Dematerialism

Degrowth, Decentralization, Demarchy, Delegislation, Deschooling, and Dechrematisticalism

The prevention of competition for wealth and power is a necessary and sufficient condition for <u>Universal</u> <u>Sustainable Happiness</u>. Any method whatever for achieving this is dematerialism. Any society in which it is possible for one person to compete for greater material wealth or a greater share in posterity than others is doomed.

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Our Crisis

Our crisis has a physical component and an imaginary component. The physical component comes from limitations in the quantities of land, water, consumable energy, and the environment itself. The ecological footprint of the human race exceeds the carrying capacity of Earth. The imaginary component is instability in the monetary system caused by excessive debt and excessive monetary inequality.

To ameliorate the physical crisis we must eliminate the imaginary one. I do not mean that indebtedness, poverty, and wealth are imaginary; but, rather, that we can eliminate all three with the application of our imaginations without affecting the physical universe. Stabilizing our population and reducing our ecological footprint will ultimately have a desirable effect upon the universe.

Regardless of what the people want, the owners of the country want to retain their positions of power, privilege, and wealth. Naturally, they despise the idea of government control of the economy and the means of production; however, when a crisis arises that they cannot handle, they readily accede to crisis socialism to save them. During World War II, without adopting socialism completely, they

allowed rationing, wage and price control, and management of vital industries by government employees (albeit members of the traditional ruling class) even if they were paid only one dollar per year.

To respond appropriately to resource and environmental limits, we need to establish crisis socialism. However, to eliminate debt, we need to repudiate the US dollar; and, to eliminate inequality, we need to pay everyone the same even if no work can be found for them to replace the inessential work from which they were furloughed to reduce our consumption of fossil fuels and our ecological footprint. After all, the requirement that every citizen does useful work to get paid and the requirement that the pay should be commensurate with the value of the work are completely imaginary. The idea that everyone should be allowed to get as much money as he can is completely wrong.

But crisis socialism is a long way from Dematerialism. For example, most of us still think about money as the reward for contributing something useful to our community. The amount of money we acquire is the score in the game of life. Instead, we should think of money as a way to measure our consumption of scarce natural capital, which we can do once again with a rational monetary system based upon physical quantities which we now have scientific ways to measure rather than letting markets set prices. Belief in the "invisible hand" of the market is now quite generally recognized as belief in magic and, as such, no better than belief in astrology. We shall show that there is no way to justify anything but equality in consumption.

Definitions

Dematerialism

Dematerialism refers to any political economy in which, due to the structure and arrangement of the institutions, it is not possible for any member of the community to acquire more wealth or material resources than another. Resource dominance hierarchies cannot arise. In fact, the individual's share in the net production of the community is not in play. The term may be applied to the belief in or dedication to such a political economy. The principal justification for this work is that it corrects the problems with Marxism that have contributed to previous attempts to replace Capitalism, which, as we shall see, is intrinsically unsustainable.

Decentralization

Direct Aristotelian democracy is the basis for the so-called Fractal Government proposed here so as to ensure that all political power is retained by the people. Since every citizen must be a member of a community council which determines public policy, the village or neighborhood, the basic political molecule, must be small enough to 3 be effective. Thus decentralization must be the ultimate goal regardless of how the present system has to be accommodated. In particular, the largest identifiable political unit should be the drainage region, i. e., the contiguous portion of the land that drains into common reservoirs without any of the neighboring areas draining into it. This is the fundamental unit of land in ecology. (Professor Jorge Gabitto, formerly the chairman of the department of chemical engineering at Prairie View University, pointed out that our maps are drawn in the most regrettable manner from the viewpoint of ecology. Rivers make convenient borders for map makers but not for ecologists.) The space between the basic molecules and the governing body of the entire ecological region is the fractal-like structure shown in Figure 2. Additional necessities for decentralization are well known.

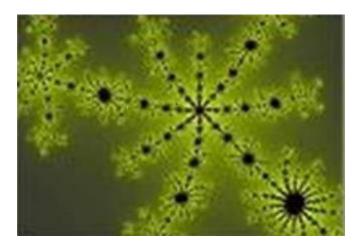


Figure 1. Fractal

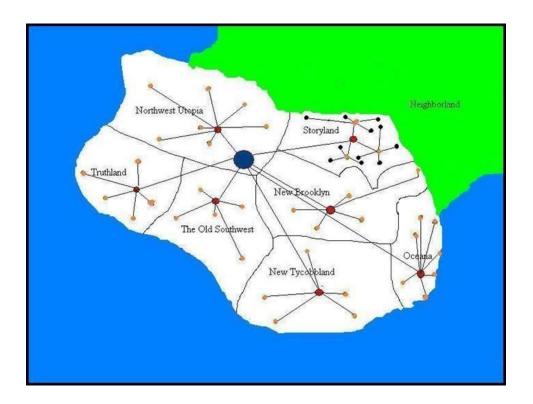


Figure 2. Fractal Political Structure

Demarchy

Demarchy is our name for a political economy in which distinguished members of the government such as political representatives are chosen by sortition, the semirandom method we normally employ in selecting jurors.

