DEATH OF A MOUNTAIN
Radical strip mining and the leveling of Appalachia
By Erik Reece

September 13, 2003, Lost Mountain

Look hard and you can find Lost Mountain in grid 71, coordinate B-10 of the Kentucky Atlas & Gazetteer. According to that topographical map, the summit rises 1,847 feet above Lost Creek, whose headwaters come to life on the mountain's north face. This morning I left the bluegrass region of central Kentucky, where I live, and drove east along the Mountain Parkway, where the last of the rolling grasslands, dotted with black tobacco barns, finally gives way to the Cumberland Plateau, the foothills of which may be the oldest mountain range in the world, the Appalachians. From there, a narrow two-lane road follows the meanderings of Lost Creek, so named because hunters frequently lost their bearings when they ventured too far from the stream itself. When the blacktop ends, I navigate an old logging road that winds up and around Lost Mountain, ending at its peak. I set the parking brake on my truck and get out to take a look around.

I notice that a fire tower standing here a year ago has been blown or torn from its foundation and sent crashing down the ridge side. But even without the tower's perspective, looking off to the north I can see thousands of acres—former summits—that have been flattened by mountaintop mining. Where once there were jagged, forested ridgelines, now there is only a series of plateaus, staggered gray shelves where grass struggles to grow in crushed rock and shale. When visitors to eastern Kentucky first see the effects of this kind of mining, they often say the landscape looks like the Southwest—a harsh tableland interrupted by steep mesas. I, too, have traveled through Arizona and New Mexico in the late spring when ocotillo and Indian paintbrush are in bloom, and I understand the allure of that harsh landscape. But this is not the desert Southwest; it is an eastern broadleaf forest. At least it should be.

There was a time in this region when union miners would have extracted the coal that lies beneath Lost Mountain with hand picks and shovels in deep underground shafts. But twenty-six years after Jimmy Carter signed into law the Surface Mining Control and Reclamation Act...
have come to Lost Mountain because last month Leslie Resources, Inc. was granted a state permit to mine this ridgeline.

by mountaintop removal—some say the number is twice that—and hundreds more have been damaged. Blasting on the mine sites has cracked the foundations of nearby homes and polluted hundreds of family wells. Creeks run orange with sulfuric acid and heavy metals. Wildlife populations have been summarily dispersed. An entire ecosystem has been dismantled.

I have come to Lost Mountain because in February Leslie Resources Inc. was granted a state permit to mine this ridgeline. I came here to see what an eastern mountain looks like before, during, and after its transformation into a western desert.

October 25, 2003, Lost Mountain

Before mining starts on Lost Mountain, I hike up the old logging road that winds to the summit. At one muddy wheel rut, I stop to sketch the tracks of a deer, a fox, a raccoon, and a wild turkey. Then I drop down into the forest proper, the watershed that feeds Lost Creek. After extricating myself from a blackberry thicket, I climb noisily over a barricade of fallen tree limbs. A crow warns a white-tailed deer of my approach, and the doe hoof it up over the ridgetop. When she is gone, I find myself standing beneath an austere canopy of tulip poplars. This is Kentucky's state tree, and it grows as straight as a flagpole. Daniel Boone once hollowed out a sixty-foot canoe from a single tulip poplar and packed his family down the Ohio River in it. The tulip tree is also one of the first hardwoods to establish dominance after a deciduous forest has been cleared by fire, a blowdown, or, in this case, the chain saws that chewed through here about forty years ago. These poplars have already lost their leaves, and sunlight fills the understory of younger sassafrases, hickories, and sugar maples. The woods are quiet except for a pileated woodpecker; the songbirds are already vacationing in Belize and other points south.

Given time, one hundred years or so, oaks, beeches, and hickories would come to dominate this transitional forest. Three different communities of highly diverse trees would eventually agree on a silent charter about how best to inhabit these elevations. But that's not going to happen here.

I wander on down the ridge. Without thinking, I begin to follow the moist furrow of an intermittent stream. A lacework of tributaries feeds the lower creeks, but they flow only during wetter periods. I step around moss-covered cobble and maidenhair ferns that grow in the shape of delicate tiaras. Colonies of liverwort cover some of the rocks like small, green scallops. These modest-looking organisms carry on pretty fascinating sex lives: The liverwort needs rain to spawn. And its preferred habitat seems to be these rain-catching, intermittent streams. During a downpour, the male liverwort extends a tiny, umbrella-shaped antenna. When a drop of rain hits it, sperm explodes inside that raindrop and bounces a couple of feet, where with any luck a female liverwort has sent up a little umbrella of her own to catch the sperm-laden droplets.

In this way the unassuming liverwort dramatizes one of the issues at the heart of mountaintop removal. In response to the charge that such mining methods bury hundreds of central Appalachian streams, Bill Caylor, president of the Kentucky Coal Association, is quick to point out that an intermittent stream, such as this one, is not really a stream at all, because there are no fish in it. According to this line of thought, if something like the liverwort is of no immediate and obvious use to us, then it is of no use at all. That modest flora like liverwort help hold rich soil in place, purify water downstream, and provide habitat to other small animals such as salamanders—or that they even hold an intrinsic value beyond what we might understand today—is a logic to which Homo sapiens americanus seems curiously immune.

When I reach the mouth of the intermittent stream, I follow Lost Creek until I can see no signs of human intervention, not even the inevitable Bud Light can. I sit down on the bank, beneath the yellow glow of beeches and maples. Dark water glistens in the shallows below. Squirrels rustle through the leaves. Trees decay where they have fallen, providing shelter and food. A Carolina wren hops among the tangled branches. These days it is thought unfashionable, even backward, to talk about laws of nature or to read a philosophy, a morality, into the workings of the natural world. For 4,000 years, theologians and philosophers have debated whether an Intelligent Designer stands behind it all. I have nothing to contribute to that discussion. But this much seems clear: this forest certainly demonstrates an
intelligence, one it has been honing for 290 million years. Its economy is a closed loop that transforms waste into food. In that alone it is superior to our human economy, where the end of the line is not nutrients but rather toxic industrial waste. Is there design behind this natural intelligence? I have no idea. But I will venture this: The forest knows what it’s doing.

Compare the two economies: the forest’s and ours. The sulfur dioxide that escapes from coal-burning power plants is responsible for acid rain, smog, respiratory infections, asthma, and lung disease. Due to acid rain and mine runoff, there is so much mercury in Kentucky streams that any pregnant woman who eats fish from them risks serious, lifelong harm to the fetus she carries. And this year, thanks in large part to coal burning, climatologists found record-high levels of climate-altering carbon dioxide in the atmosphere. A forest, by contrast, can store twenty times more carbon than croplands or pastures. Its leaf litter slows erosion and adds organic matter to the soil. Its dense vegetation stops flooding. Its headwater streams purify creeks below it. A contiguous forest ensures species diversity. A forest, in short, does all of the things that the mining and burning of coal cannot—that is its intelligence.

On the next ridge over, another dozer is pushing boulders out of the way to carve a haul road for the coal trucks. All around me there is nothing but rock, smoke, and ravaged soil. Then I see standing a few feet away a single green seedling, shooting out a dozen small branches. Somehow the dozer missed it, and now the entire emptiness of the slope gathers around this seedling like an unbearable presence, a ghost forest.

Photograph © Mike Smith
Coal operators could still fill up to 250 acres of a watershed with the rubble that was once a mountaintop. Mine sites could still leach toxic acids into creeks where small valley communities once performed baptisms.

December 17, 2003, Lost Mountain

Over the years I’ve heard numerous stories about do-gooders and documentary filmmakers who set out to inspect a strip mine only to find themselves confronted with the blade of a D-9 dozer, raised to windshied level and bearing down fast upon them. I decided not to show my wife the article in this morning’s paper about a state surface-mine inspector who died after being found beaten and unconscious in his home, his body mutilated by human bite marks. But I also can’t quite shake that image, so I’ve decided to follow a less conspicuous road that leads around the backside of Lost Mountain, through a small community called Harveytown.

