off the road, crawled the Nova over a weed-choked rise in the desert and parked under a ragged tree.

They got out. Sam stretched. He walked around to the trunk and put the key in the lock. It opened with a mechanical thrum. Will came up behind Sam, holding his .22 in one hand and his Mountain Dew in the other. They looked in the trunk. "Whatcha got?" Will poked a chamois-colored tarp with the butt end of his rifle. It didn't give.

"Anniversary present for Shelly." Sam reached behind the tarp, pulled out his rifle and a box of cartridges. He slammed the trunk closed.

"What is it?" Will followed Sam up the hill. The ground was spotted with rain patter.

"A melodica." Sam checked his rifle, then shoved the cartridge box into his back pocket. The box dragged his jeans low; they hung off his bony hips. Shelly said he didn't sleep anymore.

"What the hell is that?"

"It's a musical instrument. Got it at the Goodwill. Ten bucks."

"I didn't know Shelly played anything."

"There's plenty you don't know." Sam glanced over his shoulder at Will. He was smirking. That same smirk he used when he razzed Will about the bogeyman, long time gone.

Will looked north. Just under a pile of boulders, he saw the coyote. It was standing perfectly still under the flat sunlight, just bones covered with pelt. Sam saw it too. He raised his rifle and took a bead. It was too far away to do any damage. Will came up close, dropped the Mountain Dew bottle. Held his rifle against the back of Sam's head and fired.

Sam pitched forward. He landed on his hands and knees, then tumbled onto his face. Will was shaking. He saw the coyote lope off into the desert. "Will." Sam had turned his head, was looking up. The bullet hadn't made it out the other side. "Call 9-1-1."

"You don't understand." Will stooped, clipped the carabiner with the keys off his brother's belt loop. He turned back to the Nova, to get the tarp.

Song Lyrics by The Arcade Fire.

Liz Warren-Pederson is a Tucson-based writer and an MFA student at the University of Arizona.

Fiction

by Werner A. Low

Karl's heart exploded when his coyote suggestion was accepted. Over the years he must have put thirty ideas into the Innovation Box—which was first a wooden Suggestion Box, and then an electronic Idea Box—and he'd never gotten more than the standard, "Thank you for your contribution" note. So this was big. Really big.

The letter, from the VP of Human Resources, congratulated him on winning an "Innovator" citation. She went on to say that the Company intended to implement his idea "expeditiously," but the $1,000 award was not contingent on the success of the idea. It was his creativity that was being rewarded. The language looked boilerplate—it was no doubt exactly the same letter that all "Innovators" received—but the signature was real, and so was the article that appeared in the company newsletter a few days later.

"I finally figured out what's most important to these idiots," Karl quipped to his wife, in the gravelly voice that had made him consider a career in radio many years earlier. "It isn't developing new products, increasing efficiency, or improving employee morale. It's their precious lawn."

A week later, Karl watched from the big windows in the cafeteria as two maintenance men in blue uniforms carried the coyote—sideways, its legs sticking stiffly out to one side—out onto the broad

front lawn that separated the headquarters building from the road. He didn't agree with where they placed it—too close to the road, he thought. He also felt that it should be looking off to the east, toward the river, because that was where the Canada geese came from. But it worked. The geese stopped coming up to graze on the lawn. They stopped almost immediately, and after a couple days they hadn't come back.

Karl basked in his success. He'd not only had a winning idea, but it was working beautifully. People he hardly knew congratulated him. And others were envious. Edwards, the skinny project accountant, was one of those. He slunk into Karl's office a couple days after the coyote had been installed to say that he thought it would be "problematic."

"How so?"

"The animal lovers will complain."

"But it's just a plastic decoy, Fran. It's not hurting the geese. And it's not hurting any real coyotes, either."

"I still think we're going to hear from them."

As soon as Edwards left his office, Karl went to the cafeteria to see if any activist types were out front taking pictures of his coyote. Over the next few days he was hardly ever in his office, which didn't have a window. Instead, he'd be watching the coyote from the cafeteria or one of the conference rooms, from the lobby, the roof deck, or even the smoking area, even though he'd quit smoking years ago. Partly because of all the different viewing angles, it half felt like the coyote was moving back and forth, stalking some unseen prey.

One morning, after a heavy rain, Karl noticed that the coyote had tipped a little. The geese hadn't reappeared, but the coyote looked unnatural, like it was sick, or might fall over. He put a call into Maintenance but nothing happened. When the coyote was still crooked the next morning, Karl went out and straightened it himself, after parking his car. He turned it a little at the same time so that it was now looking more toward the river.

Karl's phone rang almost the minute he got to his office. It was Security, reminding him that employees were not to trespass on the front lawn. The policy was explicit on this point, they said.

Karl explained that he was the one who'd come up with the coyote idea, and he'd just been straightening it. That was for Maintenance to handle, they replied, and added that the front lawn was under video surveillance.

Like a boy who's been chastised, Karl felt like hitting something. But he took a deep breath. Their precious lawn, he reminded himself, was also the source of his success. The company made cleaning products, and an immaculate front lawn in front of a gleaming new building was an important part of their image. They'd installed a softball field, a picnic area, and even a small pond in the back of the building, but the front lawn was off-limits.

"My guess is that the lawn is saturated with fertilizers and pesticides," Karl told his wife that night. "They probably inject it through the underground sprinkler system. That's why I've never seen a single dandelion out there. And that's maybe why they were so concerned about the geese. Not just because of the crap, but because they were worried that the birds would start keeling over. Then they'd really hear from the animal right's people," he laughed, clinking the ice cubes in his Scotch glass like applause.

When Karl came to work a week later and saw that the coyote was gone his heart clenched like a fist. It was the animal rights people, he thought. It must be. His head boiled with responses as he hurried to his office to see if he had an email or call explaining what had happened. When there was nothing, it only fueled his anger. It was bad enough that they hadn't told him in advance, but to not even tell him why they'd removed the coyote—it was unconscionable.

He called the office of the VP who'd sent him the congratulatory letter and asked the VP's assistant, in a meticulously calm and polite voice, what had happened. Had the coyote been stolen? Or was it, perhaps, that some animal rights group had complained?

The VP's assistant said he didn't know and referred him to the Public Relations office. The Assistant VP of Public Relations told him that it was the police who'd complained. Evidently there had been several traffic accidents in front of the building. People driving by would spot the coyote, which looked quite real, and swerve into another car as they were staring at it. The accidents were minor, but the police had asked that the coyote be removed.

Karl ended the call by pressing the button on the cradle with the forefinger of his left hand, cocked the handset back as if he was going to throw it against the wall, then grimaced and put it down even more gently than was necessary. He exhaled through his lips, using the image of letting off steam. It was especially frustrating because he'd felt, right from the start, that they put the coyote too close to the road. And looking at the damned cars, to boot. If the animal were to be relocated closer to the building it would solve the car problem. He took himself for a little walk to calm down and then called the PR Assistant back and told her this, adding that he'd called the manufacturer of the decoy and they concurred. The Assistant said she'd take it up with the VP, but Karl didn't think she sounded sincere.

He left the office early, citing a meeting across town. Instead he went home. By the time Donna came home from work, at 6:30, he was drunk. When he told her what had happened with the coyote she was supportive, but not overly so.

Karl had a thick hangover the next morning, but when he pulled into the parking lot and saw that the geese had begun to return a smile sparkled across his face. More than anything he could say or do, this would spur the company to action. It might take a few days for them to work things out with the police, which would probably involve relocating the coyote, but he was pretty sure they'd reach that conclusion. Because of their precious lawn.

When nothing happened in three days, Karl called the VP of PR's assistant to ask her if she'd passed his idea along. She said yes, she had.

"And what was his reaction?" Karl asked.

"I'm sure that he gave it careful consideration," she replied, coldly.

"I assume he's noticed that the geese are back," he said.

"I imagine that he has noticed, yes," she said. It sounded to Karl like she was about to say something else. But she stopped herself.

He stopped himself as well. Words were foaming up in him but he smiled, as if he was in the room with the woman, nodded, thanked her for her time, and concluded by saying that he'd spoken with the manufacturer of the coyote and done considerable research on its application at other facilities and would be happy to provide further information if it would be helpful. Then he went outside and bummed a cigarette off one of the smokers.

"I thought you quit," the man said.

"I did," Karl said, in such a tone that the man didn't pursue the question.

It wasn't easy for Karl to wait, but he gave it a whole week. He literally marked the day in his calendar. Then, seven days to the hour after he'd called the VP's office, he went out to the hangar-like garage where the maintenance people kept their mowers and so on. If anyone stopped him he was going to say that he was looking for a man named "Tony." But no one stopped him.

He didn't have a definite plan—it was just that had to do something. Nor did he expect to find the coyote out there. He figured that in their quest for absolute cleanliness and order the company would have thrown it away. If so, Karl had a couple ideas. One was to send back the Innovator plaque with a sarcastic note mimicking the letter he'd received. Even better, maybe he'd hang the plaque upside down behind his desk. Or—and this idea really excited him—he might order one of the coyotes for himself, put it on the rug in his office, and observe—when people inevitably commented—that since he installed the coyote he hadn't had a single Canada goose in his office.

Karl was so wrapped up in these little ideas that he was knocked off balance when he spied the coyote in a corner, next to bags of grass seed stacked like a levee. It looked smaller in here. And tamer. And it was looking directly at him, through the tops of its eyes, as if it couldn't quite decide whether it was ashamed of itself, or of him.

A man wearing a short-sleeved white shirt and tie—he looked like a supervisor—was walking toward him. Karl turned and met the man's eyes hard and was pleased to see that this had an effect. Karl was 57 years old, with distinguished looking gray hair at his temples. He was wearing a fairly expensive overcoat and carrying a leather satchel. As the supervisor drew near, Karl softened his face into a condescending smile.

"It's Mike, is it?" he said. For that's what it said on the man's name badge.

The man nodded, a tad apprehensively.

"I'm Karl. Karl Edwards. And I'm here about the, uh"—he gestured toward it—"the coyote."

The man looked over at the coyote, then back at Karl.

"They want it back," Karl said, with a little chuckle, as if he was as amused as the next person by their reversal of position. "The geese have returned so they want it back on the lawn. But in a different spot."

Karl pulled a memo about God knows what out of his satchel and pretended to read it.

"In the southeast corner," he said, finally. "About halfway between the corner of the building and the river."

When the man hemmed, Karl lowered his voice and said that this was to be done by 11:00. Was that clear?

The man nodded submissively.

Karl nodded back, said “Good,” and marched off.

Karl watched with satisfaction as the coyote was replaced. The geese did not all fly away immediately, but they began to leave in twos and threes, flying low, and by sundown they were all gone.

He kept expecting his phone to ring, but it didn’t. He didn’t get any e-mails on the subject, either. At 6:30—a bit later than usual—he drove home, noting, with satisfaction that there were no traffic accidents in front of the building.

When Karl returned to work in the morning the coyote was gone and his message light was blinking. He was to see the VP of Human Resources. Immediately.

The VP’s assistant motioned him to go right in. The VP closed the door, motioned for Karl to take a seat in one of the chairs in front of her desk, and then told him, in a very calm and careful voice—a voice that sounded almost caring—that a number of people were insisting that he be dismissed immediately. With cause. In that case he would not only forfeit the customary severance package and outplacement assistance, but would jeopardize his pension plan and any unvested or unexercised options. And she would find it difficult to give him a good reference.

Karl swallowed, hard.

She sighed and looked out the window. “You’ve been here almost twenty years,” she said, “and we value your commitment and your service. So I don’t want you to say anything right now. I’d like you to take this afternoon and tomorrow off, use the long weekend to give this matter the careful consideration it deserves. Then please come see me on Monday morning, at 9:00, and tell me what your thoughts are.”

Although the woman had been very polite, Karl’s impulse, on leaving, was still to slam the door. Or throw a chair against the wall of the anteroom. Or, as he was leaving the parking lot, to drive his car onto the lawn. They were idiots. And all the more so when they hid between their insincere smiles. He should have stuck with radio. He should have left this place ten years ago!

When he got home he hit the bottle again. This time he got no support from Donna, who also cautioned him, in very clear terms, to not do anything stupid.

That weekend they sat down together and calculated that it would cost him a staggering sum if he

lost his pension and stock options. He said that perhaps he should just quit on his own, that it was time. But they both knew that he'd have a difficult time finding another job that paid even half as much. At his age. In this economy. In this state.

So Karl swallowed his pride. When he went back to work on Monday he thanked the VP for her advice. He said he was sorry he'd gotten out of line and he appreciated being given a second chance.

She accepted his apology and shook his hand while looking him straight and hard in the eye, much as he'd looked at Mike.

Karl's one satisfaction was the geese. They'd not only returned, but had come in greater numbers. Every afternoon he saw the maintenance men shooing them away and picking up after them. He didn't think it was likely that the Company would try the coyote again, but he thought it was remotely possible, and that gave him some hope.

Then, quite suddenly, a month and a half later, the geese were gone. Nor did they just dwindle. One day he looked up at lunch and they were gone. All of them. They hadn't migrated, either. Perhaps a few had, but there were still geese down by the river—he could see them from the roof deck.

At first, Karl was disappointed by the disappearance of the geese. Then his disappointment twisted into intrigue as he wondered what was keeping them away. That intrigue mounted into excitement as he imagined the possibilities for revenge this might present, because whatever method the company was using, it was likely to have a dark side.

He didn't do his research at work, because the company audited your use of the Internet. If you did too much shopping, or chatting, you got a call. If you looked at a porno site, you got fired. So he did his Web research at home.

His first thought was chemicals. He read that there were a number of chemicals that repelled geese, or made them sick, and there were issues involving all of those substances. Contamination of the river, and the groundwater. Contamination of other animals—or even people—who might eat the geese. And so on.

If it was chemicals, Karl thought, he'd have something on them. But it didn't seem to fit. The geese didn't graze on the lawn and then get sick. They approached, then turned away without landing.

Whatever it was, they could sense it from the air.

He looked next at sub-audible noises, such as taped cries of distress from other geese. Or the sounds of coyotes or wolves. That must be it, he thought. He rented some sophisticated audio equipment, thinking that noises like that might also have injurious effects on human beings. He scanned all the frequencies, but heard nothing.

He was disappointed again, but again his disappointment rebounded into excitement. The more exotic the technique they were using, he thought, the more leverage it might give him. For example, if it was some sort of radiation, he'd really have something. The Press would compare the place to Chernobyl!

In much the same way that Karl had, over many years, worked on suggestions that he'd hoped would win an Innovator award, he now dreamed of discovering what the Company was doing to repel the geese. In the evenings, especially after a drink or two, he'd rehearse the scene when he confronted management with his findings. And not just the VP's of PR or HR, but the President himself.

"What is it that you want?" the man would ask in a cowed voice, after hearing Karl's findings. "It is money? Stock? A promotion?"

Karl first thought was that he would shake his head softly from side to side and say no, he didn't want money, he didn't want a raise, or even a promotion. He only wanted two things in return for his silence. He wanted an office with a view of the front lawn and the river. Ideally a corner office. And when he looked out his window he wanted to see his coyote out there. What's more—and this thought came to him suddenly—he wanted the coyote to have been moved to a slightly different spot each morning, as if it was stalking something.

Karl smiled, thinking of how the president's eyes would widen as he heard this. But then, an instant before opening his mouth to give his little speech, he realized that this wasn't really what he wanted—to be in a nice office with a plastic coyote on the manicured lawn. In fact, it was pretty much the opposite.

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Fiction

by Darren J. Akerman

The moon sketched snow-crusted hills and black pines out of the darkness, stars flecked around its thumbprint like the spatter of white paint. The old Ford pickup truck idled beside the barn. Mark inhaled the aroma of November night: cold air tinged with woodsmoke from the chimney, and the crisp woolly smell of his father's hunting jacket. His breath clouded as he crunched across the dooryard. In the cab on the passenger seat, Mark's face tingled with the dry warmth of the heater. He twisted himself around to examine the two rifles on the rear window gun rack. His father clambered in behind the steering wheel, clicked on the headlights, and shifted into gear.

"Let's go get us that buck," he said.

"A ten pointer," Mark said.

"Might as well shoot high," his father said.

"Do you think Grandpa's .30-30 will be okay?" he asked.

"As good as the man who aims it," his father said. "That old iron's bagged more white-tail than mine ever did. You've just got to watch the kickback on it like I showed you."

"Grandpa was some shot, huh?" said Mark.

"A crack shot, son," he said. "You'd better believe it."

His mother hurried outside in her housecoat, shaking the thermos of coffee Mark's father had forgotten, her face tight-lipped exasperation. He rolled down the window, kissed her on the cheek, and handed the thermos to Mark.

"You'll be careful, Rod, won't you?" she said. "You can't afford to get hurt."

"Yes, Cecile," he said. "There'll be a bunch of us."

"That's just something else to worry about," she said. "Hartley Dunn and Norm Wallace. Oh, doesn't that just set my mind at ease? It's Mark I'm worried about, Rod. He hasn't gone out hunting with them before."

"He'll be fine, dear," said his father. "John McCready's coming along, too. That ought to keep them in line, don't you think? We're going to stop for breakfast up around Wilton before we get started."

"It's not breakfast I'm worried about, either," she said. "Rod, you have some of that hot coffee before you get on the road. You've been running yourself ragged all fall in the woodlot. You're no young man, anymore."

"Young enough to get up before the rooster," he said with a wink. "The coffee will be gone before we hit Livermore Falls, Cecile. I'll take good care of Mark. You go catch some shuteye now, okay?"

"Shuteye," she scowled. "More like a blind eye, you mean. With Hartley and Norm, I've seen more than enough to last me a lifetime. Those two no good…."

Mark's father yanked his red and black checkered cap further down over his brow, pursed his lips, and exhaled a silent whistle.

"I'll be fine, Mom," Mark said.

"You stay with your Dad," she said. "Fifteen years old isn't a man."

His father shifted into first gear and started along the rutted driveway. Mark looked back long enough to see the corrugated tin roof and brick chimney of the farm house dip behind the stumps of the woodlot. The headlight beams swept over the banks of plowed snow at the side of the road. He wanted to say how good the tracking should be in the western mountains, where snow had fallen ten inches yesterday according to the weather report, but decided not to speak, saving that observation when they met Mr. McCready, Mr. Wallace, and Mr. Dunn in front of Hallicourt's Grill on Main Street. The men had planned to start out at three-thirty, drive their pickup trucks to Wilton, and stop at the local grange for breakfast before the hunt in the western mountains of Weld.

"Oh, Christ," his father said, as they pulled onto the empty Main Street. "They're already waiting."

He swung the pickup truck beside the other two parked by the curb, Mark's father leaned out the window toward the men huddled in front of the dark storefront window. Mark could see the glare of the men's faces in the streetlight and the tips of their cigarettes.

"Better late than never, Rod!" cried Mr. Dunn in his ear-flapped cap and green flannel jacket. "We were 'bout ready to send out a posse for you."

"Sorry, Hartley," he said. "I had to get the boy up, and fire up the old woodstove."

Mark sank back against the seat, a sudden surge of heat rose to his cheeks. It was a lie. He'd been dressed by two-forty five and hauled in cordwood for the woodstove before his father had shuffled into the kitchen in his flannel pajamas. Mark heard the clink of a brandy bottle against his father's coffee cup. Leaning forward to the pickup truck window, Mark nodded at the faces that inspected him with saturnine, wolfish amusement.

"You fellows remember Mark, don't you?" his father said.

"Ayuh," Mr. Wallace grunted, tossing aside his cigarette. His eyes flickered, and he pinched the stubble of his chin.

"How you holding up, boy?" said Mr. Dunn with a face as round and red as a rubber dodgeball. "We roll before the roosters. Cock-a-doodle-doo!"

"It's your first time out with us, isn't it, Mark?" asked Mr. McCready.

"Yes, sir," Mark answered.

"Well, step out over here for a minute," he said. "I've got something that might interest you."

Mr. McCready walked him over to his new pickup truck festooned with yellow lights and gleaming running boards. The other men cracked jokes about each other.

"I guess we don't need no hound with that mug of yours, Rod," Mr. Dunn laughed.

"If I'm going to the dogs, you and Norm damn well own the kennel, then," his father said.

"Not much left to fetch in that woodlot of yours, anymore, Rod," Mr. Wallace said. "Hell, there ain't a trunk to piss on. We cleared it right out, didn't we?"

"I should've cleared you two out," Mark's father said. "Busted my peavey and cross blade in one day."

"Oh, c'mon, Rod," Mr. Dunn whispered. "John'll throw you a bone again. Say, how's them old ribs holding up after your little fall? I swear you ain't lost that hang-dog look since then."

"I'm a lucky dog to still be breathing," Mark's father said. "No thanks to you two."

Mr. McCready opened the driver's door and retrieved a rifle from the rack. He handed it to Mark, a mild grin creasing his clean-shaven face.

"What do you think of that?" he asked.

It was Remington rifle with a telescopic lens, the stock and shiny barrel unblemished by use. Mark marveled at the lightness of it in his grip and handed it back with admiration.

“It’s the new M700,” said Mr. McCready. “I thought you might like to see what you can do with it once we get tracking.”

“It’s beautiful,” Mark said, “but—”

Mark looked over the hood of the pickup truck to see if his father had witnessed the offer. Still talking with the others, his father hadn’t noticed. Mark handed the rifle back to Mr. McCready with reverent care.

“It’s a beauty,” he said.

Mr. McCready took the rifle from him, and placed it back on the rack in his pickup truck with a smile.

“It’s there if you want to try it,” he said. “I’ve got two of them.”

“Thanks a million, Mr. McCready,” Mark said. “I’ll check with my Dad when we get there, okay?”

“Atta boy,” he said.

Mark followed Mr. McCready and stood outside the circle of men, entranced at the ease with which Mr. McCready established himself among them. His anvil-black crewcut and taut face seemed to slice into the broad talk and slumped figures like a wedge into wood. Mr. Wallace slipped a pint of whiskey into his coat pocket, peering over Mr. McCready’s shoulder at Mark with mock alarm. Mr. McCready withdrew a silver flask from the inside pocket of his jacket and offered it to Mark’s father in full view of all. He waited while it was passed among them. Before pocketing the flask, Mr. McCready poured a measure into the cap and handed it to Mark.

“What do you think, Rod?” he asked Mark’s father.

“I suppose better here with us than with some yahoo from town,” his father said.

Mr. Wallace and Mr. Dunn laughed, their whiskered faces eying Mark with bemused anticipation. Mark took the cap and swallowed the drink. It burned in his throat and sizzled in his stomach; he

grimaced, breathing in the cold night air through his teeth to cool the taste.

“Cognac,” said his father.

“Make a man outta you!” shouted Mr. Dunn.

“A gentleman, Hartley,” said Mr. McCready.

“I reckon we’d best get a move on,” Mr. Wallace said, “or the only whitetail we’re going to find will be on the back of somebody else’s pickup truck.”

Mark climbed into the passenger seat beside his father. Mr. Dunn got into Mr. Wallace’s rusty lime-green pickup truck, and Mr. McCready got into his alone. In a line led by the yellow roof lights of Mr. McCready’s vehicle, the others followed along Main Street’s shaded houses. Mark and his father trailed behind.

“Now, you don’t say a word about that Cognac to your mother,” Mark’s father said to him. “She’d never let me hear the end of it.”

“I won’t,” said Mark. “Promise.”

“Thank Christ, John’s leading,” said his father. “Hartley and Norm couldn’t find their way out of a parking lot.”

“They sure seem happy to go along,” said Mark.

“They’re happy to do anything that lets them pal around with the likes of John McCready,” his father said. “Awfully decent of John to invite them, seeing as how they just look after the camps he rents out to summer people on Makinachook. I couldn’t afford to keep them on cutting cords with me for John. Not with all their fooling around.”

“Where do you know Mr. McCready from?” asked Mark.

His father scratched his chin and tugged the brim of his cap down.

“From school,” he said. “We knew each other since we were little kids.”

“I thought you knew him through lumbering,” said Mark. “Wasn’t he the one who bought up all the cords you cut last winter from Mr. Randall’s lot?”

“Yeah,” said his father. “That, too. John’s done pretty well for himself.”

The pickup trucks roared up Makinachook Road, paralleling the slate-hued expanse of the lake, then veered onto the Wayne Road. Black pine boughs obscured all but a ragged path of starry sky. With

the dips and rises and curves of the road, Mark felt himself rocking into a mood of drowsy jubilance. Excited as he was by the prospect of the hunt, his head nodded, and he fought to keep his eyes open. The dry gust of the heater weighed upon him like a blanket.

Mark wanted to strike up a new conversation with his father, to reaffirm his interest in the hunt, or ask him more questions about Mr. McCready. But the offer to use Mr. McCready's new Remington M700 rifle left him without words. He feared the very idea would not be as well-received by his father as a capful of Cognac.

He had learned how to shoot with his grandfather's .30-30 in the back woodlot behind the house. He had pinged cans off stumps and aluminum pie plates dangled from branches all through September when his father had been laid up from cutting cords with three cracked ribs. Between his father's instructions—how to position the stock and grasp the barrel, how to squeeze off the shot and allow for the recoil of the blast—Mark had listened to the stories his father told him about the rifle.

"Back during the war, your grandfather took down a bull from a hundred yards when it charged the Anson widow one day in Mount Vernon," his father had told him. "It must've gone crazy from the dog day heat in August, and would've run her down in her own field if he hadn't. One shot dropped it on the spot. I saw it myself as a little kid. Saved her life, all eighty-two years of it."

The tales of his grandfather's marksmanship kindled in Mark a tangible presence he'd never known, a man who could shoot the tops of ten Moxie bottles off a fence, clip the rooster weathervane on a barn just to make it spin, and never came home after a hunt empty-handed.

Before he drifted off to sleep in the thrumming cab of the pickup, Mark decided he would politely decline Mr. McCready's offer. He would hunt with his grandfather's Winchester and make himself a part of the stories his father had told him.

Mark jolted awake when the pickup truck bounced over a dirt parking lot and lurched to a stop. A patch of white clapboards shone in the headlight beams. He pulled on his cap and rubbed his eyes. Had he slept all the way through Livermore Falls and Jay? The engine coughed and quit, the headlights clicked off. The darkness, tinted by the red glare of tail lights and the glint of moonlight upon the pine boughs overhead, echoed with the shot-like explosions of slamming doors from the other pickup trucks.

"Rise and shine, Champ," his father said.

Mark slid out of his seat. He teetered for a moment on the hard, rutted snow, staring at the rows of parked pickup trucks, the uniform determination of their beds, bumpers, and gun racks. His breath clouded in the darkness. He rounded the hood to join the men clustered around his father. Mr. Dunn took a long sip from his bottle and handed it to Mr. Wallace; he took a sip and handed it to Mark's father. Mark looked into the darkness for Mr. McCready. His boots crunched toward them with confidence.

"If you fellows were going to have a party," he said, "I'd have gotten here a little quicker."