Delegislation

Our vast systems of law are ridiculous. Laws should be replaced by a few simple moral axioms from which right action can be derived easily. We should embrace rational morals that anyone can follow as opposed to religious superstitions and sexual and pharmacological prudery that no person of spirit can live by. Dissent should be tolerated and even those who do not accept our rational morality should be accorded the dignity of sovereign heads of state.

Our system of morals should be derived from a complete, self-consistent, mutually independent set of first principles that can be explained to a six-year-old and upon which most educated people can agree. If, in addition, those who dissent – even after we have employed our most compelling logical testimony – can be

accommodated without coercion and without inconvenience to themselves or us, we shall have done very well indeed. – On the Preservation of Species

Laws and morals should be congruent. Behavior that the community finds immoral, can be legal only in an incomplete legal system; whereas, a legal system that prohibits moral acts is tyrannous. Both laws and morals are obtained for the convenience of the community, provided the requirements of sustainability are met. There are certain aesthetic and other intuitive principles that we hope will come into play. I shall attempt to justify my otherwise arbitrary choices in the section on axiomatic morality below.

Degrowth

Population Degrowth

It makes sense to enter into the record at this point Professor Al Bartlett's famous talk, which explains how man's ignorance of the exponential function has affected our present population crisis: https://eroei.net/bartlettexp.mp4

As Prof. Bartlett puts it:

Can you think of any problem in any area of human endeavor on any scale, from microscopic to global, whose long-term solution is in any demonstrable way aided, assisted, or advanced by further increases in population, locally, nationally, or globally? - A.A. Bartlett, January 8, 1996

I can think of no better tribute to Al Bartlett than to emulate his challenge: Can you think of any social problem on any scale that is not exacerbated by the institution of private profit? In particular, I claim that population increase is worsened by the institution of private profit. The problem of over-population will not be solved except by Die-Off in a society that permits private profit.

If I may be permitted to widen the meaning of the term private profit to include (i) the increase of the proportion in the population of ones race, religion, politics, culture, or point of view and (ii) the increase in ones own or ones employer's, relative's, colleague's, or ally's accumulation or share of material wealth, then my challenge to the world is to name a single problem of humanity that is not exacerbated by private profit. It is the term "material" in "material wealth" that supplies the term "material" in the word "dematerialism".

Here are.mp4 and YouTube versions of Albert Bartlett's famous talk on the exponential function as it applies to population:

- 1. https://www.dematerialism.net/bartlettexp.mp4
- 2. https://www.youtube.com/watch?v=O133ppiVnWY&t=675s

It takes about 10 kilocalories of primary energy to supply one kilocalorie in our diets. Just now, we have enough conventional and fracked oil to support an agriculture sector that can support a large over-population; however, there are compelling reasons to abandon fossil fuel chief among which are the alarmingly high probability of catastrophic climate change and the absolute certainty that the supply of fossil fuel is finite and eventually will cost more energy to harvest than it will return. Perhaps it is not too soon to state a fundamental principle of social planning and forecasting, namely, that any event in the future of society that should be expected soon because of the nature of the exponential function should be treated as though it will occur tomorrow.

Economic Degrowth

The Economic Growth Trap

I tried very hard to prove that capitalism requires economic growth and ended up with nothing better than a reasonable <u>plausibility argument</u>. David Delaney, however, provided a completely satisfying explanation in "<u>The Economic Growth Trap</u>" which became the first step in the physical argument for Dematerialism.

"The Economic Growth Trap" by (the late) David Delaney. Today (01.23.06) I read "What to do in a failing civilization" by David M. Delaney. It contained the best explanation of why American-style capitalism requires growth I have ever seen. With the kind permission of the author, it is reprinted below. David posted the full paper and his other essays at http://geocities.com/davidmdelaney/.

David Delaney died a few years back; and, I no longer know where to find his excellent work. Someone should do whatever it takes to find this storehouse of well-considered thought. Economic growth requires increasing the amount of high quality energy and materials degraded by the economy each year. Economic growth on a finite planet will eventually stop. If it does not exhaust the resources needed for its continuation, it will stop earlier for some other reason. Allowing resource depletion and biosphere degradation to terminate economic growth will produce catastrophe. Unfortunately, our dependence on economic growth makes it extremely unlikely that we will give it up voluntarily before the catastrophe. Our dependence has at least four aspects: A) in the need to deal with adverse consequences of labor-reducing innovations, B) in commercial bank money, C) in the need to maintain tolerance of inequality, and D) in financial markets.

- A) The first dependence on economic growth is in the need to avoid the adverse consequences of innovations that reduce the need for labor. 1 By definition, each labor-reducing innovation either increases the amount of a good produced or throws some people out of work. Firms that create or exploit a labor-reducing innovation create new jobs internally by driving other firms out of business. The new jobs implementing the innovation offset the loss of jobs caused by the innovation, but the innovating firms don't necessarily hire all of the job losers, because the innovation reduced the total amount of labor needed to produce the original amount of the good. In order to re-employ all job losers, the economy must grow to produce more of the good with all of the original workers, or produce more of some other good with the cheaper labor (the job losers) now available. In either case the economy grows. Much of what we consider progress is due to labor-reducing innovations. In order to live without economic growth, we would have to give up this kind of progress, or introduce arrangements to allow workers who become unproductive to retain their relative wealth and selfrespect, or relegate most people to a repressed underclass. There is a powerful incentive to avoid these contingencies by encouraging economic growth.
- B) The second dependence on economic growth is in the creation of money by the act of borrowing at interest from commercial banks. Much of the money in each loan by a commercial bank is created by the loan itself. The bank collects a fee—the interest—for providing the service of creating the money. Other ways of creating money have been explored in theory and practice. Successful local currencies have been based on some of these alternatives, (see Douthwaite, Short Circuit, page 61) but all national money is now created by interest-bearing loans from commercial banks. This way of creating money contributes instability to an economy based on it. In order to keep the money supply from contracting when a loan and its interest are paid, a larger total of new loans must be created, increasing the money supply. (This is not transparently obvious. For a more detailed explanation, see Douthwaite, The Ecology of Money, page 24.) When the economy grows to match the increasing money supply, the value of money is

