

Not Only Socialists Were Duped The Fraud of 'Free Trade'

by Lyndon H. LaRouche, Jr.

July 10, 2008

*[Published in **Executive Intelligence Review**, Volume 35, Number 31, August 8, 2008. View [PDF of original](#) at the LaRouche Library.]*

The following report is prompted by the immediacy of the extremely acute phase of international financial crises now looming for the interval of the U.S.A. national parties' Presidential nominating conventions. It also has the more durable relevance of being an urgently needed introduction to the little-known rudiments of a competent economic science. It serves, thus, as a much-needed re-education of those putatively leading economists, internationally, whose influence on policy-shaping of both governments and international private and public institutions had failed so miserably over the 1971–2008 interval, up to this present moment.

Therefore, out of regard for the two-fold, respectively immediate and long-term missions outlined by these prefatory remarks, the report now begins as follows.

Fannie May Not!

The steep collapse, since about November 2007 of the Fannie Mae and Freddie Mac, which had been institutions ever massively looted under former Federal Reserve Chairman Alan Greenspan, must be viewed in its present relationship to the currently disastrous outcome of the former British Prime Minister Margaret Thatcher's dictating of the famous Maastricht Treaty. That was the treaty dictated by her and her sidekick, France's President Mitterrand. It was dictated to post-Soviet Europe of both her wittingly culpable and simply deceived victims in both the British Isles and continental Europe as a whole, still today.

When the impact of the combination of those developments, since the early 1990s, is taken into account, it is of globally crucial significance for the world as a whole, that most among the relevant leading figures of the U.S. Congress have, so far, stubbornly, and stupidly refused to enact my Homeowners and Bank Protection Act (HBPA) of 2007, when the worst of the recent, relevant general financial developments, and the present suffering among our citizens would have been prevented by the measures which I had proposed then.

So, since the policies which former Federal Reserve Chairman Alan Greenspan dragged in, in the fashion of the proverbial cat, measures which he introduced to dominate the post-October 1987 monetary systems on both sides of the Atlantic Ocean, and beyond, the world monetary-financial system's present crisis must now be considered in the light of the combined effects of, on the one side of the Atlantic, Greenspan's virtual child-abuse of U.S. Fannie Mae and Freddie Mac in the U.S.A., and, on the other side, of the related effects of the Maastricht Treaty in undermining the economies of Europe. The effect of the trans-Atlantic interaction between the two aspects of the ongoing crisis which this combination produced, became the presently new, vastly worst phase of this same crash erupting this July. This crash has now reached a point of crisis which threatens us with a disastrous world financial situation, both politically and otherwise, perhaps during a time between now and about the time of the completion of both the U.S. Democratic and Republican parties' Presidential nominating conventions.

Greenspan's virtually sexual misuse of Fannie Mae and Freddie Mac, when combined with the systemic monetary implications of the Maastricht Treaty, as the latter's practice has presently evolved since its inception, functions today as a major component of the monetary-financial basis on top of which much of the monetary-financial structure of both sides of the Atlantic depends.

The two systems, that of the Federal Reserve System under Greenspan and Bernanke, on the one hand, and that of the European Maastricht-ordered structures, on the other, are not parallel, but interdependent processes. They, combined, represent, thus, to a very large degree, the common underbelly of the trans-Atlantic core of the presently crumbling world monetary-financial system as a whole. A collapse of either of those two would be more or less sufficient, *potentially*, under presently gravely stressed, hyper-inflationary trends, to blow the entire world monetary-financial system apart, chain-reaction style, and that even during the early future.

The task of all sane and responsible institutions, is to protect the future of the world's nations and their people, by subjecting the present world monetary-financial system to suitable forms of radical reform; but, these must be, reforms consistent in principle with the characteristics of that pre-1968 world monetary-financial system crafted by the intention of U.S. President Franklin D. Roosevelt. Measures, including some which might appear to some as highly original, are available, and could do that job.

The Challenge, in Brief

It must be recalled, that, under the chaotic international state of monetary-financial and physical-economic conditions produced by the U.S. Nixon Administration's wrecking of the

Bretton Woods system, what became both Greenspan's Fannie Mae and Freddy Mac, on the one hand, and Europe's Maastricht system, on the other, were intended to bring about what defenders of David Rockefeller's Trilateral Commission termed "controlled disintegration of the economy," back during the 1970s.

Thus, President Nixon's wrecking of the Bretton Woods fixed-exchange-rate system, when combined with the British-Saudi orchestration of the 1970s petroleum hoax,¹ had wrecked the pre-existing U.S. monetary-financial system as a system.

Thus, the rising role of the British-Saudi operations, now centered in BAE, in that 1973 oil-price hoax, is a role which began to unfold under the changed direction in unfolding of world conditions launched by the radical measures of the U.S. Nixon, Ford, and Carter administrations, a role which has transformed the world to the effect of changing the post-World War II world system, from one dominated by the U.S.A.'s role under Bretton Woods, to the present state of affairs, in which even most of the internal financial affairs, and even the financing of the attempted nomination of U.S. Presidential candidates for the November 2008 elections, are controlled, more and more tyrannically, by operations directed from the imperial London of such wretches as the former Prime Minister Tony Blair whose lies gave us the present crisis spreading throughout Southwest Asia.

Thus, during the course of the successive U.S. Nixon, Ford, and Carter administrations, both the U.S. physical economy and those of Europe were deliberately wrecked, to the combined effect, internationally, such that, the trans-Atlantic economy is, therefore, to be considered now in terms of the hard realities of physical economy, rather than the present, customary sort of monetary-financial mumbo-jumbo. So, our U.S.A. has taken on, more and more, the characteristics of a semi-colony of the current form of the British (or, should we not say, "Brutish") empire. When long-term physical-capital factors are taken into account, we must recognize that the *physical economies* of that trans-Atlantic community have been in a general, net physical decline (on long-term account) over the entire interval, since approximately 1967–68, to present date.²

¹ E.g., British-Saudi BAE.

² Since the British Pound Sterling crisis, under Prime Minister Harold Wilson, in Autumn 1967, and the consequently ensuing U.S. dollar crisis, preceding the "Tet Offensive" catastrophe, of February–March 1968. This is shown by animation-studies conducted during 2005 by me and my associates, of physical-economic trends per capita and per square kilometer over the recent half-century, and, in important cases, longer. It is essential to check inherently corrupt financial and related statistics against physical-economic "life-cycles," in order to eliminate the effect of usually false projections based on often wishful, and highly misleading financial projections underlying official and corporate reporting.

At a more recent time, 1989–1991, immediately following the successive collapse of the Comecon and Soviet economies (which I had repeatedly forecast, since 1983, to occur at about that time), the already ongoing destruction of physical economy of the U.S.A., per capita and per square kilometer, was also imposed upon all continental Europe.³

So, the time came, when most of the remnants of a sound form of physically productive economy were being systematically ruined, increasingly, not only within the U.S.A., but the trans-Atlantic community as a whole. During the interval of the post-Soviet 1990s, competent national-banking polices of the trans-Atlantic community were wrecked, and replaced by lunatic arrangements. Since the expansion of monetary-financial *aggregates was no longer premised on physical net growth of the economy, per capita and per square kilometer*, the expansion of the supply of money-capital for the economy was steered, chiefly, by *increasingly* fraudulent, speculative means, and by the 1990s looting of the territory of the former Soviet Union and Comecon.

The pillars on which this fraudulent uttering of monetary-financial debt-assets, depended, were, for the U.S.A., Alan Greenspan's looting of the credit attributable to Fannie Mae and Freddie Mac, and, for Europe, the political role of the inherently, and intentionally ruinous Maastricht agreements used for the looting and wrecking the real nation-state economies of Europe. The effects of this have been global, as this result is shown clearly today.

What has now happened, as a result of those policies, especially since October 1987 in the U.S.A., and for Europe as a whole, from about 1991, on, is that particular mass of what is now intrinsically hyper-inflationary, fictitious credit, hanging upon the pivot of Fannie Mae/Freddie Mac in the U.S.A., as this feature of the U.S. economy is paralleled by European developments around the credit-system shaped by the Maastricht agreements. Both are now in the process of crashing. The two processes are tightly interactive. Such were the Pillars of the House which were crafted initially by such hands as those of Alan Greenspan and Margaret Thatcher, the house now crumbling.

With the presently accelerating collapse of the Greenspan bubble of fictitious credit, and of the related elements of the Maastricht system, the foundations of the present world monetary-financial system are now crumbling before the stunned gaze, like that of rabbits frozen with fear, of the credulous.

³ The collapse of the economy of the United Kingdom had been unleashed by the Labour Party's first Harold Wilson Administration. In effect, the British under Wilson set fire to their own economic house, in order to spread the ruinous conflagration into the U.S.A.

What Happened To Cause This?

Thus, the characteristic insanity of the period of history since the January 1989 accession of U.S. President George H.W. Bush (1989–1993), has marked more obvious, subsequent phases of downshift in not only that portion of the world's economy represented by the trans-Atlantic community; but, it has also reflected a decline in the net per-capita *physical* output of the world as a whole.

As in the cases of production of virgin iron and steel, globalization has shifted the average net physical output of the world as a whole downward, in per-capita and per-square-kilometer terms, through aid of such prominent means as so-called "out-sourcing." Once the mask of galloping inflation is ripped away, and physical values considered instead, this recent trend in the world's physical economy, outsourcing, has had the effect, thus far, of a systematically lowering of the physical productivity, per capita and per square kilometer, of the world as a whole. It has done this, by destroying more physical productive and related capital in North America and Europe, than has been built up, in net effect, in the prevalent, largely labor-intensive exploitation of the targeted areas of relatively lower standard of living among the vast majority of the world, per capita, of those nations whose cheap labor has been targeted for investment by the "run-away" investor interest, an interest which is dominated increasingly by what Germany's victims have recently labeled the "locust" financier interests.

As I shall emphasize within the following chapters of this report, the crucial incompetence of all monetarist doctrine, as contrasted with the successful practice of the Hamiltonian American System of political-economy, is shown in contrast with what is typified by Franklin Roosevelt's revival of a U.S. economy which had been wrecked by both of his immediate predecessors, Coolidge and Hoover. The contrast is expressed as that between the American System, which measures economic performance in physical, technology-driven, increasingly capital-intensive modes of rising productivity of labor and capital, against the monetarist's view of economy as a matter of the prices of products and services, even where nominal, monetary profit is increased through policies which actually lower the physical quality of productivity, per capita and per square kilometer, throughout the system.

Why should the ruling financier interests of nations such as the U.S.A. and those of Europe, do such stupid things as that to themselves? The answer to that question should suggest to us the case of some deeply neurotic and superstitious boob, placing his footsteps along the concrete slabs of the sidewalk according to the compelling old wives' superstition of "step on the crack, break your mother's back!" It is not that "boob" who makes the decision, but, rather, his master, the legendary "Booboisie" who trained him to behave that way.

Why, therefore, did we not send relevant officials, such as Alan Greenspan, or his most unfortunate successor, to suitable psychiatric care, rather than ruin our economies by employing them? Ah! But there is a reason for this:

The relevant, financially powerful, and usually predatory employers of that sort of economist, like the World Wildlife Fund's Prince Philip and his virtual lackey, former U.S. Vice-President Al Gore, would prefer to lower the standard of life-expectancy among the population of the planet, as Prince Philip has said, from the presently estimated range of six-and-a-half billion souls, to no more than a total of two.

No wonder, then, that the British empire, with its George Soros who once served under the Nazi system of Adolf Eichmann, is currently on a campaign of genocide against so much of Africa!

The Historical Implications

If we discount the special case of the period, A.D. 1492–1648, within which a modern Europe was dominated by recurring religious warfare, the presently onrushing, global hyper-inflationary spiral, is readily seen as the first actual breakdown-crisis in modern world history. (There have been what are fairly classed as “dark ages” during both ancient and medieval, extended, earlier forms of civilizations.) Do not make the potentially fatal mistake of denying the fact, that this presently accelerating financial crisis is a general, planetary breakdown-crisis of the present world “free trade” mode of monetary-financial systems.

There is, in fact, no way in which the present, 1971–2008, world monetary system will not soon just simply cease to exist; unless we will replace it with a system which reflects the methods of President Franklin Roosevelt, that while it remains possible to do so. A precious year has already been wasted by the foolishness of our political authorities, when I had already warned them, a year ago, of the consequences which they are now suffering. Otherwise, the planet as a whole will be plunged into a new dark age. The continuity of civilization now requires that the present, floating-exchange-rate monetary-financial system of that interval, must be replaced, by employing measures which begin with the three categorical, remedial steps which I have already specified in locations published earlier.⁴

These are measures of reorganization in bankruptcy, which are intended, by design, to preserve the continuing regular functioning of a certain core of the present monetary aggregate, as negotiable expressions of physical values essential to the continuation of an

⁴ 1.) HBPA; 2.) A two-tier credit system; 3.) To propose that the U.S.A., Russia, China, and India, form an initiating bloc to create a new international fixed-exchange-rate credit system to replace the presently bankrupt international monetary system.

orderly life among the general population in its local and regional communities. We must place the emphasis on this point, rescuing that portion of the economy from the otherwise inevitable breakdown-collapse of the present world monetary-financial system as a whole.

It is essentially the *physical* economy, not nominal, monetary values, which we could, and must save. (I explain the technological implications of that distinction within the course of the following report.) The present world, floating-exchange-rate, free-trade system, not only could not be saved as a system; to attempt to do so now, would be implicitly fatal to civilization. We must cease denying that what we are experiencing is not a mere "recession," but is already a breakdown-crisis of *that system as a system*. We must abandon the deluded effort of attempting to justify the existence of that now global "free trade" system, that "floating-exchange-rate, free-trade" system which has destroyed the U.S. economy (for example) systemically, during the 1971–2008 interval to date.

Time for civilization is now running out fast, unless we take certain uniquely specified, protective actions, that very soon.

The Academic Form of the Disease

There have been two leading factors of ideological influence which have caused U.S. and European policies generally to be shifted from the relatively sane notions of economic goals of U.S. public policy during the 1945–1964 interval, to the increasing factor of lunacy in choice of social goals of economic practice, on both sides of the Atlantic, since March 1, 1968.

First: One of the most significant among the intellectual obstacles which we must overcome now, is encountered among what are regarded as relevant governmental and academic authorities. It is found in the foolish belief in the wrong-headed assumption, that the choice is, broadly speaking, between the ideological polarities of "free market" versus "Marxist-like" thinking. This foolish belief in a "free market," has excluded any serious consideration of the principles on which the U.S. republic was founded, those principles which enabled President Franklin Roosevelt to bring about the seemingly miraculous recovery of the U.S.A. from the pits of the Hoover depression, to emerge during World War II as the greatest economic power the world had ever known before that time.

The present choice is between returning to the principles which President Franklin Roosevelt's administration employed, and submitting to the continuation of those policies which are still, presently, leading toward a general, physical breakdown of the world economy as a whole.

The threat now, as the common crisis of the U.S. economy and the failed European Maastricht system, which threatens the world at this instant, is not a mere “depression,” but what is called a “general breakdown-crisis.” German social-democrats of the pre-1914 period virtually threw up their hands in despair over the subject of finding a useful definition of a “breakdown-crisis;” so, a similar confusion prevails today, when so-called “Marxist” (“socialist”) and “free-trade” (“capitalist”) systems today would be equally prone to incompetent measures, such as those taken by the U.S. Presidency and Congress since August 1, 2007, which, as we have often seen during recent months, could only accelerate and worsen the presently on-rushing general collapse.

So, once more, as within the course of my earlier “The Economics Debate About Russia,”⁵ our analysis and proposals must expose, and reject those simplistic, mythical elements of the so-called “Marx-versus-Capitalism” legend. That has been a legend which has been a chief cause of the diversion of attention from the real nature of the issues which the present world crisis of the 1971–2008 interval-to-date poses to us all now. This time, we must do as I do in the following chapters of this report. We must carry the discussion further, to examine the subject of “The Myth of Money” itself.

The first relatively simple fact of the matter to be considered, is, as I have stressed in that referenced, earlier, report, is that Karl Marx was an avowed dupe of the plagiarist and hoaxster Adam Smith, as Marx himself insisted repeatedly,⁶ and, was, thus, in several congruent ways, in the matter of economics dogma, an ideological “capitalist” in the tradition of Lord Shelburne’s Haileybury School of British imperialism. The American System of political-economy of such paragons as Alexander Hamilton, Mathew Carey, and U.S. Presidents Abraham Lincoln and Franklin D. Roosevelt, is, historically, the only actually sensible notion of the economic practice of modern statecraft in currency today.

⁵ *EIR*, July 4, 2008.

⁶ In the wake of the imperialist victory of Lord Shelburne’s privately owned British East India Company at the February 1763 Peace of Paris, Shelburne personally met with Adam Smith to assign Smith to a program of spying intended to ruin two targets: the faction of Benjamin Franklin in North America, and the ruin of France through economic and related sabotage. Smith spent most of this time in France, until the 1776 publication of the anti-American tract popularly known today as *The Wealth of Nations*, whose content was largely premised on plagiarizing the then yet to be published work of French liberal economist A.R.J. Turgot, *Reflections on the Formation and Distribution of Wealth*. Turgot, in his combined capacities as a liberal ideologue and sometime minister of France, is of crucial significance, together with Lord Shelburne’s asset Jacques Necker, in shaping the pre-conditions for the fall of the monarchy of King Louis XVI. This process leading into the fall of the monarchy began in 1782, when the same Lord Shelburne steered the British Empire-in-fact’s peace negotiations, conducted separately, according to the doctrine of “divide and conquer,” by Britain, among the U.S.A., France, and Spain. The Liberalism of both Turgot and Adam Smith, was the product of the dogma which had been created about two centuries earlier by that New Venetian party leader Paolo Sarpi, whose most famous, lying lackey was the hoaxster Galileo Galilei. See Smith’s 1759 *Theory of Moral Sentiments* for Smith’s explicit statement of his Sarpian premises.

It was on this account, that Nikita Khrushchev's links to the toxic Bertrand Russell's World Parliamentarians for World Government, turned out later to have brought about the choice of direction which led into the self-inflicted doom of the Soviet Union's economics and strategic practice. It was the continuation of this influence of Bertrand Russell on Soviet thinking about economic strategy, which led into that trap of the Laxenburg, Austria nest of wildly reductionist Cambridge Systems Analysis, from which today's Russia has yet to fully free itself intellectually. It is urgent that the world of today learn that lesson while it is still barely possible to turn back to the alternative of the American System of political-economy as the ecumenical association of a world system of sovereign nation-state republics today.

