

**Working to Attain  
More Than  
"Actually Existing Sustainability"**

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## **0. Introduction**

Sustainability is indeed a very fuzzy concept. Consequently, I have three goals in this lecture tonight.<sup>1</sup> First, I return to some of sustainability's origins as an idea in the environmental movement during the 1960s and 1970s to emphasize continuing its cultural, economic, and political importance. Second, I then want to reconsider how "sustaining the Earth" has morphed from the 1960s and 1970s into the notions of "sustainable development" circulating in today's economy and society. And, third, I want to propose another sense of what sustainability means--by going back to its roots and how it has been used over time--by asking us to seek out and defend new politically emergent sustainabilities against today's conventionalized routines for enforcing "actually existing sustainability."<sup>2</sup> The notion of "actually existing," as it is used here, of course, plays off the exhaustion of revolutionary socialist ideals in their Stalinist/neo-Stalinist paralysis from 1945-1985, because ideological decay parallels the tired and empty deployments of sustainability across so much of the world today.

### **I. Sustainability and Ecology: 1960s and 1970s**

In a recent effort to define sustainability, Leslie Paul Thiele explores this idea as a "key concept," since "learning to live and work sustainably is the practical challenge of our

times" (Thiele, 2013: 2). Arguably, this assessment is quite true, but he then expends 199 pages making his use of "the"--a definite article--considerably less definite, and perhaps ultimately nondefinitive, by allowing sustainability to remain still "one of the least meaningful and most overused words in the English language" (Owen, 2011: 246).

Today's sense of actually existing sustainability is conflicted, contradictory, and basically compromised (Norton, 2005; Young, 1990). Nonetheless, sustainability remains a suggestive, and not yet exhausted, intellectual asset and practical resource. Finding some unknown double--in the swirl of new politically emergent sustainabilities--is not impossible. In fact, it is nearly imperative if one is not resign herself or himself to the comfortable career paths of corporate sustainability officers, government environmental protectors or NGO-tied sustainable developers that actually existing sustainability fosters. Since sustainability is a very mutable concept, different forces have stressed divergent ethical inflections in its policies and practices over the years. For the record, even though many hard-working individuals and well-meaning groups still labor energetically to make ecological values, like sustainability, security or justice more prevalent, embedded, and certain, there is precious little justice, security or sustainability in this world. Given this reality,

one always must raise the crucial political question for environmental politics: Who, Whom? Whose sustainability, for whom? Exploring those answers, no matter how provisionally, should disclose important points of debate.

In 1971, Barry Commoner framed the issue of sustainability in terms of preserving the ecosphere and sustaining its biotic integrity with his book The Closing Circle. Regarding his own work as "an effort to find out what the environmental crisis means," he observed:

Any living thing that hopes to live on the Earth must fit into the ecosphere or perish. The environmental crisis is a sign that the finely sculptured fit between life and its surroundings has begun to corrode. As the links between one living thing and another, and between all of them and their surroundings, begin to break down, the dynamic interactions that sustain the whole have begun to falter and, in some places, stop. . . . Suddenly we have discovered what we should have known long before: that the ecosphere sustains people and everything that they do; that anything that fails to fit into the ecosphere is a threat to its finely tuned cycles; that wastes are not only unpleasant, not only toxic, but, more meaningfully evidence that the ecosphere is being driven towards collapse (Commoner, 1971: 7-8, 8-9).

Sustaining the whole ecosphere demands staving off the man-made causes of its collapse, and the survival of all life--much less its sustainability--must halt, and then reverse any potential economic, social or technological causes of ecosystemic collapse. At the same time, we should bear in mind--over 40 years later--as bad as things appear, the world's ecosystem has

not collapsed, even though it is straining under the growing stresses being placed on its carrying capacity. Interestingly, Les Thiele also includes this same criterion as one of his many definitions of sustainability: it is avoiding collapse.

Sustainability is fundamental to survival, and one cannot but favor it. Yet, these grand goals for policy often are lost in the unending quest for economic growth, namely, the ceaseless creation of new opportunities to produce and consume more goods and services. How headlong growth can somehow be regarded as sustainable development, when Commoner and many others have been very clear about how this intensive pursuit of development inevitably will cause severe degradation and then destruction of the ecosphere, is surprising; but, this belief persists.