Mr. McCready accepted the pint from Mark's father, took a long swallow, and handed it back to Mr. Dunn. Mark squatted down to tie his boot laces, hoping not to be offered a taste of whiskey, which, he surmised by the pinched and puckered faces of the men, probably tasted like Cognac.

"Just a little nip to help us work up an appetite, John," Mr. Dunn said.

"You're a regular connoisseur, Hartley," Mr. McCready said.

"That's what I keep telling him, John," said Mr. Wallace, "but he keeps thinking I'm calling him French."

"French toast and bacon ought to hit the spot," said Mark's father. "And coffee wouldn't hurt, either."

"Step lively, gentlemen," said Mr. McCready. "Breakfast is served."

Inside the grange hall sat rows of hunters at benches, hunched over their breakfasts in jackets and vests and caps. They proceeded toward the fluorescent lights of the serving kitchen, took their trays, plates, and utensils. From steaming hot plates of bacon, ham, sausage, scrambled eggs, home-fried potatoes, French toast, pancakes and beans, they loaded their trays. Mr. McCready paid the cashier. At a scarred oak table in the far corner of the room, they ate without speaking amid the grumbling chatter and forthright clatter of the other hunters.

Mark poured maple syrup on his pancakes and sopped it up with pieces of sausage. The men blew on their hot coffees with haggard, reflective faces, and Mark scooped up brown-sugared beans and dripped ketchup onto home-fried potatoes. He finished before the others and excused himself to sample a plate of apple crisp, savoring its flaky brown crust and molasses-spiced apples.

"This boy's ready for a hunt if I do say so myself," proclaimed Mr. Dunn. "Son, you're going to bust a gut if you keep that up."

"No gut-shots for me, Mr. Dunn," said Mark.

"That's the spirit," said Mr. McCready. "Maybe you'll show us all a thing or two when we get tracking."

"Speaking of spirits, John," said Mr. Dunn, patting his inside coat pocket. "I could stand a shot of something with a lot more kick than sugar in my coffee. What d'yah say?"

"You drive a hard bargain, Hartley," said Mr. McCready. He pushed his mug toward the center of the table.

Mr. Dunn glanced around the room and tipped the bottle into all the coffee mugs on the table. The men clinked their mugs and drank, laughing. Mark's father shook his head with tepid tolerance.

"You're one of a kind, Hartley," he said.

"Just kind to the ones he likes," said Mr. Wallace.

"You'll all be liking me plenty when we get out there and start freezing our toes and fingers off waiting for the first sign of whitetail," he said. "There's nothing like the hair of the dog to keep you from going astray."

"Long as you don't go chasing your own tail," said Mr. Wallace. He wiped the breadcrumbs from his mouth with his hand.

"We'd better get rolling," said Mark's father.

"By God, Rod, you're right," said Mr. McCready. "It's still half an hour from here."

Outside, Mark peered at the pines and snow-covered hills. The night sky had faded from the color of tar paper to pewter gray, and the trees trunks became visible. In the pickup truck, Mark watched as the headlights reeled after the red tail lights of the other two trucks. He followed each bend in the road with renewed alertness, almost as if he were driving. His father clicked on the radio below the phosphorescent glow of the dashboard. The wheezing sighs and crooning voices of country music filled the cab like an aural residue of the grange hall. He wanted to speak to his father with the same winning grace of Mr. McCready, the same haughty cries of Mr. Dunn, the same dour retorts of Mr. Wallace; instead, he sat silently, looking out the windshield at the low-slung pine boughs brushing past and fiddled with a box of cartridges.

"Don't spill those things," his father said. "They're all we've got."

Mark placed the box back on the seat between them and folded his hands in his lap. "I won't, Dad," he said.

Half an hour later, the pickup trucks turned off the back road and jounced along an unpaved road toward the mountains. The sky had brightened to cobalt blue through the mesh of trees and branches below. The high white peaks of the mountains seemed to rise higher, glanced by the pink edge of dawn. The little town center of Weld seemed further away than the few miles they had traveled since passing through it.

Mark stared through the windshield. He rolled down the window a crack and sniffed at the mentholated-like aroma of pine and blue spruce. As they drove further along the rutted road, he felt an allegiance to the need for men to laugh and joke and make their voices heard, because the wilderness outweighed anything they would ever do or say. He thought he understood the real purpose behind the hunt, to bring back to their world a part of the wilderness that confirmed some part of the wilderness within them.

“Almost there,” his father said.

He snapped off the radio.

“Is this where you and Grandpa used to hunt?” Mark asked.

“All through these parts,” his father said, waving his hand expansively.

The pickup truck lurched to the left as the red tail lights of Mr. Wallace’s pickup truck flared in front of them. A sickening dread filled Mark’s stomach. His father stomped on the brake. The vehicle fishtailed toward the banking. All three pickup trucks skidded to a stop at the side of the road only inches from each other.

“Jesus H. Christ, all mighty!” his father shouted. “Those two goddamned jokers….”

Mark scurried out of the pickup truck after his father, trotting behind him as he stalked toward Mr. Wallace’s pickup truck. But his father’s stalk became a saunter when he came upon Mr. Wallace stepping out of the door.

“You fellows trying to get us killed?” he asked Mr. Wallace. “I nearly rammed my front end into you. What the hell’s wrong with you, jamming your brakes like that?”

“Now, Rod,” Mr. Dunn called, climbing out of the passenger seat, “I thought you knew this place better than any of us.”

"Well, this ain't the place," Mark's father said.

"'Course 'tis," Mr. Dunn said. "The field is just up beyond this banking."

"You're dead wrong," he said. "It ain't nowhere near—"

"I guess we've arrived," said Mr. McCready. He joined the men in front of Mr. Dunn's pickup truck.

Mark's father looked at them with an unbelieving scowl. Then he shuffled back toward his pickup truck.

"I guess we could start tracking from here," he said. "I'll just get my gear."

Mark hurried along behind him, hoping Mr. McCready wouldn't mention the new Remington M700 rifle in his truck. As his father slipped on his hunter's cap, pocketed the box of shells on the seat, and retrieved the guns from the rack, Mark listened to him muttering, "Those two would spin the bottle before they'd use a compass. Think they know these parts. Huh! Here, hold this."

Mark took the Winchester and pointed the barrel toward the ground, the way he had been taught. He heard the other men laughing among themselves and the slamming of doors.

"C'mon, Rod," Hartley called. "That boy of yours ain't going to find no bucks out here in the middle of all this traffic."

"Or with you hollering all over the place," his father said.

"Let's get a move on," said Mr. Wallace. He shouldered his rifle.

"Lead the way," said Mr. McCready. "It's just over this banking, you say?"

"Sure as shooting," said Mr. Dunn.

"Okay, Daniel Boone," Mark's father sniped. "Lead the way."

Climbing the bank, they dug their boots into crusted snow. Mark followed the pocked footprints like steps until they crested it. Beyond the pines and evergreens, a wide field quilled with brittle stalks of ragweed spread out before them at thebase of a mountain.

"That's Little Jackson," said Mr. Dunn to Mark. "And this here is the field your old man says ain't nowhere near here."

"Looks pretty much like a field to me," said Mr. Wallace.

"We're way over on the eastern side," Mark's father said. "A good mile from the place we started

last year."

"Now, Rod," Mr. Dunn said. "Sometimes I think you've been cutting wood so long you can't see the forest for the trees."

"You'd make a bundle with all that mountain for a woodlot," said Mr. McCready.

"I guess I would," said Mark's father.

Mark wanted to get away from the men into the calming stillness of the land with his father. He wanted to smother the flame of his father's resentment at being proved wrong among his friends. His hands felt the chilled iron barrel of the .30-30. He wished something would lift him from the wounding words and wasted replies of men who seemed to care nothing for the hunt now that they were to begin. Then Mr. McCready stopped and fished out beer cans from the pockets of his jacket. He tossed one to everyone, including Mark, and snapped open the top.

"I was saving these for later," he said. "But it sounds as if all you fellows could stand a conciliatory round."

"By God, John," laughed Mr. Dunn. "You really do come prepared."

"He's a regular boy scout," added Mr. Wallace. "Eagle Scout, that is."

Mark's father downed the beer in a few swallows, and then walked off with the empty can to a fieldstone. Placing the can on it, he walked back to the group, took the box of shells from his pocket, and handed them to Mark.

"Load up," he said. He took the half-full beer can from his son and sipped it.

Mark split the stock and inserted the shells into the Winchester. He clacked it shut and looked at his father.

"Let's make sure that old rifle is ready for some action," he said. "See if you can't hit that can from here."

Mark felt the eyes of the men fix upon him. He set one foot back, held the stock of the .30-30 against his crook of his shoulder, and raised his elbow high. Squinting, he sighted the can and squeezed the trigger. A dead click echoed through the air.

"It's jammed," said Mark, lowering the rifle.

His father grabbed it away from him, split the stock, and shook out the shells in the palm of his hand. Reloading, his father took aim at the beer can and pulled the trigger. Again, it clicked.

"Damn!" his father shouted. "This old piece of junk."

"Probably got a rusty spring," said Mr. Dunn.

Mark's father glowered at the .30-30 and raised his eyes with hatred at the inert beer can on the fieldstone. The ruddy hue of his face whitened.

"Heads up," cried Mr. McCready to Mark, tossing a set of keys to him.

He caught them, stilling the dissonant jangle.

"You set that old-timer back in your Dad's truck and fetch that rifle from the rack in mine, okay?" Mr. McCready said. "We're not going to let something like this get in the way of a hunt."

Mark turned to his father, who handed him the .30-30 without comment. He downed the rest of Mark's beer, crumpling the can.

"Sure thing, Mr. McCready," Mark said, trotting off toward the bank. "And thanks!"

When Mark returned to the field with the new rifle, the men stood dispersed in the field. Mr. Dunn and Mr. Wallace passed their bottle between themselves. Mr. McCready surveyed the western rim of the field with a pair of black Zeiss binoculars. Mark's father sat on a boulder, staring at the peak of Little Jackson. Sunlight sifted through the trees and spread a pink sheen across the snow-caked field, catching on the stubble of ragweed, mounds and fieldstones. Mr. McCready whistled to Mark before he could reach his father.

"Let's have a look," said Mr. McCready, taking the rifle from him.

He gave Mark a box of shells and showed Mark how to split the stock and load. He explained how to sight through the telescopic lens by using the crosshairs. Mark nodded and accepted the rifle again. Mr. McCready called to the others to join him.

"Why don't you take a practice shot?" Mr. McCready said. He pointed to the beer can his father had placed on the fieldstone.

"From here?" Mark asked.

"Sure," Mr. McCready said. "Just use the lens to sight it."

Mr. Dunn and Mr. Wallace grinned. Mark's father stared off at the minuscule cylinder of the beer can across the field, laughing.

"John, it's got to be another twenty yards from where he stood the first time," he said.

"He can move up on it," said Mr. McCready. "I thought he might want to try the lens."

"Don't think that it'll get away," said Mr. Wallace.

"I'll try," Mark said.

He raised the rifle, sighting the beer can until the crosshairs framed it. He inhaled the smell of linseed oil on the stock, held his breath, and squeezed the trigger. The shot roared across the silence of the field. The beer can clanged and jumped three feet into the air.

"Son of a bitch," said Mr. Dunn. "That lens does make a difference.

Mark felt the weight of his father's hand on his shoulder. Mark split the stock, inserted two new shells, and closed the rifle with authority, happier than he had been since breakfast.

"A regular William Tell," Mr. Wallace said.

"I got something I can put on your head, Norm," hollered Mr. Dunn. "But it ain't no apple." Mark's father laughed for the first time that morning.

"All right, then," said Mr. McCready. "I guess we're about ready. I'm going to stake out that far corner."

"We'll go out that way some," said Mr. Dunn, pointing southward.

"What about it, Champ?" Mark's father asked.

"How about across the field and up toward the mountain?" he said.

"Sounds good to me," said his father.

"The herds tend to favor lower ground, son," said Mr. Dunn.

"I'll let him call the shots, Hartley," Mark's father said.

"See you later, then," said Mr. McCready. "Good luck."

"Dad, let's bring along the .30-30 just to see if we can't get it working," Mark said. "I think if I can just tinker with that latch, I might—"

"Why not?" he said. "We'll haul that old iron along just for luck, then."

After they crossed the field to the tree line, Mark looked back with a sense of relief when he saw that the men had disappeared. Slowly, he gained confidence among the silence of the pines. He didn't speak. When they toiled up the slope, a dense region of twisted trunks and tumbled rocks, Mark waited at the crest for his father. A frigid wind rattled the branches and showered powdery snow from the spruce boughs. His father clambered up the slope to him, breathing heavily, and put his rifle down against a trunk. With his hands on his knees, he hunched over, gasping.

"I don't know, Champ," he wheezed. "We're getting pretty high up here."

"Just a little further," Mark said. "I'll bet we can set up a blind when it opens up a little."

"All right," his father said. "Lead the way."

They followed another slight rise through brown-veined brambles and rocks until a small clearing appeared. Mark's father slipped and swore as he fell chest-forward, holding his rifle to the side, the old .30-30 clattering against a root.

"Jesus Christ," his father said.

A shot echoed below, muffled and distant, then another. Mark hurried ahead and crouched behind a boulder. His father shook the snow from his jacket and loped after him.

"Nothing to be afraid of," he said. "Probably just Hartley and Norm shooting each other."

"Let's wait here," Mark whispered.

"I could stand a rest," said his father. He settled down with his back against the boulder, leaning his two rifles against it. "God, these ribs are aching me again."

Mark peeked over the top of the boulder at the clearing, the vacant patch of brittle milkweed stalks and strewn pine needles, perfectly still in the yellowing light. He placed Mr. McCready's rifle against the boulder, and listened to the obtunding silence of the mountain. A quarter of an hour passed, and he worked the latch on the .30-30 back and forth with numb fingers until he felt it loosen. His father rambled on about Mr. Dunn and Mr. Wallace.

"If those two spent half as much time working as they did dodging work, they'd both be millionaires by now," he said.

Mark listened to the emptiness of the woods. The wind appeared to pick up once more; he listened to its dry rasp in a faint breeze. But the milkweed stalks remained still.

"By God, if I made the money John McCready did, we'd both have ourselves a couple of brand new rifles with telescopic lenses and—"

"Shh!" Mark said.

His father stared at him, frowning. Mark nodded his head, gesturing him to look over the boulder. A great buck appeared out of the blue spruce into the clearing and froze, it's taut body and antlered head superimposed in a stance of alert poise. Mark took up the .30-30. He loaded two shells, locking the stock so that the click was no more than the whisper of a branch ticking against another. He took aim, the stock braced against him, and squinted across the top of the boulder. His father's face appeared beside him behind the extended barrel of his own rifle.

"Use John's rifle," he whispered. "You're going to scare that buck off if that old iron tanks out on you again. It ain't worth it, son."

Mark waited until the buck tensed and started to leap out of the clearing, startled by scent or sound.

Holding his breath, Mark fired the .30-30. The shot blasted through thin cold air like a belated echo. The buck dropped, its hind legs quivering for a moment. They hurried out from behind the boulder, slowing as they approached. Blood spattered the snow. The buck's head lay twisted at an ungainly angle, propped by an ivory-white rack of ten points.

"Holy Jesus," he said. "You got him, Mark. That was a crack shot if ever I saw one."

Mark's father instructed him to find a strong branch capable of supporting the carcass. Within half an hour, they gutted the body by lashing it to the branch. They hefted the immense weight of the animal upon their shoulders, staggering down the mountain the way they had come, slipping on roots, crashing through brambles. They rested at intervals with smiles instead of words. But they did not rest for long, reaching the field by the time the sun had risen. Their legs were tried. They carried the buck to the pickup truck, laid it in the back, and waited for the others.

"How did you know to go up there?" his father asked.

"The shots from below would flush him out up there," said Mark.

"But you knew," his father said. "How?"

"Only a guess," Mark said. "Didn't Mr. Dunn say the herds tended to favor lower ground?"

By ten o'clock, the other men arrived with their rifles, otherwise empty-handed. They gathered around the bed of the pickup truck, laughing and joking with incredulity at the size of the buck, which lay stiffening in the sun. It smelled of trees and tawny wet fur.

“Dear Lord!” howled Mr. Dunn. “Rod, don’t tell me your boy bagged this himself. I think we missed this very one a few hours ago.”

“It’s all his,” Mark’s father said.

“You’re joshing us, ain't you Rod?” Mr. Wallace said. “Here, son, let me check out your rifle.”

Mr. Wallace split the stock and checked for the shells, sniffed the barrel, and handed the rifle back to Mark.

“Well, I’ll be goddamned,” he said. “You took him down with this old thing?”

“He’s a ten-pointer, no less,” Mr. Dunn said. “That’s some shooting, son. I’m sure this is the one we saw.”

Mark turned his head from the men, staring at the buck to keep from grinning. When Mr. McCready appeared, he tossed everyone a beer from the cooler in his pickup truck. Mark swallowed his in gulps, enduring its sour, fizzy taste. He gave Mr. McCready back the rifle and thanked him.

“That telescopic lens really did the trick,” Mr. McCready said.

Nobody said anything to dispute him.

Mark’s father poured a full can of beer out behind him, crumpled the can, and tossed it into the back of Mr. Wallace’s pickup truck with a dim clang.

“Hey! I don’t need your litter, Rod!” shouted Mr. Wallace.

“Save it for target practice,” Mark’s father said.

When they started out in their pickup trucks along the mountain road, ten minutes passed before Mark realized they were leading the way. Their old pickup truck rumbled, groaning with the added weight of the buck. Maybe they *were* bringing back a part of the wilderness to confirm some part of the wilderness within them. But Mark knew they were bringing back something more important.

“I think we’ll get that old .30-30 of Grandpa’s oiled up right,” Mark’s father said. Have a gunsmith look it over. God knows what you could do with that.”

His father laughed at the soreness they both felt in their shoulders, their aching bones and tortured muscles.

“See if there ain’t anymore of your Mom’s coffee left in the thermos, Mark,” he said. Mark unscrewed the top and balanced the cup in his hands to pour what was left.

"A goddamned bull's eye if ever I saw one," his father said. "Say, we might take a look at what's left of Randall's woodlot tomorrow and see if we can make a go at it. That old peavey of your grandfather's still got life in it, you know."

Mark's father told stories all the way, and the ride home seemed much shorter than when they started.

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Fiction

by Aaron H. Gilbreath

“You ever seen snow like this in March?”

“No,” the young man said, “I’ve never seen snow.”

Curtis, some thirty years the boy’s senior, turned from the window with furrowed brows. “Never seen snow? Son, where you been living?”

“Phoenix.”

Bowl-legged and built like a pork roast impaled on two bent toothpicks, Curtis cast a playful grin. “Well, that ain’t much of an excuse.”

Steven crossed his doughy arms and looked out onto the crystalline motel grounds. He had left Las Vegas a day earlier than his friends so he could spend the last Friday night of spring break alone in Flagstaff. He had only been to Flag once, and that was in summer for a single night. But this morning when he awoke, he found this—snow piled so high he couldn’t see his muffler.

Steven watched a couple trudge past the glass. One clung to the other for support, her face aimed down to shield it from blustery drafts. “The plan was to be home by tonight,” Steven muttered. A sullen, almost cosmic resignation pressed into his face, like marks left after a night spent sleeping on a wrinkled sheet. “But I know I’ll end up crashed in a snow bank if I try to drive.” Steven hated sounding so helpless, but there was no way around it. Physically demanding and treacherous situations always made him feel inept. “Does Flagstaff have an airport?”

Curtis laughed. “Not one worth mentioning.” The upper half of Curtis’ jeans were worn felty white in the shape of his thighs, and his pant legs, where they fit around his leather work boots, were sodden with moisture. “What kind of wheels you got?”

"Wheels?"

"Car."

"Oh," Steven said. "A four-door Intrigue."

"Little Japanese? Yeah, they ain't much built for this stuff." Curtis looked him up and down. "And you're headed to Phoenix?" He felt sorry for the kid. Thick around the middle, much like himself, the boy dressed like someone twice his age: tucked-in collared flannel, pleated khakis and brushed leather shoes. And what would have passed as wonder on someone else's face, on Steven's resembled the horror of a cornered squirrel caught in the crosshairs of a rifle. It reminded Curtis of how his youngest son looked when Curtis picked him up from jail for shoplifting the first time. His kid was a derelict, but at least he could handle snow.

"I can give you a lift." Curtis straightened his mesh cap, fished a bandana from his back pocket and wiped his nose. "Tell you what. I've got a rig out back. We'll load your little car up and drive you as far south as we need to to get past the snow."

"Really?" Steven's relief was tempered by a flash of rationality. He studied the stranger's body. Though a tiny black Bowie knife hung from a belt loop beneath his belly, the man's voice was gentle, gravely but soothing. He knew his father would decline such an offer, but this guy was also puffy and well past middle age, someone who, despite Steven's lack of muscle, he could likely fend off. "You sure you don't mind?"

"Not at all." Curtis stuffed his hanky back in his pocket. He could see misgivings in the young man's eyes. "I don't have a load to haul so I'm all freed up. So go call your folks or whoever, tell them the deal and meet me here."

After paying the motel bill, Steven met Curtis in the lobby with his suitcase, and together they slogged through the parking lot. Fluffy layers of powder crunched underfoot. Frigid bits of slush fell into the space between Steven's shoes and heals, soaking his socks. Steven's uncertain steps caught the trucker's eye; the boy seemed to walk as if each moment the earth might slip out from under him. Curtis' job took him through some of the country's harshest weather, and a Missouri childhood had trained his feet for snow and ice. He only wished there was something solid, maybe a handrail, something other than his arm, for the kid to hold onto.

Curtis' words emerged in puffs of vapor. "This is her." A dull blue tractor, still imposing without a trailer, sat parked across two spots between sedans and minivans. "She's a tow-er and a go-er."

Steven stood before the truck shivering. His red flannel had lightened to a bubblegum pink from all the falling flakes, and the snow turned his meticulous, parted hair into a pile as tangled as a blob of beached kelp. Curtis thought the kid resembled a sad cat who'd just been forced to take a bath. "There's a spare coat inside if you need it."

As Steven opened the door, a tiny orange and white beagle, ears as long and floppy as its tongue, leapt from the cab and plunged into the snow. Like a mole tunneling beneath topsoil, the dog ran half-sunk across the lot, its tail sticking with periscope stiffness, until it heard its name. "Parker. Come here Parker." Curtis slapped his knees, and like a remote control car, the pooch raced right to him. "Parker, this is Steven. Say hi." The dog left long snotty smears as he sniffed the stranger's clothes. Steven tried to pet the dog, but in his frenzy, Parker was as impossible to contain as the puffs of breath.

Unlike the dog, Steven struggled into the cab. His plump legs strained to reach the stepladder's lowest rung, fat fingers fumbled with the safety rail. When he finally wedged his foot on the slick metal, he still had to jump to reach the cab.

Curtis called up from the ground. "You get comfortable while I load your car."

Parker settled on Steven's lap, coating his khakis with wet hair. He tried to brush off the fuzz, but it only stuck to his hand, so he wiped it on the floor. While his friends were walking dogs as kids and tossing string at kittens, Steven was feeding his goldfish. It sat in a bowl on the mantel in front of a painting of the south Texas plains, and the fish, for all it did, was really nothing more than part of the décor.

Steven pet the pooch and wiped more hair on the floor. The cab was already dirty. Lined with faux wood and covered almost entirely with soft greenish-blue carpet, the cabin had the tacky feel of a truck stop café. It smelled of cigarette butts and oil filters, musty, like the import auto mechanic his dad went to.

It was the owner's little touches that imparted a trace of humanity. A little doggy dish and fleece bed sat by the heat vents on the passenger side floorboard. A mini state of Missouri calendar hung from the driver's sun visor. And on the walls surrounding Steven, taped together like a Cuban refugee flotilla, were photos. Steven spun around to check them out: Curtis dangling his legs off a dock beside a shrimp boat; Curtis and two young boys fishing at sunset in what looked like a swamp. The funniest featured a group of wild-eyed men in paper birthday hats holding Curtis horizontally across their chests and pouring beer on his head.

Curtis climbed in and flipped some switches on the roof and central panel.

"Thanks again for doing this."

Curtis waved Steven off. "It's no sweat." The engine shuddered to a start. Pistons pumped with the force of a galloping bison and shook every spring in the seat. "Ever been in a rig before?" Steven

shook his head as Curtis spun the big steering wheel; it looked like a lock on Hoover Dam, and Curtis had to spin it a lot to evoke the slightest response from the truck. “I think you’ll like it. It’s fun being the biggest thing on the road.”

Steven watched as Curtis mumbled into the CB. “Is that like,” Steven said. “Do you always have to do that?”

“Nah.” Curtis tapped a small computer installed on the console. “This tells the company where I’m at at all times. I only CB to say hey to some buddies.” He held his hand out with a mischievous grin. “Want to try?”

Afraid he’d foul it up, Steven took the tiny mouthpiece and pulled the curly cord taut. But he just sat there, looking around, holding it to his mouth. “What should I say?”

“Anything. Tell them ‘This is Stevie G-bie heading south of Flag on seventeen.’ Or ‘Elvis has left the building.’ That’s a fun one.”

Steven laughed as he repeated Curtis’ lines into the CB, but the smell of wet dog kept wafting from his hands and sleeves and it irritated him. In the truck, there was no way to wash it off.

The two barreled down the vacant interstate. Beyond the hotels and fast food restaurants of the town’s expanding edge, the hills were covered with stunted pines, thin, black, and as densely packed as a box of charred matchsticks. Solid white poured from the hills and across the highway, obscuring lane lines and concealing the shoulder under tall piles. The few cars that braved the road crept by at a tarantula’s pace. And where overnight their tires had cleared the snow, ice turned the asphalt to a slick, glistening enamel.

“So tell me,” Curtis said, “how’s a young man get to, what, twenty-two…”

“Me? Twenty-one.”

“Get to twenty-one without seein’ snow? Your family never came up to ski or go sledding?”

“No.” Steven shook his head like a dog shaking off shampoo. “Never. They hate cold weather. My mom’s from Michigan and never wants to see ice again. And Dad is, I don’t know, just not interested.” He pulled a book from his bag, a novelization of Cabeza de Vaca’s wanderings across North America, and picked at the worn pages. “We always went to warm places for the winter.”

"Well, don't feel too bad," Curtis said, waving his arms across the length of the windshield. "Now you can see what you missed out on."

Without thinking, Steven said what had become his stock lines. "I'm glad we never went skiing. I much prefer being too hot than too cold." But as the words came out, he questioned whether they had ever been true.

Snowflakes zagged past the windshield, and the tinny hum of engine noise mixed with Parker's licking and smacking. Steven studied the passing scenery, letting his breath fog the glass in pulses that swelled and retracted between each rise of his chest. He started to wish he'd never left Vegas early.

Through the orange curtain behind them Curtis pulled out a twist of rawhide, Parker's favorite chew toy. Steven caught a glimpse of a dim rear compartment. "Is that where you sleep?" He saw a bunk, mini-refrigerator and TV. "It looks very comfortable."

