

A NEW VOYAGE TO LAPUTA

California Takes A Swift Look At Today's Economists¹

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Now, the long wave of deregulation begun under U.S. President Jimmy Carter, has brought the world to the trigger-event called "the California energy-crisis." Now, the so-called "new economy" bubble of 1995-2000, has turned out to be the bust its continuation inevitably doomed it to become. The present crisis, so situated, now poses the question more sharply than at any earlier time: Why, compared to those of the preceding generations, have nearly all among today's ostensibly leading economists born after 1945, failed so miserably? Was this catastrophic failure of those economists, perhaps, a genetic-like cultural after-effect, of the three nuclear weapons exploded that year?

Some of the deeper, scientific reasons for those connections, which I expose here, will greatly surprise you.

1. This report was prompted by discussions occurring in the context of a recent, January 14-17 international conference, convened in Khartoum, Sudan, on the subject of "Peace Through Development Along the Nile Valley." Although this present report incorporates some elements addressed in the soon-to-be published proceedings of that conference, the central issue of the discussions of my presentations there, the difference between predicting and forecasting in economics practice, deserves to be addressed, as I do here, as a matter of general, and urgent interest in its own right.

This problem, this *syndrome*, is not confined to the typical middle-aged "quackademic" of today's economics profession. With relatively few exceptions, those under fifty-five years of age, who are not economists, but have risen to leading positions in shaping the economic policy of enterprises and the Federal government today, behave differently, and, in most examples, much worse, than corresponding categories of influentials active during the 1933-1965 interval.² These more typical representatives of the so-called "Baby Boomer" generation among economists today, are like recently retired U.S. Treasury Secretary, and Gore and Greenspan confederate, Larry Summers; they are the fruit of what was already

2. I do not exaggerate the extent of this syndrome among "Baby Boomer" economists. Although some senior figures, of my own generation, have long agreed with my characterization of an onrushing, global systemic crisis, and as more and more have concurred explicitly with my views since the events of August-September 1998, competence was generally limited to professionals from among that generation. Only recently, since the developments of March-November 2000, there has been an increasing acknowledgement of the severe threat of a systemic crisis from among what is still but a small minority of economists and related specialists. The point is, that soon, the depths of the onrushing depression will bring about a change in the views of even the generality of middle-aged quackademics. Then, it will be possible to educate some among them to the reality they are still, as of the moment, hysterically seeking to deny.



William Hogarth, "A Midnight Modern Conversation," 1732.

appropriately described during the mid-1960s, as a "cultural paradigm-shift."³ One should restate that: *a cultural-paradigm down-shift!*

Even before we might have discovered what the exact cause for this pattern might be, the raw evidence shows, beyond reasonable doubt, that the root of the failures of these quackademics and their dupes, is *systemic*.⁴ The cultural ef-

3. For example, in 1964, Willis Harman, of the Stanford Research Institute, prepared a study for the U.S. Office of Education, titled "The Changing Images of Man," which first put forward the idea of a cultural paradigm shift, then under way, from the "Age of Pisces," i.e., the Age of Christ, to the "Age of Aquarius." In 1980, Harman protégé Marilyn Ferguson elaborated on the theme in a widely publicized book, *The Aquarian Conspiracy: Personal and Social Transformation in the 1980s* (Los Angeles: J.P. Tarcher, 1980).

4. This use of "systemic," as distinct from "systematic," signifies a condition which inheres in that adducible ruling set of definitions, axioms, and postulates, which efficiently predetermines the response of that "system" to any challenge. If the responses will be systemically more or less suicidal for the system, then we have a crisis which could not be overcome except by either eliminating the system so afflicted, or radically changing the implicit set of definitions, axioms, and postulates which govern its responses. Since "popular opinion," such as the *vox populi* represented by either the spectators of the Roman imperial circus, or the modern dupe of Walter Lippmann's *Public Opinion*, rejects, by definition, any changes contrary to its implied axiomatic assumptions, even democracies, for example, tend to be incapable of uprooting those fatal assumptions which "popular opinion" instinctively refuses to acknowledge as being erroneous. So, Rome was self-destroyed by its own *vox populi*. Most fallen empires and kindred follies of the past, have been wrecked by their own hand, in just this way.

fects form a clear pattern, a *syndrome*, as shown in both the collective and individual behavior of the relevant social strata. The defective mentality of most among the economists of that generation, aptly typifies the general state of mind prevalent among other notable influentials from the same general background.

