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Earth Day, the Earth Challenge, & the People's #ClimateMarch

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Last Sunday, as part of reflecting on the Easter story from a twenty-first century perspective, I shared a challenge from the evolutionary evangelist Michael Dowd. He says that instead of dating the most significant turning point in history as B.C. (“Before Christ”), **we should start thinking in terms of B.C. as “Before Copernicus.”** Before the Scientific Revolution, it was more reasonable to maintain that we humans were the *point* of creation—that we were *the reason* anything even existed in the first place. But more than five hundred years ago, Copernicus presented reason, logic, and data demonstrating that Earth is not the center of the universe. And in the ensuing centuries, science has invited us to comprehend that our human species is only a tiny part of a much larger universe story that has been evolving for more than 13.8 billion years across more than two trillion galaxies.

Yesterday, two buses carrying more than a hundred passengers departed our parking to attend the March for Science in D.C. Another busload will head to D.C. this Saturday for the People's Climate March in D.C. Local sibling marches were also planned. **Both the #ScienceMarch and #ClimateMarch are protests against a human-centric perspective that disregards scientific data and denies the threat of human-created climate change.** We humans are not at the center of the universe. And when we act like we are, we wreak havoc on this beautiful but fragile planet.

In the 1980s, an ecologist coined the term Anthropocene (similar to the word anthropology) to highlight the ways we humans may have created a new geologic time

period in which we are the dominant force shaping this planet. Anthropocene literally means “the age of the humans.” There actually is a committee who decides such things, the Stratigraphy Commission of the Geological Society of London, and they have taken the matter under advisement. But they are in no rush. After all, we’re talking about *geologic* time (Purdy 1-2).

From about 2.5 million years ago until only about 12,000 years ago, our planet was in the Pleistocene epoch (often called the “Ice Age”). Starting about 12,000 years ago until today, we have been in the Holocene epoch. And to give just one example of the vast spans that have to be accounted for in geologic time, **during the entire twelve-millennia length of the Holocene, “plate tectonics has driven the continents a little more than half a mile.”** That means that most of us could move the scale of millennia-long planetary change in the matter of a few minutes (1).

Geologically, the major force shaping Earth in recent years has not been plate tectonics; it has been the lifestyle of one particular species of the Animal Kingdom: us, *homo sapiens*. Astonishingly, **the world population of human beings has increased sevenfold in a mere two centuries—from approximately 1 billion in 1800 to more than 7 billion today—with no signs of stopping.**

However, I invite you to consider that before we get too excited about the possibility of that term Anthropocene helping us wrestle with the longterm consequences of our human behavior on this planet, we should consider whether the name Anthropocene ironically continues to center humanity in an unhelpful and inaccurate way. As scientists have noted,

We don’t name a new era after the destructive force that ended the era that came before. [We] **didn’t name the time of the dinosaurs the Asteroidic, even if an asteroid is suspected of having ended the Cretaceous Period.... The period after the Permian isn’t the Super Volcanic....** (Moore 132)

From the perspective of geologic time, as destructive as that asteroid and volcano were, both of them soon “sank into the earth.” And it may be that we humans continue to cause extreme climate change to this planet before also sinking into the earth, leaving few longterm remnants of our civilization. (Think of all those dystopian films in which modern cities, like *The Lost City of Z*, become rapidly overgrown with vines as nature reclaims the planet.)

At this point, the question is not whether climate change is going to happen. It is already happening. The question is: how much worse will we let things get? Both the March for Science and the People's Climate March call us to heed the warnings of science—and to seek to build our economy not on the alleged bottom line of “profit alone,” but to account for a **triple-bottom line that balances “people, planet, and profit.”** Monetary profit motive is still a principle factor, but it is no longer allowed to externalize its impact on labor and the environment—people and the planet.

Along these lines, the environmental philosopher Kathleen Dean Moore in her 2016 book *Great Tide Rising: Towards Clarity and Moral Courage in a time of Planetary Change* says that just as we have added increasingly large warning labels to packs of cigarettes, we need to add large warning labels to all the harmful ways we use fossil fuels:

WARNING: Fossil fuels are addictive.

WARNING: Burning fossil fuels can harm your children.

WARNING: Burning fossil fuels can cause fatal lung disease and cancer.

WARNING: Burning fossil fuels during pregnancy can harm your baby, directly through pollution, or indirectly by damaging the planet's life-giving systems that will sustain that small person into the future.

WARNING: Burning fossil fuels can kill you, and (so far, in tandem with habitat destruction) has killed 40 percent of the plants and animals on Earth.

WARNING: Burning fossil fuels causes harm even to those who cannot afford to burn them.

WARNING: *Quitting* fossil fuels *now* greatly reduces serious risks to your health, the health of the planet, and the health of future generations. (178)

Or, to quote the 1995 Nobel Prize winner in Chemistry, who discovered that chlorofluorocarbons contribute to ozone depletion: **“What is the use of having developed a science well enough to make predictions if, in the end, all we're willing to do is stand around and wait for them to come true?”** (Flannery ix).

Of course, it does not help that climate change denial is on the ascendency in our government. Moreover, science itself is not neutral. Even as science keeps getting better at

predicting the causes and impact of climate change, science is also getting better at extracting the fossil fuels of coal, oil, and gas that contribute to climate change in the first place (78-9).

We need to use the power of science wisely. Tim Flannery details in his important 2015 book, Atmosphere of Hope: Searching for Solutions to the Climate Crisis, the red line we should avoid crossing is “pushing average global surface temperatures 2°C or more above” the average prior to the 18th-century Industrial Revolution, when we started pumping carbon into the atmosphere at unprecedented rates. If we think of humanity’s “carbon budget” as the amount of carbon we can burn and stay under that 2°C threshold, then experts tell us **“about 80 percent of the world’s valued fossil fuel reserves must be left in the ground”** (106). Meeting the challenge of this tough metric will require valuing the longterm health of people and planet over short-term profit.