"Not when you're always the only one in it."

Parker snatched the rawhide and began pawing it by Steven's feet. "So when you're not driving where do you live?"

"Twin Oaks, Missouri. My wife has a house there. Boys live out there, too." He dragged his fingers over his bushy mustache. "Jeff and Terry. Capital t for trouble."

"Do your sons live with you?"

"Live? They barely spent the night when they had their own rooms. Nah, my boys are all growed up, marrying age. Oldest works at one of those chain office supply stores in St Louis, the other lives in the state doing God knows what. Hopefully something legal." Curtis flipped on a lamp and pointed to a photo above Steven's head. "That's them right there, years ago."

Two toddlers in denim overalls stood around a dinner table. Steven ignored the boys' crooked teeth and bad haircuts and found something nice to say. "Solid group."

"And that's my gal Beatrice. Sweet Miss Bee, I call her." He winked. "If I'd met her thirty-five years ago I would've found myself a desk job." The largest of the six photos of her showed a thin, salt-and-pepper haired woman posing on an iron bridge in a jogging suit, flexing wrinkled biceps.

"Guess a job like this always keeps you on the road."

"That and a crappy marriage." Curtis winked. "Yeah, Sweet Bee's great, not a brute like my first wife." A quick breath whistled through his mustache. "My ex and me was always at each other's throats. Made each other nuts. That's why I liked driving long haul: escape. But my sons never saw me. Then when she and me divorced, the kids moved in with her and I saw them even less." Twin

tire tracks cut the snow in parallel sets, mapping where cars had made their slow way to and from Flagstaff. He looked over at Steven and tugged his cap. “Guess there’s no making up for it now.” Steven glanced at his book, then out the window, not knowing what to say. “How about you. You live with your girlfriend?”

“Oh, no, with my parents in Phoenix, actually.” Hearing the words out loud made Steven feel five years old. “To save money on rent, I mean, while I’m in college.”

“College, hey, that’s great. What’re you studying?”

“American history. My Dad’s a history professor, Mexican-American War era in particular.” Steven waved his hands in the air. “It’s his *big* thing.”

“So that’s what you were you doing in Vegas, research on the history of strip clubs.”

Steven wondered whether he was supposed to explain that it was a vacation or laugh, but by the time he realized Curtis was joking, his opportunity had passed. “It was my first time there. My friends and I drove two cars up, got a nice hotel room, lots of cheap shrimp cocktails. It’s spring break, so we decided to do everything: blackjack, slots, poolside margaritas.” He glanced quickly to his left. “And a strip club.” When Curtis asked how much money he was down, Steven squeezed the novel in his hands, bending it across the cover as if trying to make it snap. Much like his Aunt Connie who smoked to calm her nerves, Steven was always reading. In lines at the bank, at the DMV, at a doctor’s appointment, he was never without a book. Even when he wasn’t studying, he was reading something. “It’s a complete waste of money, really, which my dad and I argued about before I went.” He brushed dog hair from his palm. “But still, somehow, it was sort of fun.”

Curtis slapped Steven’s shoulder and laughed. “That’s how you *know* it’s fun.” He turned on the radio and leaned his right ear toward the console as three rowdy announcers described a series of plays. When they finally announced the score, Curtis booed and slapped his thigh. “Damn. My Cardinals are losing. Again.” He kissed his index finger and tapped an air freshener of the team insignia. “I got money on this one. You like baseball?”

“A friend’s family took me to an ASU game once, but they had to explain half of what was going on.”

Curtis turned off the radio and marveled at this odd young man sitting in his passenger seat. “How about fishing? Probably not into fishing either.”

Steven shook his head and shrugged. “I always liked the idea of it, but my dad wasn’t into that sort of thing.”

Steven’s dad loved American history the way Coronado loved gold, and although he was a professor, he didn’t enjoy teaching. He liked speaking, discussing military strategy; he only became a professor to escape high school students’ constant need for babysitting. He preferred being with books.

Steven pet the dog with firm, agitated strokes. My hand already stinks, he thought, so let it stink some more. “Because he gets winter break, we visit a different Mex-American battle site every year.” Steven ran his hand across the book’s yellowed pages so they made a fluttering sound. “Let’s see. We went to Veracruz, Mexico when I was twelve to see where U.S. forces fought back Mexico’s Coast Guard and Marines in a twenty-day siege. We spent winters in Coahuila and Nueva Leon visiting Buena Vista, Cerro Gordo, Monterrey, big battles. All over Texas, of course. Plus, where else, Mexico City.” He laughed to himself, but the awkwardness of it made Curtis look over. “You don’t know how weird it is to spend Christmas in a subtropical climate.” Yeah, Curtis thought to himself, that would be weird. “I’ve seen more cactus decorated with tinsel.”

“Hey,” Curtis said, feeling bad for the kid, “at least you’ve traveled.”

Steven’s fingers wrapped around the door handle. His toes curled like withered ferns inside his shoes. Passenger cars crept past them, but Steven felt like he was hurtling through space. Speeding. Careening. The road looked so much like tempered glass that he couldn’t understand how their tires could stick to it.

When Curtis looked over he found Steven’s brows furrowed, the kid staring at his feet. “Speed making you squeamish? I can slow her down.”

Steven moved his eyes from the floor to the speedometer. “No.” It registered at less than the posted limit. “You’re fine. It’s just me.”

Steven tried not to think about how easy it would be for the truck to slide off the road into a fat Ponderosa; instead he thought about how he wouldn’t weigh one-ninety if his dad had taken him to a ballgame or fishing. Cholesterol and diabetes were concepts Steven learned at a time when his friends were discussing bra straps and how to steal home plate. Freshman P.E. class marked the beginning of an embarrassing period. Though there were fatter kids in his high school, Steven still felt ashamed when, in front of all his classmates, he couldn’t complete more than three pull-ups or run a mile in under fifteen minutes. A medical friend of his father’s wrote a note to permanently excuse Steven from P.E., but turning it in was almost more humiliating than floundering in front of the class.

Curtis lowered the window and stuck his arm out to test the air. “Not to sound preachy, but fishing and football, people need that sort of stuff, especially kids.” He patted his belly. “Take it from a guy who sits on his keester for a living: the older you get, the harder it is to keep the old machine running smoothly.”

Although it had been five years, Steven still wished he had finished that P.E. class. He never told his dad this because he knew what his dad would say: minds pay the bills, not bodies. Steven knew his way around a library and could write a book with all the historical facts that were stored in his head, but if he ever got lost in the woods, or got stuck alone in a snowstorm, he would end up a news story: “Phoenix youth found dead of frostbite in his car. Rolls of fat weren’t enough to keep him warm.”

Curtis pointed to the photos of the swamp. “That’s why I still hunt. Teaches you self-reliance, how to think on your toes and with your wits.” He gently nudged Steven’s shoulder. “And how to handle snow.”

Steven drew a deep breath. “Yeah.”

“That’s why I took my kids outdoors as much as I could when they was little. My mistake was I didn’t take them damn near enough.” Curtis pulled a cigarette from a crumpled pack, but with Steven beside him he thought better of lighting it. “After the divorce, their mother ran the show, and she let them do everything. Let them stay up all hours, let their rooms turn to pig sties, let them live there into their twenties without jobs, things I never woulda stood for.”

Curtis rubbed his hand across the windshield even though there was no condensation obscuring his view. His oldest son graduated high school on time, and after a stint in the military found steady employment. His youngest son, though, left school without so much as a GED. He may not have seen his sons much, but he heard about their problems. He knew how Terry hung out with Jesse, the town drunk’s son, how they’d stolen cars, got arrested for shoplifting, cut too much class. Whenever Curtis was back in Missouri he took his boys fishing, until one spring when, after collecting the rods and some sandwiches and sodas, Terry refused to go. That was years ago. He hadn’t seen Terry since.

“I may not have seen them much, but they never did without.” He tapped the wheel with this finger. “But you do what you can, when you can.”

Steven stroked Parker’s matted fir until his hands were gloved in fuzz. He listened to the pistons chug and the giant tires pulverize snow. He didn’t know what to say. “Were they,” he mumbled, but changed his mind mid-thought. He felt impelled to fill the silence. “Are you and your new wife planning on having children?”

Curtis laughed. “Nah, not again. One go-round was enough.” Curtis sensed the boy’s discomfort and turned to meet his hazel eyes. “Obviously your folks are doing something right. You turned out pretty good.”

Steven let out a deep breath and stared out the window. Though he was glad to be inside where it was warm, the land, cloaked like a bride in lacey white, was undeniably beautiful. The hills along the highway, he thought, would make a nice postcard. And the clouds, smeared across the sky like smoke from Mexican cannons at the battle of Veracruz, were something he could imagine sitting and watching all day.

"So," Curtis said, "now that you've seen it, what do you think?"

"The snow?" Steven scratched his nose. "I think I can live without it." Curtis gave a humored stare, and Steven sensed that this wasn't the answer the man had hoped for. "I mean, it's definitely pretty, but it's nothing I'd like to get involved in beyond this."

"Oh come on now, it ain't all bad. Here." Curtis eased the truck onto the powdered shoulder and parked atop a small burm. "Let's have a look see."

Parker leapt to his feet, pressing his claws into Steven's thigh to stare out the window. "Oh, I'd rather not," Steven said. "The sooner I get home the better." But like a doctor injecting a patient too scared to know what's good for him, Curtis insisted. He swung open the door, letting frigid gusts drive the heat from the cabin, and left Steven alone in his seat.

A large meadow surrounded by bluffs and pines stretched east from the highway. Through the open door, Steven watched Curtis step through the powder. Parker scrambled off the ladder and shot like a sheepdog into the untrammeled field. He pawed at hidden stones, ran in broad arcs, his ears shimmering like willow boughs in a windstorm; every so often he stopped to dig through the snow to sniff at the exposed earth. Curtis watched from the shoulder with a smile across his face. The sight of a happy dog never failed to please him.

Steven's book fell on the floor as he craned his neck. Part of him wanted to close the door to keep out the cold, but he pulled the lever and swung out his legs. He slid on his butt down the slippery ladder, pulled up his collar, and with one hand on the grill, inched his way toward the meadow.

Thirty seconds of exposure left Steven's body shivering, turned his hands red, poked his skin with the force of countless pins. But through little breaks in the clouds, fleeting patches of solar warmth passed over him and countered the chill.

Steven fixed the waist of his pants in a way that Curtis couldn't see it was elastic. He stomped his feet, testing the consistency as he stepped into the field. "It's so grainy. Almost like gravel." He glanced back at Curtis. "I thought it'd be different."

He crept into the open space, further and further from the truck, and as he stepped, the soft white crunch was interrupted every few inches by something hard beneath the surface. He imagined himself tripping on a rabbit hole, slipping into a frozen pond, taking a face-full of icy shards. Yet he stepped further, cautiously, and when his toes banged another hard spot, he gathered the courage to clear a section of snow. Parker ran over to investigate and dug beside him. Together they scraped and pawed, clearing snow like an archeology crew, until they found the culprit: a cowpie, rock-hard, frozen to the earth.

Steven wondered if he should touch it, wondered what diseased microorganisms waited to attach to him. Parker barked, and Steven tapped the pie with his knuckle; it was more like a serving tray than a turd. With an awkward grunt, Steven hurled the cowpie past the wily dog and laughed as Parker

leapt into the air, tongue dangling from his mouth, and ran in a senseless circle. As Parker sniffed the pie, Steven pelted him with a handful of snow. Again the dog leapt, raced around the meadow, then ran back to Steven.

The smell of cigarette smoke mixed with the sharp scent of pine, rising in a plume from the road where Curtis was leaning against the truck watching the action. “I’m afraid it’s going to freeze my fingers,” Steven yelled.

Curtis called through cupped hands. “It gets easier as they go numb.” Holding the cigarette in his teeth, he packed a wad of snow and threw it at Steven. It disintegrated in the air. And when Steven lowered his arms from his face, they both laughed, and the snow seemed to swallow the sound.

Curtis found a large, forked branch on the shoulder and tossed it into the meadow. “Throw him this. He’ll love it.” Steven had to wrestle the branch from Parker’s mouth, which coated his fingers with slobber. But instead of playing fetch, Steven stood the branch in the snow and tried to punt snowballs through the branches like a football end zone. Parker barked, and whenever the snowballs hit Steven’s shoe they exploded, sending gritty particles showering his face and clothes, and Parker.

Steven’s prim clothes were disheveled. Pant legs sponged moisture into dark, growing rings. Mud splattered the dark leather uppers of his shoes. And his shirt, once crisp and red, was decorated with deep wrinkles and pine needles. After a few punts he quit brushing himself off.

Curtis’s spent cigarette sizzled when it hit the ground. He grabbed his Wilson official NCAA composite leather football from the sleeping compartment and stepped into the meadow. Alright, he said to himself, someone’s got to show this kid how to punt.

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Fiction

by Rosalie Morales Kearns

I.

Whoever takes his place in the beginning will know the end, and will not taste death.
— *Gospel of Thomas* (1st-century Christian gospel, banned as heretical in the 4th century)

A Lime-Green Shelter Door

God damn it, you'd think she'd get it right by now. They'd had the bio-chem drills since grade school: you hear the alarm, drop everything, run like hell. Somehow Pilar was always the last to show up.

Twenty years later wouldn't you know it, grade school all over again.

From the ridge on White Mountain it takes an hour to scramble down to where her car's parked, and then for miles she bounces along the dirt-and-gravel ribbon that's labeled a "drivable trail" on the State Forest map. "It's a drill," she says out loud. But they stopped the drills years ago. Or it's a mistake. Or something local, a toxic spill on the interstate. Gravel turns into blacktop and she's on the access road, then Rt. 235, still not another car in sight.

She tries to remember the protocol for the alarms. After so many hours the alarm sound gets shorter, intervals between, longer. The lime-green posters were meant to be soothing: *Proceed in a calm, orderly fashion to the designated meeting place.* Right.

She brakes and pulls up in front of the smallest bio-chem shelter sign she's ever seen. Nasty-looking place, electrified fence with razor wire on top.

The gates are still ajar, someone must have tried to close them and then stopped, like the power went

out just then. She throws a stick against the wire to make sure the juice isn't still on, squeezes between the gates and runs down a gravel path toward the regulation lime-green shelter door. Presses the intercom buzzer. Nothing.

Come on, come on, answer. If it's not a drill what is it--biological, chemical, localized, airborne, ingested epidermally, inhaled? Is she breathing it in right now?

She'd be safe back in D.C., working quietly in her lab. Reading news reports about some minor incident in the middle of nowhere.

She presses the buzzer again, slaps at it with her open palm. She's about to kick at the door when the intercom erupts in static. A blurry face swims out of the darkness, presses itself against the high-density plastic window. Other faces crowd in, then recede.

The intercom spits out: "Password!"

She can't be hearing right. She's hit with a wave of dizziness and nausea and, what's worse, what's much worse, an overwhelming sense that she's been through all of this before.

Washington, D.C.

The Reassignment Memo lists no phone number, no name of a human person amid the small-print instructions on filing an appeal.

"A lateral move," a supervisor tells her. "An opportunity."

Pilar grips the memo tight as she reads. And rereads. As if maybe she'll discover the tiny print, faint as a watermark, that explains how the U.S. Budget Office could have jurisdiction over the National Academy of Sciences.

"Bald Eagle State Forest," she reads in a monotone.

"Pretty countryside," someone else says. "Or used to be. Pennsylvania. Lots of farms way back when."

There are meetings with middle managers. They're indistinguishable to Pilar, they look alike, they say the same things:

"You brought this on yourself, Pilar."'

"That last little stunt, nothing but a provocation."

"I'm a scientist," she says. "I do research. I make my findings available to the public."

"You should have known better."

"I should have known better coming in here. I was hoping to speak to a live human."

"This is what we mean, Pilar. You need to work on your interpersonal skills."

Reassignment. Take one geochemist specializing in erosion control. Turn her into a fire safety officer in the U.S. Forest Service. What do you get? *I work in a state-of-the-art lab,* she writes in her appeal. *I go to conferences all over the world, the only fieldwork I do is in agricultural extensions and botanical gardens*. In case that isn't clear enough, she adds, *What do I know from forests?*

Her only other such correspondence has been forever unanswered. *Dear Government,* she'd written when she was ten, *if you keep using lime green paint for the bioterror shelter doors, people will start to hate limes*.

"U.S. Budget Office" is etched into the bronze plaque but the burnished metal doors are locked. A small sign in fluorescent yellow cardboard directs Pilar to the east entrance, where smoked glass doors are also locked, this time no sign, no buzzer, no guard. Is it even the same building, maybe she's walked past the right entrance, but she goes around to another side, then a fourth, then what seems to be a fifth because the metal doors aren't there but how could the unimaginative granite blocks that make up the Budget Office be in anything but rectangular form?

She asks for so little: an office, a desk, a name with a person attached to it and she'll hand over her appeal letter and all of this will be cleared up. The Reassignment Memo listed only a P.O. box and she's received no answer, she's had to pack up her office at the academy, turn over her lab space, reassign her research assistants, store her samples, her data. They must not have read the letter yet. Tomorrow she'll put her belongings in storage. This is all a silly mistake, she'll laugh about it someday.

She looks up at the granite-faced cube, seven stories she counts. There must be people in there, bureaucrats making their calculations, inputs and yields, cost-benefit, risk assessment, and the corresponding Reassignment Memos that will make the numbers jump back into the right columns. She thinks she sees their small pale faces looking out, she steps back for a better look but the tall narrow windows reflect back only gray sky.

Bald Eagle State Forest

A forest ranger with a face as impassive as stone gives Pilar her new assignment:

Fire safety.

Could he elaborate? He shrugs. Why do they need someone from federal for a state-level agency? He shrugs. Where are Pilar's quarters? He digs out a sheet of paper, points to a yellow X. Can she read a trail map?

She can, but the map, it turns out, is inaccurate. By the time she finds the ranger substation it's almost dark. She feels her way into the cabin, finds a table, sets up the battery-powered camp lantern that brilliantly illuminates layers of dust, cobwebs, dead bodies of insects, dried leaves blown in under doors and through window cracks.

She spends hours cleaning and by the time she's finished she's too tired and grimy to fall asleep. She steps out into the night-time forest.

You can do this, Pilar.

She'll keep writing letters of appeal. She's going to get out of here. And in the meantime, why should she care whether the damn place catches fire?

She has the sense that the forest hears her, fingers wagging, murmurs of disapproval. "OK," she says out loud. "I'll be a damn fire safety officer."

Not a good sign. Here one day and she's talking to the forest.

She looks at the trail map showing nonexistent paths, logical impossibilities like a creek running along the top of a ridge.

She'll make an accurate map. It'll give her something to do.

Breathing hard already, not even a steep incline but it's humid and she's out of shape, yet another reason she's unsuited for this damn job.

("Transfer," they called it.)

(Demotion. Banishment.)

("And consider yourself lucky.")

Every few yards another enormous fallen hemlock or beech in the way. Pilar has to hoist herself over or slither under. When a new path veers off to the left she squats down to read the fallen trail sign, faded letters barely visible: Tower Trail.

She takes out one of the maps, creased and sweaty and it was a blurry photocopy to begin with. No trail.

The page torn from a road atlas is the closest she's got to a topographical map now that they disbanded the U.S. Geological Survey, no need to show the enemy our terrain, they said. That one shows the trail, so does the State Forest brochure, but never with a name. Shouldn't someone have *told* her there were still firetowers here?

Tower Trail takes her down the steep slope of Strong Mountain and across the stream. She knows it's Swift Run but at this point it's covered with slabs of rock. She hears the water rushing beneath her, and an odd echoing sound as if someone nearby is stomping on it, a rock-and-water drum, but she can see up and down the stream and the only living creatures in sight are birds, spiders, slugs.

The path on the other side turns sharply up. It must zigzag further up, she decides, or veer through some gap she can't see from here. Can't be that steep anyway, these mountains are low, old, smoothed down by weather and trees and time.

She starts up the path. Her calves hurt intensely for five minutes and then the pain disappears but her heart is knocking against her rib cage. She has to stop every few minutes, tries to recall the heights shown on the park district map in faint gray ink. No more than a thousand feet, was it?

Possibly two thousand. She tries to get her mind around that number, it's like walking up twenty flights of stairs which she's never done in her life, and that could explain why she's dry-heaving, staggering at the top, and of course there's no firetower here. Of course.

Whatever it was made of, wood, brick, it's gone now, except for a crumbling cement foundation.

She lies face up, looking at the patch of sky fringed by trees all round. She is unconcerned about all the dangers of bare skin against forest floor. Ant bites, poison ivy, Lyme disease. Skinned elbows. Tetanus. She remembers learning about the presence of bacteria in soil and rocks, it made her laugh, how anyone could think innocent rocks were so dangerous. She picks up a small stone and nuzzles it against her cheek. There, there. *What?*

Not so different, flesh and stone, same elements, carbon, iron, oxygen. Skeleton turns to stone in the right conditions, perfect fate for a geologist. This is the worst place for fossilization, though, moist forest soil. The whole mountain would have to slide on top of her, and stay on top, for Pilar to ever end up in the fossil record.

She stands up, brushes herself off. She has a schedule to stick to, every morning she makes a plan for the day and she knows that if she can hold on to that, she can hold on.

She pulls up to the Smokey Bear sign at the entrance to Hairy John's Picnic Area. Written across Smokey's chest in large white letters is

Risk of Forest Fires Today:

Beneath is a space for a sliding panel. She slides out yesterday's sign, *High*, and considers her options.

High.
Low.

She looks around, senses the wind direction, weighs the variables: (1) it's going to be over 90 degrees today, but (2) there's been plenty of rainfall, and furthermore, (3) the humidity can plaster you to the floor, moreover, (4) she has no idea how to determine the risk of forest fires. She slides in *High*.

Of course she can't do this every day of the year. Some random hunter could come across it on a cold snowy morning, it could breed cynicism.

Seems like someone's watching her, but there's no other car around, and besides she doesn't have that crawly feeling at the back of her neck. *Hairy John*, she feels like saying, *is that you?* only because the name sounds pornographic and she still finds it funny, and she knows she's being immature because no one else around here seems to find it odd at all. A legend is attached to him, he must have done something impressive to merit a picnic area. She could get like that herself someday, if she stays away from civilization long enough. Grumpy Pilar. A shaggy woman who lived in a hut in the mountains all by herself. They'll name a trail after her.

At the post office she checks her mailbox for a response to her latest letter of appeal. Nothing.

Pilar is prepared for this, she has another letter ready to go. But instead of putting it in the mail slot, she walks round to the counter. She needs human contact even if she doesn't want it. The fact that

she doesn't want it is already cause for alarm.

The postmistress takes the envelope Pilar hands her.

"Any anthrax in here?" she rasps.

Above her a sign says it's a violation of federal regulations to joke about mail tampering.

Pilar hasn't spoken all day and her voice comes out in squeaks.

"Couldn't get my hands on any this time," she says, and the postmistress cackles.

In her cabin Pilar lights the kerosene lamp and begins the next appeal letter.

It has come to my attention, she writes, *that fire prevention may not be the best method of forest management*.

The things she's learning.

Fire rids the forest of weaker trees, slows the growth of certain less-desired understory plants, and promotes forest diversity.

Someone, one of her predecessors in this ranger substation, has left an old issue of the *Journal of Forestry*. She had almost thrown it out, in the cleaning frenzy when she first got here. The journal and a few other books, dust-covered and brittle, had almost gone into the woodburning stove.

Now she's glad she spared them. She reads them slowly, to make them last--who else keeps her company every evening? From the *Annals of Snyder County* she's learned that Hairy John was a recluse in these mountains, no human contact except in a diphtheria epidemic when he showed up carrying fresh water to people and they remember him for that, the hundred-year-old book says, even to this day. The Forest Service manual was written back when the ruined firetower on Thick Mountain was new and whole. She has learned how often she is supposed to go there, how often to turn to face different parts of the compass. *Scan the horizon for smoke*, it tells her. *If you see flames, the conflagration is already in full force*. You have failed, in other words. The mountain is on fire.

In short, the duties to which I have been arbitrarily reassigned by your office are not only outside the purview of my expertise, they are counterproductive to optimal forest health.

She looks at what she's written, crosses out the last sentence.

Fire cleans, she writes. *Fire heals*.

A spider dangles from a ceiling beam, climbs back up and Pilar notices the webs in the corners but she's given up on trying to oust the spiders. They are quiet, nonjudgmental. Pilar appreciates their company.

She tries to recall a law, simple and elegant, from college physics, something that would be easily understandable to whatever person in the Budget Office opens her letters and tosses them in the trash.

For every destruction, she writes, *there is an equal and opposite creation*.

The path up White Mountain narrows and Pilar stubs her toe on a tree root that she can't even see, mountain laurel bushes are waist high and she's wading through and I swear to God a branch is grabbing at her ankle. She has to stop and disentangle her foot and once she gets to a clear part of the path she sits down. Forest up here mostly hemlock and white pine, the soil hard and dry and the small stones along the path are pinkish white, silicate tinged with iron. She picks up a chunk and sniffs it, *what am I doing?*

Tiny flurry of movement on the path and she sees a toad skitter away, which makes her smile but then she stands up, gets her face smacked by a low-hanging hemlock branch, god damn it. A wind shakes the tops of the trees, she smells leaf rot and pine needles on the air currents.

She hears something rustling nearby, maybe a deer. She can't remember which wolves they used to have here, gray or timber, but they're extinct now, same with the mountain lions, though the locals insist they still see them, and she knows for sure there's black bears around. No time for any of that because just ahead off the path a diamondback rattlesnake is sunning itself on flat rocks and it's so beautiful she can only stand and stare. The snake uncoils itself, esses away in sidewinding curves, and here she is at the edge of a steep drop, she knew it was here no matter what the map said.

She sits down on the rock ledge, puts out one foot to test her weight on the part where it juts out into space, yes, it'll hold, she lies on her belly and looks down, thirteen hundred feet to Penns Creek below, and out to ridge after forest-covered ridge. Formed by plate tectonics 300 million years ago, it makes her giddy to imagine herself there, witnessing.

And the thing about trees that grow on craggy mountains: loggers can't get at them, plus hemlock's no good for timbering, shatters when you try to cut it. She's been wandering all over the last undisturbed soil in the whole mid-Atlantic.

From far off a sound wafts in, a throaty wailing bull horn sound that ends on high sharp notes like brakes squealing. She waits, she can't believe, doesn't want to believe, hasn't heard the sound in a long time since they gave up on the mandatory drills.

And here again. The bioterror siren.

The Lime-Green Shelter Door

She presses the buzzer again, slaps at it with her open palm. She's about to kick at the door when the intercom erupts in static. A blurry face swims out of the darkness, presses itself against the high-density plastic window. Other faces crowd in, then recede. The intercom spits out: "Password!"

"What the fuck?" *No, Pilar, this is not the right approach*.

She holds up her Forest Service I.D. "My radio's not working. Have you heard yet whether it's a drill?"