Christmas lights outline the trailers and small clapboard houses that are clustered tightly at the creek side, as if gravity itself had set them there. The western side of the mountain shows fewer scars from logging, and a series of sandstone outcrops stretches along the ridgeline, providing vital shelter to smaller animals, including the endangered wood rat. This unfortunately named rodent is actually quite handsome, with large eyes and long whiskers. Americans particularly should feel an affinity for this rapacious collector of baubles. If something shines—a piece of glass, aluminum foil, a shotgun shell—the wood rat takes it home. He piles the loot just outside his nest, which sits back in a narrow rock crevice. No one knows why. Perhaps he just wants a bigger midden pile than the wood rat living next door.

All through Appalachia, wood rats are on the decline. A parasitic roundworm has decimated much of the population, and the forest fragmentation caused by strip mining—the creation of smaller woodlots with an increased circumference—has made it much easier for foxes and bobcats to prey upon them. Strip mining is also a leading cause of species extinction. This Cumberland Plateau is one particular “hot spot” of ecological concern because two thirds of its bird population is also in decline.

Earlier in the fall, I climbed along this same ridgeline, going from one rock formation to another, looking for evidence of wood rats. Now, three months later, I’m climbing this ridge again, this time to get a decent, discreet look at the mining on the other side. I can already hear large equipment churning. At the ridgetop, I circle north and crouch under a stand of young trees. Two enormous backhoes are clawing away at the substrate directly beneath me. Slowly they...
cut a vertical rock wall all along the inside of this hollow to lay the wide road that coal trucks will need to maneuver the mountainside. Along with bulldozers and graders, they have already cut a quarter-mile road stretching down to the highway. Eventually the road will stretch up to the summit, providing access to the top three coal seams that lie beneath Lost Mountain. But here, at mid-elevation, the work has gotten tougher. The dozers are no longer shoving aside topsoil; now they are struggling with boulders. They carve away as much of an opening as they can while the backhoes load the loosened rock onto haul trucks. When those huge beds are full, the trucks begin creeping up a makeshift path to a flat bench near the top of the mountain. I watch through binoculars as they back to the edge of the bench. Slowly, a hydraulic lift raises the bed, sending eighty-five tons of brown sandstone and gray slate spilling down the mountainside.

There is no better place to understand the semiotics of a strip mine than at Goose Pond, a five-acre “reclamation” area that sits in the middle of a massive mountaintop-removal project called the Starfire Mine, in Breathitt County. One might begin at the top, with the term “overburden.” What is burdened in this case is the coal seam down below; overburden is the oak-pine forest, the topsoil, and 200 feet of sandstone that stand between the coal operator and the coal seam. When miners dislodge the overburden, it becomes “spoil.” And according to the proposed rule change, the spoil that is dumped into the valleys below will not be “waste” but “fill.” Streams are not buried; rather, valleys are filled.

“Reclamation,” however, is the term that finally puts us squarely in the realm of Orwellian slipknots. Speaking plainly, to reclaim something is to get it back. The 1977 Surface Mining Control and Reclamation Act requires coal operators to restore the “approximate original contour” (AOC) of the land they have mined. According to the Kentucky Department of Natural Resources, “The condition of the land after the mining process must be equal to or better than pre-mining conditions.” Scanning the reclaimed portions of the Starfire mine site, I can see hundreds of acres of rolling savanna, planted with an exotic lespedeza, one of the few grasses that will survive in this shale. But in what sense does a savanna “approximate” a summit? In what sense is a grassland monoculture “equal to or better than” a mixed mesophytic forest? The reality is that
mountains pitched at a grade as steep as the Appalachians cannot be restored. Gravity and topography are working against you.

Perhaps sensing that the AOC stipulation would be a hard sell, lawmakers added this provision to SMCRA: coal operators could obtain an “AOC variance” if they could prove that the post-mined land would be put to “higher or better uses.” In the beginning that meant commercial or residential development. A few housing complexes and even a prison were built on these sites (when the prison watchtowers started to lean due to subsidence, locals dubbed the facility Sink Sink). But there weren’t nearly enough at a time. Down inside the pit sits an explosives truck. Its tank reads: THE POWER TO MOVE MOUNTAINS. Coal trucks rumble past on all sides of the pond. Highwalls frame the horizon. But none of that matters. A coal company has only to erect the flimsy trappings of a tourist stop and they have converted a wasteland into an area of “public use.” Why wouldn’t want to fish for trout in the shadow of a dragline?

Still, my favorite part of Goose Pond is a large sign that stands next to the observation deck. It is covered with pictures of pink lady’s slipper, large-leaved magnolia, ruffed grouse, painted trillium, spotted salamander, and a wood rat, and it reads, “These are some of the other wildlife and plant species you may encounter during your visit.” The word “other” adds a particular absurdity to what is already an outrageous lie. All of the species pictured are inhabitants of a deciduous forest, the likes of which this place won’t be able to sustain for thousands of years.

Coal operators are not an easily intimidated bunch. But there is probably no one in the state of Kentucky who rattles their cage like a forty-eight-year-old grandmother named Teri Blanton. A former chairperson of Kentuckians for the Commonwealth, the state’s largest social-justice organization, Blanton has spent the last two decades helping coalfield residents fight the corporations that have turned so much of eastern Kentucky into what she calls a toxic dump.

One can get a real education in environmental corruption and smash-mouth class warfare by tracking the last twenty years of Blanton’s life. She grew up in a small town called Dayhoit, in Harlan County, where four generations of her family had lived along White Star Hollow. It was the kind of community where neighbors shared their coal in the winter, and on a rare piece of flatland, one man, Millard Sutton, grew enough vegetables to feed nearly everyone in town. Families took turns helping out in his garden. Blanton moved to Michigan in the seventies to start a family, then moved back to Dayhoit in 1981 as a single mother of two. Her career as an activist started shortly afterward, when she phoned the highway department and asked for someone to clean up the large puddle of black water and coal sludge that stood in front of her developments clamoring to fill these barren flats with strip malls or apartment complexes. And it was much cheaper to plant grass on an abandoned mine site and call it a “pasture” or, better yet, a “wildlife habitat.”

That is what has happened at Goose Pond, where rock islands dot the still water and hard-scrabble trees cling to the cobble. Above the pond stands a small wooden observation deck, replete with two of those mounted viewing stations you find at Niagara Falls. Looking only through these binoculars, one might indeed be fooled into thinking that this was some kind of wildlife sanctuary. But back away two steps and you will see a behemoth blue crane sitting in a deep pit behind the pond, swinging its massive arm back and forth like the fin of a mechanical shark. Attached to the crane is a dragline that rakes a house-sized maw across the coal seam, scooping up 100 tons of rock...
quickly dispersed. At least that was the plan. Where winds were high. But White Star Hollow, Blanton began researching pump-and-treat systems, including carcinogens, into the air to be some of the VOCs and released the remaining elements. This catalytic oxidation unit filtered out contaminated groundwater, a pump-and-treat system was installed on the site of the abandoned plant. In my mind, I knew they were going to poison me and my kids all over again.

Blanton loaded her trailer onto a flatbed, took her children, and left White Star Hollow.

On a bright cold day in November, I drove with Blanton back to Dayhoit. We passed the trailer park that sat next to the McGraw Edison plant, as well as the field that used to be Millard Sutton's garden. Blanton pointed to the yellow house next to it. "Everyone in that house died of cancer," she said. And she said it more than once as we traveled up the hollow.

The road followed Ewing Creek, running brown from recent rains. And then, as we followed it farther upstream, the water turned orange.

"I grew up on this creek,"Blanton said, "grew up walking these mountains, and I watched them crumble before my eyes."

Blanton pointed for me to pull off at a rusting cattle gate, where a sign read: MOUNTAIN SPUR COAL COMPANY. We got out and climbed the gravel road that led to an abandoned strip mine. A nasty orange syrup called acid mine water was pouring out of a pipe that drained an open mine pit. The sulfuric acid collected in a small pond, then spilled over into the creek below. Blanton lit a cigarette.