Second: As a result of the kind of post-1945 changes in cultural goals of policy, changes embedded in what produced the virtually synarchist hard core of the "white collar" Baby Boomer generation born between 1945 and 1958, a massive counter-cultural program was unleashed which resulted in the frankly fascist, neo-malthusianism characteristic of a large segment of the "white collar" generation operating within the ranks of what became notorious as the neo-malthusian, wild-in-the-streets "Sixty-Eighters."

The present, outright hoax of "Global Warming," is an expression of the degree to which the wildest sorts of pseudo-scientific superstition have been spread among even the ranks of many who represent themselves dubiously as certifiably scientists, or even among our leading statesmen.

The arguments presented on behalf of the so-called "Global Warming" cause, are not scientific by any credible, historical standard of science, and partake more of the character of religious dogma than anything else, although certainly not those of either Christian or Jewish religion, if the standard of Biblical *Genesis* 1 were consulted. While we must be tolerant respecting religious belief, insofar as its advocacies are not morally criminal, neither criminal intent nor mere toleration could actually justify such lunacies as "globalization" in the practice of law by leading forces of nations. Those favoring radical Malthusianism and/or drug addiction, fall into a similar category of candidacy for urgently needed moral restraints respecting their influence on public policy, restraints demanded by natural law.

However, the issues are in no respect merely moot. The general welfare of all humanity is at issue. The clearest expression of the political intent by the political promoters of the current masscult of so-called "environmentalism," is that provided by the mouth of the British Empire's current consort, Prince Philip, utterings broadcast under the auspices of his World Wildlife Fund. Prince Philip proposes a rapid reduction of the world's population from over six-and-a-half billions human individuals, presently, to two billion, or, perhaps, less. On this account he, and his accomplice and former U.S. Vice-President Al Gore, propose actions

which would, if allowed, actually bring about the rapid reduction in the human species which the Prince has repeatedly presented as his genocidal goal, his World Wildlife Fund proposal for a genocide which vastly dwarfs even the kindred crimes by the Nazi regime and its accomplices during the relevant 1933–1945 interval.

However, the kindred population policies of Prince Philip and Adolf Hitler's regimes are not novelties in the millennia-long practice of black arts. The policies which they advocate, are traced, in effects of practice, as in the tradition of European civilization as such, from the fictional character of the Olympian Zeus of Classical dramatist Aeschylus' *Prometheus Bound*. In fact, what is called "malthusianism" or "neo-malthusianism," is a characteristic feature of all known empires, since those of ancient Southwest Asia and the Roman and Byzantine empires, as under the imperial form of medieval alliance of the Venetian financier-oligarchy with the House of Anjou, and under the frank malthusianism of the imperialist British Haileybury School of Jeremy Bentham *et al.*

The "dumbing-down," by combination of law and custom, of the large mass of the population, by prohibiting their knowledge of the practice of the "fire" of scientific creativity, is the characteristic feature of empires as we have actually known them in history, including the British empire. In brief, keep the mass of the population intellectually "barefoot and stupid," by aid of various means for "culling the herd," when the mass of the ordinary folk is viewed as having become unpleasantly numerous, as according to the opinions of such as neo-malthusians as Prince Philip and Al Gore today.

Thus, in that tradition of the Olympian Zeus depicted by Aeschylus' *Prometheus Bound*, the elimination of science, either by crushing it, or, as a Procrustean trick, or, by fraud, such as modern suppression, still today, of the fact of the root-discoveries of the actual founder of modern physical science, Johannes Kepler. That still persisting, British academic fraud, which alleges that black magic specialist Isaac Newton had discovered what he and his handlers fraudulently plagiarized so very badly from the work of Kepler, is to be recognized as an outcome of the intent to suppress knowledge of "fire" by the mythical Olympian Zeus.⁷

The fact is, that the possibility of even maintaining the present scale of human population, let alone permitting it to increase, requires, absolutely, the role of physical-scientific progress

⁷ For more than two centuries the claim was presented, on behalf of Newton, that the discovery of the calculus, was based on the claim that Newton had secretly discovered the calculus before the first publication of that discovery, by Gottfried Leibniz, in Paris, in 1676. The alleged evidence in support of this claim for Newton was long asserted to be found in a chest of black-magic specialist Newton's secret papers. Finally, the chest turned open, its contents, chiefly matters of black magic recipes, were examined by a committee under John Maynard Keynes, who announced that the contents were a pack of mumbo-jumbo, and that the chest should therefore be closed and hidden forthwith. Similarly, the clumsy 1687 plagiarism of Kepler's so-called "Third Law" published by the beginning of the Seventeenth Century.

in overcoming the threat of exhaustion of presently available sources of materials needed even to maintain the present standard of living. *To prevent scientific progress, as by suppressing the development of nuclear-fission power, is already the practice of genocide.*

Keep religious dogmas, especially extremely kooky ones, such as “Global Warming,” out of politics. Next to actual thermonuclear warfare, “environmentalism,” as the case for it is stated by the followers of Prince Philip, is presently the greatest of all Nazi-like threats to humanity generally, today.

That much said to situate the relevance of the subject of physical economy itself, now turn to that subject itself.

I. What Is Physical Economy?

Progress in science, as in political-economy, often requires that time be spent on nasty subject-matters. From among such subjects, consider as an illustration, the case of what are called “slime molds.” That is not to say that human society is actually related to a “slime mold.” Rather, budding future economists ought to be confronted with the challenge of discovering the essential points of actual difference between an economy and a slime-mold.⁸ At this moment, few present economics professionals could pass that preliminary test. We may hope to improve their knowledge in the course of the unfolding of this present report.

The relevant observation to be made here on this account, is an observation not original to me, but one I have addressed repeatedly, over a span of more than two decades. That subject, which is truly valid and useful here, is the fact that a typical slime-mold, of which there are, indeed, very many varieties, passes through, most notably, two principal, alternating states: one of what appears to be an undifferentiated blob of slime, and another state, within which there are manifestly individuals dwelling as part of that slime-mold. Call these latter, living phase-states, as being, in form, something like so-called “wavicles” in “quantum states.”

The point to be emphasized in pointing to a slime-mold here, is that the individuated “critter” in that mess is not a Cartesian-like thing; rather, the entire batch, slobbering slime and its apparent, component individuals together, form a system, specifically a truly *dynamic* quality of living system in the sense of something qualitatively different than particles interacting at a distance within hypothetical Cartesian or Euclidean space-time.⁹

⁸ The subject of “slime molds” had been taken up by the scientific association known as the Fusion Energy Foundation during the 1980s, and has been more recently reviewed in “The Swamp Whence Al Gore Came,” by Dennis J. Mason, in *EIR*, July 18, 2008.

⁹ “Dynamic” is employed by me here in the specific sense of the ancient Pythagorean-Platonic *dynamis*, and the modern expression of that same notion in *dynamics* as defined by, most notably, Leibniz, Riemann, and Albert

If the reader has any experience with the relevant methods of work, he, or she should not be surprised by this paradoxical comparison of relations among human individuals to any general form of living slime within the terms of a living dynamic system. The slime acts as a unitary process, dynamically, in the lawfully systemic aspects of its interaction as a whole with the environment which it inhabits. Societies, when treated as economies formed of living human beings, help us to recognize both the relevant functional similarities, and also the fundamental differences between the two contrasted expressions of compared dynamics among living “social” systems.

At first blush, discovering the distinction of society from a slime-mold, may appear to be nothing more profound than a provocative, amusing,¹⁰ pedagogical challenge for the novice. Clearly, the challenge to the student is: *what is the essential difference between a human society and a slime-mold?* Most economists today, considering the record of their recent performance, would fail that test, utterly. (Some human societies' behavior as a whole, as in some election campaigns, would sometimes suggest something failing that test.)

The appropriate response to what I have stated here thus far, is the notion of dynamics as understood, to similar effect, by the ancient Pythagoreans and by Plato's, Gottfried Leibniz's, Bernhard Riemann's, and, also, Albert Einstein's definition of modern physical science as a dynamic, Keplerian state with Riemannian characteristics.

The subject, which this “clinical” case of slime-molds illustrates for our purposes here, is *dynamics* as the proper use of that term is found among the ancient Pythagoreans and Plato as a concept from *Sphaerics* (e.g., *dynamis*), or as a congruent notion of the significance of the term *dynamics* for Gottfried Leibniz, Bernhard Riemann, and Albert Einstein. In this case, we are considering the concept of dynamics, as I have just said here, as it pertains to the special category of living processes, as from the range of subjects, from slime-molds, to society treated as a subject of Classical tragedy.¹¹ In fact, the modern concept of dynamics is central to physical science traced from Cardinal Nicholas of Cusa's *De Docta Ignorantia*, and the method of work adopted, from Cusa, by such among his notable, avowed followers as Luca Pacioli, Leonardo da Vinci, and Johannes Kepler. On this account, Kepler is identified by Albert Einstein as the founder of modern physical science's practice. However,

Einstein.

¹⁰ Hence, the popularity of the subject of “slime molds” as a convenient pedagogical turn in the lectures of academics and relevant others.

¹¹ Obviously, slime molds belong to the Biosphere, whereas the dynamics of economy belong to the domain of the Noösphere. All actions by mankind which are of physical-economic significance belong to the domain of the Noösphere.

the first known relevant, modern, public, explicit use of the term *dynamics* in the field of modern physical science, originates with Gottfried Leibniz.¹²

As I shall emphasize in the course of this report, considering the similarities and qualitative differences between slime-molds and societies, is a relevant method for bringing forth pertinent ideas about the nature of human societies, as viewed from the standpoint of the principles lawfully governing societies' economic processes.

A Fallacy in Use of 'Sense-Perception'

The principal subject treated in this presentation as a whole, is the absurdity of what has become the academically, and more generally accepted definition of "energy," as by those science-illiterates known as our contemporary "neo-malthusians." Here, I treat not only the more readily demonstrated absurdity of the fraudulent definition of "thermodynamics" supplied by the tradition of the hoaxsters Clausius, Grassmann, Kelvin, and their successors, including the explicitly positivist mental disorder typical of the followers of Ernst Mach and Bertrand Russell, all of whom treated the very idea of "energy" as akin to an aprioristically "self-evident" form of existence.

It can be conclusively demonstrated that such notions of "energy," not as a symptom, nor merely as an observed effect, but, rather, treated as a principle of physics, represent, essentially, a political concoction, not the expression of a principle of nature; they are a hoax on a work by the Ecole Polytechnique's Sadi Carnot (the younger) by Rudolf Clausius and Robert Grassmann. As a political concoction, this political notion of theirs, and of Lord Kelvin, *et al.*, is traced historically from the account of the same political issue involved, in the notion of "fire," by the great tragedian Aeschylus in his *Prometheus Bound*.

As clinical discussion among the LaRouche Youth Movement (LYM) science teams has emphasized the personal experience and knowledge of our relevant associates, on the subject of university education inside the U.S.A. (as elsewhere in European civilization today), higher education has become, today, predominantly, a fraud. Since the practice of science has abandoned what had been its historical mission, for dawdling in statistical morasses, an

¹² Gottfried Leibniz, "Critical Thoughts on the General Part of the Principles of Descartes" (1692), and "Specimen Dynamicum" (1695), in *Philosophical Papers and Letters*, Leroy E. Loemker (ed.), Kluwer Academic Publishers, 2nd ed., 1989. The work of Leibniz and his collaborator Jean Bernoulli in superseding the cycloid of Christiaan Huygens by the concept of (following Pierre de Fermat) universal physical least action (e.g., the catenary), is of crucial significance for the entirety of the subject of a Riemannian science of physical economy. As Albert Einstein traced the roots of modern physical science to its foundations in the work of Johannes Kepler, the modern notion of dynamics is not only traced explicitly to the Pythagoreans and Plato, but also to Cusa and such among his explicit followers in creating modern physical science as Pacioli, Leonardo, and Kepler. It is Kepler, as, most emphatically in his *Harmonies*, who provides the foundations of competent modern physical science as an expression of the principle of dynamics.

actually continuing practice of real physical science has been relegated to such a relatively tiny fraction of what the profession had represented to putatively educated opinion, and practice, three decades or more ago; whereas the subject of science, where it exists still, is treated popularly as it were a mere curiosity, virtually a parlor-magic trick.

In these cases, that fraud reflects a special variety of a common body of currently conventional sophistry. Under the present political scheme of things, certain among what are denoted as "leading" universities, serve as if they were members of a collective, Babylonian-like, pagan priesthood, each of which utters its own specific type of ideological buncombe, a quality of buncombe proffered as permitted, sophisticated doctrines of belief, or merely careless comment respecting physical science and other matters.

In modern science's malpractice, the method by which such frauds as the alleged "Second Law" are concocted, draws upon a characteristic feature of the so-called empiricist method which Paolo Sarpi, Galileo, *et al.*, premised on Sarpi's adoption of the method of the medieval William of Ockham as a replacement for Aristotle. This method is the characteristic feature of distinction of empiricist method (the method underlying modern philosophical Liberalism) of the modern Ockhamite followers of Sarpi, the Anglo-Dutch Liberals most notably. Thus Newton's attempted plagiarism of a mere aspect of "Kepler's Third Law," substitutes a purported mathematical description of an action where competent scientific practice would have focused attention on the uniquely rigorous standards for defining an actual law of nature.

Thus, the Liberals, such as Clausius and Grassmann, wander recklessly between a description of an effect identified by Sadi Carnot, and the assertion of a claimed fixed law of the universe.

The broader, other channels of customarily certified current modes in academic instruction, which we encounter among relatively lower ranking educational and related institutions outside the core group of controlling authorities, depend upon the notional credibility dispensed to them for imitation by the ruling assortment of supposedly leading universities representing various regions of the nation, and of the world.

So, the standard wisecrack among the relevant, disgusted cognoscenti viewing that spectacle, runs as follows. Question: "What is a Harvard Yard?" Answer: "Two inches."

In this report, I concentrate the clinical evidence to be referenced, in my attack against a specific feature of the monstrous sophistry, the fraud of "post-industrial environmentalism," or, better said, actually "post-science" ideology. This is the quality of ideology which has come to pass, like marijuana, for higher education, under the influence of the currently

reigning influence of the anti-labor, anti-farmer, anti-science “68ers.” I speak thus, not of the majority of the age-group born between 1945 and 1958 as such, but, rather, a specific segment of that age-group. This is a distinction of that smaller, but relatively more influential group, which is expressed as a social phenomenon which is to be traced from its origin, to its effect: to its expressed outcome on those riotous streets of western Europe and the Americas, as the diseased ideology which was brought into being as a political effect within the electorate, under the U.S. Presidencies of 1969–1981, under Nixon, Ford, and Carter, and beyond.

On that account, we now proceed as follows.

To get at what is actually a competent physical science in this matter, as distinct from what is merely mechanics, the student must first free his, or her mind from the poisonous grip of infectious doctrines of “sense-certainty,” doctrines such as the fraudulent conception of “definitions, axioms, and postulates” of the ancient Sophist’s hoax known as Euclidean geometry. The student must also rise above those even worse forms of decadence known as the mechanics of Ernst Mach and the even worse substitution of implicitly schizophrenic methods of “data analysis” associated with the followers of Bertrand Russell such as those notorious hoaxsters Professor Norbert Wiener and John von Neumann.

Let us restate what I have just written in the preceding paragraphs, as follows.

To define any competent expression of physical science, it is indispensable to reject systems such as Euclidean geometry, or those related schemes which depend upon those kinds of particular assumptions of “self-evident principles” which were banned by Bernhard Riemann’s 1854 habilitation dissertation, We must regard the individual’s powers of sense-perception, such as sight and hearing, not as putatively *self-evident, a-priori* authorities, but as like measuring instruments which are supplied within the original box in which the newborn human individual came packaged. As Cardinal Nicholas of Cusa, the founder of modern European science, affirmed this in his seminal *De Docta Ignorantia*, no honest *a-priori* “principles” exist in the lawful functioning of the actual universe.

Like all useful instruments, these faculties, such as sight, hearing, touch, and smell, do not represent the actual reality whose presence is being experienced by aid of those senses. However, through the actions of the cognitive powers of the human mind, the mind’s effort to correlate a combination of differing qualities of sensations, as combined into a single subject-matter, provokes the generation of what we call “ideas,” ideas which correspond to a common notion of the simultaneous experience of shared, but intrinsically immiscible

qualities of sense-perception, as in Johannes Kepler's uniquely original discovery of the general principle of gravitation ordering the composition of the Solar system.¹³

That shift of the maturely developed individual human mind, from sense-certainty to scientific and Classical-artistic insight into what mutually contradictory sense-perceptions portend, is what is properly known as physical science, or, as principles of Classical artistic modes in composition.

That, however, is not the end of the matter.

Sophistry: Aristotle & Euclid

All of the most relevant sources from, and on the subject of what is conventionally described as Classical Greek history and its culture, identify the origins of the downfall of Classical Athens, as it occurred during and following Athens' launching of what became known as the Peloponnesian War, as the effect of the poisonous influence of Sophistry. The most relevant variety of Sophistry for reference on account of its part in contemporary history, is that of Aristotle and his followers.¹⁴ It is from that source that the Sophistry called Euclidean geometry was derived, as also the fraudulent astronomy of the Roman Empire's Claudius Ptolemy.

The origin of Aristotelean, Euclid's and kindred Sophistry, is implicitly identified by Aeschylus' drama *Prometheus Bound*, in which the character called the Olympian Zeus¹⁵ condemns Prometheus to prolonged torture. The charge by that Zeus was that Prometheus had offended the Olympian gods by informing mortal human beings of the concept of fire. The incarnate body of influence corresponding to the powers of the fictional Zeus at that time was the Delphi Cult of Apollo (and Dionysus), the Delphi cult which, in Plato's view, must be destroyed as a political authority, if Classical Greece's civilization were to be rescued from the effects of a Peloponnesian War whose folly can be compared to the fraudulent 1964 U.S. declaration of war in Indo-China, and the more recent launching of what has been virtually perpetual war in Southwest Asia by those fraudulent actions of Britain's Prime

¹³ Compare Kepler's treatment of the "missing former planet," whose remains are the asteroid belt, with Gauss's treatment of the orbit of the asteroid Ceres. Cf. the LYM Gauss project on this.