The answer makes no sense, something about President Ashfield, and end times.

"I don't know what kind of research you're doing here, I'm not trying to spy on you. Can you just let me in?"

The intercom gets staticy and then erupts in fragments of voices: "back to the reservation!" "back to Mexico!" ("I'm from Wilmington, Delaware," she says. Fucking rednecks, she's about to say—*Keep your mouth shut, Pilar*.) "Look at that short hair--she's one of *those*…" "That's what's wrong with this country."

Pilar is getting more and more nervous. What's beyond this door has become everything she could ever imagine wanting. She stares in horror at the intercom, like it's a grisly accident she can't look away from.

Faintly, almost at the bottom of this pile of voices: "We should help her…" "Help one of *those*?" "Enough with your nonsense about Mud People. There's no Mud People in the Bible." "My point exactly."

Finally Pilar looks, really looks, at the sign that she'd taken to be just an abbreviation for some organization or research lab. SOLS, the sign says in large letters, then, in smaller letters along the bottom:

Soldiers of Our Lord and Savior.

“Oh, Jesus,” she says.

“Is she praying?”

“That didn’t sound like a prayer.”

One last try. “If you were true Christians,” she shouts, “you’d let me in.”

She doesn’t wait for the answer, but hears it anyway as she runs back up the gravel path.

“If the Lord chose you to be saved, you’d be in here already.”

The car won’t start, solar capacity disrupted somehow, she has to switch to ethanol backup, but that should be enough to get her to the Agro-Chem Biosphere. They know her there.

A haze of reddish dust hangs in the air. Pilar coughs once, a deep-down spasm that seems to rip through her lungs. Power of suggestion, she tells herself. It’s only a drill.

Washington, D.C.

The breeze off the Potomac makes her shiver, riffles the pages of the report she’s holding.

“Part One,” she reads, but her voice comes out hoarse. She clears her throat. “Soil Depletion.”

Behind her the flags surrounding the Washington Monument snap and strain at their moorings. A few people stop to listen, but the section on erosion statistics makes their eyes glaze over, and they move on. Someone else wants directions to the Natural History Museum. Pilar points west, loses her place in the report and starts over again. New people show up and she has to recap quickly:

“That big panel, you’ve heard about it probably, on soil regeneration? The Agriculture Division? Their final report came out last week.”

She holds up one of her visual aids, a large square of posterboard on which she’s drawn a map of the East Coast, using red marker to indicate the abandoned farmland all along the Atlantic seaboard.

“First they talked about terraforming the soil,” she says. “It was all hush-hush that plan, but they

were ignoring the kind of ecosystem damage you can get when you introduce Amazonian microbes into a completely different context. So, well, when the environmentalists heard about it . . .” She never did admit to being the leak, but the higher-ups figured it out and she was kicked off the panel.

“And then the final report, it’s everything agro-biz wants to hear.”

She holds up chart #2, she’s used black marker to scrawl a picture of the final report with a cartoon balloon issuing from where its mouth might be: *Apply petrochemicals liberally*.

She’s especially proud of visual aid #3, an organizational chart showing Ag shrinking and then whooshing into the gaping maw of Homeland Security. “Agriculture used to be its own department. Of course, if these were planets it would make sense--larger bodies with stronger gravity pull smaller bodies into their orbit.” You’re off on a tangent, Pilar, you need to focus. “But we’re not talking about planets here, these are government agencies, and it’s like, animals on the food chain, a whale gobbling up plankton. Not that the Agriculture Department is like plankton . . .”

People think her Five-Hundred-Year Plan is performance art. The *Washington Post* calls her “wittily subversive.”

And then comes the Reassignment Memo, the blank-faced bureaucrats, the hulking granite Budget Office with no doors that she can discover, no windows. The exile to Bald Eagle, the forest with its muddy paths and slugs and unmarked trails and she gets to the top of White Mountain, she is lying on the rock outcrops looking down and it’s a moment of grace so beautiful and dangerous and fragile. And then the siren.

Wilmington, Delaware

She’s out by the football field smoking a cigarette, she’s cut study hall, she wants to look mysterious and daring but the older boys, football players, are standing in a clump smoking pot and sneering at her.

They start running when the alarm sounds, she can’t believe how fast a muscle-bound guy can move and she’s out of breath by the time she makes it to the side door. Damn drills. The vice principal ignores the star athletes filing past her and focuses on Pilar. “You’re tempting fate, young lady. Do you know what happens to stragglers?”

It's recess and she's bored with the jump rope games the other girls are playing. She wanders three blocks down the street to their old elementary school, condemned for safety violations. In a few weeks it'll be torn down. Pilar looks up at the worn yellow-brick building, feels sorry for it. She's in the presence of something that's going to die, something that was part of her life.

She climbs the rickety metal jungle gym, wraps her knees around the rusty top bar and hangs deliciously suspended high above concrete pavement, everything hard and dangerous, you slip and you have broken bones, a cracked skull.

The alarm starts up.

Another Shelter Door

She thinks about her parents, her nieces, everyone else. They must be safe. Focus, Pilar. Compartmentalize. Deny. Useful skills. She'll believe they're safe, and that's it. They were with a whole crowd of people when the alarm started. They weren't off somewhere daydreaming, they didn't straggle.

The ethanol tank is empty but the last quarter-mile is on a gentle downhill slope, she coasts past abandoned farmland bought up by Agro-Chem and into the driveway of the Agro-Chem compound. It isn't a drill. That much she learns at the lime-green shelter door.

A droning voice at the intercom informs her about regulations and threat levels and she realizes he isn't going to open the door. A wind is kicking up the red dust. She wonders if it's clinging to her hair, her eyebrows.

"The regulations are clear."

"Guidelines," Pilar says, "not regulations."

"The risk is too great."

"Based on what? What data? What calculus?"

"Precisely. The risk is unknown."

She keeps her voice calm. "Follow my logic here. I'm obviously still alive." She winces, doubles over as a coughing spasm hits. She straightens up, bracing herself against the door. "OK, I grant you there's some kind of airborne irritant I'm reacting to. That's no reason for hysteria. I'm still alive, therefore—are you following me?—whatever toxins are in the air haven't reached a lethal—"

"The regulations are clear."

"You're not making any sense! You've decided on some arbitrary time frame, whoever hears the alarm within that time is safe, and to hell with everyone else."

"The risk is too great."

"I'd like to speak to a live human."

"You know, you need to work on your interpersonal skills."

She stomps back up to the main road and starts walking, no idea of a destination, just away. Any kind of shelter is better than nothing, there has to be some farmhouse or barn not yet torn down by Agro-Chem wrecking crews.

She breaks into a run. Not because there's any building in sight, but for the sake of running, while her body still works, while her muscles are still strong. If death is going to get her it will have to tackle her at a full gallop, not find her cringing by a locked door, begging to be let in.

And what if someone *had* opened the door? Hell of a choice, redneck fundamentalists or rule-abiding cowards, and she'd have been stuck with them for who knows how long, years, maybe decades. She would have gone insane.

What the hell, Pilar, there's a bright side.

She laughs.

She runs faster, pumping her arms, lowering her head against the wind that keeps getting stronger, the dust stings her skin and flies in her eyes. Soon it's so thick she can hardly see the road, but she keeps running, long, fast strides that start to seem like leaps, until she takes a leap and doesn't land, she's in the air, and she feels hands reaching for her, strong, kind hands, many hands, breaking her fall, cradling her to the warm, soft earth.

II.

The name of the Devil . . . is nothing else than a corruption of *deva*, the Sanskrit name for God.
— John Fiske, *Myths and Myth-Makers*

She wakes up hearing the voice. A low, rumbling sound that seems like her own blood pulsing through her veins. Slowly she realizes the voice is forming words.

"So," it says, "you must have done something pretty bad to get shut out like that."

"My hair's too short."

Laughter, almost below hearing, like the ground trembling when trains pass.

She falls asleep, smiling at the voice.

III.

Whoever dances belongs to the whole.
— *Round Dance of the Cross* (2nd-century Christian gospel, banned as heretical in the 4th century)

They dance in the clearing. Sun filters through lacy hemlock branches and in the shafts of light they shuffle and hop, they sway, they spin around, giggle when they bump together. No one minds that Pilar looks dazed, red dust clinging to her fine black hair, her thick eyebrows. She'll snap out of it.

They move faster and laugh more, they bounce, they leap and fling their arms out.

The red-tailed hawk riding the air currents far above them sees shapes and colors, jerky elbows and knees in faded velvet, deerskin, soccer jersey and jeans, shimmy and bop, nothing that looks like plump pheasant or juicy chipmunk. She flies on.

The dance breaks apart as easily as it comes together. People scramble up the rock face on the other side of Swift Run, they scale a flank of the mountain grabbing on to witch hazel branches and knobby roots of white pine. Or they run downstream to where Rock Springs plunges down over sandstone slabs and a cool mist rises on the hottest summer day. Or they scurry upstream where Swift Run goes underground and you can stomp out a drumbeat, hear your feet echo on hollow rock and rushing water while far off a bull elk in a frisky mood is grunting and bugling.

On the bank of Swift Run a giant hairy naked man stands still and lets Pilar walk slowly around him, looking at him from all angles.

He can tell she's confused, she's been out there again, the siren, the road, blah de blah. Poor child, all those locked doors.

The more she scowls the wider he grins. He takes a slow step forward, lunge, then a leap back.

"You don't have horns and a tail," she says.

"I don't torment souls either, but who can control the rumor mill?"

Hands on hips, he squats deeply, kicks up one foot and then the other. He raises a hand and does the squat-kick while spinning around.

"You can call me Dev," he says.

The answer to every question:

Why is there a wide blue sky?

What's the reason for grass?

Why do we sing?

To dance under. To dance on. So that we can dance.

The Devil's Catechism, Pilar calls it.

She climbs a tall pine tree and no matter how high she climbs and how delicate the branches, they still hold her weight. Dev's there ahead of her, on an impossibly tiny branch, hanging upside down by his knees the way she used to do on jungle gyms when she was a kid.

"It's an arrangement we have, he and I," Dev says. "The other guy—some people like to think of him as my rival—" he wants to point at the sky, but he's upside down and his finger points to the ground. "Oops," he says, "other way around." He swings up and sits cross-legged on the branch. "He gets the winners, I get—well, you all."

Pilar clings to the top of the pine as it sways in the breeze. "I never paid attention to churchy stuff," she says, "but this isn't like anything I've ever heard about."

"I hate to criticize a colleague, but he's a bit harsh. You hear all this lip service about blessed are the poor, the meek are slated to inherit the earth someday, but in the meantime—well, anyone who watches the way things go can tell you, it's clear who he prefers. He doesn't have a lot of sympathy for life's losers."

"So I'm a loser. Thanks a lot."

"Let's dance."

She presses the buzzer again, slaps at it. They want a password, they talk about the Bible, tell her go back to Mexico.

She kicks at the lime-green door, shakes her fist at the high-density plastic window.

"Listen, you stupid rednecks—"

I'll never get this right.

She sits by a forest stream, water rushing over her bare feet. Kneeling before her on a rock is a white man wearing yards of burlap, belted around with a frayed rope. He has light brown hair and a short beard, his skin is pitted and weathered, his eyes have a hint of blue or green, but are mostly glittering gray. At one time she knew his kind, knew what the robe meant, the rope belt, the sandals.

He cradles Pilar's foot in his hand, caresses her arch with his thumb.

"That's much better now, isn't it?" he says. "Those things you wore, like hobnail boots...."

He speaks a language she doesn't know, German-sounding, yet she understands him. His voice soothes her.

He looks up at her and his eyes cloud over.

"I'm Brother Wulfstan," he says gently. "You've been out there, haven't you, alone on that road. Dear heart, you must forget it. You're here with us now."

"He's coaxed you out of socks and shoes again," Dev says. "Wulfstan's afraid you'll stomp him with your boots. He's the least wolf-like man I know."

She laughs. Wulfstan smiles as she leans toward him and cups his chin in her hand.

You could get lost in that other life, your life before, there's a jump in time and suddenly you're *there*, pounding on a locked door and you turn around and face soldiers with bayonets raised, or airborne plague, slave traders, armed mercenaries, radiation, villagers with torches and pitchforks. But then you hear laughter, someone touches your arm and calls you back to *now*:

What do we believe in?

The dance.

How did we come into being?

We danced ourselves into existence.

Why are we here?

To dance.

Elemental cloud swirling, our atoms, our molecules. Gases and dust, yes, the same soft motes that float onto your desk, the same stuff to which you will return, turn, we swirl, we collide, explode and rejoin, we cling together and our molten iron heart shouts and throbs. Molecules grip molecules, form lattice of crystals, yes, connection, jump, grab hands. Rockmelt, call it rock broth, bubbles and steams. Chunks of the rock puree cool and it's a stew, then all of it crusts over. Rock islands float on rock sea, collide and rift apart, mountains push up, crumble, rain drizzles through soil and gushes out in streams, callused feet stomp and skip and kick up clouds of dust.

Look at her, disgruntled geologist in a virgin forest, she comes huffing and puffing, clomps along in her hiking books, that nonstop interior monologue, I've been wronged, I've been wronged. The trees are exhaling oxygen for her, she's not even grateful. This is one angry public servant. We swat her in the face and laugh when she curses.

Pilar lies face down sniffing the soil, laughing, iron ore's like perfume, silicon and potassium have a bitter tang, magnesium's spicy-sweet. The magnetic field reverberates up her legs, out the top of her head.

She and the others watch the stars, or sit around bonfires, or gather to watch a sunset like a crowd at a sporting event, finding the perfect word, carmine? vermillion? Anything you think would be good to eat, is: honeysuckle blossoms, pinecones, hay. No thirst of any kind goes unsatisfied.

Wulfstan hardly ever talks about himself. Pilar gathers his story from stray comments. She guesses thirteenth century, central Europe, though he has no sense of years, of places.

He didn't read or write, wasn't interested in that. Learning was for the monks of noble birth, the beautiful illuminated manuscripts he wouldn't have dared touch. He swept out the barns, milked the cows and made butter and cheese. He didn't begrudge the others their refusal to help when he set up a hospital, a few straw pallets in an outlying grain barn, for the villagers who were showing up with symptoms of an unknown disease that was soon becoming a plague. The abbot fretted over the declining tribute from bedridden peasants while Wulfstan tried to ease their last days, holding their hands, wiping their feverish skin and murmuring prayers. The monks turned him out when he started showing symptoms himself.

Pilar craves a cigarette. She finds a tobacco plant, hangs some leaves up to dry for a few days and then lights them on a campfire. The smell reminds her of cigars.

"It's a stress reliever," she tells an old wreck of a white man. He nods.

People's symptoms reappear sometimes, a rash, sores from bubonic plague or hemorrhagic fever,

Pilar's lung-ripping cough.

The old man, Marlin, sits next to her on a log, breathing in the cigar-tinged air.

"Who *is* Dev?" Pilar says, and Marlin thinks about it for a while.

"He knows a lot. I think he's the mayor."

Marlin tells her how he used to spend his days sitting by the railroad tracks, how the metal in the sun gives off a shiny smell. "The railway cars, you know, in the old days, they used to hook one up with another like this—" and he holds up his index finger and with the other hand makes a loop around it. "So I gets to thinking, wouldn't they be stronger if they linked up like this—" and he holds up one hand, palm down, fingers gripping the upturned fingers of the other hand—"and wouldn't you know them railroad people did what I said. Do you remember railroads? Do y'know what I mean?"

"Sounds familiar," Pilar says. "I'm not sure."

He looks around for something he can compare to steel. He hardly remembers either, he has flashes of people somewhere laughing at him and calling him simple. Nights spent sleeping in the county jail when the winter wind blew through the gaps in his cabin walls. "What was I saying?"

Pilar shrugs.

"Patents," he says, "ever hear of them? I'm waiting on the paperwork."

Paperwork. Pilar sits at her desk reading a memo and she's aware of her cells, the way they vibrate, metabolize energy. Her blood is pumping and her cells are soft and squashy, no protective bark, and what are these vertical things all around her, like cliff faces but naked and soft, and this thing that stretches above her head, not a rock ledge, no. What? *What?*

Words like *past* and *future* lose their meaning. She'll be in what she thinks is the present, and then realizes it's the past, and then fast forward to a later time that still feels like the present. One moment she's waking up under the trees after a night of dancing, cushioned by pine needles. Another moment she's with the others, a crowd of them, running quickly, bearing down on Wulfstan as he stumbles around dazed and feverish, they grab him, carry him off without slowing down or breaking stride.

Time is circular.

"I think it's spiral," Wulfstan says, tracing the whorls of her earlobe with his finger.

"Like the dance," she says, or maybe he says it, or they both think it at the same time.

"Who do *you* think he is?" Pilar asks Dorothea, a black woman with neatly braided graying hair and eyes that are bright and severe until she smiles. She wears an old-fashioned button-up dress of some

iridescent dark material that reminds Pilar of feathers.

“A circuit preacher,” Dorothea says. Pilar always asks this question. She gives her a different answer each time.

“To everything there is a season,” Dev says, “A time to dance, a time to embrace, a time to love.”

“You’re leaving out entire sentences,” Dorothea tells him. At one time she knew the whole book by heart. She doesn’t know what’s happening to her memory.

“Did I mention a time to dance?” He grips Dorothea’s waist, lifts her till she’s eye-level with him. “You’re priceless,” he says.

A pearl of great price. People with a price on their heads, sad dark people showing up at Dorothea’s house for food and money and shelter on their way—where? North? God bless you, they told her. She made speeches, raised money. You’re an angel, they told her. May the Lord bless and keep you, but she’s not sure anymore what “bless” means, or who the Lord is, sounds too much like a boss-man.

“Go thy way,” Dev says, “eat thy bread with joy, and drink thy wine with a merry heart.”

They dance in the clearing, crowded around Dev, a jumble of movements and rhythms. Pilar sways, waves her arms above her head, dodges out of the way of elbows and knees. Wulfstan spins around, face tilted up, eyes closed, arms flung out like he’s about to hug them all. Slowly the dancers move outward away from Dev, he’s in the middle and they’re circling round him. They speed up, slow down, speed up, crash into each other and jump away. Dev is heat and light at the center, someday he’ll swell up and engulf them and that’s another turn of the dance. “Truly the light is sweet,” he says, “and a pleasant thing it is to behold the sun. So behold the sun!”

Sunny day, Pilar can get out of the office, have lunch in the park. She sits on a rock and it looks delicious, her fingers reach greedily, she’ll break it up and eat the little pieces through her skin. *What?*

“Lots of things you’re forgetting,” Dev says as they sit under a pine tree. Pilar digs her toes into loose soil and pine needles and leans against him while he massages her neck. “Remember all those rules you people used to have for coupling,” he says. “Contracts to sign, vows to take.”

“What were we thinking?”

He kisses the back of her neck, lets his breath cascade along her skin. “It’s beautifully simple,” he says. “When you’re thirsty, drink from the stream.”

“Do you remember,” Wulfstan says, “those troupes that travel around the countryside, they sing, do performances. I think that’s what we are, though we never do any plays, do we, and I’ve never seen our horse and caravan.”

Pilar considers organizing a performance of *Godspell*. "Excellent suggestion," Dev says, and launches into "All Good Gifts" in a fine bass-baritone.

"I don't know," Pilar says, "it might confuse people." The cast of characters, the whole story line are things she no longer understands.

She stands still, watching wild turkey pick their way through beech and hickory trees. A young black bear walks up to her, puts a forepaw on her shoulder and with a hind paw tries to find a foothold on her knee. Pilar topples over and he walks off, disappointed. She looks up at the sky, she is not magnificent like the bear, even a small one, with its thick fur and lumbering rolling walk, in fact she's the opposite, she gets more shambly by the minute. She sees Dev's face loom over her.

"Pilar Quiñones?" he gasps. "*The* Pilar Quiñones, author of the Five-Hundred-Year Plan for Soil Regeneration?" Yes, she starts to say, flattered, and then she's confused, he's said this before, right, or is this the first time again?

The breeze off the Potomac makes her shiver, riffles the pages of the report she's holding. Behind her the flags surrounding the Washington Monument snap and strain at their moorings.

"Part One," she reads, but her voice comes out hoarse. She clears her throat. "Soil Depletion."

The controversy, the banishment: just a way to get to the forest.

In the cabin she uses an old-fashioned, fire-heated iron to press her Forest Service uniform, it's a way to keep up her morale, but why would she think this, she loves it here, what more could she ask than to be in service to the forest?

"Who do you think he is?" she asks Wulfstan, and it makes him sad, he's heard this question before. Who do they say that I am? Voices of his brother monks resound around him, they used to sing to greet the morning, sing to the evening, where are they now?

"Are you a heathen?" he asks Pilar hopefully. He's never seen one.

"Just like you now," she says, "you old sinner, you," and he laughs even though she hasn't answered his question.

People sit by the campfire and listen to Pilar try to explain where mountains come from. "You've got your basic sandstone," she says. "It metamorphizes, changes, into quartzite. What we've got here. The hardest mineral on earth."

"Why?"

"Why does it change? From pressure and heat in the mantle."

"Why?"

"Okay," she says. "Think of a core. Down in the middle of a ball, and layers over it. Those layers are always on the move, like vegetables in a broth."

"I think you're mixing your metaphors," Dorothea says.

"Good point. So this stuff churns around, some stuff sinks, some rises to the surface. These mountains here, they're hundreds of millions of years old. The glaciers are just yesterday, in comparison, they receded only ten thousand years ago."

Marlin raises his hand. "Ten thousand years before what?"

"Good question," Pilar says.

Dev hugs him.

"You've got my vote, sir," Marlin says.

Ten thousand years before the lime-green shelter door, of course, because time is anchored to place, doesn't everyone know that?

She's lying under a pine tree, head cradled on Dev's lap. She digs her toes into loose soil and pine needles.

"You have to forget it," Dev says, "if you want to move on."

"Forget the shelter door? My memories make me who I am. What would I be if not for that?"

"What would you like to be?"

She pounds her fist against the lime-green door, kicks at it. "Fanatics! Fucking cowards!"

One day, she knows, she'll knock on that door and just laugh, just lean on it and laugh and go straight to the dancing in the clearing and then hum and quiver her branches at the memory of it all.

"Blessed are those who tell the truth," Dev says. "They shall dance."

"Blessed are those who laugh in the face of death. They shall have their heart's desire."

Wulfstan hardly remembers the monastery, the whole drama of the plague time, being turned out by the monks when he fell ill. What stands out in his memory is the beauty of that last night wandering in the forest. The moon was just past full but still bright enough to cast shadows. He had the sense that wild animals were nearby, out of pity they were keeping him company, their breathing timed to his own labored breaths, in, out, in.

"After intense suffering," Dev says, "intense joy."

They give each other looks: *Dev. Inscrutable as always*.

“What does ‘after’ mean?” they say.

“Breath of breaths,” Wulfstan says, “everything is breath.”

He grows more and more distant from his old life. “Long ago,” he says, “I was with . . . others . . . another troupe, maybe. They thought the act of love was, I don’t remember the word . . . wrong, somehow.”

He struggles to think of the term. The woman he’s with, she can’t remember it either.

Dev’s mistaken about Wulfstan, she thinks. She can see the graceful, intelligent wolf he’s in the process of becoming. One day he’ll leave altogether, he’ll drop down on all fours and go loping away up the mountain, and the Pilar of the before time will be there with clipboard and backpack and neatly pressed Forest Service uniform, and she’ll catch a glimpse of him, there’ll be a whiff of cigar smoke, she’ll see a flurry of movement out of the corner of her eye, a ragged sleeve, a wisp of uncombed hair, her own self dancing past.

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Article

by Alison Hawthorne Deming, David Gessner, David Rothenberg, and Lauret Savoy

Editor's Note: In February 2008, *Terrain.org* editor Simmons Buntin facilitated a panel titled "The Future of Environmental Essay" at the conference of the Association of Writers and Writing Programs in New York City. The panel featured noted environmental essayists and editors Alison Hawthorne Deming, David Gessner, David Rothenberg, and Lauret Savoy. This article includes the full text, and brief audio excerpts (online at http://www.terrain.org/articles/22/deming_gessner_rothenberg_savoy.htm), of the panelists' important and entertaining discourse.

Alison Hawthorne Deming

Let me start by offering a variation on our panel's title: the future *is* an environmental essay. We don't know the magnitude of what've done, or what it means for those who will follow, or which actions are best to stop ourselves from bleeding the Earth of its vitality and turning it into a laboratory for the study of human arrogance and folly. Now that green is the new black, capitalism taking up the cause, it's a good time re-assess what writers have had to contribute to the consciousness of Earth justice and to finding our way out of our perilous trajectory. Language, for good and ill, has the power to shape people's experience of the world, and the environmental essay makes a strong case in point. So I will make a hasty reassessment here of the three major phases of the genre's evolution to locate us and see where we are headed.

The first great wave of environmental essay came in the 19th century as an act of witness. Rich with field observation, it was an aide-de camp on voyages of discovery from Darwin's *Voyage of the Beagle* to the expedition reports of Lewis and Clark, John Wesley Powell, and George Catlin. Catlin's descriptions of bison on the Western prairie are painterly and appreciative accounts of animal behavior. No one again will see the spectacle of wildness that

he witnessed, but what a record he left. His account of a buffalo wallow and its effect on the landscape, found in his *Letters and Notes on the Manners, Customs, and Conditions of the North American Indians*, is a small documentary masterpiece. The horrible turn of the screw is that such works, written in one age with the motive of introducing readers to the wonders of the world, have become reliquaries for lost tribes and species.

Darwin's travel journals show his careful attention to documenting specimens and observing natural phenomena—*and* the quality of mind that led to his Earth-changing work. He is constantly asking questions about deep time, about deep cause, a passionate curiosity he carried with him everywhere—along with a copy of Milton's "Paradise Lost." In 19th century New England, where love of learning slow-danced with love of the land, Thoreau and Emerson were also engrossed in witnessing nature, but their approach leaned more toward the philosophical. *What is the effect of nature on consciousness?* they asked. They answered by making the active experience of nature a contemplative practice.

Berry, Berry, Barry, and Terry (a.k.a., Thomas Berry, Wendell Berry, Barry Lopez, and Terry Tempest Williams) continue this tradition today. Witness for them is both material and interior, a desire to feel wholeness of being, the wholeness of being a part of something larger than ourselves to which we belong.

The second important wave of environmental essay writing came in the mid 20th century as a period of advocacy. In *A Sand County Almanac*, Aldo Leopold penned the most quoted two sentences in the 20th century environmental movement in his land ethic: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." His effort to extend the sphere of human ethical consideration beyond the confines of the human is an aspirational benchmark for moving toward a harmony with nature. Whether we are capable of actualizing the aspiration remains an open question, but having a crystal clear principle to invoke certainly helps. Even his baggy euphemism of "the biotic community" can be pressed to open the floor to the imperatives of social and environmental justice. Rachel Carson belongs to this wave of advocacy, whose writing combined personal narrative with science journalism, laying a foundation on a single metaphor: What would happen if there were a spring with no bird song? The grammar of this metaphor—giving the enormity of the threat presented by pesticides a home in one beloved manifestation of Earth's beauty and diversity—brought the point into the public arena and into policy. Both Carson and Leopold were scientists who combined the lyric and the scientific imperatives, writers for whom the craft of attentive witness strengthened an activist aesthetic. This legacy of environmental advocacy is routinely picked up these days by grassroots organizers such as

Terry Tempest Williams and Stephen Trimble who edited and placed a literary anthology of place-based writings in the hands of every member of Congress when they were advocating preservation of the Escalante Wilderness in southern Utah.