"I grew up on this creek," she said. "I grew up walking these mountains, and I've watched them crumble before my eyes. It just makes me angrier and angrier knowing that these people can operate in such a manner and get away with it."

For years the Dean brothers, along with a third partner, Carl McAfee, have been playing an elaborate shell game that keeps them in business and free from any responsibility to the land or local landowners. It works like this: the three men own several companies that remain in good standing with state regulators. Then they set up smaller companies with names like Limousine Coal, Master Blend, and Mountain Spur. These operations lease equipment from the "good" company and operate in such a manner and get away with it."

In October 2002, Blanton tried to block a
permit from being issued to one of these shell companies, Shamrock Fuel. Before a hearing officer from the Office of Surface Mining, she laid out an extensive paper trail showing that at least one of the men, or his wife, was named as an “in-corporator” or an officer in every one of the companies that had abandoned reclamation and declared bankruptcy. But, curiously, the OSM ruled that it could find no clear link between the companies. And the fight to penalize violators of SMCRA was made even harder by a puzzling 1999 verdict in the U.S. Court of Appeals for the District of Columbia, In National Mining Association v. Department of the Interior, the court ruled that permits could not be denied to companies for violations at mines they no longer controlled. So all coal operators like the Deans have to do is declare bankruptcy, start a new company, and move on to the next permit.1

Across the creek from where we stood, I could see the home of Blanton’s childhood friend Debbie Williams. Before the mining started here, she spent $7,000 to have a new well dug. But as soon as the blasting began, her faucet was running as orange as the water now draining from this mine. The foundation of her house and her chimney have been cracked. But the Deans have not yet been forced to reimburse Williams, and it’s likely they won’t be. Just up the ridge, another one of their companies, Sandlick Coal, continues to strip away the trees and the coal.

Before leaving Dayhoit, Blanton and I stopped at the White Star Cemetery, which sits in a small clearing. Some of the headstones were so old I could barely distinguish them from the large rocks that had rolled down the mountainside. “Hey, this is pretty,” Blanton said. “I don’t think I’ve ever been up here on a day I wasn’t burying someone.” Many of the newer tombs were set aboveground in cement vaults. Blanton pulled back some plastic flowers beside one of her cousin’s markers. “She lived next to what we called the killer well,” Blanton said. “Everyone who lived around that well died.”

In the middle of the cemetery were buried two of Garnett Howard’s three sons, the two who were born after he started working at the McGraw Edison plant. “They both developed non-Hodgkin’s lymphoma before they were thirteen and died,” Blanton said. We stood in silence at the dates on the markers. “Almost nobody in Dayhoit lives past fifty-five,” she went on. “At the meetings the people from the EPA would accuse us of being too emotional. I told them, ‘Let all of your family members and friends die around you and see if you don’t get emotional.’” She knelt beside the grave of a high school friend. On the headstone was a depiction of a father and son standing beside a stream. “He was a real red-neck,” Blanton said, breaking into a smile. “I loved him.”

February 23, 2004, Lost Mountain

Forty years ago Lyndon Johnson came to eastern Kentucky, the poorest place in America, to declare his War on Poverty. His limousine maneuvered the pocked roads of Martin County, and, with Lady Bird at his side, the president stopped at some tar-papered shacks to assure a few families that he would bring them into his Great Society. At that time, Appalachia’s poverty rate stood at 31 percent. Since then, nearly 2,300 miles of roads have been laid across the region and more than 800,000 families have gotten indoor plumbing. And today eastern Kentucky’s poverty rate hovers around, well, 30 percent. If you look at a map of central Appalachia—in Kentucky, West Virginia, and Tennessee—the areas that the Appalachian Regional Commission deems “distressed” are almost without exception the ones that have seen the most strip mining.

Up on Lost Mountain, the ground is muddy and covered by a light snow. The dozers have erased almost all the logging roads, shoving aside topsoil and subsoil in search of the number 11 coal seam. Leslie Resources has now blocked off every dirt road leading up Lost Mountain with imposing iron gates. I don’t take it personally. Eastern Kentuckians are as attached to their ATVs as urban Kentuckians are to their SUVs, and while both do their respective share of environmental damage, it’s the former that Leslie is trying to keep off Lost Mountain. NO TRESPASSING signs hang on all the gates, but, since Leslie leases only the mineral rights to the property, I tell myself it has no jurisdiction to keep me off property it doesn’t own. I duck under one gate on the eastern side of the mountain and start walking. Chain saws have mowed down most of the trees on this slope, and they all lie where they fell. Only the dead trees have been left standing, and woodpeckers move back and forth between them as if they can’t believe their luck—nothing now stands between them and the carpenter ants that colonize diseased beech trees.

Higher up, where the hardwood trees still stand, I pass a sign tucked to one that reads: DANGER
BLASTING. Almost on cue a siren sounds to signal a coming blast. I am still too far from the site to actually see the explosion, but two minutes later, when the blast sounds out over the hollow, I feel a slight trembling beneath my boots. After a few more minutes, a yellow plume moves through the trees, carrying with it the sharp smell of sulfur.

I drop down the ridge side to a lower logging road that leads directly to the source of the smoke. I can hear the constant beeping of haul trucks inching back to the edge of the hollow fill. A few months ago, I could follow this gravel road up to the mountaintop. Now I find it blocked by a row of impregnable boulders. Peering over them, I can see only the top of a truck as it raises its bed and sends another load of rubble down into the valley. I can, however, tell that what used to be a ridgeline leading west is now nowhere in sight.

I circle back around the mountain and begin climbing through the younger trees and wild roses that still cover the northern slope. The last obstacles are the capstones that mark the summit. I shimmy into a narrow crevice of rock, find a foothold, and haul myself up. At the crest, doubled over and gasping, I still see in the dirt the same traces of wild turkey, grouse, and raccoons that I saw months ago. The mountaintop is still here, still as it was. These obdurate boulders attest to it. It's not until I reach the other side of this summit and look down that I see what has changed.

The lower ridgeline is nearly gone. What was, last month, a gradual slope leading westward is now, right below me, a fifty-foot vertical drop that gives way to dark pits and gray ledges.

You can think of this mountain, or any mountain in Appalachia, as a geological layer cake with four- to eight-foot seams of coal separated by much thicker bands of sandstone, slate, and shale. The seams are numbered in descending order: the one nearest the summit is the Hazard 12 seam, and about three hundred feet below lies Hazard 9. The narrator of Merle Travis's famous folk song "Sixteen Tons" begins his lament with,

I was born one mornin' when the sun didn't shine 
Picked up a shovel and I walked to the mine 
I hauled sixteen tons of number 9 coal 
And the straw-boss said, "Well, bless my soul."

That same number 9 coal seam lies beneath Lost Mountain, a few hundred feet below the summit, but no deep miners are trying to dig it out. Why bother? Why send hundreds of miners burrowing underground when a few men armed with explosives and bulldozers can blast right down to the seam? And whereas in the forties it took one miner all day to load sixteen tons of coal out of a deep mine, today one man behind the wheel of a loader can in five minutes fill a coal truck with sixty tons of this bituminous rock. What makes strip mining so cost-efficient is precisely what makes it so devastating.

Here on Lost Mountain, the crew goes straight for the highest three seams, where there is less earth to move and a more ready supply of coal.

The dozers have pushed much of the vegetation and topsoil to the edge of this man-made plateau, called an area mine. The twisted trees and mounded dirt form a berm around the darker crater. Young maples and hickories stubbornly hold on at the edge of the mining, where so much of the topsoil has been upturned and compacted. What compounds the problems of mountaintop removal is that when the bedrock is disturbed, it increases in volume by 20 percent; that additional matter is called "swell" and will eventually be dumped down into the valley below.

Staying out of sight, I loop down to the edge of the mining and duck behind three toppled pine trees. From here the whole scene is in front of me. At the far edge of the mine site, a white "powder tower" now stands, filled with explosive material. In front of it, dozers have shaved down to the number 10 seam. A loader scrapes the coal
into mounds, then shovels them into the first coal trucks to climb Lost Mountain. Those trucks will take their loads five miles up highway 80 to Leslie Resource's coal tipple, which sits beside the north fork of the Kentucky River. There the coal will be processed and loaded onto railcars or barges.

