

Overall Winning Essay, 2012 Essay Competition

BROWN IS JUST AS IMPORTANT AS GREEN

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The city of Gorlovka, Ukraine is literally a bomb waiting to go off. The ruins of a former Soviet chemical weapons factory sit on a 400-acre campus in the middle of town. Within the crumbling concrete halls, stacks of rotting metal barrels leak deadly mono nitrochlorobenzene, a key ingredient in the manufacture of nerve gas.

MNCB is so toxic that half a teaspoon ingested, inhaled, or absorbed through the skin can kill a human being. The barrels at Gorlovka hold over 15,000 tons of the stuff. But as bad as this sounds, it's really just the beginning of the problem.

Right next to the MNCB, someone stockpiled 30 metric tons of TNT in underground sarcophagi. Other buildings onsite contain large amounts of various highly corrosive acids. And right next door to all this, an abandoned fertilizer plant holds large industrial vats full of stagnant liquid ammonia.

Currently about 260,000 people live in Gorlovka, but that could all change from a stray bolt of lightning, a cigarette butt tossed blithely aside, a spark born aloft by a hot dry wind. The

slightest provocation could set off an explosive chain reaction that would turn Gorlovka into an event to dwarf the Chernobyl and Bhopal disasters combined. Those citizens not killed in the initial blast would likely choke to death on a chemical cloud the approximate size of Rhode Island.

Experts have called Gorlovka one of the worst instances of legacy contamination in human history, a deadly threat to both the environment and human health. So why hasn't anyone heard about it? Perhaps it's because so many environmentalists focus on the Green agenda when places like Gorlovka represent something altogether different -- something more frightening and potentially destructive. Gorlovka represents the Brown agenda, and it's high time people started talking about it.

The Brown agenda combats the proliferation of manmade toxic pollutants, especially in low to middle-income countries. Brown sites affect the health and well-being of up to a billion human beings per year -- innocent people who sicken and die because their country either cannot or will not clean up the messes left by government and industry initiatives.

If you live in a wealthier country, chances are you can't imagine the horror of these conditions. The United States, Canada, Europe, Australia, and Japan leverage powerful disincentives to keep pollution at bay. Laws punish infractions. Government agencies levy hard fines. A free press thrives on indicting unfair or inhumane conditions. Society rears up against grotesquely exploitative ventures. Sadly, the same can't be said of developing nations who often race to increase their industrial capacity at the expense of their own people and land.

Like Zambia for instance, where a state-owned mining conglomerate allowed the largest smelter in Africa to decay, poisoning the local soil and water supplies with staggering doses of lead. Over the course of generations, lead infected the nearby town of Kabwe and ripped through its population like a plague. Independent scientists studied blood samples taken from Kabwe's residents. Ten parts lead per deciliter of blood is considered dangerously high, but the people of Kabwe often logged between 120 and 300. Worse yet, the effects of lead poisoning were painfully obvious. Imagine a population of approximately 200,000 people where nearly everyone is crippled, neurologically damaged, infertile, mentally retarded, or dying. Kabwe presents a perfect example of how Brown sites can overflow environmental concerns to create genuine human rights atrocities.

Children always fare the worst in these situations since their small, developing bodies are more vulnerable to disease and mutation. As a demographic, children make up only 10 percent of the world's population, but they shoulder over 40 percent of the global burden of disease. Recent estimates pose that more than three million children under age five die annually from Brown sites. But as devastating as they are to human populations, Brown sites can exact even worse tolls on the overall environment.

Take, for example, the city of Norilsk, Siberia where pollution from a local mining operation has turned the snow black and a single blade of grass won't grow for 50 kilometers in every direction. Or the Matanza-Riachuelo River basin in Argentina where more than 3,500 tanneries, illicit sewage pipes, heavy metal and chemical plants dump effluents into the water, creating 'flammable slums' – literal rivers of filth on fire. Or the inappropriately named

community of God's Paradise in the Dominican Republic where visiting activists once found a 30-foot high pile of old car batteries leaking lead, sulfuric acid, and other contaminants into the soil where local crops are farmed.

There's a place called Chelyabinsk in the Ural Mountains of southwestern Siberia where one in four children are born with genetic mutations and less than 2 percent of the population can be called clinically healthy. Workers in Chelyabinsk rarely live to retirement age. At one point not too long ago, 70 percent of the local population had leukemia. Cancer rates throughout the region have spiked to as high as five times the Russian national average. Rates for child morbidity and mortality have reached three times higher than the national average. In Chelyabinsk, death is a way of life. But how did it get this way?

In their race to develop an atomic bomb, the Soviets pushed their workers hard and neglected to implement even the most basic safety precautions. From 1949 to 1956, the Chelyabinsk plant dumped untold quantities of medium to high-level radioactive waste into a local river, the Techa, which sustained the surrounding communities.

Soon after that, a cooling unit at the enrichment plant failed, causing an explosion that sent about eighty tons of radioactive waste into the atmosphere. The toxin cloud contained twice the amount of curies released at Chernobyl in 1986. It covered some 24,000 square kilometers and spanned three Soviet provinces while irradiating thousands of innocent people. As the ultimate insult, Soviet officials denied that anything happened and offered the victims no aid.

It's hard to argue against the importance of Going Green, but the truth is, it's a luxury, the environmentalist equivalent of a high class problem. There's really no place for the Green agenda in most parts of the world where the problems faced by developing nations fall short of what's Green and land in a deeper, more filthy, despicable pond: they land in what we call Brown.