relatively stable, and commercial-bank-created money is benign. If the rate of economic growth does not match the rate of growth of the money supply, the money supply becomes unstable. Given the use of money created by interestbearing loans from commercial banks, an economy can minimize the resulting instabilities of the money supply by sustaining moderate growth. Monetary instability would put significant hazards in the way of deliberate attempts to contract our economy unless the creation of money was radically reformed.

- C) The third dependence on economic growth is in the political and geopolitical need for tolerance of inequality. Differences of wealth are at least as great within the developed countries as they are between developed and developing countries. Think of the ratio of the average income of American CEOs to the average salary of workers in their companies. Domestically and internationally, the tolerance of the poor and middle classes for the existence of wealthier classes and countries depends on a belief in economic growth. The poor struggle, while seeing that others are wealthy and still others are grotesquely wealthy. The poor are told a story: if they keep to their work and to their diversions, and tolerate the rich, they will be better off in the future than they are today. They believe this story, or at least don't revolt against it, because it is supported by propaganda and shared myths, and has been true for many. When economic growth disappears forever, the poor, like everyone else, will recognize that they will be progressively worse off, with no future relief possible. The peaceful tolerance by the poor and the middles for the rich will disappear. A peaceful end of economic growth would require redistribution of wealth, with consequent political and geopolitical contention. Desire to avoid the contention makes it unlikely that deliberate elimination of economic growth will be attempted before economic growth is ended by nature. The intolerance of differences of wealth that will then appear will itself not be tolerated by the rich, causing additional domestic and international conflict just at the advent of other adverse changes. At that time, if not before, tyrannical repression of the poor will greatly tempt the rich.
- D) The fourth dependence on economic growth is in the financial markets—the mechanism of capitalization of public corporations. Public corporations, the main actors in industrial economies, depend on financial markets not only for capital for innovation, but for discipline, valuation, motivation, and a major part of their rationale for existence. Owners of capital—investors—give the use of it over to public corporations by buying equity or debt in financial markets. They do so only because they expect that they will, on average, and over the long term, receive back more than they gave up. That expectation disappears when most investors understand there will be no economic growth. Most of the apparent

wealth of the world consists of equity and debt bought and sold in financial markets. Any realistic possibility of the end of growth would fill investors with something like terror. Political initiatives to bring an end to growth will be opposed by investors with every means at their command. The controversial nature of proposals that would reduce or eliminate economic growth will likely prevent the proposals from reaching even the status of political contention. When the onset of sustained economic contraction is generally perceived, investors will withdraw from financial markets. The resulting failure of the markets will make many necessary developments impossible to finance and will produce confusion and stasis in public corporations just when we need them to adapt to new circumstances.

[end of Economic Growth Trap]

We may assume that, after all reasonably anticipated energy conservation technology has been developed and installed, economic growth must be accompanied by growth in energy consumption, which must result in the rapid onset of Peak Oil in the sense of Hubbert and, subsequently - if permitted - exponential growth in the number of nuclear installations. We must assume that, without fusion, some sort of breeder reactor will replace fission. Even if we neglect global warming and the China Syndrome, we must give up NIMBY, since continued economic growth will place a nuclear plant in every backyard.

It may take only a few minutes to read the hyperlinked material; but, it took weeks to write it after reading the University of Chicago's and MIT's reports on the future of nuclear. See The Nuclear Option https://dematerialism.net/NuclearOption.html from "On the Conservation-within-Capitalism Scenario":

In other words, suppose we can visualize a world in which economic growth is tolerated into the indefinite future. After every reasonable conservation measure has been taken by a non-increasing population, every new quantum of economic growth will result in a corresponding increase in our total consumption of emergy – not by a constant factor regardless of other considerations, but by some factor, φ , greater than 1.0. (Actually, $\varphi > 1 + \varepsilon$, where ε is a constant greater than zero; i. e., φ is not constant, but ε is.) Thus, continued economic growth must be met with a corresponding greater capacity to produce energy. Given the limitations on fossil fuel production, we must choose an energy production technology capable of sustaining perpetual growth. This is impossible as amply demonstrated in the case of nuclear energy, which might be the best choice for the attempt. See "The Nuclear Option", taken from "On the Conservation-within-Capitalism Scenario", where the finite size of the Earth is the limitation. Although we know of no exception to this rule, we would still like to have a mathematical proof.