Safeguarding the ecosystem is a worthy goal, and any code of ethics and strategy for politics that might advance its security merits our attention and requires our action. Consequently, the pursuit of policies that favor biodiversity, low-impact lifestyles, sustainable production/consumption, or collaborative governance, is another decisive action that ethical individuals and groups in the twenty-first century should take. How they are enacted, by whom they are implemented, and who benefits and pays in what ways as they are put into practice, at the same time, are serious questions with very important implications for the political process. In the

quest for sustainability, one must always remain open to new politics, newly emergent potentialities, and new conditions for rethinking "the sustainable" to avoid collapse (Diamond, 2005; Ehrlich, 1962; Osborn, 1948).

As Commoner asserts, "anyone who proposes to cure the environmental crisis undertakes thereby to change the course of history" (Commoner, 1971: 300). In too many ways, the ecologically destructive course of world history has not changed; indeed, it perhaps only has barely moderated since the 1970s and 1980s after the negative pushback against "the limits to growth" studies made popular at this same time (Meadows et al., 1972). Unfortunately, after all of the past generation's grand debates over the urgent severity of our environmental crisis, it would appear, these discussions only have served to deflect time, energy, and attention away from reacting to the nearly incomprehensible great acceleration and widespread dispersion of intense economic growth since the early 1970s.

Plainly, it is a remarkable irony that the years during which so much ink has been spilled to call upon humanity to live in sustainable ecological harmony with the Earth are the same decades in which the world economy has experienced an unprecedented era of explosive commercial growth and considerable social development. On the one hand, sustainability and development experts observe that

"environmentally, the world is in an overshoot mode" (Brown, 2011: 7). Yet, on the other hand, sustainable development discourses also allow economists to celebrate a nearly

10-fold growth in the world economy since 1950 and the associated gains in living standards as the crowning achievement of our modern civilization. During this period, income per person worldwide climbed nearly fourfold, boosting living standards to previously unimaginable levels (Brown, 2011: 7).

Economic output, which once was gauged in billions of dollars, is now measured in trillions, but it also must be weighed in the miserable measures of the ecosphere's degradation (Luke, 2006) and society's operational overshoot of its natural resources (Catton, 1980).

As Commoner claimed, changing the course of history requires "rational, informed, collective social action" (1971: 299), but the radical nature of many green political theories and practices paralyzed those who recognize that few, if any, citizens and consumers will exchange the false promises of unending high-tech economic growth for the hard march toward an ecosphere-protective social regime grounded upon the income equality, simpler lifestyles, and moral values favored by true frugality (Daly, 1973). The fact that far-sighted individuals living in industrial capitalist democracies knew they had to act decisively along these lines during the energy, environmental, and economic crises of the 1970s was quite clear. Yet, in 1971,

Commoner spoke in a sense for everyone when he also mused "that we must act is now clear. The question which we face is how" (1971: 299).

Looking back, it would appear too many people chose to drift aimlessly towards a tragic compromise, namely, embracing sustainability ideas as a solution for not altering the course of history, curing the environmental crisis, or ending the post-war culture of growth. Instead the project of economic development remained the inexorable course that history continued to follow. During the 1970s, at coincident apogees of the Cold War, the energy crisis, and a stagflationary economy, the fixation on economic development prevailed albeit with some good intentions to make unending material growth greener. The fundamental guarantee for the survival of industrial democracy under the conditions of "actually existing capitalism" was, and still is, greater economic growth in perpetuity: "growth is a substitute for equality of income. So long as there is growth there is hope, and that makes large income differentials tolerable" (Wallich, 1972: 62).

Commoner rightly notes, then, that the world's ecological crises result from complex clusters of contradictory forces working all at once. He also recognizes that "none of us, singly or sitting in committee, can possibly blueprint a specific 'plan' for resolving the environmental crisis. To

pretend otherwise is only to evade the real meaning of the environmental crisis: that the world is being carried to the brink of ecological disaster not by a singular fault, which some clever scheme can correct, but by the phalanx of powerful economic, political and social forces that constitute the march of progress" (Commoner, 1971: 299).

