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The Dream of a Post-Environmental Education[®]

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When my son Joaquin was four years old we visited a coastal Indian community in British Columbia. In the arts and gift shop I chanced upon a book published by the Sierra Club called *Come Back Salmon: How a Group of Dedicated Kids Adopted Pigeon Creek and Brought it Back to Life*. When I read it for the first time to Joaquin I was so moved that, by the end, I had tears in my eyes.

I picked it up again on Thursday morning to read on my flight from Oakland to Boston.

The book starts with a fifth grade teacher, Mr. King, at Jackson Elementary School in Everett, Washington taking his students to visit Pigeon Creek 20 years ago. "Scattered through it were bottles and cans, squashed Styrofoam cups, torn six-pack holders, old tires and a lot of other junk."

"What is this, anyway?" one student asked.

"It looks like a garbage dump to me," said another.

"No," said Mr. King. "It's a stream. It was a clear, clean stream when I was a boy."

"The members of the class stared at their teacher. They couldn't imagine him ever being a little boy, any more than they could imagine this muddy, trash-filled gully ever being a stream."

And thus the plot is set firmly around the power of imagination — the human faculty that the Romantics believed was far more important than reason itself. The dream of Mr. King and his students is to adopt the creek and bring the salmon back. They start by cleaning it up.

Some of the people living nearby weren't exactly encouraging of Jackson School's Pigeon Creek project. "You're wasting your time," said one. "Bringing salmon back is nothing but a dream," said another.

Mr. King told his class, "To accomplish anything, you have to have a dream. Everything worthwhile starts with a dream."

They hauled out over 600 tires and cajoled the local parks department into helping them remove old refrigerators. But the next weekend Everett residents dumped more junk in the creek as they always had. The students realized that just clearing away the trash wouldn't be enough; they'd have to change people's behavior too. They used stencils to spray paint "no dumping" on storm drains; they posted signs; and they guarded the creek with their own bodies until would be dumpers got the hint.

Then the Port of Everett announced it would build a log storage facility on the Creek. "That'll block our stream!" said one. "What do they care? They don't even know about our Pigeon Creek project."

"We've got to tell them."

"Why would they listen to us? We're just kids."

"Even kids can make a difference."

"Who says?"

"Mr. King says, 'You can make a difference?' That's what he always says."

So the fifth graders started to write letters – "a lot of letters." To the city council, the state legislature, congressmen, the local media. The media coverage did the trick. The port said it would build the storage facility somewhere else. And the mayor and city council got a photo opportunity with the kids.

Something else happened. People living nearby began to help. A woman called the school after seeing that the creek was running muddy, which poses a danger to salmon eggs. A man who walked his dog by the creek picked up trash as he walked. And joggers chased after dumpers.

The middle section of the book is dedicated to a wonderful explanation of salmon biology and reproduction. The kids create a large aquarium at school to breed coho salmon and watch as they grow from eggs to alevins to fry, baby fish. In May, 1985, they say goodbye to their salmon fry as they release them into the newly clear and clean creek.

"Do you think any will come back?" One child asks. Mr. King remained confident, even though many parents were not.

“My mother says it’s more than likely than none will come back,” said one child.

“My dad says it will be a miracle if any come back,” said another

There were no signs of salmon by the fall of 1985. Nor by the fall of 1986. By then, hatching salmon in the school aquarium had become a staple activity for Jackson school fifth graders. But by the fall of 1987, Ryan Nolan, who had been in the third grade when the first fry were released, “burst into” class and shouted, “Mr. King, Mr. King, I saw a fish in Pigeon Creek!”

The classroom of children and Mr. King leapt for their coats and headed to the Creek. “There, resting on the gravelly bottom, was an adult male Coho salmon... Its jaw, with its strongly hooked teeth, was almost fierce looking. Nearby, flipping their tails gently in the clear, flowing water of the stream, were two more returned salmon... ‘They came back! They came back!’ Students were shouting all over the school.