When I embarked upon this project, it seemed obvious that we would have to abandon fossil fuels in favor of renewable energy, provided renewable energy technologies with ERoEI* ("ER over EI star") no less than 1.0 could be found or developed. One had the scientific consensus regarding Anthropogenic Global Warming, which had no more than a 49% (for the sake of argument) chance of being wrong, if we neglect predictions as to just when certain temperature signposts would be reached. We may assume that such signposts that the theory predicts will be reached eventually should be treated as though they required immediate action, just as we assume every gun is loaded. In addition, we had the finite supply of oil, the consumption of which was increasing exponentially, which according to similar reasoning, should be viewed as essentially unavailable.

One wonders, then, if the maximum possible energy production from renewable energy equals or exceeds the total energy budget for the entire nation. Incidentally, I found it necessary to validate the technique whereby the energy cost of a highdollar project well-distributed over the sectors of the economy was found by multiplying the E/GDP ratio by the gross cash investment for the project under consideration. This assumption was corroborated by the analysis of "Energy in a Mark-II-Economy". Finally, "Energy in a Natural Economy" uses Bureau of Economic Analysis data to determine how much useful work will need to be performed per unit of time after we power down to the Earth as a Garden. Finally, the paper "On the Conservation-within-Capitalism Scenario" indicates that renewable energy technology is inadequate to support American-style Capitalism. However, examples of sustainable political economies are given.

Dechrematisticalism

What is to be done with that section of the possessors of specific talents whose talent is for moneymaking? History and daily experience teach us that if the world does not devise some plan of ruling them, they will rule the world. Now it is not desirable that they should rule the world; for the secret of moneymaking is to care for nothing else and to work at nothing else; and as the world's welfare depends on operations by which no individual can make money, whilst its ruin ... is enormously profitable to moneymakers, the supremacy of the moneymaker is the destruction of the State. A society which depends on the incentive of private profit is doomed.— George Bernard Shaw, The Millionairess

Chrematistics

Here is a case in which we can do no better than to quote the Wikipedia, which is permissible under the applicable rules:

"Aristotle established a difference between economics and chrematistics that would be foundational in medieval thought. For Aristotle, the <u>accumulation</u> of money itself is an unnatural activity that dehumanizes those who practice it. <u>Trade Exchanges</u>, money for goods, and <u>usury</u> create money from money, but do not produce useful goods. Hence, Aristotle, like <u>Plato</u>, condemns these actions from the standpoint of their philosophical ethics. [snip]"

Thus, activities that are performed to obtain a greater share of the net proceeds of the economy for the worker or his employer but produce nothing that we need to live and enjoy life can be distinguished from genuine economic activity by the term "chrematistics". Inasmuch as this constitutes a huge overhead on the economy that we can no longer afford as we approach Peak Oil, we take the liberty of referring to the elimination of chrematistics as dechrematisticalism, partly for the pleasure of coining a beautiful large word but mostly because it will postpone the extinction of the human race for an astronomical period of time. This analysis was verified in "Energy in a Natural Economy". Notice that I had a good notion of the split between economics, in the sense of Aristotle, and chrematistics, even though I did not know the word. Notice, as well, that the sort of people who would own the world, as in the game of monopoly, which likewise is played in a world that cannot grow, would be stripped of their peculiar power; and, the introduction of a new monetary system (acually a system of rationing consumption) would prevent the sort of inequalities that precede violent revolutions.

Can Resource Dominance Be Eliminated?

It will, of course, be said that such a scheme as is set forth here is quite impractical goes against human nature. This is perfectly true. It is impractical and it goes against human nature. This is why it is worth carrying out, and that is why one proposes it. For what is a practical scheme? A practical scheme is either a scheme that is already in existence, or a scheme that could be carried out under existing conditions. But it is exactly the existing conditions that one objects to; and any scheme that could accept these conditions is wrong and foolish. The conditions will be done away with, and human nature will change. The only thing that one

really knows about human nature is that it changes. Change is the one quality we can predicate of it. The systems that fail are those that rely on the permanency of human nature, and not on its growth and development. — Oscar Wilde, *The Soul of Man Under Socialism*

Let us set aside, for a moment, the possibility of a benevolent deity the existence of whom would assure any reasonable person that resource dominance has no permanent place in human nature (theism); or, what amounts to the same thing, that the true nature of Man is inherently noble (humanism), so that resource dominance is merely an example of a temporary corrupting influence that will soon be corrected. We are left with little more than the choice between Transcendental Idealism represented by the Copenhagen interpretation of quantum mechanics and Transcendental Realism represented by the global-hidden-variables interpretation of the Einstein-Podolsky-Rosen gedankenexperiment as actualized by the experiments of Alain Aspect and his co-workers. In case of theism, humanism, or Transcendental Idealism, resource dominance can be eliminated from human behavior by eliminating the corrupting influence, namely, materialism, or by the timely intervention of good fortune.

In the case of Transcendental Realism, we may retain hope for Dematerialism in all but the last of the following cases:

- 1. Resource dominance is not an intrinsic characteristic of human nature.
- 2. Resource dominance is an intrinsic characteristic of human nature; however, it can be subverted by re-directing it toward more realistic ways to achieve reproductive advantage (i) by manifesting excellence in all of our activities so as to earn the admiration of members of both genders or (ii) by manifesting greater sex appeal than other candidates for the affections of members of the opposite sex. This redirection can be achieved by education, indoctrination, legislation, or any combination of these.
- 3. Our knowledge of human nature is insufficient to make a judgment either way.
- 4. Finally, it is possible that resource dominance is an intrinsic characteristic of human nature that cannot be subverted even by law backed by certain and severe punishment, in which case Dematerialism is impossible.