¹⁴ As traced from the Athens School of Rhetoric and Aristotle. The later Christian opposition was presented, explicitly, by a friend of the Christian Apostle Peter, Philo of Alexandria. Philo presented his argument in the interest of Judaism. Philo attacked the absurdity of the Aristotelean argument among the theologians of his time, the argument that God having made a "perfect" universe, thereby deprived Him of the power to alter the universe thereafter. A modern rabbi greatly to be esteemed, but recently deceased, put the point: The Messiah will not arrive as if on a strict railway timetable, but when the Creator decides to send him.

¹⁵ Rather than U.S. President George W. Bush, Jr.

Minister Tony Blair which had addicted Blair's foolish dupe, U.S. President George W. Bush, Jr.

For a competent reading of the relevant parts of the history of ancient through modern European civilization, all ancient through modern European imperialism, since the fall of Tyre at the hand of Alexander, which was based on maritime powers, was concocted, in its subsequently relevant form, during the aftermath of the Peloponnesian War, at a time when it was adopted as a common definition of a European maritime imperialism which combined elements of oriental imperialism with the superior physical-economic and related power of maritime cultures.¹⁶ The European model of imperialism was, otherwise, adopted as one modeled upon the Asian model of imperialism pivoted on the traditional "oligarchical principle" and priesthood of Babylon. This model was to emerge, over the interval from the end of Rome's Second Punic War through the establishment of the Roman Empire under Augustus Caesar, as the imperial model whose successive incarnations have dominated continental European civilization from that time through the British empire of the present instant.

Throughout that span, from the reign of Philip of Macedon to the present moment, all European maritime forms of imperialism, such as that of the British Empire today, have been premised on *the international maritime form of monetary influence* associated, earlier, with the Greek cities represented by their treasuries at the site of the Apollo-Dionysus cult of Delphi.

Until those historical facts which I have just so summarized are taken into account, there could be no competent understanding of the nature of the root-causes for the presently onrushing general breakdown-crisis of the imperialism-in-fact of the present world monetary-financial system.

In other words, the determining feature of the presently onrushing general breakdown-crisis of the present world economy at large, is not some particular dysfunctional element to be corrected. It is the entire system, world-wide, which is doomed to falling into the black hole of an early, planet-wide new dark age, unless the very idea of the presently reigning monetary system is replaced by a fixed-exchange-rate credit-system consistent with President Franklin D. Roosevelt's 1944 Bretton Woods design for an international, fixed-exchange-rate system.

The evidence supporting that forecast of mine is now overwhelming, and the consequence is presently immediate, not something for several years, or even as long as some months ahead. The facts are clear for those capable of facing facts. The problem is not a lack of facts, although important facts are lacking among even relevant leading institutions; the problem is

¹⁶ E.g., the superiority of Egyptian science over the crudities of the Mesopotamian tradition prior to the best period of the Baghdad Caliphate's effort to accumulate all possible knowledge from all parts of the world.

an obscene compulsion, in highly placed circles, to continue the presently doomed system as if the ruling interests controlling Europe and the U.S.A. today had chosen to “go down with the ship,” rather than insult the honor of the traditions which had been the cause of the society’s onrushing doom.

To address such questions of such massively deadly implications, it is necessary to pinpoint the specific kind of mass-insanity which presently reigns, top down, among society’s ruling institutions.

What Is Money: Since World War II?

Under the present conditions of a global monetary-financial breakdown-crisis, it should be of particular concern to sane, patriotic, and un-stupid caretakers of our nation’s policy-shaping, that we should remove all traces of the legendary monetarist delusion, that “stimulating” an economy with inherently inflationary discount-rates, is the way to “stimulate” economic growth.

Presently, at the moment these lines are written, a 4% discount rate at the Federal Reserve “window” is about right for the moment. Anything lower verges upon reckless disregard for the cruel realities of the immediate crisis; at the present moment, we must peg the discount rate lower than the high chosen by the British empire, and lower than the lower adopted currently by the ECB.¹⁷ Looking beyond the more than a few steps ahead, we must return the U.S. to a fixed-exchange-rate, protectionist system, imitating our pre-1968 system which was destroyed by the combination of the prolonged U.S. war in Indo-China and the wrecking actions of “de-regulation” launched during the 1969–1981 interval. What is required at this immediate moment, is a prudent hands-on, highly “dirigist” management of our affairs, tantamount to the experience of the U.S. economy during, and immediately following World War II, for about twenty years.

Henceforth, when, hopefully, the relevant system of law has been restructured in accord with the specifically “American System of political-economy” based upon the principles of a credit-system, rather than a monetary system, the new reforms will be sufficient. Provide a calmer hand at the tiller, a firm, protectionist hand at the Federal Treasury.

¹⁷ If the U.S. employs such a reform as a step toward “re-industrializing” our economy, the systemic advantages inhering in what is conveniently identified as the Franklin Roosevelt legacy, would enable us to defend the value of the U.S. dollar at an advantage to the British Empire and the current continental European practice at the suggested current level of 4%. The national economy which is investing in physical growth through scientific-technological progress, per capita, is always the desirable investment, in the opinion of the sane, throughout the world.

On this account, it should be recalled, that mobilizing a uniformed military force of more than sixteen millions during World War II, with tons of materiel per capita of that force, a tonnage way beyond what the superior amount of training of German opposing forces could match in effect, had tremendously inflationary effects which would not have been experienced had the same Federal stimulus to capital-intensive, science-intensive, physical economic growth been devoted predominantly to a peace-time recovery-effort. The right-wing cant about Franklin Roosevelt's war-time financial policies, suggests that the critic remained unaware, then or now, that we had the biggest war in world history under way, a war we had to win against whatever short-term cost.

During the present time, the Federal Reserve system, which has been effectively bankrupted under Allen Greenspan's custody, must be downgraded in its status as an authority. It will still function, but must be held in bankruptcy reorganization under the direction of a Secretary of the Treasury functioning with the images of Treasury Secretary Alexander Hamilton and economist Henry C. Carey staring him in the eye.

Then, we shall operate under a two-tier credit system, under which preferred activities bear a Federal 1–2% rate on Federally authorized, government-capitalized, capital investment programs, while less preferred matters bear a confining, somewhat higher rate. The system will be a two-tier system, under which most-preferred and preferred categories for issuing Federal credit, will function with strong Treasury backing, but where appropriately strict promotion of deflationary rates will defend the national economy against inflationary pressures from within the habitualized, speculative, frequently outrightly lunatic tendencies currently native to much of the present private sector. The use of Federal discount rates is not intended to serve as an instrument of a "free trade" system. Which uses of credit are to be favored, which less favored, and which discouraged, is a matter of judgments based on policy respecting current national interest as a whole.

During the interval 1968–1981, and beyond that, an awful amount of destruction of the system of national economic recovery built up from 1933 onward, through about 1966, was wreaked. The wrecking continued, and was even accelerated over the subsequent years to present date. The Rockefeller Foundation's current "ppp" ("public-private partnership") program is one of the worst conceivable schemes for looting the public till and population alike, and must be prevented from implementation. It will be necessary to restore many of those protectionist measures and programs if the U.S. economy is to recover its former vigor. The most crucial elements of reform must be put into play quickly; in other matters, we must craft legislation and programs more carefully, while allowing for the tendency of the legislative and judicial branches to proceed sluggishly in most such matters.

Amid such policy-shaping, the most important of the defenses of public credit against corruption, is the combination of a fixed-exchange-rate international monetary system, and the use of flexible scheduling of tariff and kindred protectionist measures supplied to shape preferences. All of this is pretty much from the implied book of Alexander Hamilton, Henry C. Carey, and the President Franklin Roosevelt Administration.

The Credit System

The essential thing to be grasped in this connection, is the crucial, qualitative distinction between the original, 1944 Bretton Woods intent, of President Franklin Roosevelt, for a true credit-system, as contrasted with the perversion of what had been Roosevelt's intention, under President Harry S Truman. Truman's policy of supporting British imperialism, in his agreement with Winston Churchill, *et al.*, on this account, resulted in corrupting the Bretton Woods system into the form of a pro-imperialist, Keynes type of monetarist system, rather than a credit-system of the type implicit in the U.S. Federal Constitution.

The essential approach to remedying the presently onrushing world breakdown-crisis, is the use the U.S. dollar, which is still the principal denominator of international debt and credit (although, at this moment, London, not the U.S.A., controls that dollar), as the currency of account in a new, fixed-exchange-rate system initiated by a group of sovereign, anti-British-imperialist nation-states which are assembled around the initiating body of the U.S.A., Russia, China, and India and their immediately cooperating associates. The importance of defending the relative value of the dollar-denominated holdings of China, not only for China, but also for nations which trade with China, such as Korea and Japan, merely illustrates the crucial importance of adopting such a view of a reformed U.S. dollar.

The recovery of the world as a whole from the presently onrushing general, planetary breakdown-crisis, demands this change immediately. Since I warned, in my July 25, 2007 international webcast, that the world was already entering the breakdown phase of the present world monetary-financial system, virtually nothing useful has been done, in net effect so far, to remedy the situation. Although such needed kinds of developments are rarely precisely scheduled in advance, the general nature of the immediate situation should be sufficiently clear to guide us through the needed process of evolution of a new world credit system. We must proceed with awareness of that fact that the world's present situation is now rapidly running out of time.

In any case, looking at such matters from a financial standpoint, the essential fact is, that the wrecking of the U.S. economy which occurred under the war-time conditions of the after the 1964–1968 interval, was chiefly a result of the combination of the costs of maintaining the escalated conduct of the war in Indo-China and of the reversal, during the same interval, of

those policies of agro-industrial revival which President Kennedy had fought out against those Wall Street barons of the steel industry and their like, barons and their like who went immediately back to their pernicious ways once President Kennedy was dead.

Similarly, from March 1, 1968 onward, the ruin of the U.S. economy has been entirely a reflection of a post-industrial paradigm-shift expressed in such forms as a net decline in physical investment in basic economic infrastructure, per capita and per square kilometer of our national territory as a whole. This has been the case since U.S. fiscal 1966–1967, to say nothing of the rabid economic insanity which has reigned in U.S. national policy of practice since the wrecking decade of 1969–1981 under Presidents Nixon, Ford, and Carter. What happened to ruin us further, during 1981–1988, was largely a continuation of the wrecking-job which the Reagan Administration inherited from its predecessors of the 1970s.

The worst turn of those times was that launched under President George H.W. Bush, launched in tandem with British Prime Minister Thatcher and Britain's asset, France's President Mitterrand. The worst of all was the effect of the policies of Bush, Thatcher, and Mitterrand from the point in time of the "Fall of the Berlin Wall." Instead of engaging the nations of the Comecon and Soviet Union for the obvious capital-intensive developments consistent with the common aims of mankind, a policy which my wife Helga had designed in detail as the policy for a European Berlin-Vienna-Paris triangle of economic development, the policies contrary to her proposals, contrary policies of such as those of Britain's former Adolf Eichmann apprentice, George Soros, not only wrecked the economies of the former Soviet bloc at great cost to not only eastern, but also western and central Europe, but this wrecking was done in a fashion which ruined the economy of this planet as a whole, creating, thus, the preconditions for the terrible breakdown-crisis which threatens our planet at the present moment.¹⁸

Unfortunately, amid all these and related considerations, the essential point on economy to be made here, is missed in nearly all recent decades' trans-Atlantic and other shaping of economic and fiscal policies. With the shutting down of all serious attempts at maintaining traditionally American patriotic outlooks on those fiscal policies related to what had been a modern American practice of agricultural, industrial, and infra-structural policies for physical increase of the productive powers of labor (and standard of living) per capita and per square kilometer, the real issues of a viable modern economy were, as Speaker Nancy Pelosi might have put the point, "Off the table."

¹⁸ Looking back to those times, today, one must often wonder: What really happened at Chernobyl? Was it, like the events of 9-11, one of those extraordinarily fortuitous events in history?

It is virtually, if not entirely the case, that no one in Washington, D.C. actually practices real (physical) economy any more today. The generation which was the last to be familiar with those presently lost arts of competence in modern economy, has, for the most part, either died out, or has been long retired: I am one of the dwindling few aging members of my own generation who are exceptions to that general rule today. That cultural decline of our public and official opinion, is the chief reason that the present, world-wide financial crisis, which is no business-cycle matter, has now become, also, a general, physical breakdown-crisis.

Only by sharply, and suddenly reversing all leading recent trends in economic and financial policy since 1969, could the world presently escape the fate of a doomed society, edging toward the very much nearby brink of a great chasm of a probable, planet-wide new dark age.

II. Energy & Economy

Now, we come to the strict technicalities of the matter, to the subject of “energy.” At this point in this account, at last, the motive for my emphasis on the subject of the contrast between a slime-mold and a human society should become clearer.

Focus on the portion of the debate encountered among that portion of the “68er” generation represented by the virtually synarchist rabble. The actual threat to civilization which that rabble’s intervention represents, forced their principal opponents, the better minds among the 1970s and early 1980s, proponents of nuclear-fission power, to review the deeper economic significance of controlled nuclear fission. Under these conditions, certain crucially significant facts of the matter of nuclear power could not be brushed aside as “self-evident.” That is the way in which a fairly widespread discussion of a concept associated with the term “energy-flux density” emerged among the defenders of nuclear power.

The significance of the introduction of that term, is that it pointed out the scientific incompetence of measuring power in a simple, linear counting of the calories apparently generated. So, the industry, and relevant scientists, came to emphasize the importance of measuring the density of apparent calories transmitted per square centimeter of cross-section of flow—in other words, in the proper conceptual terms signifying the specific, ontological conception of action-in-motion, as opposed to a Euclidean-Cartesian, or similar kind of reductionism. The significance of this correction was not limited to nuclear-fission as a power-source. The same argument had already been implicit in preference for charcoal over wood, coal over charcoal, and natural gas and petroleum over charcoal and coke. The point emphasized was one already recognized, as virtually taken for granted, in physical chemistry.

In other words, under appropriate pre-conditions, the same number of calories, in a denser concentration per unit of cross-section of flow, can do more work when the concentration of its flow is significantly higher,¹⁹ than when the same number of counted calories is significantly less concentrated. The standard interpretation of the significance of this phenomenon, is based upon the natural expression of these critical values as they are presented in a physical chemistry based, for purposes of reference, on a suitably updated Mendeleev table. That is not accidental; the notions of reactions in physical chemistry and “energy-flux density” are closely associated matters (on the condition we are stating the case from the standpoint of a Max Planck, rather than one among his Machian adversaries, or, worse, the followers of the vicious Bertrand Russell of Cambridge Systems Analysis notoriety).

Unfortunately, there has been less attention to a related matter: the absolute, virtually criminal, barbaric stupidity of the cult of solar and wind power, as opposed to reliance on high-energy-flux-density modes. Take the simplest case for illustrating this point, the use of “solar radiation” for the promotion of chlorophyll, as opposed to its use as a source of abiotic heat.

Not Actually a 'Pollywog'

A chlorophyll molecule looks like a pollywog. It has a relatively long antenna, its “tail,” with which to capture impinging radiation at Earth-surface concentrations of caloric content of the solar radiation impinging upon the plate-like, related group of chlorophyll molecules. Meanwhile, the head of that living organism which it represents, transforms the power which the organism picks up in its tail, with aid of the specific characteristics of one atom in that organism, into the same quantity of power, but at a higher energy-flux density, in its “head.” This is the way a desired, biotically-determined atmosphere is maintained as a part of the Biosphere as a whole. Hence the typical role of chlorophyll in conditioning our environment to the specific advantage of the human species (among others).

This process is crucial for the natural transformation of solar radiation into increments of biomass, at the same time the temperature of the area is lowered. This process is a form of *specifically anti-entropic* behavior which is specific to a living process, as the mere raw conception of solar radiation is not. It is foolish (or, should we say insane) to use solar power merely as an inorganic fuel, thus wasting its proper role in generating bio-mass.²⁰ We must

¹⁹ E.g., “higher frequency.”

²⁰ Anyone who supports the essentially silly and mean former Vice-President Gore’s arguments involving the word “carbon,” should be classed among persons suffering from a mental and moral disorder tantamount to criminal insanity respecting the relevant effects of such policy-shaping influences on the national security of the U.S. and other nations of the world.

promote the living process of maintaining the Biosphere's anti-entropic, biotic potential, while also enforcing a policy of moderation in defining the specific conditions in the environment for promoting increase and advancement of human life.

For related reasons, the use of living processes as "bio-fuels," is implicitly a criminal practice against the general welfare, a practice committed by bio-fools, against mankind, a practice to be condemned on this, as also other grounds.

This is, in a more round-about way, the same distinction of a living process to be witnessed in the reproductive behavior of a slime-mold. Nonetheless, this, by itself, does not account for the distinction of human beings from all lower forms of life.

The Academician V.I. Vernadsky, who discovered the relevant scientific principle of the physical chemistry of the Biosphere, required a strict, functional distinction of the Biosphere from the abiotic domain. He also discovered the experimental fact identifying another principle, the principle which suffices to distinguish the Noösphere from the Biosphere; however, I still tend to doubt that he ever really broke thoroughly with that fraudulent argument inherited from Clausius, Grassmann, and Kelvin, the argument on which the reductionists' hoax known as the "Second Law of Thermodynamics," has depended up to the present time.

At this point in my account, we now encounter a crucial block to be removed from the pathway of contemporary science.

Clausius' & Grassmann's Hoax

As I have already pointed toward the relevant argument earlier in this report, hoaxes such as the "Second Law of Thermodynamics," have found their typical origin in the characteristic features of a major, malicious impact on science for the worse, by the top-down imposition of the empiricism of Anglo-Dutch Liberalism. Liberalism, by its systemically inherent submission to the medieval irrationalism of William of Ockham, bans acknowledgment of the existence of any actually universal physical principles, including principles such as Kepler's uniquely original discovery of universal gravitation. Empiricism substitutes various forms of reification of mere mathematical formulae, or the like, in places where actual concepts of principle, such as Kepler's uniquely original discovery of gravitation, should be found instead. What Clausius *et al.*, and the later Machian positivists, such as Ludwig Boltzmann, did, was more, and yet more of just that.

