

First Unitarian Universalist Society of Albany, New York

“Climate Change ... and You ... and Us”

Rev. Samuel A. Trumbore April 24, 2016

Reading

from *This Changes Everything* by Naomi Klein

After slogging through a lot of very depressing chapters, when I finally got to the conclusion, there was this glowing section of text that offers a sliver of hope. Please savor it with me now:

In December 2012, Brad Werner, a complex systems researcher with pink hair and a serious expression made his way through a throng of 24,000 earth and space scientists at the Fall meeting of the American Geophysical Union in San Francisco... [The title of his talk was] “Is Earth F**ked?” ...

Standing at the front of the conference room, the University of California, San Diego professor took the crowd through the advanced computer model he was using to answer that rather direct question. He talked about system boundaries, perturbations, dissipation, attractors, bifurcations, and a whole bunch of other stuff largely incomprehensible to those of us uninitiated in complex systems theory. But the bottom line was clear enough: global capitalism has made the depletion of resources so rapid, convenient, and barrier-free that “earth-human systems” are becoming dangerously unstable in response. When a journalist pressed Werner for a clear answer on the “Is Earth f**ked” question, he set the jargon aside and replied, “More or less.”

There was one dynamic in the model, however, that offered some hope. Werner described it as “resistance” — movements of “people or groups of people” who “adopt a certain set of dynamics that does not fit within the capitalist culture.” According to the abstract for his presentation, this includes “environmental direct action, resistance taken from outside the dominant culture, as in protests, blockades and sabotage by Indigenous peoples, workers, anarchists and other activist groups.” Such mass uprisings of people — along the lines of the abolition movement and the civil rights movement — represent the likeliest source of “friction” to slow down an economic machine that is careening out of control.

This, he argued, is clear from history, which tells us that past social movements have “had tremendous influence on . how the dominant culture evolved.” It stands to reason, therefore, that “if we’re thinking about the future of the earth, and the future of our

coupling to the environment, we have to include resistance as part of that dynamics.” And that, Werner said, is not a matter of opinion, but “really a geophysics problem.”

Put another way, only mass social movements can save us now. Because we know where the current system, left unchecked, is headed. We also know, I would add, how that system will deal with the reality of serial climate-related disasters: with profiteering, and escalating barbarism to segregate the losers from the winners. To arrive at that dystopia, all we need to do is keep barreling down the road we are on. The only remaining variable is whether some countervailing power will emerge to block the road, and simultaneously clear some alternate pathways to destinations that are safer.

If that happens, well, It changes everything.

To that I'll add: That change can be us!

Sermon

Do you remember the movie An Inconvenient Truth by Al Gore? It came out ten years ago. Do you remember how scary the predictions were? Things haven't gotten better.

I got my Science News Magazine last week and the lead article on this tenth anniversary was titled, “More Truths, Still Inconvenient.” None of the threats Al Gore talked about in the movie have abated. Most continue to get worse.

The average global temperature continues to rise. On Wednesday, the Times Union reported we've set records for temperature eleven months in a row – a record all of its own. March was 2.2 degrees warmer than the average temperature for the 20th century, partly due to El Nino. Still, it has been 99 years since a global cold record has been set.

The effect of these rising temperatures may or may not show up in daily fluctuations in each part of the globe. They become obvious as glaciers recede. The Science News update noted that 90% of the world's glaciers are retreating right now. Their mass has been decreasing rapidly since the 1970's. If you want to see one (so you can tell your grandchildren about it) I wouldn't wait too long.

Global warming is also dramatically shrinking the Arctic sea ice, ironically opening up opportunities for prospectors to look for new oil reserves. The Antarctic Ice Sheet is carefully watched because it stores an enormous amount of water. The loss of just a few ice shelves in the West Antarctic Ice Sheet could destabilize the whole region. That destabilization could trigger a chain reaction of melting that could not be stopped.

After Antarctica, the second great reserve of ice is Greenland. It too is melting. Many scientists who study ice melt in Greenland think it will only take a 3-5 degree rise in surface temperature to cause the whole thing to melt. If that were to happen, sea level is estimated to rise about twenty four feet. That would submerge most of Florida.