Deschooling

For this important subject, which, perhaps, is the sine-qua-non of the trip to dematerialism for the majority of people, I shall have to rely principally on the work of others, as I have done practically nothing myself except to add five points to John Gatto's famous list and to say what must be said in the argument for the legalization of drugs.

The Higher Education Bubble

Why K-12 Education Does More Harm than Good

Graduate education in engineering and science

My Personal Viewpoint

Character Education, Anti-Drug Propaganda, and Religion

Character Education

Loyalty

Justice

Commitment

Self-Discipline

The Scapegoating of Drugs and Mass Hysteria Religion

John Gatto's Seven-Lesson School Teacher

The Role of Materialism in the Mis-education of Youth

The Trip to Dematerialism

The Defects of Capitalism: My List (Please click on this to see list.)

Thus, we see that I was attracted to the moral basis of dematerialism; and, in the beginning, I did not realize that dematerialism might be sustainable whereas other political systems were not.

Dematerialism satisfies moral requirements and is sustainable.

Thus, dematerialism satisfies moral imperatives that we might adopt because of an inspired reading of the Sermon on the Mount, a clear appraisal of the needs of the community, and an understanding of what convenience amounts to for an entire community. I, for my part, test every public policy against the three criteria discussed in Toward Axiomatic Morality in On the Preservation of Species, namely, reasonableness, utility, and beauty. Nevertheless, every political economy upon which we hope to build a lasting civilization must a fortiori be sustainable.

Sustainability

ERoEI*, Energy Returned over Energy Invested, is the Measure of Sustainability.

Sine Qua Non

Inasmuch as we are at the limit to growth or near it, we are now forced to adjust our lives merely to survive. Here is a rough list of the minimum that we must do.

Solve population problem. Population de-growth is most important.

Economic de-growth is necessary too as follows:

Put an end to predatory imperialism and render assistance to those nations that need economic growth and to which a modicum of our shrinkage should go to compensate them for our misdeeds until a new equilibrium is established, after which the entire world should strive for nearly equal sustainable economic performance globally.

Close stock markets, which will have become zero-sum games at best.

Ban fractional reserve banking.

Government must cease telling lies, which means "no more propaganda" especially in schools. Instead explain to students why major changes are absolutely necessary.

Solve inequality crisis. Replace fiat currency with resource credits distributing equal shares of the sustainable community net harvest or production with proviso about replacing oneself only, transferring that privilege, or not reproducing. Devise reasonable way to discourage cheating.

Establish true democracy such that all the power is held by all of the people. Prevent the rise of demagogues and natural leaders. Sortition and fractal government are suggested.

Since reaching the limit to growth means that economy behaves like game of Monopoly, one person might own everything. G. B. Shaw explains why anything approaching this is undesirable. So eliminate private profit by mutual coercion mutually agreed upon. Make it easy for addicts of acquisition to quit by removing mechanisms by which they could indulge themselves.

Solve energy problem. Establish steady state stockpiles of vital resources and regulate draw down of residuals from which the stockpiles are maintained as described in article on sustainability.

Solve resource scarcity problem. End consumerism. In particular, end automobile culture, advertising and marketing.

Prevent pollution. Prevent waste, including waste of talent and beauty. Prevent wage slavery.

Establish true renewable energy technology.

Devise methods to achieve the aforementioned.

Sustainability Checklist

Sustainability amounts to providing a sustainable renewable energy technology, a technology that harvests energy (corrected for entropy) from the sun in real time and that returns more energy than is consumed to manufacture it, install it, operate it, maintain it, maintain its storehouses of natural material capital, prevent or repair environmental damage including aesthetic damage, uninstall it when its life cycle ends, restore the plant site, and support the community that serves the renewable energy installation both directly and indirectly throughout its life cycle. If the technology must pay the energy cost of a substitute technology in cases where a substitute technology is necessary to satisfy contractual obligations, this cost must

be added to the energy invested. I reserve the right and privilege to add to this list if appropriate or necessary.

The entire section on sustainability, formerly located here, can be found at dematerialism.net/Sustainabilitie.htm.
https://www.dematerialism.net/Sustainabilitie.htm

Axiomatic Morals

There is nothing either good or bad, but thinking makes it so. – Shakespeare's Hamlet

Nietzsche came to this sentiment rather late in the day and Mary Baker Eddy gave it second place on her Frontispiece in *Science and Health*; but, the authorities are not needed, as one can verify the truth of it with a little reflection.

Laws, then, are made for the convenience of the community and to discourage nuisances. In my philosophy, I ask that they be few in number, readily derivable from a minimal set, and satisfy the three criteria: reasonableness, utility, and beauty as discussed *ad infinitum* in Chapter 3 of *On the Preservation of Species*.