This hoax, the hoax of positivist forms of so-called “thermodynamics,” as by Boltzmann, was carried to extremes in the attempt, by followers of Boltzmann, to define life itself as a principle of Machian mechanics.²¹

Nonetheless, whatever, in the matter of thermodynamics, Vernadsky failed to correct in his own work, or did correct, otherwise, he did point toward the most crucial kind of evidence which refutes the “Second Law” in what should be accepted as the most compelling terms of reference. That was his reference to the relative growth of the mass of the Noösphere, relative to both the Biosphere and abiotic domains.

By their respective natures, both the Aristotelean-Euclidean method, and the Liberalism of Paolo Sarpi and his Anglo-Dutch Liberal followers, base their systems of thought on the inclusion of *a-prioristic* presumptions, presumptions which, in fact, exclude the acknowledgment of any approximation of the actual existence of any physical principle in nature. In the case of Aristotle-Euclid, the fly in the ointment is *a-prioristic* presumptions based on the blind faith in sense-certainty. In the case of Liberalism in the spoor of Paolo Sarpi’s adoption of Ockham, no actual principle of nature is tolerated.

This, for example, is typified by Newton’s fraudulent claim to have discovered a universal principle of gravitation. The actual discovery of universal gravitation (i.e., Kepler’s “Third Law”) was made by Kepler not much less than a century before the date of what Isaac Newton was to copy from Kepler’s writing (in a childishly bad form, that with the strongly suspected assistance of Newton’s “handler” Robert Hooke). Newton’s forgery of his claims to such a claimed discovery, occurred nearly eighty years after Kepler’s death, at a time when a chunk of the essentials of Kepler’s own work had been previously published in England. On balance, Newton’s claim of “discovery” was simply a sophistry of no actual scientific interest in itself, but merely of clinical interest respecting the minds of the dupes of Newtonianism.

Even more interesting, is the relevance of the method by which Kepler had made the actually original discovery of universal gravitation, as the essential details of this process of this discovery are elaborated by Kepler himself, in his *Harmonies*. In the effort leading into that discovery by Kepler, in his works, such as *The New Astronomy* and relatively earlier, parallel writings, the faculty of human vision was the conceptual model of experimental reference. In the *Harmonies*, the paradoxical juxtaposition of both the concept of visual perception and auditory harmonics was discovered, by Kepler, to shape the crucial quality of experimental, ontological paradox which led to Kepler’s uniquely original discovery of a principle of

²¹ Erwin Schrödinger, *What Is Life?* (1944). The argument there is premised upon the Machian ideology of Schrödinger.

organization of the Solar System which operated, ontologically, from outside the superficial domains of any doctrine of “sense-certainty.”

Although the basis for this had been presented in the work of Nicholas of Cusa, as Kepler himself acknowledges those connections, this specific feature of Kepler’s discovery in the *Harmonies* is unique, in a way which defines all competent modern scientific method still, to the present day.

As Albert Einstein’s endorsement of this specific quality of discovery by Kepler illustrates the crucial point, true universal physical principles exist only outside the bounds of a faculty of sense-perception as such. *Universal physical principles bound the universe of experience, as if from outside the domain of perceived phenomena as such; but, are experimental demonstrations of the relevant principle itself.* True universal physical principles, as defined experimentally in this way, bound the universe to the effect that the quantity of the physical universe is “one,” a quantity which is *self-bounded* by a concert of all the discoverable true universal physical principles which are operating upon the universe at the relevant time.²²

Any true physical principle is demonstrated solely by the efficiency of its manifest existence, the demonstration that it is not defined by any different notion of universal principle. Then, the demonstration of the efficiency of the application of that discovery, as being unique to the domain of that newly discovered principle, is then also required.

The proof of the existence of a universal physical principle is supplied only in the same way in which Kepler proceeded, in his following the ancient, anti-reductionist Classical Greeks, such as the Pythagoreans, Plato, and Eratosthenes, in his work, as I have developed my own original discoveries of principle in the domain of physical economy, by following the precedents which their work supplied.

Since the form of Sophistry represented by Sarpi’s empiricist mysticism denies the existence of actual universal physical principles, the intellectual territory which belongs, properly, to the science of the followers of the Pythagoreans, Plato, and to such modern followers of Nicholas of Cusa as Leonardo da Vinci, Kepler, Pierre de Fermat, Leibniz, and Riemann, is occupied by the alien invaders lodged today within the tents of such reductionist barbarians as the Anglo-Dutch followers of Paolo Sarpi—the so-called Liberals. For these barbarians, any mathematical construction which appears statistically appropriate to such a state of mind as theirs, is proclaimed to be “the same thing” as an actual principle of nature.

²² Einstein defined this as a finite but unbounded universe. From a reading of Einstein’s words situated in context, he had spoken more clearly had he uttered “finite and self-bounded universe.”

Hence, the folly of credulous admirers of the argument of Clausius, Grassmann, and Kelvin. It is on this point of controversy, that the issue of human creativity begins to be made clear.

III. Culture, the State & Economy

Modern European civilization was born during what came to be known as the Fifteenth Century's "Golden Renaissance." Thus, it was born in a great Renaissance, in the aftermath of the horror which is known to historians, to the present day, as Europe's Fourteenth-Century "New Dark Age." Viewing the Fifteenth Century in retrospect, the most influential figure of that Renaissance was the outstanding genius known as Cardinal Nicholas of Cusa, the man who was the author of both the design for the institution of the modern sovereign nation-state *Concordantia Catholica*) and for modern European physical science (e.g., *De Docta Ignorantia*).

The defeat of the great ecumenical union of the Christian churches, called the Council of Florence, a defeat which occurred through the complicity of Venice's financier oligarchy in the fall of Constantinople and the aftermath of that event, opened the gates for the resurgence of those financier-oligarchical and feudalist factions left over from the Habsburgs and the brutish tradition of the House of Anjou.

Nonetheless, the impact of the influence of two great figures of government during that time, France's Louis XI and Louis' admirer, Henry VII of England, produced keystone institutions of a new form of government, the economically vigorous form of modern, sovereign nation-state, the new form of society upon which all great accomplishments in statecraft, including the creation of our United States, have been developed by subsequent generations, up to the time of the presently threatened general breakdown-crisis of our planet as a whole.

The conflict between the Venice-led forces of feudal-like reaction and the emerging modern nation-state, took the form of virtually a century and a half of a Europe dominated by recurring terrors of religious warfare, from the time of the brutish 1492 expulsion of the Jews from Spain, until the 1648 Peace of Westphalia. About midway within that interval of religious wars, a split developed within the body of the reactionary faction's forces, erupting around the debates which had occurred during the Council of Trent. A major force representing one of the leading factions at that Council, the new Venetian party led by Paolo Sarpi, emerged as a principal insurgent force among the parties continuing the nightmare of religious warfare at that time.

Thus, to summarize this opening of modern history, the launching of the European nation-state and of modern European science had been, in the combined effect, an established force in modern European history, that, largely through the initiatives of Cardinal Nicholas of Cusa and his followers during the Fifteenth and Sixteenth centuries, prior to the rise of Venice's Paolo Sarpi during the last quarter of the Sixteenth Century. So, toward the end of the Seventeenth Century, that continuing conflict left over from preceding centuries, took a new, politically energized form, this time in the setting of the rising power of an Anglo-Dutch maritime imperialism, which was to emerge in the virtually global form of British imperialism, during the 1714–1815 interval, most notably in the moments of triumph prevalent during the rise of anti-Classical Romanticism during the aftermath of the 1814–1815 alliance of the Habsburgs' Prince Metternich with the British imperial monarchy, as at the Congress of Vienna.

Here, before we venture, shortly below, into the core of the matter to be presented in this present chapter of this report, I must say some more on the nature of that 1492–1648 interval's effect on the matters of modern physical science. Call that “an interval sandwiched within” that part of modern European history. This account identifies the great issue of economic policy which has delivered the toils and perils of modern European economy since the time of the Venetian master-criminal Francesco Zorzi who posted himself among the Venetian party around King Henry VIII, including Cardinal Pole and Thomas Cromwell. In this process, the ubiquitous master-criminal Zorzi, acting in his incarnation as marriage-counselor to the King Henry VIII, launched the attack on the principles of physical science set forth by Nicholas of Cusa in Cusa's initial work founding modern science, *De Docta Ignorantia*.

Zorzi's attack on Cusa was to be seen later as the implied beginning of what was to become the modern empiricism of Paolo Sarpi and his followers.

The great Sixteenth-Century schism, pivoted on the legacies of Zorzi and Sarpi within the ranks of the leading Venetian dissidents from among the Catholic Church's hierarchy at that time, is what led to the establishment of the principal institutions of modern Protestant belief. These latter institutions were formed, implicitly, around the issue of a quarrel between what had emerged as two factions of the opponents to what had been the leadership of the great ecumenical Council of Florence. Among those Venetian opponents of Cusa, the choice was that of either Aristotle, or Sarpi's choice of William of Ockham, to be the preferred banner of opposition to the legacy of the great Fifteenth-Century Renaissance, that in respect to both the statecraft and science associated with Cardinal Nicholas of Cusa and with the great Fifteenth-Century ecumenical Council of Florence.

Essentially, Sarpi, like his picaresque flunky Galileo Galilei, agreed with his pro-Aristotelean rivals, that the discovery of actual principles of physical science as such must be suppressed, in favor of what are fairly identified as “gimmicks,” that done in service of the ancient tradition represented by the Olympian Zeus of Aeschylus’ *Prometheus Bound*. The difference between the modern European factions was, as Sarpi argued against those Aristotelians, that, under the continuing influence of Aristotle’s dogma, it would be impossible to defeat the scientific and political revolution launched by Cusa *et al.*, a political revolution which had developed into a virtually uncrushable force of economic and social progress in the leading centers of Europe. Essentially, Sarpi’s argument was that he agreed with the leaders in Trent, that the legacy of Cusa was still, as for King Henry VIII’s Venetian controller Francesco Zorzi, their common adversary; Sarpi’s polemic against the Aristotelians was, essentially: “You guys are losing our war against Cusa.”

Sarpi’s choice was to adopt some secondary aspects of modern technological progress, but, only if they might be viewed as practical innovations in tinkering, without tolerating the concept of the discovery of what are actually universal physical principles; whereas, the pro-Aristotelean forces defending the relics of the stagnant feudal system, found themselves technologically inferior *strategically* to what emerged as the dominant Protestant forces of northern Sixteenth and Seventeenth centuries’ Europe.²³

In between the two Venetian factions, a third faction, the heirs of Cusa’s influence pressed forward, such as those of Cusa’s followers Leonardo da Vinci and Johannes Kepler, which had advocated, and continued to develop modern science, using unique-experimental scientific discoveries as the instrument for increase of the physical power of mankind per

²³ For example, Christiaan Huygens’ famous discovery, leading toward his associate Gottfried Leibniz’s uncovering of a principle of modern science known as the universal physical principle of least action, began as what might be described as tinkering with design of a better pendulum clock for use in transoceanic navigation. However, Huygens did not stop there, but proceeded to expand his work to encompass a concept which Huygens associated with the cycloidal physical concept of *least time*, somewhat complementing Pierre de Fermat’s discovery of the principle of least action. Huygens’ associate Gottfried Leibniz superseded Huygens’ cycloid by developing the physical principle of the catenary, which had been expressed by the design of the principle of construction which had been employed by F. Brunelleschi for the construction of the cupola of Florence’s Santa Maria del Fiore, during the timeframe leading into the great ecumenical Council of Florence, a concept already recognized by Leonardo da Vinci as complementary to the tractrix. This became known, through Leibniz *et al.*, for its role in representing the universal physical principle of least action. A crucial aspect of the work of both Huygens and Leibniz was rooted in their sharing of knowledge of the related work of Leonardo da Vinci (knowledge which they had acquired through Christiaan’s father Constantin, the Ambassador to London, who secured their access to relevant portions of certain writings of Leonardo da Vinci held in England at the time). Such are the differences and relationships between a mere patentable design and a physical principle of nature. The faking of a merely alleged principle of gravitation by the circles of Isaac Newton, typifies the effort to degrade science from the universal principles defined by crucial-experimental (i.e., unique-experimental) methods.

capita and per square kilometer of territory. That is the standpoint which this present author and his associates represent, as does the Leibnizian U.S. Declaration of Independence and its congruent expression as the core of the Federal Constitution today.

That said, turn to the Eighteenth-Century emergence of the American Revolution and its republic.

The U.S.A. & Its Destiny

Although the late-Eighteenth-Century Classical Renaissance centered on seminal figures such as such followers of Leibniz and J.S. Bach as Abraham Kästner, Gotthold Lessing, Moses Mendelssohn, and such allies and followers of Friedrich Schiller as the famous von Humboldt brothers, the late Eighteenth-Century Classical Renaissance remained an important force in Classical art and physical scientific progress, despite the British triumph in the Vienna Congress. This benefit to science continued through the adult lifetime of Carl F. Gauss, into the time of the death of Bernhard Riemann. Even after the death of Riemann, this factor has remained an embattled, minority factor of continuing leadership within physical science, as the case of Albert Einstein illustrates that fact, a feature which may be seen as a dwindling, but persisting and significant influence, until about the time of the menacing, 1890 ouster of Prince Otto von Bismarck from the position of the German Chancellor—if influence were counted in relative numbers of representatives, in the life of European culture's art and science.

Physical science, literature, Classical art generally, and even the power of simply clearheaded reasoning, have been gripped by an overall trend of general moral and formal-intellectual decadence, since crucial turns during the crucial interval between the ouster of Bismarck and the assassination of U.S. President William McKinley.²⁴

Notably, I have not merely lived through the recent now nearly eighty-six of those one-hundred-seven years since the assassination of President McKinley; but, everything I write here is enriched by a conscious reflection on the most crucial features of that century-long wave of a principled form of cultural decline of European civilization generally. Most of that lapse of time which I have experienced, encompasses both my adolescent and adult awareness of the principled nature of this conflict, an awareness dating from a time since about my fourteenth year, as my first full-blooded experience with this controversial issue of principle as posed by the influence of the Aristotelean Sophist Euclid. Furthermore, for reason of the unusual way in which I have spent my life, my reflection is, clearly, much more obvious, and

²⁴ The transition from mere corruption, into degeneracy in the matter of scientific and Classical artistic principles took over, more and more, with the degeneracy of science into mechanics, with Ernst Mach, and to full degeneracy with Bertrand Russell's *Principia Mathematica*.

clearer than that of most of those who have lived through a similar time's experience, which is why I, rather than they, am writing about the matter as I do here.

The consequent, next question should be obvious: "Why are most people, including even many leading scientists, so damnably ignorant about this matter, still today?" That ignorance is, indeed, the same as a certain, crucial theological issue which is rarely addressed from the vulgar preacher's pulpit.

The effect of human discoveries of what are actually universal physical principles, is something which is never experienced in any living form among other than human individuals. That fact is most efficiently manifest for today's populations of the U.S.A., or Europe, in physical-economic terms, in the ability of the individual member of the human species to do what the legendary Olympian Zeus of Aeschylus' *Prometheus Bound*, or, like the follower of Aristotle, or, of modern empiricism, or as by the malicious brutishness of hoaxster Al Gore, *wittingly forbids increase of the potential relative population-density of the human species in the only mode through which that could occur, through the mode of the effects of employing valid discoveries of universal physical and comparable principles.*

*The crucial issue so posed, is not the bare fact that a discovery had occurred; the crucial issue is the method by which successful discoveries of that quality are generated.*²⁵

The first among the crucial points to be considered on this account, is that no actual discovery of a universal physical principle was ever known to have been made by any different means than a relevant form of experimentally validatable "breakthrough" by the sovereign powers of the mind of a single human individual. One person, even several respectively independent individual human minds, as individual persons, may replicate such a validatable discovery, but the act of discovery of a universal principle always occurs, in each instance, only as the validatable act of one, sovereign, actually creative expression of the individual human mind.

Consider, again, the case of the fraud of claims by various sources, in their insisting that Isaac Newton discovered a principle of gravity. Clearly, to a competent scientist, most among those persons making such a claim for Newton, have either no idea of what they are actually talking about, or no wish to be caught thinking in what are, in fact, actually competent terms

²⁵ As Kepler followed Cusa's prescription of *De Docta Ignorantia* in both Kepler's discovery of *the ontologically infinitesimal* character of the elliptical form of generation of the planetary orbit, as identified in Kepler's *The New Astronomy*, and as Albert Einstein emphasized the unique quality of genius, respecting all competent physical science, in Kepler's uniquely original discovery of universal gravitation, discoveries of such characteristics define something encompassing the previously known aspect of the universe, a universe which is *therefore finite and self-bounded* (not subject to any external boundary).

of reference.²⁶ It is sufficient to look at the refined elaboration of the perils and successes of Kepler's uniquely original discovery, to prove that point. It is the fact of the matter that no one known who has ever made the claim for Newton, has ever actually considered the process by which Kepler actually generated his uniquely valid form of that discovery. *Did that person actually work through, or not, the ironical juxtaposition of the sense-experience of sight and hearing on which the only known to be original discovery of a Solar-systemic principle of gravitation was generated?* In most relevant cases of scientists of today, they will have flunked that crucial test of even mere scientific competence. *(Not necessarily because they were not competent otherwise, but, perhaps, because they were cowardly, or, as I read what Friedrich Schiller wrote: trained to beg for their bread.)*²⁷

Obviously, persons, today, especially professionals, even among those who otherwise appear to accept many principles of scientific work, and who do exhibit professional competence, that sometimes, even brilliantly, in other ways, have, nonetheless, defended the claims for Newton for no other evident reason than that the rotten standards of corrupted university and related professional authorities demand such slavish "true believer's" submission to the Isaac Newton hoax. Simply said: *They have been "brainwashed,"* as if by a Babylonian priesthood, to a particular effect comparable to that which Jonathan Swift attributed as a general state of mind among the academics of the floating island of Laputa.

The reason I introduce the immediately preceding considerations as I do at this point in the report, is the following.

The Production of People

To state the relevant proposition as briefly as possible, consider the following.

The discovery, or development of a physical principle discovered by mankind, has an effect comparable to what would be rightly considered as a change to a higher species, were this to arise in the behavior of a lower form of animal life. Of equal significance, is the fact, that such an accomplishment never occurs in a person, except through a relevant act of will.