## **II. Shifting Meanings of Sustainability**

Between the 1970s and today, the meanings and uses of sustainability changed dramatically before this phalanx of social forces at work in all corners of society. Used in its original sense from the 1960s and 1970s "sustainability" was understood by some as a very radical benchmark for new human practices needed to get shuck of the world's most inequitable practices in industrial capitalist economies, and all of their most toxic tendencies. This radical change was needed in order to ensure the survival of the Earth, first and foremost, and, second, to identify in a preliminary manner, a more balanced, frugal, sensible, enriching, low-impact form of everyday human life that could guarantee the survival of all human communities in less consumerist, materialist, and technified configurations for individual and collective well-being. Fuller's Operating Manual for Spaceship Earth (1969), Johnson's Muddling Toward Frugality (1978), Goldsmith's Blueprint for Survival (1972), Schumacher's Small is Beautiful (1975) or Elgin's Voluntary

Simplicity (1981), for example, all couched the moral imperatives of living simpler, more frugally or smaller as suitable responses to the oil shocks, resource shortages, stagnant incomes, and ecological disasters of the 1970s. As Brown affirmed three decades ago, "creating a sustainable society will require fundamental economic and social changes, a wholesale alteration of economic priorities and population policies" (1981: 8), but these transformative alterations still have yet to come.

Ironically, a study by Wackernagel (2002: 9, 266-71), published twenty years after Brown's call to action in 1981, underscores how a tremendous opportunity was lost at that historical conjuncture a generation ago. After living more or less within the overall carrying capacity of the planet for around 5,000 or 6,000 years, the aggregate demand of humanity upon the biosphere in terms of its resource extraction, economic transformation, and waste loading clearly exceeded the planet's capacity for ecosphere regeneration only at/around 1980 (Brown, 2011: 7).

Hence, in a manner that parallels the domestication of socialism after Bernstein's turn toward "evolutionary socialism" rather than continuing many forms of "revolutionary socialism," Lester Brown and others in the green movement endorsed almost every plan in business-as-usual economic development, which

could be cast as "sustainable," as historic change. Yet, just as the Social Democratic Party could say it remained a "revolutionary socialist movement" as it embraced parliamentary democracy, union building, and political compromise after the 1880s and 1890s, it also openly renounced being a "revolution-making socialist movement" to stay out of jail, in the government, and on the side of legality. As green thinkers slipped away from making transformative social changes towards mere "world watching" or "ecological footprinting" as economic growth explosively mushroomed, they lost their once transformative revolutionary potential (Capra, 2004). This evolutionary turn left them, to a large extent, meandering down the primrose paths of "ecological modernization," "green capitalism" or "sustainable development" that the Brundtland Commission in 1987 labeled as "Our Common Future."

Unfortunately, those days of future are now past. Our common future now does not seem as bright. As Marx and Engels might have noted, radical quantitative growth soon leads to tremendous qualitative change. In turn, a generation of sustainable developers has run amok so wildly that it has filled the atmosphere, oceans, and biosphere with so much greenhouse gases, toxic wastes, and plastic trash that this detritus is bringing the planet perhaps into the condition of being fundamentally a noxious, man-made, artificially-processed world.

Another inconvenient truth of the present is that the Great Recession of 2007-2009 is not yet over. As it lingers, the quest for sustainability thrives as a polysemic policy rhetoric and/or amorphous commercial myth that competes for support against other attractive policy narratives, like the quest for greater accountability, efficiency, resilience or safety in order to lessen brittleness, complexity, risk or stagnation. What is politically most interesting here is how sustainability, as a political challenge or cultural problem, has become rhetorically foundational to justifying corporate and government growth policies. The key question for sustainability, then, is "why is it a problem and why is it this kind of problem" or if you will "why this particular way of problematizing challenges appears a given point in time" (Foucault, 2007: 141).

