

The Planet, Not Just the Republic at Risk

The election of Donald Trump poses the most significant internal risk to the Republic since the Civil War. The circumstances in America before the war and today are eerily similar; the peril in both periods was and is the rejection of science. The frightening parallel is between the southern slaveholders' refusal to recognize Charles Darwin's science in his seminal work on the *Origin of Species* when it arrived in America in 1860 and the climate change denialists' ideologically-based rejection of scientists' warnings about today's threat of a warming planet.

Trump has made it clear that he believes climate change is a “hoax...a concept created by the Chinese...bullshit [that] has got to stop.” His cabinet appointments are uniformly denialists, who reject outright the well-established science of climate change and are openly hostile to the agencies they were chosen to direct. White House chief strategist, Steve Bannon, has made clear that President Trump's cabinet picks are aimed at the “deconstruction of the administrative state,” the bane of free market devotees. The term “deconstruct” is a euphemism for elimination. “I'm a Leninist [and] Lenin wanted to destroy the state, and that's my goal too. I want to bring everything crashing down, and destroy all of today's establishment.” Soon after taking office, Trump's Environmental Protection Agency (EPA) head, Scott Pruitt, said that those who want to eliminate the agency

are “justified.” Trump has made his position on the EPA clear, calling the agency a “disgrace” and vowing to reduce it to “tidbits.” He has pledged to withdraw America from the 2015 United Nations Paris agreement, the first, yet tardy, meaningful international effort to tackle climate change.

Those who recognize the science of climate change, like agrarian reformer Wes Jackson realize that “We live in the most important moment in human history.” More emphatically, investigative journalist and professor Christian Perenti recently put it, “We are faced with the most colossal set of events in human history: *the catastrophic convergence* of poverty, violence and climate change.”

The administration’s denial that climate change is real and human-caused calls to mind American editor and writer Norman Cousins’s *Saturday Review* editorial of nearly 40-years past, which stated that “History is a vast early warning system.” Of course, this notion was most famously penned by George Santayana: “Those who cannot remember the past are condemned to repeat it.” While the history of history is replete with the repetition of past foibles, civilization has never before been in the crosshairs of a human-caused extinction crisis that is scientifically certain, but ignored.

Randall Fuller’s recent book, *The Book that Changed America* chronicles the introduction of Darwin’s revolutionary thinking to America and how his theory of evolution ignited the nation in early 1860. Ralph Waldo Emerson,

Henry David Thoreau and some half-dozen others had founded transcendentalism in protest of the materialism that was consuming American lives. The town where they lived — Concord, Massachusetts — was the site of this new line of thought, a hotbed of anti-slavery sentiment and where Darwin’s book first took hold. The political context in which *On the Origin of Species* arrived in Concord was the belief that chattel slavery “was an indelible stain upon the nation, a brutal and inhumane practice that gave lie to the United States’ devotion to liberty.” *Origin* arrived in America just weeks after John Brown’s execution for the failed attack on Harper’s Ferry, arguably an event that ignited the Civil War.

The notion of evolution — descent through modification, transmutation and inheritance of characteristics — was not new, but Darwin’s idea of the process he called “natural selection” was revolutionary. His “book represented a major accomplishment in the history of science, a significant advance in the world of thought.” Although nowhere near as revolutionary in terms of original thought, in terms of importance to humankind and life on the planet, climate science is of far greater importance.

Abolitionists correctly saw that the theory of natural selection and its implications — irrespective of skin color, each race had the same ancestor — was a science-based theory that could be used to support abolition. The belief that the Negro was intellectually inferior to the White was the norm throughout the South

and common in the North. Discounting the overriding economic question of the value of slaves, had the science proffered by Darwin been accepted, the Republic may well not have suffered the slaughter of the Civil War.

Fuller points out how abolitionists realized that “the politics of slavery had polluted scientific inquiry...Southern slave interests had corrupted free and dispassionate investigation...the shadow of our national sin has fallen even on the domain of our science...” With climate change denialists in charge of the Presidency and both houses of Congress, it is irrefutable that fossil-fuel interests have effectively corrupted much of the public’s understanding of well-established science and co-opted a large segment of the public’s elected representatives so that climate-change science has been shunted aside.

Nearly a century and a half has passed since 1860, the year Darwinism arrived in Concord. Southerners saw it as a blustering, godless, a theory that threatened to diminish humanity’s place in the universe and, by the way, as a means for plundering private property. Despite the lip service to God, the core issue was money and science was not going to get in the way. The value of slave holdings in the United States was about three times the amount invested in manufacturing or railroads nationwide. When abolitionists insisted that the 400,000 slave owners in the South free their human property, this demand required slavers to forfeit an asset with an estimated value of \$75 billion in today’s dollars.

In 1860, slaves represented about 16 percent of the total household assets or more than the total value of all the banks, factories and railroads in the country. Land was the only asset more valuable than Black human property as the "peculiar institution" fueling the economic engine, not just for the entire slaveholding South and many northern industries, but the entire nation.

The amount of fossil fuel beneath the ground in the proven coal, oil and gas reserves is 2,795 gigatons of carbon. This number exceeds by five times the available space for carbon dioxide (CO₂) in the atmosphere — estimated to be 565 gigatons — before the dreaded increase of an additional two degrees Celsius above the pre-industrial level is reached, the maximum degree of increased warming deemed safe for survival. The estimated value of the fossil fuels containing that carbon is valued at somewhere around \$27 trillion, meaning an 80% write-off (565 is 20percent of 2,795) of these stranded assets will cost investors almost \$22 trillion. Avaricious, profit-glutted oil companies are not going to willingly leave \$22 trillion or 2,230 gigatons of fossil fuel in the ground.

The parallel: the \$75 billion value of slave holdings and the \$22 trillion value of fossil fuel reserves. The problem: slave holders who refused to accept Darwin's science that all humans are of one race and had the same ancestor and fossil-fuel interests, the President and his administration who reject established science, claiming climate change is a hoax. Claims that slaves were sub-human and

that climate change is “bullshit” are little more than money grabs. The difference is that the Civil War merely risked the Republic, while the current war on science may well end civilization as we know it.