But this level of advocacy and activism seems pallid to me when compared to the severity of our malaise and instability. We live in a pathological culture. It is sick with violence, greed, waste, contentiousness, cynicism, and a sense of futility. We live in cities that we despise for their ugliness, menace, and lack of community (though it's mean, at such a moment, to deny the pleasures of this city). We have poor people whom we ignore, leave stranded on their roofs in a flood, or cast out onto the street. We ask their children to die in a senseless war. We have leaders who have no business leading, so lacking are they in wisdom and the capacity for reflective thought or empathy. Whatever sympathy our nation earned from the world community when we were assaulted by violent fanatics has been squandered with bullying, warmongering, arrogance, and lies. The disdain for learning and scientific research, the absurdly simplistic posturing about the state of religion in a pluralistic democracy, would make such leaders laughable, if their actions were not causing so much anguish around the world and erosion of our national pride at home. *This too* is our environment, and writers who wish to do more than bear witness to human suffering or add to the overburden of entertainment have a responsibility to advocate for justice, humility, and compassion. As Neruda advised, the artist's sympathies must always be on the side of the disadvantaged and oppressed.

This principle bridges us to the third wave of the environmental essay, on which I'll hang the shingle "re-framing." If there is any unassailable truth remaining in the postmodern period, it is that all things are connected, as are all versions of history. It will do us no good to protect the rivers and air of North America, if global warming imperils the whole show. It will do us no good to engineer our way out of global warming, if we build a wall along our border to keep out people upon whose labor our entire economy depends, people dying of thirst on the path out of poverty. "Re-framing" means enlarging the context of the environmental story. While devotees of environmental causes might once have cried, "Not in my back yard!" they do so now at peril of ignoring whose backyard the offending presence will inhabit. Certainly part of this re-framing is the flourishing of literary science writing. Sandra Steingraber's exploration of the toxic maternal body in *Having Faith* re-contextualizes motherhood, and ironically detoxifies maternity from piety and sentimentality. Big science books (David Quammen, Jared Diamond, and most recently Alan Weisman) are surprise bestsellers. Re-framing means it's the age of "both/and" not "either/or." So imagination meets science in Alan Weisman's bracing journalistic fantasy *The World Without Us*. So conservationist and urban planner meet in "the new urbanist" publications, scientist and philosopher and poet meet in the experimental forest

to search for new language to convey the forest's complexity, and the stories of migrant agricultural workers (as told so eloquently by Ruben Martinez in *Crossing Over*) begin to make their mark on the land and in our consciousness. But the mark is small compared with the need. American literature, in general, can celebrate a richer palette of cultural voices than we knew fifty years ago, but environmental writing has remained, for the most part, lily white—a concern, it would appear, primarily of the privileged and not of the disadvantaged or oppressed. Of course, we writers defend, we are the voice for those who have no voices. And that may ring true for the other-than-human citizens of Earth. But we should know by now that to speak for others can too often serve to drown out their own voices.

The future of the environmental essay lies in making new connections and feeling our way beyond the constraints of the polarized arguments (nature versus culture, science versus religion, aesthetics versus politics, jobs versus owls, them against us) that plague our public life. It's a time for making connections across the borders that separate us, rather than standing on respective sides and firing salvos. It's a time when a voyage of discovery may take us to the far reaches of the wild or, through the miracle of interplanetary robotics, to the surface of Mars, but also to the dining table at which our environmental policies and choices come home to settle into our gut.

The ultimate re-framing, I think, is to see the human story in a much larger timescale, so I will close with a two-paragraph essay:

The Next 10,000 Years

I was captivated a few years ago by news of the little Lucy-like hominids whose bones turned up on the Indonesian island of Flores. An artist's rendering of *Homo floresiensis* depicted him walking home for dinner with a golden retriever-sized rat slung over his shoulder. How many millennia had passed since his ancestors migrated away from Africa and Asia? There were three or four or five species of old world hominids living at the same time. *Homo erectus* was the first colonizer, making it to Java around 1.8 million years ago, according to evolutionary biologist Francisco Ayala. Modern humans are not descendents of those early migrants. The diaspora of *Homo sapiens* from Africa to Asia came much later, starting about 100,000 years ago. *Homo floresiensis* appears to have had a long and relatively peaceful tenure on Flores—lasting there until as recently as 10,000 years ago—and they represent a different branch on the tree of life than our ancestors. They make one contemplate the possibility that rather than a tree of hominid life, there was a thicket—many starts, many entanglements, many failures, and only we survived. Unless, of course, you believe in Bigfoot. Somehow this time-deep story

grows more fascinating as the fear increases that our story may be growing short and that our species' resume may show us to have been terrible animals, heedless devourers of the beautiful Mother and Father that gave all Earth's beings their lives.

But thinking backwards in such a time frame also calls the question of a symmetrically long future. What if we make it? What if this sensitivity to brokenness is tweaking our intelligence to make the next leap in our evolutionary history? A leap that turns the runaway force of human culture toward restraint and mutual aid, toward the acquisition of knowledge rather than junk, toward a ten-thousand-year project to restore Earth to a state as close to Eden as we could come, and to grow an outlying garden on Mars? Is that not a technological dream that we could love? I want this to be as possible as our doom. Ten-thousand years from now, I want someone to say of us, "What amazing courage they had, what spirit, how smart they were, how inventive, and how profoundly they must have loved Earth."

David Gessner

What We Talk About When We Talk About Nature

It is bad form to refer to one's own work and worse to quote oneself. But here goes.

In 1999, well before Drs. Nordhaus and Shellenberger pronounced environmentalism dead, I diagnosed the field of nature writing as a terminal case in an essay and, three years later, a book called *Sick of Nature.*

The essay came about when, after throwing a book against a wall in which the author had droned on serenely about "being in the present moment" and "living in the natural woods," I went for a walk on my unnatural beach carrying my unnatural micro-cassette recorder, into which I spoke the beginnings of an essay. When the essay was later published it began exactly the way I spoke it that day as I tramped along the beach:

I am sick of nature. Sick of trees, sick of birds, sick of the ocean.

Of course I wasn't really sick of the natural world, just of the way some writers chose to portray it. I was sick of the hushed voice, sick of the saintliness, sick of the easy notions of the perfectibility of man, sick of the apocalyptic robes, sick of the scolding. But most of all I was sick of the certainty that seemed to ooze out of the words. Writers certain that they knew what would happen in the world and certain that they knew how to be in that world and certain that

they should tell us these things. The odd thing was that, for all their certainty, the world they described didn't sound much at all like the world I happened to live in.

Despite this, I believed and still believe that the environmental essay has an important role both in our literature and in our current political fights, though I also believe that it will probably have a more important role if we call it something other than "the environmental essay." Let me say that I'm not much help on this one—the obvious alternative "the nature essay" is about as racy and contemporary as quilting (no offense to the quilters out there) and "eco-essay," while better, isn't entirely accurate and sounds like a trademark. Whatever we choose to call this essay-thing it should not ooze certainty or complacency. If it's going to ooze anything—and maybe it shouldn't—let it ooze *conflict.* Conflict, as most of our sophomore English teachers mentioned, is the essence of art. Why should that be different when we turn our literary attention to the so-called natural world, which, after all, is a famous Darwinian hotbed of conflict? Why should we get all soft-voiced and Sunday school when describing a world where death and struggle and raw life are so much more baldly apparent than in most of our own, a world so innately fascinating that it certainly won't become more so by covering it in a sugary goo? Why should we start to sound like scary cult proselytizers when as artists we strive to be the opposite of proselytizers, Keatsian practitioners of negative capability, that ability to be in "uncertainties, anxieties and doubts"? Or, on the other hand, why should we sometimes come off like accountants tallying up a ledger sheet of gloom?

Nature essays, at their worst, are narrated by people who come off like my Peak Oil friend. There's very little indication that any of them have the quality that many of us find most important for living on Earth: a sense of humor. From their writing you'd never guess that they have ever laughed or farted. (Which, it needs to be made clear, is different than translating Native American myths about trickster coyotes who laugh and fart.) Recently I judged a nature-writing contest for a university and I thought that if I read the words "calm" or "peace" one more time I was going to pull out a gun and kill myself. Even worse was "living in the present moment," whatever the hell that is. All I know is that these pat phrases and ideas oversimplify what it means to be a human being, and for leading the usual complex, troubled, compromised, joyful, sexual, funny, loving, jealous, insecure, clam, manic lives that human beings usually lead. Here is an excerpt from one of the pieces: "I sit here by the rushing river and the past and future disappear. There is no future and no past. There is only this moment, a moment consciously lived in." *No, no, no, no!* There is the moment, sure, but there are also never-ending goals and plans, there are maps, there are decisions and calculations and imaginative leaps into the future and back into the past…. These present-moment peaceful sorts are utopian characters in the sense that they are not in flux, not full of contradictions, not

on their way to becoming something else. They are already saints, have already found "it," and already exude the air of the shaman or Zen master.

But let me hold my tongue. My task in my long-ago essay was to tear down. Today's task is to build back up. What am I looking for, not merely railing against, in our dialogue about nature? First, I'm looking for a discourse with a whole lot less bunk. And a whole lot less mysticism, (which most of us, when not on drugs, don't understand). I'd also like a kind of writing that isn't content to chew its cud out in some far off back forty literary pasture, fenced off from real life concerns like politics. While I may not be personally ready to call myself an "environmentalist," I am more than ready to fight for the environment. It is a sign of our over-specialized times, after all, that we have tried to put up a wall between writing that is "literary" and that which is political. As if the two things could be fenced off and still remain vital. It has gotten to such a silly point in this country that it is commonly said of writers that their activism hurts their art. The implication seems to be that people are meant to do only one thing, in the manner of the assembly line worker. For my part, I'm happy to accept the sloppy fact of what James Baldwin called "men as they are." But I also understand that it's time to shut up and fight. Samuel Johnson, after listening to a philosopher friend argue against "the reality of matter," got up and kicked a chair, saying, "I refute it thusly." I can have my qualms with environmentalism—its earnestness, its joiner-mentality, its current vogue—but these qualms need to co-exist with action. I may be occasionally turned off by the arguments of the virtuous, but they are right about one thing: fighting for nature is, in the end, a moral issue. And as with a lot of moral issues, we can tamp it down, push it away, or try to ignore it, but we know, at some level, that we are avoiding something and that that avoiding holds great peril, both psychologically and practically.

Now dressed in full nature writing regalia—spear in hand and animal pelts on—I am finally ready to do battle. I am ready to leave behind the effete fear that politics will somehow taint my work, to understand that this exclusion is mere fashion, and that fashions change. I am also ready to leave behind the nature writer's sense of impotence. What I want to carry into the fight is humor, irony and the personal essayist's recourse to the testing ground of self. What I want to leave behind is "Oh, how lovely!" while what I want to carry into the fight are the moments—often lovely moments, yes—when I am briefly outside of myself, moments that remind me of how multifarious and delightful this world still is and that speak to my own animal wildness. What I want to leave behind is false romanticism. What I want to carry into the fight is the original romantic urge for the specific, the local, the real. What I want to leave behind is quoting Thoreau; what I want instead is to follow more deeply the complex spirit of the man. What I want to leave behind are pages of facts. What I want to carry forward are facts

marshaled for purpose, facts enlivened because they follow an idea. What I want to leave behind is the sanctimony of quietude and order and "being in the present." What I want to embrace is loud and wild disorder, growing this way and that, lush and overdone. What I want to leave behind is the virtuous and the good, and move toward the inspiring and great. And while we're at it I want to leave behind anything false, false to me that is, false to what I feel is my experience on this Earth. What I want instead is to wade through the mess of life without ever reaching for a life ring called The Answer.

My dream is to fight and to rally others to my fight. And here is my cry:

Nature writers of the world unite: You have nothing to lose but your daisy chains.

David Rothenberg

Nature Writing at World's End

Nature writing has always lamented the passage of a bygone age, a yearning for a better past when we were all much closer to the world around us.

Are things any different now that such a threat seems greater and more total, with massive climate change, and even Republicans starting to agree that something should be done about global warming?

There are fine examples of three basic kinds of nature writing out there.

I. The standard sky is falling response, or what Nik Cohn had a Russian cab driver say in *The Heart of the World*, his book about Broadway, "Whole world is going Helen Handbasket." Our genre has always been comfortable with this. The publishing industry has been divided: either doom and gloom books are the only ones that sell, or else the public is fed up with all this whining.

Melissa Holbrook Pierson in *The Place You Love Is Gone*:

> "We admit to bias, finally. For what we wish in intimate moments is for the world to shrink. It would have to unfurl the other way, backward in time, until so many people would return to nothingness, not a cruelty but rather the prevention of any possible occurrence of one. They would go back to when they were not even a hopeful sigh on a mother's lips. Then, so much might not be lost. We, in our terrible greed, could keep

> what had made us love it even without our meaning to: home as we know it."

Some call nature writing "writing about place" to widen it, make it bigger to encompass those who talk about the city, or wherever they are. But is there not still this melancholy longing for some place that no longer remains. Too much, too much….

II. The optimistic, dreaming of finally the time for a concerted, cultural response to this crisis that brings us all in community to solve the problems together, saying that the total crisis is what finally makes it possible for us to unify and do something about what's wrong with humanity in the world.

Bill McKibben in *Deep Economy*:

> "It's extremely hard to imagine a world substantially different from the one we know. But our current economies are changing the physical world in horrifying ways. It's our greatest challenge—the only real question of our time—to see whether we can transform those economies enough to prevent some damage and to help us cope with what we can't prevent. To see if we can manage to mobilize the wealth of our communities to make the transition tolerable, even sweet, instead of tragic."

III. The rhapsodic, beautiful and sensual kind of nature writing that draws us out into the world, loving what is around us, as the writer dissolves into the surroundings, in lush, alluring prose. This kind of stuff has been written in any era, and people always like it if it's good.

Jay Griffiths, in *Wild*:

> "It is Earth that makes the eternal precession of the stars a harlequinade, primordial carnival in the puritan black. Earth maenad, drunk on her own juices in the sober cosmos. Earth the vagrant minstrel, singing out her songlines to the universe. Earth the revelry, Earth the circus, clowning around the heavens, the joker in the pack of planets, the wild card. She was the original anarchist wit who cracked the first joke, which split the sides of the moon, and roaring with a dirty laugh fit to soil herself with good brown muck, said the first word, FUCK! again and again. Earth the clown in boots too big walks the wild way, the curly way, on, on, in fecund riot and feral grace."

Charles Bowden in *Inferno*:

> "Touch, in the beginning, means smooth or rough, soft or hard, round or square, warm

> or cold, crumbling or solid, juicy or dry. That is touch in the beginning. The curve of a woman's hip. The cold metal of a gun ready to kill. The ooze of soft mud flowing between the fingers, the slippery ease of water endlessly escaping the grasp of the hand. Touch defines my desert and keeps it at bay. Touch proves the inferno is hot, and by that act, banks it fires. Touch always assists in our suicide of meaning. How often during the day and the night do we touch ourselves and by that act convince ourselves that we exist? I think that is why I hate nature writing, hate it because it struggles to find something in the place, the place where I do not belong—but where else am I to go?"

Of course the standard problem is that we end up like Johnny Depp in *Pirates of the Caribbean III*—"At World's End" with a hundred carbon copies of himself stuck on a pile of sand at the end of the world. We can't move! Everything looks the same! The genre is dead in the desert of our culture, powerless to change a thing.

But we all know that's not true. The best writing will always be able to surprise and to move people. We can't go along with Steve Jobs, who says "reading is dead, no one reads anymore." Makes me want to stick my iPod in the oven and turn on the self-cleaning function. This is a challenge to writers more than anything else. We have got to write stuff that is good, words that truly wake people up to love nature enough to save our place in it. The best ideas have always been best expressed in words. We had better come up with them if we don't want the whole world to go Helen Handbasket.

Lauret Savoy

I.

The events of one's life take place, *take place*. Have you thought about it? Really, deep down in your bones?

Imagine "environment" broadly—not just as surroundings; not just as the air, water, land on which we depend, or that we pollute; not just as global warming—but as sets of circumstances, conditions, and contexts in which we live and die—in which each of us is intimately part. This definition falls short without those experiences of place that are exiled or degraded or toxic or alien or urban or indentured.

The future of environmental essay? What should it be? What could it be?

There is no requirement that a writer deal with any particular subject—yet, it seems to me, for the genre and those who call themselves "environmental writers," there has been avoidance. The discourse has proceeded in a narrow frame, with too few voices and storied lives of people not of Euro-American descent—experiences that transcend history and point to deeply embedded conflicts in this nation.

II.

I was 14 when I first read *A Sand County Almanac* by Aldo Leopold. That his 1949 book was hailed as "landmark," or in Wallace Stegner's words, "a famous, almost holy book in conservation circles," I knew nothing about. In his last essay, "The Land Ethic," Leopold enlarged the community's boundaries "to include soil, water, plants, animals, or collectively: the land," and his call for an extension of ethics to land relations seemed to express a sense of responsibility and reciprocity not yet embraced by this nation, but embedded in many indigenous traditions of experience.

To adolescent me, his ideas forced new questions and suggested troubling possibility. In a book so concerned with America's past, why was it that the only reference to slavery, to human beings as property, was about ancient Greece? Only uncertainty and estrangement felt within my teenage reach, as if the book's "we" and "us" excluded me and people with ancestral roots in Africa, Asia, and Native America. If as Leopold wrote "obligations have no meaning without conscience, and the problem we face is the extension of the social conscience from people to land," then what part of this nation *still* lacked conscience broad enough to realize the internal change of mind and heart, to embrace what Leopold had called an "evolutionary possibility" and "ecological necessity?" Why was it that at least in the United States I knew at age fourteen human relations could be so cruel?

We all carry history within us, the past(s) becoming present in what we think and do, in who we are. Ecological interdependence between human beings and the land is framed by this history, which informs our senses of place and our connections with each other. Deeply rooted values and economic norms have institutionalized exploiting and manipulating the natural world—by fragmenting ecosystems, threatening biological diversity, and changing the atmosphere's nature through fossil-fuel burning. And few honest self-reflections have yet considered how the roots of these "democratic" values and institutions link to sanctioned violence for power and profit, to class conflict, to the exclusion of peoples of color in a still deeply racialized America.

Compromising of nature, and compromising of human beings by "racial" separatism and inequities in political and economic power, in large measure define *our* "American" past and

present. Witness poor communities of color that continue to suffer disproportionate levels of environmental pollution and toxicity. Witness the continued curtailing of civil rights and cutting back of even basic assistance to the poor and disenfranchised.

We, every aspect of our lives, have **ecological ancestors** because we all have been in relation, whether admitted or not, in time and place. What is key is recognizing the biodiversity of self and of others, and resisting any **mono-identity** or **mono-culture of mind, self, knowledge** because Euro-American ecological ancestry is not the whole. Consider these examples:

- As African American abolitionists fought and wrote against slavery, they also fought and wrote against the use of arsenic in tobacco fields;
- The idea of wilderness as untouched land to be preserved was accomplished hand-in-hand with its forced de-peopling and removal of native peoples to reservations;

A 1915 essay in the *Atlantic Monthly* by W.E.B. Du Bois on the African roots of the First World War is as much an environmental essay as a piece written that year on the need for a national park system. But it's never been thought as such.

This past is not past because the same types of segregation of ideas, and of people, continue. The perceived "lack" of other voices beyond a traditional Anglo-American context continues to reflect a societal structure of inclusion and exclusion based on color, culture, and class. In recent years, though, some of the hardest hitting works in environmental writing have come from the environmental justice movement's grassroots activism.

I think self-protective silence and denial have kept too much of America from even knowing who "we" really are, and have kept a language of possibility impoverished. By this denial, this not-remembering, we are *dis*-membered, broken into pieces.

III.

To essay: to attempt, to try. . .

The hard thing to cultivate is a capacity to ask significant questions about our lives in a larger world, and about lives not our own. [It seems that those intent on imposing their will on the world do it without questioning.]

Perhaps a future of environmental essay *begins in trying* to meet all people where they are, wherever they are. Not where you think they are, or where you think they should be. It's acknowledging and honoring difference as enriching and at the same time finding, across

divisions, common interest, and common humanity. Diversity is a condition necessary for life, so why not bring as much difference to bear?

Perhaps environmental essay might attempt to bring into dialogue what has been ignored and silenced, what has been disconnected or dis-membered, whether by a failure of imagination, by narrowed –isms and –ologies, by loss of memory-history, or by unwillingness to be honest.

By re-imagining and enlarging our language and frames, then it might be possible to have creative interaction with many audiences, a calling back and forth, an exchange.

- so we can be in contact with and confirm each other;
- so through the multiplicity of true voices, their real stories, we could limn bigger stories that all of these are part of.

So that—from land distribution, poverty, suburban sprawl, to even how and by whom "nature" or "environmental" writing is defined—so that we can dismantle the patterns of living in this country that fragment and exclude and allow one to believe you don't HAVE to think about or care about... some "other."

Perhaps the future of environmental essay resides in two words taken to heart and made real: respect and responsibility. *Respect*, the willingness to look again (and again); *Responsibility*, the ability to respond, the capacity to attend, to stand behind one's acts.

What "truths" can we attempt to relate? What is authentic? Taken to heart?

Perhaps the future of environmental essay is in those who haven't yet spoken, and in those who haven't yet been heard. So many, like stars in the sky.

Alison Hawthorne Deming is the author of three books of nonfiction — *Writing the Sacred into the Real*, *The Edges of the Civilized World*, and *Temporary Homelands* — and the author of three books of poetry: *Genius Loci*, *The Monarchs: A Poem Sequence*, and *Science and Other Poems*, winner of the Academy of American Poet's Walt Whitman Award. Alison is a professor of creative writing at the University of Arizona.

David Gessner is assistant professor of creative nonfiction at the University of North Carolina at Wilmington, where he also edits the literary journal of place, *Ecotone*. He is the author of six books of literary nonfiction, including *Sick of Nature*, *Return of the Osprey*, and *Soaring with Fidel*. David's essay, "Learning to Surf," which appeared in *Orion* magazine, won the John Burroughs Award for Best Nature Essay of 2006.

David Rothenberg is the author of *Thousand Mile Song: Whale Music in a Sea of Sound*, *Why Birds Sing: A Journey through the Mystery of Bird Song*, *Sudden Music: Improvisation, Art, Nature*; *Always the Mountains*; *Hand's End: Technology and the Limits of Nature*; and others. He was the editor of the journal *Terra Nova: Nature & Culture*, and has edited the various *Terra Nova* books based on the journal. He is also a composer and jazz clarinetist, and has six CDs. David is professor of philosophy and music at the New Jersey Institute of Technology.

Lauret Savoy writes across threads of cultural identity to explore their shaping by relationship with, and dislocation from, the land. She is a woman of mixed African-American, Euro-American, and Native-American heritage, and is a photographer and professor of geology and environmental studies at Mount Holyoke College. Lauret edited *The Colors of Nature: Culture, Identity, and the Natural World* and *Bedrock: Writers on the Wonders of Geology*; and co-authored *Living with the Changing California Coast*.

Article

by Susan Cerulean

"Something's dead wrong in these woods," said Georgia forester Chip Bates, as he led a group of 30 scientists into Jekyll Island's interior forests on a hot afternoon last July.

"You may be seeing extinction in progress."

Redbay partial canopy wilt due to a vascular infection by an *Ophiostoma sp.* fungus introduced by the redbay ambrosia beetle, an invasive species.
Photo by Albert (Bud) Mayfield, Florida Department of Agriculture and Consumer Services (Bugwood.org).

Bates paused near a small evergreen tree and snapped off a wilting twig.

"This tree is fixing to go out," said Bates. Foresters and entomologists from Louisiana to Canada gathered in close, noting the unnaturally bronze growth at the tips of the tree's drooping branches.

"I want you to be able to identify the symptoms of this disease, and the beetle that carries it," Bates continued. "Because it's coming your way next. Take your knife and roll back the bark."

The scientists quickly produced pocketknives and hand lenses. Bates dug a squirming black beetle from the twig.

This beetle was no bigger than the head of

a finishing nail, but along with an army of her kind imported from Asia on wood packaging material, she had unleashed a tree-killing disease previously unknown to science.

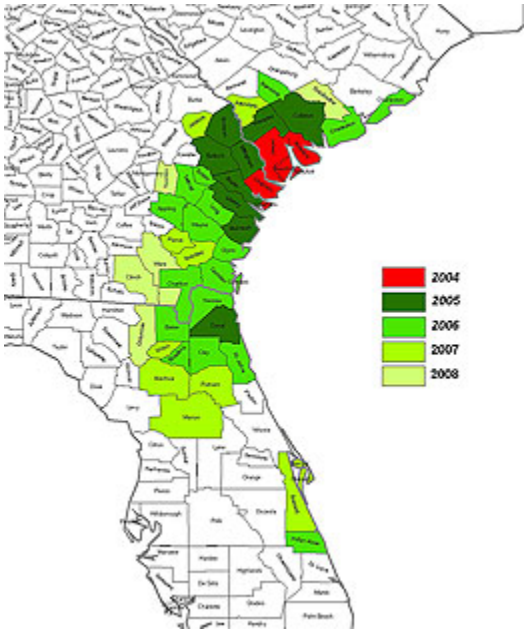
It wasn't just the one tree. You could turn a full circle in the midst of this forest where every deer, every bird, every plant is protected and see a brown tide of devastation in all directions. The dying tree is called redbay; it is an aromatic, broad-leaved relative of the avocado. Until now, redbay was considered common, certainly not endangered or rare.

“Mississippi, Texas, Alabama—y’all better brace up,” said Bates. “This disease is coming your way, and man, it moves fast. Twenty miles per year. Every island on the coast of Georgia has been either infested or overrun.”

“I just hope it doesn’t stick to the soles of my boots when I go back home,” said a forester from Louisiana, shuffling his feet in the leaf litter.

A Silent Invasion

Redbay ambrosia beetles were first detected in a survey trap at Port Wentworth, Georgia near Savannah in 2002. Apparently the insects hitchhiked a ride on a container ship all the way from their native landscape in India, Japan, or Taiwan. U.S. scientists didn’t realize the severity of the beetles’ impact until two years later, when thousands of redbay trees were reported dying in South Carolina, on Hilton Head Island. Since then, laurel wilt, a fungal disease carried by the beetle, has been identified as the killer of uncountable numbers of redbay in more than 33 counties in South Carolina, Georgia, and Florida. At least three related species, including sassafras and possibly avocado, are also at risk.