Scary as that is, what frightens me even more is the acidification of the oceans. About a third of all the carbon dioxide we put in the air dissolves in the oceans. That process acidifies the ocean. It may already be contributing to the bleaching of corals and interfering with baby sea-life creating their shells. (note that spraying sulfur dioxide in the stratosphere to block out the sun and cool the earth will not stop this problem)

Another effect of climate change we've had a little breather from here is increases in hurricanes and strong storms. But other places are suffering even if we currently aren't. The downpour in Houston this past week is just one example. With warmer temperatures, air can hold more water increasing the amount of rain and the severity of storms.

One very unexpected result, over the past ten years, has been the rapid increase in the denial of these observations. The climate change deniers have taken over the Republican Party and a vast swath of the American public. Their unwillingness to face the reality of climate change has undermined our government's ability to respond with forward looking, progressive change.

And yet, the pressures for radical change haven't let up, they only increase. Not only do they increase, they become urgent as we better understand the terrifying forces we are amplifying by dumping ton upon ton of carbon into our atmosphere.

Last Sunday, our guest speaker at our joint service, the Rev. Fred Small, made a plea for radical hope. I certainly enjoyed and appreciated his message and his powerful presentation. Yet, I struggle mightily with being hopeful about our future. Remember the 350 challenge? Stop the growth of carbon dioxide to 350 parts per million? That limit is now in the rear view mirror as we have surpassed 400 parts per million and zooming up exponentially.

Rev. Small said we are past the point when small personal changes like taking the bus to work, putting solar panels on your roof and recycling soda cans are going to make much of a difference. We need those changes AND big changes that are driven by government policy and corporate practices. We need changes at the level of the United

Nations Framework Convention on Climate Change to deal with greenhouse gases emissions mitigation. It was adopted in December and signed on Friday. Much as this agreement was celebrated at the time, it doesn't have binding commitments.

The problem with trying to stop climate change is those changes threaten the foundations of developed civilization itself. Our way of life is built on extractivism. If we are to save developed civilization, we will need to find a way to stop being extractivists and convert to regenerativists.

I'm indebted to Naomi Klein, author of *This Changes Everything*, for her insights into extractivism and its harmful results. I already knew it was a problem. We can't keep drilling oil wells forever. And it takes more energy to extract the hard-to-get fossil fuels. At some point you cross the bar when it takes more energy to extract the fossil fuel than you get from burning it and you are done.

Klein points out what really shook everything up was the invention of the steam engine by James Watt in the eighteenth century. That one change, changed everything. Before that time, energy came from renewable sources. The fabric and flour mills were run by water power. Ships crossed the ocean using wind power. Animals hauled cargo and people. There were natural limits to how much power could be harnessed by their technologies.

The steam engine changed that by decoupling the production of power to natural processes. Engines could provide power by consuming fossil fuel. Fossil fuels are not naturally occurring. They must be extracted from the ground. They are banked energy stored away over millions and millions of years that can be recovered, until they are used up. But in the eighteenth century, that was a long, long time in the future.

Take a little fuel out of the ground, there isn't a lot of disruption to the eco-system. Take out a lot and you get the kind of devastation we see in Alberta with tar sands mining: mile upon mile of open pits and toxic tailing lakes in which nothing can live. Fracking risks water and air contamination. Coal and metal strip mining are notoriously destructive. These locations are called sacrifice zones. The privileged willingly sacrifice poor, rural and indigenous people's land to extract the resource they want in exchange for dollars. And when that resource is gone, they move on to the next sacrifice zone, often leaving a mess for someone else to clean up.

Sadly monocultural farming has been done in this same way for many years. The rows of crops extract nutrients from the soil that must be replaced with chemical fertilizers that are mined from the earth. Caging animals for meat, eggs and milk depends on extractive agriculture and generates toxic concentrated waste that cannot easily be absorbed back into the ecosystem.

Basically, much of our modern way of life is built on extractivism. And a civilization based on extraction cannot be sustainable on a finite planet. To have any hope of decreasing greenhouse gases in the atmosphere and regulating our climate, we need to renounce extractivism. We need to return again to renewable sources of energy our ancestors used, the wind, the sun, and the water as our sources of power.

But is this possible? Can a civilization like ours that is so energy intensive stop extracting fossil fuels from the ground? We've seen the folly of turning corn into ethanol that drives up food prices. Damming waterways has all sorts of problems as is seen with salmon runs disturbed. Wind turbines have not been kind to migrating birds in their flyways. Ending extractivism will have far reaching effects. And there are those, like the military, that depend of gasoline and jet fuel to power their machines of destruction that they are very unlikely to want to give up. I don't expect our military to give up their machine guns and helicopters and go back to bows and arrows and horses any time soon.