The not-quite-independent set of minimal principles to which I subscribe can be rendered in slang as follows: (1) live and let live, (2) tell the truth to those who have a right to know it (Hemingway, *Green Hills of Africa*), and (3) protect the environment. These and their corollaries deserve a great deal of elucidation and they get it in Chapter 3 (above) and throughout my papers and book. For example, I have tried very hard to show that precept number one demands economic equality. Finally, I believe we should avail ourselves of well-defined physical quantities as much as possible in stating the requirements of the law. In cases, where no judgment can be made based on first principles, we should defer to equality, e. g., the division of residential property or shares in the sustainable social dividend (the *net* production of useful goods and services by the community).

Money

To walk in money through the night crowd, protected by money, lulled by money, dulled by money, the crowd itself a money, the breath money, no least single object anywhere that is not money, money, money everywhere and still not enough, and then no money, or a little money or less money or more money, but money, always money, and if you have money or you don't have money it is the money that counts and money makes money, but what makes money make money? - Henry Miller, Tropic of Capricorn

Our society is concerned with (i) money earned, (ii) other income, (iii) the cost of living, (iv) discretionary spending, (v) debt, (vi) net worth. This obscures the most important aspects of money. To elevate the ratio of energy returned over energy invested into renewable energy range, it is necessary to eliminate private profit as well as other chrematistical components of the energy invested denominator. This goes a long way toward reducing the total energy budget to less or equal to the production of renewable energy. In keeping with our preference for natural law, we agree that there is no reasonable way to assign spendable income to the citizens of our community without a job market. Many of the workers who have to be furloughed are among the highest paid people in the economy. If we agree to pay them no more than we pay others who agree not to engage in dechrematistic or even economic activities, it should reduce the number of people who object to economic equality to as few as possible. But, it is not the money earned that is important. It is the money spent. We must reduce consumption.

We Need a New Monetary System: The complete essay as far as I got

Additional Web Space

Blogger

https://eroei.blogspot.com/ This is where I say the most important things about sustainability – against all odds and in the face of strong opposition. Sometimes my frustration shows.

https://dematerialism.blogspot.com/ This is where I write down anything new that occurs to me. That includes new ways to explain the parts that few people understand.

https://sustainabilitymath.blogspot.com/ This has a few documents that are found elsewhere. It was my protest regarding the people who grabbed sustainability.blogspot.com and don't understand sustainability.

Slimwiki

https://www.slimwiki.com/wayburn/dematerialism This replaces dematerialism.wikispaces.com, which was a practice shot to get into the Wikipedia. I now have a better idea of what to say. After all, dematerialism is a limiting case. It is on the boundary of the space of all possible political and economic systems. It should be in the Wikipedia and these are some its principal characteristics.

Justpassinthru.com

https://www.justpassinthru.com/users/home/twayburn/ is supposed to mirror dematerialism.net but I find it hard to keep it up-to-date. I have started working on this problem.

Academia.edu

https://independent.academia.edu/TomWayburn Duplicates of many of the principal papers the writing of which convinced me that so-called renewable energy technologies cannot support an American-style market economy; but, can support Earth as a Garden for a much smaller steady-state or shrinking population:

On the Conservation-within-Capitalism Scenario [Preliminary Version 1.2]

Energy Returned over Energy Invested

A Note on Decimal Time

ERoEI* as a Measure of Feasibility

On Emergy

David Delaney's paper "The Economic Growth Trap"

The Demise of Business as Usual

On the Preservation of Species: A Logical Argument in Support of a Rational Basis for Community including Necessary and Sufficient Conditions for Sustainable Happiness for All Sentient Beings in a Hypothetical World 1989 - present

We Need a New Monetary System: The complete essay as far as I got

Energy in a Natural Economy

Researchgate

https://www.researchgate.net/post/Does_anyone_still_believe_that_markets_distribute_the_social_dividend_efficiently

Other material sent to Researchgate that I should keep my eye on.

The Solutions Journal

The website http://www.thesolutionsjournal.com/yoursolutions of Solutions for a Sustainable and Desirable Future has kindly posted the contents of my wiki. It is a very good fit in my opinion, as most of the contributors understand that we have reached a limit to growth that practically guarantees a die-off somewhere in the world in the wake of Peak Oil. Americans are slow to recognize Overshoot because our government has made it its business to export the die-off to foreign shores. Many of us have been forced to reduce their expenditures because of unemployment, but very few are missing meals. At least, if they are, I am not aware of it. On the other hand, starvation is all too common in states where we have used our military strength to trade ruinous loans for precious natural resources, particularly in Africa, which seems to suffer no matter what else is going on.

Essays prior to 2006

My Book

On the Preservation of Species (full 600-page book in one file)

On the Preservation of Species (table of contents hyperlinked to individual chapter files)

Social Problems and Solutions (many important ideas from the book -56 pages)

Useful Concepts from On the Preservation of Species

Essays on Energy

Except for "Thermodynamics, Availability, and Emergy" the essays in this first group of ancillary essays are new. Some remarks on the essay, "On the Conservation-within-Capitalism Scenario", can be found at http://tinyurl.com/7s6aq. The results from "On the Conservation-withinCapitalism Scenario" are summarized in "The Demise of Business as Usual", which is only ten pages long. The expedient of multiplying cash flow by the E/GDP ratio is

justified numerically in "Energy in a Mark II Economy" where the well known ratio of energy returned over energy invested (EROEI) is explained and expanded.