²⁶ When that parson, the old Bible-thumping blunderbuss of fundamentalist died, the parishioners knew that the time had come to see what secrets would be revealed by access to the strange hand-written comments in the parson's old Bible. They read the parson's frequent scribbblings: "Text unclear; shout like Hell!" The greatest explosions of rage I met from among what were otherwise very respectable scientists, were of that same nature and origin.

²⁷ More significantly, it is the fact that no fewer than two natural, or synthetic (instrumental) senses are required to define any true universal physical principal experimentally, as this is illustrated by Kepler's *Harmonies*, obliterates a universe of sense-certainty, for the sake of an actually self-bounded physical universe. The senses are the screen on which the unseen reality casts its shadows.

Once the development of the human species, or of a part of the human species, achieves such a qualitative improvement through changing its culture, contrary developments, developments of a type fairly described as a “depletion of essential resources,” set in as a new kind of challenge for mankind. This, in turn, requires fresh qualitative advances, such as the development of controlled nuclear-fission technology today, in the development of a society as representative of its species.

When we examine this latter pattern more closely, our attention must be drawn, sooner or later, to the fact that a great portion of what we regard as natural resources, has been presented to our society as concentrations of chemical elements, isotopes, and their compounds, products which are then available to us in the economically accessible form as deposits often left behind by the deaths of representatives of relevant living species. Our oceans and atmosphere, are typical products of this process of life-driven physical chemistry.

The apparent drawing down of resources so inherited, and being used so by society, forces mankind's society either to collapse, or to develop in new qualitative ways, as the alternative to collapse

These and related considerations, combined, define the challenge of being human, rather than as like beasts, to accept a practiced view of mankind as being, uniquely, a higher form of life than any other known form of living species. Hence, the law of economy: *progress or be doomed!*

The very idea of existence of any form of economy depends upon the implications of this definition of our human species. *Money as such has nothing to do with the essential nature of an economy.* “Money is not a subject of science, but, as Charles Dickens' Artful Dodger would do, and Alan Greenspan has done; money so defined, is a homespun art-form of often dubious merits.” (For such amusements, society has often paid very, very dearly, as today.)

Here, on the implications of this just stated point, physical science and Classical modes of artistic composition coincide.

Take into account a related point which I have reviewed with associates engaged in producing video presentations of exemplary historical developments of current relevance. Take the matter of the principle of Classical tragedy, wherein the discoveries of the true, brutishly tragic secrets of money are to be made.

A Lesson from Bismarck

To situate that argument, I state the following boldly, as an intended provocation. There are no tragic personalities in a Classical dramatic tragedy. *There are only tragic societies.* Money is like that.

The secret of the successful performance of a Classical tragedy, such as one of Shakespeare's, lies in the fact that it is the population as a whole, or nearly its whole, which is tragic, rather than any individual qua individual. This is true not only in any well-crafted drama, but in the real-life experience of society. From the kindergarten to the retirement parties, wakes, funerals, and reading of the will, society as we know it in our own time, or that of recent generations, is largely a process of intimidations. "The current President of these United States may be a brutish lunatic, but you better not say so." Former British Prime Minister Tony Blair, who led the world into a long, worse than useless war in Iraq, may not be the father of lies, but, with the help of such as the current U.S. Speaker of the House, he did try. Most of our leading political figures have not been able to muster themselves to oust an incumbent Presidency which assisted Blair in perpetrating this abomination which has done so much, among other results, to ruin the economy of the U.S. You can not attempt to be truthful in this present society of ours without finding yourself as become, essentially, a threatened person, pressed so to become a prudent liar, one gripped by an emotional environment of "gothic" qualities of mysterious, but nonetheless palpable personal fears.

Experience shows us that the all too typical present leader of the nation is prone to fraud and its shames, but the cowardly critics among his subordinates would usually explain, that that behavior, however wrong, must be respected as being a product of sincere regard for his, or her perceived "best interest." So, such followers go along to get along; usually, so, society gets the corruption which the majority of its citizens implicitly demand. *(Do not try to tell me differently; I, Lyndon LaRouche, have been there, as witness, many times!)*

So, those who prefer to be onlookers when the battle has begun, enjoy blaming political and other leaders for our nation's troubles. The same society which allows its leader, or putative leaders to behave so shamefully, refuses to acknowledge the actuality that, usually, the society will not accept leading figures who do not respond to public pressures on the leader to just such a despicable intended effect as the current warfare, and other evidence of this depraved state of our economy show today. *Thus, the public blames the leader, which that society itself has corrupted, for the crime which the public pressure—such as the relevant opinion polls and mass media—has impelled him to make.* Usually, in such cases, the relevant he, she, or it, was not a bad person otherwise, but, chiefly, only just another coward. Such are the relatively less

intentionally dishonest misleaders who have become, so often, typical of the ranks of our justices and highest-ranking political authorities.

It is the prevalent culture of the people, such as so-called "popular opinion" and "popular tastes," especially among the ruling classes of that society, which determines the behavior, most of the time, of most of that society's leaders, and also of most of those among other individual members of the society which are persuaded to believe that they know where and how their bread is buttered.

"You have to understand. I really needed that money." "Sorry, Joe, but it was either I do what they demanded I did to you, or, my family would have suffered. Joe, you have to be realistic about this."

"Sure, I should have voted for it; but, it was not for my personal gain that I did not do so. My constituents needed me to do things I knew, or should have known were wrong, just to stay in office, where I could continue to do them the most good in this manner."

Often, the morally failed party in each such case, will tend to end his lecture to the complaining citizen with a menacing snarl.

The types of commonplaces to which I have just pointed, thus, are illustrations of the typical social processes which menace the individual in his, or her ever-loving society. It is by such, or related kinds of bonds of fear, that the individual within society is contained. Don't blame Shakespeare's character Hamlet until you have considered the types of fearful social forces, even when they are merely superstitions, which are his environment, or, also, yours.

For example, a bad performance of *Hamlet*, or *Richard III* on stage, will substitute the bare ego of the abstract individual which the actor is presenting, without exposing the subtle terror which conditions the behavior of the character playing the part which Shakespeare had intended. All true Classical tragedies are, as Homer's *Iliad* portrays this with such depth of development of the dynamics of social texture, a matter of the individual personality as crafted by the social process of the culture within which he, or the show is situated. The successful staging of any great Classical drama makes this subtle, controlling fabric of the situation as a whole, like the controlling gods of Homer's *Iliad*, implicitly clear to the audience. All Classical tragedies are not tragedies of the individual character, but of that society, or peer group, which holds the will of the individual player as its prey.

The hero in what would have been otherwise a tragic outcome, is to be found in the case in which the hero outwits his, or her society's pressures to prevent the tragedy which the society

is seeking, as if desperately, to bring upon itself. The hero thinks, "This is the cup from which I must drink.

"That is what I have often chosen, personally to do; and, have done. Whatever the blows which I have endured on such account, I could never regret that I acted so. I refused, and still refuse, thus, to play the more popular, classically tragic role in life."

Thus, Friedrich Schiller defined the mission of the Classical stage, the mission of transforming the ordinary citizen who has entered that theater, into the better citizen who leaves after experiencing the performance. The citizen has grasped something of the principle, that all societies known so far are, predominantly, tragic bodies, as prone to the singularly collective folly which is its tragedy, as most among our Presidents elected since 1944 attest to what they have done. The alternative were the leader who kicks against the pricks, as Franklin Roosevelt did, or, each in their fashion, as did Eisenhower, Kennedy, and, for a moment of greatness in respect to the SDI, Reagan, to guide the society to resist its own habituated disposition for self-inflicted tragic folly.

Now, take the illustrative, Classical-dramatic case of a contrary type, Otto von Bismarck.

Bismarck knew that the uncle, Britain's Prince of Wales Edward Albert, the uncle of both Bismarck's Kaiser and Russia's Nicholas II, was determined to have Russia join an alliance against Germany, by means of which Britain's Edward Albert pre-shaped what would become the alliance of the Anglo-French *Entente Cordiale* and Russia, to destroy both Russia and Germany in a war. This was to be a war modeled upon Britain's orchestration of the so-called Seven Years' War, which was used, in its time, by Britain, to cause the nations of continental Europe to ruin one another to such a degree that the intended British Empire could then be established. Bismarck himself rightly pointed to the intention of Britain to create a new world war in the likeness of the Seven Years' War, and to similar strategic effect.

Bismarck reacted to the threat of imperial Britain to launch that terrible war, by a secret agreement between himself and Nicholas II, promising Nicholas that Bismarck would prevent the Kaiser from supporting the Austrian Habsburg in a new adventure in Balkan wars. As long as Bismarck remained Chancellor, World War I was prevented. As soon as Bismarck was fired as Chancellor, World Wars I and II, and much besides, were virtually inevitable. Balkan wars, then, and now, are like that. Such is the nature of tragedy. It is the society, such as the U.S.A. of recent decades, with its currently depraved state of culture, not the individual hero, which is the guilty party.

If the hero prevails, as President Franklin Roosevelt did up to the moment of his death, it is no longer called a tragedy. If the individual hero loses, or simply does not exist in a relevant

position of authority, as is the case at the present moment, the tragedy which menaces the entire people of the United States, and throughout the world beyond, today, could occur.

When a minority, even a single, crucial person, gives up resistance to the folly of the many, then there will surely be a new tragedy. There is a deep principle which accounts for this factor in shaping most of the known history of mankind up to this time, as I shall indicate the meaning of my use of "up to this time," before concluding this present report.

Such is the key to understanding the customarily tragic nature of the role of money in society.

What Law?

It is not really unfair, to describe much of that which passes for law in our national customs today, as akin to drunks relieving themselves in the alley adjoining the relevant tavern. Much of the stench which permeates the courts is of that quality.

Law as practiced in the U.S.A., and many other places today, is less and less a matter of true principle of law, and more, and more, a state of affairs like that described by François Rabelais, in which Justice Kissbrech and his fellow-jurist Suckfist return to their quarters to cast dice in determining the decision they will deliver when back in the courtroom. Our statecraft has become, more and more a form of what lawyers and other relevant folk believe that money can buy, or has already bought—that with lots and lots of money, more than a poor man could ever muster—to deal with a case which, often, should never have been brought in the first place. The practice of such forms of widespread prevalence of injustice has become a thieves' and murderers' marketplace, in which the virtual soul of almost any unsuspecting innocent can be bought and sold, as at Guantanamo, without permitting him as much as a whimper of protest during such proceedings. So, it often seems to ordinary folk that our republic has more lawyers, like vultures hovering over the prospective proceeds of their prey, of such a crooked disposition, than it has people.

This moral degeneration in the recent decades' practice of our nation's law, has gained mightily since that election of Richard M. Nixon which the rioting of the virtually synarchist "68ers" in the cities' streets of Europe and the Americas, had made possible. Thus, free trade has become high-priced trade in thievery and injustice, even mass-murderous injustice.

Despite that wretched President Harry S Truman in his time, when he occupied what had been, earlier, the office of President Franklin Roosevelt, then, and for about two decades more after Truman's entering that office, the still standing policy for our markets was what was called "fair trade." This was not always carried forward, although the intent was often

declared. Practiced, or merely preached, it meant a protected price-level, intended, thus, to ensure just wages for employees and retirees, quality of product, and encouraging long-term stable investment in physical capital and the type of progress in design of product which aimed at a better future for the product, for the firm, for the consumers, and for the community which supported the relevant productive activities.

To sum that up, the physical, as absolutely distinct from the merely numerical value of that which is bought and sold, lies in the effect of its production and use on the progress of the society as a whole. The proper function of a sovereign nation's monetary and related policy-shaping is to set an implied range of upper and lower boundaries within which the bidding of money-prices employed for the facilitation of trade will be situated. The object is to optimize the freedom of the individual's will, but within limits erected as barriers against crime, inexcusable injuries, or mass-lunacies of that type associated with the reign of former Federal Reserve Chairman Alan Greenspan or his like.

So, it is the proper intent of nations to regulate the system of relations among price-ranges, while, at the same time, to leave the doors of investment open to probably useful innovations, which, often by their very nature, no present "market" could have foreseen. At the same time, the prudent nation invests, through its sovereign institutions of government, in long-ranging capital improvements, largely in public infrastructure, but also, when needed, private, government-assistance to ventures in production of goods. This is called a "protectionist" system, designed to provide for the promotion of the welfare and of sanity of economic behavior within the national economy as a whole.

To this end, money can not be allowed to be created, or regulated by any other institution than the sovereign nation-state, as under the uniquely wise intent of the Constitution of our U.S.A., as contrasted with the inherent tendency toward folly among traditional European monetary systems.

It were an exaggeration to insist that "money is the root of all evil," but, except when credit is created and regulated by the sovereign nation-state government, it seems often that government, or government's neglect of its powers and duties, impels the foolish to try to live up to that moral negligence known as license for "free trade." The fact of the matter is more elementary, and therefore merely appears to be obvious. That fact is, that all civilizations known in some internal detail of their social processes, since ancient times, including the British Empire of the present moment, have been largely a product of imperial forms of society traced to such origins as those associated with the monetary or related

practices of Babylon and Tyre.²⁸ In any case, there is no intrinsic value in money-prices, as distinct from the relative usefulness of certain categories of goods and services.

There lies the need for intelligent, foresightful regulation of price-ranges, as illustrated by the case for healthcare and retirement reserves. The fact is that the so-called "free trade" systems have been among the greatest catastrophes, and the most frequent source of vast injustice against peoples and nations, of the history of modern European economy. If we do not see how free-trade policies have reduced the net physical output and income of society, per capita and per square kilometer in the U.S.A. and Europe during the 1968–2008 interval, we are indeed stupefied dupes of the vast swindles perpetrated in the name of government, as under our own government under, especially, the current U.S. Administration and its largely complicit Congress.

The consideration of this aspect of history is indispensable for understanding the roots of the great, global, general breakdown-crisis, which is presently hurtling past the precipice of doom, through its successive phases, throughout the world.

What we presently know with some degree of certainty respecting the history of the internal social processes of ancient cultures centered upon the Mediterranean Sea, all usually falls, chiefly, into what is best identified as the history of imperialisms, ranging from the oriental cultures of West Asia and Northern Africa's Mediterranean rim, into the Mediterranean rim and Europe generally. Most of the thorough study of that class of phenomena is centered on the transition from the eastern empires of western Asia, into the modern imperialism which emerged in the aftermath of the death of Alexander the Great.

Since the value of money is not a matter of scientific fact, but a matter of law, corrupt law-making and crooked money go hand-in-hand.

I explain the most crucial issue of this matter of money now, its origin, here, but will return to the proper issues of a law of money in the succeeding chapter of this report.

What Is Imperialism?

Under our Federal Constitution, our economic system is not a money-system, but a credit-system. Although our lawful sovereign currency has the form of money, the worthwhile value attributable to such money is not a matter of mathematics, but of the way in which the law is

²⁸ For this, we may assign considerable blame to Eighteenth-Century and later British theologians of the type obsessed with finding nothing so much as the documented street address of Abraham's residence in Chaldean Ur, that masses of relevant cuneiform tablets were heaped in reckless disorder. The pre-Semitic origins of Sumer and its impact in the development of Chaldea has been treated with poor regard for the importance of truthfulness.

written and administered by the agency which has been assigned the power of uttering and regulating money.

That distinction is illustrated by the case of the difference in point of law between President Franklin Roosevelt's intention at the 1944 Bretton Woods conference, and the monetarist intention adopted by his successor, President Harry Truman. In short, whereas President Roosevelt had intended an explicitly anti-colonialist form of post-war Bretton Woods system, his successor and virtual traitor President Harry S Truman adopted a Keynesian perspective for the post-war world, a Keynesian perspective crafted as a defense of the perpetuation of the same British imperialism which President Franklin Roosevelt was committed to destroy, the same British imperialism, with its tradition as the world's leading drug-trafficker, engaged in the effort to destroy our republic at the very moment this report is being uttered.

We are still fighting against an imperialist conception of monetarist systems today. Unless we eradicate such a system, civilization will not survive this presently onrushing, global breakdown-crisis.

The required argument, for at least its first part, goes as follows.

"Knowing" a culture, in the sense such a quality of "knowing" is referenced by me here, signifies that we have competent evidence of the internal dynamics of that culture, knowledge of a quality of what is known among peoples rooted in European culture, from the historical standpoint of study of what are called "Classical Greek" sources and their proximate antecedents. What is crucial is not transliterations as such, but rather its poetry and drama as examined from the standpoint of the modern physical science as known from sources dated to approximately the time of the *Sphaerics* of the Pythagoreans.

As I have stressed in locations published earlier, the standpoint to be adopted is rejection of the silliness of the notion of riparian origins of those civilizations, out of preference for the truth of the indelible evidence of science to the effect that scientific knowledge takes its origins from the practice of astronomical modalities in oceanic navigation.

The idea of any universal physical principle, as Kepler is echoed by Albert Einstein on this point, is that of the expression of a kind of universal physical principle which bounds the universe as a whole, but which is not bounded in and of itself except as by action of a universal Creator.

Some great, but presently relatively unknown, oceangoing maritime cultures, looked up to the heavens and discovered, so, a certain order of irregularity in the movements of the

celestial bodies above, toward which they looked for the pathway to safe journeys. Then, they discovered important changes in what they had assumed, hopefully, would be only anticipated regular changes. Not only were knowledge of new kinds of changes essential to safe journeys through both space and time. What was needed was a sense of a Creator of changes, both known and still unforeseen. We called this we studied by a name which has the connotation for today's usage of "the universe," "the universal." Johannes Kepler's uniquely original discovery of modern astronomy became, thus, the concept underlying all competent modern science.

Thus, the ancient forebears of today's civilization came, as the traditions of Egypt did, to that ancient concept of *Sphaerics* from which all competent developments in modern science were derived. Lawfulness in the universe thus became the notion of the efficient existence of a willful Creator who provides mankind with the keys to an endless changing of our universe for the intended better. Thus, we have the notion, as from *Genesis* 1, a notion forbidden by the Olympian Zeus and his like, of those creative powers with which man and woman are endowed, powers unlike those of any lower form of life. The acceptance of those powers, and of the obligations for change which those powers confer upon the immortal succession of a race of mortal man and woman, us, is the essence of all morality, and all morally tolerable conception of both physical science in general, and physical-economic practice in particular.