At the same time, I don’t want to exaggerate the costs of making such an ambitious choice. Australia and Germany are already prime examples of how nations can lead in both economic growth and environmental responsibility. **What we truly cannot afford is to continue allowing companies to rake in short-term profit from fossil fuels without mandating their accountability for the long-term negative impacts of their actions upon people and planet** (70-71).

We also need to incentivize the transition to an environmentally-responsible green economy. Looking to the future, solar and wind will be a part of the equation: “One reason that wind and solar are disruptive is that their fuel is cost-free. Once the initial investment is made and the maintenance is paid for, they continue to run with minimal cost” (124). Responsibly-used nuclear power may also be part of how we fuel the future, although we have not yet solved the problem of nuclear waste, which “remains highly radioactive for several thousand years” (118). Along these lines of innovating a new way forward, I was interested to see the headline a few weeks ago that the electric-car maker **“Tesla Passes Ford in Market Value.”** That’s a remarkable shift that could not have been anticipated a few decades ago.

Some techno-utopians hope that innovations in geo-engineering will allow us to either remove carbon from our atmosphere or reduce its effect. One popular idea involves injecting sulfur into the atmosphere to reflect more of the sun’s rays, but there could be serious unintended

consequences from this and other related approaches (140-144). Another fascinating idea is “Covering 9 percent of the world’s oceans with seaweed farms” to absorb Carbon Dioxide (165-166). If you are interested in learning more about the various ideas for geo-engineering our way out of our climate crisis, Google “**Virgin Earth Challenge.**” In 2007, an entrepreneur offered a **\$25 million prize for anyone who could submit “a commercially viable design which achieves or appears capable of achieving the net removal of significant volumes of anthropogenic, atmospheric greenhouse gases each year for at least 10 years.”** So far, eleven promising finalists have been selected, but none are yet sufficiently viable to meet all the criteria required to win (152-154).

So there are some real reasons for hope, even as other signs look bleak. In researching this sermon, I was particularly struck by a passage from the 2015 book *After Nature: A Politics for the Anthropocene* (Harvard University Press) from a law professor named Jedediah Purdy:

I feel a little thrill of reverence whenever I see an image of the earth from space. Then I recall some of what the globe contains: acidifying seas, climate refugees, resource wars, and, alongside these human harms, hundreds of reminders that nature does not love us or want us to be happy: Lyme disease, birth defects, and the everyday theater of wild suffering, from the house cats hunting birds in the backyard to coyotes bringing down a terrified deer, to the thousands of ticks that can immiserate and exhaust an unlucky moose in the Rocky Mountain summer. There is no harmony waiting for us in that globe, at least none on a scale that fits our lives, our pleasures and pains and passions. **But the blue marble on the infinite black background is still the only possible home of everything we can love.** (10)

So, through all the evolutionary contingencies of 13.8 billion years, we find ourselves here on the third rock from the sun—on the edge of one spiral galaxy among more than two trillion others galaxies. And we know too much about our peripheral place in the universe and about the six previous mass extinctions that have already happened on this planet to pretend that we can do whatever we want to this planet and it’s all going to be okay. The projected potentially-dire possibilities are allurgently plausible, *and* both the beauty of this planet and the promise of what

we can accomplish as a species at our best are together more than enough to motivate me to continue the struggle for social, economic, and environmental justice.

I really mean that. If you are feeling overwhelmed, it's okay to assume the fetal position for a while, but then I encourage you to go outside—to get out into the beauty of the world. Refresh yourself in nature, but also remind yourself of how devastatingly beautiful this world is. And how much it is worth fighting to preserve.

And part of why we are celebrating Earth Day is that we do not have to figure out the way forward alone. In the words of Kathleen Moore, whom I quoted earlier about the warning labels needed on gas tanks and other agents of fossil fuels, “**What can one person do? *Stop being one person***” (292). Together we can accomplish far more than any of us can alone.

But I don't want to end there. Rather, I want to offer you a practice to take with you that can help ground our ongoing work for justice. It is a practice called “[Earth Breathing](#)” adapted from the Buddhist teacher Reggie Ray. The goal is to cultivate a felt experience of what our UU Seventh Principle calls “the interdependent web of all existence.”

If you are comfortable doing so, I invite you to assume a seated meditation posture with your feet flat on the floor, sitting up straight with your shoulders down—relaxed, but alert. Rest your hands comfortably on your thighs. If you are comfortable doing so, I invite you to close your eyes. Let your tongue relax in your mouth or touch your upper palate lightly. And take a deep breath: in through your nose . . . and out. In . . . and out.

Continue to allow your breath to slow and deepen. Notice how your chair is supporting you, grounding you. If you feel any tightness in your stomach or abdominal muscles, allow those to relax. Open yourself to the arising and passing of each new present moment and of your embodied nature within it.

I invite you now to gently shift your attention to a foot or two underneath you. Then, visualize your attention descending, down into the Earth, into the foundation of this building and then lower into the Earth itself. And on the in-breath, bring the energy of the Earth up into your body. And on the out-breath, let

it go. (Some of you may understand this practice more metaphorically. Others of you may experience this practice as quite literal. Both ways are fine.)

As you breath, keeping your attention below you in the Earth, feel the massiveness of the Earth beneath you. Breath in that vastness—up into your heart, up into your whole torso. Continue to take a few more deep breaths. Feel the peace of the Earth and breathe in that peace, letting it permeate your body.