

Is western Europe doomed?

by Lyndon H. LaRouche, Jr.

November 10, 1998

Is western Europe doomed? After such indicators as the initial phase of the recently elected government in Germany,¹ and the omens of early doom for Tony Blair's British government,² it would appear that western Europe's electorates are currently incapable of electing a viable government. With signs like Vice-President Al Gore's recent rant against the U.S.A.'s European partners, on trade matters, it appears that the government of the U.S. is suffering the same potentially fatal condition which now grips western Europe.³

1. The lead editorial in the *Frankfurter Allgemeine Zeitung* on Nov. 11, by economics editor Hans Barbier, a devout neo-liberal, was on the fact that Gerhard Schröder's inauguration speech the day before, was an eclectic composition of concepts that had been borrowed from partially, even contradictory theories in economic policy. A government program based on such a mish-mash, Barbier wrote, is a bad omen for this government, and for what it might be able to achieve. The weekly *Die Zeit* on Nov. 12, noted that this new government has tumbled into the cabinet chairs, without knowing what it would be faced with, nor knowing what to do—a government that still had to define what it actually is, apart from being “red-green.”

2. Relevant commentaries in the British press include: “Storm Clouds Gather Over Blair,” *The Independent*, Oct. 23; “Is This the Most Dangerous Man in Britain?” editorial, *The Sun*, Nov. 13; *The Independent*, Nov. 13, reveals that Blair's New Labour has secretly set up a “dirty tricks” unit to “undermine” the opposition Liberal Democrats; *The Guardian*, Nov. 13, writes that the Labour leadership is imposing a “gag” on the Party's national executive committee, and is “preparing to crack the disciplinary whip” on potential rebels. The 33-person executive committee also includes trade unionists hostile to Blair's austerity and Thatcherite approaches.

3. “America Threatens Europe with New Trade War,” *Frankfurter Allgemeine Zeitung*, Nov. 9. The article reports on speeches by Vice-President Al Gore, Commerce Secretary William Daley, Trade Representative Charlene Barshefsky, and Deputy Treasury Secretary Larry Summers at the recent Transatlantic employers conference in Charlotte, North Carolina, all blaming the European Union for the rising U.S. trade deficit. Daley is quoted saying the United States is not the “garbage can” for exports from countries in crisis, and that if Europe doesn't open its markets, the resulting American uproar would unleash “protectionist fires.”

Can you imagine, watching a flywheel, or a jet-engine, disintegrate, while it spins at top speed? Or, perhaps a flywheel, or jet engine, tearing loose from its moorings, and running wildly amok, threatening everything and anyone in its immediate vicinity? In one moment, the flywheel seems to present nothing so much as a sheer power of monumental orderliness, with unshakable self-confidence to match. In the next moment, one may sense a brief shudder, and, then, doom breaks loose. The doom of a once-awesomely great political power, sometimes comes in a similar way. The question at this moment, is whether, or not, western Europe and its U.S.A. and Canada partners, are now hovering at the threshold of that kind of disintegration of a formerly awesome power.

In such cases, tragedies never occur without some forewarning. Sometimes, the warning is ignored; sometimes, it is overlooked, or not recognized as such. It is usually expressed clearly, in some way, just before the moment of doom; but, delusions are the common anaesthetic of the doomed. In all such matters, one must appreciate the awesome importance harbored, within what an ill-fated, currently prevailing opinion often chooses to deprecate, as either very small problems, or, as worries which might be readily managed with no more than a little fixing. When doom comes, most of the fools will be greedily anticipating what they choose to believe is the coming great year ahead. So, it is with our subject here, as the mere shudder of doom is now being felt within western Europe and among its North American partners.

“Oh, you mean the ‘Asia Crisis.’ Don't worry, a guy I know in Washington says it won't really come here. Did you hear what Helmut Schmidt said about it? You'll see! Try this; it's delicious. It will take your mind off those worries.” Did some party-spoiler mutter something about “Mene, Mene, Tekel, Upharsin?” “Forget it; I don't believe in conspiracy theories.” Meanwhile, in the streets outside, the storm is building.

Now, a little more than a year after the arrival of China's



Lyndon H. LaRouche, Jr. addresses a conference on Jan. 17, 1998. LaRouche's method, as applied in the report published here, "is premised upon a virtually life-long opposition to the then-prevailing opinion respecting educational policies, among most educated persons of his own and later generations. It is precisely his alleged egregiousness on this account, the which has been the source of his consistent successes in long-range economic forecasting, relative to nearly all other economists of today's world."

President Jiang Zemin for his Autumn 1997 meeting with U.S. President Clinton, only the wishfully self-deluded, still consoles himself with so silly a belief, as faith in the immortality of either the IMF or the Dow-Jones Index. The same year later, with China's President now scheduled to meet with Russia's President, in Moscow, we have reached the point, that nothing could delay the disintegration of the present world financial system for anything more than a very short time. That financial system, to which too many people are still, credulously entrusting their savings and pensions, is already as good as dead.

Only the doomed of Western civilization still believe that this is an "Asia crisis." The question thus posed to China now, is whether its prospective economic partner, the United States, itself, will disintegrate as a nation, and partners in western Europe and Japan, too: all as a result of the now inevitable collapse of the present world financial system.

Unless President Clinton abandons, soon, the policies set forth in the recent G-7 Washington conference, the United States itself is doomed to go down into the same rubbish-bin of history as what may soon be called the "Davey Jones Index." If our helmsman-President continues to "stay the course," continuing to risk inevitable ruin, by his following such suicidal choices of channels as the IMF, "free trade," and "globalization," he, crew and passengers alike, are soon going to dive all the way to the bottom, where all the politically self-doomed nations, including Canada and all of west-

ern Europe, will also soon repose.

Nonetheless, despite the continuing silly babble about a so-called "Asia crisis"—rather than a global financial collapse, the fact is, that in the case, that they refuse to eliminate those policies, which lead, inevitably, toward early collapse of the world's financial system, both the U.S.A. and western Europe would disintegrate politically. Under these special circumstances, it were conceivable that, civilization *might*, nonetheless, survive, but only in some large part of Asia. In the latter case, the ironic outcome of what western fools continue to call an "Asia crisis," would follow the pattern set during several, terrible dark ages of past history, when some parts of the planet have been crushed by their own follies, while other parts survived.

It should be obvious, that the only possible candidate for survival, under conditions of mass-cultural suicide performed by North America and Europe, is represented by a number of nations of Asia, centered around China, and possibly, perhaps even probably, including Russia.

This, latter group of nations might decide, not to join western Europe and English-speaking North America in the present, G-7-led march toward the rubbish-bin of history. The heroic and successful response, by China's government, to the great flooding experienced earlier this year, presents that nation to us as one far better disposed to survive, than any among the governments of western Europe today: a nation, unlike any among those of today's western Europe, which



British Prime Minister Tony Blair with President Clinton at the White House, Feb. 6, 1998. "Unless President Clinton abandons, soon, the policies set forth in the recent G-7 Washington conference, the United States itself is doomed to go down into the same rubbish-bin of history as what may soon be called the 'Davey Jones Index.' "

enjoys a quality of leadership matched to an efficient cultural commitment to survive even awesome catastrophes. Under certain conditions, those nations grouped around China, could, with proper leadership, maintain the continuity of civilization during the half-century or longer, during which North America and western Europe collapsed demographically, as well as economically.

There is, at least, a significant possibility, if, admittedly, only a possibility, that an Asia world emerging out of the collapsing ruin of western Europe, could become precisely the pattern of events shaping up during the coming months.

In any case, whether or not China survives more or less intact as a nation, if, during the weeks and months just ahead, the U.S.A. and western Europe continue the policy-shaping trends of the recent three decades, such a collapse of civilization in western Europe, Canada, and the U.S.A., and perhaps Australia and New Zealand as well, is already the virtually inevitable outcome of a continuation of present U.S. policies. In that case, putting the worst cases, of Japan and Indonesia, to one side, whatever the result for the world as a whole, the most endangered part of the present world economy, is not, speaking generally, the nations of Asia, but, rather, those of western Europe, the U.S.A., Canada, Australia, and a New Zealand which has been already virtually self-destroyed over the course of the recent ten years.

The subject of this report, is to show how, as a matter of scientific principle, that seemingly inevitable doom of this Western group of nations might actually be avoided. The only alternative to catastrophe, is the right choice of policy-changes made "in the nick of time." To see the present chal-

lenge more clearly, we must free our minds from those childish delusions typified by the racist's impulse to refer to Asia as a region of "emerging markets." To see the alternative of survival, we must, so to speak, look the Devil directly in the eye, and stare that notoriously liberal British gentleman⁴ into retreat, as I aim my efforts in this present report.

1. What keeps a flywheel together?

The most significant thing about a flywheel, is, that when performing its assigned function, it performs that function very well. If one seeks to define how it might continue to perform that function, perhaps at even higher speeds, without exploding, or running murderously rampant, one is confronted with the leading question: What keeps the system together? The answer to that question, is located within the analytical characteristic of the physical function which de-

4. Satan today is an extremely liberal British gentleman of sinister Venetian ancestry. Long before Monica Lewinsky, Anne Boleyn was introduced to an English head of state by this same spirit, he, then, a citizen of Venice. Awful times for England began then, in the time of mephistophelean Cardinal Gasparo Contarini, and have not ceased since. The same spirit appears as the character Mephistopheles in Christopher Marlowe's *Dr. Faustus*, and as the author of such works as Thomas Hobbes' *Leviathan*, John Locke on "human understanding," Bernard Mandeville's *The Fable of the Bees*, and former U.S. Secretary of State Henry A. Kissinger's shameless confession to a May 10, 1982 Chatham House audience. The same Venetian spirit took English citizenship in the time of King James I, and ran William of Orange from the curtains behind the throne. It was the same gentleman who arranged to have William of Orange's choice, George I, put, most liberally, on the newly created British throne, in 1714, whence most of the looting of this planet has been conducted, most liberally, ever since.

scribes that system as a whole. For this purpose, a simple kinematic model will not do; as we shall show, for the case of a national economy, at an appropriate place below, the crucial expression of that relevant characteristic is located within an infinitesimally small, and always non-linear, interval of the action associated with that function.

Admittedly, the binding forces which hold together a modern political economy's processes, present a far different quality of system than our case of the disintegrating flywheel. Nonetheless, taking the problem we have just posed in its first approximation, there are important, and, speaking pedagogically, extremely fruitful similarities between the case of the exploding flywheel, and that of the imminent disintegration of the economies of western Europe. Noting those similarities, prepares us to proceed, next, to examining the problem of the disintegrating political-economy, such as those of today's western Europe or the U.S.A., on that higher level, where the apparent similarities to the flywheel problem are no longer sufficient analogy.

We now proceed accordingly.

Concentrating on the flywheel's problem, the first thing to be emphasized, is that the analytical function we must define, represents the extreme case of a function which is common to all types of flywheels. For the extreme case, none of that cheap-shot, classroom rhetoric used to argue the specious limit-theorem of Augustin Cauchy's calculus, is permitted. None of the usual, hand-waving at the blackboard, "for all practical intents and purposes," is allowed. Smooth no curves; these are the extreme conditions, under which, to the consternation of many, all smooth curves are apparently shredded, twisted, and knotted, into sub-microscopic, non-linear strings. In defining any extreme condition, for any kind of process, we are focussed upon those seemingly anomalous circumstances, in which all ordinary classroom notions of a simply calculable engineering function, break down. This is the case in which the insight of the experimental physicist, is to be greatly preferred to the positivist follies of mathematical formalists such as the Nobel Prize swindlers Merton and Scholes.⁵

In all such cases, we must focus upon those extreme conditions, in which (usually) hitherto unsuspected physical principles of our universe express themselves. All really serious science, especially the science of physical economy, is focussed on nothing but such extreme cases, cases which defy Cauchy-like linearization in the infinitesimally small.

Consider the sudden, shock-wave-like breakup of a modern political-economy in these terms of comparison.⁶

5. John Hoefle, "One Derivatives Disaster After Another; Will They Never Learn?," *Executive Intelligence Review*, Oct. 9, 1998.

6. The so-called "Harvard economics" introduced, beginning 1990-1992, to destroy the economy of the former Soviet Union, is an example of shock-wave methods used with the calculated intent to cause a disintegration of a national economy. In that case, the effect was voluntary, intended: not as

A modern political-economy is, superficially, a monetary and financial system of administrative allocation of assets otherwise produced, as this allocation is superimposed upon the underlying, real, or physical economy beneath. The superficial financial garments of the monetary and financial aspect peeled aside, we uncover the naked, living, breathing tissue of the real economy. The characteristics of an economic process lie within processes which are located entirely outside the attached monetary and financial systems; those characteristics are located solely in the physical side of the economy (including under "physical," education and science as such, as among matters expressing physical cause and effect). The monetary and financial processes considered in so-called money theories, have nothing to do with the internal characteristics of the underlying economic processes as such; they represent not the vehicle, but only the possibly good administrator, or, these days, usually, a greed-deranged, Mont Pelerin-intoxicated fool, behind the wheel.

Outstanding among the characteristic features of that real economy, are energy-density, capital-intensity, infrastructural development (including education), and (physical) productive powers of labor. The characteristic form of *physical action* in the real economy, is properly measured as the anti-entropic rate of change generated through investment in scientific and technological progress, that to the effect of increasing the relative (physical) productive powers of labor.

Thus, to understand today's global, systemic breakdown crisis, we must pin-point the change whose influence has brought about the present catastrophe. For that, we must go back more than thirty years, to a time when the per-capita, net physical output of the economy was still growing, and the policies of governments were still more or less sane.

Therefore, we must begin before 1966, before the present world crisis began to take over economies such as those of the U.S. and leading continental European nations, when those physical economies represented a tremendous, and still growing accumulation of *net* physical investment in improvements of basic economic infrastructure, in development of the agricultural potential of land-areas, in the ongoing throughput of energy-density, in (physical) capital-intensity, and in accumulation of investment in benefits of scientific and technological progress. These accumulations are to be measured in per-capita and per-square-kilometer terms. *The characteristic action in that economy, is rightly measured as the rate of anti-entropy relative to the level of accumulated investment in the physical conditions of production and household life. Measure the application of the relative rate of anti-entropy, to the physical, total capital-intensity of the economy, per capita and per square kilometer.*

fast as the kind of implosion-collapse which immediately threatens western Europe and the U.S.A. today, but fast, nonetheless. My use of "shock waves" follows the broader implications of Riemann's "On plane air waves of finite magnitude" (e.g., the general notion of isentropic compression).



Before 1966, when the world crisis began to take over, the physical economy of the United States represented a tremendous accumulation of net physical investment in improvements of basic economic infrastructure, as well as in the economically crucial area of machine-tool production. Here, precision-cut gears receive quality inspection.

The magnitudes of such flows, and their interrelationships, represent the economy's "flywheel in motion." It is study of the functional nature of the changes in the rates of such flows, which show us the meaning of the "flywheel's" recently increasing propensity to shudder.