Going Green can be seen as a choice, whereas those affected by the Brown agenda have no options.

At this point, some readers might be asking, So what? Why should I care about people in Russia, Argentina, or the Dominican Republic? Isn't that someone else's problem?

Actually, no. The chickens in foreign countries may seem laughably distant, but they still come home to roost. While environmentalists keep pushing us to Go Green, Brown sites are successfully rotting the planet right out from under us.

The fact is, every Brown site on the planet slows, if not entirely halts the progression of a global Green agenda. For instance, Brown sites contribute enormously to global warming since toxic emissions from unregulated industrial sites often spew massive quantities of greenhouse gases into our atmosphere.

And a recent study by a Danish research group concluded that Green burdens have actually grown at least in part because political and economic bickering have allowed Brown sites to proliferate.

Chelyabinsk serves as a perfect example. It should have been cleaned up years ago, but it's such a complicated and daunting situation that nobody wants to touch it. So the cycle

continues even as the Tech River continues to nourish the surrounding countryside with deadly toxic substances. Plants are dying, fish are dying, humans and animals are dying, but by all means, let's start a plan to recycle old newsprint.

When confronted by true cases of Brown, some Green groups have actually exacerbated environmental problems. This happened at Gorlovka. An NGO called Blacksmith Institute hoped to remediate the site before the whole city exploded. It came up with a simple, two-phase plan: first, use counteractive chemicals to render some of the contaminants inert and bury them; second, pack every material that couldn't be counteracted in secure plastic containers, haul them to incinerators, and burn them.

The second phase gave rise to stiff resistance from local environmental groups who said that incinerating some chemicals would release trace amounts of dioxin particles into the atmosphere. Yes, Blacksmith said, that is certainly true. But the dioxins would be in such low quantities as to be harmless. Besides, which would you rather contend with? Trace amounts of dioxin particles spread across several kilometers of atmosphere? Or a city gone up like the hearth fires of hell, with thousands of people sprawled dead at your feet?

Brown problems aren't about doing what's perfect because perfect doesn't exist. They're about doing what's right. The technology to remediate even the worst of these sites exists within the industrialized world. We just have to rally our collective will. We just have to make it an issue. Remediating Brown sites is hard, dirty work, but excellent results are often had for shockingly small sums of money.

But cynics are a stalwart bunch. When confronted with Brown truths, the cynic very often resorts to a crude form of isolationism, insisting that this sort of thing isn't their bailiwick. Why should I care about what goes on in other parts of the globe? Why should I care, for instance, about the increasing deposits of lead and other heavy metals found in Indonesian soil samples?

Someone with a more overarching view of environmental interconnectedness might answer: You shouldn't, of course. The same way you shouldn't care about last year's Fukushima Daiichi nuclear disaster, which *made no impact whatsoever* on human beings, fish, and wildlife throughout the entire Pacific rim. Or the 2010 explosion at BP's Deepwater Horizon which *didn't* create immeasurable damage to marine and estuary life all along the Gulf Coast. Or the incorrigible way that Western industries *aren't* dumping approximately 50 million tons of used computer equipment each year into e-waste deserts that have rapidly smothered Ghana, Nigeria, Mexico, India, Thailand, China, and many other countries. To say nothing of the poor villagers who each day poison themselves and their children by sifting among the dunes of broken machines, searching for heavy metals to sell.

The high-minded answer to all this is that ecosystems are interconnected. The strands that each of us occupy interweave to form a giant web of life. If one of those strands should strain and break, it imperils the whole structure, and everything within it.

But if this doesn't work, consider a more practical perspective. American might well consider that Brown sites exist right here at home. The U.S. currently festers with an estimated 1,600 Superfund sites, many of which rival the toxicity, environmental and human degradation of the locations mentioned above.

For example: the Tar Creek Superfund site in northeastern Oklahoma, where decades of mining for lead and zinc have accumulated 70 million tons of toxic chat heaped in piles that stretch ten stories tall. Prairie winds blow the toxic dust all over the nearby towns. The rivers and streams run bright orange, tainted by lead and cadmium leaking from 14,000 contaminated mineshafts. Local fish, wildlife, and children have shown elevated levels of toxins in their blood. In and around Tar Creek, cases of kidney failure, behavioral problems, neurological damage, and mental retardation have become common.

In 2006, the U.S. EPA declared the nearby town of Picher uninhabitable and evacuated its citizens. Picher now sits quietly in the shadow of looming chat piles. The spine of the roof on a boarded up church has broken, falling in on itself. The windows of abandoned buildings along Main Street gape in empty-eyed wonder. This ghost town stands as a monument to everything we have long ignored, and what we can no longer afford to.

Of course, we must pursue the Green agenda. But while doing so, let's include space for the Brown.

Damon DiMarco is the author or co-author of several books including "Tower Stories: An Oral History of 9/11", "Heart of War: Soldiers' Voices from the Front Lines of Iraq", and "My Two Chinas: The Memoir of a Chinese Counterrevolutionary," featuring a foreword by His Holiness the Dalai Lama. Damon teaches Public Intellectualism in the PhD History and Culture program at Drew University's Caspersen School of Graduate Studies. His forthcoming book is titled, "Dirty, Filthy Trouble: Toxic Pollution and Toxic Ideas in Indonesia and Beyond."