Distribution of counties with laurel wilt disease symptoms, by year of initial distribution.
Graphic by Laurie Reid, Bud Mayfield, and James Johnson, courtesy Georgia Forestry Commission.

In 2004, park managers on Ft. George Island in northeast Florida called in urban forester Larry Figart to look at what they believed were hurricane-damaged trees at their preserve. Right away, Figart deduced that every dying tree was a redbay.

“I knew this was bigger than me,” said Figart.

Soon after, Jacksonville area residents began to call the extension office, as many as ten each day, and report that their oak trees seemed to be dying.

“Are you certain they are oak trees?” Figart would ask.

"Sure," they'd reply.

"Do the trees have acorns?" Figart would say. He knew most people had simply never identified a redbay. He'd have the homeowners go outside, crush a leaf from the wilting tree, breathe in its pungent bay fragrance, confirm the absence of acorns. Then Figart broke the bad news: he could offer no solution to stop the native trees from dying.

Healthy redbays among pine and other native Southeastern U.S. trees and forest undergrowth.
Photo by David Moynahan.

"You could hear people deflate over the phone," Figart said. "We're so used to being able to fix things. When people have powdery mildew or aphids on their plants, we tell them what to spray, and it generally works. But we don't have an answer for this disease."

Ironically, it's Duval County's oldest, shadiest neighborhoods that appear most devastated by the laurel wilt's lethal epidemic. Residential communities such as Atlantic Beach were built to preserve maximum tree cover in the early to mid-1900s. As the trees succumb, it looks like a dappled brown shroud has settled over the prettiest, most natural neighborhoods near the northeast Florida coast.

"Now that people know about the disease in the Jacksonville area, I don't get nearly as many calls as I did two years ago. We're no longer the front line," said Larry Figart. "But I keep hoping that somewhere out there is a naturally resistant tree. I tell people to keep looking for that tree."

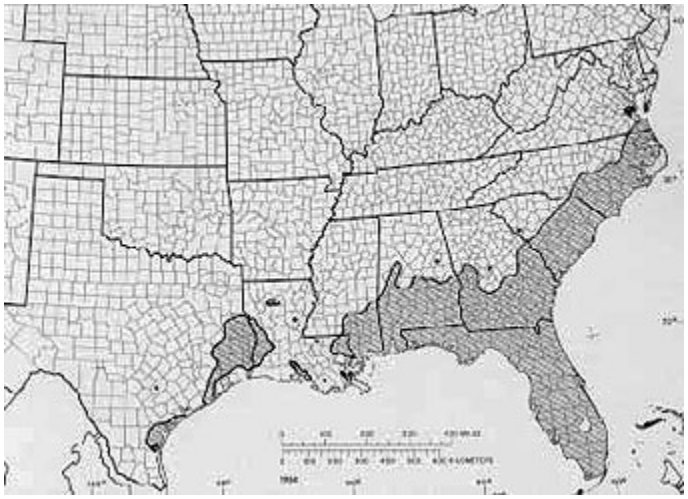
A Green Darker Than All Others

Redbay is a low-profile tree. Commercial timber companies don't harvest it for profit. A few fine woodworkers employ redbay wood for cabinetry and boat building. Some Southern cooks use the leaves for flavoring gumbos or stews. Most people don't know it at all.

"Until I saw them dying, I never knew there were so many redbays out there, nor how they were organized in space," said Florida botanist Dr. Dennis Hardin.

But redbays are the quiet infrastructure of forests from Virginia south into the Everglades, and west all the way to Texas. If you walk into a Southern river forest, or a coastal hammock, redbay will brush against your knees, your chest, and your head. High in the canopy, there it is too, filling up the space between the level ground and the branching of live oaks, palms, and pines. You can count dozens to hundreds of trees per acre.

A crisp menthol fragrance impregnates the air of forests where redbay live. In the late spring, the tree extends thick bouquets of lemon-yellow new leaves, brilliant against last year's khaki. But most of the year, "its green [is] darker than all others, its leaves edged with little waves (like the smile of a wind)," as the poet Rainier Maria Rilke wrote of the family of trees—the laurels—to which redbays belong. In the fall, the redbay's jet-blue fruits draw tanagers, warblers, and wild turkeys. Deer also browse on the evergreen foliage of the tree.



Historical range of the redbay tree in the Southeastern U.S.
Graphic courtesy U.S. Forest Service.

Redbay is so prolific and shady it affects the microclimate of the forests it lives in. "It's literally degrees cooler under the canopy of a redbay forest," said the Nature Conservancy's Kris Serbesoff-King, invasvise species program manager for the organization's Florida chapter.

"The first thing that came to my mind when I heard about redbay mortality was butterflies," said Laurie Reid, a forest entomologist who works for the state of South Carolina. "My God, I thought, what will the swallowtails lay their eggs on if the redbay is gone?"

Butterflies can sip nectar from lots of kinds of plants, but in the caterpillar stage, many chew their way to maturity on just one or two species. Redbays play host to three related butterflies: palamedes, Schaus, and spicebush swallowtails. The range of the palamedes overlays that of its sole host plant, the redbay, from Virginia to Louisiana. You'd mostly see it in swampy woods, or coastal hammocks, same as the tree. The palamedes is broad as an outstretched human palm, with tail-like projections on its hind wings. A pale yellow calligraphy marks the insect's dusky chocolate wing margins.

The palamedes swallowtail butterfly is highly dependent, in its caterpillar form, on the redbay.
Photo by Jack Scheper, courtesy Floridata.

This kind of butterfly is as tightly dependent on redbays as polar bears are to ice. The best case scenario for the palamedes may be periodic major reductions, depending on how far north the laurel wilt travels. The worst case scenario? The butterfly's extinction in the next decade or two.

"We will undoubtedly see a shift across the Southern landscape with wholescale loss of redbay," said Dr. Doria Gordon, senior ecologist and associate director of conservation science at the Nature Conservancy's Florida chapter. "We are simplifying our natural systems with consequences we don't yet understand."

An Undefended Buffet

Redbay leaves afflicted with laurel wilt.
Photo by Albert (Bud) Mayfield, Florida Department of Agriculture and Consumer Services (Bugwood.org).

Although we know that at least 55 alien bark and ambrosia beetles have been introduced onto our continent in the past 27 years, most aren't considered aggressive. In other words, they only attack dead or dying trees, not mature trees in the prime of their leafy lives. Not so with the redbay ambrosia beetle. It goes after healthy individuals, from sapling to full-grown. The redbay ambrosia beetle does not actually feed on the wood of the redbay, but on a fungus she has carried and inoculated into the tree's sapwood. The beetles bore tunnels into redbays, where they lay their eggs, deposit the laurel wilt spores, and then farm the fungus—at the expense of the tree's life. Within weeks or months at most, the fungus clogs the circulatory system of the tree, and the redbay will die.

Many trees have developed chemical defenses to thwart attacks by insects and disease, but the redbay has no such protection against the laurel wilt fungus. Since the redbay and this disease evolved in separate places all the way around the world from one another, the tree has had no opportunity to develop any resistance to the wilt. Our redbay forests offer these alien invaders an undefended buffet half a continent wide.

Moving Like the Wind

Laurel wilt moves very rapidly once it reaches a stand of woods. At Hunting Island State Park in South Carolina, the first collapsing redbays were noted in spring 2005. Just over a year later, 80 percent of the island's redbay were dead. Scientists believe laurel wilt is likely to spread throughout the range of this tree. The disease also kills other members of the laurel family, including sassafras, pondspice, and the endangered pondberry. Commercial growers are beginning to worry about the impact of laurel wilt on another redbay relative—the luscious avocado. Laurel wilt has been observed in residential and experimental avocado trees, and if the disease reaches the major production areas of south Florida, a crop worth $14.5 million (in 2004-2005) will be at risk.

The prospects of halting the rampage of laurel wilt and the beetles that spread it are bleak. In some places, such as Jekyll Island, teams of foresters and scientists have tried to contain or limit spread of what they call an ecological catastrophe. Forester Chip Bates and his colleagues put together a chainsaw strike team in 2006.

Healthy redbay leaves.
Photo by David Moynahan.

"We cut down and skidded out almost five hundred infested trees," said Bates. But within three months, the foresters saw fresh beetle attacks and six months later, widespread redbay mortality.

"We might have slowed the beetle down a little," said Bates.

"There are things people can do to slow the spread of this disease. We're emphasizing not moving the beetle vector, not moving firewood or dead trees," said Florida entomologist Dr. Bud Mayfield. Although the redbay ambrosia beetle is undoubtedly invading new territory through its own flight, it can move much farther and faster with human help. Firewood, logs, or nursery stock of wilted of dead trees should not be transported, except to be destroyed locally, by burning or in a landfill.

"It makes your heart stop to come across people advertising free redbay wood in places like church bulletins," said forest entomologist Laurie Reid. It's easy to picture: someone has a redbay die on his property. Unaware he is spreading a deadly beetle-borne disease, he cuts down the tree and offers the wood to neighbors. The beetle accepts the free ride and hopscotches ever more quickly through the South. Campers and boaters inadvertently worsen the problem, loading up and transporting downed redbay wood as they travel from affected counties to areas yet unscathed.

No pesticides have been demonstrated effective against laurel wilt disease. And even if such a remedy was found, says Dr. Bud Mayfield, "We're certainly not going to save our forests with fungicide injections, tree by tree. This would be limited to park and landscape situations."

Changing the Face of Home

In northeast Florida, at the confluence of three rivers—the St. Marys, St. Johns, and Nassau—24,000 acres of gorgeous wetlands and woodlands have been protected for the public's enjoyment. Little and Big Talbot Island State Parks, and the Timucuan and Machaba Balu Preserves, fall within this remarkable

Dead redbay in the dense undergrowth of McIntosh County, Georgia.
Photo by James Johnson, Georgia Forestry Commission (Bugwood.org).

mosaic of public and private ownerships.

Trish Gramajo-St. John, northeast Florida community relations manager with the Nature Conservancy, works with area land managers, and has organized a five-county working group to address the issue of invasive pests.

"We've tried to do everything right," said St. John. "We've acquired these lands, we manage them carefully, we study wildlife and water quality issues using the best science available, and still, we find ourselves at the mercy of this threat. We want to know what we can do to preserve our trees. But basically we're just documenting new outbreaks."

Gramajo-St. John was married to her husband Caleb at Little Talbot Island State Park on the 29th of April in 2006. "It's one of my favorite places in north Florida. I have a very deep connection to that place, with its gorgeous view of the salt marsh and its huge coastal forest."

"But when we got married here, only one or two trees were infected with the laurel wilt. We've returned to picnic and celebrate our past two wedding anniversaries. It's heartbreaking to see big chunks of the forest covered in dead trees."

Gramajo tries to analyze this problem as a scientist, but she finds that everyone familiar with this landscape—anglers, hunters, kayakers, birders, hikers—have an emotional reaction to the visual impact of the laurel wilt.

"It's as if someone has changed the color of our forests," said Gramajo-St. John.

"We need reassurance that actions will be taken at the national level to see that this doesn't happen again."

Most scientists agree that the only way to stop the laurel wilt redbay tragedy from repeating itself is to prevent introducing new pests. But invasive plants, animals, and pathogens now top the list of threats to the planet's biodiversity. An abridged list of forest trees hard hit by non-native pests includes American chestnut (ravaged by chestnut blight) and American elm (Dutch elm disease), as well as American beech, flowering dogwood, and white pine.

What you can do to help redbay and slow the spread of laurel wilt disease (and other forest-killing pests)

1. Don't move firewood. Buy firewood where you plan to burn it. Do not transport firewood to or from vacation homes, campsites, picnic grounds, or other places. Spread the word; tell your family and friends not to transport firewood, as well.

2. Until stronger federal regulations are in place for plant imports, consider buying seeds or locally grown plants from nurseries.

3. Clean your boots carefully after hiking in a forest to avoid spreading diseases.

4. Understand the origins of your wood and paper products. Choose wood, furniture, paper, and other products certified by the Forest Stewardship Council (FSC), which promotes responsible stewardship of the world's forests. If these products are not available at your favorite stores, ask stores to begin carrying FSC-certified wood and paper products.

Photo: Georgia Forestry Commission forester Chip Bates, pictured here with a dead redbay from Liberty County, Georgia, was among the first to detect laurel wilt damage to redbays.
Photo by James Johnson, Georgia Forestry Commission (Bugwood.org).

Cross-section of redbay branch with ambrosia beetles and larvae.
Photo by James Johnson, Georgia Forestry Commission (Bugwood.org).

These bioinvasions are reaching epidemic proportions as international global commerce and transport increase. Billions of creatures are on the move, hitching free rides in cargo or on the superstructure of the more than 6.5 billion containers shipped over the oceans in the global economy.

Like other invasive pests, bark and ambrosia beetles are frequently moved from continent to continent in shipments of wood products, or in solid wood packing material. They are tiny, easily missed, and very efficient at finding appropriate hosts.

"It's usually an accident when we find an invasive pest. And once it's here, we don't have a plan," said Doria Gordon. "We argued for a quarantine from the moment we learned about this disease. But pests of native systems without a commercial component don't get nearly the attention as those that affect agriculture or the timber industry. A lot of good research was done quickly once the wilt was discovered. But no regulatory approach has been developed to slow the spread."

Ultimately, scientists agree, the tragedy of the redbay isn't a firewood transport issue, nor a question of developing an effective pesticide or biocontrol measure. It's an international relations issue, fueled by consumer choices. As long as the bulk of what we buy is made overseas and imported in a massive pattern of international commerce—without adequate investment in making sure that trade is safe as well as cheap—ecological disruptions from the introduction of foreign pests will likely continue.

Across the Southeast, we will have to keep vigil as the loss of a glossy green scaffold of our forests—*Persea borbonia*, the redbay tree—leaves us with a drabber, more impoverished landscape.

If you want to help strengthen policies that will protect our forests from non-native insects and diseases, here's what to do:

1. Urge states which do not yet have laurel wilt, but do have redbay or sassafras trees, to adopt regulations prohibiting importation of redbay or sassafras firewood, logs, chips, mulch, or nursery stock from Florida, Georgia, and South Carolina. Restrictions on nursery stock should include other plants in the laurel family as a precaution, since the full host range of the pathogen is not known.

2. Urge Florida, Georgia, and South Carolina to adopt regulations to restrict movement of redbay or sassafras firewood, logs, chips, mulch, or nursery stock—so as to slow the human-assisted spread of the disease complex to uninfected areas. Restrictions on nursery stock should include other plants in the laurel family as a precaution, since the full host range of the pathogen is not known.

3. Urge all states vulnerable to laurel wilt (those with redbay and possibly sassafras) to enact broad rules governing movement of firewood. (See New York's model here.)

4. Urge the U.S. Department of Agriculture Animal and Plant Health Inspection Service to enact broad rules governing movement of all firewood.

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Editor's Note: Susan Cerulean was commissioned to write this article for The Nature Conservancy.

Title photo: Once considered one of the largest redbays in the U.S., adjacent to the Horton House ruins in Jekyll Island, Georgia, this majestic redbay was afflicted with laurel wilt in late 2006 and cut down in November 2007. Photo by Faith Campbell.

Writer and naturalist **Susan Cerulean** lives in Tallahassee, Florida, where she keeps watch over the still-healthy redbays along the Wakulla and St. Marks Rivers. In 2005, her nature memoir, *Tracking Desire: A Journey After Swallow-tailed Kites*, was named Editors' Choice by *Audubon* magazine.

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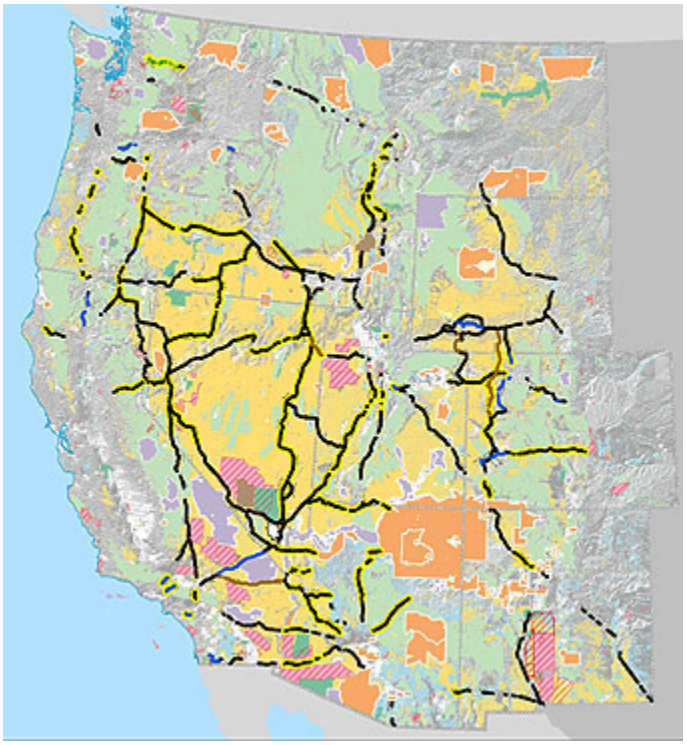
Article

by Erin Podolak

Energy production and distribution is a problem in the United States. To help solve the problem, the federal government has proposed the creation of energy corridors, areas of land where the infrastructure needed to move energy resources including hydrogen, oil, natural gas, and electricity will be constructed. According to Nada Culver, senior counsel in the Wilderness Society's Denver office, "Once designated, the corridors (averaging 3,500 feet wide but ranging up to five miles in width) will cover 6,000 miles and almost three million acres of public lands. Areas within the designated corridors are essentially deemed appropriate for pipelines and power lines, with expedited construction applications and limited environmental review." The official goal of the proposed corridors is to improve the reliability and availability of energy resources specifically in the Western U.S. Though the government's proposal—called the West-wide Energy Corridor project—may help provide energy to the states where the corridors are proposed, the government intends to construct them in federally protected lands, launching a debate over whether the corridors can be created in such a way that they avoid protected areas while taking local concerns into account.

The debate continues over the West-wide Energy Corridor project as two congressional subcommittees review plans for the proposed project from the U.S. Department of Energy (DOE) and five other federal agencies. The *Energy Policy Act of 2005* calls for the designation of energy corridors in eleven Western states. Section 368 of the *Act* calls for the secretaries of Agriculture, Commerce, Defense, Energy, and the Interior to define federal land sections to be used for developing pipelines for the transportation and distribution of oil and gas. States affected are Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

The House Subcommittee on National Parks, Forests, and Public Lands and the Subcommittee on Energy and Mineral Resources recently heard the proposed plans for the creation of the energy corridors. The subcommittees also reviewed the current research on the affects the corridors will have on wildlife through the *West-wide Energy Corridor Programmatic Environmental Impact Statement* (*PEIS*). While the *PEIS* gauges potential impacts associated with the designation of land as energy corridors, it does not review the actual development of the land as a staging place for energy distribution to the West. "The *PEIS* should have and could have realistically assessed what effects the proposed corridors would have—but it did not," says Culver. "The document spends many pages cataloging all the different types of damage that could occur from building in the corridors, but does not make an effort to actually assess what will occur, and how to avoid it."



The West-wide Energy Corridor map (draft, November 2007).
Graphic courtesy U.S. Department of Energy.

The comment period for the DOE and other acting agencies to make amendments to the plan has now passed. The evaluation period resulted in several suggested changes to the project. There are significant concerns about the endangerment of unique public areas that include undisturbed wilderness, sensitive species habitat, national parks, national wildlife refuges, and national monuments. "The *Westwide Energy Corridors PEIS* is focused on designating energy corridors for future infrastructure. It does not approve the planning, siting, operation, or destruction of any infrastructure," says LaVerne Kyriss, DOE *PEIS* project manager. "Future environmental studies will be required for any proposed project."

Conservationists are apprehensive that environmental impacts will not be examined until after the areas are approved as reasonable locations for the energy corridors. The corridors, they say, are being selected without adequate information. "The document only shows the segments on public land, without connecting the dots, and so the analysis can effectively ignore the effects on the environment when the corridors are actually completed," says Culver. "The document claims that the agencies can't presume that the corridors will be used, so they are not predicting actual projects being built, even though there is a lot of discussion in the *PEIS* and elsewhere about how the designated corridors will be used and must be designated quickly—without taking the time for full consideration of possible destruction of land—because there is ostensibly such a need for them."

Wildflowers at Joshua Tree National Park.
Photo by Nick Carver.

Well-known areas such as California's Joshua Tree National Park, New Mexico's Sevilleta National Wildlife Refuge, and Nevada's Desert National Wildlife Refuge fall within the boundaries of the energy corridors. With more than 6,000 miles of land through or near national parks and monuments designated for federal energy corridors, opposition has risen to what many deem a haphazard allocation of public land for energy infrastructure.

There are also concerns about the amount of consideration given to protection of threatened and endangered species. The ability of the project to comply with the regulations in the *Endangered Species Act* is worrisome. One of the commitments made when the plan was reviewed was to take special consideration for sensitive places and therefore impact them less. Yet no plans have been made for specific corridors to be relocated, even if some of the corridors were narrowed from the standard width of 3,500 feet to help avoid sensitive areas, and some land has been reserved specifically for limited or underground electrical power—not oil or gas pipelines. The government insists, however, that it is acknowledging the need to take special steps to preserve the environment. "The agencies have developed interagency operating procedures that apply best management practices to mitigate many of the potential impacts that would result from constructing, operating, maintaining, and decommissioning energy infrastructure facilities," says Kyriss. "These will be required as future projects to develop infrastructure are proposed."

But these steps fall short of comprehensive protection of species, according to Culver. "There have been improvements, but we need major renovations," she says. "During this process, we have seen an improvement in moving proposed corridors out of areas with important conservation values, such as national monuments, proposed wilderness, and national wildlife refuges. However, there are still substantial corridors proposed in these areas in the draft *PEIS*. Wildlife refuges and important wildlife habitat need to be identified and protected."

Those following the project, such as the Wilderness Society and Climate Today, cite that there have been no studies into the effects the energy infrastructure will have on the land adjacent to the corridors. In fact, the *PEIS* does not specifically list any methods for minimizing the damage to the environment.

Cooperation between agencies is also a problem; state and local governments were not required to help in the selection of the land for the energy corridors. "The federal agencies worked with the eleven Western states to one degree or another during the development of the *PEIS*, as the states preferred. Because Congress only authorized the agencies to designate corridors on federal land, the agencies fully recognize the need for future projects to work with state siting officials to develop

project routes on non-federal lands" says Kyriss. The state governments were allowed to provide input on the project. However, because the plan designates construction on federal land, there is little the states can do to significantly alter the project.

Desert National Wildlife Refuge.
Photo by Ryan Hagerty.

The states will be effected whether they approve of the project or not. "How this impacts the region is largely up to the people of the region, the folks they elect to office, and the people appointed to regulate energy and other development in the states," says Kryss. Congress only approved building the corridors on federal lands; no state wants to give up land for the corridors. "The corridors on federal lands would be no different under a state-led proposal since the local federal officials were significantly involved in routing corridors," Kyriss continues. "These are the managers on the ground who know what the local issues and concerns are and what resource constraints are present on the lands they manage." The federal government has the most land available to designate as corridors, therefore the project will remain in federal hands under federal management.

Although individual energy consumption might be an issue the public can control, it seems unlikely that the impacts of extensive construction on federal land will really depend on the actions of the population of each of the eleven Western states. One of the improvements made because of the proposal's comment period, however, was to incorporate interagency operating procedures, which would require compliance with other applicable laws and mitigate the damage to other resources. This is a step in the right direction, but a mixed history of federal communications doesn't necessarily spell interagency success.

Environmental organizations are concerned with both the construction and operation of energy infrastructure in the corridors. Yet a federal analysis of the environmental consequences of developing the proposed public land will not occur until after the land has been designated as energy corridors. "Without improvements to the *PEIS* and designations, I think the effect will be to essentially industrialize the areas that are designated, fundamentally changing their character," says Culver.

Those uneasy with the proposed corridor plan want more research on whether new pipelines and power lines are actually needed. Is the government's assessment of other ways to meet the energy needs of the West adequate? Opponents of the legislation have argued that methods such as modernizing the existing infrastructure have not been fully considered. Furthermore, there are no plans to incorporate renewable energy resources into the energy grids. Instead, the energy corridors favor more traditional energy sources such as coal and oil and natural gas, which are neither

renewable nor viable in the long term.

The agencies in charge of forming the plans for the creation of Western energy corridors will also be responsible for communicating with impacted Native American tribes. The agencies will tap into tribes as a source of information on the natural lands, sensitive species, and specific treaty rights to federal lands. Only tribes that have expressed an interest in the *PEIS* will be given an agency point of contact to help expedite communication between groups.

Mexican wolf at Sevilleta National Wildlife Refuge.
Photo courtesy U.S. Fish and Wildlife Service.

Kyriss's perspective is slightly different. "The federal agencies have engaged the tribes in the West in government-to-government consultation about the proposed energy corridors to the degree they desire," she says. "Some tribes want to wait until a specific project is proposed before entering into a consultation arrangement; others have engaged throughout the *PEIS* process. In all instances, the federal agencies have sought to understand and fairly weigh the issues of concern to tribes." The government's goal is to give the tribes enough opportunities to actively join in the discussion regarding planning and resource management. While the Native American tribes also have an interest in keeping the federal reserves pristine, they hold the status of foreign governments—triggering a higher level of discourse with federal agencies. Public interest groups like environmental organizations, however, are only collections of concerned citizens. They are given less consideration.

The Department of Energy feels it has adequately examined and responded to concerns related to the West-wide Energy Corridors project, so the plan continues to move forward. Though congressional subcommittees have convened, questions remain, and so far, no legislation has enabled the creation of the energy corridors. Many continue to oppose the corridors, and will at least until adequate information on the environmental impacts of the corridors is available. "Ongoing public involvement is critical to ensure that the agencies consider the actual impacts of these corridors and how to avoid them, such that corridors are designated to minimize impacts to sensitive resources and support renewable energy sources," concludes Culver.

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Article

by Walker Wells

Longfellow Creek is a 3-mile, year-round urban creek in West Seattle's Delridge neighborhood that once teemed with salmon. A comprehensive community effort is now underway to restore the creek as a vital fish habitat. Almost ten percent of the stormwater that ends up in Longfellow Creek falls on the ground of High Point, originally a 716-unit affordable housing project built during World War II. Run down and decaying, the project was ripe for redevelopment. With over $37 million in federal HOPE VI funds, the Seattle Housing Authority (SHA), an independent public corporation that functions as both a property manager and a nonprofit developer, began plans to redevelop the entire site into a mixed-income community. Concurrently, the City of Seattle expressed interest in integrating a natural stormwater drainage system into the redevelopment project to treat the stormwater runoff in an ecologically sensitive way and improve salmon habitat.