In first approximation, the difference between a healthy and a dying physical economy, is the difference between one which is following an anti-entropic, as opposed to an entropic form of trajectory.⁷ That relatively disastrous choice of trajec-

7. This "anti-entropy" is not equivalent to the use of the term "negentropy" by "information theory" charlatans, such as the late Professor Norbert Wiener. In physical terms, such as the biology of living processes, "anti-entropy" corresponds to the case in which the density of the effective energy of the system is increased, but the ratio of free energy to energy of the system kept above a constant, positive value. The original use of the term "negative entropy," was forced upon physicists by biologists, as a way of forcing recognition of the fact, that the ordering which is characteristic of living processes, is not the ordering associated with such ordinary non-living processes as gas systems. The popularization of Wiener's fraudulent use of the term "negentropy," has compelled us to use a different term, "anti-entropy," to indicate our meaning. The fraudulent definition of "information" concocted by Wiener et al., is derived from the "limit theorem" hoax which Augustin Cauchy dumped upon his simplistic revision of Leibniz's calculus. Cauchy's hoax was used to assert the Nineteenth-Century version of the occult-forces dogma, the dogma derived from the presumption that all physical action is linear in the infinitesimally small. This occult reading of mathematics, was then relied upon by such as Grassmann, Clausius, Lord Kelvin, and others, to cook up the so-called Second Law of Thermodynamics. The same dogma was expressed, using the same aprioristic reliance upon faith in the occult, for Ludwig Boltzmann's construction of the H-theorem. Wiener, whose penchant for dubious or outrightly dishonest practices in the name of science, had been strongly remarked upon by Hilbert and Courant earlier,

tory, is the state of the physical economy which corresponds to the case of the exploding flywheel; this is the state in which cumulative entropic changes in the physical economy, have become irreversible, for some combination of physical and cultural reasons. Under that latter condition, in which the economies of western Europe and North America have been trapped since about 1966-1968, continuation toward a point of irreversibility, converges asymptotically on the point of an implosive disintegration of the physical economy. We are at that point today.

It is impossible to define such a point of economic collapse adequately, in purely physical (non-cultural) conditions. In every known case in history, the collapse could have been corrected, and reversed, had it been politically feasible to correct, early enough, that flaw in the culture which caused it to cling to that tradition of administration of physical-economic practice, which was the cause of the process of physical-economic collapse. That, as I shall indicate, is the core of the threat to continued existence of the nations of western Europe and English-speaking North America today.

What threatens the very early doom of the nations of western Europe, the U.S.A., Canada, Australia, and New Zealand — like Japan — is a combination of two related developments of the middle to late 1960s. These developments were the pseudo-scientific assumptions underlying that "cultural-paradigm shift" associated with the New Leftists of

plundered Boltzmann's H-theorem to hook the credulous into accepting his lunatic "information theory" as a product of physical science.

1968, combined with changes lumped together under the functionally interconnected, anti-nation-state rubrics, of “free trade” and “globalization.”

That much said thus far, for the moment, we put the elaboration of the flywheel simulation to one side. We shall return to it at a later appropriate point, here. Turn now to the method required for the analysis employed here.

2. The author’s method

For reasons to be made clear in this report, the nature of the presently ongoing collapse of a failed Western civilization, requires identification of the methods by means of which the correctable causes of the collapse might be reversed, and a genuine economic recovery launched. Since the present author’s methods have been uniquely successful in foreseeing, consistently, the nature and probable outcome of a collapse which began more than thirty years ago, those methods must now be emphasized here.

The author’s method, as applied in this report, and in all the work with which he is associated today, is premised upon a virtually life-long opposition to the then-prevailing opinion respecting educational policies, among most educated persons of his own and later generations. It is precisely his alleged egregiousness on this account, the which has been the source of his consistent successes in long-range economic forecasting, relative to nearly all other economists of today’s world. To understand those scientific successes, one must take into account the exceptional advantages intrinsic to that allegedly egregious method by which they were generated. To understand this method, it were better that facts be situated in the relevant, normalized frame of reference, the first person singular.

To sum up the most crucial point to be made on this account, throughout my adolescence, my interest was centered upon studies of the most notable writings of the celebrated philosophers of England, France, and Germany from the Seventeenth and Eighteenth Centuries, from Francis Bacon through Immanuel Kant. Midway, I adopted an accurately informed view of the work of Gottfried Leibniz, rejecting most emphatically the teachings of the English empiricists, Descartes, and Immanuel Kant’s *Critique of Pure Reason*.⁸ In the course of that, from the age of fourteen, I recognized, and hated, by name and deed, the pernicious influence of the educational policies of John Dewey, and like-minded doctrines, in shaping the policies of education I found despicable classroom practice, as intolerably shallow, unrigorous, and morally repulsive.⁹

8. The accuracy of my adolescent reading of Leibniz, Kant, et al., was confirmed decades later, by my parents turning up notebooks dating from the 1935-1936 interval.

9. This was during my sophomore year at Lynn English High School. I not only declared my aversion to the influence of Dewey on the shaping of the pedagogy in wide use, but made a bit of a campaign on the issue. My argument against Dewey then, as against Kant more than two years later, was that such doctrines were untruthful in conception, and decidedly contrary to the very

The later knowledge of more than half a century’s experience, has vindicated this standpoint, first adopted during my adolescence, as well-founded, and superior, as a method of knowledge, to the well-known, more popular alternatives preferred by most professionals then, and much more so, today. This choice of method, is not only preferable; it confers advantages not available from any different standpoint. Those advantages, including the related views on educational policy, are crucial for understanding the why and how of the global breakdown-crisis currently in progress.

To summarize the point: my method is that of thinking *epistemologically*, a principle which I first learned from my adolescent defense of Leibniz against Kant’s *Critique of Pure Reason*. It is the method I later came to know better, as derived by Leibniz, directly and indirectly, from his work as an avowed follower of Plato, Leonardo da Vinci, and Johannes Kepler. Its quality of advantage over the known alternatives is crucial, unique.¹⁰ As I have said, and as the reader will be able to confirm this in the course of this report, the following several considerations are relevant in the present context.

By *epistemology*, I mean *the science of knowledge*. As I shall indicate here, this science of epistemology is the indispensable foundation for all competent varieties of so-called social and political science, and also for what we term, conventionally, physical science.

This approach can be applied in two degrees of precision. In its most general application, we trace all ideas with the manner in which they have been derived from the basis implicitly defined by some predecessor array of ideas. Such an array of ideas, so ordered, corresponds roughly to what British philosophers, for example, prefer to term a “mind set.” Among all kinds of “mind sets,” there is the most rigorous epistemology, Socratic epistemology, which demands that all ideas be tested by standards of truthfulness and justice, as Plato’s Socrates, in *The Republic*, contrasts the quality of *agapē* to the despicable, various alternatives proposed, in that

essence of Christian morality. Some teachers were amiably amused by this; more were decidedly not at all amused at that time. On the good side, it was from some of the teachers at the same school, that I first acquired that special affection for Paul’s *I Corinthians* 13, which has been something of a hallmark of my world-outlook, against sterile formalism, ever since.

10. My own discoveries in the science of physical economy have a result best illustrated by aid of an extended application of those discoveries by Bernhard Riemann, which carried the earlier work of Carl Gauss and Lejeune Dirichlet, on multiply-connected manifolds, to an appropriate outcome. Cf. Bernhard Riemann, *Über die Hypothesen, welche der Geometrie zu Grunde liegen, Bernhard Riemanns Gesammelte Mathematische Werke*, H. Weber, ed. (New York: Dover Publications reprint edition, 1953). My own use of “unique,” as alternative to the more customary use of “crucial,” is my affirmation of my debt to the work of Riemann on this account. The presentation of the relevant methods of crucial experiment, have been elaborated in a pedagogical program which I attempted to launch for training of my associates, in 1981-1982, but whose realization has waited until the most recent years. See the book-length illustration of this method, by Jonathan Tennenbaum and Bruce Director, “How Gauss Determined the Orbit of Ceres,” *Fidelio*, Summer 1998.

same location, by the characters Thrasymachus and Glaucon.

The notion that the believable ideas of a culture might form a knowably coherent whole, presumes that there is a method by which such coherence can be tested and demonstrated. In that limited sense, a coherent array of ideas represents a “system,” in the broad usage of that term. If the system is truthfully defined, nothing is allowed in that system for which a conclusive proof either simply does not exist, or can not be shown.

Of all such relatively truthful systems of ideas, only two types are known. Today’s more commonplace, inferior, often unreliable notion of such a system, is defined by a principle of deductive consistency; the only known alternative to this, is the non-deductive, Socratic method of Plato et al., the method employed by Leibniz, for example. The crux of scientific method, is recognition of the inherently occult forms of falsehood and mystification inhering in relying entirely upon deductive lattices.

What should be readily recognized as the incurable error of all deductive systems, is that these systems each depend upon a set of arbitrary definitions, axioms, and postulates, a set of imaginary presumptions, whose existence depends upon an occult authority entirely outside the system itself. On this account, no deductively consistent system can be either complete, or truthful.¹¹ The definitions, axioms, and postulates employed, are adopted on the premise that they are deductively needed assumptions, *a priori* (e.g., occult) assumptions which may be adopted on blind faith, as more or less “self-evident,” but for which no scientific proof exists.¹² These dubious, aprioristic assumptions, are included with the argument, that these are needed to make the system implicitly completable, if never actually complete.

The Socratic system of Plato et al., my system in epistemology, has an entirely different architecture. This may be thought of as the principle of negation: whatever is generally, popularly, believed, must often be suspected of being a dangerously mistaken idea, on the basis of that evidence, alone.¹³

11. This is the simple fact argued by Kurt Gödel, an argument which neither Bertrand Russell, nor Russell’s protégé, the fanatical positivist John von Neumann, would ever accept. The rabid (“radical”) quality of unreality permeating von Neumann’s pathetic systems analysis, is a systemic expression of the influence of the radically crude, Ockhamite axiomatics of Russell’s *Principia Mathematica*. The mania which gripped so many of the world’s leading bankers in the case of the Long Term Capital Management swindle, is a reflection of the popularization of lunacies of von Neumann among so many leading business schools and kindred institutions.

12. See Riemann, op. cit., for what has become the modern classic argument on this point.

13. There could be no failures of societies, which were not the explicit, or implied fruit of opinions which were generally accepted as authoritative. So, the failures of scientific practice can usually be traced to some part, or, in some cases, even all of today’s generally accepted classroom mathematics. The errors responsible for such failures are of two classes: first, something claimed to exist, according to authoritative opinion; second, something relevant implicitly denied to exist, according to the same quality of authority.

We, like all good modern scientists, must accept the principle of what are usually termed crucial experiments, as the means for determining which hypothesized physical principles are true. We must do as they must do; we must base scientific knowledge on the principle of incompleteness of our knowledge of the principles actually governing the universe, which was the method of Carl Gauss and Bernhard Riemann, for example.

This method emphasizes going outside the present limits of experience and knowledge, to find the paradoxical evidence which prompts us to discover validatable, new principles of our universe, principles we never knew before.

This method requires that we always go to the extremes. Go further than ever before, toward the limits of the universe: astrophysics. Go further than ever before, toward the limits of smallness: microphysics, and beyond. Go higher. Go deeper. Probe more intimately than ever before, all of the boundaries where living and non-living processes intersect and interact.

Discover things, of course; but your purpose should not be to discover mere things. Our purpose must be to discover new physical and other principles of the universe, and, thus, to create a new order among things in the universe, an ordering more consistent with man’s nature, an ordering which goes beyond, and is better than anything we have ever done until now.

Strain the envelope in every way possible, always in the search for knowledgeable practice which is truer than we have ever practiced until now.

Our system of knowledge, my choice of epistemology, Plato’s Socratic dialectic, replaces the more popular, misplaced confidence in mathematical and similar forms of mere consistency, with reliance on the method which coheres with generating crucial-experimentally validatable forms of discoveries of universal principles. The types of principles we discover are two: physical principles, and those principles of relations among sovereign individuals’ cognitive processes, by means of which man is able to change the characteristics, for us, of that universe in which we live and act.

This brings us to the issue of what is properly, strictly defined as the occultist principles of the empiricists and philosophical liberals. My principal, central contribution to modern scientific knowledge, has been to recognize the indispensable role of that method of the Socratic dialectic in defining the basis for a non-occult science of physical economy, a replacement for the usually taught dogmas.

As I have just emphasized once more, this discovery involved the relationship between two other discoveries which are of elementary significance for a science of physical econ-

As the reader might have already anticipated, this same point, respecting a society’s generally accepted, authoritative opinions, is the essence of the lack of moral fitness of Western civilization, currently, to survive. This moral unfitness, is the root of the immediate, implicitly terminal, existential crisis of Western civilization now.



The Schiller Institute Trio performs a work by Beethoven on Nov. 15, 1998, in Reston, Virginia, on the occasion of Friedrich Schiller's 239th birthday. "Any great Classical composition in fine arts, often begins its existence in the composer's sudden, virtually timeless moment, a momentary flash of cognitive insight, an insight which anticipates the later, fulsome elaboration of the finished performance."

omy. First, how discoveries of crucially validated new physical principles are translated into those technologies by means of which man's physical power over the universe is increased, per capita and per square kilometer of the Earth's surface. Second, how those similarly discovered principles of Classical art-forms are indispensable for both the fostering of new physical principles, and for the social coordination upon which the process of discoveries and their applications is given general expression for society as a whole.

Consider the pedagogical form of the discovery and validation of a physical principle. Since I have elaborated this in a significant number of published locations, a summary here will suffice.

A probably crucial error of inconsistency is either provoked or merely encountered by a discoverer. No deductive solution for the paradox so posed can be generated. By no other means, than a leap of the mind, a cognitive flash of insight, the discoverer must identify the new physical principle which would overcome that paradox. The discoverer must also define, and conduct a crucial experimental test to refute or confirm the choice of new principle.

The same connection between paradox and validated discovery of new principle, appears in the domain of Classical art-forms, and in those studies of social processes which are derived from mastery of those principles of the individual mind, otherwise adduced in connection with Classical art-forms. Any great Classical composition in fine arts, often begins its existence in the composer's sudden, virtually timeless moment, a momentary flash of cognitive insight, an insight which anticipates the later, fulsome elaboration of the finished performance. Classical motivic thorough-composi-

tion in music requires, that the completely elaborated composition contain nothing which does not cohere with that flash of insight, that spark, which the perfected composition realizes.¹⁴

In the appropriate forms of education, the student learns little of much importance. Rather, for each principle considered in the curriculum, the student re-creates the experience of the paradox, must personally generate the suitable principle which solves the paradox, and tests the validity and appropriateness of that principle as a solution for that paradox. So, in a decent form of education, the student learns little; he, or she has little time to waste on such relative trivialities. Rather, the student relives the act of discovery of principle, for each relevant case. The student relives the act of original discovery of valid principle, thus becoming a living repository of the legacy of much of mankind's ideas to date. In such an education, the student matures as a true world-historical personality, living, essentially, in the simultaneity of eternity. Instead of the idiot-savant's screaming "I learned," the properly educated student smiles, "I know."

The functional connection among such forms of education, scientific discovery, and economy, is located in an exemplary way in the fact, that the perfected form of crucial experimental design which validates a discovered principle, features a model of a kind of machine-tool-design principle which can then be applied to relevant categories of practice. This connection among education, science, machine-tool-design,

14. Lyndon H. LaRouche, Jr., "The Substance of Morality in Science and Statecraft," *Executive Intelligence Review*, June 26, 1998.

— — —, et al., "The Case of Classical Motivic Thorough-Composition," *Executive Intelligence Review*, Sept. 4, 1998.

and production, is the kernel of the manner in which the successful increase of the productive powers of labor is effected in a capital-intense, power-intense mode.

Those principles, both physical principles and principles of Classical art-forms, constitute an epistemological system, a system expressed in economically relevant practice, as a multiply-connected manifold of the Gauss-Riemann form. The expression of this system, in an appropriate capital-intense, power-intense mode, is the means by which we are able to know the source of the anti-entropic changes upon which the continued success of the economy depends.