The principal result of the work represented by the first four essays is that, if an American-style market economy is retained, no amount of nuclear power is sufficient; whereas, if we make the shift to a Natural Economy, the economy can be supported completely by safe, sustainable renewable energy. In this SoftEnergy, Earth-as-a-Garden scenario, nuclear energy and fossil fuel can be phased out. If you don't believe me, check my arithmetic and the spreadsheets attached to the next three papers.

Emergy (from Chapter 2 of *On the Preservation of Species*)

On Emergy (from "Energy in a Mark II Economy")

Availability Balance on Earth Redux

Emergy and Population in a Natural Economy

Thermodynamics, Availability, and Emergy

On the Conservation-within-Capitalism Scenario

The Demise of Business as Usual

Energy in a Mark II Economy

EROI* as a Measure of Feasibility

EROEI as a Measure of Feasibility

Energy in a Natural Economy (8by9w)

In "Energy in a Natural Economy", I determined from US government employment and energy statistics roughly how much energy could be saved by abandoning market economics. This was developed further in the section on the Natural Economy in "On the Conservation-within-Capitalism Scenario".

A Report on My Recent Investigations of Solar Energy Harvested by Photosynthesis in a Controlled Environment

Photovoltaic for Australia

The Feasibility of a 600 Kilowatt Windpower Installation

Danish engineers computed an energy payoff of only three months for a twentyyear wind power installation. (The URL for this study has been changed. Please search http://www.windpower.org/.) That seemed unlikely on the face of it. Undoubtedly, they neglected the high-energy lifestyles of the contractors who would receive the cash payments. My inexact method results in a minimum payoff period of 36 months – 12 months if we credit electricity with three times as much emergy as fossil fuel. [Note (8-25-04). I believe the reader understands that the units of GDP are US dollars/year and the rate of energy consumption is in watt-years/year, so the years cancel out to give watt-years/USD.]

Letter to John Kaminsky concerning Peak Abiotic Oil

Essays on Psychology

The next sequence of papers represents my various attempts to answer the pedestrian argument that dematerialism is contrary to human nature. Regrettably, many disciples of Dawkins, Pinker, and other proponents of evolutionary psychology have used the overthrow of the standard social science model as an opportunity to ingratiate themselves with the owners of the world by writing anticommunist and anti-anarchist propaganda, although a handful have recognized that, if it were true (that dematerialism is contrary to human nature), human society would be doomed to the massive culling known as Dieoff – principally because of the fine work done by Jay Hansen at http://www.dieoff.com/.

Psychology as a Tool of Political Repression

"Psychology as a Tool of Social Repression" is commentary on the rise of anticommunist propaganda and the horrible effect it has had on every effort to build a just society and to prevent a catastrophic end to this one.

On the Perfectibility of Man

On Materialism

This is a collection of some entries from my free blog at http://dematerialism.blogspot.com/. The next paper was my first clumsy attempt to refute an argument that is intuitively false. It is not so easy to refute logically what you believe to be true intuitively. People who discuss the methodology of science do not credit intuition sufficiently in my opinion.

On Human Nature

To sleep—perchance to dream

Essays on Dematerialism

In some cases, these essays are too conservative and should be revised to reflect my latest thinking on government, foreign war, punishment, and other forms of direct action. In any case, I wrote what I wrote.

Communism and Some Idle Thoughts on the Excesses of Capitalism

A Short Talk on Dematerialism

Computing Crude Birth Rates from Total Fertility Rate

On Designing a Community Currency

Talk to be given at Schreiner College on Washington 's Birthday

On "Entrepreneurship and Social Progress" by Lew Rockwell

On My Philosophy

On Capitalism

What We Want and What We Get

On the Work Ethic

On Free Enterprise

Is There a Conflict between Property Rights and the Moral Requirement to Protect Endangered Species?

On Socialism, Utopian and Scientific by Frederick Engels

Some Remarks on Oil

On William Buckley's 'Agenda for the Nineties'

This essay is a line-by-line criticism of William Buckley's plan to make the United States a theocratic plutocracy in the conservative tradition of reaction to all social progress. It may have worked.

American Myths and Higher Education

On Honor in Science

On Space Travel and Research

Some Unintended Effects of Computers

The Trouble with Surveys

On Crime

A Brief Outline of the Harm Done by Improper Religions

On the Separation of Church and State and the Case Against Christianity and Other Improper Religions

On Prayer

On "The Question of God"

More on Public TV

On Pro-Choice versus Pro-Life

On Awards

On a New Theory of Classes

Little Essays on Big Problems

On the United Nations Universal Declaration of Human Rights

How to Find the Day of the Week in Any Year

Expected Value of a Texas State Lottery Ticket

This essay belongs to an earlier period when the number of numbers from which to choose 6 was 50. However, it illustrates the essential dishonesty of the Great State of Texas rather nicely. Amusingly, when they added three more numbers, thus reducing the probability of winning drastically, they advertised "Now, with three more numbers to choose from", as though three more numbers for the same price made it more of a bargain, which some users probably thought to be the case. On the other hand, a large number of players have been choosing 1-2-3-4-56 because they think no one else with whom they would have to share their prize will choose it. They know that this sequence is just as likely to come up as any other sequence, which shows that some players may be more numerate than we had previously guessed.