The whistle blows at 4:30—quitting time. The workers grab their lunch coolers and jump down from the dozers, trucks, and loaders. I retrace my path down the backside of the mountain. My face and arms bear the scars of blackberry gauntlets, and my water bottle is empty. My thoughts have turned from the ravages of strip mining to the shelves of cold beer at the BP station down below. I am not looking ahead, not looking at anything really, when the huge silver maw of a bulldozer comes lunging over the ridge about twenty feet in front of me. The driver doesn't see me; he is cocked at too steep an angle. I leap back over several fallen trees and take cover. Whatever else bulldozers do, they do not move fast. This one backs down the hill, coughs another cloud of black smoke into the air, then lurches back into view, shoving topsoil to the side. The driver pauses each time to get his bearings, and each time I get another look at the huge, serrated blade. For the first time, I understand completely why Harry Caudill, author of Night Comes to the Cumberlands, described it as a "monstrous scimitar."

Once the driver has cleared a space to work, he sets about the real task—knocking down trees. I'm startled to see how easily a twenty-year-old maple succumbs to the dozer's blade. The dozer is graceless and resolute. Each time the driver backs down the hill to take a run at another tree, I scramble about fifty yards farther away. When I am finally far enough down the mountain to escape the driver's notice, I take a seat on a stump. It is almost dusk, and the mountain has darkened to a silhouette. I can no longer see the dozer. But from the stump, I watch as one tree after another falls against the violet light of the setting sun.

After the draft Environmental Impact Statement on mountaintop removal was released in 2003, several forums were held in Kentucky and West Virginia to allow for public comment on the study. This struck me as a rather cynical formality, but I drove down to the hearing at the Hal Rogers Center in Hazard, Kentucky, to hear what coalfield citizens had to say. There were about 150 people in the auditorium, mostly men. They wore Carhartt jackets and work boots; some still had on their hard hats. Up on stage the drafters of the EIS document sat at a long table. All the heavy hitters were there—the Environmental Protection Agency, the Army Corps of Engineers, the Department of the Interior's Office of Surface Mining, the Fish & Wildlife Service. They sat attentive, with pens poised, ready to take the public pulse.

Anyone who wished would have five minutes to speak his or her piece. The first speaker, Bill Caylor, president of the Kentucky Coal Association, began by complaining for thirty seconds that he had prepared a twelve-minute speech and why couldn't somebody do something about the time limit. Then Caylor, a man with thick white hair and a neat white mustache, asked for a show of hands of those who had come to support strip mining. If anyone besides me didn't raise a hand, it was hard to tell. Having sized up his audience, Caylor launched into a barrage of statistics: 120 million tons of coal were mined in Kentucky last year, placing the state third in extraction behind West Virginia and Wyoming; that coal fetches $3 billion annually; 80 percent of Kentucky coal is sold out of state; in the last fifteen years, coal-related employment has dropped 61 percent; at 4.1 cents per kilowatt hour, Kentucky coal is the cheapest energy source around.

"We're like the Saudi Arabia of America," Caylor announced, meaning, I think, that Appalachia...
has a lot of fossil fuel, and not that the region's poor have been greatly oppressed by a wealthy minority that controls the fuel.

Still, I puzzled over his fact sheet. Coal jobs have dropped 61 percent precisely because strip mining requires far fewer men to operate much larger machinery. It seemed hardly an argument for decreasing regulation on mountaintop removal. And in what sense was it a good thing that 80 percent of Kentucky's coal is sold out of state? Why should Dayton and Detroit—or China, for that matter—get the coal but be held accountable for none of the environmental consequences of its extraction? And if everyone is doing so well, why is eastern Kentucky the nation's capital for Oxycontin abuse?

Caylor was followed by a long line of miners and mining engineers. One man read an exhaustive list of every Hazard business that had been built on flattened land. The crowd was generous with its applause. Several speakers drew attention to the deer, elk, and turkey that had returned to the region after mountaintop removal began. The wife of a miner pleaded for her husband's job, then asked, "What use are the mountains to us other than coal?"

Then up stepped a gray-haired man in a blue suit and a flamboyant purple tie. He said his name was Paul David Taulbee. His grandfather had helped log the mountains back in 1912, and had then worked as a deep miner from 1915 to 1952. His father worked in the mines for twenty-eight years. I suspect there were country preachers in the family as well, because it quickly became clear that Taulbee had come to deliver a sermon. He wasn't talking to the men and women up on stage; he was addressing the congregation.

He was tired—sick and tired—of outsiders coming into eastern Kentucky and telling its people what they should do. He hinted at a conspiracy afoot by the rest of the state to keep eastern Kentucky poor. He wanted the federal government and the Army Corps of Engineers and the Environmental Protection Agency to leave this region and its people alone to mine as they saw fit. "We want to be unbound and left alone so we can develop to the fullest extent," he stormed, one finger held high. Were that to happen, all of those native people who had followed the outward migration north for better jobs would come back home. Eastern Kentucky would finally thrive. Because, Taulbee intoned, what the outsiders should never forget is this: "The only way to stay in the mountains is to mine the mountains!" A standing ovation followed. The moderator called for a short break. Everyone went out to smoke.

It was gray and drizzling. I started up my fossil-fuel-burning truck and headed home. I replayed the hearing in my head. It's true that the contour mining of the seventies cut out shelves in these mountains and made room for the chain stores that followed an expanded highway. But anyone who has ever looked down on the strip jobs from a plane knows there is enough flatland in eastern Kentucky to plop down 10,000 Wal-Marts. And most of that land is completely inaccessible. As for the return of game animals, deer populations have risen all over the eastern United States, not just around abandoned mines. The elk that do graze around the edges of reclaimed sites were reintroduced a few years ago from western states. Strip mining had nothing to do with it.

As for Paul David Taulbee, I could tell him that surface mining accounts for only 5,000 jobs in all thirty counties of eastern Kentucky, averaging out to 167 jobs per county. I could tell him that the old deep-mining jobs aren't coming back, and the people who left for Cincinnati and Cleveland might not want to either, especially if they were coming back to wasted mountains and dead streams. I could tell him that if coal hadn't brought prosperity to the mountains in the last ninety years, it probably isn't likely to do so.

But Taulbee isn't going to listen to me. I'm an outsider, as he had said, the worst kind of elitist, who thinks a mountain is more important than someone's job. The miner's wife had asked, "When are you going to start thinking about us instead of the environment?" But perhaps the harder question is this: When in Appalachia are we going to start thinking about both at once?

The people who left for Cincinnati and Cleveland might not want to return to wasted mountains and dead streams

March 29, 2004, Lost Mountain

It's eighty degrees and sunny. I'm driving fast alongside Lost Creek, with the windows down and Neil Young wailing on an old cassette. Redbud and white dogwood are blooming along the steep slopes and up pristine gorges. Down below, junked cars and hot-water heaters are rusting on some grassless patches of land in front of sagging trailers. What is remarkable about the ugliness of Appalachian poverty is its closeness and contrast to the spectacular mountains rising around it.

If the day were not so nice, I might be chastened by the number of wooden crosses, each of which marks a spot where someone met a violent death. Take one of the poorest parts of the country, add to it alcohol and pills, hard curves and coal trucks, and what you get are a lot of little white crosses staggered along the roadside.
I set my parking break at the usual spot below Lost Mountain and hike to the top. On the bench right below me, a white truck carrying a large tank pulls into view. To get a better look, I shuffle about thirty feet down the ridge side and wedge myself between two boulders that I hope will provide decent cover when the blasting starts. "Fly-rock" is the rather benign term for everything that scatters when the explosives are detonated. Regulators from the state Department of Natural Resources tell me they have cracked down on blasting violations in the last few years. People were getting hurt, chimneys and house foundations were cracking, dishes were shattering. I heard about an older couple in Knox County who were sitting beside their small pool one afternoon when a boulder came flying at them from a strip job behind their house. It landed in the pool and cracked the concrete bottom. This year eight off-site fly-rock violations were reported in Kentucky; in one case, children were playing in their pool when debris started falling around them.