Sustainability and unsustainability are not simply representations people give themselves, and not merely the conditions that determine them without their knowledge. Instead, such practices make the modern milieux of material life,

. . . what they do and the way they do it. That is, the forms of rationality that organize their ways of doing things (the technological aspect) and the freedom with which they act within these practical systems, reacting to what others do, modifying the rules of the game, up to a certain point (this might be called the strategic side of the practices) (Foucault, 2007: 116).

These three strategic dispositions all unfold through ideas about sustainability: first, relation of collective action as control over things; second, the relations of human actions upon others; and third, their individual relations with themselves.

By conducting our critical reconsideration of sustainability in the spirit of a political ethnography, it is clear that a critical reappraisal of sustainability can be considered not simply,

. . . as a theory, a doctrine, nor even as a permanent body of knowledge that is accumulating; it has to be conceived as an attitude, an ethos, a philosophical life in which the critique of what we are is at one and the same time the historical analysis of the limits that are imposed on us and an experiment with the possibility of going beyond them (Foucault, 2007: 118).

Nevertheless, what limits are in question here, and what are the experiments needed to go beyond them?

Many earth scientists, environmentalists, and geophysical engineers now characterize these historical limits, which are imposed upon us with every fresh wave of dismal scientific analyses, by embedding them in the framework of deep geological time. That is, we putatively now live in the epoch of "the Anthropocene," or a whole new geological, biophysical, planetary age defined by "Man." Any experiment to go beyond these limits, however, must read the small print of these analyses inasmuch as "the Man" making the Anthropocene appears to be not everyone.

Rather "Man" is only those human beings who have invented, built, and applied steam power (or more generally any fossil fuel energy) in the projects of industrial economic growth since 1763 when James Watts' steam engines begin to become generally more available for greater use. Thus, the more one looks at sustainability, it is fair to wonder how much the variations in "the unsustainable" versus "the sustainable" become political rhetorics in an era of fossil fuels for

". . . a much more complex technology of the self. This technology of the self maintains the difference between knowledge of being, knowledge of the word, knowledge of nature, and knowledge of the self," (Foucault, 2007: 188).

When transferred through the shape and substance of self and social knowledge, sustainability becomes more all-pervasive "in the constitution of thought" or the "field of subjective data which is to be interpreted" (Foucault, 2007: 188).

With sustainability studies, many might argue there is a prismatic cluster of concentrated economic complexities that can reveal considerable texture in great detail about how government of the self and others in contemporary global capitalism is exercised, in part, through its complex energy, labor, material, and symbolic ecologies. As many authorities depict it, development is freedom (Sen, 1969). In this regard,

Maybe our problem now is to discover that the self is nothing else than the historical correlation of the technology built in our history. Maybe the problem

is to change those technologies [or maybe to get rid of those technologies, and then, to get rid of the sacrifice which is linked to those technologies] (Foucault, 2007: 190).

This realization rests on a number of brittle structural conditionalities, but Foucault identifies how fully globalization is a collective sacrifice to the shifting historical correlates of technology that deliver a very mixed basket of beneficial products and poisonous by-products.

Those who want to see Anthropoceneries emerging from the present would concur. The modern capitalist self of consumerist materialism is a historical correlation of these technologies for fossil-fueled commercialization, industrialization, and urbanization that has been built into our history. The challenge today is to change, or maybe get rid of, those technologies. Even so, some would-be sacrifices that are linked to these technologies also are widely regarded as also making successes--less poverty, longer lives, more wealth, better health, greater education, newer tools--instead of sacrifices per se. In today's "actually existing sustainability," the Anthropocene essentially is, in fact, the "Urbanthropocene" of last 100 or 150 years. Of course, a few future primitive Earth Firsters!, Unabombing Kaczynskites or Zerzanic ecoanarchists have, explicitly and implicitly, advanced a parallel view of these times in a register one might read as the Misanthropocene.

Nonetheless, few citizens and subjects are persuaded by their radical misanthropic formulae for attaining future primitive sustainability by trashing the developmental advances of the evolving Urbanthropocene hiding in the bland conceptualizations of the Anthropocene.

