

# RADICAL TEACHER

A SOCIALIST, FEMINIST, AND ANTI-RACIST JOURNAL ON THE THEORY AND PRACTICE OF TEACHING

## Introduction: Teaching About Climate Change

by James Davis and Bob Rosen



IN *MAN EATING TREES*, JOHN SOKOL EMPLOYS HUMOR TO COMMENT ON OUR SELF-SERVING DESTRUCTION OF THE ENVIRONMENT. THE ARTIST USED TAR DILUTED WITH VARNISH TO CREATE A DARK, NIGHTMARISH QUALITY. AKRON ART MUSEUM. WITH PERMISSION OF JOHN SOKOL.

The Arctic ice cap is melting. The seas are rising. Extreme weather events—droughts, floods, hurricanes, massive snowstorms—are becoming the norm. World grain production is declining, and resource wars are intensifying. The United Nations Intergovernmental Panel on Climate Change, a sober group, predicts “severe, pervasive and irreversible impacts” in the very near future.

Depressed yet?

The oil and gas industry wields immense power; its funding decides elections; it spends \$400,000 a day on lobbyists. The American Legislative Exchange Council (ALEC) is undercutting state environmental regulations and the Trans-Pacific Partnership, like trade agreements before it, promises to do the same nationally and internationally. Round the clock cable news coverage sensationalizes weather but rarely mentions climate change. Over one third of U.S. Senators deny that human activity causes global warming.

Demoralized?

If we think too much, and too self-indulgently, about climate change, we can start to feel like nine-year-old Alvy Singer in *Annie Hall*, who sees no point in doing his homework since the universe is expanding and will some day break apart. For the more deeply we look into the problem of climate change and the more radical a view we take of its causes, the more intractable it can seem. And who wants to fight a fight that can't be won?

Still, let's spend a little time going through some of the reasons to despair, if only to get them out of the way.

One problem, of course, is denial. Fossil fuel corporations obviously have their own reasons —and a great deal of money—for promoting the view that the climate is not warming, or that if it is, it's not because of human activity, or if it is anthropogenic, then the threat is exaggerated and, besides, we can easily fix it. But many of our students, and we too, may be in denial at some level, averse to thinking about it, perhaps out of a belief that disaster is unavoidable, or that it will only strike somewhere else, or perhaps that taking steps towards averting it might mean uncomfortable changes (or worse) to our life styles, whether reduction in automobile and plane travel, or limits to our diet<sup>1</sup>, or other assaults on our consumption. One can easily envision a world with sustainable transportation and food, but between here and there (if we're to have a chance of making it there) lies a lot of unpleasantness.

We also can't put much faith in those who do acknowledge the magnitude of the problem but offer only liberal solutions. More efficient light bulbs, hybrid or electric cars, solar panels and wind farms, even governmental action such as stricter regulation or a carbon tax are at best inadequate. Nor do grander technological fixes like nuclear energy or geo-engineering offer much hope. After all, who can be trusted to run the nuclear plants safely or to tell the truth about the risks of grandiose geo-engineering schemes like Solar Radiation Management, which would disperse vast quantities of

particles into the atmosphere to reflect sunlight away from the earth?

And how much hope can we really invest in national environmental groups, when we learn that so many of them have taken money from fossil fuel corporations, have endorsed “natural gas” as a healthy alternative to oil, or have pushed carbon trading and other doomed market-based solutions? (See Naomi Klein, chapter 6, for details on this kind of cooptation.<sup>2</sup>)

The momentum of the systems—both the earth's biosphere and the political economy—that need to be turned around immediately is enormous. The carbon dioxide that has already been added to the atmosphere will be there and will continue to increase global temperatures for centuries. And the carbon that needs to stay in the ground if we are to have a chance represents billions of dollars of wealth to powerful fossil fuel corporations—wealth they're not about to let anyone turn into “stranded assets.” For them, climate effects are an “externality.” And as the actions of their agents in governments around the world have shown, they are determined to make sure that the kind of international cooperation needed to reduce greenhouse gas emissions will be forever postponed and, in fact, undermined further by trade agreements.

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Naomi Klein sums up the predicament clearly: “We are stuck because the actions that would give us the best chance of averting catastrophe — and would benefit the vast majority — are extremely threatening to an elite minority that has a stranglehold over our economy, our political process, and most of our major media outlets” (p. 18).

And yet . . . there is growing resistance. In September 2014, an estimated 400,000 protestors joined the People's Climate March in New York City, a broad coalition of groups representing students, union members, indigenous peoples, environmentalists, peace and justice workers, LGBTQ activists, and more. Prominent among the chants was “system change, not climate change.” Tar sands extraction in Alberta, Canada is being fought by actions against the Keystone XL pipeline and by Nez Perce lawsuits blocking the transport of equipment through tribal lands in Idaho. Demonstrators are sitting down in front of trains carrying coal from Montana and Wyoming for export to China. Student-led divestment movements are forcing colleges to rid their portfolios of fossil fuel corporations. (Though this may not have any direct effect on the bottom line of these corporations, it will tar their reputations, and they may soon be as morally tainted as tobacco companies have become.) Now even the Church of England is divesting, and the Pope is expected to deliver an encyclical on the harm climate change does to the poor. And, of course, plans are already in the works for massive

demonstrations around the UN climate talks scheduled for December in Paris.

Optimists on the left have argued that we should see climate change as an opportunity to do something about capitalism. We are not persuaded that capitalism is as susceptible to reform as Naomi Klein and others suggest, but we agree that there is something very important here for radical educators, because the same things that make climate change so enormous a challenge— it is so systemic; it connects so many of the dots—also make it an excellent subject for the classroom. Teaching about climate change can mean, for example, teaching about class (who suffers the consequences?), about racism (how did the government and the media respond to Hurricane Katrina?), about sexism (is our patriarchal relationship to nature central to the problem?), about global inequality (who's been most responsible for all that carbon dioxide in the atmosphere?), about imperialism ("what's our oil doing under their sand?"), and on. The climate crisis offers us an almost unending "teachable moment."

