

Moving the Mountain  
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## Moving the Mountain

— Vivienne Shaffer

This is a true story about a seam of bituminous coal, what's left of a ridge on the Allegheny Plateau, and an old man who knew where the barn stood. It's a story of geology, absurdity and human values, a chronicle of one woman's efforts at making things right. There may be too much story to tell. Of people there is privacy to be protected, from lawyers there is advice to be heeded, about coal there is so much to not want to know.

If no-one else living could even remember the barn, so what. He did not want to hear about physical evidence, draglines and high walls be damned. His contract said they had to establish and maintain the property lines, and he could shut them down.

It was a bluff, he never intended a halt to the mining. All he wanted was just what it said in the contract, and payment in full for the coal.

Leaving the courthouse, handshakes all around, the parties had agreed to the old man's property line. Now the draglines could power up and dozers could shove the timber and topsoil onto the spoil. Lines of explosives would blow, coal trucks would roar down the road to the tippie, and the money would flow.

Coal had long been the currency of value. Coal, flammable rock, powerful enough to fuel a revolution on an industrial scale. The quest for coal is a consumer of mountains, of childhood through labor, of lives underground.

Coal is the coming together of earth and sun, formed in a coastal, equatorial swamp thick with ferns, strange club mosses, and gigantic, magnificent trees. You can find their impressions in the shale. Some, like the fiddleheads, are still familiar today; others were extinct by the time the first dinosaurs evolved. Coal, too, is a fossil, the substance of primordial life, material

remains of these ancient life forms. In some coal samples plant structures can still be seen, especially spores.

Coal is a time machine. You can bask in the warmth of the sunlight emitted three hundred million years ago. Solar energy so many years old can power your computer and light your pages.

To get coal you need sunshine, meters of un-rotted green vegetation, tectonic pressures, and time. The Carnegie Museum of Natural History in Pittsburgh describes a Pennsylvanian era coal-producing environment as “coastal swamps surrounded by vast tropical forest.” The forest that stood on what now is the ridge was as lush and abundant in verdant foliage as any tropical forest we know. Birds wouldn’t evolve for another hundred million years, but the skies were alive; dragonflies the size of raptors hovered in the breeze. Enormous amphibians lurked in the waters that ebbed and flowed. Green plants converted the sun’s energy into carbon-based food. Twenty to forty feet of dead logs and vegetable matter are needed to form just one foot of coal.

That the laurel and white oak stand on the ridge today is another miracle of geology. They would have been blasted as high as the hundreds of acres around them if not that the coal seam itself intervened. Just as the surface slopes upward along the summit, the Upper Freeport seam takes a downward dive.

Calling the mine “not economically viable,” the coal company pulled out under cover of chapter eleven. Thirty-five acres of woodlands stood abandoned at the top of the highwall, like an island in an ocean of air. So it remained for years and years.

The highwall was still standing when they filmed the scene in the movie “Groundhog Day” where a stuntman drives a red pickup truck over a strip mine wall.

The highwall was still standing when they buried the old man where the ridge intersects with the cemetery at Clover Run. The grave diggers struck coal at the foot of his grave, and the mourners marveled at the way death imitates life.

Then one day, abruptly, the state sent out letters to landowners saying that taxpayer dollars would cover the coal company's default, and that reclamation work had already begun.

Thank you, taxpayers! The bonds that were paid by the coal companies covered less than a drop in the bucket of cost. Even if the company hadn't been bankrupt they'd have had no incentive to reclaim the land. There were no legal provisions for denying a permit on the basis of past defaults.

Driving up onto the ridge for the first time after the pit was filled it seemed strange that the road was continuous from beginning to end. I stopped the car at the point where the highwall had been and gazed across at the wooded hilltop, then I followed the gas access road to the far side of backfill. The road that had clung precariously at the top of the highwall now forms the boundary between distinct vegetative zones, dividing the un-mined hilltop from the backfill.

The ground rises gently into the woods on the un-mined land except in the places where the bulldozers had created massive clay boundaries between the woods and the road. On the backfill side the ground slopes sharply downward from the road. The color of the surface material is suspiciously like the color of crushed limestone, and the texture is roughly akin to cement. The defining characteristic of the backfill is the absence of soil.

Scarcely daring to believe in the ground under my own feet I walked to the place where the blueberries grew. There were still bushes remaining, both the high and the low bush varieties, only a few.