Down below, the driver of a blast-hole drill is slowly working his way around the perimeter of this bench, boring a sixty-foot-deep hole about every ten feet. With a long, vertical drill carriage attached to the chassis, the machine moves with the slow unsteadiness of a man carrying a long ladder. I can hear a low grinding sound as the hydraulic motor builds torque and the long drill bit tears away at the sandstone. Abruptly, I stumble into a clearing, an artificial shelf carved out by a bulldozer. An up-rooted maple puts out, for the last time, its long scarlet stamens. Other trees lean away, half unearthed. Above me rises a thirty-foot mound of debris. Loosened by blasting, then pushed aside, this rock-and-shale mound forms a rim around the entire mine site. I climb up over the boulders and buried tree limbs until I am crouching at the edge of this cratered landscape. It looks from here as if a meteor has hit this side of the mountain.

I climb up over the boulders and buried tree limbs; it looks from here as if a meteor has hit this side of the mountain of the tank now swings to the side, where one of the men holds a narrow plastic bag up to the mouthpiece. A brownish substance fills the bag with a concoction known in the coal industry as AMFO. The acronym stands for ammonium nitrate and fuel oil. Timothy McVeigh detonated 4,000 pounds of it in Oklahoma City. The typical blast on a Kentucky strip mine is ten times that.

AMFO is too volatile to transport, so the ammonium is mixed with diesel fuel at the mine site. The two men drop the mixture down into one of the blast holes, then repeat the process around the edge of the bench. Finally, they pack blasting caps—detonators—into each hole and string them together with a long orange fuse. As their truck and the rock drill pull away from the bench, the warning siren sounds. Each permitted mining operation must follow something called the scaled distance equation, which calculates the amount of explosives that can be used relative to the nearest residential or commercial structure. Regulators make quarterly inspections of the mine sites and use seismographs to measure each blast. But the problem, coalfield residents will tell you, is that all of the inspections are announced, which makes it rather easy for a coal company to exceed the blasting limits as soon as the inspectors are gone.

When this particular blast finally goes off, it looks something like a Las Vegas fountain suddenly coming to life. Except it is spewing rock instead of water. All at once white plumes of debris shoot out of every hole, and then seem to hang for a moment at about thirty feet. Two seconds after the blast, the entire outer ledge falls away, as if it had been shaken by an earthquake, which of course it has. I duck and cover as smaller debris scatters in my direction. An acrid yellow smoke hangs in the air, and a fine gray powder settles over this section of the mine site. Slowly, the haul trucks and front-end loader move in to truck away all of the loosened rock. From this perspective it is easy to understand why Teri Blanton calls mountaintopping "bomb and bury." "Removal" is certainly too clinical, too surgical, a term. All of this rubble will be dumped down into the valley fill, and this same process will be repeated thousands of times across the mine site.

I climb back up to the crest, then drop down the backside of Lost Mountain. Here the ridgeline forms another large bowl, and all sides bear the crisscrossed scars of bulldozers that have leveled most of the trees. My T-shirt snaps on the branches of young black locust trees. I pull myself up over a series of bald escarpments, where the sun has cast an almost lavender color over the sandstone. Abruptly, I stumble into a clearing, an artificial shelf carved out by a bulldozer. An up-rooted maple puts out, for the last time, its long scarlet stamens. Other trees lean away, half unearthed. Above me rises a thirty-foot mound of debris. Loosened by blasting, then pushed aside, this rock-and-shale mound forms a rim around the entire mine site. I climb up over the boulders and buried tree limbs until I am crouching at the edge of this cratered landscape. It looks from here as if a meteor has hit this side of the mountain.

I first met Damon Morgan at one of the public hearings in Hazard. Both sides were sounding off about the Bush Administration's proposal to allow mining within 100 feet of streams, a practice prohibited by the SMCRA. Several engineers from TECO Energy had been extolling the job growth that coal brought to the region. Then Morgan stepped to the podium, wearing denim overalls, a red flannel shirt, and a white straw cowboy hat. He looked to be in his
seventies. “These people who talk about coal bringing jobs,” he began, “why you wouldn’t have no problem at all selling them a sky hook.” I wasn’t sure what a sky hook was, but I was pretty sure this was the genuine article—a self-made, free-thinking mountaineer, stepping right out of the past.

The engineers from TECO also had claimed that many headwater streams were actually dirtier before mining, when local people dumped their garbage in the hollows. To that Morgan replied, “You’re right, they’re not as dirty now. Because they’re not there.” He said the stream that ran beside his family’s cabin is now buried under sixty feet of what used to be a mountaintop called Huckleberry Ridge. And all around him, Leslie Resources continues leveling mountains and burying streams. After the hearing, I asked if I could come down to take a look.

Sure enough, when I reached Morgan’s modest log cabin that April morning, he and his wife were sitting on their porch, listening to the incessant beeping of haul trucks creeping along the ridgetops all around them.

Morgan was drafted right out of high school and sent to Okinawa and Iwo Jima. “When I was in the service, I thought a lot about this land,” he says, “how I used to hunt on it as a kid, and how I used to come up here and sing. I decided to save up my money and buy this place when I got back.” And he did. He payed $1,000 for 100 acres, which today is the only stretch along Bad Creek that hasn’t been strip-mined.

We climbed on Morgan’s ATV and followed gravel switchbacks up the mountain. Morgan pointed out a rare white chestnut tree. Down this ridge side, he has set out a row of chestnut saplings, which he imported from Virginia and hopes will survive the blight that wiped out the native chestnuts in the forties. Back then, as the oldest of twelve children, Morgan worked with his father on the family’s scratch farm. “We’d take a hillside like this and grub it up and plant corn and beans,” he said. “That’s the way we made a living. We had forty or fifty head of hogs, and we turned them back up in here.” Many other families did the same. The hogs would feast all summer on beechnuts.

It was a marginal economy even for marginal land, but it sustained a family of fourteen. Soon, though, the railroads that had been laid alongside the Cumberland and Kentucky rivers would signal the end of such sustenance living. An extractive economy had arrived. Once the major timber barons were through, there were no beech trees left and no beechnuts for the hogs.

Morgan cranked up the ATV and we ventured higher. He pointed to an outcrop hidden by taller trees. “The man I bought this land from,” Morgan shouted over the 18-horsepower engine, “that’s where he set his still. His wife had a bell down at the house and she’d ring it if any revenuers came around.” We rode across the ridgeline that marked the boundary of Morgan’s property. Everything from there down to his cabin belonged to him; everything over the ridge—at least the mineral rights—to one coal company or another.

We rode past the last stands of chestnut oak and mountain laurel. Then we made a hard right and suddenly were driving across the savanna landscape so typical of a post-reclamation mountaintop-removal job. Brown lespedezas waved like prairie grass. “This was reclaimed over thirty years ago,” Morgan said, but it had only a few pines and scattered black locusts to show for it. When we reached the edge of this shelf, Morgan shut off the vehicle. Across the valley was another scene I was becoming used to. The same company that was mining Lost Mountain had reduced one more forested watershed to another dark wasteland.

“That used to be a big beautiful mountain,” Morgan said. “Now look at it.”
A black butte rose up from a series of staggered black plateaus that stretched out against the horizon. Narrow rivulets caused by erosion ran down the sides of the benches. The characteristic gray haul roads wound through it all. The ugly panorama dwarfed the line of dozers that sat below the nearest bench. And the only thing that was keeping those dozers off Morgan's property was a piece of legislation he had spent twenty years fighting to enact.

In the 1880s and '90s, a native Kentucky schoolteacher named John C.C. Mayo began riding through the eastern counties on horseback, offering gold dollars to farmers who would sell him their mineral rights. Since the farmers made their living off the surface of the land, selling what was underneath seemed like a good idea. Many signed a contract called the "broad form deed," so named because it gave the deed holders broad rights to extract the coal by any means they desired. The farmers obviously imagined that miners would tunnel under their land using picks and shovels, then haul the coal out with ponies. At the turn of the century, no one who sold their mineral rights could have imagined the industrial evolution that would lead to strip mining.