The Seattle Housing Authority spent time in initial planning determining how it could integrate a natural stormwater management system and identifying the specific permits needed. After deliberation, it agreed to integrate a natural drainage system into the project if the city granted several concessions. These included permitting narrower streets (25 feet wide, with parking on both sides) that would reduce impervious surfaces, assisting in the city

permitting process, and supporting an approach that integrates the drainage system into a traditional-looking neighborhood. The city agreed and is also providing $2.7 million to cover the difference between a typical new-construction stormwater system and the natural system proposed by SHA.

The desire to improve the water quality of Longfellow Creek became a linchpin in the overall plan to connect the mixed-income community with the surrounding environment and the larger West Seattle region. Rather than continuing to use an internally focused street circulation plan, the neighborhood street pattern was reinstated. Numerous environmentally responsive strategies protect the watershed and provide an attractive and diverse neighborhood through the natural drainage system, which is the largest in the country.

First, SHA re-built the infrastructure for the entire 120-acre site. This included demolishing most structures (some were deconstructed for reuse) and all streets and utilities, and realigning the street grid so it connected to the larger West Seattle network. With the basic groundwork in place, the team was able to proceed with the design and construction of a completely reinvented High Point, including a new street grid, over 21 acres of open space and parks and playgrounds, the natural drainage system, and a number of community facilities that strengthen High Point's connection to the larger community.

Upon buildout, High Point will house approximately 4,000 residents in 1,600 units of various types of housing. About half of the units are designated as affordable at various income levels, including senior housing, housing for large families, and eight homes built with sweat equity by Habitat for Humanity. The rest are a variety of single-family homes, carriage homes, and townhomes, offered for sale at market prices. As of fall 2006, 344 affordable units built by SHA and 75 affordable senior units built by the Sisters of Providence were completed, as well as key community facilities, such as a new library and a neighborhood clinic. Some market-rate homes had been completed and sold, and builders were focusing on completing the rest. Phase II of the project is expected to wrap up by 2009.

Green Achievements

Numerous aspects of High Point's site design address resource conservation and environmental responsiveness. By combining the natural drainage system with traditional neighborhood design, the design team was able to capture synergies stemming from traditional, narrow streets and wide landscaped medians and parkways. Other green aspects are featured in the design and construction of each unit.

Site Design

In developing the master plan the project's architect, Seattle-based Mithun, used many principles espoused by New Urbanism. Narrower streets (now often termed "traditional streets") with short blocks promote a pedestrian-friendly atmosphere that encourages social interaction and decreases the impact and importance of cars. Approximately 2,500 trees were added to the site, and over 100 large trees worth $1.5 million were preserved during the construction process. Twenty-one acres of open

space include parks and green spaces of all types, from a large central park that acts as the heart of the community to small pocket parks and trails. The natural drainage system adds to the quality of the green spaces throughout High Point. One of the drainage system's most important elements is four miles of swales, which replace conventional street curbs and gutters with vegetated drainage channels designed to collect, channel, and filter stormwater. The swales line one side of each street and resemble the landscaped parkways that sit between the street and sidewalk in many traditional neighborhoods.

Planted with grass, trees, and shrubs, the swales filter rainwater and offer additional play areas. The swales are made possible by reducing the paved area. Less pavement also reduces the amount of pollutants, such as oil, that enter the system via runoff. The central feature of this system is a pond that, in addition to providing a scenic view and a local gathering place, plays a crucial role in absorbing and filtering stormwater before finally channeling it into Longfellow Creek.

Healthy and Efficient Housing

All housing at High Point is required to meet or exceed a three-star rating by Seattle's Built Green program, a residential green building program and rating system developed by the Master Builders Association of King and Snohomish Counties in partnership with the City of Seattle. The three-star rating is the highest achievable in the "Community" and "Multifamily" categories. All townhome-style rental units were also built to meet ENERGY STAR standards (ENERGY STAR does not certify apartment buildings.)

Other green aspects include the use of low-emission paint and construction materials in all rental units. The homes also include appliances and fixtures that go beyond code requirements to save energy and water. Each home features a high-efficiency hydronic heating system. All rentals units have ENERGY STAR dishwashers and front-loading, highly energy-efficient washing machines. High Point also includes 35 innovative Breathe Easy homes available to low-income families with children suffering from asthma. These homes were designed to create a preventive atmosphere by minimizing exposure to some of the numerous environmental factors that can trigger asthma, including formaldehyde, dust, pollen, and insect remnants. Breathe Easy homes include high-efficiency particulate air (HEPA) filters that remove irritants from the air, no-volatile-organic compound (no-VOC) building materials, and linoleum floors instead of carpet.

Construction measures also addressed asthma prevention—for example, smoking was prohibited during and after construction. Residents must also promise to avoid asthma triggers such as smoking or having furry pets.

Landscaping outside these homes is comprised of drought-tolerant plants that don't produce pollen, including many plants native to the Pacific Northwest. Researchers have been tracking the health of the residents of these homes since a year before they moved in, to investigate whether the environment provided by these homes makes a difference to the health of the occupants.

Deconstruction and Reuse

Before the site could be prepared for new construction, the old buildings had to be removed. Twenty-two of the old buildings were deconstructed by hand so that their materials, which included high-quality old-growth fir, could be sold and reused.

Going forward, SHA has mandated that parks and open spaces be maintained using environmentally sensitive approaches. Resident teams of adults and children have conducted environmental outreach, including public education about the value (monetary and environmental) of preserving large trees.

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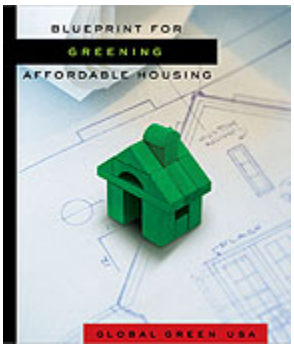
This article is excerpted from Global Green USA's *Blueprint for Greening Affordable Housing*, edited by Walker Wells with Ted Bardacke, Pamela Cepe, Jenifer Seal Cramer, Lisa McManigal Delaney, and Miriam Landman. Foreword by Matt Petersen.



All photos, including title photo of High Point homes with Seattle skyline in distance, courtesy Seattle Housing Authority.
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High Point: Two Years Later

Two years after the completion of the first housing units, High Point is now a thriving community. The completed Phase I is home to approximately 1,400 residents, both renters and homeowners. The neighborhood association, which equally represents renters and homeowners, handles community issues, such as traffic safety, community events, block watch, and community standards. Tenants and homeowners meet regularly at block- and neighborhood-scale events, like barbecues, cultural celebrations, outdoor performances, walking groups, and volunteer art programs.

The library and health clinic are new community facilities serving the broader neighborhood. The groundbreaking for the new neighborhood center, designed to achieve LEED platinum certification, is scheduled for August 2008.

A recent energy study compared High Point's energy consumption to Seattle Housing Authority's other HOPE VI development, NewHolly (which was built about 6 years ago). As a result of better unit design and energy saving appliances, the combined utility savings at High Point—based on a full year of actual consumption and for similar units—amount to 20.4% for electricity, water, and natural gas combined. Tenants save $16.55 per person per month in utility costs.

The natural drainage system at High Point has weathered two of the rainiest periods in Seattle's recorded history: November / December 2006 and December 2007. While flooding and landslides occurred over much of the city, the High Point natural drainage system performed flawlessly and absorbed the rainwater.

The City of Seattle has performed a test of the stormwater leaving the High Point site, and the water quality was in line with the original design standards set for purity.

The results for the 35 Breathe Easy homes are in. As compared to the old High Point units, asthma triggers are down by 97 percent, and emergency room visits and asthma attacks are down by approximately 66 percent. In Phase II, the Seattle Housing Authority will build 25 additional Breathe Easy homes.

In 2007, High Point was recognized with several high-profile awards, including the Urban Land Institute's Global Award of Excellence. High Point was one of only five worldwide awardees.

The new heart of the community, Commons Park, is now open. Phase II rental construction is partially finished. The entire project will be completed in 2010-11.

Source: George Németh, Housing Developer, Seattle Housing Authority.

Walker Wells is director of the resource Efficiency and Sustainable Communities Program for Global Green USA. He works with affordable housing developers, municipalities, and school districts across the country to further green building and sustainable development practices by providing technical assistance, conducting charrettes and workshops, and developing public policy. Wells is also an editor and a co-author of the 2007 book *Blueprint for Greening Affordable Housing* and the 2006 publication *Creating Successful Green Building Programs*.

Article

Text and photos by David Wann

Nature is not just window-dressing, not just a backdrop for our busy lives; it's where we live and what we are. It's what flows in our arteries and endocrine systems, and it's the whole-grain cereal that gives us energy to start the day. Interwoven with everything we do, nature directly meets our needs for air, food, fresh water, materials for shelter and products, beauty, recreation, serenity, nutrient and waste recycling, disease prevention, flood control, climate regulation, and many other quintessential values.

But sadly, the more sidetracked we get chasing possessions and the money to buy them, the poorer we become in other forms of wealth, such as connections with nature. When natural systems are healthy, they spin off benefits far more valuable than gold, or $100,000 bills. For example, the world's predator insects, such as ladybugs, naturally control far more pests than expensive, environmentally destructive pesticides do. Why not spray less and let colorful little allies like these proliferate? Why not use knowledge about how nature works, to meet more of our needs?


Biologist Joaquin Gamboa helps document and preserve the biodiversity of Rara Avis.

The truth is that humans used to value nature as the greatest and most sacred wealth of all, but now it's being traded for convenience, comfort, and perceived security. In our current way of seeing the

world, the environment is just a collection of problems; we won't protect it until we correctly see nature as a collection of solutions—a regenerating form of wealth we literally can't live without. If we let it, nature can take care of us, energize and delight us, free! In research studies, when people view slides of nature, their blood pressure counts fall; and when those with ADHD spend time in nature, the results are often as effective as if they'd taken the widely used drug Ritalin. A classic ten-year study reported in *The American Journal of Preventive Medicine* documented that hospital patients with a view of trees went home sooner than did those who viewed a brick wall. In a similar study, Michigan prisoners whose cells overlooked farmland had 24 percent fewer illnesses than did those whose cells looked into the prison courtyard.1 Many universities now offer degrees in "horticultural therapy," including Michigan State, Kansas State, University of Maine, and University of Cincinnati.

Describing positive questionnaire results from more than a thousand wilderness trips (both adult and child), Robert Greenway says that 90 percent of the participants felt an increased sense of aliveness, well-being, and energy; 76 percent of all respondents reported dramatic changes in quantity, vividness, and context of dreams; and 77 percent described a major life change upon return (in personal relationships, employment, housing, or lifestyle).2 Nature's hard wired into our genes, and into the human nervous system. Humans are blessed with what E. O. Wilson terms "biophilia," the urge to affiliate with other forms of life.

In our high-tech world, we often turn away from biophilia, considering ourselves above other species. In my opinion, each animal or plant is the very best at being that particular species, but no species is "better." Whenever I begin to think humans are somehow superior, I remember how various animals headed for higher ground before the imminent 2004 Asian tsunami. I think about the 176-year-old tortoise that recently died, possibly transported from the Galapagos Islands to England by Charles Darwin in 1835. (And we think the average human life of 77.6 years is old.) I recall a newspaper story about how dogs can smell cancer in humans: In repeated experimentation, not only did dogs conclusively demonstrate a 90 percent success rate in identifying human patients with biopsy-confirmed cancer, they were also able to detect cancer incidences a full year before medical technology did.

One very charming example of biophilia occurred recently in San Francisco Bay when a fisherman spotted a whale in great distress, weighed down and entangled in hundreds of pounds of crab traps and fishing lines. The fisherman called an environmental group that sent a crew of divers, and although a single thrash of the whale's fin might have been lethal, the rescuers worked patiently for hours to cut her loose. When she was free, she swam around in joyous circles like a dog let off its leash. Then she returned to each diver, one at a time, to say thank-you with a gentle nudge. Hearing stories like these makes us smile, because more than anything, at our very core, we want life to thrive! It really doesn't take more than a walk in the park, past an ecstatic baby in a stroller, to make my day. But in our world, we have fewer and fewer of these direct, outdoor experiences, for several reasons—we don't give ourselves time, nature isn't at the edge of town anymore, and we're simply out of the habit of being in nature.

Last Child in the Woods

Botanist Amanda Neill specializes in a species of rainforest flower pollinated by the Green Hermit hummingbird.

For the most part, mothers want us to be happy, right? When they used to tell us, "Go outside and play," it wasn't just because they were sick of us, but (also) because the components of nature and the way they fit together are the most instructive and enjoyable curriculum on the planet, no tuition necessary. These days, though, parents aren't as likely to urge their kids to go outside. Unfortunately, both kids and adults often perceive "outside" as a place that lacks stimulation and is also dangerous.

The engineered planning of towns and cities often reduces nature to concrete water channels, manicured petunia beds, and rectangular soccer fields, removing the rough, wildish edges that kids like the best. Many American schools have reduced or eliminated outdoor time, even as the epidemic of childhood obesity spreads. In fact, as Richard Louv points out in *Last Child in the Woods*, education boards in a dozen or more states have "outlawed" recess because they consider it less important than national test rankings, it presents perceived liability issues, and it has the potential for violence on the playground. On some school playgrounds that do allow outdoor play, signs read, "No Running!" Tracking the origins of what he calls "nature-deficit disorder," Louv has observed many other obstacles to natural play, including municipal and homeowner association laws. For example, building codes prohibit or inhibit the construction of tree houses in some towns, some cities forbid climbing on trees in parks, and many of the country's HOAs (there are now nearly a quarter of a million) frown on basketball hoops and skateboard ramps in driveways.

Add to these restrictions the specters of "stranger danger," DUI-heavy traffic, and "ecophobia" (the fear of spiders, skin cancer, mosquitoes, snakes, Lyme disease, and poison ivy) and you've trained kids to retreat indoors to their video games, TVs, and computer screens. My friend Marie held her ground when her son kept asking for the latest video games: He could only play games that didn't involve killing, and he had to buy them with his own money. But this teenager knew how to play more than video games; he did a research paper at school on violence in video games, and thus, he convinced her, had no choice but to do the research....

Richard Louv cites a study documenting that in 2003, the average American devoted 327 more hours to electronic media than in 1987. But Louv asks a probing question—very relevant to the theme of this book: "What drives us to virtual reality?" He believes that lack of time and the changing patterns of our cities and towns are key reasons, but that fear—a spell being cast by the news media—is the main reason.3

And I believe there's still more to it: kids (and adults) don't value or understand nature because it's not an action-packed commodity sought after by their peers. Nature is subtle, not in-your-face like

virtual reality, and we need to be taught to slow down and appreciate its subtleties and interconnections. We need mentors who can lead us back to nature. Louv interviewed a camp counselor who was awakened by an inner-city girl when she had to go to the bathroom. “We stepped outside the tent and she looked up. She gasped and grabbed my leg. She had never seen the stars before. From that moment on, she was a changed person. She saw everything, like a camouflaged lizard that everyone else skipped over. She used her senses. She was awake!”4

Lost Child in the Woods, Found

The diversity of plant species at Rara Avis is staggering, including 157 species of orchid.

When I was four or five, I wandered with a young friend into the woods near our house. My recollections of that distant morning include splotches of bright sunlight projected through the trees onto the dark forest floor, the earthy fragrance of leaves and rich Illinois soil, and knowing what it must feel like to be a butterfly. We fluttered farther and farther away from our yards, clueless that back home our moms were beginning to panic. After an hour or more of frantic searching, someone drove to the other side of the forest and found us near the highway, still in the throes of discovery and exploration. I seem to remember that everyone was very agitated, insisting that we’d gotten lost and could have been killed! But we didn’t see it that way. All we had lost was a sense of time, and a sense of imposed boundaries.

About fifty years later, I experienced a similar, unbounded feeling in a Costa Rican rainforest north of San José. I’ve always thought of myself as a nature guy—a backpacker and fanatical gardener who’s learned about the cycles and meaning of nature by observing them directly—on switch-backed mountain trails or in rich garden beds teeming with vegetables. But I wasn’t prepared for what I encountered at Rara Avis, a biological reserve that is true, undeveloped wilderness. I was like that delighted young preschooler again, fluttering into the woods in search of anything. My girlfriend had gone home and I stayed in a casita without electricity for eight days by myself, drifting further and further from the pace of life back home, where the president was sending the first troops to Iraq.

The story of that experience begins with a rigorous three-hour, tractor-drawn wagon ride over boulders and potholes, the exact opposite of “luxurious” (probably a little like having a baby in an earthquake). But the other travelers and I somehow survive it, and within minutes of arriving near Waterfall Lodge and its outlying casitas, the forest begins to speak to us! A tiny, strawberry poison-dart frog hops across the trail; his bright red skin contains toxins so strong that he has no predators. He just hangs out in his territory—he needs no more than 100 square feet—and waits for females to come to him. What a life!

A little farther up the trail, a boa constrictor wraps around the trunk of a small tree, in no hurry to get out of our way. Instead she relies on her camouflage, ability to constrict, and (maybe) trust in humanity. A regiment of leaf-cutter ants ascends the trunk of a 100-foot-tall tree to prune its leaves, increasing by a third the light that reaches the forest floor. The leaf fragments they bring back (like surfers carrying bright green surfboards) are composted underground to fertilize the fungus crop they find so tasty—an operation that puts nutrients back into the soil. En route, some ants become snacks for birds and other insects, so their niche provides several basic resources the rainforest needs—sun, soil, and food. Thousands of other species make similar contributions, weaving the rainforest together like a tapestry. Creeping over the forest floor toward the shadows is a Monstera vine, which "knows" that by climbing the tallest trees that cast the darkest shadows, it will ultimately bask in full sunlight.

Rara Avis is like a 2,500-acre lungful of fresh air—a masterpiece of biological abundance that provides undisturbed habitat for 362 different species of birds! Twenty different species of orchid were recently counted on a single fallen tree. In a way, this virgin parcel of land is a living self-portrait—the rainforest is painting itself in the bold colors and shadowy nuances of its many species; for example, the red, green, yellow, orange, turquoise, and black of a keel-billed toucan (called a "flying banana" by another traveler); the dark, iridescent blue of a morpho butterfly; and the dappled red of a stained-glass palm.

I walk down to dinner one evening in the foggy twilight and my flashlight beam falls on the orange and black stripes of a coral snake. I'm startled, knowing she's poisonous, but fascinated that she's slithered into my life. As I bend closer to get a better look, she retracts from the path into the bushes, like the scene in the *Wizard of Oz* where the Wicked Witch's striped sock melts away under the house that smashed her. With the hair on the back of my neck still bristling, I step gingerly from one stepping stone to another, watching the miniature headlights of fireflies hovering in the descending darkness, lit only by a rising crescent moon.

At the Rainforest Lodge in Rara Avis, you'll hear a symphony of birdcalls. More than 350 bird species have been heard and seen there.

After dinner in the big log cabana, biologist Amanda Neill explains why she puts her energy into studying a single species of rainforest flower: the bright red gurania, or jungle cucumber. "Think what might happen if the taxonomists mistakenly lump two similar species together," she says. "We might assume that there are plenty of these—don't worry about saving their habitat—when really there are only a few of each species left, that have traveled a billion years to get here."

The sense of ecological urgency in this blond-haired thirty-year-old woman mixes

well with her sense of delight. Even in her narrow niche of study, she's traveled widely—to Ecuador, Belize, Peru, now Costa Rica—to study the taxonomy and ecology of her focus species. In effect, she's found her own symbiotic niche in the rainforest, trading her skills at cataloging and protecting the gurania for the privilege of living a month at a time under the lush, protective canopy of the rainforest.

That night, when the cicadas, tree frogs, trogons, owls, howler monkeys, and hundreds of other species all join the chorus, the forest sounds like a smoothly running factory—*Taca, taca, taca... sissit, sissit....* Given that the mission of each call is to be heard among a symphony of other calls, there are all varieties of pitch and syncopation—creating an incredibly rich and complex symphony. Over the eons, rainforest species don different colors and improvise different shapes so all nutrients will be used, and all niches occupied. (They utilize information and design rather than superfluous resources, an important lesson for our civilization.) In the morning I'm awakened by a cuckoo clock that turns out to be a bird with a very complex, mechanical-sounding call. I count the hours, groggily, but even in half-sleep, I know it can't be nine o'clock already....

Waking Up in the Rainforest

On a remote jungle trail toward the end of my retreat, I'm dressed only in shorts and rubber boots. I've taken off my t-shirt to feel the rainforest on my skin, despite the warnings that deadly fer-de-lance snakes could strike from overhead branches and vines. I'm thinking, "Remember this moment. Remember the way you feel, right now, as howler monkeys growl like lions way off in the distance, and the sun filters through the dense foliage onto your stupefied, grateful face."

Sure, we can read about the rainforest and see it on TV, but until we spend quality time there, letting ourselves slow down, we don't really grasp what tropical biology is all about. It struck me on that Costa Rican rainforest retreat that we overconsuming humans need to somehow absorb these colors, this bold brilliance, into our hearts, and revalue nature's wealth all over the planet. There's so much more to life than the gray of concrete and the drab green of paper currency! My feeling is that until we acknowledge the butterfly, orchid, rose, maple, and wisteria colors inside each of us, we can't feel truly at home in ourselves. We can't see the deficiencies of our economic system clearly enough—that it isn't programmed to preserve nature, or to optimize human potential. Until we launch an unwavering mission to Planet Earth, we'll keep postponing the homecoming until there's not much left to come home to. In that rainforest, I saw and felt complexity-in-balance, and realized how far out of balance our industrial complexity is—infantile and clunky by comparison, with only thousands of years of experience as opposed to billions. Rather than cooperating to make the overall system sustainable, our industrial species compete to attain their own, narrowly defined goals. The name Rara Avis comes from a medieval poem containing the phrase "*Rara avis in terris.*" The phrase means, literally, "a rare bird in the world"—or figuratively, something new and fresh happening in human civilization. And so there is!

The Zen of Gardening

What's the opposite of a suicide bomber? Maybe a community gardening activist—like a Green Guerrilla—lobbing a benign grenade filled with seeds and fertilizer onto a vacant lot. The mission of the New York City–based Green Guerrillas is to "help people turn vacant, rubble-strewn lots into vibrant community gardens that serve as outdoor environmental, educational, and cultural centers." About 25 years ago, I became a green guerrilla in my own yard, and what I learned along the way changed my life.

Tree bark in a San José, Costa Rica park.

Growing vegetables and fruits taught me the value of filling time with something that feels right. I'd spend Saturday planting vegetables and digging a new plot in the crazy quilt I called a garden; then Sunday morning, I'd just want to do more of the same. Getting so much exercise and good food taught me what it felt like to feel great, and I wanted more of that feeling. (My then-wife customized a t-shirt for me that read *Mr. Vigor*, which I wore proudly as I ate organic broccoli or battled slugs and hailstones.)

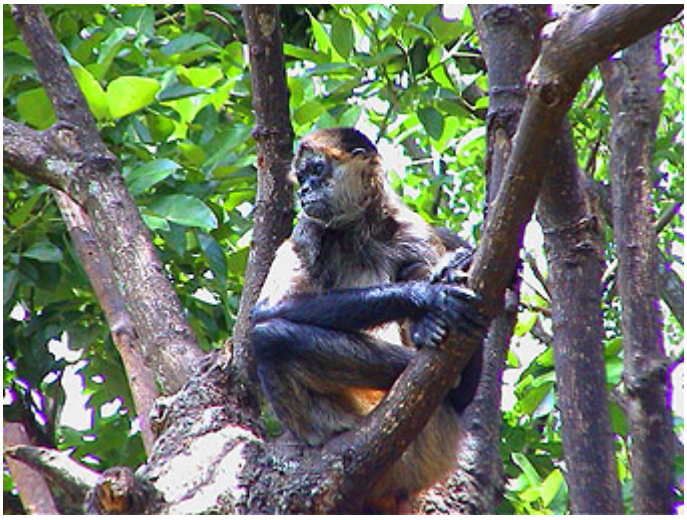
I learned what a passion is about—something you did whether or not it seemed like a good idea to others. I noticed, though, that people would tour my little garden and comment on how much work it must be; then the next year, they'd call with questions about how to start their own gardens. It's not that we gardeners are trying to be "old fashioned" or unsocial with our time, more that we are reviving a skill we can take with us into the future—a pastime that doesn't cost money but saves it, while also delivering wide-ranging health and environmental benefits. If I eat a sweet pepper or a handful of raspberries as I work, I can count on an energy boost that lasts for hours, because that food is still charged with life as I'm eating it. Rather than traveling an average 2,000 miles to my mouth, it's more like two feet. The fuel savings are huge. The food that comes from my garden also doesn't require pesticides, but rather skill—again, a great energy-saver and environmental bonus. Gardens create habitats, absorb stormwater to reduce flooding, and give us something to take care of—a basic, primordial human need.

In the book *The Zen of Gardening*, I wrote, "In the garden, life's struggles, snags, and snafus decompose into rich, black earth. I see and feel things happening—things that are real, not just white-knuckle policies and commercial blabber. As I plant seedlings or hoe a sturdy crop of basil, I don't think about operators who are 'currently busy helping other customers.' I can touch, smell, see, and taste where I live; I know about Golden, Colorado, partly by making horticultural deals with it. I learn what it can provide and what I can coax from it, as my knowledge and skill continue to expand. In the garden, life and death dance before my eyes every day, and I come to a better understanding of my own health and mortality. The garden literally brings me back to my senses."

When the garden becomes a lifestyle, we begin to rethink where we spend our time, energy, and money. We go out to eat less, partly because what comes out of the garden is vastly superior to what comes out of a typical restaurant's kitchen, and partly because we just want to keep working in the strawberry bed or planting the broccoli seedlings. It occurs to us in a flash of insight that time isn't money—it's life.

So consider these passages to be an *un*commercial for gardening. Turn off the tube and take a few gardening classes. Start small, with a raised bed or two. I guarantee you'll like it, or "double your time back."

The Nature of Heaven: Adventures in the Great Beyond



Do Spider monkeys ever muse about heaven?

One of the many people Richard Louv interviewed for *Last Child in the Woods* was a twelve-year-old girl who commented, "I really think there is something about nature—that when you are in it, you realize that there are far larger things at work than yourself." I know what that girl meant. I remember a suddenly-spring day at Hampstead Heath in London (where I was an exchange student), wading barefoot in a shallow stream, mud squishing between my toes. Although my learned reaction to the squishiness was, "yichh," I realized in a flash of insight that mud isn't really dirty—in a sense, it's the essence of clean—the place where life originally came from and where it ends up. What I hold sacred is life itself, and that includes even the life that teems in soil and squishy mud. The incredible beauty and complexity of living things assures me that everything's alright; that I'm part of something that goes on and on. There's no need for fear, and no need to hurry.

I do have a strong suspicion that there's an afterlife, but I'm not convinced we each carry personal identities with us up some cosmic escalator like beat-up pieces of luggage. Instead, what I think may happen is that after a transition period at the Pearly Gates (while our luggage is inspected and gratefully acknowledged), departing souls melt back to a wavelength that courses through all of life. And I strongly believe that if Heaven in whatever form does exist, it's not just a comforting, unknowable fable, it's biology and physics. If it's made out of reality rather than fiction, we should be able to make contact with it, with all our expanding, awesome technologies, from spectroscopy and astronomy to magnetic resonance imaging.