“The news flew through the city of Everett and beyond. The first of the Coho salmon raised from eyed eggs in a Jackson Elementary School room and released two years earlier had returned! In the next few days, ten more salmon made their way back. As they spawned, the rain fell on the clean waters of Pigeon Creek and on the awed faces of those who came to see. No fish had returned to Pigeon Creek to spawn for more than twenty years.”

The story made national and international news, inspiring similar efforts as far away as Japan, which sent a class of children to learn from the Jackson School’s successful experiment.

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What most impressed me on my second reading of *Come Back Salmon* was that nobody needed Mr. King to explain the nightmare of Pigeon Creek. It was there for everyone to behold. What the students and the community of Everett needed was the freedom and encouragement to dream – to see and imagine an alternate reality.

The adults had all but given up. What prevented them from seeing a clear and clean stream filled with salmon wasn’t the junk in the creek, it was the junk in their heads. They had learned to stop dreaming. It wasn’t that anyone thought cleaning up the creek was a bad idea. In Washington state, salmon are as revered as motherhood and apple pie. Rather, the only argument anyone could make against the dream was that it was, well, a dream.

And what kind of an education was this exactly? To call it “environmental” misses a lot. Sure, if you looked at the pictures in the book you’d assume this was a biology lesson. There was an abundance of photos of salmon eggs, alevins and fry. And there was just one picture of the kids at the city council and another of the kids guarding the creek. But the lesson the children walked away with went far beyond biology or what is understood as “ecology.” The children learned that if they simply cleared the trash but didn’t change the behavior of the community that the trash would simply return the following week. In learning how to shape public opinion by appealing to a dream and higher social values, had the children received a lesson in social psychology?

The children also learned that all their work would be for not if the Port were allowed to build a log storage facility on site — and they learned that putting pressure on the city council and the mayor might override the Port Authority. Was this a lesson in government and politics? In learning of the symbolic power the salmon and their incredible journey back to the place of their birth, had the children received a lesson in the cultural history of the Pacific Northwest? The children also learned that what they had done made a good story for the media, attracting news crews from around the world. They thus learned how to tell a story and learned the power of mass communications. That's a pretty advanced lesson about our postmodern society for a bunch of 11 year-olds. At what point did this environmental education become something beyond the environment?

Clearly, the learning that took place in Mr. King's classroom went beyond the disciplinary categories like "biology" and "sociology" and "psychology" that we use to divide up our understanding of the world. These children were taught to feel an inter-species sense of solidarity. And the community was inspired to feel the same — as is the reader of *Come Back Salmon*. This solidarity inspired a range of other feelings, from anger at how people had thoughtlessly dumped on Pigeon Creek, to anxiety that the salmon would not survive, to awe at their return. Perhaps this early awakening to what the humanistic psychologist Abraham Maslow called "higher needs" put these kids on track to transcend, at an early age, the material and status needs our consumerist society infects us with. Where are these children now? Most are about my age, in their early thirties. Are they environmental activists? Educators? Policymakers? New brain research shows that in order for us to learn anything we must first be emotionally aroused. Learning never takes place in an emotion-free context. Great teachers like Mr. King, have long understood this. Emotions are powerful. Combining them with knowledge and imagination can make for a compelling, aspirational politics.

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It is an honor for me to speak before a group of environmental educators who have dedicated their lives to activating in young people the values of ecological concern and, often, social responsibility. I salute the contribution environmental education has made to intermingle the feeling of awe at the sight of creation with the feeling of power to change the world. And I thank you for inviting me to speak here today.

Ted Nordhaus and I received a surprising amount of attention and notoriety for self-publishing an essay last year called "The Death of Environmentalism: Global Warming Politics in a Post-Environmental World." It argued that the way we conceptualize some problems as environmental and others as not is arbitrary at best and misanthropic at worst. The worst-case scenarios of global warming and ecological collapse are all but inevitable, we argued, if environmentalism fails to evolve into something more aspirational, expansive and powerful. Environmentalism must die, we concluded, so that a politics capable of dealing with the ecological crisis can live.