Essays on Drug Legalization

Letter to Time Magazine in A Concise Introduction to Logic - Page 12 - Google Books

The Case for Drug Legalization and Decontrol in the United States

Fallacies and Unstated Assumptions in Prevention and Treatment

A Review of the 1990 Drug Policy Foundation Conference

A Seven-Point Post-Prohibition Policy

Can the State Teach that Drugs are Wrong and Harmful?

Despite Recent Flurry of Anti-Drug Propaganda, Drug Prohibition is Indefensible

Two Crucial Issues in the Argument for Drug Legalization

The Trouble with Surveys

Junior Goes to School

Additional Web Space: Social Media, Music, and Model Railroading

I am trying to complete a few of the projects I began many years ago when I thought I would live forever. These projects are spread across (i) science and the limitations it places upon rational political economy, (ii) the great art of music - especially jazz music, and (iii) the world's greatest hobby, namely, model railroading, whereby the strange, deadly beauty created as a result of industrialization can be preserved in the only places where it can do no additional harm, namely, museums - if we may include among museums the private miniturizations found in the homes of hobbyists.

Social Media

Facebook: https://www.facebook.com/twayburn/

Twitter: https://twitter.com/ThomasLWayburn

Reddit: https://www.reddit.com/

Linked In: https://www.linkedin.com/

Music

https://dematerialism.net/jazzandclassical.htm

https://slimwiki.com/wayburn/jazzandclassical

From time to time, YouTube videos hyperlinked in these two websites have been taken down ostensively because someone claims to own the copyright on, for example, a Charlie Parker record, recorded over 70 years ago by an artist who died in 1955. Although copyrights were devised originally so that government could interfere with art, they benefit the artist and consumer by protecting art from counterfeiters and imposters. But, this no longer applies to art and artists that belong to the world at large and cannot be subsumed under the nonsensical and harmful notion of "intellectual property", which we need to fight vigorously. See https://www.gnu.org/philosophy/not-ipr.en.html and https://aeon.co/essays/theidea-of-intellectual-property-is-nonsensical-and-pernicious .

Model Railroading

https://modrr.net

https://modrr.blogspot.com/

https://slimwiki.com/wayburn/modrr

Other Useful Hyperlinks

Energy and Population Hyperlinks

Peak Oil Hyperlinks

Open People, Open Source, and Public Domain Hyperlinks

Other Useful Links

About the Author

This website was designed, written, and constructed by me, Thomas Wayburn of Houston, Texas. I am responsible for its contents. Please address all correspondence to wayburn@dematerialism.net. Corrections, suggestions, and constructive criticism will be appreciated. Vituperation is acceptable too.

Born March 24, 1934, Detroit, Michigan. • Redford High School Detroit 1951. • BS chemical engineering Michigan 1956. • MS mathematics NYU 1968. • PhD chemical engineering Utah 1980. • Studied jazz drummig with Lennie Tristano, Joe Morello, Philly Joe Jones, Cozy Cole, Stanley Specter. • Here is an mp3 version of the record I made with Lennie Tristano and Peter Ind when I was 22 years old. If you are interested, copy https://dematerialism.net/tristano.mp3 and paste into browser.

Hack engineering, chemical process design. • Teaching chemical engineering at various levels: thermodynamics, plant design, applied mathematics. • Writing and reviewing for the peer-reviewed scientific and engineering literature, principally numerical analysis. • Software development, computational chemical engineering.

• Political activism, principally anti-war and anti-growth, preaching limits to growth and advent of Peak Oil. • Computational research in energy and economics. • Internet publishing: this website • Railroad modeling and model railroad photography: https://modrr.net/.

View an earlier resume: https://www.dematerialism.net/Resume97.html

I am trying to complete a few of the projects I began many years ago when I thought I would live forever. These projects are spread across (i) science and the limitations it places upon rational political economy, (ii) the great art of music - especially jazz music, and (iii) the world's greatest hobby, namely, model railroading, whereby the strange, deadly beauty created as a result of industrialization can be preserved in the only places where it can do no additional harm, namely, museums - if we may include among museums the private miniaturizations found in the homes of hobbyists.

A short interval of my life around 1960 is described in "Jimmy and Me", which enjoyed special editorial treatment without having to submit to the phony peerreview system. ("Jimmy" was Jimmy Stevenson, an aspiring bass player from Detroit, who was ready to play at any time.)

https://www.jazzloftproject.org/blog/general/jimmy-and-me-by-tom-wayburn

A number of people who take a special interest in Chet Baker, an interest that I do not share, have asked me to tell the story of the short period in which the deservedly famous musicians Chet Baker and Philly Joe Jones lived with me in my distinguished apartment on East Twenty-First Street. I am putting this together bit by bit in https://www.slimwiki.com/wayburn/mystory.

Tom Wayburn, drummer, vibraphonist, recording engineer; computational chemical engineer, net energy analyst; political economist, philosopher; model railroad planner, builder, photographer; computer builder, programmer, operator, and technologist; document writer, essayist (That is, from time to time I have been some of these things. I no longer have the strength to keep up with much of anything. I shall be happy to edit my writing, finish my model railroad, write up some of my experiences with music and musicians, and edit a few dozen audio tapes. I have some interesting stories to tell – at least I have been asked to tell them. Also, I still have a great deal to say that I have not committed to paper – yet.