The effect of this ordering of anti-entropic gains in the productive powers of labor, is to underscore a crucial, essential, elementary difference, between the individual person and all lower species, including the so-called higher apes. Animals can learn, but they can not willfully generate the kind of increase in their species' potential relative population-density, which man achieves in the physical-economic development of any non-pathological form of society. It is the increase of the productive powers of labor (i.e., potential relative population-density) through the application of valid expansion of the multiply-connected manifold of human knowledge, which is the source of the human species' willful increase of its species' power in, and over the universe.

We have, thus, two, multiply-connected systems. The first, is the epistemological system, as the indicated, recommended policies of education define a lattice of principles and theorems, for the student's mind.¹⁵ The second, is the social action which applies the first, epistemological system, to the increase of man's per-capita power over the universe. Thus, we have the reciprocally developing relationship between the physical process and the epistemological system, which defines the physical economy as a coherent system. It is from that standpoint, that the "flywheel problem" can be comprehended for the purpose of defining solutions.

This, most characteristic feature of physical-economic processes, is the core of my original discoveries within one of the several branches of physical science first established by Leibniz, the science of physical economy. To summarize the principles which my discoveries have contributed to Leibniz's science of physical economy, list the following.

1. The anti-entropic characteristic of physical-economic progress. A characteristic typified by the connection of validated discovery of physical principle, first to the principles of machine-tool-design implicit in successful crucial experiments, and, second to the application of such machine-tool and related practice to de-

15. Lyndon H. LaRouche, Jr., "Russia Is Eurasia's Keystone Economy," *Executive Intelligence Review*, March 27, 1998, pp. 47-50.

— — —, "The Substance of Morality," *Executive Intelligence Review*, June 26, 1998.

— — —, "An 'American Century' Seen as a Modular Mathematical Orbit," *Executive Intelligence Review*, July 24, 1998.

signs of products and improvements of productive processes.

2. The proper definition of anti-entropy. First, that this corresponds to changes, in which the density of relevant energy of the system is increased, but that the consequent ratio of free energy to energy of the system is either constant, or increased. Second, that this principle of anti-entropy corresponds, in mathematical forms, to the efficient principle expressed by transition from a multiply-connected Gauss-Riemann manifold of order "n," to a superior manifold of the order "n+1."

3. The cognitive principle which distinguishes the human individual from all animal species, is, first, the anti-entropic character of discovery of both validated physical principles, added to enlarge a pre-existing multiply-connected manifold of the Gauss-Riemann form, as, second, combined with validated discoveries, produced by the same principle of cognitive action, in the domain of Classical forms of artistic composition and study of history. This distinction between the developable, sovereign cognitive processes of the human individual, and the characteristics of all lower forms of life, is the only permissible definition of "human nature." All topics of morality and political-economy can be resolved only within the terms of such a definition of individual "human nature."

Although the presently imminent disintegration of Western civilization, can be demonstrated to be a simple matter of fact by other means, my original discoveries are indispensable for understanding the inner dynamics, and cure, of the process which the presently ongoing collapse represents. From this vantage-point, it is feasible to show, as is not possible otherwise, not only how and why the present form of civilization is doomed, but what well-defined kinds of action offer immediate remedies against the collapse as such.

3. Belief in the occult can be fatal

Honest ignorance put aside, the immediate root-cause for all of the economic problems of each and all nations, and of today's mankind in general, is literally an occult dogma introduced to modern Europe at the close of the Sixteenth Century. The author of that doctrine was the mephistophelean Paolo Sarpi, in his time the most powerful figure of Venice. This was the same Sarpi who trained his personal lackey, Galileo Galilei, in certain new principles of mathematics. These were the principles which Galileo taught, in turn, to his own student, Thomas Hobbes. These are the principles passed down to the present day under the interchangeable technical terms of *empiricism*, *positivism*, and *philosophical liberalism*.

The most influential figures on economics policy among the English and French, Seventeenth and Eighteenth Centuries' followers of Sarpi, were John Locke in his hedonistic

principle of property, Bernard Mandeville in defense of unchecked licentiousness, David Hume, François Quesnay's pro-feudalist, anti-nation-state cult of *laissez-faire*, Adam Smith's explicitly anti-U.S.A. dogma of "free trade," and satanic Jeremy Bentham's cult-worship of universal degeneracy.¹⁶

Every leading economic problem of humanity in today's world, must be traced to those occult principles of empiricist/liberal economics, taught by Sarpi, which underlie all of today's official versions of "free trade" and "globalization" dogma. The indispensable precondition for halting the presently ongoing global collapse of civilization, is the early, abrupt, and uncompromising eradication of that body of empiricist economics dogma from official practice among nations. Your nation's, and your family's survival depend upon that happening, very soon; otherwise, put yourself down as the kind of person who, at best, only pretends to care whether or not his family and nation survive.

We shall now focus on defining the usage of those terms and their connections. We begin by defining the usages of the term "occult" itself.

The term "occult," is frequently associated with so-called "mystery religions." Typical is the cult known variously by the names Shakti-Siva, Ishtar, Astarte, Isis-Osiris, Cybele-Dionysus, Gaea-Python, Apollo, Moloch, etc., of which the nastiest varieties are associated with ancient Tyre. The Albi and Rhône-based, neo-Manichean cult of "the elect," variously known, in France, as the Bogomils or Cathars, and, in England, as "the buggers," is also representative. These religions, in their sundry guises, say, in effect, the universe is actually run by invisible, infinitesimally little green men, who are implied to be very clever at hiding inside walls, or dwelling in fictional places ontologically akin to "Middle Earth."

From among the grand masters of such cults, you may hear such things as: "Although you can not see them [the little green men], our grand masters have been given very secret, insider's knowledge of such matters, and, sometimes, we are

16. The so-called "moral philosophy" of David Hume, Adam Smith, and Jeremy Bentham adopts as its principal axiom the same "hedonistic principle" presented as the doctrine of licentiousness of Mandeville. The peculiarities of Smith's *Wealth of Nations* are two. First, that that work was produced as a British East India Company project, intended to design practices for destroying the economies of both English-speaking North America and France; second, that Smith's work relies chiefly on copying (some French said plagiarizing) the French Physiocrats, both the teaching of Quesnay and large chunks of the text of Turgot. The only important difference between Smith's and Quesnay's argument, is that Quesnay premises his *laissez-faire* dogma upon the French *Fronde*'s defense of the institution of feudal serfdom against the nation-state, whereas Smith premises his adoption of Quesnay's *laissez-faire*, and also his doctrine of the Invisible Hand, solely upon Hume's, Smith's, and Bentham's radical version of the "hedonistic principle." This same hedonistic principle is the central axiom in the teachings associated with von Neumann; it serves as the chief, controlling occult principle of all of the defective policy-shaping practice underlying today's doomed world financial system. Smith's occult principle, as I shall emphasize here, is the central moral flaw responsible for the threatened immediate doom of the nations of western Europe, the U.S.A., et al.

taught, they have even talked with these mysterious creatures. If you will accept certain rules, which our grand masters have been given special authority to transmit to those who pass certain exotic tests, the secrets of how to decode the symbolic messages, through which you may discover how the universe is actually run, can be imparted to you." The kinds of secret messages allegedly found in the Bible by hucksters who are devotees of the self-described "British Israelite" varieties of "fundamentalist" cults, express the carnival side-show version of such occultism.

Behind the usual such mumbo-jumbo, there is a simple principle. Those who have studied the writings conventionally attributed to Aristotle, especially those who understand the swindle which Aristotle's methods have superimposed upon so-called Euclidean geometry, can readily appreciate the most essential features of this entire business of the occult. Not only is conventional classroom mathematics often saturated with this form of the occult; it is from that clinical standpoint, that the mechanisms of occultism generally can be most readily demonstrated, and thus extirpated from practice.

Although the systematic features of the influence of belief in the occult, are rather readily demonstrated, it has been oftentimes very dangerous to do so publicly. Clever real-life mephistopheleans have succeeded so much, like the ancient Babylonian pagan priests, who inserted Akkadian myths into the sacred writings of their Hebrew captives, in slipping elements of the pagan occult, syncretically, into sundry political factions of modern forms of nominal Christianity and Judaism,¹⁷ that the tradition of the Inquisition was concocted and maintained for centuries, by relevant political authorities acting to enforce these cultish delusions, authorities acting thus in the tradition of the Roman emperors' persecutions of the Christians. This form of ideological terrorism modelled upon the doctrine of law associated with the character Thrasymachus,¹⁸ as typified by the Venetian institution of the Inquisition, maintained that traditional popular fear of the kinds of lynch-terror unleashed in the name of popular opinion, which has often driven truth from the streets.

For example. Behind the Sixteenth and Seventeenth Centuries' Inquisitions, and the English Inquisition against Jeanne d'Arc earlier, is the central political and religious issue of all times: the issue, whether it were permissible, to hold as much as ninety-five percent of the population in the condition of slaves or worse, as virtually mere Yahoos. To maintain a state of affairs in which ninety-five percent or more of the

17. The mass-murderous fascism, shared between the Zionist and "Christian Fundamentalist" followers and accomplices of butchers Ariel Sharon and Benjamin Netanyahu, is exemplary. The occult "God gave us this property title" version of Zionism, owes much to the satanic cults of ancient Babylon, but is clearly antithetical entirely to the Mosaic heritage of *Genesis* 1's definition of man's nature, as of man and woman equally made in the image of the Creator, to rule the universe under God. The Mosaic tradition is that of the Apostles Peter, John, and Paul, the tradition of the great Moses Mendelssohn, not the Nazi-like "Temple Mount" fanatics.

18. Plato, *The Republic*, Book II.



Statue of Jeanne d'Arc in Paris. "The case of Jeanne d'Arc coheres with the whole sweep of the struggle by modern civilization's republican intelligentsia, against the landed-aristocratic and financier-aristocratic forces of the feudal and earlier oligarchical traditions."

population was held in the brutish intellectual condition of human cattle, ignorance was favored, and cultish barbarisms supplied to fill the holes left by the hoofprints of ignorance. It was not simply "the English" who martyred Jeanne d'Arc; it was also France's King Charles. The issue was the same which motivated the Seventeenth-Century *Fronde*, and, later, the Physiocratic dogma of François Quesnay: the feudal oligarchy's struggle to maintain the system of serfdom.

The case of Jeanne d'Arc coheres with the whole sweep of the struggle by modern civilization's republican intelligentsia, against the landed-aristocratic and financier-aristocratic forces of the feudal and earlier oligarchical traditions. As has been pointed out by some among my collaborators, the modern military science associated with the revolutionary changes introduced by Lazare Carnot and Gerhard Scharnhorst, took its roots within the two military arms, the artillery and engineering, which were most distant from the dismal quality of intellectual life typical among the landed aristocrats whose appointments were in the officer corps associated traditionally with the cavalry and infantry. Thus, the superiority

of the modern nation-state, to oligarchical society, has always coincided with moral and intellectual superiority of the intelligentsia and literate citizen to the relatively brutish aristocrat and his serfs and lackeys. Thus, stupefying society, and returning, away from the sovereign nation-state, to feudalist schemes for "globalization," have been the chief cause for oppression of once-freed populations, and the ruin, as since the rise of the "68ers," of the once prosperous, productive classes of societies.

This republican principle is most directly illustrated in the domain of military science. Like the engineering tradition of Commandant Sylvanus Thayer's West Point Military Academy, the superiority of the German Nineteenth-Century and early Twentieth-Century officer and non-commissioned officer to those of other nations, was located in the principle of *Auftragstaktik*. The officer and non-commissioned officers so trained according to republican principles, were assigned the opportunity, and responsibility to think, rather than the "Third Wave"'s brainwashed, Yahoo-like illiterates deployed by the U.S. military into that adolescent Arcade-style warfare known as "Desert Storm," trained by the "become the worst you can be" school of the U.S. military, to become the Yahoos who simply, blindly "followed orders."

The continuing root of the susceptibility to the influence of the occult, is that political, oligarchical interest, which relies upon "dumbing down" the population, the better to rule, and loot it: the better to rid the oligarchy of its most capable, most dangerous opponent, that form of sovereign nation-state established under Franklin's, Washington's, John Quincy Adams', and Abraham Lincoln's design of a constitutional republic. Look for the crucial symptoms of willful dumbing-down of the post-1965 U.S.A.:

1. The step-by-step destruction of the remnants of a former Classical humanist form of education, as typified by the influences of American pragmatists, such as John Dewey, the joint influence of the London Tavistock Clinic's Freudians, of the radical positivists generally, and of the "Frankfurt School" of Theodor Adorno, Hannah Arendt, et al. This process, combined with the role of popular mass entertainment, has dumbed-down the U.S. population, in particular, step by step, generation by generation, throughout the course of the Twentieth Century. Also exemplary, is the virtual menticide perpetrated against the "post 1968" generation, by the so-called "Brandt reforms" in education, whose effect has been to make most among the recent generations of German graduates almost a different, inferior species, relative to the standard of literacy and sanity set by earlier generations.

2. The shift in the composition of employment, away from the more skill-intensive, more productive occupations rooted in Classical scientific and artistic culture,

toward jobs designed as make-work for cheap-labor Yahoos. [“He don’t need no fancy education.” He is going to work the farm by traditional methods more friendly to the environment.] So, the productive powers of labor, per capita, drop at an accelerating rate, especially since 1964-1972.

3. This is paralleled by a shift in fiscal, monetary, and financial policies, away from capital-intensive, power-intensive investments in infrastructure and workplaces, to much dumber, less productive modes of employment and production. The combined effect of “deregulation” and “globalization,” has been to make the U.S. population dumber, ever less productive, and more brutalized economically, bringing U.S. labor down toward the level of cheap, unskilled labor in the poorest parts of the world.

There is much more along the same lines; but, this is sufficient to illustrate the general point. The processes, unleashed during 1964-1972, of dumbing-down the populations of the U.S.A., western Europe, etc., have been a key factor in bringing the world to the present brink of an imminent, implosive collapse and disintegration of the nations of this group of nations. The use of the occult factor, in promoting these changes in policies of practice, is to be situated accordingly.

It is of several-fold importance, to emphasize, in these ways, that the actual, as opposed to purely mythical significance of occultism, is that the fight against the occult defines the line of battle drawn between republican and oligarchical forms of societies, since such celebrated figures as Solon of Athens, and since the relevant issues of law were rigorously defined in Plato’s *The Republic*, in contrasting the republican view of law, that of Plato’s Socrates, to the opposing, oligarchical notions of law, as associated with the characters Thrasymachus and Glaucon. The resistance by the profoundly corrupt forces within the U.S. Department of Justice’s permanent bureaucracy, to the McDade-Murtha reform, confronts us with the fact that the irrationalist, literally Romantic misconception of law now ruling that Justice Department bureaucracy,¹⁹ is the notion of law associated with the *Republic*’s character Thrasymachus, the enemy of the principle of reason.

19. By “Romantic,” we mean the Romantic, neo-Kantian, occult school of law of G.W.F. Hegel’s Berlin crony, K. Savigny. “Romantic,” so used, means the same thing in law as the proposition of the character Thrasymachus in Plato’s *Republic*. It also means the same principle of irrationalism as we associate with Richard Wagner’s proto-Nazi Romantic school in music, or the code of law, defined by Carl Schmitt, used to establish the Nazis in power. Actually, as leading international law authority, Professor Friedrich Freiherr von der Heydte emphasized in a communication to me during early 1989, the form of fascist irrationalism implicit in the philosophical liberalism of John Locke, is more savagely extreme than even the law which the Nazi regime adopted from both the legacy of Savigny and the work of Carl Schmitt.