Just for the fun of it, let's say we do retain our identities in Heaven. One day as you listen to the car radio, you pick up a staticky message from some deceased air traffic controller trying to get in touch

with his daughter. As the frequency gets sharper and reaches listeners from Delaware to Darfur, there's great rejoicing on Earth! Holy wars cease when we learn that all of life—and death—are governed by natural law that treats everyone equally. But then (this is the cynic in me and in many of us), I'm imagining that some of the more enterprising folks here on Earth might see a huge new market opportunity. "Even you angels will be much more blissful if you have communication links with family members you've left behind, won't you?" they coax. "Won't videos from home make you feel more secure about your reputation back on Earth...?" These masters of public relations will make even angels feel insecure, and, in the end, Microsoft and AOL, Wal-Mart and Target will trade digital uploads for heavenly balls of energy.

The fact is, we don't know the nature of that other side, or other frequency. Sometimes I wonder if our brains have learned to filter it out (despite vivid glimpses during near-death experiences) because it's not critical for dealing with more immediate survival issues here on Earth, like saber-toothed tigers and broken fuel pumps.

But we do know that nature is fundamental to our survival, and that it needs our help, now. Standing in my galoshes and shorts in that Costa Rican rainforest, I was completely amazed; completely in the moment. A shiny blue dragonfly with a body about the size of a clothespin decided to orbit my head three or four times, showcasing its remarkably shiny, helicopter-like wings. By that time, I'd become completely open to everything the rainforest had to offer. At least temporarily, I'd gained a wider, more holistic sense of self. "I" was not enclosed by my skin, but extended out into the infinitely patterned rainforest and beyond. I remember thinking as the dragonfly hovered comically around my head, "That's me, saying hello to myself!"

End Notes

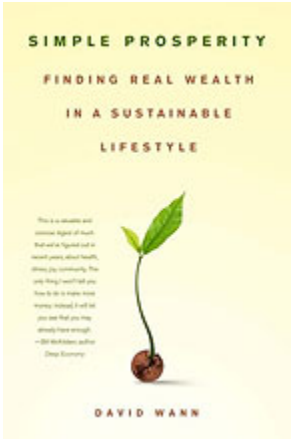
1. Richard Louv, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* (New York: Algonquin Books of Chapel Hill, 2005), 45.

2. Robert Greenway, "The Wilderness Effect and Ecopsychology," in *Ecopsychology: Restoring the Earth, Healing the Mind* (San Francisco: Sierra Club Books, 1995), 128-129.

3. Richard Louv, "A Dialogue on Getting Kids Outside," *San Diego Union-Tribune*, September 26, 2006.

4. Louve, *Last Child in the Woods*, 48.

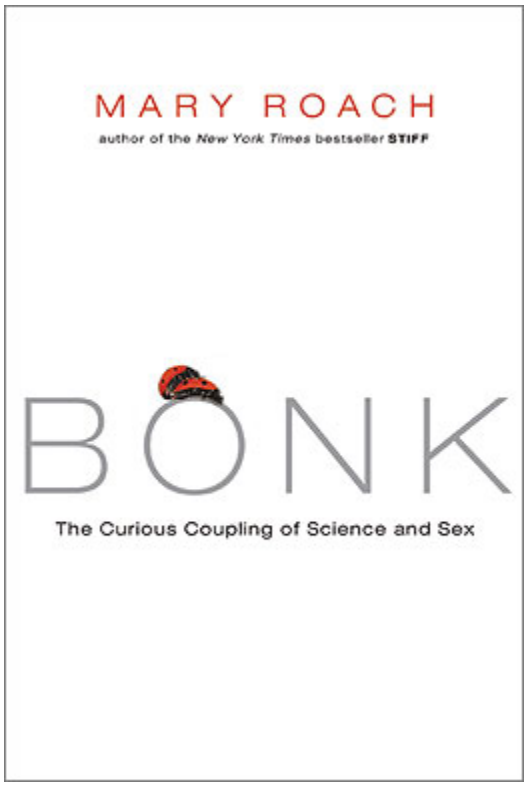
This essay is a chapter excerpt from David Wann's *Simple Prosperity: Finding Real Wealth in a Sustainable Lifestyle* (St. Martin's Press, 2007). It is reprinted with permission.



David Wann works to present images of a more sustainable American lifestyle in articles, books, and films. His most recent book, *Simple Prosperity*, presents 17 forms of real wealth that meet human needs directly, providing twice the satisfaction for half the resources. He is coauthor of *Affluenza: The All-Consuming Epidemic* and *Superbia! 31 Ways to Create Sustainable Neighborhoods*, and author of *The Zen of Gardening in the High and Arid West: Tips, Tools, and Techniques*. Wann's award-winning film *Designing a Great Neighborhood* was recently featured at the Princeton Film Festival. Visit his website at www.DaveWann.com.

Review: Lingerie Puts on a Labcoat

Stephanie Eve Boone reviews *Bonk: The Curious Coupling of Science and Sex*, by Mary Roach, and *More: Population, Nature, and What Women Want*, by Robert Engelman

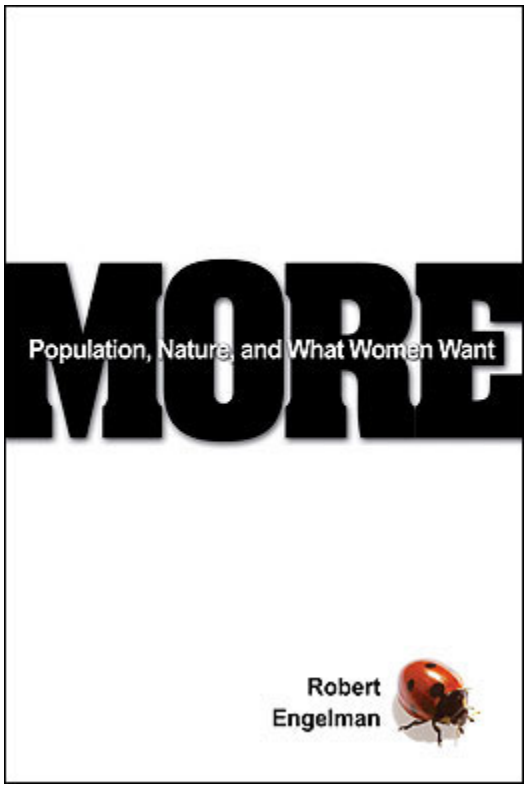


Alfred Kinsey's 1948 book *Sexual Behavior in the Human Male* was controversial like a fox, a best-seller that brought him international acclaim. 1953's *Sexual Behavior in the Human Female*, however, inspired backlash so severe that the Rockefeller Foundation yanked his funding. In a scene from the 2004 biopic *Kinsey*, the scientist reads scathing reviews over his wife's protests. "I'm trying to find out why people hate this book so," he says. Clara replies: "You told them their grandmothers and their daughters are masturbating. Having premarital sex; sex with each other. What did you expect?" Other factors were in play, of course, but one can reasonably argue that Alfred Kinsey got in trouble because he published scientific evidence that women enjoyed and participated in sexual acts that couldn't, or weren't intended to, result in children.

Kinsey is one of the heroes of Mary Roach's *Bonk: The Curious Coupling of Science and Sex* (W.W. Norton & Company, 2008), a witty, scientifically grounded, delightfully accessible survey of men and women who have shared the novel idea that an activity most people think about dozens of times a day merits study under a microscope (or, as you'll read in Chapter 5, in an MRI machine). Roach's goal, a slight variation on Kinsey's, is to illuminate the scope of human sexual experience and undermine the idea of normalcy in sex and science.

Although the most famous, Kinsey wasn't the first or last person to dedicate a huge portion of his career to the science of sex. Roach's personal favorite appears to be gynecologist Robert Latou Dickinson, who recorded his patients' sexual histories from the 1890s to the 1930s and advocated not only masturbation but the kind of sex that cost Lilith a husband (whom she probably didn't miss). Behaviorist John Watson called sex "the most important subject in life" and may or may not have studied his mistress's "responses." William Masters and Virginia Johnson left their spouses for each other during a thirty-year collaboration that included a paper entitled "Persons Studied in Pairs" (three guesses what the persons were doing). Roach weaves their stories together with those of contemporary researchers, and her own transcontinental quest for all sexy science. In a chapter on the debate about the role of female orgasm in conception, she flies to Denmark and watches

professional pig inseminators at work. In Taiwan she spends the week with the world's foremost expert in erectile-dysfunction surgery (warning: men, you might want to drink a beer before you read this chapter). In Cairo she interviews the prolific sex-reflex-specialist Ahmed Shafik, who must publish outside his Muslim homeland. Roach's dedication takes her to London where, in between sightseeing trips, she and her husband have "three-dimensional moving picture" sex in a laboratory while awkwardly chatting with the University College researcher (he had trouble recruiting volunteers, so the author volunteered herself and loyal Ed). In Texas, she participates in a slightly invasive study of women's physiological and psychological responses to pornography. This willingness to become a subject in her own research might make Roach look weird, but also demonstrates her respect not only for the scientists, but the volunteers who give them something to work with.



Roach claims on her website, "I don't have a science degree and must fake my way through interviews with experts I can't understand." Well, she must know how to do her homework, because *Bonk*, tailored to intelligent non-scientists like its author, demonstrates quite sufficient understanding of physiology, biology, and psychology. You'll put this book away with the ability to dazzle and discomfort your friends with facts about the role of the central nervous system in orgasm, the goings-on in Alfred Kinsey's attic, and the technique through which porcupines avoid the missionary position. You'll also encounter tales of institutionalized sexual repression. On her visit to Shafik, Roach learns that men in Egypt often try not to give their wives orgasms so they won't complain if the men experience impotence. "If you never eat a kiwi," says Roach's source, "you never want a kiwi." Most of these stories, fortunately, are set in the past, but they illustrate the climate of discomfort with sexuality, and disregard for women's sexuality, that causes many of the problems discussed in another new release.

Robert Engelman doesn't have much to say about sex, but the belief that women should be able to enjoy it free from worry about child-rearing is implicit throughout *More: Population, Nature, and What Women Want* (Island Press, 2008). He's concerned with the most common biological consequence of the act, which keeps the human population growing at a rate of three people per second. Engelman's argument is simple: when family planning is affordable, available, and socially acceptable for each woman on Earth, population stability will naturally follow. For support, Engelman reaches back to the origins of humanity—and what results is a book that concisely covers human history, through the window of family planning, in fewer than 300 pages.

Engelman is on a mission: he seeks to convince his reader that the key to a sustainable world population is gender equality, and he's not just patronizingly advocating the *treatment* of women as

equals, but arguing that women have *been* men's equals from the beginning. To accomplish this common-sense task (unfortunately, common sense all too often requires evidence), he offers a revised view of humanity's ascension, questioning the image of "Man the Toolmaker… honing his weapons and cooperative strategies for bringing down big animals." He points to anthropological and archeological theories that women were equally involved in the development of tools, language, and agriculture. Particularly interesting is the theory that women invented horticulture; ironic, considering that patriarchy rose with the development of agrarian societies—in most hunter-gatherer cultures, where women brought home a steady supply of food, they may often have attained equal or near-equal status with men.

Integrating the discussion of population, he tells us that concern about crowding is not unique to the post-Industrial age; in fact "the most likely hypothesis for what sent the first bipedal primates out of Africa is a prehistoric version of crowding." As anyone who has ever scavenged for empty boxes or shelled out for a U-Haul knows, people rarely pick up and move to an unfamiliar place simply for kicks. As early human populations grew and their landscapes reached carrying capacity, some young people needed to strike out for new land; within a few thousand years, we were fighting each other for habitats and resources. And family planning isn't new under the sun, either: particularly when resources were scarce, women sought to limit the number of children they had, using emmenagogues (plants with contraceptive properties), pessaries, primitive condoms, the rhythm method, abortion, even, as a last resort, culturally accepted infanticide—this not because our ancestors were monsters, but because survival for one child could mean starvation for two.

Most of the book is dedicated to the pre-Medieval timeline, but he eventually touches on familiar figures in the history of birth control and family planning. The stories of such people as Robert Malthus and Margaret Sanger resonate with the reader who is now familiar with the extended history shaping their ideologies. Engelman then moves swiftly into a discussion of 20th and 21st century trends in family planning. To illustrate its tenuous relationship with politics, he tells a little-known story about George H.W. Bush: nicknamed "Rubbers" as a congressman, he was forced to give up his family planning advocacy to become Ronald Reagan's running mate in 1980.

Refuting the not-uncommon stereotype that women in developing countries *want* a half-dozen children, Engelman cites anecdotal evidence of women who travel from miles away for affordable birth control, and girls in Africa who hatch plans to have only two children, both after they turn 24. Ultimately he argues that population stability is and will be greatest where gender equality or near-equality is the norm. "Leave to women, more than anyone else, the decision about when and how often to bear children," he writes. "The history I've explored in this book suggests that doing so has moderated population growth in the past, and contemporary evidence makes clear that it does exactly that today." Given the historical evidence he provides, one is inclined to agree with him—although its success hinges on a pretty big *if*. It may be a few years before women in all parts of the world are encouraged to try kiwis whenever they like.

Bonk: The Curious Coupling of Science and Sex

By Mary Roach

W.W. Norton & Company
2008
ISBN 978-0393064643

More: Population, Nature, and What Women Want

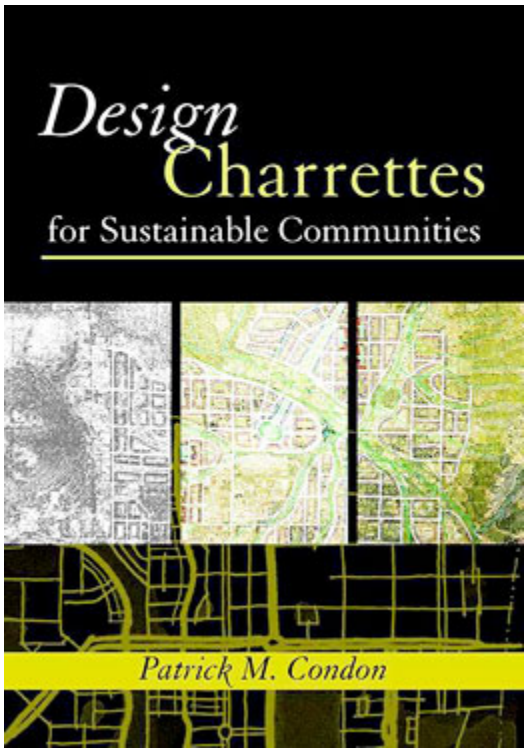
By Robert Engelman

Island Press
2008
ISBN 978-1597260190

Stephanie Eve Boone grew up in Ona, West Virginia, and earned her MFA in creative writing from the University of Arizona in 2007. She served as nonfiction editor for Sonora Review, and has published essays in such places as Edifice Wrecked: A Literary Journal and the anthology Hiram, USA. She teaches at Niagara University and lives in Lewiston, New York.

Review: A Valuable Tool, with Caveats

Rich Michal reviews *Design Charrettes for Sustainable Developments*, by Patrick M. Condon



As an architect and resident of a New Urban community, I was excited to review *Design Charrettes for Sustainable Developments* by Patrick M. Condon (Island Press, 2007). I was even more excited after I read the preface and introduction. And even though Chapters 1 through 4 were both too long and too dry—they could have been effectively consolidated into two chapters—the final chapters, which provide actual concrete advice and a suggested outline for conducting charrettes, make the book worth buying, reading, and using as a resource.

The strengths of *Design Charrettes for Sustainable Developments* are the actual examples provided by the experienced Condon, and the subsequent experiences and advice he shares. The book's weakness, on the other hand, is that it does not provide enough examples (especially in Chapters 1 through 4). Nor does it provide enough images of the final products—especially projects actually built—in the two case studies that conclude the book.

Additionally, I take specific exception to three of the author's recommendations. First, Condon's apparent premise at the end of Chapter 1 and the beginning of Chapter 2 is that the product of design charrettes should only be drawings. While I agree that drawings and the ability to communicate through illustration and design images are critical to charrettes—both as final products and as tools to be used during the charrette process—in my experience a balanced approach of both drawings and narrative is necessary to convey and memorialize the mission and vision of the charrette.

Second, while a design charrette may indeed cost $80,000 to $200,000, I fear that putting these large figures out there so early in the book (page 26, specifically) without more balanced discussion and examples of possible funding sources will discourage many smaller firms, not-for-profit entities, and community agencies from even attempting design charrettes.

Finally, I'm concerned with Condon's take on queuing streets, just one of many design parameters, but critical nonetheless. In the *3.1 Queuing Streets* example presented in Chapter 3 (see below), Condon states that small, 24-28 foot-wide curb-to-curb queuing streets are "recommended by many sustainable community design experts as a natural way to slow traffic, reduce costs, improve aesthetic appearance, and reduce impervious surfaces."

3.1 Queuing Streets

Queuing streets are narrow residential streets typical to older North American neighborhoods. They are usually between 24 and 28 feet wide measured curb face to face and allow parking on both sides of the street. This leaves a travel lane between parked cars that is too narrow for smooth, flowing two-way traffic. Cars approaching each other must slow and proceed with caution to pass, with one often migrating into an available marketing space to allow the other to pass, thus the name queuing or "take your turn" streets. This kind of street is recommended by many sustainable community design experts as a natural way to slow traffic, reduce costs, improve aesthetic appearance, and reduce impervious surfaces.

Source: Chapter 3, "The Design Brief," Page 49.

Appropriate street designs for sustainable communities, however, should be based upon an array of smart growth principles as opposed to simply encouraging congestion associated with queuing in order to slow traffic and reduce costs. Smart growth principles encourage slower and steadier traffic flows to reduce the reliance on larger, wider arterial roads within a community.

While these rights-of-way should include on-street parking, they should also include medians (for improved aesthetics, impervious surface reduction, and pedestrian queuing at intersections), bike lanes (to reduce auto dependence), and sidewalks or multi-use paths (for pedestrians). They should also include provisions for landscaping areas between the curb and the sidewalk or trail for aesthetics, reduced impervious surfaces and heat island effect, and to separate, buffer, and protect pedestrian traffic from vehicular traffic.

Still, I recommend Patrick Condon's *Design Charrettes for Sustainable Developments.* It is a valuable tool for those interested in learning more about and conducting design charrettes for sustainable communities.

Design Charrettes for Sustainable Developments

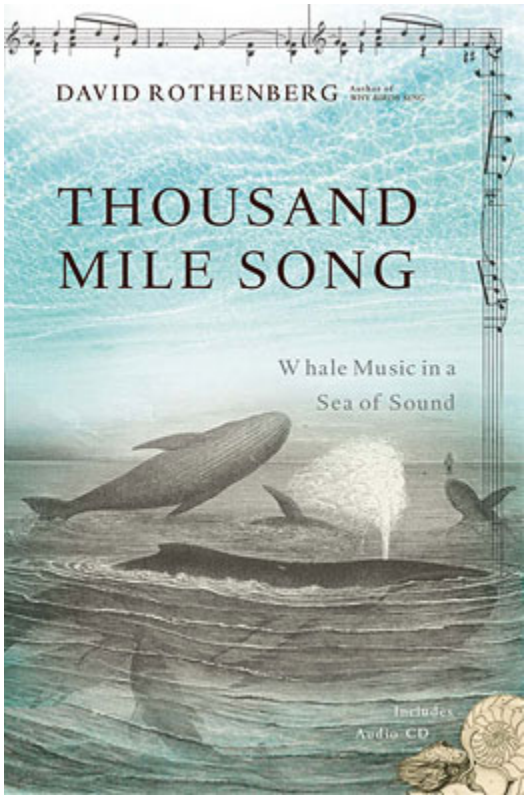
By Patrick M. Condon

Island Press
2007
ISBN 978-1597260534

Rich Michal is a LEED-accredited design professional, licensed professional engineer, and has bachelors degrees in engineering and architecture and masters degrees in business administration and architecture. He is an adjunct lecturer at the University of Arizona College of Architecture and Landscape Architecture and the director of project development and the principal manager in charge of the Tucson office of Adolfson & Peterson Construction, the largest commercial green building contractor in Arizona. He has published and presented academic papers on sustainability and done consulting work on sustainable and LEED-registered development projects both nationally and internationally.

Review: Stories That Sing

Simmons B. Buntin reviews *Thousand Mile Song: Whale Music in a Sea of Sound*, by David Rothenberg



One of the myths of nonfiction is that it doesn't borrow craft elements from fiction and poetry. But the nonfiction that really sings, regardless of topic, in fact adopts such elements as narrative arc, dialogue, and pacing from its sister genres. Subsequently, creative writing professors emphasize the importance of scene and story in memoir, personal essay, and even specialized articles. "Show, don't tell," they say; and, "Draw in the reader through story."

Easy enough, we might say, for childhood remembrances or non-technical subjects. But surely we can't rely on scene and story for scientific topics, which require a more complex vocabulary and therefore a more direct treatment? Who wants characterization when we're talking sub-atomic particles, for example, or—as in the case of David Rothenberg's *Thousand Mile Song: Whale Music in a Sea of Sound* (Basic Books, 2008)—the logarithmic range of tonal sounds made by cetaceans?

The short answer is: just about everyone. And Rothenberg's newest book is a prime example of how the reader is rewarded with good storytelling.

Rothenberg's previous book, *Why Birds Sing*, has been a huge success (it was coupled with a CD of bird song mixed with his world-class clarinet ensembles, just as the new book comes with a CD of jazz overlaying whale song). I enjoyed *Why Birds Sing* and learned quite a lot from it. But for all its deserved success, I felt it needed more storytelling. In *Thousand Mile Song*, we get it, and richly so, right from the get-go:

> Every morning Paul Knapp sets out from the shores of Tortola in hopes of recording a humpback whale song better than the one he heard on Valentine's Day, 1992.
>
> "I remember that day well," nods Paul, looking up at the sky….

There's something about these stories—the peculiarity of them, the witty way in which they're woven into the science, Rothenberg's eloquent pen above all—that makes *Thousand Mile Song* a

page-turner. What drives momentum, too, is the author's questioning, for the book is no less than a quest. Contrasting humpback whale song with bird song early on, Rothenberg asks, "Why should these musical principles appear in nature at such different scales? Maybe music is a part of nature itself, something evolution has produced on different lines, converging into some living beauty that whales, birds, and even humans can know."

By the end of his previous book we know that Rothenberg—who is a teacher and philosopher in addition to writer and musician—concludes that birds sing for the sheer joy of it; for the same reasons people sing. As he writes in this issue of *Terrain.org*, "This doesn't mean bird song has nothing to do with attracting mates and defending territories, but the function doesn't explain the beauty of the song. To delve deeper into the music, science and art must work together to try for the greatest human understanding of nature that is possible."

Similarly, his quest in *Thousand Mile Song* is the exploration of science and art—the intricacies of whale and dolphin song and the opportunity for Rothenberg to play music to and ultimately *with* these far-ranging and highly intelligent beings. So through his lyrical stories and deep delving into whale biology, the acoustic science of their songs, and the ongoing risks to the animals (such as Navy sonar testing), we travel across and beneath the saltwater edges of the globe. From the Virgin Islands to northern Vancouver Island, from the republic of Karelia on the shores of the White Sea to the Hawaiian Isles, Rothenberg's ambition for interspecies jamming becomes our own, blending both science and the author's wisdom along the way. And just as the stories involve us, the questions lead us. "Wait a minute," he says when exploring the still-unknown meanings of humpback songs in relation to human songs, "is human music then about *nothing* too?" Here as throughout the book, he offers a response that leads to further seeking:

> Only if you think of communication as made of information and nothing more. Music is important enough to have evolved along with humanity for at least hundreds of thousands of years. We may make music to charm the opposite sex, but only a self-satisfied biologist would say that reason for music is enough to explain it. We, at least, are one species who spend a lot of time playing around with sounds for their own emotional and beautiful qualities. Why not accept that other creatures could dwell in music the same way? Why couldn't it come earlier on the evolutionary tree, *before* language, in which the parts of an utterance mean something separate from the whole?

The stories Rothenberg sings are not always his own, though these too are inviting. One of my favorites is the story of Margaret Howe, who "lived with a dolphin named Peter in a specially designed house, half under water and half above" over a period of six months:

> Peter gets a squeaky bunny. Peter has a square, a circle, a triangle. He learns which one is which. But he wants more. "I find that this living is hard and taxing on my private life. I do not think that I would like to live with this much restriction for too long a time." Think how Peter feels. Margaret can get up and leave the house but Peter has nowhere else to go. Yet the idea of isolation, of human and dolphin together, was key to the whole experiment. Live together, and you'll finally talk together.

Context is important to *Thousand Mile Song*—both the historical context of the whaling industry

(and subsequently whale song, research, and preservation efforts) and an underlying geopolitical context. Nowhere is that more apparent than in the chapter titled "Beluga Do Not Believe in Tears," in which Rothenberg plays to beluga whales in the White Sea. "The White Sea is not white at all but a dull gray, or a deep colorlessness, that adds in hollowness with thoughts of the terrible human history played out on these shores: war, incarceration, torture, fear," he writes. "That's all over, and we're lucky the white whales remain to remind us that nature can be pure. Whales do not do such terrible things to each other; that's why [maverick cetacean scientist] John Lilly thought they were far more intelligent than we are."

Similarly, the book overlays hard science in a very gratifying way with Rothenberg's insight, which itself is a kind of musical, scientific wisdom. In the concluding chapter, for example, he writes:

> Now that we humans know about whale songs, we imagine we have known about them all along. But the painful truth is that, although they can be quite easy to hear even without all this technology, no one bothered to listen to them until they knew there was something to listen for. We remain prisoners of our expectations.

And, from the beginning of chapter six:

> Evolution does not just encourage the survival of the fittest. It produces wondrous beauty and strange ways for animals to be in touch. Cuttlefish change their shape and color to engage with each other. Penguins identify each other through slight variations in their calls. Elephants tap their feet to each other from miles away, their vibrations carrying for long distances under the ground.

If there's a fault with *Thousand Mile Song*, I didn't find it in my reading. Pockets of the acoustic analysis can be dense, but they are never overwhelming. Rothenberg's plea for saving whales is poignant but never painful; and while direct it's also not what drives the book's narrative arc. What drives it, instead, is an enchanting energy and a transition in the author: "Over this year I've been playing with underwater musicians I cannot see, I've begun to dream in whale songs, and sing impossible melodic leaps in my head from low to high as I wake."

Another way to think of these dreams, these songs, is as stories—for ultimately David Rothenberg's *Thousand Mile Song* sings because its stories hold such delightful tunes. Like the book, they resonate deeply well after we turn the final page.

Thousand Mile Song: Whale Music in a Sea of Sound

By David Rothenberg

Basic Books
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