I located the meadow where we dug out to transplant the pink lady slippers the day when we saw the black bear. We were one step ahead of the

backhoes and dozers, and finding a lot of the native wild orchids, when I looked up, and saw it, and started to run. I chased that bear all the way to the edge of the woods shouting "Mother, come, look! It's a bear!" until the bear stopped, turned, and sat down. Sitting on its haunches the bear was an easy foot taller than me, which gave me to know it was time to stop chasing. I looked over my shoulder to see my mother laughing at me, but she was chasing it too. When I turned back again it was gone.

Reclamation is not to be confused with restoration. No effort was made to locate the water table, and recreating the meadows and woodlands was never one of the goals. I try to understand the ridge as a blank slate, rich with possibility and potential. What can you do with a hundred acres where nothing will grow? Even the exotic invasives are barely making it there. What can you do with 35 acres of white oak and laurel surrounded by hundreds of acres of barren land? The Penn State soil test kit offers plenty of choices for intended uses, categorized as agronomy, vegetables, fruit, turf, home garden, landscape and forestry, with specifics like buckwheat, tobacco, switch grass, golf course, and cemetery. The only really accurate code on the form is the one for "disturbed lands".

Neighboring land has been largely abandoned; "Let go for taxes," a large tract to the east is now a state game land. My cousin suggested a Christian conference center, with plenty of space for an airstrip. The ridge would be a spectacular place for a home, with views all the way to the edge of the plateau, were it not for the round-the-clock clanging, blasting, scraping, and grinding. They're mining the outcrop on Weber Road.

Weber Road runs from Newtonburg to the county line parallel to the line of the ridge at the base of the hill. Fascinated by two tiny hand-hewn gravestones in the woods by the side of the road, I was walking there the only

time I've ever seen a fox in the wild. I heard that they've moved the children's graves to Clover Run.

The coal was there before tectonic forces uplifted the Allegheny Plateau, so there has always been coal on the ridge. And where there is coal there is water, just as there always has been. The ridge is the boundary of two major watersheds, the Ohio and Chesapeake Basins. Though they flow in opposite directions, all of the waters reach the seas by passing a home of Rachel Carson.. Her childhood was spent on the peneplain overlooking the Allegheny, where she swam in the river and watched it flow. The Maryland home of her final years was near to her beloved Chesapeake Bay.

Near the top of the ridge a pond appears to be forming, more like a muddy puddle at first, never used to be there. Could be rainwater trapped by the clay, but it's there in all seasons and it seems to have grown. Tracks in the mud read like a guest book, flocks of turkey, the ubiquitous groundhog, and deer. It has a magical quality so I've named it for Brigit, Celtic goddess of midwinter, sacred springs and the forge.

What will happen if I simply do nothing at all? Will the original native flora spread across the backfill, will it be the genesis seed that enables the ridge to recover from Weber Road to Laurel Run? Will the fox and the black bear come to leave their marks in Brigit's visitors' book by the pond? Or will the invasive plant species that are now colonizing the backfill encroach and extinguish the last of the teaberry, blueberry, ferns, the white oak and raspberry, white pine and the laurel, the blackberries, elderberries, and even the pink ladyslippers that cling to the residual remnants of soil?

The old man had always opposed the reclamation. He believed that technology would find a way to get at those deep seams and that leaving the highwall standing would eliminate the expense of blasting out all those rock

layers again. If he were alive he would try to collect on the bet. The coal companies have learned how to blow those hilltops away.

There's a message right now on my answering machine from Tim at Hepburnia Coal. He's a nice guy, consistently nicer to me than I've been to him. I have to admit to some pretty rude comments, even though I was holding back, knowing that if I wanted true answers I shouldn't be showing my cards.

Tim wants to drill a core at the top of the hill, hoping to find the Upper Freeport vein undisturbed, the stuff of any coal company's most fantastic extraction dreams. I haven't decided whether or not to tell him I know it's still there. "It's probably too much to hope for the Lower Kittanning," he sighs, but even over the long distance line I can hear the gleam in his eye.

Tim's been talking to me about fistfuls of money. Wads and stacks and fat buckets of money. Maybe even enough to restore . . . not backfill or reclaim but restore . . . the hill on the old Laurel Farm.