Republican forms of society demand notions of law which are premised on the principle of reason, as Plato’s dialogues define reason in political affairs, as also in science and art. The occult, as typified in the extreme by mystery religions and Sarpi’s philosophical liberalism, is the hallmark of oligarchical practice in statecraft, religion, science and artistic composition. Empiricism (philosophical liberalism) is the “mask of anarchy,” calling itself “reason.”

Those historically situated definitions, and examples supplied, now focus attention more sharply upon the forms occultism assumes in the departments of politics, economics, mathematics, and physical science.

In modern times, although the general nature of this problem of occultist corruption of taught science, has been more or less well known by the leading minds of modern European civilization, it was not until Riemann’s 1854 habilitation dissertation, that the occult corruption of the teaching of geometry was explicitly, and quite rudely unmasked in public.²⁰

This same problem of the influence of the explicitly occult principle, of linearity in the infinitesimally small, is at the center of the systemic, epistemological causes for the collapse of Western civilization today. The influence of Sarpi’s Ockhamite doctrine of empiricism (a.k.a. philosophical liberalism), as expressed in the cult of “free trade,” typifies the nature and effect of this occultist, anti-science corruption which, in such guises as the irrationalist, anti-truthfulness cults of “ecologism,” “globalization,” and “New Age” campus speech-codes,²¹ has stripped Western civilization’s govern-

20. op. cit. See the exchanges of correspondence among Carl Gauss, Farkas Bolyai, and Janos Bolyai, on Gauss’ decades-long suppression of any published report of his original discovery of a “non-Euclidean geometry.” Although the approximate date of Gauss’ first discovery of this principle can be adduced as implicit in published work from as early as the 1790s, and is also implicit in his discovery of the asteroid orbits, during the first decade of the Nineteenth Century, Gauss declined to bring the matter of an actually “non-Euclidean geometry” explicitly into the public domain, until his examination of the work of a fellow member of the St. Petersburg Academy, N. Lobatchevsky. Although Lobatchevsky’s work is useful, and important, it does not lay down the principles of an actual non-Euclidean geometry as the Gauss-Riemann principles of multiply-connected manifolds do. The otherwise brilliant Hermann Minkowski’s included error, in applying Lobatchevsky’s work to the formulation of a notion of physical space-time, typifies the blunders arising from any effort to oversimplify the meaning of the term “non-Euclidean geometry” to signify something other than a Gauss-Riemann type of multiply-connected, expandable manifold. The basis for Gauss’ fears was purely political, and well-founded. Not only had Leibniz-haters Euler, Lagrange, Laplace, and Cauchy decreed the existence of a non-Euclidean geometry impossible, in the latter’s insistence that physical action in the universe is linear in the infinitesimally small; Gauss lived as a subject of the British monarchy’s Hannover, where political persecution of Newton’s critics was notorious practice. It was not until Alexander von Humboldt was able to provide protégés such as Gauss, Wilhelm Weber, Dirichlet, and Riemann better scientific protection, in Gauss’s later years, that a larger degree of political freedom for scientists was allowed at Göttingen University.

21. In the Palo Alto region of California, and elsewhere, this lunacy has been carried to an extreme, with the assertion of student’s rights to be freed from obligations to study the ideas of DWEMs (Dead, White, European Males), a



Statue of Commandant Sylvanius Thayer at West Point. Thayer embodied the republican principle in military science, which today has been replaced by the “become the worst you can be” school of the U.S. military.

ments today of most of even that moral fitness to survive which older generations had formerly still possessed.

Look at Paolo Sarpi’s English empiricism as the prototype of the modern pathology of occultism. Look at this subject-matter from two points of contrast: ancient solar astronomy, and the legacy of Plato’s Academy up to about the time of the deaths of Archimedes and Eratosthenes. Look at the issue of the axiomatic reign of the occult in today’s now customary mathematics instruction, and in those issues of economic and financial policies associated with the influence of *laissez-faire* / “free trade.” Situate Sarpi’s role to this effect historically.

The earlier high-point of scientific and related cultural progress in the Mediterranean region, was reached during a period of approximately two hundred years, from the death of Socrates, through the time of the deaths of Archimedes of Syracuse and his correspondent, the Cyrenaican Eratosthenes

policy which is fairly described as a return of civilization to the stone age. Nothing could be more ironically indicative of a strain of culture which has lost all connection to the moral fitness to survive.

formerly of Athens, and later of Alexandria. During this period, the pinnacle of scientific culture was located in the continuation of Plato’s Academy, of which Eratosthenes, in his time, was the world’s leading figure. Although important work, but of diminishing relative significance as to principles, was done by Hellenistic culture even after Eratosthenes’ death, during all of the subsequent centuries, the general quality of scientific work and artistic culture, in the Mediterranean region, was eroding, even often collapsed, until the belated revival of ancient Classical Greek science, in Italy of the middle of the Fifteenth Century.

Exemplary of this decline, is the fact, that existing records show, that the recorded discovery of South America, was effected by an Egyptian expedition, which claimed South America for Ptolemy III of Egypt, in a document astrophysically dated, by the navigator of the expedition, to August 5, 231 B.C., at a site near modern Santiago, Chile. The point is, that 1723 years later, Christopher Columbus discovered the Caribbean by aid of maps derived from the same scientific work, done by Eratosthenes of Plato’s Academy, which had guided the Egyptian trans-Pacific voyage to the coast of South America. The methods used by Columbus were scientifically inferior to those used by the Egyptians, 1723 years earlier.²² Such and other evidence taken into account, as Dante Alighieri would have agreed (privately), the Latin culture of Ancient Rome were better known for its gore, than its glory. Byzantium, and western European feudalism up to the Fifteenth Century, must be situated as continuously backward, relative to the high points of Hellenistic Platonic culture circa 200 B.C.

The Augustinian tradition transmitted via Irish monks to Saxon England and Charlemagne, prompted a hotly resisted renaissance in western Europe, through the Twelfth Century, a pattern of gradual, if uneven progress, which continued until the death of Frederick II’s heir Conradin in Sicily.

Even the noble effort of the patriotic “Sicilian Vespers,” failed to reverse the degeneration of Europe under the hegemony of the Venice-steered Welf League. The mid-Thirteenth Century triumphs in “globalization” under that ultral oligarchical Welf (“Black Guelph”) League, plunged Europe into the outcome known as the New Dark Age of the mid-Fourteenth Century, a decline which began with the formation of the Welf League against Frederick II. What followed marks a period of approximately a century, a disastrous period whose characteristic quality is typified by the fact, that during this century, the number of parishes in Europe collapsed by half.

22. Lyndon H. LaRouche, Jr., “Go with the Flow: Why Scholars Lied about Ulysses’ Transatlantic Crossing”; Marjorie Mazel Hecht, “A Voyage around the World in the Third Century B.C.”; Timothy Rush, “The Navigators of the Golden Renaissance”; Bruce Director, “Eratosthenes’ Sieve”; Muriel Mirak-Weissbach, “Wilhelm von Humboldt and the Study of the Kawi Language”; Laurence Hecht, “Ice Ages and Glaciation”; Ken Kronberg, “Sea Level Changes Since the Last Glacial Maximum,” all in *Executive Intelligence Review*, Nov. 20, 1998.



U.S. troops in Saudi Arabia prepare for war against Iraq during Operation Desert Shield, 1990. Under a republican military policy, officers “were assigned the opportunity, and responsibility to think, rather than the ‘Third Wave’ ’s brainwashed, Yahoo-like illiterates deployed by the U.S. military into that adolescent Arcade-style warfare known as ‘Desert Storm.’ ”

It was the Platonic revival, launched during the Fifteenth Century, by the followers of Dante and Petrarch, and, therefore, the heirs of Charlemagne and Frederick II, which enabled western Europe to reach levels of scientific competence and other civilized life comparable to the time of Eratosthenes. The great educational movement, typified by the Brothers of the Common Life, unleashed a spreading process of recruitment and education of adolescent boys in Classical humanist methods, a process which created the new plebeian intelligentsia associated with the Fifteenth Century, Platonic Golden Renaissance. The revival of what was, in effect, Plato’s Academy, was the well-spring of that Golden Renaissance, including the establishment of modern science, and the founding of the first modern nation-state, under France’s Louis XI.

This Fifteenth-Century change, centered in the 1439-1441 sessions of the great ecumenical Council of Florence, was thus the high point of a Christian Platonic renaissance, to which all of the later accomplishments of Western civilization are genetically indebted. Unfortunately, the Venice-led forces which the Golden Renaissance had defeated, at the Council of Florence, were soon able to regain much of their former power, especially following Venice’s success in the 1510-1511 setbacks and defeat of the League of Cambrai.

Venice’s partial success in defeating the League of Cambrai, unleashed a sickening orgy of Paduan forms of Byzan-

tine neo-Aristoteleanism upon the bloody Sixteenth and early-Seventeenth Centuries. From that time to the present, the ancient life-death struggle between the republican forces of Plato’s Academy and the oligarchical faction of Aristotle’s masters, became the intellectual issue—the epistemological issue—which has shaped all of the history of modern European civilization. For specific historic reasons, the radical version of neo-Aristoteleanism, the Ockhamite form adopted and promulgated by Venice’s Paolo Sarpi, has emerged as the dominant oligarchical influence within all of European civilization, since the close of the Sixteenth Century, to the present date.

Thus, it is the form of occultism general for Byzantine and Paduan Aristoteleanism, and, most emphatically, that derivative of Aristoteleanism specific to Sarpi’s philosophical liberalism (empiricism), which has been the most corrosive form of occultism, since then, until the present date. It is the virtually unchallenged hegemony of Sarpi’s empiricist policy, as this emerged during the recent thirty-odd years, which is the direct source of the present, immediate threat of collapse and disintegration of western European civilization today.

The distilled essence of all branches of Sarpi’s influence, is the cult-doctrine which asserts, that physical action in the universe, is characteristically linear in the infinitesimally small. All significant forms of occultism popular within Western civilization are reflections of that fraud, the fraud of linear-

ity in the infinitesimally small. The dogmas of “free trade” and “globalization,” are typical of the mentally deranged behavior consequent upon empiricists’ cult-belief in linearity within the infinitesimally small.

This occult belief of Sarpi’s choice, can be fatal to the entire civilization which has the misfortune of adopting it. That is the effect we are witnessing in those shudders of doom now foretelling the imminent doom of western Europe and the U.S.A. Now, focus attention upon the expression of this occult belief in mathematical-physical terms.

4. The mathematics of madness

So far, the foundations are laid for what is yet to be said in proof of our argument in chief. Thus far, we have referred often to the topics, science, economy, and culture. Now, we must deliver on these promises. So, after we have completed this present section of the report, which we have begun here, we shall show how the influence of empiricism on scientific practice, has contributed in a crucial way to shaping those economic and cultural policies which have caused the present financial crisis; but, we must first settle those issues of science which are directly relevant to that flywheel problem with which we began. That said, we now enter the domain of science proper, focussing first on what might be termed the “inorganic” setting of the problem to be considered. With this step, we enter a domain of profound human tragedy, which is called “modern science.”

Science?! What a world of pathos we have just entered! On one side, almost nothing could claim greater honors than science, for the accomplishments of modern civilization, or be more urgent for the survival of humanity itself. Few callings could be more noble. Yet, the same science which, in one part, partakes of an almost sacred mission, is a domain not only of great achievement, but also great frauds, of small minds bending under the burden of gigantic vanities. It is a pit of monstrous chicaneries and pompous hypocrisies; it is also a living theater, where needed recuperative sleep is often prevented by much braying among the loud-mouthed jackasses of the mass media, from the courtyard.

Let the unwary be informed. In this so-called market of ideas, there are some precious things, but there are also many footpads. Murders have been done here. This place, with its virtual Count Ugolinos, and in similar respects, should frequently remind the alert visitor of Dante’s tour through the Inferno. It is a place where one must be on one’s toes, a place, like Venice, notorious for stiletto-studded, elaborate masquerades. Here, no simple country-boy should romp unprotected. Take nothing you hear said by the locals at face value; beware, especially, of technicolor displays of impassioned sincerity, or of feigned righteous indignation.

One must be particularly wary, out of respect for the fact, that if we turn the conversation to the matter of the widespread faith in the linearity of the infinitesimal, the reaction in these quarters might be: suddenly, seemingly sedate, rational, and genial Dr. Jekylls, might turn into savage Mr. Hydes. There

are some really slick Burkes and Hares lurking around here, waiting to bag the brains of the unwary.

As the reader will see, much more clearly, at the close of this report, *the essential, politically motivated, fraud in the application of a doctrine of linearity in the infinitesimally small—to science, more immediately, and, most emphatically, to economy, is that, in an economic policy shaped by empiricist methods, the human individual does not exist as human. More immediately, the vital role which the human individual plays within economic processes, is denied even to exist.* Thus, when science is corrupted by evils such as the philosophical liberalism of the empiricist, the political result of such pseudo-science, is to deny the existence of that relationship between man and nature, upon which the continuation of civilized human life depends absolutely.

This denial, if incorporated in economic policy-shaping, as the Heritage Foundation devotees of the Mont Pelerin Society cult do, as former Speaker Newt Gingrich’s “Contract with America” cult did, and as Ariel Sharon typifies evil within the policy-making of today’s Israel, has the same quality of result as making an Adolf Hitler the dictatorial Chancellor of Germany: the return of modern society to that denial of the simple universality of true human nature and rights typical of feudalism, leads directly toward the gross violation, and ultimate eradication of civilized expressions of modern human existence, to results even far worse than feudalism, toward results such as the earlier collapse of the always evil Roman Empire of the Caesars in the west.

To situate these practical, political implications of policies premised upon the presumption of *a priori* linearity, look at the implications of that cult-belief from the standpoint of the history of reasonably accurate solar astronomical calendars, as the work of Gauss illuminates the principle expressed by such calendars.

The earliest known, reasonably valid forms of calendars, are consistent with a solar astronomy in which the Earth orbits the Sun. A highly sophisticated solar calendar, based upon a remarkably accurate cycle of the vernal equinox, existed in a Central Asian, Vedic culture thousands of years before the barbaric Semites of Mesopotamia were first partially civilized, by Sumer, a much earlier Dravidian maritime culture. Related ancient solar-astronomical calendars, attracted Johannes Kepler’s interest. Recent decades’ investigations of the records left by the Egyptian discovery of the Pacific coast of South America, circa 231 B.C., give us a more precise insight into the state of ancient astrophysics and navigational methods, as these already existed, many centuries before the anti-heliocentric hoax fabricated by Claudius Ptolemy.²³

For as far back in time as we know, sundry artifacts show that very ancient maritime cultures, dating from long before 10,000 years ago, had developed navigational methods based

23. Robert R. Newton, *The Crime of Claudius Ptolemy* (Baltimore: Johns Hopkins University Press, 1977).



Statue of Johannes Kepler in Weil der Stadt, Germany. "The work which Kepler bequeathed to his successors, provided the foundations for all leading actual achievements in modern mathematical physics since."

upon kinds of observations similar to those which Johannes Kepler employed in creating the first comprehensive form of experimentally based modern mathematical physics. The trend in development of methods of long-ranging oceanic navigation used over this period, is of the following general type.

Imagine that we are navigating long oceanic distances on a planet which is orbiting our Sun. Measuring observations along the apparent stellar ecliptic, a very complicated set of mixed regularities and apparent irregularities confronts us. It is necessary, as a matter of first approximation, to take the Sun, together with some key stars, rather than merely our position on Earth, as our first benchmarks of reference; we must normalize each of our observations of anything, and everything, from our planet Earth, according to those benchmarks of reference.²⁴ That Solar System, set within the apparent ecliptic, was explored by Johannes Kepler, with the net result of producing a preliminary conception of the governing interrelationships among the trajectories observed within the system as a whole.