But resistance may come from other places. Resistance to extractivism may come from the sites of extraction and consumption of fossil fuels. Resistance to fracking here in New York State was intense. If the governor hadn't stopped it, we'd be embroiled in a major battle against drilling with massive civil disobedience and people getting arrested. We've seen here how resistance to the natural gas pipeline near Burden Lake as energized fierce opposition. Once the sacrifice zones begin to get close to rich, white people, they wake up and realize they don't want to pay the price required of living an extractivist lifestyle. One of the reasons China is willing to consider curbing coal burning power plants is the terrible smog choking their cities. Chinese citizens are no longer willing to sacrifice the health of their children for economic growth.

And when enough people mobilize in sustained opposition, that changes everything.

Still, the pressures to keep extracting and keep sacrificing the earth to maintain our status quo are very, very powerful. That force of consumption has been systematized

into the publicly held corporation. The corporation is extractivist to the core. It must extract resources then transform them and sell them at a profit, getting bigger and bigger every year, or decline and die. Shareholders will not accept the shrinking of the value of energy corporations. They cannot write off all the reserves of fossil fuel they use to value their company. This kind of corporate wealth creation system that depends on endless growth cannot thrive in an economic model that prizes sustainability.

I'm sad to say, I don't know how we're going to end extractivism. I only know we have no realistic other choice. I also know many people are enthusiastically exploring all kinds of alternative renewable energy sources and sustainable regenerative farming practices that will be the foundation for a new civilization in the future.

I do know one important component of the change that is very relevant to our congregation. We don't need to know the solution to climate change. We do need to know what is wrong with the current system and demand an end to unjust and immoral practices.

We already know extractive energy companies have been poisoning the air, water and soil around their wells and all over the world. The Alberta tar sand mining and the drilling in the Niger delta have been horrific environmental catastrophes. Rather than respond to protests and requests for redress, extractive corporations and their police forces have suppressed opposition brutally.

We know if we want to move away from extractivism, we don't need any more fossil fuel infrastructure. We need to gradually dismantle it as renewable power takes its place. We don't need to put communities like ours at risk with the bomb trains rolling through the city on a daily basis. We don't need another natural gas or oil pipeline ever.

If we want countries in less developed parts of the world to keep their carbon underground, we have a moral obligation to offer them support to build a non-fossil fuel based economy. This is a fairness issue because Western nations have been pumping our carbon into the air for hundreds of years. We have already far exceeded our allotment of carbon dioxide pollution. We have taken away the less developed countries' opportunity to develop using fossil fuels the way we have. Thus, we are morally obligated to pay developing countries to keep their fossil fuels in the ground, so argues Naomi Klein and leaders in the Southern Hemisphere.

These moral issues are clear and present ways to work to slow down climate change. Yet they will not be enough. Personal changes to reduce our demands for fossil fuels are important too. Yet they will not be enough. Curbing militarism and wars around the planet that are intense consumers of fossil fuels would be very helpful. Yet that will not be enough.

We are dealing with a problem that many of us will not experience the full effects in our lifetimes. We are worrying about a problem that will afflict the children and grandchildren of those who have yet to be born most severely. And preventing a good number of those births would go a long way to mitigating climate change.

What we can be confident of is each part per million of increase in carbon dioxide in the air will make things worse. And one of those increases might trigger a catastrophic event that will make things horribly worse. We just don't know when or what will happen.

What we can do today is work to interrupt the process of fossil fuel extraction by using moral arguments. As a religious organization, this is one of the powerful tools we have to contribute to the movement toward a sustainable and renewable future.

Let us stop sacrificing people, the earth, and the future of children yet to be born, to the god of endless profit. The time to stop is now. We are the ones we've been waiting for. The tide is rising and so are we. This is where we are called to be.

Closing Song

"The Tide is Rising" by Shoshana Meira Friedman and Yotam Schachter

The tide is rising, and so are we! (3x)

This is where we are called to be, (2x)

Verses: The task is mighty..., The land is holy..., The storm is raging...

The sun is shining..., The world is ready..

Benediction

Let us close with these sober and inspired words of Martin Luther King in his speech against the Vietnam War in 1967:

We as a nation must undergo a radical revolution of values. We must rapidly begin to shift from a 'thing oriented society' to a 'person oriented society.' When machines and computers, profit motives and property rights, are considered more important than people, the giant triplets of racism, extreme materialism and militarism are incapable of being conquered.

That mission of a person oriented society is ours too.