The point is: to find the cure. As the California energy-crisis signals, there is no time to lose in identifying and uprooting the pathogen of failure shown by those academically trained, now middle-aged professionals, who, during the recent thirty-odd years, have come out of their childhood and adolescence, to exert increasingly ruinous influence on the policy-shaping of the U.S., and other institutions today.

Look at the related case of the chiefly pathological mass behavior, often called "go along, to get along," exhibited by most among the U.S. citizens who actually voted during the March-November phases of the recent Presidential election-campaign. Study this clinically, with a mind's eye informed by study of Jonathan Swift's *Gulliver's Travels*. Recognize that famous book as his commentary on the faith and morals of Walpole's and Hogarth's willfully decadent, early Eighteenth-Century Britain.

Swift's book suggests the explanation for the follies of today's middle-aged economic-policy Lapultans. Like the willful wretches depicted by Hogarth, the generation born and reared during the 1950s sway of the suburbanite, Orwellian cults of "White Collar" and "The Organization Man," the

generation which we examine here, acts less often as cognitive individualities, than almost xerox copies of one among a set of recent decades' commonplace social types; they are predominantly the victims of a sickness pervading most of an entire generation. We must recognize that, in respect to the pathology I have placed under scrutiny here, or of early Eighteenth-Century Britain, earlier, we are dealing, essentially, with a mass-phenomenon, rather than any significant accumulation of relevant kinds of actually independent, sovereign qualities of mental activity among the citizens.

Our nation's recent and current policy-making has been afflicted, thus, with something akin to the cast of characters of a George Orwell allegory such as *Animal Farm*, or *1984*, and, perhaps, also, some spill-over from Golding's *Lord of the Flies*.⁵ We are dealing with a phenomenon of the type associated with the cult of *vox populi* among the pagan spectators of the Roman Colosseum, or of the kindred type of popular opinion exhibited in pathological mass behavior associated with the bodily-contact sports and rock-concert spectacles of European civilization today.

Contrast to the pathetic writings of utopians such as Orwell, Aldous Huxley, and the neo-Hobbesian Golding, the fables of Swift's great humanist predecessors, the *Don Quixote* of Miguel Cervantes, and the *Pantagruel* and *Gargantua* of François Rabelais earlier: the Lilliputians, Laputans, and Yahoos of Swift's tale, or the "Sheep of Panurge," and their like today, are characters whose influence threatens to self-doom that nation in which these pathological types proliferate. We speak thus, of a nation, our own, as the authors of our 1776 Declaration of Independence rightly saw early Eighteenth-Century England then, as a United Kingdom which had lost much of its moral fitness to exist, that at no later point than the moment George I of England (not Washington, D.C.) ascended to occupy that newly instituted royal throne.

The Search for the Cure

Cease your whimpering! Do not be cry-babies, lamenting the perilous bad times into which we have thus fallen! Have some dignity! Get out from under the bedcovers where you are mumbling like the Russian fictional character Oblomov: "There's nothing anyone could do to change this!" Let us examine the disease which afflicts us, with the intent to discover the cure. Jonathan Swift has already given us one of the most important of the clues we require.

5. George Orwell, *Animal Farm* (New York: Harcourt, Brace and Co., 1946); George Orwell, *Nineteen Eighty-Four* (New York: Harcourt, 2000); William Golding, *Lord of the Flies* (New York: Coward-McCann, 1955); Aldous Huxley, *Brave New World* (New York: Harper and Row, 1989). The utopian fables of Orwell, who was, together with Aldous and Julian Huxley, a protégé of the circles of the Golden Dawn's Aleister Crowley and also of the post-1928 team of H.G. Wells and Bertrand Russell, are usefully examined, also, in terms of the motion-picture productions they, like Wells' *Things to Come*, spawned.

To aid you in discovering that cure, you need to know, that, during the reign of George I's predecessor, England's Queen Anne, Swift was among the leading intellectual figures of a political current closely allied with the great Gottfried Leibniz. This was the current which sought to free the British Isles from the affliction brought upon it by the combined influence of John Locke and the tyranny of the bloody William of Orange. Although the death of Queen Anne, and ensuing accession of Orange's anti-Leibniz ally George I, doomed the British Isles to its ensuing moral ruin, it was the impact of Swift's faction, and that of Leibniz, upon the circles of Benjamin Franklin, which made possible the creation of our United States.⁶

Within a humanity whose characteristic distinction from other living species, is *cognitive free will*, there is no crisis which precludes the possibility of a solution. Even for the errant, even in the extreme case, there is always a lurking pathway to redemption.