Having sworn by my conscience to do the right thing does not help me to know what to do.

What is right for the ridge? As long as the coal lies under that hill there will be people with dynamite coming around. As long as the potential is there, the oak and the laurel, the fox and the bear are in danger from energy greed. Why not get it over and done, take the money and use it to restore the whole ridge?

What is right for my country? Coal, America's power, is going to save us from the terrorists, if you can believe what you hear. Coal, more than plenty enough to end our over-dependence on oil. There are folks around here who would see it as downright anti-American to withhold the mining of coal. They (the government, not the terrorists) will be here under eminent domain someday, as long as that coal is still there. Oh beautiful, for spacious skies, but not skies unpolluted by coal.

We do have to speak of the skies. No contemplation of coal is complete without mention of carbon dioxide. The IT gas of the greenhouse phenomenon, CO<sub>2</sub> is produced in the heaviest quantities by the burning of coal.

It is not just the CO<sub>2</sub> to consider; there is sulfur as well. Pittsburgh's industrial-heyday "smoky city" reputation as "hell with the lid off" was less about the color of smoke and more about the smell.

What is right for the world? Never mind what will become of the ridge, what will become of the coal? Will it be burned at the Cheswick Power plant, less than a mile from Rachel Carson's childhood home, one of the most notoriously dirty coal-fired power plants still in operation today?

In the wrong hands, coal is a weapon of mass destruction, capable of perpetrating a new mass extinction event. Sulfur and carbon into the air supply, and mercury into the water, has the unmistakable ring of a bad idea.

Just like the people in Rachel Carson's fable, we are killing ourselves. One of the graves in that family plot at Clover Run will be mine, with or without the coal.

"Clean coal" is in the news, an announcement that funding's been cut for the prototype testing of carbon sequestration. My understanding of carbon capture technology is probably oversimplified, but it seems that the plan is to "capture" the carbon dioxide before it leaves the smoke stack, then to store it, under pressure, indefinitely underground. Didn't it start out underground, being formed under pressure? Were we proposing to spend buckets of money to figure out the feasibility of putting it back where it was?

In greenhouse gas pop culture, coal is a rock star. Coal is a carbon sink, a reservoir, for CO<sub>2</sub> snagged out of the atmosphere by green plants and photosynthesis three hundred million years ago, and storing it safely, underground, under pressure, ever since. Coal stores carbon, under pressure, underground, keeping it from oxidizing and escaping to the air. Wouldn't we



save some buckets of money by leaving it where it is, and letting it do what it does?

Free advice is more abundant than ATV tracks in the mud, not all of it coming from people waving fistfuls of money around. Most of them can't understand why I don't take the money and run. There are plenty, including some who love me, who are sure that the crazy one in the family is not the old man with the barn. It may well prove to be the congenital stubborn streak that sees this hillside through.

At my home in the northeast last February, I was sitting outside in my garden enjoying a warm sunny day. I watched a flock of birds in the sky; their wings beat a pattern of flapping-then-gliding until they began to lose altitude, then flapping and flapping some more. Flapping and glide, we are those birds in a flap cycle now, concerned about climate just as we as a society once worried about poisons in water and air. We made some good choices until we as a culture glided into an environmental stewardship slide. We as a species must understand that now is the time for resisting the lure of the coal.

I am drawing a line in the sand they have dumped where the trucks hauled the topsoil away. I claim this land in the name of the laurel, the pink ladyslipper, the fox and the bear. I will stand on this line with two pitchers of water, both drawn from Brigit's Pond, and I will pour one to the Chesapeake Bay, and the other to New Orleans. I am drawing the line.

There's a subsidized (thanks again taxpayers) program for writing a forestry management plan. There's a mountain of paperwork to be moved, but the light at the end of this tunnel is not powered by coal.

To be eligible for the program you first must establish the property lines. The surveyor is expert at finding the boundaries on strip-mined land and he knows where the resources hide. He'll be using the GPS coordinates of the eighteenth century warrant line, physical evidence, early twentieth century

corner-stakes still embedded in the ground, and an old aerial photograph of one particular barn.

“You wouldn’t hear a word from me if they were farming this land,” said the surveyor, “but this is a wasteland, not good for anything. It’ll take a hundred years to bring it back.”

This story began three hundred million years ago. It’s too soon to know how it will end.