The essential immorality of what have been the leading political forces of government in trans-Atlantic society, in particular, since President Franklin Roosevelt died, is that we have an increasing ration of even putatively religious fellows, and others beside them, who would claim immortality, but who refuse to accept the idea of a "simultaneity of eternity" as that concept was famously illustrated by Raphael Sanzio's suggestion of *The School of Athens*. Thus, those foolish people, and they are the majority in the world today, act in politics and economy like beasts which have no souls, who lack a sense of the mortal individual's responsibility for those consequences we either call "the future," or which encumber the living as missions, such as even simply justice, to be fulfilled on account of the past.

That needed morality, seemingly almost lost from our times, is the key to competent knowledge of a science of physical economy.

IV. Physical Economy

Barring radical changes in climate, animal species and their varieties are able to survive within an implicitly pre-calculable range of potential population-densities, to approximately the degree their populations either do not unsettle the environment which they occupy, or the relevant population can escape its relative, temporary degree of depletion of the

environment it happens to occupy, by moving, at least for a time, into another environment suited for that purpose.

With civilized, or approximately civilized human populations, matters are, in general, quite different. Excepting those nomadic cultures, which are relatively stagnant, by their nature, civilized society at its best, transforms the patch of land it inhabits, such that the habitability of that patch is improved in such ways as to increase what silly folk²⁹ would term the human "carrying capacity" of the patch they occupy, which is done through what are referred to either, commonly, as "infrastructure," or other qualitative improvements in the reproduction of the potential relative population-density of their use of that patch of territory.

In the end, after considering all principal relevant factors, we have the case, in first approximation, that factors of human ingenuity which are lacking, categorically, in the individual members of lower species of life, not only improve a human culture's potential relative population-density, and that, probably, at a higher physical standard of living and life-expectancy, but, hopefully, offset the relative depletion which their activity imposes on the occupied territory.

The advantages toward which I have just pointed, thus, reflect a quality of the human individual which is absolutely absent in all individual members of lower forms of life. This qualitative distinction corresponds, as a factor of change to higher states, expressing thus what V.I. Vernadsky identifies as the *Noösphere*. This variable factor is specific to the human individual; it is a *virtually genetic* factor of powerful social implications, but a factor existing only within the bounds of whatever is actually the present state of development of the function of the mental apparatus of the relevant, sovereign human individual.

The immediately foregoing considerations which I have just so listed, are the determinant of what can be justly named as that factor of human creativity which distinguishes man from the ape. This factor is also the active agent, so to speak, which defines the proper scientific meaning of the term *physical economy*.

The principal difficulty which this just stated fact presents us, is the implication of the fact, that the creative behavior which satisfies the qualitative criteria of the distinction of man from ape, the factor of creativity, does not exist among either the apes, nor any other species of mammalia than man. That is to emphasize, as illustration, that reports on the examination of animal brain-function present us no simple indication of "the place" within the human individual organism in which the *specifically creative* powers of the human individual repose.

²⁹ The usual statistician, for example.

The question which emerges from this evidence, is the following. Is there evidence which shows, that this factor of evolutionary self-change, while doubtless specific to the human individual, could be located somewhere within, proximate to the biological functions unique to the human brain? How might we structure the relevant experiments to explore that mystery? So far, we lack the kind of evidence we should desire; but, we have some useful indications as to where and how the answer might be found. These indications are sufficient to permit us to define what we should recognize as a science of physical economy, and thus recognize a curable cause for the intrinsic, awful incompetence of what is usually taught as economics in universities and other relevant institutions today.³⁰

There are two types of leading indicators, indicating the directions into which our relevant investigations should be pointed.

First, the latter consideration is somewhat clarified by looking at this same topic from the standpoint of societies as whole processes, rather than the individual person *per se*; we must study the relative behavior of what Vernadsky defined as the *Noösphere*, relative to the *Biosphere*. Civilization, when taken for consideration in the large, produces increases in that portion of the total mass (as by weight) of the planet which the Noösphere represents, relative to the total mass of the product specific to living processes otherwise. Thus, there is no competent reason to argue that human creativity is not an efficiently physical factor of growth of the relative mass of the *specific product of humanity* in the universe. Human individual creativity is, thus, a specific quality of universal physical principle, just as much as life produces what become those residues known as chalk deposits.

Second, certain close studies of specific instances of discoveries with the characteristics of efficient universal principles, direct our attention to the kind of phenomena which correspond to the act of scientific and comparable creativity by an individual human mind. The best cases are those in which the act of discovery of a truly universal physical principle, is locatable as an isolable form of action, as in the case of Albert Einstein's treatment of the implications of Johannes Kepler's uniquely original discovery of a principle of universal gravitation, a discovery which Kepler accomplished through examining the ironies of two distinct species-qualities of sensory experience, visual and harmonic, of the same astrophysical phenomenon.³¹ All well-defined human knowledge of the discovery of universal

³⁰ The crucial issue is, that it would be fraudulent to point to some function of the human brain, saying, "The function must be located here." We must proceed from the definable character of the act of discovery of a universal physical principle, such as Kepler's uniquely original discoveries of gravitation, and find the organ/agency which is qualified to perform that function.

³¹ Leonardo da Vinci's revolution in the concept of visual space is of obvious relevance here.

physical principles, is expressed in a way which is congruent with Einstein's appreciation of Kepler's discovery of universal gravitation.

Now, turn briefly to a side-issue which this implies, and then return to the implications of examining such a discovery more closely, in and for itself.

The Concept of 'Boundedness'

This notion of a universal physical principle was introduced, as an ontological, rather than merely formal notion, to modern European culture by Cardinal Nicholas of Cusa, as in his *De Docta Ignorantia* and other writings on physical science. These were writings, by Cusa, which first introduced a systemic approach to founding of a universal physical science to modern Europe.

The key to the needed discovery of the principle involved, was already indicated in Cusa's emphasis on the fact that Archimedes' effort to show the generation of a circle or parabola as a product of quadrature, represented a systemic error in method by Archimedes.

This same argument appears in a crucial role in Kepler's preliminary treatment of gravitation in his *The New Astronomy*. The discovery that the elliptical Earth orbit is the correlative of the principle of equal areas, equal times (which was quite an accomplishment of experimental method in itself), suffices to demonstrate that the rate of action along the orbital pathway does not correspond to any approximation by quadrature; but, rather, that the rate of change is to be measured as a matter of a notion of the relevant action as *ontologically*, rather than *spatially infinitesimal* in adumbrated form.³²

This experimental discovery by Kepler points to the fact that gravitation is not a Cartesian-like relationship, as the hoax of the "imaginary" by de Moivre, D'Alembert, Euler, Lagrange, *et al.*, implicitly proposes. Rather, in the argument of the Kepler-Einstein thesis, gravitation is a *dynamic* principle, in the Classical Pythagorean-Platonic-Leibniz-Riemann sense of "dynamic," which *bounds* the physical space-time (functionally) in which its action is manifest. (This phenomenon is, in first approximation, the demonstration of a concept which does not actually exist for the methods of either Aristotle-Euclid or the modern empiricist followers of Paolo Sarpi.) On account of this crucial experimental fact, Kepler's work implicitly enjoys agreement with concepts underlying Einstein's own later support for

³² This is a correlative of Gottfried Leibniz's later exposure of the incompetence of the method of René Descartes. It correlates generally with Leibniz's attack on the reductionist method, as of Descartes, which divides the existence of a body-in-motion between a body and motion in a reductionist, Euclidean-like manner, contrary to the ancient and modern principle of Leibniz-Riemann dynamics already adopted by Leibniz.

Kepler's genius, an agreement to the effect that the universe as a whole is *self-bounded* and, therefore, *finite*, in that specific sense.³³

The practical difficulty with which Kepler's, Leibniz', Riemann's, and Einstein's argument confronts us on this account, is that this experimentally grounded conception overturns, and that absolutely, the entirety of the systematic features of the doctrines of Aristotle, Euclid, and modern empiricism. The subject is not a formal-mathematical matter of deductive method, but absolutely the contrary.

To wit:

In the work of Aristotle and his follower Euclid, the reigning, *a-priori* assumptions treat experience naively as merely a collection of predicates of sense-perception. Whereas, with irrationalists such as the modern followers of Sarpi, it is worse: no universal principles are permitted to be treated as actually existing. For the empiricists, only the adumbrated expression of a principle, such as its formal-mathematical shadow, exists.³⁴

So, actually, contrary to the Aristotelean and empiricist sophists, the domain of our empirical, physical-scientific experience of the known Solar System, is divided among three distinctly defined, physical phase-spaces: 1.) the *abiotic*; 2.) *living processes other than practical effects specifically intrinsic to human creativity*, the *Biosphere*; and, 3.) the specific effects unique to human creativity of the type associated with the "model" of human creativity presented by Kepler's discovery of universal gravitation, the *Noösphere*. The distinction of one among these from the other two, lies in defining a functional physical phase-space, for each, in a manner akin to the Kepler-Einstein definition of the discovery of universal gravitation by Kepler.

This is a quality of idea of *a true transcendental*, e.g., an ontologically actual transcendental, whose existence is systemically excluded in the vocabulary of modern empiricist and related classroom practice, as it did not exist for such members of the earlier "mechanistic school" as de Moivre, D'Alembert, Euler, Lagrange, Cauchy, Clausius, Grassmann, *et al.*³⁵

The notion of the act of discovery of a universal physical principle, as I have pointed to that case for Kepler's discovery of, and proof of universal gravitation, is the paradigm of reference for defining the notion of creativity, as this notion applies, as the notion of functional

³³ Einstein spoke of a universe which is finite and unbounded. For me that means finite and *self-bounded*.

³⁴ E.g., the lunatic concept of "the imaginary." This problem is implicit among the followers of the positivist Ernst Mach. The existence of physical principles is implicitly prohibited by Bertrand Russell's *Principia Mathematica* and by his followers such as Professor Norbert Wiener, John von Neumann, and the school of Cambridge Systems Analysis which was spun off from the influence of Russell.

³⁵ As distinct from the later mechanistic school of the positivist Ernst Mach, Ludwig Boltzmann, *et al.*, and, for a time, the pre-*Principia Mathematica* works of Bertrand Russell.

creativity, to both physical-science and Classical-artistic conceptions (but, only truly Classical in the sense of the Platonic tradition) in the field of human behavior. In all these cases, the notion of creativity, and of universal principles, is associated empirically with the same notion of ontological discontinuity operating within Kepler's principal discoveries in astrophysics, and with Nicholas of Cusa's relevant rejection of the idea of the quadrature of the circle earlier.

That much said, our most immediate concern here, is the way in which human creativity, so defined, can be located functionally with respect to the existence and development of human ecologies. The source of the problem just outlined is, as I shall show later in this chapter, "elementary" in the sense of Edgar Allan Poe's *The Purloined Letter*.³⁶

The Modern Ivy-League Perversities

Many of us brought together for this literary occasion will recall hearing exclamations of the form: "That goes against everything I have been taught to believe." For example: "I trust my husband, and therefore I could never believe...!" Or, "If you were right, everything I have been taught about scientific method in my university would have had to have been wrong!" (Probably so.)

Therefore, rather than refusing, off-hand, to debate Kepler's detailed, experimentally replicable discoveries, the reader must look at, and replicate, as teams of my young associates have done so diligently, exhausting each of the crucial steps of evidence employed by Kepler to make that uniquely original discovery of gravitation which the associates of Isaac Newton crudely attempted to plagiarize directly from Kepler's published work in England which was available to Newton's circles at that time. In no known case, has any advocate of the Isaac Newton hoax ever cited the relevant, detailed experimental method through which Kepler actually accomplished his discoveries. Every defense of Newton's fraud against Kepler's actually original discoveries, including that by many hysterical professors of science in leading universities still today, has been either simply a case of stupidity, or a colossal fraud crafted in defiance of the conclusive evidence available. Yet the culprits include, as I have emphasized here, such hoaxsters as professors of science at many leading universities from around the world of credulous academics!

³⁶ Poe's Paris-based mystery stories were products of Poe's direct association with the France he visited in known collaboration with James Fenimore Cooper and the Marquis de Lafayette. Poe, like Cooper was a "birthright" member of the Society of the Cincinnati. Poe's recurring attacks of epilepsy had forced his retirement from West Point; but, Poe's brilliant case of criminal detection in his career as a New York journalist, set off his career as a U.S. counterintelligence operative of the Society working against British subversive operations in the U.S.A. Cooper, a senior figure in the intelligence operations of the Society of the Cincinnati, is of crucial significance in this matter. Poe's epistemological ventures are key to understanding his actual creative genius.

The essential premise of such errant professors is an argument to the effect: "If you were right, everything I have been taught to believe, is wrong! None of my associates" (e.g., fellow-dupes) "will agree with you!"

Why are those professors, and their like, so hysterical in defending the fraud of an Isaac Newton whose once-opened chest of papers exposed him as a superstitious fool;³⁷ what is it that has terrified them, and driven them into the state of a virtual psychotic fit which their defense of Newton presupposes?

There are classes of belief, in the field of physical science, as on other occasions, in which a fact based on thoroughly well-grounded evidence is such a personal threat to the systemic beliefs of a subject person, or class of persons, that such persons would deny even the fact of the existence of their own mother if they were persuaded that that denial was necessary to defend their current sense of their own personal identity, or, to conceal some actual or even merely imagined crime, or as their fearful denial of the actual infidelity of their spouse.

The relevant model case for exactly such forms of hysteria as theirs, is that presented by the dramatist Aeschylus in the surviving middle part of his *Prometheus* trilogy, the *Prometheus Bound*. For hysterics of such categories, any manifestation of the powers of creative reason among members of the lower classes of society, is an existential threat to their faith in the social form of the world-system of which they identify themselves as a part. The illustrative case of the *Prometheus* trilogy identifies most precisely the reason for the characteristic fraud of the so-called "Newtonians" on the matter of Kepler's thoroughly documented actual, and only original discovery of universal gravitation in the entire history of modern physical science. If they accept the overwhelmingly conclusive evidence of the uniqueness of Kepler's discovery, their universe would seem to fall apart for them: "My entire life's work would be destroyed!" (Or, worse, "If any of my colleagues thought I believed that, my career would be immediately destroyed as if by lynching!")

In the case of that typical professor, or the like, who has fallen, so, into that category of hoaxster which I have just identified here, the phenomenon I have just identified might be psychopathological in the sense I have just outlined the case for that conclusion; but, while such pathetic behavior is individual, it is, in this instance, also institutional, systemic.

Powerful institutions, such as the British Empire in particular, would disintegrate for loss of self-confidence, if the truth concerning the facts of Kepler's discovery were generally acknowledged among academics and related professionals. Or, put the same point another way: religious faith in that Olympian Zeus who is the putative father of all European

³⁷ E.g., by John Maynard Keynes acting as a public spokesman for a committee composed of persons entrusted with the opening and scrutiny of the contents of Isaac Newton's chest of "scientific" papers.

imperialism, would evaporate; the high priests of Babylon would fall, and the entire system of belief associated with the British system and its antecedents would crumble, forever, as if before one's eyes.

Think of Isaac Newton as Caesar's wife: "Get rid of the fellow (Kepler, or Leibniz) whose very presence is undermining our faith [as in her] in what we have chosen to believe!" Or, think of Promethean "fire." The Olympian Zeus acknowledges the existence of the principle of "fire" as a reality which threatens to destroy his imperial power over believing dupes; therefore, Zeus proposes to punish Prometheus for delivering knowledge of what Zeus knows to be, like nuclear power today, a real and efficient principle of nature.

We meet the same syndrome currently in the relationship of Britain's Prince Philip to his willing lackey, and former U.S. Vice-President Al Gore, a devotee-in-fact of the ultra-Malthusian cult of Prince Philip's World Wildlife Fund. Philip's and Charles' lackey Gore, who object hysterically to the practice of physical science, and perpetrate a blatant fraud against even the mere scientific fact of evidence, such as their puppet Gore's resort to the lies he employs in his efforts to eliminate real science.

Contrary to Gore's dupes, Gore does not present any actual case in support of his rage against science; he admits, if only implicitly, that the science which he hates works; if he did not believe that it works, he would look like the most foolish of fools in his hysterical efforts to deny its reality. He does not actually deny that science exists; he creates a fraudulent set of alleged facts to argue that *science should not exist*, and, therefore, that its practice should be banned.

Gore calls this crude sophistry of his, his alleged evidence in support of what he claims to be his "scientific authority." Some people believe Gore on this account, only because they have been either corrupted, or simply stupefied into accepting the wish to believe such nonsense, a belief nourished by the desire to be considered respectable among their friends, the virtual cannibals. No actually competent evidence was ever presented by a Gore, who is, in matters of science policy, rather like an opossum, like a virtual marsupial which had fallen among the placental species, defending his own, adopted, marsupial-analog species-interest against the threatening existence of mammals such as you and me.

There is nothing essential in Gore's "Green" posture which was not expressed by Nazi Hermann Göring and other Nazis, as this advocacy was recorded in film dating from the late 1920s. Also, Göring's pro-Nazi sympathizers among leading British circles and also among wealthy U.S. financier circles who assisted Hitler's cause during the late 1920s and early 1930s, represented the same tradition of Malthusianism which Al Gore, like Göring then, represents today.

Or, take the highly relevant case of Harvard University, where such attacks against science have been delivered, off and on, since the days of Cotton Mather's fight against such corruption, or, later, delivered against Alexander Dallas Bache's positive influence in U.S. scientific practice. Today's echo of Harvard American Tories of the past, is met today under the influence of a strong Anglophile variety of corruption respecting ideas, scientific and others, in general. Indeed, since the aftermath of the assassination of President John F. Kennedy.

This moral decay among today's leading universities and their offshoots, has been notable especially since the actual shift into a post-industrial shift in U.S. national orientation of the U.S. economy during 1967–68.³⁸ The U.S. of today has become virtually controlled top-down, in both economic policy and general political and science ideology, by a post-industrial, pro-Malthusian lunacy, a lunacy akin to that of Fourteenth-Century Europe's Flagellants, or, like that which Jonathan Swift caricatures in his *Voyage to Laputa*.

Presently, our civilization is menaced from within by a form of moral and intellectual corruption expressed by a top-down orientation of the university as a whole which has taken over even the internal social life of academia. This has taken over in the teaching of nominally scientific matters, on the nation's pace-setting campuses, from the top, down. Where evermore exotic varieties of such tutti-frutti abound, science is represented, more and more, more as a curiosity than a national mission.