### **III. Sustainability: Modernity over Ecology**

The emptiness of engineered excess in contemporary sustainable development, moreover, creates technified terrains of very insecure uncertainty as the complex interoperations of our populations, territories, and states embed emergency at their core. If disrupted by any irrational, antisystemic or contingent mishap, huge disasters can occur due to design itself. And, they will inflict inconvenient and/or fearsomely wrong "dyspositions" of people and things as their abstract engineered order spins into concrete material disorder, losing its otherwise stable governmentality. Once dyspositioned, things can disrupt, distend or disintegrate the conduct of conduct in everyday life (Augé, 1995). Technics--as space, structure and system--are themselves cybernetic regimes. That is, they govern behaviors and instantiate rules simply by dint of their familiar, designated or common use. We make our things, and then our things make us in Beck's (1992) "second modernity."

Worries about sustaining the Earth, or being sustainable as a concept, do not frequently appear in environmental debates until the mid-1970s as society accepts the travails of second modernity, even though one can find the word itself in use as early as 1610 in various circles. Its initial users in environmental debates highlighted the need to conserve the planet and protect its ecology, as Commoner illustrates. Sustainability per se comes into currency around 1972 along with the initial Club of Rome studies and the Cocoyoc Declaration of 1974 from a UNEP/UNCTAD conference, and it is understood as "capable of being continued at a certain level." Strangely, this semantic twist in sustainability highlights a motif in its original seventeenth century sense of being a "bearable," or even "defensible," condition, experience or situation. A bearable ordeal of suffering or a defensible site for bearing such suffering in 1610, then, became something equated--at least by the twentieth century--with something like DDT, Deepwater Horizon or Fukushima Daiichi. That is, it is not unlike a whole way of life tied to greater rates of trade and development that is capable of being borne at a certain level of commodious, if almost unbearable, being. Maintaining modernity at it high pitch of heavy environmental costs now is that "development" which must be made "sustainable," even though the early proponents of sustainability definitely intended only to have it

stand for the Earth and its continued ecological existence without more pollution, waste, and contamination.

Over the past generation, then, sustainability has been strangely reimagined to favor manufactured modernities over natural ecologies with regard to what should continue, how the level of continuation is understood, and which capabilities are to be protected. Early authoritative voices saw the "sustainable" as living carefully, mindfully or even reverently with the Earth (Carson, 1962). Conservation, frugality, and low-impact living were once stressed, but the fusion of "sustainable" with "development" upended this balance over the past few decades.

Full license for this corruption, however, comes with the engagement of The World Commission on Environment and Development (WCED) and its 1987 Our Common Future report. It starkly pronounced that living lightly within the ecosphere's fixed limits is, in fact, not what is at stake. Instead humanity should heed not "absolute limits but limitations imposed by the present state of technology and social organization on environmental resources" (WCED, 1987: 8). Rather than shifting to other energy sources when conventional on-shore gas and oil reserves run down or low, for example, those limitations can, and therefore must, be overcome with new technology, more capital, and greater organization to tap

hitherto inaccessible resources farther off-shore in ever deeper waters or in other on-shore geologies suitable only for fracking. Beyond those locations, the planet's melting Arctic regions beckon. Hence, sustainable development is not meant to be "a fixed state of harmony," but instead "a process of change" for developing Nature's resources in a manner consistent with "future as well as present needs" (WCED, 1987: 9).

The mixed message in the Brundtland Report muddies the moralities at stake for sustainable styles of life. Once it is possible to not discount present practices against future needs, planning for more sustainable nuclear power development, sustainable oil and gas development, sustainable pesticide development, or sustainable plastics development begins with straight faces and no tongue-biting. If humanity is not enjoined to live in fairly steady states of harmony with Nature, then inventive and industrious experts are free to imagine any toxic, noxious, and destructive process, which markets may require to meet some future and present need, as "sustainability" (Luke, 2006).

Whether meaning emerges from behavior, or activity is shaped by thought, this operational dead-end ironically is embedded in the very idea of the sustainable itself. Sustaining someone or something, as this notion is now understood in modern English, comes from the Middle English "susteinien," the Old

French "sustinere," and most crucially here, the Latin "tenēre." With Latin's surum, "sus" implies "on" or "atop," while tenēre means "hold, have or grasp;" and "possess, occupy, or control;" and, finally, "acquire, guard or keep." Sustainable development starkly implies economic growth that has been reached for, grasped solidly, controlled directly, and guarded carefully. Now it must be kept. To keep, occupy, and hold that which has been possessed as energy-intensive and resource-wasting modernity without any, or at least too many, limits is "sustainability."

