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News that Inspires

Reconnecting to the Soil, to Heal Ourselves and the Planet
by Leah Penniman

Leah Penniman is the cofounder of upstate New York's Soul Fire Farm, which runs farming immersion training programs for Black, Indigenous, and other people of color. Photo by Jamel Mosely/Mel Emedia

Dijour Carter refused to get out of the van parked in the gravel driveway at Soul Fire Farm in Grafton, New York. The other teens in his program emerged skeptical, but Dijour lingered in the van with his hood up, headphones on, eyes averted.

There was no way he was going to get mud on his new Jordans and no way he would soil his hands with the dirty work of farming.

I didn't blame him. Almost without exception, when I ask Black visitors to the farm what they first think of when they see the soil, they respond "slavery" or "plantation." Our families fled the red clays of Georgia for good reason—the memories of chattel slavery, sharecropping, convict leasing, and lynching were bound up with our relationship to the earth. For many of our ancestors, freedom from terror and separation from the soil were synonymous.

While the adult mentors in Dijour's summer program were fired up about this field trip to a Black-led farm focused on food justice, Dijour was not on board. I tried to convince him that although the land was the "scene of the crime," as Chris Bolden Newsome put it, she was never the criminal.

But Dijour was unconvinced. It was only when he saw the group departing on a tour that his fear of being left alone in a forest full of bears overcame his fear of dirt. He joined us, removing his Jordans to protect them from the damp earth and allowing, at last, the soil to make direct contact with the soles of his bare feet.

Dijour, typically stoic and reserved, broke into tears during the closing circle at the end of that day. He explained that when he was very young, his grandmother had shown him how to garden and how gently to hold a handful of soil teeming with insects. She died years ago, and he had forgotten these lessons. When he removed his shoes on the tour and let the mud reach his feet, the memory of her and of the land literally traveled from the earth, through his soles, and to his heart. He said that it felt like he was "finally home."

The truth is that for thousands of years Black people have had a sacred relationship with soil that far surpasses our 246 years of enslavement and 75 years of sharecropping in the United States.

For many, this period of land-based terror has devastated that connection. We have confused the subjugation our ancestors experienced on land with the land herself, naming her the oppressor and running toward paved streets without looking back. We do not stoop, sweat, harvest, or even get dirty because we imagine that would revert us to bondage.

Part of the work of healing our relationship with soil is unearthing and relearning the lessons of soil reverence from the past.

We can trace Black people's sacred relationship with soil back at least to the reign of Cleopatra in Egypt beginning in 51 BCE. Recognizing the earthworm's contributions to the fertility of Egyptian soil, Cleopatra declared the animal sacred and decreed that no one, not even a farmer, was allowed to harm or remove an earthworm for fear of offending the deity of fertility. According to studies referenced by Jerry Minnich in The Earthworm Book in 1977, worms of the Nile River Valley were largely responsible for the extraordinary fertility of Egyptian soils.

In West Africa, the depth of highly fertile anthropogenic soils serves as a "meter stick" for the age of communities. Over the past 700-plus years, women in Ghana and Liberia have combined several types of waste—including ash and char from cooking, bones from meal preparation, by--products from processing handmade soaps, and harvest chaff—to create African Dark Earths.

According to a 2016 study in Frontiers in Ecology and the Environment, this black gold has high concentrations of calcium and phosphorus, as well as 200 to 300 percent more organic carbon than soils typical to the region. Today, community elders measure the age of their towns by the depth of the black soil, since every farmer in every generation participated in its creation.

When the colonial governments in northern Namibia and southern Angola attempted to force Ovambo farmers off their land, they offered what they said were equivalent plots with better-quality soil. According to Emmanuel Kreike in Environmental Infrastructure in African History, the farmers refused to be displaced, countering that they had invested substantially in building their soils and doubted that the new areas would ever equal their existing farms in fertility. The Ovambo people knew that soil fertility was not an inherent quality but something that is nurtured over generations through mounding, ridging, and the application of manure, ashes, termite earth, cattle urine, and muck from wetlands.

This reverent connection between Black people and soil traveled with Black land stewards to the United States.

In the early 1900s, George Washington Carver was a pioneer in regenerative farming and one of the first agricultural scientists in the United States to advocate for the use of leguminous cover crops, nutrient-rich mulching, and diversified horticulture. He wrote in The American Monthly Review of Reviews that the soil's "deficiency in nitrogen can be met almost wholly by the proper rotation of crops, keeping the legumes, or pod-bearing plants, growing upon the soil as much as possible."

He advised farmers to dedicate every spare moment to raking leaves, gathering rich earth from the woods, piling up muck from swamps, and hauling it to the land. Carver believed that "unkindness to anything means an injustice done to that thing," a conviction that extended to both people and soil.

One of the projects of colonization, capitalism, and White supremacy has been to make us forget this sacred connection to soil. Only when that happened could we rationalize exploiting it for profit.

