

Book Review: Ian Angus on Climate Change, Anthropocene and the Intersections of Science and Socialism

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Book review of *A REDDER SHADE OF GREEN. Intersections of Science and Socialism*. Ian Angus, Monthly Review Press, New York, 2017.

This book follows the author's *Facing the Anthropocene*, also published by Monthly Review Press, in 2016.

The Anthropocene refers to a new geological period, where the activities of human beings are having major effects on planet's geology and biology, including for humanity. Angus, and increasingly geologists, are focusing on the period beginning around 1950, when humanity's impact, which had been developing gradually, underwent a "great acceleration" – a dialectical transformation of quantity into quality.

The amount of carbon dioxide and methane in the atmosphere — "greenhouse gasses", surface temperature, melting of the icecaps, ocean level rise and acidification, plastic waste in the oceans, tropical forest loss, species extinction, and other indicators have ballooned, with grave implications for humanity.

His new book contains polemics, debates and articles from a Marxist perspective not mainly with the climate change deniers, but with other environmentalists, scientists, and socialists, who differ with each other on explanations and solutions. This includes ecosocialists – as Angus explains, there are as many differences among them as there are differences among socialists more broadly.

The book is divided into five sections. The first is "Natural Science and the Making of Scientific Socialism," a necessary foundation for the rest of the book and a necessary clarification among Marxists.

The second, "Responding to the Anthropocene," responds to critics of the left and the right who are trying to delegitimize Anthropocene science and convince environmentalists ignore it.

The third, "Numbers Are Not Enough," considers aspects of the overpopulation myth that were not covered in a previous book by Angus together with Simon Butler, *Too Many People?*.

The fourth, "Saving Species, Saving Oceans" discusses that topic.

The final section, "Toward an Ecological Civilization" proposes a broad vision of the fight for a world in which the lives of future generations takes precedence over the present capitalist drive for profits.

I will concentrate on the first section, because the issues it raises are still in dispute among Marxists. I'll also deal with aspects of the second section which are also in dispute in the broader

environmentalist movement.

"Natural Science and the making of Scientific Socialism" refutes an interrelated series of assertions. One is philosophical, that dialectics pertains only to human society and not to the rest of nature. Since Engels' unfinished book, *Dialects of Nature* says the opposite, a corollary is that Engels distorted Marx's views. One proponent of these views that Angus quotes goes so far as to assert Engels' views were responsible for "some of the more repressive features of Soviet practice."

An even more extreme assertion by some is that "Marx was not a Marxist – that Marxism was a doctrine invented by Engels, whose scientific materialism was contrary to Marx's liberal humanism," Angus points out.

Another assertion is that Engels was interested in natural science while Marx wasn't.

I first came across the core of these views when my companion and I were in Europe as the representatives of the Socialist Workers Party to the Fourth International, 1968-70. They were especially strong among the younger French comrades, who had played an outstanding role in the May-June 1968 events in France. They were influenced by the early writings of Georg Lukacs in his *History and Class Consciousness* where he rejected Engels' view in an otherwise brilliant polemic against the determinism prevalent in the Second International of an automatic triumph of socialism, in contrast to the Bolshevik's revolutionary practice. They were also influenced by Sartre, who emphasized the "otherness" of nature to the human mind.

Angus refutes these views, beginning with the last one: "New studies of Marx's long-unavailable notebooks, now being published in the [Marx-Engels Complete Works] definitely refute claims that Marx was uninterested in the natural sciences or considered them irrelevant to his politics." He quotes one Marxist, Kohei Saito:

"Marx's notebooks allow us to see clearly his interests and preoccupations before and after the publication of the first volume of Capital in 1867, and the directions he might have taken through his intensive research into disciplines such as biology, chemistry, geology, and mineralogy, much of which he was not able fully to integrate into Capital. While the grand project of Capital would remain unfinished, in the final fifteen years of his life Marx filled an enormous number of notebooks with fragments and excerpts. In fact, a third of his notebooks date to this period, and almost one-half of them deal with natural sciences. The intensity and scope of Marx's scientific studies is astonishing."

Angus refutes this constellation of views in two long essays, one on Marx's and Engels' long-time friend, Carl Schorlemmer, the "Red Chemist," who was a noted chemist of his time and a communist. As Angus proves, they discussed over many years social and political questions – as well as chemistry and natural science. All three were dialectical (historical) materialists who understood that all of nature, including human society, was in constant motion and development. Dialectics is the logic of motion, evolution, and how one stage can be superseded by a new and different one, in human history as well as the non-human world.