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The five articles in this issue of *Radical Teacher* describe the work of educators who are confronting the challenges and discovering the rewards of teaching about climate change.

In "Resource Wars: An On the Ground Understanding of Mountaintop Removal Coal Mining in Appalachia, West Virginia," Nicole Fabricant describes a surprise encounter with one of the complications of teaching about climate change. In her Towson University anthropology course, Resource Wars of the 21st Century, she and her mostly working-class students study the "explicit links between Big Energy, extractivism, and the climate crisis" and analyze the consequences of privatization and deregulation, as well as the social movements fighting back around the globe. A key component of the course is a four-day field trip to Kayford Mountain, intended to give students "first hand" exposure to the nature and consequences of one particularly destructive extractive process, mountaintop removal. An unexpected encounter with Families and Friends of Coal, a group supported by the coal industry but also genuinely connected to local people

whose immediate livelihood depends on coal mining, forces Fabricant and her students, some of them already environmental activists, to take a more complex view of potential alliances and possible solutions, for what is needed to make possible a safe future may be in serious conflict with the immediate interests not only of big capital but of segments of the working class.

The struggle to present a clear-eyed vision of reality without smothering hope can also arise in teaching about climate and the law. In "Ignorance/Denial-Fear/Paralysis-Engagement/Commitment: Reflections on a Decade of Teaching Climate Change Law," Eleanor Stein describes her work with pre-law students at the State University of New York at Albany and with law students at Albany Law School. The law can certainly be an instrument of the powerful but, through studies of local, state, and federal legal battles over the environment as well as in-class simulations of global climate negotiations, Stein hopes to offer her students not only an understanding of the enormous obstacles ahead but also the tools and the optimism to carry on.

In "Teaching and Practicing Climate Politics at College of the Atlantic: Student-Inspired, Student-Driven," Doreen Stabinsky helps those she teaches engage directly with the kinds of global negotiations that may very well shape our fate. Students from her Global Environmental Politics and her Practicing Climate Politics courses travel abroad to attend sessions of the Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC), in hopes of advocating for "climate justice." They quickly learn that "you cannot leave change up to climate negotiators" and that some of the most important action takes place outside the convention halls. For this select and somewhat unusual group of students, already committed to engaging with climate issues, encountering the intransigence of the powerful and the power of that intransigence leads not to resignation but to greater activism, including local anti-pipeline protests back home.

At Arizona State University, Breanne Fahs encourages her students to confront environmental issues in a much more personal way. In "The Weight of Trash: Teaching Sustainability and Ecofeminism by Asking Undergraduates to Carry Around Their Own Garbage," she describes a component of her women's studies course, "Trash, Freaks, and SCUM," which requires her students to collect and in some sense *own* the garbage they produce, leading them to question their lives as consumers and their aspirations to earn a lot of money so they can consume even more. What might seem like a mere gimmick, or an endorsement of lifestyle changes as the solution to environmental problems, in fact leads many of them to understand the need for broad social change and to take on responsibility for working towards it. "At its core," Fahs writes, "global warming is a problem of consuming more resources than we can sustainably create."

Finally, in "Bringing Climate Into the Classroom: Inside a Teaching Retreat Around Naomi Klein's *This Changes Everything*," Bill Bigelow, Alex Kelly, and Katie McKenna describe a three-day retreat led by Bigelow and Linda Christensen, of *Rethinking Schools*, in which eighteen

teachers, mostly high school but also middle school and elementary teachers as well as college teachers in education schools, used Klein's best-selling book (and a companion film) as a foundation for developing new curricula. The creativity unleashed by the retreat and the educational efforts that will follow as these teachers bring their plans to their classrooms suggest that maybe hope is worth holding on to after all.<sup>3</sup>

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As we write this (May 2015), hundreds of activists have taken their kayaks and small boats into the port of Seattle to protest the presence there of Shell Oil's Polar Pioneer drilling rig. Shell plans to tow this 400 by 355 foot monster, over 300 feet tall, out from Seattle this summer in order to drill in the Arctic waters off Alaska's North Slope, a major step in opening up an entire new region for fossil fuel extraction. The outcome of the "Paddle in Seattle" protest is uncertain, but the image of hundreds of tiny boats confronting this behemoth should inspire us.<sup>4</sup>

## NOTES

1. Fossil fuel use for transportation and electricity generation gets most of the attention, but according to the Food and Agriculture Organization of the United Nations, animal agriculture is responsible for 18 percent of greenhouse gas emissions: <http://www.fao.org/ag/magazine/0612sp1.htm>. Other studies indicate an even higher percentage. See, for example, <http://www.worldwatch.org/node/6294>. Obviously, we need to eat something, but our individual and collective choices matter.

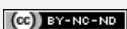
2. Naomi Klein, *This Changes Everything: Capitalism vs. The Climate* (Simon & Schuster, 2014).

3. A valuable resource is the new book from *Rethinking Schools*, *A People's Curriculum for the Earth: Teaching Climate Change and the Environmental Crisis*, edited by Bill Bigelow and Tim Swinehart. A good, simple introduction to climate change science is available at: <https://msuweb.montclair.edu/~franker/SustainableTompkins/FrankeGlobalWarmingBasicsST.pdf>.

4. The threat of climate disaster will no doubt be with us for some time, and *Radical Teacher* welcomes other articles on how to teach about it.



ACTIVISTS IN SEATTLE PROTESTING SHELL OIL'S POLAR PIONEER DRILLING RIG.



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