At the same time, I can offer no criticism of environmental education or educators like Mr. King. What he and Jackson School achieved 20 years ago was extraordinary. I believe that their greatest accomplishment had less to do with bringing the salmon back to Pigeon Creek and more to do with bringing back the dream to Everett, Washington.

The world's great ecological challenges have more to do with our failure of imagination than with the failure of reason. Mr. King's fifth-graders changed people's behavior and won political action because they offered a new vision, not because they argued well. The problem is not that people don't see the nightmare; it's that they don't allow themselves to dream.

The logic of dreams is expansive — limitless, even. In our dreams we aren't bound by the laws of nature — not even by gravity. We fly. We turn into other people. In the dream world we might begin as our father, become our self, and end as our son. In the dream world, good can turn to bad and back again in a blink of the eye.

Some say we are all parts of the dream; some say we are whatever we say we are. There's no separating the interpretation from the dream. When and where does a dream end and our waking reality begin? What does it take for an individual dream to become a common dream?

Mr. King could have given up on his dream at any point. He could have realized that clearing the creek of trash was just too much to ask a group of 10 and 11 year-olds. After all, somebody could have gotten hurt. The kids could have complained of doing manual labor to their parents. And the principal might have seen all this outdoor activity as playtime, not class time.

On learning that Everett residents had dumped more junk on Pigeon Creek over the weekend, Mr. King could have decided the project was hopeless. You can't teach old dogs new tricks, he could have told himself. Mr. King could have concluded that too much development had already taken place; the salmon would never survive in such a muddy creek. He could have realized that there's no fighting the Port Authority. And he could have realized that politicians don't care about anything other than getting campaign contributions from logging companies.

Instead Mr. King and his students stuck to their dream. Soon it became the dream of the principal. And the parents. Before long, bringing back the salmon became the dream of Everett and communities like it around the world.

And yet their dream is not sufficient to do what we need to do to either save the coho salmon or change the world. Even if every school in Washington State adopted a dead creek, the coho salmon would still not recover. What's needed is not simply more restoration efforts but also a politics capable of dramatically changing timber, agriculture and development policy. The problem isn't that Mr. King's dream is too big but rather that it isn't big enough. The question for us then is this: how can we dream about a politics — and a pedagogy — capable of turning our crisis into an opportunity?

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The big political victory in *Come Back Salmon* comes after the Jackson schoolchildren lobby against the port's planned log storage facility. The Port Authority agrees to build the facility, the book notes, "someplace else." The book never says where this "someplace else" is. Why would it? The title announced already that this is a book about Pigeon Creek, not "someplace else." Fair enough. But it does remind me a bit of what the green architect Bill McDonough says about how we throw our trash "away." Where is "away," anyway? In the case of old computer monitors, we now know, thanks to the Basal Action Network, that "away" is in rural China, where poor families

disassemble the machines for scrap metal and throw the rest away — poisons and all — into their dying rivers. Bill McDonough's point isn't that people should better understand how the county dump or the global waste stream works but rather that nothing on earth ever goes away; it simply turns into something else. To be fair to the author of *Come Back Salmon*, for any story to be compelling it must keep a tight focus on a single subject. An extra chapter on the unlucky scrap of nature that was eventually burdened by the log storage facility would likely have undermined the book's uplifting and empowering ending. Still, you have to wonder: what if the log storage facility was eventually built on a piece of land that a classroom of fifth-graders had fought but failed to stop from being constructed? Truthfully, had the book discussed the unlucky students alongside the Jackson school students, I probably wouldn't have become as dewy-eyed at the ending, and the book probably wouldn't have received so many awards,

And where would such a book end? Why not also add a chapter about the erosion and devastation to wildlife on the forest hillsides that were stripped clear of those "logs"? Why not a chapter on the cozy relationship between the logging industry, the local port authority, the legislature, and the Congress? Why not write chapters on how humans had wiped out 95 percent of coho salmon through logging and development? Why not write about the dream of a new kind of logging? One that supports the local economy, generates wood products, and brings the salmon back to their historic numbers?