Whether it is subtle cynicism or subconscious calculation, today's fusion of sustainability with developmentalism makes far more sense in this light. Even though becoming fixated upon holding what one controls is neither necessarily sustainable nor developmental, it enables one to realize Big Oil's or Big Pharma's serious discussions of "sustainable oil and gas development" or "green industrial operations" are not as improbable as they first sound. Indeed, sustainability science seems to be something more like would-be modernizers/developers seeking "tenure track opportunities" to pursue heedless growth, and, once fresh modernizations of economic development are gained, they must be maintained more leanly, cleanly, and greenly as "tenured positions" searching for endless efficiencies (since our contemporary notions of "tenure" derive

from the same Latin roots as "sustain"), giving sustainability a very uncomfortable conservative cast.

Embedded and established excesses of energy extraction to the point of near environmental exhaustion is "development," and these technoscientific powers are what must be sustained. Yet, drilling down through the layers of mystification burying these enduring realities is crucial. Modernity must become something more than the most bearable modes of excessively mechanized toxic existence that the market can deliver (Virilio, 1995). Yet, without recognizing how much even the green crusaders for environment protection are, at times, tacitly the political agents of reinforcing these conservative mystifications, no change can be made (Luke, 1997) in the sustainability sciences as they exist today.

The original proponents of sustainable living (Pepper, 1996) sought to protect human and nonhuman life in a manner that might have, as Commoner asked, cured the environmental crisis by changing the course of history (1971: 299). Thinking about a mode of material and mental life working more in harmony of Nature, the advocates of voluntary simplicity, a steady-state economy, conscious frugality, small is beautiful, zero-population growth, or social ecology recognized four decades ago "that we must act now. . . the question we face is how"

(Commoner, 1971: 299). The recent, and still current, answer to "how" has been greater globalization from the 1970s to now.

Another answer (somewhat contra Commoner) admits that sustainability requires intense efforts to conserve the biosphere; but, it also must entail equally intense efforts to preserve much of our toxic technosphere to ensure the biosphere can be preserved. Ironically, this unanticipated "process of change" also will allow economies and societies to develop Nature's resources in manners consistent with "future as well as present needs" (WCED, 1987: 9). Many have spoken about thinking and acting ahead "seven generations" to protect the Earth's waters, air, plants, soil, animals, and life. Yet, nevertheless, after the Anthropocene's "urban revolution" (Lefebvre, 2003), some agency, organization, society, people must now think and act ahead perhaps for up to 70 generations (20,000+/years) before sites like Three Mile Island, Chernobyl, Fukushima Daiichi, and other technical/industrial mishaps of the Atomic Age become safe for human habitation. And, even all of these efforts would only address one dangerous noxious technoscientific system from the twentieth century.

Recounting these chronicles of sustainability is important, because the challenges are immense. Nonetheless, one should never lose heart. Why? Circumstances are always dire, prospects for success typically seem dim, and what lies ahead

usually appears to be doom. Still, doom has not come, dim prospects improve, and even dire conditions never prevent renewal, innovation or creativity. It is up to us, or perhaps more crucially you, to keep a "pessimism of the intellect, optimism of the will" to safeguard the Earth, its human and nonhuman beings, as history continues to unfold. Yet, as it does, those who want more than "actually existing sustainability" must now truly change history's course.

## Notes

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<sup>1</sup>This analysis was presented on January 28, 2014 at Acadia University for the Acadia Politics Student Association (APSA), the Politics Department, and the Environmental and Sustainability Studies (ESST) program at Acadia University, Wolfville, Nova Scotia to inaugurate the annual Sydney Taylor Memorial Lecture.