The work which Kepler bequeathed to his successors, provided the foundations for all leading actual achievements

24. Tennenbaum and Director, op. cit.

in modern mathematical physics since.²⁵ The most important of the achievements directly traceable to promptings by Kepler's work, are the contributions by Leibniz, and the later contributions in the same area as Kepler's work, by Carl Gauss and Riemann. In summary, as Tennenbaum and Director have outlined the nature of the most crucial proofs, the Solar System of Kepler, Leibniz, and Gauss, is a part of a universe in which the interrelations among the trajectories followed by the relevant bodies, are governed by a principle which Leibniz identified as "non-constant curvature." This principle of Leibniz, which was later supplied additional, crucial proof by Gauss, is the heart of Leibniz's calculus of "non-linearity"²⁶ in the infinitesimally small.

Among the nominally leading figures in the history of modern European science, the only significant opposition to the Kepler-Leibniz-Gauss-Riemann calculus, is that premised upon the Newton-Euler-Lagrange-Cauchy presumption, that physical action must be assumed to

be linear in the infinitesimally small. That controversy, is the key issue which renders the virtual inevitability of western Europe's early collapse implicitly a near certainty—unless some very radical policy-changes are made, very suddenly.

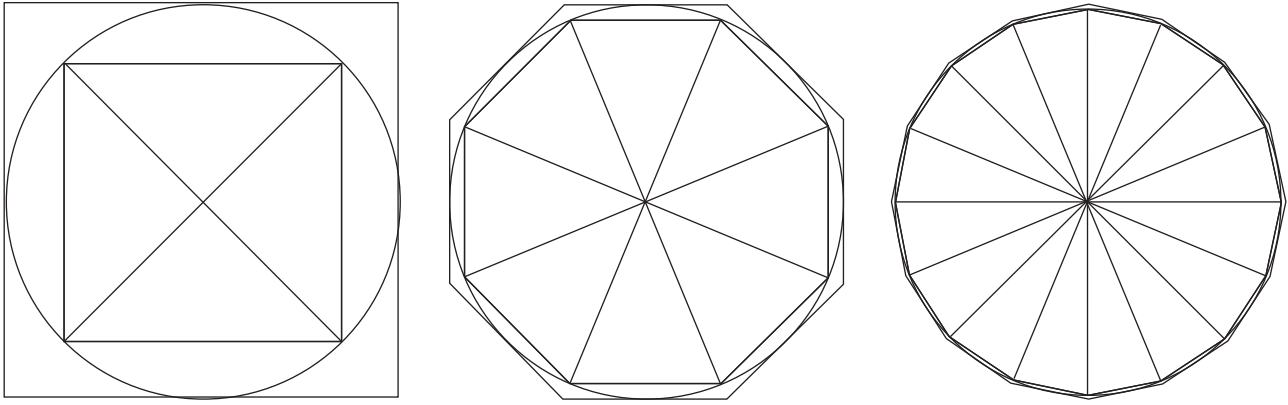
This brings us to the first prominent, scientific exhibit to be considered in that particular connection, the case of the bag-man Sir Isaac Newton. One should be forewarned, in approaching this queer fellow, that his chest of laboratory papers, once opened, proved to be chiefly a virtual Night on Bald Mountain, a lunatic collection of papers devoted to worship of black magic.²⁷ Be cautious, this addled rogue, Newton, is a true follower of Sarpi.

Whether Newton himself did it, or the exercise was

25. A fuller acknowledgment of the sources of Kepler's work would elaborate the significance of the fact, which Kepler himself emphasizes, that his work depended chiefly upon preceding contributions by (the founder of modern experimental science) Cardinal Nicholas of Cusa, and Cusa followers Luca Pacioli and Leonardo da Vinci. Kepler also gives much credit to a like-minded contemporary, the English scientist William Gilbert of *De Magnete* fame. It was Cusa who first discovered a species of higher cardinality than the Greek irrationals, what we term the transcendental today. This discovery by Cusa contributed a key part to the successes of those who followed him.

26. "Non-linearity"=Non-constant curvature.

27. John Maynard Keynes, "Newton the Man," in *Essays in Biography* (New York: The Norton Library, 1951).



Nicholas of Cusa demonstrated, that no matter how many times its sides are multiplied, the polygon can never attain equality with the circle. The polygon and circle are fundamentally different species of figures. Cusa's discovery showed that "the lack of congruence, in the infinitesimally small, between the spherical and plane mappings, corresponded to the existence of a geometrical-numerical series whose cardinality is of a higher (i.e., transcendental) order."

conducted by Hooke, for example, in Newton's name, Newton's most famous, alleged accomplishment, was actually a mean little fraud, in which he claimed for himself both the discovery of a principle of universal gravitation, which he did not discover,²⁸ and, later, he claimed the discovery of a calculus, a discovery which simply never happened; there never was a Newton calculus, before, simultaneously with, or after Gottfried Leibniz's 1676 Paris announcement of the discovery.

These two frauds by Newton are closely interconnected; focussing upon that evidence, and re-examining that evidence in the light of later work by Gauss and Riemann, for example, makes clear the way in which the Sarpi hoax of "linearity in the infinitesimally small," came to function as it does still today. Once those connections are understood, the foundations are provided for tackling the principal issue of this report: What feature within the mind-set of currently adopted official economic and related cultural policies, now virtually dooms western Europe and the U.S.A.?

The issue of the so-called Leibniz-Newton controversy has the following principal, relevant origins.

Formally, the most elementary among the systemic evidence against Sarpi's Galileo, Newton, et al., has its roots in the ancient recognition of the fact, that one can not map a spherical surface simply and consistently to a flat surface. The

28. Lyndon H. LaRouche, Jr., *The Science of Christian Economy* (Washington, D.C.: Schiller Institute, 1992), Appendix V. The discovery of a principle of universal gravitation was by Kepler, who compared it to the principle of magnetism developed by William Gilbert. The summing up of that discovery is found in Kepler's *The New Astronomy*. What was done later, in the effort to create the fiction of Newton's discovery of gravitation, was an elementary algebraic manipulation of what are often misnamed "Kepler's Three Laws." In fact, Newton knew far less about gravitation than Kepler did, and Newton's plagiarizing of Kepler carried with it some terrible, elementary ontological errors added, gratuitously, by black-magic devotee Newton.

historically known apprehension of the deeper implications of this fact, begins with the work of Plato and his Academy, on the interrelated subjects of the Golden Section and the uniqueness of the five (regular) Platonic solids.²⁹ The second feature of the same problem of mapping curved to plane surfaces, was first addressed by Cardinal Nicholas of Cusa, notably in his book which founded modern European science, *De docta ignorantia*.

Cusa used an elementary argument, addressing the mapping problem, as proof that the ratio of the circumference to the diameter of a circle does not correspond to an irrational number, as irrational numbers were defined by Plato's Academy, and as Archimedes adopted that notion of irrationals respecting the quadrature of the circle.³⁰ Using Nineteenth- and Twentieth-Century terms, Cusa's relevant discovery of the transcendental nature of *pi*, was to recognize, that the lack of congruence, in the infinitesimally small, between the spherical and plane mappings, corresponded to the existence of a geometrical-numerical series whose cardinality is of a higher (i.e., transcendental) order.³¹

This element of Cusa's writings on science, together with

29. E.g., Theaetetus, Eudoxos, et al.

30. Professor Haubst, the leader of the Cusanus Gesellschaft, confided to Helga Zepp LaRouche, that, within part of a collection of his sermons, Cusa had made special reference to his own correction of Archimedes quadrature theorems: commending Archimedes, but stating that his own (Cusa's) solution for the problem was qualitatively better. One would hope that those sermons were soon published, since they would afford an enriched insight to one of the greatest, most influential minds of modern history, Cusa.

31. Lyndon H. LaRouche, Jr., "On the Subject of Metaphor," *Fidelio*, Fall 1992. This treatment of geometrical series, according to the model developed by Eratosthenes ("sieve"), was developed by Georg Cantor, providing the alternative to the fraudulent definition of the "transcendental" associated with the work of Leonhard Euler and such apologists for Euler as Hermite, Lindemann, and Hegel-apologist Felix Klein.

Cusa's insistence on the heliocentric principle, had a crucial influence for both Luca Pacioli and Leonardo da Vinci, most notably for their emphasis upon the implications of the Platonic Solids and Golden Section. This locates the main line, leading through Cusa, Pacioli, and Leonardo, to the method which permeates Kepler's work in mathematical physics, his astrophysics, most notably.

Two leading features of Kepler's own work, pointed to Leibniz's subsequent development of the calculus: 1) The Mars case, showing the lawfulness of orbits of primitively non-constant curvature, as opposed to the simply circular/spherical ratio to plane surfaces; 2) the fact that the interaction among planetary orbits lies in the efficiency of the immediate relationship among orbits as such, rather than the orbits being defined by simply kinematic forces acting immediately, pairwise, among individual moving bodies in space. These two facts were crucial in defining not only what became the fabrication of the Newton-Leibniz controversy, by Leibniz-hater, and Newton sponsor Abbot Antonio Conti, but also in prompting the fraudulent representation of the work of Kepler by devotees of the Galileo-Newton hoax, a fraud against even simple literary scholarship, which has dominated most of recent centuries, even in shameless defiance of the most recent series of long-delayed published English translations of Kepler's principal works.

Once Kepler had proven that the Mars orbit was essentially elliptic, and showed good estimates from data for the case that the equal-areas rule applied to elliptic orbits, as it had been assumed for more nearly circular orbits, Kepler recognized, and identified publicly the need for the future development of a calculus of the type which was first actually developed by Leibniz. That defines the crucial issue underlying the Newton-Leibniz controversy, to the following effect.

Such a calculus must define the characteristic motion of a trajectory in its whole sweep, as Gauss did in adducing the Keplerian orbit for the asteroid Ceres: from measurement of the non-constant [e.g., axiomatically non-linear] curvature of that trajectory in a characteristic, infinitesimal interval of action.

This point is crucial. Understand it clearly in your own mind. Two successive illustrations of the point are indispensable at this juncture.

Think, first, of an infinitesimal area of a surface of uniform curvature (or, in the alternative, straightness). At the beginning, you are informed only that the bending, or non-bending, involved is constant. For purposes of reference, think of the attempt, which we referenced earlier here, to map an infinitesimally small area of a spherical surface onto a plane surface.³² Ask yourself: Does the person inhabiting, and familiar

32. Any person with a good secondary-school education, and a smell for machine-tool types of constructions, can demonstrate this apparent paradox to the point of developing a clear conception of the notion of principle we are pointing to here.

with, only that small area, such as an astronomer at work, have a way of knowing, as Gauss did, whether the surface is plane or spherical—or, elliptical, or hyperbolic, or of the characteristics of Leonardo da Vinci's and Leibniz's catenary/caustic?

Then, think of a second case, like that of the Mars orbit, in which a constant rate of change of the curvature of the orbit prevails. Is such a constant change of the orbit potentially measurable to a person inhabiting that small area? Think of this as the anteroom to the idea that physical space-time might be curved in some knowable way. That is what is intended, by the notion that any detected constant, or semi-constant rate of change of curvature observed within an infinitesimal interval of that trajectory, enables us to determine the orbit of the entire trajectory from a valid measurement of the rate of change of curvature in an infinitesimally small interval of that action: situate the observed action as normalized for the relevant Gauss-Riemann type of multiply-connected manifold. This type of infinitesimal interval of action, is the characteristic feature of the actual derivative of Leibniz's calculus.

As Tennenbaum and Director show, it was this Leibniz tactic, as used by Gauss, which enabled Gauss to discover, uniquely, as no other scientist could solve the problem until Gauss had shown them how, the orbits of the orbit of Ceres, and to show that these were the harmonically ordered orbits specified by Kepler for a missing, exploded planet, which Kepler had situated in the defined orbital position between Mars and Jupiter.

In the meantime, the fraudulent attack on Leibniz's calculus had been launched. The attackers, directed by Newton's controller, Abbot Conti, make the occultist argument, still today, that Euclidean abstract, *a priori* space as such (as defined in aprioristic, Aristotelian terms), is axiomatically structured, to such effect that physical action in the infinitesimally small must converge on the perfectly linear. Look! There is the dirty, lying finger of the occult, caught in the act!³³

Such was already the continuing argument against reason, made by Newton's faction, until the 1815 aftermath of the Congress of Vienna. Until that latter time, the leading hoax in the fraudulent attacks upon Leibniz's work, was the argument of Newton's local controller, Conti-controlled Dr. Samuel Clarke, as this fraudulent argument was restated in a hoax published by Leonhard Euler. After the Vienna Congress, the forcible imposition of Cauchy's fraudulent "limit theorem"

33. This, for example, was the argument used by J. Clark Maxwell, in defense of his fraudulent treatment of those preceding discoveries, by Ampère, Gauss, Wilhelm Weber, and Riemann, upon which crucial features of Maxwell's own treatment of electrodynamics depended. Maxwell replied to a criticism of him on this account, by stating that we (the British school) declined to consider work involving "any geometries other than our own." See L. Hecht, et al., on the matter of the crucial experimental proofs against Maxwell's fraudulent assertion, in the work of Wilhelm Weber: "The Significance of the 1845 Gauss-Weber Correspondence," *21st Century Science & Technology*, Fall 1996; pp. 21-43.

upon a castrated version of the Leibniz calculus, became the standard, aprioristic, preferred choice of reference for the same, fraudulent criticism of Leibniz, and defense of Newton's claims, which had been put forward by Antonio Conti network of salons during the Eighteenth Century. So, the controversy is posed by the reductionists, to the present day.³⁴

On the contrary side of the argument, it must be emphasized that the mathematical-physical basis for Leibniz's monadology, is taken from Leibniz's work in developing a calculus which fit the requirements specified for this by Kepler. The simplest expression of the monadology's relevance to Kepler's astrophysics, is the crucial proof of Kepler's specifications for a yet undetected but stipulated set of asteroid orbits. The corresponding significance of Gauss' crucial-experimental proof, is that it demonstrates that the trajectory of any regular motion, including motions of non-constant curvature, is defined by a measure of an infinitesimally small, non-linear interval of that trajectory.³⁵ The fact that the universe (e.g., the Solar System) is so composed, demonstrates the relatively simplest expression of that which Leibniz presents as part of his monadology.

The complementary implication of the combined work of Kepler, Leibniz, and Gauss, is to show that the orbital trajectories are not defined by pairwise attraction of individual bodies, but, rather, by the interactions among all orbits taken each in its entirety. In other words, we are thus confronted with a more general, higher expression of the same paradox of mathematical cardinality posed, primitively, by the effort to map a spherical surface consistently to a plane. This is notable as reflecting the kind of thinking which Kepler maintained, to the end, about the crucially significant implications of harmonic orderings subsumed by the set of Platonic solids.

Thus, as we have said above, the general outcome of the anti-Kepler, anti-Leibniz frauds, has been to split the ranks of official science between, primarily, two schools. The first of these two schools, the standpoint of epistemological rigor, is that traced through Plato's Academy, Cusa, Leonardo, Gilbert, Kepler, Leibniz, Gauss, Riemann, et al. The second, opposing school, sometimes called "the reductionist school," bases itself upon the implicit insistence, by Sarpi, Galileo, et al., on the primacy of linearity in the infinitesimally small. The reductionist view is traced from Aristotle-Sarpi-Galileo,

34. Lyndon H. LaRouche, Jr., *The Science of Christian Economy*, Appendix. Euler's insistence upon the axiomatic existence of nothing but linearity in the infinitesimally small interval of action, represents not merely a mistake, but an elementary, thoroughly willful fraud. His conclusion, the existence of perfect linearity in the small, is derived from his choice of a set of axioms which presume that theorem *a priori!* The same willful fraud is perpetrated by Cauchy's "limit theorem." The entirety of the structure of the Nineteenth and Twentieth Centuries assertion of a Second Law of Thermodynamics, and related hoaxes, rests absolutely upon taking the hoaxes of Sarpi's Galileo, Newton, Euler, and Cauchy on blind faith.