Simply put, because it would longer make for very good bedtime reading.

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Sierra Club founder John Muir famously wrote, "When we try to pick out anything by itself, we find it hitched to everything else in the Universe." Like Mr. King and his students, Muir was a dreamer. I suggest that this ethic of interconnectedness is as much at the center of education as it is at the center of environmentalism. Isn't that what learning is? Connecting those things out there in the world with those things inside our heads? Aren't thoughts and feelings all the accumulation of chemical feelings, firing synapses, and brain cells woven together?

That said, the logic of interconnectedness can feel a bit overwhelming. How can we make endless series of connections — there just isn't time in the day. Isn't it enough for environmental educators to focus on the non-human world? Perhaps. But what was so interesting about Mr. King and his students is the way their environmental education kept looping back to human behavior. What Mr. King and his students found was that bringing the salmon back to Pigeon Creek was hitched to getting people to stop dumping their trash there and to getting the Port Authority to build their log storage facility someplace else. And these two behaviors are hitched through time and space to an infinite number of other causes and effects. Isn't this infinitely expansive dream logic the logic of ecology itself? And yet, by including humans in this eco-logic, the concept of the environment no longer makes sense. For this reason I think the question, "Where to stop?" is the wrong question. The questions we should ask ourselves are: is the concept of "the environment" any longer useful? If not, what new concept could replace it?

You don't need a Ph.D. in linguistics to see that there's something funny about the concept of "the environment." If the concept includes humans, then everything is "environmental" and it has little use other than being a poor synonym for "everything." If the concept excludes humans then it is

scientifically specious (not to mention politically suicidal). Plainly, humans are as much a part of the earth as a redwood tree, a raindrop or a coho salmon.

Why, then, do we include in the category of “the environment” or “nature” those Amazonian Indians who log the forest but not street children in Rio de Janeiro who consume almost nothing? What are the implications of creating a pedagogy or a politics around such an arbitrary category?

Why do we consider childhood asthma exacerbated by air pollution an “environmental” problem but not asthma exacerbated by lack of treatment? Why is habitat for non-human animals an “environmental” issue while habitat (a.k.a. “housing”) for human animals is not? Why are extinctions caused by meteors considered “natural” but ones caused by humans “unnatural”?

Starting in the sixties the “environment” seemed to be a more expansive term than “nature,” which, at least in its popular usage came to refer to those places people wanted to protect. In the sixties and seventies, when people spoke of “saving the environment,” they were talking as much about the air, water and lands as those parts of the earth not yet occupied by human civilization.

The American Heritage Dictionary defines the “environment” as the following:

1. The circumstances or conditions that surround one;
2. The totality of circumstances surrounding an organism or group of organisms, especially:

Like the concept of nature, the concept of environment is understood to be something outside of us, something that “surrounds” us. The concept of “the environment,” thus, paradoxically, betrays the ever-expanding logic of ecology, the study of the interconnections between all living things, not just non-human life.

Environmentalists define the “environment” and “environmental problems” as outside of and caused by human beings but have traditionally shown little interest in human psychology and other human sciences that seek to understand human behavior and motivation. At the core of modern environmentalism is a literal adherence to the non-human, a.k.a., “natural” sciences. In the 1960s and 70s, environmentalism’s rickety conceptual underpinnings were sufficient to support a social movement and the passage of laws to clean up the air and water, protect species and land, all the while growing the economy in new ways. The problem is that the mental model for dealing with smog and creating national parks isn’t capable of dealing with global warming, mass extinction, or the destruction of places like the Amazon. Most of the changes environmentalists won in the past, such as taking lead out of gasoline, mandatory catalytic converters, and scrubbers in coal-fired power plant smokestacks, were relatively minor compared to the massive transformation that is required of the global energy economy to deal with global warming. Indeed, global warming is so different that it challenges our political assumptions. If, for example, the environmental community staves off oil drilling in Alaska – where global warming is melting the tundra and making the forests vulnerable to disease -- what will remain?