<sup>2</sup>Some elements of the reflections in this lecture are drawn from my "Reflections on Actually Existing Sustainability;" *Justice, Sustainability, and Security Global Ethics for the 21st Century*, ed. Eric Heinze, New York: Palgrave Macmillan, (2013); and, "The Anthropocene and Freedom: Terrestrial Time as Political Mystification," *Platypus Review*, 60 (October 1, 2013).

## References

- Augé, Marc. (1995). Non-Places: Introduction to an Anthropology of Supermodernity. London: Verso.
- Beck, Ulrich. (1992). The Risk Society: Towards a New Modernity. London: Sage.
- Brown, Lester R. (2011). World on the Edge: How to Prevent Environmental and Economic Collapse. New York: W. W. Norton.
- Brown, Lester R. (1981). Building a Sustainable Society. New York: W. W. Morrow.
- Capra, Fritjof. (2004). The Hidden Connections: A Science for Sustainable Living. New York: Anchor Books.
- Carson, Rachel. (1962). Silent Spring. Boston: Houghton Mifflin.
- Catton, William R., Jr. (1980). Overshoot: The Ecological Basis of Revolutionary Change. Urbana: University of Illinois Press.
- Commoner, Barry. (1971). The Closing Circle: Nature, Man & Technology. New York: Knopf. [Bantam Books] [1974].
- Daly, Herman E., ed. (1973). Toward a Steady-State Economy. San Francisco: W. H. Freeman.
- Diamond, Jared. (2005). Collapse: How Societies Choose to Fail or Succeed. New York: Penguin.
- Ehrlich, Paul. (1962). The Population Bomb. New York: Ballantine Books.
- Elgin, Duane. (1981). Voluntary Simplicity: Toward a Way of Life that is Outwardly Simple, Inwardly Rich. New York: William Morrow and Company.
- Foucault, Michel. (2007). The Politics of Truth. Los Angeles: Semiotext(e).
- Fuller, F. Buckminster. (1969). Operating Manual for Spaceship Earth. Carbondale: Southern Illinois University Press.

- Goldsmith, Edward. (1972). A Blueprint for Survival. London: The Ecologist.
- Greider, William. (1996). One World, Ready or Not: The Manic Logic of Global Capitalism. New York: Simon & Schuster.
- Johnson, Warren A. (1978). Muddling Toward Frugality: A Blueprint for Survival in the 1980s. San Francisco: Sierra Club Books.
- Lefebvre, Henri. (2003). The Urban Revolution. Minneapolis: University of Minnesota Press.
- Luke, Timothy W. (2006). "The System of Sustainable Degradation," Capitalism Nature Socialism, 17: 99-112.
- Luke, Timothy W. (1997). Ecocritique: Contesting the Politics of Nature, Economy, and Culture. Minneapolis: University of Minnesota Press.
- Meadows, Donella H. et al. (1972). The Limits to Growth. New York: Universe Books.
- Norton, Bryan G. (2005). Sustainability: A Philosophy of Adaptive Ecosystem Management. Chicago: University of Chicago Press.
- Osborn, Fairfield. (1948). Our Plundered Planet. Boston: Little Brown and Company.
- Owen, David. 2011. The Conundrum: How Scientific Innovation, Increased Efficiency and Good Intentions can Make Our Energy and Climate Problems Worse. New York: Riverhead Books.
- Pepper, David. (1996). Modern Environmentalism: an Introduction. London: Routledge.
- Schumacher, E. F. (1975). Small is Beautiful: A Study of Economics as if People Mattered. New York: Harper.
- Sen, Amartya. (1999). Development as Freedom. Oxford: Oxford University Press.
- Thiele, Leslie Paul. (2013). Sustainability. Oxford: Polity Press.
- Virilio, Paul. (1995). The Art of the Motor. Minneapolis: University of Minnesota Press.

- Wakernagel, Matthis et al. (2002). "Tracking the Ecological Overshoot of the Human Economy," Proceedings of the National Academy of Sciences, 99, no. 14 (July): 9266-9271.
- Wallich, Henry C. (1972). "Zero Growth," Newsweek, January (24): 62.
- World Commission on Environment and Development. (1987). Our Common Future. Oxford: Oxford University Press.
- Young, John. (1990). Sustaining the Earth. Cambridge, MA: Harvard University Press.