As European settlers displaced Indigenous people across North America in the 1800s, they exposed vast expanses of land to the plow for the first time. It took only a few decades of intense tillage to drive around 50 percent of the original organic matter from the soil into the sky as carbon dioxide. The agricultural productivity of the Great Plains decreased 71 percent during the 28 years following that first European tillage. The initial rise in atmospheric carbon dioxide levels was due to the oxidation of soil organic matter through plowing.

The planet's soils continue to be in trouble.

Each year we lose around 25 million acres of cropland to soil erosion. The loss is 10 to 40 times faster than the rate of soil formation, putting global food security at risk. Soil degradation alone is projected to decrease food production by 30 percent over the next 50 years. Further, when soils are laden with fertilizers and pesticides, the nutritional quality of the food they produce is lower than crops grown using methods that enrich the soil with compost, cover crops, and mulches.

When the soil suffers, it's not just our food supply that is at risk. The further the population gets from its connection to earth, the more likely we are to ignore and exploit those who work the soil. As Wendell Berry wrote in The Hidden Wound in 1970:

The white man, preoccupied with the abstractions of the economic exploitation and ownership of the land, necessarily has lived on the country as a destructive force, an ecological catastrophe, because he assigned the hand labor, and in that the possibility of intimate knowledge of the land, to a people he considered racially inferior; in thus debasing labor, he destroyed the possibility of meaningful contact with the earth. He was literally blinded by his presuppositions and prejudices. Because he did not know the land, it was inevitable that he would squander its natural bounty, deplete its richness, corrupt and pollute it, or destroy it altogether. The history of the white man's use of the earth in America is a scandal.

In the United States today, nearly 85 percent of the people who work the land are Hispanic or Latino and do not enjoy the same labor protections under the law as other American workers in other sectors. Pesticide exposure, wage theft, uncompensated overtime, child labor, lack of collective bargaining, and sexual abuse are all too common experiences of farmworkers today.

Even in urban areas, our disconnect from soil has grave consequences.

As a toddler, my daughter, Neshima, loved to make mud pies in the playground and drop bean seeds into the furrows of community garden plots in -Worcester, Massachusetts. I didn't know that exposure to these urban soils would put my child at risk for permanent neurological damage.

At her 18-month pediatric visit, I learned that she was one of approximately 500,000 children with elevated blood lead levels in this country. She inhaled and ingested soil that had been contaminated with lead from old paint and gasoline emissions. I quickly became a safe-soils activist and tested hundreds of residential and public spaces across the city,

encountering lead levels as high as 11,000 parts per million, well above the Environmental Protection Agency's safe limit of 400 parts per million.

From the arsenic found at a school site in Maine to the heavy metals in the gardens of Portland, Oregon, and the brownfields at an affordable housing site in Minneapolis, our urban soils are showing the scars of our disconnection. Hailing from the Bronx, New York, a participant in one of our farm training programs shared, "The soil is toxic in my neighborhood. The only good thing I can say about it is that when there were drive-by shootings, I would get low to the ground and the smell of the earth meant I was safe."

When soils suffer the most egregious abuse, they can no longer even provide stable ground beneath our feet.

In early 2018, wildfires tore through Santa Barbara County, California, burning up the soil organic matter and ravaging the vegetation that held the hillsides in place. Heavy rain followed the blaze, and the destabilized mud and boulders flowed downhill, leaving at least 21 dead and over 400 homes damaged or destroyed in their wake.

Both the wildfires and the erratic rainfall can be linked to anthropogenic climate change and our voracious appetite for fossil fuels. Coupled with that, the process of extracting those fossil fuels from the earth through coal mining and fracking further destabilizes the soil, resulting in sinkholes like the one in Chester County, Pennsylvania, connected to the Mariner East pipeline.

The soil stewards of generations past recognized that healthy soil is not only imperative for our food security—it is also foundational for our cultural and emotional well-being.

Western science is catching up, now understanding that exposure to the microbiome of a healthy soil offers benefits to mental health that rival antidepressants. After mice were treated with Mycobacterium vaccae, a friendly soil bacteria, their brains produced more of the mood-regulating hormone serotonin. Some scientists are now advocating that we play in the dirt to care for our psychological health.

We see the benefits of soil anecdotally on our farm with the youth and adult participants who come to learn Afro-Indigenous soil regeneration methods. While the curriculum focuses on such nerdy details as the correlation between earthworm count and soil organic matter, participants often reflect that the main thing they gain from their time with the dirt is "healing" and the strength to leave behind addictions, toxic relationships, poor diets, and demeaning work environments.

Our ancestors teach us that it's not just soil bacteria that contribute to this healing process. Part of African cosmology is that the spirits of our ancestors persist in the earth and transmit messages of encouragement and guidance to us through contact with the soil.

Further, we believe the Earth herself is a living, conscious spirit imparting wisdom. When we regard a handful of woodland soil, rich in the mycelium that transmits sugars and messages between trees, we are made privy to the inner world of the forest super-organism and its secrets of sharing and interdependence.

Like Dijour, we are welcomed home to a profound web of belonging that extends beyond the boundaries of self and species.

One student on our farm reflected, “I leave this experience feeling grounded like a tree in a land and country that I previously did not feel welcomed in. Connection with soil was the awakening of my sovereignty.”