Science on such campuses has become a matter of religions, especially increasingly strange varieties of pagan religious belief. Such beliefs, not truth, remain, like the Biblical Ichabod, as the presently dead relics of virtually departed scholarly souls.

In short, the leading cultures of the world at large, especially trans-Atlantic civilization, have gone over the edge on this account, and are at the point of plunging the planet as a whole into what promises to become a century-long, or even longer new dark age of mankind. Our universities in North America and Europe have come merely to typify, in an important way, that plague of deadly decadence which now threatens the extermination of anything resembling civilization, world-wide.

The View from Science

However, to turn attention back to the place from whence this present wave of moral and intellectual decadence began, the fraudulent representations of the history of modern physical science, as they are to be found as prevalent on relevant leading campuses and elsewhere today. Those presently prevalent dogmas are not based on actual science, but on an

³⁸ E.g., Zbigniew Brzezinski's "technotronic" thesis.

hysterical commitment to deny any evidence which suggests that education in the deep principles of actual scientific fertility must not be uprooted from the mind of man, a denial in favor of a form of imperialistic caste-society, or something akin to the tradition of a Babylonian priesthood. The tradition of such a caste society is that portrayed as the evil Olympian Zeus of Aeschylus' drama, who bans the general population's access to knowledge of "fire."

The attacks on Kepler by the Newtonians and their like, are simply lies, lies adopted as weapons of defense of what the ruling usurious classes of modern imperial finance had come to regard today as "our chosen (oligarchical) way of life." It is not the lack of proof which shields the victims of contemporary education from knowledge of truth, as much as the terrorist threat that "something bad will be done not only to your career, but to your chances in life" if you are caught promoting forbidden subject-matters.

Therefore, to summarize that case, it is not a lack of available scientific evidence which prevents Albert Einstein's view of the genius of Johannes Kepler from being accepted. The present problem is entirely the influence of the British empire on its dupes around the world, an empire which dictates, in the spirit which Aeschylus portrayed as that of the Olympian Zeus, as Britain's James C. Maxwell explained his own tacitly admitted, politically motivated frauds in science, his fraudulent evasion of the crucial evidence provided by the work of Gauss, Weber, Dirichlet, and Riemann: We (whomever we might suspect "we" might be) do not intend to tolerate the existence of any geometries other than our own.

This bit of obscenity by Maxwell and others, is not a new development in history. The organization of the Solar system in which the planets and their moons were elements of a system orbiting the position of a relatively fixed Sun was already established, according to what is presently known as surviving empirical knowledge, by Aristarchus of Samos. This knowledge was later almost destroyed by such ideologues as the Aristotelians, as Aristotle follower Claudius Ptolemy's fraud misused the knowledge passed down from Aristarchus of Samos, for his own famous hoax. Under the influence of the Roman empire (including its Byzantine successor) the Aristotelean hoax by Claudius Ptolemy was made, for a time, into a virtual fundamental doctrine of official Christianity, a politically motivated corruption of Christianity, as part of the infamous Inquisition, which was sustained in the interest of the leading imperial traditions, even into modern times.

That lie by Claudius Ptolemy, a lie circulated in defiance of the known scientific truth which had been presented prior to 250 B.C. by such as Aristarchus of Samos, reigned in Europe, notably under the Roman and Byzantine empires, into Europe's Seventeenth Century and beyond. It has persisted in the crude Sophistry associated with the spreading of the outright

lie, even among some credulous leading members of the actual scientific community, which asserts that that crude plagiarist Isaac Newton discovered a principle of gravity.

The evidence of the truth which was against Newton, was there, but, since it was considered inconvenient truth by the reigning imperial circles, it was banned, just as in notable cases, leading universities in the U.S.A. and elsewhere today ban the crucial evidence provided by Kepler up to the present minute. The problem is not lack of evidence; the problem is the vicious suppression of readily available evidence, experimentally validated evidence, from the published work of Kepler himself.

Once we simply accept that known truth of the available scientific evidence, we are equipped to address the matter of human creativity which has been and continues to be our subject here.

What, Then, Is Creativity?

Albert Einstein's crucially relevant intervention into the area of the subject-matter treated here, lies chiefly in three points he made on the implications of the validity of Johannes Kepler's uniquely original discovery of universal gravitation for science today. Foremost, that a full comprehension of the nature and importance of Kepler's principal discoveries, shows that Kepler's method is implicitly that of Riemannian dynamics. Also, that Kepler's discovery, as in the Harmonies, anticipates the notion of any universal physical principle. Thirdly, that it situates the role as man-the-knower in the origin of such knowledge.

So, for this purpose it is sufficient to reference Riemann's 1854 habilitation dissertation, especially the bold first two paragraphs³⁹ and its ironical, concluding sentence⁴⁰ echoing, with elegantly resonant irony, the concluding strophe from Goethe's *Epiphanias*.⁴¹ Here, in these bookends of Riemann's dissertation, we meet a bold sweep which were never expressed

³⁹ Bekanntlich ... als nach der Seite des Unmessbarkleinen urtheilen."

⁴⁰ "Es führt dies hinüber in das Gebiet einer andern Wissenschaft, in das Gebiet der Physik, welches wohl die Natur der heutigen Veranlassung nicht zu betreten erlaubt."

⁴¹ As here we see fair lads and lasses,

But not a sign of oxen or asses,
We know that we have gone astray
And so go further on our way.

As translated by Hugo Wolf, from the original German:

Da wir nun hier schöne Herrn und Frau'n,
Aber keine Ochsen und Esel schau'n,
So sind wir nicht am rechten Ort
Und zieh'n unseres Weges weiter fort.

publicly with even nearly such daring clarity of spirit and mind, not even by such as the Carl Gauss to whom Riemann otherwise owed and acknowledged so much.

For that, as I emphasized to my young associates, at the point I inaugurated the opening of their researches into Gauss and related work of the now past months, Gauss almost never lets the readers into an explicit presentation of his actual methods of discovery. His discoveries were magnificent, and his explanations of them plausible, but were not the real essence of the method by which he had actually achieved the result. For this Gauss must be excused by a glance cast toward the awful political circumstances under which he labored from about the times of Lagrange's lectures on Napoleon Bonaparte's behalf, and with attention to the evil which the Duke of Wellington's stooges Laplace and Cauchy wreaked upon France's Ecole Polytechnique, all this over a period from the beginning of the Nineteenth Century, through and beyond the political witch-hunt which London-dominated Göttingen endured during the span of most of his professorship there, almost to the time of Gauss's last years of life.⁴² By comparison, Gauss follower Riemann sallies forth as a full-blooded scientific revolutionary with a keen sense of the historical issues and their importance openly, daringly expressed.

Creation and Genesis 1

The essence of the matter, from the construction which solved the challenge of constructing a duplication of the cube, by Plato's friend, the Syracusan strategist and Pythagorean Archytas, through the modern Nicholas of Cusa, Kepler, and their followers, is that experimental demonstration of the existence of the ontological infinitesimal in such a fashion as to define the act of discovery of a universal physical principle. The demonstration is the key to defining the proper meaning of the term scientific creativity, and, also, artistic creativity.

This notion of creativity is that which the Olympian Zeus intends as the meaning of the "fire" which he intends to ban from human knowledge for practice. This is the *ontological infinitesimal* which the hoaxsters de Moivre, D'Alembert, Euler, Lagrange, and Cauchy, among others, once they had encountered it, sought to ban it from physical science in the name of alleged "imaginary" evidence. This same intention, to deny the existence of actual scientific and artistic creativity, is the intention of the practice of the materialists who uphold

⁴² The case of Gauss's brief correspondence with Farkas and János Bolyai, and others, on his own early work on anti-Euclidean geometries in the footsteps of his teacher Abraham Kästner, proffers a peek into this aspect of Gauss's intellectual life during the outrageous circumstances of the early Nineteenth-Century decades at Göttingen and elsewhere.

the doctrine of sense-certainty. This is the issue of the case of Prometheus against the evil gods of either the Roman or Babylonian pantheon.⁴³

With that observation, the discussion of the subject of the science of physical economy as such, is now about to begin, after one note of crucial importance has been inserted here.

As I have emphasized in an earlier location, the first chapter of the *Book of Genesis* reflects a matter of extraordinary, deeply ironical interest for physical science: *the notion of Creation as a principle of existence*. When the recitation of that Chapter's text is heard in an appropriate way, there is nothing in its role as a presentation of descriptions which is at odds with the outlook of competent modern physical science.

The one most important note of caution to be added to any such endorsement, is that this attributable authority of *Genesis* respecting what it implicitly claims to be its authority as to truth, must not be misread, as the friend of the Apostle Peter, Philo of Alexandria, warned the Jews against the error of endorsing the Sophist doctrine of Aristotle in this matter. When we apply the proper meaning of creation to *Genesis* 1, as the same term should be applied to physical scientific practice, it means *continuing action, not completed action*. *Creation* is a continuing process, a law of the universe, driven by an efficiently continuing active principle of authority.⁴⁴

Gravitation, as its characteristic is proven by Kepler, is of that character of universal, continuing, rather than completed action. The existence of man and woman, as of a quality set apart from and above the beasts, enjoys the same kind of authority as continuing creation,

⁴³ For example, the crucial issue posed by the Council of Nicaea, was the pagan Emperor Constantine's demand that he appoint the bishops of a legalized Christian religious body. This proposal would, in effect, situate the Christian church as another religion within the Roman pagan Pantheon. This issue continued in such modern expressions of the adoption of the position of "Sun King" by France's Louis XIV, and Napoleon Bonaparte's creation of his own state church in imitation of the celestial claims of Louis XIV. Such obscenities as that were typical of oriental religions in the likeness of Babylon. The modern, western European copies of such degraded practices are often traced from those negotiations, conducted on the Isle of Capri, between the figure who later became Augustus Caesar, through his negotiations to secure himself the position of emperor (Caesar) through negotiations, with the priests of the oriental cult of Mithra, on that isle of Capri which remained sacred property of the incumbent Roman Emperor into about A.D. 500. The figure of the Olympian Zeus of Aeschylus' *Prometheus Bound* is typical of the imperial ruler of empires by a form of supranatural religious authority, from the accursed priests of Babylon through the Roman-like hierarchical structure of the Anglo-Dutch Liberal (British) monarchical empire of today. Usually, the way in which the system of religious rule called an "empire" is ruled, is through a kind of pantheon in which one variety of religious belief is the "most equal." Hence, that scandalous immoral and irreverent scamp, former British Prime Minister Tony Blair, adopts the Sarpian trappings of imperial theological connections at precisely the point the Lisbon Treaty poises itself to be made an empire which has chewed up and eliminated the sovereignties of continental Europe.

⁴⁴ See Raphael Sanzio's *The School of Athens*, as a sense of a "simultaneity of eternity."

rather than completed existence. As it is said by relevant theologians, *the Creator's willful intervention will occur when the Creator decides to intervene.*

Universal principles of nature are existences of that relatively immortal, rather than mortal, quality. The success of mankind in discovering and employing the existence of the universe, is of an intelligent quality of knowledge of the immortality of man as being of this nature. This includes the feature, that creation of the universe is never completed, neither as to extent, nor as to principle; the process of creation is continued, as if, from our point of view, willfully, but also with our willful, if worshipful intention. If man does not act as needed, it will be as if the very stones had spoken.

The very existence of mankind as the only known form of life which is also efficiently intelligent, potentially, in terms of the effect of its action upon the universe, is that most crucial feature of the universe which enables competent human minds to define the most essential features of physical science as an existing domain of unfolding, and efficient knowledge.

A Message from Heraclitus

On the essentials of the great Heraclitus' work, we of today possess little more than a few remarks and some references by later authorities, such as Plato, in this matter. Yet, as Plato's *Parmenides* dialogue implies, the mistreatment of Heraclitus' fragments as some darkly obscure allusions, is without basis. Objects do not exist except in the form of motion, and the essential, knowable form of that motion is change in the quality of the existence of that which is in motion. That is, so to speak, elementary *dynamics*, as dynamics is defined by the Pythagoreans' work in *Sphaerics* and by Plato, and as restored to civilized reasoning by Gottfried Leibniz's exposure of the fraudulent character of the claims to science by Rene Descartes.

Gottfried Leibniz is thus the unique founder of a *modern* science of physical economy, as the crucially underlying principle involved is presented by him, in some bare essentials, in his 1690s treatment of the subject-matter of dynamics.

This notion of specifically *dynamic* change is the most essential among the conceptions underlying a competent form of a science of physical economy. The actual notion of the Leibniz calculus is an elementary expression of the underlying principle of an applied science of physical economy. This notion is otherwise identified by his work in his demonstration of a universal physical principle of least-action, in which he shifts the focus from the cycloid of his earlier collaboration with Christiaan Huygens, to uncovering a deeper, physical relevance of the same catenary as had been treated by Filippo Brunelleschi and Leonardo da Vinci

earlier. In this, the principle of least action as developed by Pierre de Fermat, against the hoaxster Descartes, continues to be crucial, as it had been for Huygens and Leibniz during their Paris collaboration earlier.

On that account, the principal continuing controversy in modern deliberations on the subject of a physical economy, still today, is between the notions derived from the reductionist Sophistries of Descartes and the science of physical economy of Leibniz. The pivotal issue is located within the definition of *dynamics*. All widely advocated teaching of economics, including that of Karl Marx, is derived from Cartesian precedents, including such frauds as those anti-Leibniz hoaxes of de Moivre, D'Alembert, Euler, Lagrange, Laplace, Cauchy, Clausius, Grassmann, *et al.* Whereas, the American System of political-economy, as associated with the work of U.S. Treasury Secretary Alexander Hamilton, echoes Leibniz.

The crucial issue in this field, is dynamics, as the subject of dynamics encompasses the famous citation from Heraclitus. It is the ontological actuality of the dynamic forms of ordered changes in processes considered as integral wholes, as Leibniz exposes the frauds of Descartes on this account, which is the urgently needed key to the reform of the otherwise presently doomed world economy.

As Albert Einstein's characterization of the work of Kepler implies, the essential quality of true human creativity is typified by the discovery of a self-evident quality of existence of a universal physical principle of gravitation, as the most crucial aspect of this process of discovery is expressed by the principal subject-matter of Kepler's *Harmonies*. However, the same quality of mental activity is encountered (again, with respect to harmonics) in the work of J.S. Bach and its greatest followers, such as Wolfgang Mozart and Ludwig van Beethoven.⁴⁵

V. Political Economy

Now, with those essential preliminaries of the preceding chapters settled, we are prepared to address the principal elements among the political features of a modern physical economy. We view these matters as the application of those concepts which have been considered

⁴⁵ Mozart was already fully a creative personality prior to his encounter with Gottfried van Swieten's salon during the early 1780s. The weekly sessions at van Swieten's salon were a crucial factor in the revolutionary development of both Joseph Haydn and Mozart, as typified by the revolutionary change to a truly Bachian method of composition in string quartets, and Mozart's own mastery of the art of composing fugues, during that time. Without this, Beethoven's genius, especially in his "late" string quartets, would not have been possible. Mozart's K. 475 Fantasy has had a pivotal role in composition according to the scientific principles of Bach since that time.

during the preceding chapters, to any actual, contemporary society, or to the modern world as a whole.

The most essential physical principle, under which to situate other elements of the matter which has been thus set before us, is the notion of the relationship between rate of depletion of the previously found, physical and related conditions of social life, as contrasted to that value of *the complex function of increased productivity*, per capita and per square kilometer of total relevant territory, which is required even to prevent net depletion of those combined resources on which the previously established rate of net productivity would have depended. This, admittedly broadly stated, but strictly required preliminary notion, provides a platform of reference for the notion of the determination of a net rate of growth of the Noösphere, not only relative to the Biosphere, but without a shrinkage of the net, per-capita value of the Biosphere relative to the total, increased population.

The crucial implication is expressed as the effect of any individual action upon a value, per capita and per square kilometer, which is to be attributed only to the process considered as a whole. In the final analysis, there is no concept of value which is a competent substitute for that view of the relationship of the particular action as both subsumed by, and acting upon the whole process.

However, for just those reasons, there is no "model" of physical economy which could exist on the basis of a "zero net growth" standard.

The rate of growth of society on which any society's continued existence depends, is determined by the relevant depletion of previously existing resources which must occur in any population-densities of the human species which is significantly higher than those of the higher apes. Man's power to produce must increase, per capita and per square kilometer, that by means of a factor of cultural evolution based on a factor of creativity which exists in no species but mankind. Any competently defined function for a human population fit to survive culturally, depends on policies of practice which represent, in effect, increase of mankind's potential relative population-density, per square kilometer, through factors of invention corresponding to scientific and technological progress,

For example: *the rate of increase of the net potential relative population-density*, per capita and per square kilometer, is the broad physical measure of the standard for defining relative economic value. The composition of the considerations implicitly subsumed by that conception, is the essential, relatively revolutionary distinction of that principle of physical

economy which I adduced, during the 1950s, on the basis of adopted guidance from Bernhard Riemann.⁴⁶

The set of relations which corresponds, in fact, to that outlined standard for performance, is *dynamic* in the sense of a notion of a *Riemannian dynamic* rooted in Leibniz's specifically *anti-Cartesian* sense of the notion of dynamic. The crafting of a conception of the functional characteristics of the human individual which fits the implications of that task, as distinct from the performance of any variety of species of any and all beasts, is key for defining a functional notion of a successful mode of society.

The practical study of any actual society's role as a physical economy, requires a bringing-together of those matters which can be shown to be relevant to satisfaction of that broadly defined set of parametric requirements. In any competent actual practice, we must rely, from day to day, on conceptions which are implicitly reasonable approximations of that general conception of the function of increase of potential relative population-density per capita and per square kilometer of the Earth's surface, or a reasonably large part of that, such as a national territory, considered, functionally, as a whole.

To succeed in bringing together the elements of composition of that general principle as just summarily outlined, and, also, the associated principle of willful human action by which those general constraints are satisfied, we must begin with a relevant quality of a general principle of human cognitive communications which exists only outside the bounds of the so-called "information theory" of the dupes of Bertrand Russell, such as Professor Norbert Wiener and John von Neumann. In other words, we begin with the concept of Classical irony, as in each of poetry (*above all other modalities*), Classical musical composition, and Classical drama, on the one side, and what is to be described today as Riemannian physics, on the other. On this account, we must return attention at this point to the apparent paradox of the existence of human scientific creativity itself.