Mayo bought up thousands of mineral parcels, which he then sold or leased to coal companies. The companies themselves soon got into the game of buying mineral rights under the broad form deed. Near the turn of the century, Kentucky River Land and Coal Co. paid as little as a quarter an acre for the coal under Morgan's property.

And when he bought these 100 acres back in the forties, the company still had every right to strip off every pound of topsoil to claim its coal.

This happened all over eastern Kentucky. Men who had learned to drive tanks during World War II had no problem climbing onto D-9 bulldozers and cutting benches along the side of a mountain. Then in 1961 the Tennessee Valley Authority, a major provider of hydroelectric power, decided to get into the coal business. The TVA signed contracts to buy 16.5 million tons of strip-mined coal.

Under the broad form deed, the mining was ruthless and the landowners were powerless. Mrs. Bige Ritchie, who lived on Sassafras Creek, watched a bulldozer plow through a family graveyard. It upended the coffin of her infant son and pushed it down the mountainside. "I like to lost my mind over it," she told Ben A. Franklin of the New York Times.

The conflict finally came to a head in 1965, when landowners took up their rifles and refused to let the bulldozers destroy their property. Citizen groups started forming to fight the broad form deed. Damon Morgan joined just about all of them and served as chairman of the Citizens Coal Council. Finally, in 1988, Kentuckians voted for a state constitutional amendment that required coal operators to get a landowner's permission before mining. That law saved Morgan's home and land, but he still has to look out every day at the thousands of acres that have been destroyed all around him.

"I belong to a lot of peaceful organizations," he said as we stared down at the lifeless mine site. "We believe in dialogue. Well, I believe in dialogue, too. But sometimes ... " His voice trailed off. "We're fighting terrorism right now," he said, and he wasn't talking about Islamic militants. "If people are going to poison you to death, I think we should do whatever is necessary to put a stop to it. The state and federal government won't do nothing. I don't want to say take the law into your own hands. That's a big step. But ... I don't know."

Morgan turned around in his seat to take in an as-yet-uncathed range just to the left of the strip mine. Color was coming back to the red maples. Cherry and serviceberry trees were blooming. "See how that holler zigzags in and out of those mountains," he said. "That's where Main
Creek runs down into Greasy Creek. Sometimes I think I'll just take my gun and my dog, go walking down through there, and just keep going." For several moments, we watched his other, imaginary self disappear down into the valley, beyond the strip job, back into the past.

April 12, 2004, Lost Mountain

Franz Kafka's short story “Before the Law” begins like this: “Before the Law stands a doorkeeper. To this doorkeeper there comes a man from the country and prays for admittance to the Law. But the doorkeeper says that he cannot grant admittance at the moment.” And behind this doorkeeper are many others, all guarding the Law. “These are difficulties the man from the country has not expected,” writes Kafka; “the Law, he thinks, should surely be accessible at all times and to everyone.” The man waits for days, which turn into years. At times he tries to bribe the doorkeeper, who accepts the money with this fateful remark: “I am only taking it to keep you from thinking you have omitted anything.” In the end the man dies, and with finality the doorkeeper shuts the door.

Now, “Kafkaesque” is not a term I throw around lightly. But if you go to enough public hearings on surface-mining legislation, it soon becomes clear that what you are watching is a drama of grand futility straight out of Kafka’s parables. And the actors know it. The officials from the Office of Surface Mining sit stoically, almost indifferently, at a table in the center of the stage. One after another coalfield citizens step to the podium to have their say about the effects of weakening regulations on strip mining, and one after another they announce to anyone naive enough to believe in participatory democracy that this is all a done deal anyway. Yet still they put themselves through this compulsory charade. The stenographer who sits at the side of the stage, taking it all down, is himself a character Kafka would have particularly loved—the man endlessly writing a report that no one will ever read.

Yet perhaps the most pitiful part of Kafka’s allegory is the bribe that the man from the country offers the doorkeeper. Compared with the huge sums of money that corporations are allowed to give politicians, this one man’s bribe is laughable. Over the last four years, the coal industry has contributed $8.5 million to Republicans; only 11 percent of its contributions have gone to Democrats. And over the last four years, the percentage of polluted waterways in Kentucky alone has risen by 12 percent; almost half of the state’s streams are unfishable and unswimmable. What is the connection? Consider the case of Steven Griles.

It has been well documented that Griles worked as a lobbyist for the coal and oil industries before he was tapped to be George W. Bush’s Deputy Secretary of the Interior. During each year of his term at Interior, Griles has received a $284,000 deferred-compensation package from his former employer, National Environmental Strategies (NES). The Washington Post reported that Griles met at least three times with the National Mining Association (NMA), a former client of NES, while NMA was seeking looser standards on mountaintop removal. Which is exactly what NMA got. Since the 1977 Surface Mining Control and Reclamation Act states in rather plain language that mining permits can be granted only if “no damage will be done to natural watercourses,” the Department of the Interior under Griles proposed in January 2004 a rule “clarifying [my italics] the circumstances in which mining activities … may be allowed within 100 feet of a perennial or intermittent stream.” The “clarification” requires that “the mining operation has been designed, to the extent possible, to minimize impacts on hydrology, fish and wildlife … prior to allowing mining within 100 feet of a perennial or intermittent stream.” It’s the phrase “to the extent possible” and the word “prior” that could render the protection of SMCRA unenforceable.

With all this in mind, I decided it might be a good time to look for the headwaters of Lost Creek. I pull off the road beside a small house that sits closest to the mining on Lost Mountain. Chickens strut around a neat back yard, and behind the chickens I can hear the low voice of Lost Creek. I follow it up a narrow gorge, stepping over cobble and fallen tree limbs. Two days of rain have brought the stream to life. Chickweed and rue anemone bloom modestly along the creek side. Bent trillium is about to spread its maroon petals.

Halfway up the gorge, the trickling stream emerges beneath a large beech tree surrounded by rhododendron. I take a seat on a fallen branch to contemplate Lost Creek’s modest beginning. There is something intrinsically rewarding about finding the source of any stream. What is not as rewarding is to hear machinery rumbling above its source. I climb up the creek bed until I can see a backhoe prying loose boulders and subsoil up at the head of the hollow. It is working in tandem with a dozer, slowly extending a bench along the back side of the mountain. The backhoe chips away at the rockface with its long mechanical arm, and the dozer pushes the debris aside. According to the
mining maps for this job, none of the spoil is supposed to be deposited in this creek bed. But this month, under the Freedom of Information Act, I elicited fourteen single-spaced pages of violations by Leslie Resources. Since 1985, Leslie has racked up over 500 citations. Forty-seven of those violations pertain to water quality, and twenty-four are for illegal use of explosives. Leslie Resources, these documents show, is particularly lax about keeping sediment out of streams.2

To avoid the dozer and backhoe, I cut a wide tack around the back side of the mountain. Near the ridgetop, ground pine has begun to poke its bright green fronds up through matted leaves. This coniferous-looking fern tops out at seven inches, but its distant ancestor, Lepidodendron, grew to 150 feet as it breathed in vast amounts of carbon. That was more than 300 million years ago. These trees that looked like giant ferns often fell into oxygen-poor bogs, and so they never decayed. Instead, molten heat and geological pressure hardened them into compressed layers of the black, carbon-rich rock that is disappearing fast from the other side of this ridge.

When I reach the mountaintop, I discover how fast. The dirt road that led along the eastern ridge of Lost Mountain is gone, and so is the eastern ridge. What was once an arching razorback is now a sunken crater. An explosion goes off inside the deep pit, but I see only the tops of the gray blast plumes. The source of Lost Creek lies right below this pit, just over the ridge. What this blasting will do to the groundwater might not be fully understood for several years. What is known is that when underground pyrite is oxidized through blasting, it releases sulfuric acid. And it is almost certain that the blasting on Lost Mountain will create underground fissures through which mine acid will drain down into seeps that will leach out into this watershed.