35. Tennenbaum and Director, op. cit.

through the Newtonians, Lagrange, the neo-Aristotelian irrationalist Immanuel Kant of the "Critiques," Laplace, Cauchy, Clausius, Kelvin, Rayleigh, Russell, et al., and the cult-priests of the "Second Law of Thermodynamics," and of such derived, subsequent frauds as "information theory" and von Neumann-style "systems analysis."

The financial and related political backing for the high priests of the reductionist faction, has turned the academic apparatus of internal administration of the science profession, and of its certified publications, into a kind of Babylonian style in pagan priesthoods, regulating authorized scientific opinion according to Walter Lippmann-like, Goebbels-style "popular opinion" rules of *Gleichschaltung*.

Stress must be placed upon the fact, that the arbiters of academic tastes in science, constitute a kind of Babylonian style in priesthood, a social caste of sophists, which has, in fact, little care for science itself, but only for the defense of the authority of their caste. They are remarkably like the present permanent, customarily lying, fraud-ridden bureaucracy of the U.S. Department of Justice, its ironically named "Criminal Division" most notably. That Justice Department permanent civil-service bureaucracy, which has been crafted into its present form as an enemy of the U.S. Federal Constitution, was developed in imitation of the British monarchy's permanent civil service bureaucracy,³⁶ and, therefore cares not the proverbial "fig" for either truth or justice. It is a bureaucratic caste in the Babylonian tradition, a mob of filthy, pornographic "Leporellos," a pack of pimps, like Special Prosecutor Kenneth Starr, who take their sado-masochistic pleasure, and their career-profit, from serving the "Don Juans" of the Anglo-American-Canadian financial-oligarchical establishment.

The Babylonian-style science-priesthood, which dominates the process of preparing candidates for terminal degrees, approving scientific papers, and crafting preferred appointments in the field, really does not care what is right and what is wrong, what is useful or what is destructive. Their primary concern, like the monstrously corrupted permanent bureaucracy of today's Thrasymachian U.S. Department of Justice, is to uphold the authority of their caste over the administration of the area of affairs consigned to their mercies. Like their cousins of the Nobel Prize committee, they are not concerned with the truthfulness or usefulness of the science doctrines which they endorse; sometimes they will lend support to an

36. This corruption of the U.S. Department of Justice has been orchestrated chiefly through that rabidly Anglophile set of Wall Street law-firms brought together under President "Teddy" Roosevelt and his Attorney-General Charles Bonaparte. The recent *EIR* review of the role of a Plattsburgh veteran, U.S. High Commissioner for Germany John J. McCloy, in orchestrating the outcome of both the 1962 Cuba Missiles Crisis and the Warren Commission proceedings, typifies the process by which a British design for an anti-constitutional permanent bureaucracy was inserted into the U.S. Department of Justice and a large part of the Federal Courts' functioning.

actual accomplishment, but often they will seek to destroy the career of a figure whose work they know to be worthy, but which they do not consider it in their current political interest to tolerate.³⁷

Generally speaking, they have no personal wont to do evil for evil's sake. They are much worse than criminals; they are British-monarchy-style bureaucrats. Most of them would, doubtless, prefer to be honored for good deeds done. The less mention of the shameful things they do, the more pleasant things are for all but the victims of that affair. Nonetheless, when the special interest of the caste requires a crime against science to be committed, or even against simple honor, they will perpetrate that crime with the quality of zeal which only cornered rats in the attic might muster, or faceless bureaucrats conducting reenactments of Franz Kafka's legendary *Trial*. If they have a conscience, they will bury it on that potentially embarrassing occasion. "Nothing personal," they will point out, "I am just doing my job." They might add, "It is really all your own fault; you should not have gotten in our way." Special interest, and matching notions of expediency, not concern for truth, shapes their policies and practices.

Nonetheless, these Suckfists and Kissbreeches of our academic priesthood, often call themselves scientists, or, worse, administrators, and strut their vanity as paragons of learned opinions.

In science, the crimes of the bureaucrats are covered over by precedents. Definitions, axioms, and postulates rooted in *a priori* arbitrariness, and a few diversionary theorems to boot, are the preferred precedents. If Göttingen's Bernhard Riemann had achieved nothing else, he, like the boy in Andersen's "The Emperor's New Suit of Clothes," had the great honor to point to the reigning emperor of definitions, axioms, and postulates, "But, he has nothing on!"³⁸ The capital evidence of the crimes of today's still generally accepted classroom mathematics, is to be found in the axioms. Riemann abolished the *a priori* assumptions of both the neo-Aristotelians and the empiricists, and, thus, made way for unmasking the occult.

Focus again upon Sarpi and his lackey Galileo. The essential crime of Sarpi and Galileo, and all of the empiricists, positivists, and other philosophical liberals after them, was to purport to reduce everything in the universe of scientific inquiry, and morals, to percussive (or, at-a-distance) interaction among conjecturable particles contained within the bounds of *a priori* notions of space and time.

All of the crimes of generally accepted classroom mathematics today, are found in that original sin of Sarpi and Galileo.

37. The worst is the Nobel Prize committee for economics, which only very rarely selects a candidate who is not a despicable charlatan, with, like Professor Milton Friedman, a long record of achievements as a self-discredited ass in that field.

38. *op. cit.*

leo. The abomination of the name of science, by the spread of the corruption of philosophical liberalism into both the popular definition of "physical," and the notions of economics principles, is the source of those influential ideas through which today's European civilization is being self-destroyed from within.

The key issue to be emphasized, from this point on, until the conclusion of this report, is that there is no characteristic feature of reductionist mathematics, which is not also expressed in the form of empiricist sociology. Contrary to Immanuel Kant and Karl Savigny, in the reality of practice, there is no dichotomy which separates empiricist physical science, and choice of mathematical methods, from empiricist sociology.

Exemplary is the case of Galileo's mathematics student, Thomas Hobbes, who used the principles of Galileo's empiricist mathematics to construct the sociological system of his *Leviathan*. To understand the English and later empiricists, one must read Hobbes' *Leviathan* as a dissertation on the mathematical principles of a philosophical-liberal form of social theory. Even Hobbes' featured hostility to the existence of metaphor has, as I shall show, a very precisely mathematical meaning, a meaning of the most critical significance for understanding the intrinsic insanity of today's economic doctrines of "free trade" and "globalization."

We are confronted thus, in science, with the same kind of challenge portrayed by Poe's "The Case of the Purloined Letter." If we are looking for the origins of empiricism within science, we have doomed our inquiry to hopeless failure from the outset. We must, like Poe's Dupin, rather seek the evidence where it was actually, obviously placed. The origins of empiricism are located not in physical science, but in social and political dogma, and in correlatable aspects of gnostic religious dogma. The issue which underlies all of these controversies, is the issue of human nature.

It is the issue posed by the definition of man and woman, as made in the image of the Creator, as specified in *Genesis* 1. For the opposition to this Christian, this Mosaic definition of human nature, the issue is the pagan, Aristotelian doctrine of so-called "mortalism," as argued by the teacher of the mephistophelean Cardinal Gasparo Contarini, Venetian Padua's Pietro Pomponazzi, and by Pomponazzi's, Contarini's, and Sarpi's Sixteenth and Seventeenth Centuries gnostic followers thereafter. It is the issue of the Code of the evil Diocletian, and the Emperors of Byzantium later. It is the issue which motivated Venice and its Welf League. It is the issue which motivated the inquisition against France's Jeanne d'Arc; it is the issue which motivated the assassination of France's Henri Quatre, motivated France's Seventeenth Century *Fronde*, and motivated the Physiocrats and Adam Smith after that. It is the issue of defending the oligarchical form of society against policies consistent with those expressed as Leibniz's anti-Locke principle of "life, liberty, and the pursuit of happiness,"

in the U.S. Declaration of Independence, and as the “general welfare” clause in the Preamble of the 1789 U.S. Federal Constitution.

The essential struggle between good and evil, continues to be the fight over the implications of the relevant passages from *Genesis* 1. On the one side, we have man and woman endowed with a quality, a divine spark of reason, which sets all persons apart from and above the beasts, a mankind which is mandated to exert increasing dominion over the universe. On the opposing side, the side of original, essential evil, is dogma which places mankind implicitly no higher than the beasts, which thus bestializes the human individual, which, often in the fraudulent use of the mere name of “democracy,” bestializes the social relations among persons within society.

The issue is, that an oligarchy, wishing to preserve itself as an oligarchy, relies upon re-creating a pack of lackeys to aid it, in reducing ninety percent or more of humanity to the status of virtual human cattle. On this account, the oligarchy and its “Leporellos” place great importance on disallowing a policy of commitment to generalized forms of the benefits of scientific and technological progress, even to the extreme of reversing scientific and technological progress already effected. The motive is always to eradicate the existence of any institutionalized practice which defines all human individuals as participants in discovering, and in employing principles which increase mankind’s power in the universe. This ban against the fostering and development of the human creativity of the whole population, was the pivotal element of the Code of Diocletian, and of the Thrasymachian law of the Welf League’s European feudalism. This was the motive for the U.S. Confederacy’s adoption of John Locke’s racialist defense of the treatment of man as a form of property.

At the most, the kind of science tolerated politically by the oligarchy, is a fruitless tree. It is a science of the Babylonian slave-master, which insists, that there are no new ideas to be found under the Sun, that the set of available principles is already fixed. Thus, the advocates of such zero-technological-growth policies, seek to establish a limit beyond which change will not be tolerated. It is the misconception of science, and of morals, argued by the evil Immanuel Kant, in his famous “Critiques.” For all among these present-day advocates of British (e.g., “brutish”) liberalism and the like, there are no human beings any better in principle than the beasts; women can make love only with hogs, and men find union only with the British or like dogs—or, hogs—beneath them.

For science, that issue of human nature is posed as follows.

Among those functions by means of which the relative ecological potentials of living species are estimated, the human species is, as we have said, unique. The human species is the only case, in which the species is capable of willfully increasing its own potential relative population-density.

This differentiation of the human species has four characteristic types of interconnected expressions. First, that the

population is not only increased, but that its demographic characteristics are improved. Second, this occurs by means of an increase in the *net* physical output of human labor, as measured per capita and per square kilometer of our planet’s surface. Third, that these advances are prompted by an increased application of the number of validated physical and other principles discovered. Fourth, that the correlated feature of a successful process of this type, is an increase of the required density of the physical input, per capita and per square kilometer, but with no reduction of the ratio of net increase of physical output, with respect to increase of the required amounts of inputs produced.

The crucial feature of this process of increase of the anti-entropy of the human population, is the role of those faculties of the individual human mind, by means of which validated discoveries of principle are generated by one mind, and then replicated in the minds of others. These principles can not be transmitted from one person to another as mere “information;” they can be transmitted only through prompting the replication of the process of validated original discovery in the mind of another person.

The source of the anti-entropy which the human creativity of individuals supplies to society’s continued and improved existence, is that principle of *metaphor* intrinsic to individual human cognition, the principle of metaphor which Thomas Hobbes proposed to ban from language.

In the domain of physical science, metaphor is expressed by those undeniable paradoxes which reflect the existence of some fatal contradiction in existing conceptions of the physical principles governing the universe. It is the sovereign cognitive powers of the human individual which, alone, can prompt the generation of validatable flashes of insight, thus introducing those newly discovered physical principles which resolve the contradiction.

In the domain of Classical art-forms, the same kind of contradiction is expressed as a contradiction in meaning which can not be surmounted by any means but the creative discovery of some new Classical-artistic principle. This we recognize as a true metaphor of the type which Hobbes wished to ban. This use of the term “metaphor,” is the form in which new principles are prompted within the domain of Classical artistic composition. All valid notions of principles of history, including valid notions of political principle, are derivatives of this notion of metaphor.³⁹

Hence, as I have stressed from the beginning of this report, the Classical humanist mode of education, as opposed to transmission of mere “information,” is crucial for continuing a successful mode of human existence. Hence, the systematic suppression of the Brothers of the Common Life, through virtual inquisitional methods by Aristotelian fanatics, during the middle of the Sixteenth Century, is a marker of the relative

39. Lyndon H. LaRouche, Jr., “The Substance of Morality in Science and Statecraft,” *op. cit.*

decline of European civilization from the levels to which it had risen at the close of the Fifteenth Century. Hence, the rise of the Oratorian teaching-order, which gave science Monge and Lazare Carnot in France, as a continuation of the same principles as the earlier Brothers of the Common Life, was a crucial factor in the progress of civilization. Thus, the kindred educational methods introduced to North America's Massachusetts Bay Colony, prior to 1684, and the continued promotion of those educational policies by Cotton Mather and Benjamin Franklin, were a key to the success of the United States relative to the Ibero-American states. Thus, the Classical humanist methods of education introduced into Germany by Friedrich Schiller and his friends the Humboldt brothers, are crucial for the achievements of Nineteenth-Century Germany.

These Classical-humanist methods of secondary and higher education, have the effect of honing the naturally embedded cognitive powers of the individual mind. In brief, those effects are achieved in the following way. Think of the manifold of all validatable known, physical and Classical-artistic principles, combined, as a manifold of the Gauss-Riemann hypergeometrical type. Next, turn to the example of the Classical motivic thorough-composition, which W.A. Mozart developed, beginning 1782-1783, with such works as his six "Haydn quartets," a development to which Mozart was prompted, both by a suggestion from Haydn's Opus 33 quartets, but also, more crucially, J.S. Bach's *A Musical Offering*.

That principle of Classical motivic thorough-composition, as further developed by Mozart, Beethoven, Brahms, et al.,⁴⁰ presents a great conductor, such as the late Wilhelm Furtwängler, a conception of a musical composition as unified as a whole as if by a single flash of insight within the composer's mind. The span of the unified composition of those physical and artistic principles, which are integrated through a process of knowing conducted according to Classical-humanist principles, becomes, in effect, the kind of coherent, motivic thorough-composition toward which the relevant efforts of strictly Classical composers such as Haydn, Mozart, Beethoven, et al. yearned.⁴¹

The cumulative effect of a strictly Classical-humanist approach to education, is to train the mind of the young to mistake no conceit for knowledge, if that conceit is acquired by merely learning. The mind must be trained to accept nothing—absolutely nothing!—as a matter of principle, which has not been generated as knowledge through validation of cognitive-insight solutions for well-defined paradoxes of the form equivalent to strictly Classical notions of metaphor. Learning such as textbook learning, must never be afforded

40. op. cit.

41. For Romantic composers, such as Carl Czerny's Franz Liszt and his imitators, such lucidity does not exist. The substitution of pyrotechnical sensuous effects, for a unifying cohering principle, is intrinsically irrationalism, with no place in the realm of actual knowledge and knowing.

the social authority, to be regarded as a substitute for conceptions of metaphor.

Under the conditions of strictly Classical-humanist methods of education—and, of self-education, all knowledge of principle, both in matters of physical and of artistic principle, becomes a unified single whole. The result is the same for knowledge in general, as an appropriate performance of the most compactly composed works of Beethoven express this for musical knowledge. On this account, the Classical musical repertoire has a benefit to both the development of the intellectual powers of the mind, and the moral character, which is never reached in any other choice of way.