At the conceptual level, I suggest, we should embrace John Muir’s expansive ecology of interconnectedness by fully extending it to include the human world. This logic challenges, I believe, the utility of the categories of “nature” and “the environment.”

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Post-environmentalism is the word we are using to describe the thought movement of former environmentalists who view the so-called “ecological crisis” as conceptually and politically inseparable from the human crisis, and who believe that environmentalism is incapable of turning this crisis into an opportunity.

Post-environmentalists share many of the same values and concerns as environmentalists. What we reject is environmentalism’s soft misanthropy; its incuriosity about the human sciences, from sociology to psychology to anthropology; its scientific fetishization of the non-human sciences, like ecological biology (which makes environmentalism, paradoxically, unscientific); its outmoded liberalism, which believes humans are and should be rational, materialist and self-interested individuals; and its gloomy, anti-aspirational focus on “limits” and “restrictions.” At the strategic level, what post-environmentalism embraces is the recognition that, for people to care about the non-human world they must first have their basic material needs met. We can’t expect a poor Brazilian to care about the destruction of the Amazon if he’s hungry or sick or fears for his physical safety.

Everyone wants to be inspired by a vision of a better world and by leaders who are true to what they believe in. Environmentalists have spent the last 40 years telling people what they can’t have, can’t do and can’t be. We need to offer a vision to the entire human race about what we can have, can do, and can become. We need to speak as much to people’s hopes as to their fears. We need to inspire people to dream again, in the same way that Mr. King and his students inspired the community of Everett to dream about a return of the salmon to Pigeon Creek. We need to inspire people to understand not simply non-human biology and behavior but also human behavior and society. Once we do this, we have firmly moved beyond what had been traditionally known as environmental education into something else.

A post-environmental pedagogy would thus need to embrace the human sciences, from social psychology to sociology, as fully as it has embraced the nonhuman sciences of biology and geology. Clearly, it wasn’t good enough to know that dumping trash in Pigeon Creek was bad for the salmon; the students also had to figure out how to get people to stop dumping their trash. The science of ecological biology explains how the trash in the Creek had killed off the salmon; the science of psychology explains why the citizens of Everett were moved to change their behavior by a group of fifth graders. Why would our lesson plans seek to explain the biological principles but not the psychological ones?

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Is there a line between the concerns of environmental educators and non-environmental educators? Today, high-stakes standardized testing demands that, if teachers hope to keep their jobs, they must spend much of their time teaching to the test. If they don’t, and their children fail to improve, year after year, then they will soon no longer be teachers. I wondered, as I read *Come Back Salmon*, which describes a series of events between 1985 and 1987: do Mr. King and his students still have the freedom to grab their coats and head for Pigeon Creek whenever somebody sights a returning coho? Or does Mr. King say, “No, kids, I’m sorry but there’s simply no time. We

have to prepare for the upcoming test.” I wondered: is reforming standardized testing so that it includes emotion intelligence and experiential education like the kind Mr. King offered an “environmental” issue? If it seems like I’ve come with more questions than answers, you’re right. We know from history that social change breakthroughs often begin with bold challenges to the conventional wisdom. I get the feeling that environmental educators are the verge of just such a breakthrough.

There are far more people who have abandoned their dreams fearing disappointment than there are people who have assessed the evidence and reasoned that change is futile. Very few people really believe that making the transition to a clean energy economy, that spending billions to save the Amazon, or that working with schoolchildren to protect or restore something in their communities are bad ideas. The problem is that too few people share these dreams.

The challenge for those of us who care about the future of the Earth and all of its inhabitants is not to argue well. Rather, as the Romantics would put it, it is to speak differently. And that will require putting at the center of our pedagogy and our politics these two things: the simultaneous exploration of our human and nonhuman worlds and an insistence on an ever-widening dream.

Thank you very much.