The erosion caused by surface runoff also causes problems that can best be measured by driving about fifteen miles to the Falling Rock watershed in Robinson Forest. That watershed feeds one of the cleanest streams in Kentucky, Clemons Fork. Its level of conductivity—that is, dissolved ions—is usually between 50 and 60. Its chlorides, magnesium, and sodium levels are all less than two milligrams per liter of water. But one has only to go a half-mile downstream to the confluence of Clemons Fork and Buckhorn Creek, which sits directly below a strip mine, to find that the conductivity has risen to 1,000, the magnesium and calcium to 25, and the sulfates from less than 10 to 300. Whereas Clemons Fork can sustain roughly 100 species, water conditions at Buckhorn Creek have been so severely degraded that at most 10 species can survive.

May 6, 2004, Lost Mountain

The photos of American torture at Abu Ghraib surfaced this week. I have often felt despondent about decisions that American presidents have made in my name, but this is the first time I have felt truly embarrassed to be an American. I am looking forward to seeing Lost Creek; I am remembering my favorite line from Thoreau: "He who hears the rippling of rivers in these degenerate days will not utterly despair." And when I pull off the main road north of Hazard, the creek is running clear and strong beneath the mixed mesophytic forest, now in full leaf. Families have set out their creekside gardens. Neat rows of early greens are almost a foot high.

I park my truck on the east side of the mountain and start up toward the headwaters of the creek. Canopy leaves have now closed over this gorge, turning the air cool and moist. They have also muffled the sound of the large machines over the next ridge. As I step deliberately over the slick stones, an unannounced explosion makes the entire ridge side tremble. But it is the mental shock more than the physical tremor that knocks me off balance, and I fall against a patch of ferns. I right myself and start climbing up the left bank, toward a clearing that affords a profile of the mining. From that vantage point, at about 1,000 feet, the mountain looks like a hideous wedding cake, a series of black and gray ledges that lead up to the summit, now only a rocky knob. There, an abandoned cinder-block shack still stands like some ominous cake decoration, covered in graffiti that bears this promising sentiment: MIKE LOVES ME BITCH.

I drop down into the watershed, where all of the leaves are covered with the chalky gray residue of blasting, then I follow my usual climb up the back side of Lost Mountain. Near the peak chestnut oaks dominate the canopy. Sassafrases and redbuds fill in the understory, where a cool breeze is moving. I step around foamflowers and bright red catchflies, so called because their sticky stem slows down insects to guarantee a fair exchange of nectar for pollen.

Although this side of the forest is quiet, I notice a silent ovenbird eyeing me from a low stump about thirty feet away. He has a handsome brown head, similar to a wood thrush's, but his white

2 Leslie Resources has since been bought by International Coal Group, which did not respond to requests for comment on this article.
breast is streaked with black instead of spotted like the thrush. This neotropical migrant has probably just returned to its breeding ground. The males reach the eastern forests about two weeks before the females to establish territory. He is usually an ardent suitor, his habits made famous by Robert Frost's poem "The Oven Bird":

There is a singer everyone has heard:
Loud, a mid-summer and mid-wood bird,
Who makes the solid tree trunks sound again.

Biologists speak of "indicator species," those that can tell us something important about an ecosystem. In Frost's poem the ovenbird is indicative of lateness—lateness of season and lateness of the human industrial age.

He says the early petal-fall is past,
When pear and cherry bloom went down in showers
On sunny days a moment overcast;
And comes that other fall we name the fall.
He says the highway dust is over all.

Frost slyly suggests that "that other fall" is both the natural season of dying and the human separation from a prelapsarian state of nature. And then the machine suddenly enters the garden, kicking up dust—in this particular case, the dust from coal trucks and AMFO blasts. Finally, Frost's ovenbird becomes an indicator in a final sense:

The bird would cease and be as other birds
But that he knows in singing not to sing.
The question that he frames in all but words
Is what to make of a diminished thing.

The ovenbird's song is a eulogy. In singing he knows there is less and less worth singing about. And so he poses the crucial question: *What to make of a diminished thing?* The answer, of course, lies just over this ridge.

From the summit, I ease down the southern slope around boulders and a stand of wild azaleas covered with nodding orange blooms. I take up a position behind the largest chestnut oak still standing on this side of the mountain. Two feet beyond it, a highwall drops about seventy feet straight down to the number 11 coal seam, which is now a flat black plateau, stretching out like a tarmac. At the EIS hearing, one man had stepped to the microphone and asked, "What are these mountains good for? They're all up and down." He would be pleased with what has transpired here on Lost Mountain, where a pilot could easily land a small prop plane on the wide level shelf below. As it is, two front-end loaders are filling the bucket of a coal truck from both sides. When they are finished, a long mechanical arm pulls a red, white, and blue tarp up over the coal. The truck pulls away and another takes its place. Since I started coming to Lost Mountain, the price of coal per ton has jumped from $34 to $55—coal prices usually follow oil prices—and the pace of its extraction has quickened.

One of the permit maps drawn up for this particular job shows the "pre-mining" contour of the mountain as a dotted line—something almost hypothetical, arbitrary. The "post-mining" contour is designated by two dark lines, flat as a dead man's EKG. When I first looked at that map, it seemed impossible. More than 200 feet lay between the dotted outline of the mountaintop and the flat line that indicated a reclaimed "pasture." Didn't the engineers know this was solid rock up here? Didn't they know this ridgeline had been standing longer than the Himalayas? Now, of course, I see they knew that perfectly well, and they knew exactly what they were doing. I had made the mistake of thinking in geological time. But as Rachel Carson wrote in *Silent Spring*, "In the modern world there is no time." It has been annihilated by explosives and fossil fuel and hydraulic rock drills.

The pit that had been blasted out of the eastern ridge last month is now a gigantic black gash that opens like a canyon onto the southern side.
of the mountain. Around on the western side all that’s left is a pocked, deracinated landscape, strewn with boulders and absent of anything that could be mistaken for life. Off in the distance, I count nine pickup trucks. Nine men—that is all it takes to bring this mountain low.

When the 4:30 whistle blows and those pickups have disappeared down the mountain, I circle around to the nearest bench. From here, the highwall reaches forty feet up to the summit, where a clutch of pine trees hangs over the precipice. I climb over the rubble down on the western side, then follow the lower, longer highwall that sits above the number 10 seam. Because this landscape shifts so quickly beneath

the force of the explosives and dozers, a sense of vertigo sets in as I wander around these unnatural formations. Where last month I walked a ridgeline, this month, in exactly the same place, I’m standing on a black plateau, and it’s hard to even remember what the original contour looked like. I know it was here, I know there were a few trees left. Now there’s nothing. Everything that once stood here now lies a hundred feet away, down in the massive hollow fill. I stretch out my arms and slowly turn full circle. My throat tightens and my breath becomes suddenly short. I cannot see one living thing.

In October 2000 the largest environmental disaster east of the Mississippi occurred when a coal slurry impoundment pond broke through an underground mine shaft and spilled more than 300 million gallons of black toxic sludge into the headwaters of Coldwater and Wolf Creek in Inez, Kentucky—in the same county where Lyndon Johnson stood on a miner’s porch and first announced his War on Poverty. When coal is cleaned, the resulting by-product is a gelatinous mixture called coal slurry. That is what flooded through Inez—black waves that moved with the speed and the consistency of volcanic lava, smothering everything in its path. Yards and gardens were buried; bridges were swept away. Basketball hoops looked like buoys in a black ocean. The only thing people on Coldwater Creek had to be thankful for was their lives. Unlike the 1972 Buffalo Creek pond break that killed 125 people, no one died that day in Martin County. But although the slurry spill was thirty times the size of the Exxon-Valdez disaster, the New York Times made no mention of it. One Martin County resident finally concluded, “We’re just not quite as cute as those otters.” In other words, the Prince William Sound was a pristine estuary; but the Appalachian mountains and its people were already damaged goods.