Thus, a seasoned, scientifically trained mind, trained in conformity with the Classical-humanist method of education, represents a power for reason lacking in any other class of persons. In such a happy case, there is a certain, specific quality of result achieved, through the entirety of the mind's training in the acquisition of that integrated, multiply-connected manifold composed of coherently integrated arrays of both physical and artistic principles. The result is that that mind's creative potential is expressed as a single idea, comparable to the singleness of idea expressed by appropriately performed, Classical-musical form of motivic thorough-composition.

EIR has used a comparison of the special principle of composition employed for Beethoven's Seventh Symphony, with the use of the same principle by Brahms for the composition of his Fourth Symphony. This illustrates for music, the principle of trained creative cognitive potential (which Kant denied flatly to exist) which is essential to produce competent scientific and artistic thinkers today. For such minds, all knowledge of principle is expressed in a single, recallable flash of insight, the trained creative powers of that individual mind.

For these and related reasons, there could be no competent definition of science, or of political-economy, from any standpoint other than such notions of Classical-humanist modes of education.

Thus, the first principle of all physical science, and of both physical economy and political economy, or, even any form of existence itself, is, as Heraclitus and Plato said earlier: *change per se*. Nothing, anywhere in physical space-time, is constant, but change. Any doctrine which purports to define science or economy in terms of choosing presumably "repeatable," fixed kinds of relations, as a standpoint for definitions, as Karl Marx, Adam Smith, and John von Neumann did, for example, is to be recognized by all literate minds, as self-evidently not merely false, but an expression of *petitio principii* which ensures absurdity from the outset.

What produces human existence, in each instance? Change! Existence is produced by changing man's relationship to nature, thus, changing the meaning of nature for man. Existence, experience, are produced by willfully changing man's relationship to the universe, thus changing the universe's relationship to mankind.

These changes must be measured in terms of anti-entropy. In other words, anti-entropy defines the units of measure by which all things, all processes are to be measured. Thus, anti-entropy is the only universal principle in this universe.

This principle of universal anti-entropy as fundamental, has the following notable implications for our discussion here. Life on Earth could not have survived, unless the effect of living processes taken in their functional totality, increased the potential for the existence of living processes in their totality. Man could not continue to exist on this planet, unless the impact of man upon both the inorganic and living processes of this planet, including mankind, taken in totality, were anti-entropic. All existence must enhance the existence of its own preconditions for continued existence. Should any species, including man, violate that principle, the lack of anti-entropy so promoted, would destroy the practice which produced the entropic effect, as the entropic principle of “free trade” and “globalization” has reached the point of destroying all cultures which adhere to such policies. So, said Leibniz: *This is the best of all possible worlds*, in which evil (e.g., entropy) brings its own condemnation down upon itself.

Processes are perpetuated to the point that they cease to produce new conditions which are better than the conditions upon which they had previously based their existence. Producing the same, is not the standard of measure; producing better, is. Thus, anti-entropy has a self-reflexive characteristic, in this sense.

In physical science in general, the notion of anti-entropy which we have just so summarized, is otherwise recognized as *a universal evolutionary principle*.

For example, the evolution of the Solar system. Consider the result of a “back of the envelope” set of calculations in which I participated, during some sessions of the Fusion Energy Foundation’s multi-disciplinary science-advisory board, which I headed during the early 1980s. Start some billions of years ago, with a Sun which was rotating much faster than today. How did such a Sun generate a Solar system? Gravitational thermonuclear fusion would not produce a Solar system with the periodic table we associate with it. Iron is about as high as we could have reached.

Ah! But the fast-rotating Sun was shedding rotation according to Kepler’s principles! The result must be a highly polarized set of rings of spun-off matter, rings effectively at a much higher temperature-equivalent than the Sun itself, rings inundated by polarized radiation from the Sun. Polarized thermonuclear fusion would take us out of the bounds of simple models of gravitational fusion, by more than an order of magnitude, to the top of the periodic table in question.

This product would be subject to something like “fractional distillation,” distributing the product into specific channels corresponding to predetermined orbital pathways of a Keplerian-like series. Shock-wave-like effects would transform that material, initially distributed more or less uniformly

throughout the Keplerian orbital channel, into planets and moons.

That scratch-pad argument, is not presented here as a settled account, but as an illustration of the kinds of hypotheses which must be set up for inquiry. Whatever the result, in the end we will have an evolutionary picture of the history of our Solar system, down to the present time. The point is, that the universe does not exist in states of fixed, homeostatic stability. The universe of change exists through action through which it changes itself for the better, from a less organized, into a more highly organized mode of existence. The characteristic state of change in the universe, is from relatively lower anti-entropic states, to higher ones. It is a very good universe, as long as we respect that principle of anti-entropic change. As Plato reduced the Eleatic and other reductionists of that time to a state of ridicule, in his *Parmenides* dialogue, the primary principle of all existence, is nothing but anti-entropic change itself.

That said, we must emphasize now, that physical science is not the study of objects and their interactions. The state of mind of science is never that of contemplation. Science is knowledge of the means of human practice, by means of which man’s power over nature may be increased, that anti-entropically. Scientific knowledge is knowledge of those principles of change, by means of which this anti-entropic increase of power, per capita and per square kilometer, may be increased by mankind.

In a world committed to mere contemplation of zero-technological growth, no science is possible.

This brings us to the crucial point, respecting both the fundamental principles of science in general, and physical economy in particular. *What is the action which defines change? If change is the trajectory, what is the action, taken in its infinitesimal expression, which defines that trajectory? This can be nothing other than that sovereign act of cognitive creativity, by means of which an individual generates a validatable, validated physical or comparable principle of change in the universe at large. It is that replicatable act of discovery of validated principle, whose very existence Immanuel Kant, in particular, staked his miserable life’s reputation on denying to exist, which defines science. It is the anti-entropy expressed uniquely by that quality of cognitive act, which defines the process of physical economy within which the action of discovery and its application for change are situated.*

Why should one deny what should have been obvious? What possible motive could prompt such folly? Look at the social implications, and the answer is clear. If we admit this principle of science, then we can permit no one, no class of people, to be degraded to the status of virtual human cattle. If we accept that to be true, how then could oligarchs and their lackeys continue to rule? It is simply that elementary; it is simply a matter of good versus evil.

Finally, on the subject of science as such, the matter of the occult.

The occult comes into existence within the body of purported scientific practice, through the introduction of some arbitrary principle of argument used to avoid a true principle, or to cover up the lack of principle in one's argument. The crudest form of occultism is the sophistry of Babylonian origin brought into Athens by representatives of the Achaemenid Empire's priest-caste. The form of sophistry on which we have concentrated attention here, is the systemic form of the occult we associate as the interchangeable common quality of empiricism and philosophical liberalism. The most common form of the occult projected by empiricism is what we recognize today as statistical argument.

Take a recent typical expression of the form of the occult associated with today's popular statistical sophistry. In the effort to deprecate the role of Senator John Glenn in the most recent manned orbital flight, some lame-brained wisecracker blurted out the inanity, "But, that is only one data-point." Typical of the same folly, is the commonplace, knowing leer of the idiot who would wish to appear to be very professional: "Isn't that merely anecdotal?"

Even the late Dr. Sigmund Freud, who was not usually so fastidious when he had a little sophistry to push, would not be as silly as that. He said, in one rather celebrated debate conducted in London: "If I take a man down to the Thames and hold him under water until he drowns, it is not necessary to repeat that experiment in every river of the world." A better demonstration, is the case of Gauss' discovery of the orbit of Ceres, in which three points sufficed to prove an elementary principle of all experimental scientific investigation. So, all valid fundamental discoveries of principle are proven by a single crucial case: the work usually involves a massive effort, as in Gauss' treatment of the orbit of Ceres, to find the crucial solution.

People who utter the word "anecdotal," with an accompanying, "all-knowing" leer, usually turn out to be the kind of people who would rather fake their answers than actually think. The most popular form of fakery today, is statistics; the mass bankruptcies of many of the world's leading financial houses, and numbers of governmental institutions, too, caused by a single, anecdotal case, the Merton-Scholes "pyramid club" hoax, referenced here earlier, is a fine anecdotal (and, also, statistical) demonstration of the nature of statistical hoaxes.

The popularization of statistical hoaxes begins with that Sarpi-licking lackey Galileo Galilei. Galileo, who had become acquainted with Kepler through Kepler's discussions of music with Galileo's father, was directed by Sarpi's Venetian circles to seek to discredit Kepler's work.⁴² The result in-

42. Galileo's father, "Bill" Galilei, was, at the time, a rather famous musicologist of the Venetian school of the opponents of the tradition of Leonardo da

cluded Galileo's famous, but highly suspicious report of an experiment involving the leaning Tower of Pisa. Galileo was the conduit for at least several influential hoaxes, including the popularizing of the notion of "action at a distance," and pioneering in the use of empiricist statistical methods.

It was through Galileo, that the empiricist dogma of statistical kinematics was introduced to England by Thomas Hobbes' *Leviathan*. This was the actual origin of what became the doctrine known under such rubrics as *laissez-faire*, "free trade," "Say's Law," and so on, continuing to the terminal phase of insanity represented by John von Neumann's "systems analysis" and the "chaos theory" popularized out of von Neumann's work. This view of causality, read in the sense of Adam Smith's Invisible Hand, as essentially statistical, is the ultimate occult, the ultimate in pseudo-scientific hoaxes and lunacies.

The empiricist's occult notion of a statistical principle, was added to the older, Aristotelian elements of pseudo-scientific occultism. These older elements are typified by the notions of matter, space, and time as poor classroom practice presents so-called "Euclidean geometry" and the occultism of René Descartes. As I have stressed earlier, the problem here is that these elements are introduced as "self-evident." Particles as such are considered self-evident, "time" is viewed self-evidently as a matter of simple linear extension, hence the popularization of lunatic notions involving the words "infinity" and "infinitesimal." "Space" is also viewed as "self-evident."⁴³

Even the development of the notion of isochronic path-

Vinci, and also of the famous Zarlino whose work on the modes was studied by Beethoven in preparation for the composing of the late string quartets. "Old Bill" Galilei was a contemporary and rival of the theosophical "Richard Wagner" of that time, Claudio Monteverdi of *Coronazione di Poppea* notoriety. These Sarpi-linked musical circles in Italy of that time were allied with England's Francis Bacon, in the effort to drive the English composer John Bull out of England, just as Bacon was used by the same Sarpi circles to suppress the work of William Shakespeare. Kepler's connection to Galileo, through "Old Bill," came about through Kepler's researches into music. In a resulting correspondence with Galileo himself, Galileo obtained material which Galileo later misused publicly as part of his effort to concoct a hoax against Kepler.

43. The unification of empiricist statistical occultism with the older pseudo-Euclidean occult, was effected through the founder of the Eighteenth-Century "Enlightenment," Venice's Paris-based spy-master Abbot Antonio Conti. Conti, an avowed defender of Descartes against Leibniz, adopted Newton as a vehicle for introducing a variant of Cartesianism into England. The network of salons directed by Conti, which continued to operate in England, France, Germany, and elsewhere, even long after Conti's death in 1749, were the core of the European Eighteenth-Century "Enlightenment." It was through this Conti connection, that David Hume's and Adam Smith's roles in Scottish "moral philosophy," and the puppet-master's role of Smith's and Jeremy Bentham's patron, Lord Shelburne, emerged as the standard-bearers of the British branch of that "Enlightenment." Hence, Bentham's role, as Shelburne's head of the British Foreign Office, in training and deploying Danton and Marat for the terrorist's roles they, like Fouché later, performed, under British direction, in Paris.

ways by the work of Christiaan Huyghens, et al., and the notion of “least time” as found along a distance greater than “shortest distance,” by Bernouilli, Leibniz, et al., did not discourage the true believers in the axiomatically “self-evident” nature of space and time. Even after Riemann had removed axiomatic notions of matter, space, and time, with his 1854 habilitation dissertation, J. Clerk Maxwell would cling hysterically to the worthless “Euclidean geometry,” in defiance of already existing, crucial experimental evidence to the contrary.

Even when Kurt Gödel had independently proven what, unknown to him then, others had already proven before, that Bertrand Russell’s principal thesis was worthless, ever-smiling “Johnny” von Neumann, Russell’s fanatical devotee, would profess to hear Gödel out most amiably, while, as he later admitted, screaming inwardly, and hating every minute of it, leaving the premises, in flight from science, into his “theory of games,” out of which he later derived his lunatic cult of “systems analysis.”

So, today, the savages roam, wilder than ever, throughout the madness of that jungle they customarily misname “science.”

5. The flywheel explodes!

Within the spinning flywheels of modern national economy, the forces at play are all of the form and substance produced by the accumulation of anti-entropy, as I have defined anti-entropy, here and in earlier locations. The source of that anti-entropy is the realization of validated principles of our universe which have been discovered, and set into motion by the cognitive powers of individual minds, the same cognitive powers on whose attempted general eradication the wretched Immanuel Kant expended the whole of his miserable mortalist’s life. Were Kant to succeed, now, posthumously, the forces of destruction unleashed would be apocalyptic in their effect.

To turn the forces of anti-entropy against themselves, to replace growth by an insatiably growing appetite for economic and cultural self-destruction, as Western civilization has done these past thirty-odd years, is the most horrible form of mass-suicide a culture can perform upon itself. Given the intensity and scale upon which this process is now deployed, the result, unless prevented very soon, must be the greatest catastrophe in known human existence to date.

In his *Religion and Philosophy in Germany*, Heinrich Heine smelled Kant out from the down-wind side of the Eighteenth Century, as Schiller had sensed, and warned against the problem represented by Kant, earlier. During the period of World War II, some British commentators on Heine’s book, had praised Heine as a prophet who had foreseen the embryo of Adolf Hitler in what might pass for Kant’s womb.⁴⁴

44. *Works of Prose, by Heinrich Heine*, Hermann Kester, ed., Ernst Basch, trans. (New York: L.B. Fischer, 1943).

Strictly speaking, the latter commentators were not wrong. Take away a man’s soul, and passion becomes soulless lust; for such a man, like Bertrand Russell, only evil is possible. By profession, mortalist *Schlimihl* Kant had no soul; his personality was, as he described himself, nothing but a negation of a negation.⁴⁵

In truth, Kant was the forerunner of Arthur Schopenhauer. He was also the forerunner of that state philosopher of Metternich’s Nazi-like Carlsbad *Beschlüsse* [Decrees], G.W.F. Hegel, and of Hegel’s Berlin neo-Kantian accomplice Professor Karl Savigny. In that sense, Kant was the forerunner of musical proto-Nazi Richard Wagner, and of Friedrich Nietzsche, Adolf Hitler, and Professor Martin Heidegger, in addition to being a forerunner of Georg Lukacs’ offspring, the so-called “Frankfurt School” of Adorno and Arendt. The common strain among them all, and others like them, such as today’s anti-science “ecologists,” is deep cultural pessimism, profoundly entropic pessimism. However this quality of pessimism expresses itself, it is very nasty, to be fairly regarded as “satanic” in its predictable effects.

The essence of true optimism, sometimes identified by the terms “cultural optimism,” “historical optimism,” or Plato’s and the Apostle Paul’s *agapē*, occurs always as the fruit of a cultured degree of individual cognitive creativity, the quality of creativity which generates groundbreaking progress in the human condition, through validatable discoveries of physical principle, or the creative passion to act nobly, as a passion best inspired by development of valid, Classical-artistic principles.⁴⁶

Thus, an optimism in contrast to that psychotic quality of pessimism, permeating the pages of Hobbes, Locke, Mandeville, Hume, Voltaire, Adam Smith, Bentham, and Kant. Like

45. I. Kant, “Dialectic of Practical Reason,” *Critique of Practical Reason*. Sigmund Freud’s attempt to define individual conscience was nothing more than a parody of Kant’s neo-Aristotelian “dialectic of practical reason”: negation of the negation.