The assertion that there was a split between Marx and Engels on the dialectics of nature is a falsification, and Angus proves it.

The other essay in this section of Angus' book is about Marx's and Engel's relation to the then new evolutionary theory of Charles Darwin concerning the history of life. Both men were greatly appreciative of Darwin's scientific breakthrough. Marx wrote that the *Origin of Species* "contains the basis in natural history of our [his and Engels'] view."

While Darwin probably knew little of Hegel or dialectics, Angus shows that his theory of the evolution of life was in fact dialectical. It was a partial realization of what Marx wrote in 1844: "History itself is a real part of natural history and of nature's development into man. Natural science will, in time, incorporate into itself the science of man, just as the science of man will incorporate into itself natural science: there will be one science."

In *Socialism: Utopian and Scientific* Engels wrote, "Nature works dialectally and not metaphysically ... she does not move in the eternal oneness of a perpetually recurring circle, but goes through a real historical evolution. In this connection, Darwin must be named before all others. He dealt the metaphysical conception of Nature the heaviest blow by his proof that all organic beings, plants, animals and man himself, are the products of a process of evolution going through millions of years." (Lucaks in the work referred to above actually claimed that nature moved only in a recurring circle.)

Another point that Angus makes is that "Marx's research for *Capital* had included a careful study of Justus von Liebig's work on agriculture chemistry, which he described as 'more important for this matter than all the economists put together.' [Monthly Review editor] John Bellamy Foster has shown that this research was central to the development of Marx's concept of a 'metabolic rift' between capitalist society and nature."

One need not be a fan of the flawed *Monthly Review* school of economics (I'm not) to realize that *MR* and Foster in particular have taken the lead in developing Marx's insight into a Marxist theory of the present ecological crisis, including climate change, and what must be done about it. Others, like Angus, are part of this development, which is ongoing and progressing, including with debate.

One key conclusion that is important today of all of this is that Marxists, like Marx and Engels in their time, should at least become aware of what the earth scientists are telling about the world, if not study what they are saying, if they are going to be effective in helping lead the fight against the looming environmental catastrophe.

A Redder Shade of Green goes on in the second part to refute various attacks on the core of Anthropocene science, including from the left. Self-described "ecomodernists" profess a concern with the environment with opposition to pro-environmental policies on the grounds that capitalist development will solve all the problems, including global warming, and the environmentalists are getting in the way of such development. They are shills for the fossil fuel industry, which every day gives us Dr. Pangloss ads on TV about how they are solving all environmental concerns by themselves, and not to worry.

There are others who "refute" Anthropocene science, mainly by misrepresenting it, as Angus shows in some detail.

Some environmentalists, propose various technological solutions to climate change without cutting back on the burning of fossil fuels. Some are dangerous and foolish, like proposals to disperse in the atmosphere particles to reflect back sunlight to cool us - proposals which omit discussion of what the long-term effects on life on earth would result from such an idiotic proposal to do something that cannot be reversed, and would be imposed on all of us worldwide.

On the left there are other proposed technological solutions. One of these is to capture carbon dioxide from the atmosphere, and store it in rocks, while allowing fossil fuels to be burned indefinitely. While chemical reactions are known to do this on a small scale, scientists (and some experiments along these lines that have failed) have demonstrated that this "solution" is not technologically feasible on the necessary scale to make a difference, and would even cost more than shutting down all fossil fuel burning.

We have to face the reality: the only solution is to phase out fossil fuel energy replacing it with renewable energy, while protecting displaced workers in a “just transition.” We must do this to avoid the looming catastrophe, and to do this we must begin to measure these forms of energy by their use-value to humanity, and not their dollars and cents exchange value to capitalists. The use-value of renewable energy is not only already greater than the use value of fossil fuel energy, but the latter has become steeply negative on balance and dangerous to our continued existence.

This book should be read by all who are concerned with climate change and the degradation of the environment generally. There will be those who take issue with some or all of Angus’ views, but as he wrote in his introduction, “I look forward to receiving responses, criticisms, and disagreements, as submissions to the online journal *Climate and Capitalism*” or to its Facebook page.

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