In 1972 a West Virginia governor’s commission asked a twenty-three-year-old mining engineer named Jack Spadaro to investigate the Buffalo Creek disaster. That experience, along with Spadaro’s feeling that the Buffalo Creek break could have been avoided, led him to spend the next thirty years studying impoundment dams, and in 1996 he joined the U.S. Mine Health and Safety Administration (MSHA) to ensure better regulation of existing slurry ponds and dams.

Two days after the Martin County spill, Spadaro was named the number-two man on a team sent to investigate the causes of the pond break. What the team found was disturbing. After a 1994 spill from that same impoundment pond had released 100 million gallons of slurry, an MSHA engineer made nine recommendations that needed to be addressed before the impoundment pond was used again. Martin County Coal Corporation, which was responsible for the pond break, followed none of the recommendations. Then Scott Ballard, a mining engineer who had worked as a consultant for Martin County Coal, reported to MSHA that after his own investigation of the pond following the 1994 spill, Martin County Coal had only 15 feet of material instead of the required 100 between the pond and the mine.
"It was never intended to prevent a breakthrough in any form or fashion," Ballard told MSHA. "In fact, the question was asked during the review process: Will this prevent it? And the answer was emphatically, 'No.' There's no guarantees. There's nothing here that will prevent a breakthrough."

Who asked that question? Spadaro found that at least five Martin County Coal executives were aware of Ballard's findings, and the risk of another slurry flood, but did nothing. By the end of 2000, Spadaro and the other investigators thought they had collected enough evidence to charge Massey Energy of Richmond, Virginia, the parent company of Martin County Coal, with willful and criminal negligence.

And then George W. Bush was elected to his first term as president.

It is no secret, and no surprise, that Bush, along with Kentucky Senator Mitch McConnell, received millions of dollars in campaign contributions from the coal industry. Massey Energy alone donated $100,000 to a Republican Senate campaign committee headed by McConnell. I mention the Kentucky senator because, aside from being the Senate's lead opponent of campaign finance reform, he is also the husband of Labor Secretary Elaine Chao—to whom MSHA answers.

Within days of Bush's inauguration, a new team leader, Tim Thompson, was named to the Martin County investigation. Thompson told Spadaro and the other investigators to wrap up their work immediately. The investigators wanted to cite Martin County Coal for eight violations, including willful negligence. Thompson and Dave Lauriski, MSHA's new assistant secretary, whittled that down to two menial charges. Spadaro refused to sign the report and resigned from the investigation team.

On June 4, 2003, Spadaro was placed on administrative leave. That day he was called to Washington, D.C, supposedly on MSHA business. While he was gone, federal officials searched his Beckley, West Virginia, office and changed the locks. As justification, Dave Lauriski and John Caylor, the agency's deputy assistant secretary, scraped together bogus charges that Spadaro had abused his authority while superintendent of the Mine Health Safety Academy.

MSHA's retaliatory treatment of Spadaro along with Scott Ballard's testimony about Martin County Coal's negligence after the 1994 pond break suggest a clear attempt on the part of someone in the Bush Administration to protect Massey Energy from criminal prosecution, at the expense of hundreds of people who live below that impoundment pond in Inez, Kentucky. It's a neat pattern of corruption. Everyone has everyone else's back, and the one whistle-blower who tried to speak out for the public's interest is left spinning in the wind.

In October, Jack Spadaro left MSHA quietly rather than accept a demotion and a transfer far from his home in Hamlin, West Virginia. When I talked to him earlier in the year, he joked that as a regulator in the Bush Administration, "the most dangerous thing you can do is do your job." He also told me he believed flash floods, mudslides, and rockslides caused by valley fills were as potentially dangerous as impoundment ponds. In August 2004 a boulder rolled down off a strip mine in Inman, Virginia, just across the Kentucky border, and crushed to death a sleeping three-year-old, Jeremy Davidson.

September 26, 2004, Lost Mountain

I t was one year ago this month that I first came to Lost Mountain. When I look back at the pictures I took then, I see dense stands of trees and rolling ridgetops painted orange and yellow by autumn coolness. Now I see a long gray plateau piled with mounds of wasted rock and soil. It's drizzling as I start up the eastern slope. Today is a Sunday, as it was a year ago, and the rain has kept even the smaller weekend crews away. At about 1,400 feet, I begin walking along the top edge of a long highwall that marks the eastern boundary of the land permitted for mining. This cliff line drops about 100 feet down to the number 10 coal seam, where several pyramids of coal stand ready to be loaded away.

I'm walking along a thin strip of soil here at the edge of the highwall that divides the strip mine from the forest. The oaks and maples descend down into the watershed on my right, and the highwall drops away abruptly to my left. The sharp contrast between these two landscapes, heightened by the fall color and the gray mine site, gives me the strange sensation that I am walking on the edge of Creation, on a thin membrane between the world and the not-world. Everything past this point is an abyss, a lifeless canvas, a preternatural void.

At the end of the highwall, I climb down onto the mine site. The wet coal crunches softly under my boots. I walk toward the former moutaintop, where I had parked my truck a year ago. Because all of this earth has been churned over

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3 Massey Energy did not respond to requests for comment on this article.
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...Aida Leopold called an ecological education. "One of the penalties of an ecological education," wrote Leopold, "is that one lives alone on a map; the real thing is gone, this churned-under ridgeline, this eviscerated forest. Although I have been inspired by its songbirds, its watersheds, its wildflowers, I knew its fate a year ago when I started wandering the flanks that no longer exist. I climbed to its summit again and again to see what can’t be observed from below—the systematic destruction of an entire biological community. In essence, I came to Lost Mountain looking for what Aldo Leopold called an ecological education. "One of the penalties of an ecological education," wrote Leopold, "is that one lives alone in a world of wounds." It’s hard to find a better description for the situation of those, like Teri Banton and Damon Morgan, who face the challenge of living in the desperate, poisoned world of the Appalachian coal country.

There is a stock metaphor among conservationists when the talk turns to logging or strip mining. It is the analogy of a forest as library: the rain forests and the mixed mesophytic forests of North America are like the great library of Alexandria. Burn off such a forest and you might as well have destroyed the last surviving copies of Aristotle and Maimonides. Consider that one in every ten plant species contains anticancer compounds. In a purely selfish sense, humans who care about the survival of their species should find the current rate of extinction (about one species every hour) rather alarming. I may think—I do think—that preserving species diversity enriches the very concept of life, but it also holds the secrets to the perpetuation of human life. In the end the natural world does not need conserving. The planet has survived five great extinctions; it can survive the one we are bringing on. And given time, it will grow back. No, it is we who need conserving. And if we are to survive, we must develop what Leopold called a "land ethic," which, if successful, would "change the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it."

Standing on this sterile ledge, I am surrounded by the work of conquerors. No one who felt a responsibility to other citizens within a community would destroy its water, homes, wildlife, and woodlands. The difference between conquerors and community is the difference between the words "economy" and "ecology," both of which come from the same Greek root: oikos, or "home." But only ecology has remained true to its roots. A true case of home economics would, as Leopold said, make sure that the place called home maintains its health and stability. To create an environment where mudslides, flooding, and slurry spills are common will not ensure a community’s health. To bulldoze and burn a renewable resource—trees—will not ensure its stability. To tear a nonrenewable resource from the ground to provide short-term economic gain for the few and long-term environmental destruction and disease for the many is undemocratic, unsustainable, and stupid.

We are, unfortunately, a nation that values technology and wealth much more than we value community, and the result is the wasted land that lies all around me. If our species is to make it through this century, the forces of science and technology must be tempered by other forces—ethics and aesthetics. All ethical philosophies, from Aristotle on down, are based on this ecological principle as stated by Leopold: "The individual is a member of a community of interdependent parts." And as the cave art at Lascaux makes brilliantly clear, we are a species that has evolved to find beauty in the natural world. This trait serves—or should serve—an evolutionary purpose: we love what we find beautiful, and we do not destroy what we love. A strip job is more than a moral failure; it is a failure of the imagination. It is time we stopped thinking like those who conquer a mountain and started thinking like the mountain itself.