46. One of the best examples of this connection, is the role of the richly contrapuntal, religious music of J.S. Bach, W.A. Mozart, and Beethoven, music which truly incorporates a Christian quality of religious inspiration, in contrast to the banality of otherwise popular hymns and musical settings of liturgy. One of the best examples, is the *Vier Ernste Gesänge* of Johannes Brahms, especially the concluding setting of the Apostle Paul’s *I Corinthians* 13. The crux of the matter is, that Classical motivic thorough-composition, as Mozart et al., adduced this principle from Bach compositions such as *A Musical Offering*, demands immediate evocation of the cognitive principle, thus evoking, through musical composition, that quality within the performers and audience which is the true nature of the individual person as made in the image of the Creator. All great Classical art, composed in coherence with the same Platonic principles employed by Mozart and Beethoven for thorough-composed polyphony, evokes this same sacred quality of passion. This principle also applies to certain elements of folk-music, notably from the domain of the so-called Negro Spiritual, as the collaboration of Harry Burleigh and Antonin Dvořák applied Brahms’ principle for folk-song treatments to such Negro Spirituals. The work of Burleigh and Dvořák shows, that the Classical treatment of the best folk-song material of this sort lends itself to additional touches of perfection by aid of Classical principles.

Kant, all among the, latter, depraved creatures, and their like, from the Seventeenth and Eighteenth Centuries, are the true forerunners of the likes of Bertrand Russell, and of the proto-Nazi, Nazi, and Nazi-like cultists such as Lady Margaret Thatcher's Mont Pelerin Society, and of the Mont Pelerin Society's Heritage Foundation and International Republican Institute, of the Nineteenth and Twentieth Centuries.

There is nothing accidental, nothing properly surprising about the fact of such correlations and connections. The essential qualities of cultural optimism, versus those of cultural pessimism, are defined as expressions of man's view of individual human nature. Through European civilization, as we have parallels from the history of the culture of China, optimism expresses the republican view of the human individual's intrinsic, inborn nobility and worth as a human individual; whereas, the root of cultural pessimism is found in that oligarchical outlook which defends the arrangements under which as much as ninety-five percent of humanity is degraded to the status of virtual Yahoos, virtual human cattle.

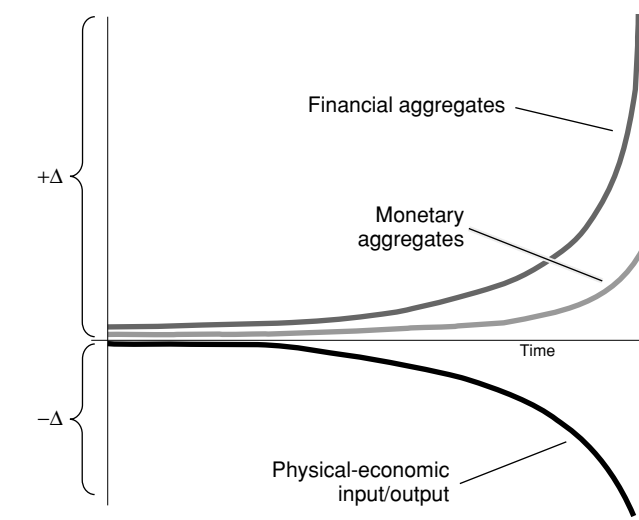
The person who accepts the status of human cattle, may show his pessimism, his depravity, in the fact that he may desire only such learning as will enable him to secure the pleasures afforded by a certain choice of employment. He is, thus, typically, a loyal subject of Byzantium, under the terms of the Code of Diocletian: If his father and grandfather before him were professional jackasses, he will seek the learning necessary to qualify for the traditional employment of a jackass. He is a mean-spirited cultural pessimist; he has no compelling passion for the joy of knowing for the sake of knowing. He finds little, even nothing in himself which he might love and nourish on the premise that he recognizes humanity in himself on this account.

The worst is not such poor yahoos, but the "Leporellos," the dissolute oligarch's lackeys, the in-house pimps of the world's aristocratic "Don Juans." The lackey is nothing by profession; he, like the Sir Henry Kissingers of the world, is merely a poor, disgusting lackey, a professional *Schlimihl*. He is fit only for roles comparable to that of the designated fox of the day, for the oligarch's amusement at "fox and hounds;" he is, so, eminently best qualified to play the part of Oscar Wilde's feral inedible, who lives only to be bred, and culled, for the always sadistic amusements of the oligarchical incredible. A world of oligarchs, they attended by such lackeys, lackeys who occupy themselves chiefly in herding, and occasionally culling, beaten and battered flocks of poor human cattle, poor rutting yahoos: where is there any humanity in such an arrangement?

The oligarchical quality of cultural pessimism, so illustrated, may be termed "the spirit of doom." That said, we focus attention next upon the matching "substance of doom." In these two aspects of the matter, we meet the forces driving the spinning flywheels of western Europe and the U.S.A. today, toward early doom. Consider the impulses of spirit and substance which point to that looming doom, and then focus

FIGURE 1

A typical collapse function



on the explosive consequences which confront us in this terminal phase of Western civilization's attempted mass cultural suicide.

The substance of doom is to be recognized by its shadow, my now widely circulated, and somewhat celebrated "Triple Curve" [Figure 1]. This figure is to be appreciated as corresponding to three principal factors: the functional composition of the division of labor, the functional composition of consumption, and the role of money and finance in mediating the relations among the several categories of labor and consumption.

The first step in that study, is to consider the composition of employment over the intervals 1945-1965, and 1966-1998. Four categories of employment are to be highlighted. **First:** physical output, as from agriculture, industry, transportation of goods, and maintenance and improvement of basic economic infrastructure. **Second:** services necessary to maintain the productive potential of the population and the processes of production, distribution, and maintenance and improvement of basic economic infrastructure. **Third:** necessary overhead expense. **Fourth:** employment for redundant and parasitical forms of activity, especially employment in parasitical forms of financial services and associated functions. (The takeover of health care by the Dracula-like, mass-murderous HMO financiers, and the various forms of gambling, prostitution, and pornography industry, are typical of the worst parasites.) Compare the changing ratios, 1946-1998, of these compositions of employment, first in numbers, and second in portions of national income absorbed by each category and sub-category.

The result is a clear demonstration of the fact, that since 1965-1972, the U.S. economy (our exemplary case) has been in an increasingly morbid, degenerative phase, now in the

terminal agonies of its financial system, presently at the brink of doom. The odors of the decay of ancient Rome, as echoed from no later than the period of the Gracchi reforms onward, are very pungent ones. Comparisons based upon figures for composition of employment of the total labor-force are horrifying; comparisons in terms of rations of national income flowing through these channels, presents an image far beyond disgusting.

The picture is clearer when we add capital factors to the picture. Two features of this comparison are outstanding. First, the geometric growth of demands upon national income, on account of combined overhead and outrightly parasitical activities, and the even higher rate of shrinking of the portion of per capita national income supplied to maintain direct and semi-direct capital costs of production, infrastructure, and the lower 95% of the total population.

The picture is much bleaker than that, when we examine the effects of so-called "globalization," a phenomenon classed, more candidly, as an extreme, rabid expression of what was formerly termed "neo-colonialism." Since 1971-1972, international economic relations have been dominated, increasingly, by a process fairly described as virtually the export of U.S. and western European employment to NAFTA and like-minded employment of virtual slave-labor in what present-day racists call "emerging markets." Much of the internal income of the economies of the U.S.A., Canada, and western Europe, is derived from net looting, virtually slave-labor operations, in so-called "emerging markets." Some of this looting is done through so-called wage differentials; an even larger portion of the looting is semi-disguised in arbitrarily lowered prices of currencies, and artificially pyramided debt-service obligations of the so-called "emerging markets." When one-way, uncompensated looting of raw materials, is taken into account, the global picture is a disastrous one.

Next, attention must be focussed upon the measurement of shifts in capital- and power-intensity, when these categories are measured in physical-economic, rather than merely the intrinsically misleading role of mere financial statistics. When these categories are considered in functional terms of physical-economic relations of production, infrastructure, and distribution, there is a correlation between rise of both capital- and power-intensity and productivity of labor per capita and per square kilometer. At a certain point, continued lowering of capital- and power-intensity results, functionally, in a step-wise sequence of irreversible collapses in productivity.⁴⁷ The results of willful devolution of the levels of capital-

47. This step-wise devolution was the subject of the 1979-1983 series of *EIR* LaRouche-Riemann Method Quarterly Reports, the most accurate by far of any public forecasting published during that interval. For a graphic comparison of those published reports, see "LaRouche-Riemann Model Debunks the U.S. Recovery," *Executive Intelligence Review*, Nov. 2, 1982; Lyndon H. LaRouche, Jr., "Truthful, or Merely 'Factual'?", *Executive Intelligence Review*, Jan. 9, 1998, p. 19.

and power-density, and in scale of productive and related capacity, in western Europe, as in the U.S.A. and Canada, have driven these economies, physically, way below the break-even point. Under present levels and trends, these economies are caught in spirals of virtually irreversible physical-economic collapse, from which they could not recover within a period as long as a generation or more.

Those kinds of statistical assessments provide the gross picture of conditions and trends. Two considerations must be added. First, we must take into account those additional factors which show the connection between the kind of simply auto-cannibalistic collapse just summarized, and the shock-front effect we have compared to the image of an exploding flywheel. Second, we must look at the ruling institutions of western Europe, the U.S.A., and Canada today, as like packs of legendary lemmings, which, for reason of behavioral modification, are committed to diving from the cliff, into the sea, even if they have no perceivable objective motive, but only lunatic financial ones, for doing so.

On the first of those accounts, we must contrast the measurement of capital ratios in today's, nominalistic, financial terms, to capital ratios measured in physical-economic terms, the latter per capita and per square kilometer. As the Triple Curve illustrates, the 1971-1998 curve contrasts an upward spiral of capital ratios, as measured in nominalistic, financial terms, to a spiralling decline in capital factors as measured in physical-economic terms.

However, an accurate view of this process demands that we adjust the physical-economic scale, to reflect the principle of anti-entropy. In other words, we must measure all changes in physical-economic capital ratios as the cumulative integral value generated by an anti-entropic function.

From that vantage-point, we obtain a truer picture of the doom in process. Compare the process of growth of the financial capital ratios, as driven by financial leveraging, to the connected process of accelerating decline of the capital-ratios expressed in physical-economic terms of the indicated anti-entropic function. *The result of this combined function, taking the intermediating, monetary processes into account, is the generation of a Riemannian shock-front, defining the point at which our proverbial flywheel explodes. The world, especially the so-called "developed" economies of western Europe, the U.S.A., et al., are presently at that point.*

The spectre of doom thus defined, forces our attention to three political factors tending to ensure that the governments of those so-called developed economies will tend to refuse any actions of the type by means of which this doom might be averted.

The first such consideration to be stressed, is the fact that the anti-entropic element of the shock-wave function just identified, is those sovereign cognitive processes of the individual mind by means of which validated principles are discovered, and these discoveries replicated (as by Classical-

humanist methods of education) in other individual minds. This relationship of these sovereign cognitive processes of individual persons, to the process of physical-economic capital formation, is the subjective factor at the root of all so-called "objective" economic considerations.

This role of this subjective (i.e., political) factor is typified, for modern industrial society, by the machine-tool principle. To restate this crucial point, the machine-tool factor is the point in the economic process, at which the subjective side of anti-entropy, the validation of discovered principles, is expressed as either machine-tool-design principles, or an analogous function.

At this juncture, competent economics locates the crucial, virtually infinitesimal interval of non-linear action which determines the trajectory of the economic process as a whole. Any attempted economic analysis, which does not lay this emphasis upon this function of non-linear action in the infinitesimally small, is bankrupt economics, by definition. Hence, the crucial importance of the principle of non-linear action in the infinitesimally small, which we have stressed respecting both science in general, and in pointing to the inherently evil implications of that empiricist method otherwise known as philosophical liberalism.

The second subjective consideration, is the cumulative, structural effect of destructive policies, such as those which have dominated the policy-shaping of western Europe, the U.S.A., etc. since thirty-odd years ago. The accumulated structural changes in the categorical composition of the employment of the labor-force as a whole, of educational practices, and capital- and power-intensity (per capita and per square kilometer), and development of basic economic infrastructure, those changes which have occurred under the past thirty-odd-years of cultural-paradigm shifts, have drastically lowered the effective potential relative population-density of the world, especially of the nations of western Europe, the U.S.A., Canada, Australia, and New Zealand, and also the former Soviet bloc. The potential relative population-density, per capita and per square kilometer, of those parts of the planet are far lower today than they were thirty years ago.

At that breaking-point, when the shock-front is formed, the intensity of the shock produced by the indicated global collapse-function, will hit these formerly developed sections of the world with qualitatively relatively greater, more destructive force, than other parts of the world generally.

Without a drastic, sudden and rapid, reversal of the policies of "structural reforms" of those economies, now, there is no possibility for preventing a virtually immediate, sudden, shock-wave type of collapse of not only the economies of those formerly leading nations, but also a plunge of their political and social integrity into a generation or more of genocidal chaos and Flagellant-like madresses.

Thirdly, during the same thirty-odd years, the "superstructure" of ruling opinion has been greatly altered, "structurally,"

to effects paralleling the structural changes in the categorical composition of capital formation, employment, and incomes. Thus, the political, and implicitly political institutions of society have accumulated a bias which tends to prevent institutions represented by present governments, and other presently entrenched policy-shaping authority, from tolerating any of those kinds of remedial action which might prevent the sudden and immediate doom of western Europe, the U.S.A., et al. combined.

We see clearly, already, a lunatic quality of reaction to the ongoing collapse of the global derivatives bubble. We see that entrenched policy-shaping authority would much rather defend the reputations of those policies which have caused the present global collapse of physical economy, than consider the measures upon which the survival of those nations now depends absolutely. The immediate causes for the present global crisis are chiefly the "post-industrial" utopianism which has seized controlling positions in policy-shaping, during the past thirty-odd years, combined with, and greatly exacerbated by the lunatic policies known as "free trade" and "globalization."

So far, typified by the government of Britain's Tony Blair, rivalling Uganda's and Rwanda's dictators Museveni and Kagame for the rank of the worst governments of the world today, bad and evil governments would rather destroy the world, than give up an inch of their habituated delusions of irrational blind faith in "post-industrial" utopia, "free trade," and "globalization." Unless those insane habits are overturned, now, western Europe, the U.S.A., Canada, Australia, and New Zealand, are first on the list for a change of address, to Hell.

The alternative to doom may be summarized in three measures. 1) To eradicate those policies, introduced beginning thirty-odd years ago, which have been the continuing cause for the degeneration of the world's civilization and economies over this period. 2) To reverse the changes in structural composition of employment, investment, and income, which have become today's institutionalized expression of the policies which have caused the degeneration of the world's economies during this period to date. 3) To replace in positions of policy-shaping authority, those political currents which remain committed to perpetuating the mental and economic diseases expressed as "post-industrial" utopianism, "free trade," and "globalization." On condition that all those three actions are taken now, there exists the possibility, even the probability that western Europe and the U.S.A. might escape the doom which now awaits them.

The question is, are you, personally, willing to change your political and related behavior, to bring about those three changes on which the future existence of civilization depends? You may say, "But, I am only an infinitesimally small person in this larger scheme of things." It is in precisely that infinitesimally small, that the trajectory of human history as a whole is determined.