Poetry As Science

At this point, I must deliver what will be received as a shock among most of my readers. All competent economic science depends upon accepting that shocking correction which I present now.

Except for popular opinions which have, actually, the merit of proverbial old wives' tales, it should have struck the attention of any person familiar with the practice of what is called physical science, that no actual ideas of science can be expressed *explicitly* in mathematical terms. At their best, mathematical formulations are adumbrated as being the shadows of real

⁴⁶ Most emphatically, his 1854 habilitation dissertation.

ideas, ideas we must often access by what must appear to many novices as a poetic interpretation of those kinds of shadows. The most appropriate illustration of that point for our purposes here, is to call the reader's attention to the matter of the way in which two contrasted senses, sight and hearing (harmonics)—two distinct, ironically juxtaposed qualities of sense-perception, were juxtaposed by Johannes Kepler in his derivation of the formulation for the function of gravitation among the bodies of the Solar System.

In the competent use of the mathematics of physical science, we read the evidence of reality in what reality casts as the shadows called mathematical representation; and, if we are competent, we abhor the substitution of a reductionist's reading of statistics for a sense of reality's producing a projection of what is merely assumed to be the real object to which the shadows correspond.

For that reason, Classical musical composition, as in the tradition of Johann Sebastian Bach, Wolfgang Mozart, and Ludwig van Beethoven, especially Beethoven's late quartets, and Classical poetry and drama premised upon kindred principles, represent the state of mind most essential for physical science now, as it was for Johannes Kepler's creating the physical-scientific basis for all competent, anti-reductionist forms of modern science. Indeed, a decent respect for this scientific significance of the attention to music by Leonardo da Vinci, Bach, Mozart, and Beethoven, is, reciprocally, indispensable for insight into the greatest musical compositions.⁴⁷

What I have just written should be taken as bearing upon the need for a more precise comprehension of what the term "human creativity" ought to signify, instead of the usual array of sloppy, sentimental rhetoric uttered on this subject.

That distinction can be approached for purposes of discussion, by putting emphasis on the fact that no written text, and no speech of the "vocoder" quality associated with radio-broadcast traffic reports, "up-talk," or the like, could actually capture any important human idea. Such speech is, at its least worst, merely a device for pointing to sense-objects, but not for conveying meaningful human conceptions of processes.

The essential characteristic of all literate communication of that which earns the dignity of being termed "ideas," is Classical irony as associated with Classical modes in poetry and Classical musical composition. This role of irony can only be expressed as a kind of ironical shadow hovering over written text as such, but is otherwise dependent upon meaningful pauses, and such like, which must be spoken. It also depends upon the general principles of

⁴⁷ For the same reason, a strict adherence to the *bel canto* tuning of the singing voice (at the natural value of C=256 Hz) is essential for promoting clear ideas in musical composition and performance. All that is essentially human, is located in the intention of the mind, for which the physical expression is merely shadowland.

Classical prosody which are related to the use of the *bel-canto*-crafted singing voice for purposes of speaking.⁴⁸

These Classical media, not the footprints known as mathematical formulations, are the footprints left by the human mind in motion, a non-mathematical language of the human mind through which creativity speaks, by means of which its intention is composed, and its product can be thus imparted by aid of physical-mathematical illustrations.

The argument which I have just, thus presented, is crucial, in the sense that only ideas conceived and expressed in those terms I have just outlined, actually pertain to the active role of creativity in national economies. *The noëtic is poetic*. That is the way in which the creative powers of the human mind actually work, if they are working.

Take the first phase of Johannes Kepler's discovery of universal gravitation, as in his *The New Astronomy*. As Nicholas of Cusa had warned, Archimedes' notion that the circle is generated by quadrature is absurd as a physical-scientific conception. The fact that the rate of the orbital motion is "equal areas, equal times" forbids any notion of quadrature, or, any linear notion such as quadrature. There is constant change, but it is a form of change, as Kepler emphasizes, and Albert Einstein later, which corresponds uniquely to the existence of the agency of a universal physical principle: a principle of the universe, a concept, in turn, which does not exist in the practice of empiricism, positivism, etc. We are able to represent this as the effect of a universal physical principle, but the principle itself can not be defined mathematically, except as an effect—a lawful effect—on the relevant subject-matter.

It is here, in the higher domain, beyond any formal mathematical deduction-induction, that we encounter the quality of human mental action which generates the idea of an experimentally validated notion of a universal physical principle, *an insight* which can *then* be applied to the mathematical domain. Creativity does not lie within a mathematics scheme, but, rather is that which acts upon a mathematics scheme, to change it. It is here, not in the mathematics as such, that the specifically human power of creativity lies originally. It is also true of all manifestations of actual human creativity, in poetry, music, and drama, as in the appropriate practice of physical science. Machines do not discover principles, nor do mathematicians, but only the creative powers unique to the human mind, the powers we associate with Classical irony, as Leonardo da Vinci would, in Classical poetry, music, and drama.

⁴⁸ For example: without those constraints being imposed from the human singing voice to the other musical instruments, as the piano or violin, actually important, intended musical ideas of the great Classical composer can not be transmitted in the performance. The same is true on the Classical theatrical stage.

The Kepler Illustration

Continuing to emphasize Kepler's discoveries of the composition of our Solar System, we must emphasize, that the modern paradigm for physical-scientific creativity, is Kepler's discoveries of both the principle of the elliptical Earth-orbit and the harmonic composition of the principle of gravitation in the organization of the Solar System. In both of these cases, the irony is clearly presented, although silly students and their usual professors manage to miss the point, probably for lack of that capability emphasized by the poet Shelley, for "receiving and imparting profound and impassioned conceptions respecting man and nature."⁴⁹

The quality missed by such unfortunate students and their professors, is the harmonic function of Classical irony. I mean, a tendency to substitute a mere mathematical formula, or illustrative diagram, for the actual concept of the relevant principle. Instead of treating the mathematical expression as an attempted approximation, as a shadow, of the subject reality, the reality of the idea is treated as a poor attempt at approximation of the mathematical, or comparable mere illustration.

This consideration is not novel relative to competent ancient science, for example. The difficulty in accepting what I have just written on this matter here, is almost entirely the result, in today's academic and related life, of the virtually brain-damaged custom of the all-too-typical, modern secondary and university classroom and textbook, whose textbook style is, itself, a faithful reflection of the Ockhamite dogma of Paolo Sarpi's reductionist empiricism.

As should have been recognized from Kepler's successes in, first, defining the intrinsically "non-linear" characteristic of the pathway of the planetary orbit, and the qualitatively higher standpoint of the generation of the principle of gravitation in his *Harmonies*, the cognizable expression of efficient physical principles lies within a domain we reference as "insight," which exists only outside the bounds of formal-mathematical representation of any kind. It exists in the relatively most accessible form of expression as Classical poetic irony in general, and metaphor most emphatically.⁵⁰ Classical poetry is the "home base" of communicable conceptions of the creative product of the human mind.

Any advanced student (in particular) who has actually mastered work in mathematical physics, has the sense that creative insights are located, as if ontologically, "outside" the bounds of an imagery of mathematical representations. He or she "brings" such non-

⁴⁹ *A Defence of Poetry*.

⁵⁰ William Empson used "ambiguity" as a generic term covering the expanse of qualitative expressions of irony, as in his *Seven Types of Ambiguity*.

mathematical insights into play in treating the underlying efficient meaning of what the mathematical form is yearning to “say.” This is most emphatically the case in all scientific thought dealing with creative insights in physical science, or all serious expressions in Classical artistic composition, as this is merely illustrated by the contrast between judicious and merely formal use of *rubato* in musical performance. The judicious use “says” something essential to the human mind, whereas the arbitrary use is equivalent to nothing better than graffiti.

The Enemy of Mankind

To go further than we have reached in the opening pages of this present chapter, we must take into account the pathetic element which dominates the societies of the world still today. Essentially, all known cultures from history, and also evidence from the pre-history of mankind thus far, are premised on a systematic “dumbing-down” of the majority of the population of all cultures, and a corruption of reigning social strata by effects which are correlatives of the subjugation of the majority of society by what passes for a reigning cultural minority.

For example, development of astronomy and related stellar-solar calendars in ways which are specific to maritime, rather than what are relatively land-locked cultures, shows that the ancient maritime cultures have been to that degree the superior cultural forms of human society, the principal source of development of civilization. After all, all competent development of what we may term “science” is a product of that notion of universal. However, the role of social strata whose technology is of maritime origins, but which use that advantage to degrade the majority of the human population subjugated by the dominant social strata, as by the British maritime empire and its forerunners, demonstrates the nature of the relative depravity of cultures which reign in such a fashion, even cultures, such as the Anglo-Dutch Liberal form of maritime culture which has been degraded, morally and otherwise, by misuse of its cultural advantage as a lever to degrade subject populations, including the so-called relatively lower classes of its own, the virtual “Yahoos” which Jonathan Swift perceived as the degeneracy of a British society plunged, by its chivalry (“Houyhnhnms”), into the intellectual and moral decadence of Liberalism.⁵¹

The crucial issue posed by those considerations, is implied by taking into account the significance of individual creativity in the functioning of society as a whole. This point is illustrated with a vengeance when we take into account the degeneration of the physical economies of both North America, and western and central Europe combined, over the approximately forty-year interval 1968–2008.

⁵¹ E.g., “the incredible in pursuit of the inedible.”

In the U.S.A., in particular, three factors are most notable. First, there has been no net replacement of a shrinking mass of basic economic infrastructure over the entire interval. In addition, since the beginning of the 1970s, there has been a catastrophic decline in physical productivity of the total labor-force, per capita and per square kilometer. A similar decadence has been characteristic of western and central Europe, most emphatically since the collapse of the Soviet Union, a collapse which was willfully managed over the course of the 1990s, by the policies launched from the United Kingdom and François Mitterrand's France, and echoed by the George H.W. Bush U.S. administration.

The most crucial of the continuing factors in this decline have been: 1.) The shift to so-called "post-industrial" physical investment and employment, which has followed the catastrophic wrecking of the internal economy of the U.S.A. under the 1977–1981 guidance of the Carter Administration by David Rockefeller's Trilateral Commission; and 2.) The shift into "globalization" which was unleashed by the so-called Maastricht agreements launched by Prime Minister Margaret Thatcher's Britain, with the complicity of France's President Mitterrand.

In short, not only has the relevant trans-Atlantic population been "dumbed down" to a presently, economically catastrophic extent, and still rapidly sinking level of functional illiteracy (for the U.S.A.), but the massively "dumbed down," but "personal-computerized" 18–25-age population represents a threat to the nation's hope of a future. The portion of the former labor force which had competence in productive occupations, is vanishing through deaths and related modes of attrition. Our universities have become disaster-areas on this account, while the actual intellectual failure-rate among primary and secondary pupils has been wrecked by a policy of making education itself so dumb that virtually no child could be dumb enough to be left behind.

Overall, the worst effects can be classified as consistent with the virtually brain-damaging influence of the present so-called "environmentalist" cults.

All of the factors of social dynamics relevant to rates of increase of net physical output per capita and per square kilometer, have been moved in a downward direction, such that the present trend in the net physical output of the present world population on which it depends for its survival has fallen below the rate of output needed to keep a population of anywhere near that size alive during the ongoing twenty-year-span increment for the present generation.

The world as a whole has, in fact, gone over from a net physical growth-rate prior to 1967–1971, to a long-term shift into a physical collapse, per capita, of the scale and quality of infrastructure needed even to maintain a population of the world's present size.

The most crucial factor on which to focus attention, is the potential productivity of the individual member of the adult generation's active labor-force. That means, that even in cases, in which there is no conspicuous scientific or artistic creativity shown in large sections of the population, a well-educated and properly employed population-in-general, one which has the capability of absorbing creatively-produced discoveries by a relatively few, defines a general population which is, for all other shortcomings, capable of producing the surges of increase of potential relative population-density which the U.S. exhibited under the leadership of President Franklin D. Roosevelt.

It is not learning which defines progress, but creativity. A population participates in the realization of the benefits of creativity, not only through those persons who are actually creative in the sense of science and Classical artistry, but through the participating role of the larger portion of the population which is able and enabled to participate in the spread of the realization of creative contributions by the relatively few.

However, this progress depends not only upon both capital improvements in productive potential, per capita and per square kilometer, and on those improvements in basic economic infrastructure which increase the physical productive powers of labor per capita and per square kilometer. The vast superiority of modern forms of high-speed rail, and magnetic-levitation transport systems, over highway transport, and the vast superiority of nuclear power (per capita and per square kilometer) over the same number of calories generated by more primitive means, are crucial illustrations of this point.

However, when those general truths are taken into account, we are still left with the need to provide a clearer insight into the production of individual creativity itself.

The Creative State of Mind

The creative state of an individual human mind, when it is present, has two principal levels of expression. One, the highest, as typified by Kepler's work and by Albert Einstein's insight into it, pertains to the act of an original (or equivalent) discovery of a universal physical principle. Such cases have been relatively rare. The second, more frequent case, is typified by the insightful individual who operates on the basis of an always developing sense of both the form of action corresponding to a re-enactment of a previous discovery of a universal principle, and a sense of relations in the universe as being bounded, in effect, by role of existing discoveries of universal principles.

In both cases, the relevant state of mind is grounded in contempt for so-called "self-evident" implications, such as those of *Euclid's Elements*, of human sensory functions.

In both of the first two types of cases, as in that of scientist and competently qualified amateur violinist Albert Einstein accompanying a service in the great synagogue in Berlin prior to Adolf Hitler's reign, the great and good scientists alike, were nearly always drawn to Classical artistic modalities, especially Classical musical ones, as a complement for their internal mental life as creative scientists. In my personal experience, any case of a putative scientist or serious candidate for that role who was not powerfully attached, as a matter of loyalties, to Classical artistic composition, especially Classical music, would soon show serious defects in what would otherwise pass for scientific thinking. For the great, or nearly great scientific mind science and Classical artistic loyalties are inextricably intertwined. The relevant rule so expressed, may be summarized by stating, that *true human creativity is never hostile to itself*.

From that standpoint of reference, there should be no difficulty in principle, in locating the causes for the moral degeneration of the standards of art and science in the post-Franklin D. Roosevelt U.S.A. and western and central Europe alike. The influence of clearly evil personalities such as Aleister Crowley, H.G. Wells, and Bertrand Russell, reveals the influences which created the Mussolinis and Hitlers of the earlier half of the Twentieth Century, and the influence of Russell, his clones Norbert Wiener and John von Neuman, of pro-satanic existentialists such as Theodor Adorno and Hannah Arendt, and the Anglo-American operations, centered in France, and of the European Congress for Cultural Freedom, have been the principal influences of cultural degeneracy which point our attention to the increasing, moral-intellectual rot within our institutions and our so-called popular cultures, which have been the principal correlatives of that degeneration of physical science, art, and morals which was expressed by the so-called "68ers" whose influence has reigned, increasingly, since that time, in the principal institutions of Europe and North America today.

The warning signs of that post-World War II stream of moral and intellectual decay, were typified by the radical reductionism of the Josiah Macy Foundation's "Cybernetics" project, and related corrupting influences of the dupes of Professor Norbert Wiener and John von Neumann, in replacing science with information theory, and music with the outgrowths of 1940s experiments in non-music, such as those composed for what was named "prepared piano."

The physical degeneration of our trans-Atlantic culture, from which populations on both sides of the Atlantic, and elsewhere, are suffering so grievously today, is the fruit of a tree of existential irrationalism, which has replaced actual science, actual art, and the American System tradition of President Franklin Roosevelt and his forerunners, in shaping the step-by-step decisions, which have taken over the control of law-making in our Federal government,

and induced the apparent majority of the super-wealthy and their lickspittles to prefer the present trans-Atlantic rush into a sojourn in a New Dark Age to become known as Hell.

By calling such things as urinating on a crowded public sidewalk “Art,” and travesties of a kindred origin and spiritual expressions of contemporary preferences, our society—or, at least, a very significant and influential part of it—has followed a pathway of devotion to anti-creativity which has conveyed the planet as a whole, today, to the verge of a multigenerational journey into a planetary new dark age.

It is creativity *per se*—true, uniquely human creativity, as I define creativity here, which expresses the true distinction of man from beast, and moral citizen from a typically depraved existentialist.

A great nation is not distinguished by its currently popular opinion, but by a devotion to rising above that level, through creative innovations. In this respect, creativity is not a means to an end, but is already an intrinsically immortal end in itself. One creates great art because it is great art. The motive for creating the benefits of scientific progress, is a passion for scientific discovery and progress in and of itself. We mortal beings, if we are truly human in our devotions to humanity, do things because those things are good, as good things evoke creativity and always lead toward progress.

Yes, we do adopt great missions, as if great missions were an art-form which each generation should develop for itself as an expression of its own need to exist as something good for future generations. However, it is not because “I wish to accomplish this,” or “that” that true citizens “do good,” as Cotton Mather said, but, essentially, it is the good we find in ourselves to accomplish for the benefit of the future, but within our own time.

It is not mathematical goals which generate progress, but love of mankind, and love of man’s natural creative powers as expressed by the common principle which unites Classical artistic composition and scientific progress as a single passion. If you do not think like a Classical artist, you are no true scientist; if you are not dedicated to the advantage of mankind through scientific progress, your art stinks.

The problem has been, throughout what we presently know of the history of European civilization since early during the first millennium B.C., that the prescription for design of society, and its fate for man, as described by Aeschylus’ Olympian Zeus, has been anti-Promethean, the degradation of the relatively greater mass of society to the status of the human cattle prescribed by the monstrously corrupt, former U.S. Vice-President Al Gore, in which science is merely a bit of routine work, as if by galley-slaves who have learned to practice the art and mission assigned to them by the man with the drum and whip in hand.

The mission of science, is not the successful performance of some assigned drudgery, but the joy of participating joyfully in creation as man or woman made in the likeness of the Creator Himself. It is creativity, therefore, which we must cultivate within ourselves; it is that creativity which must be recognized as our essential, immortal mission within the span of our individual, mortal lives. It is that love of science and Classical modalities in art, which must be the essential, underlying passions which motivate us in our expression of love for our nation, and for love of all mankind.

It is time for you, first of all, to become truly human once again. There lies the secret of true creativity, and, therefore, of true scientific knowledge.