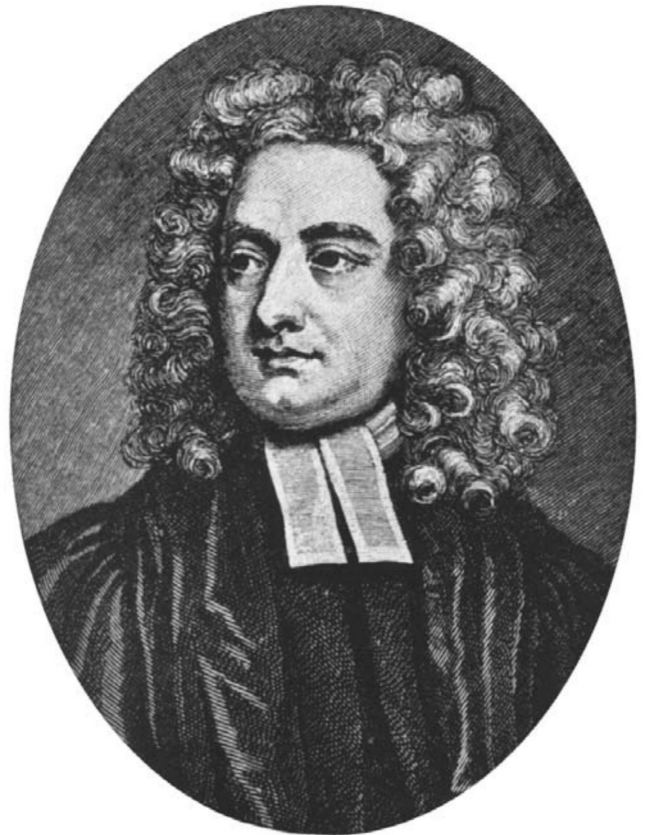
Consider the ruinous strategic situation into which our young U.S.A. fell, as a consequence of the successive disasters of the 1789-1794 Jacobin Terror, Napoleon Bonaparte's rule in France, the Congress of Vienna, and the creation of the treasonous Nineteenth-Century Democratic Party, the latter by Aaron Burr's consequence, Martin van Buren.

In our national history, the pathway leading upwards from the ruinous reigns of Jackson and van Buren, was a pathway chosen by such heirs of Franklin as John Quincy Adams and the Careys. The latter, typical of the patriotic foes of treasonous Presidents such as Jackson, van Buren, Polk, Pierce, and Buchanan, redeemed the United States, when they developed that great national leader, President Abraham Lincoln, who, more than a decade after Adams' death, freed the U.S. from British-dictated slavery,⁷ and led the nation to become, over the interval 1861-1876, the world's most powerful nation-state economy.

By that means, the victory by Lincoln returned our republic to its intended mission as "beacon of hope and temple of liberty for all mankind." Out of that interval, we emerged as the leading nation-state power, the leading challenge to the global power of the British Empire. Despite the implicitly treasonous efforts of such foul relics of the fallen Confederacy

6. Cf. H. Graham Lowry, *How The Nation Was Won: America's Untold Story* (Washington, D.C.: Executive Intelligence Review, 1988).

7. On the British use of slavery in the U.S.A. as a leading source of the wealth and power of the British monarchy, see Henry C. Carey, "The Slave Trade Foreign and Domestic," in W. Allen Salisbury, *The Civil War and the American System: America's Battle with Britain, 1860-1876* (Washington, D.C.: Executive Intelligence Review, 1992). The documented close association of later President Abraham Lincoln with former President John Quincy Adams, et al., dates from Lincoln's key role, as Whig Party member and U.S. Representative, in opposing filibustering President Polk's 1848 war with Mexico. I was later situated, in 1982, to underline that U.S. patriot's relationship to Mexico, as expressed by both the title and content I assigned to my book-length policy brief of that early August, *Operation Juárez*.



Jonathan Swift (right) was among the leading intellectual figures of a political current closely allied with the great Gottfried Leibniz (left). It was the impact of this faction upon the circles of Benjamin Franklin, which made possible the creation of the United States.

as Theodore Roosevelt and Woodrow Wilson, later, we continued the Lincoln legacy as a leading, if contested, political and moral force within our affairs, until the assassination of President William McKinley; we resumed much of that same legacy, with the election of President Franklin Roosevelt, up to the point of the recent thirty-five-odd years since the 1968 triumph of the Nixon-led neo-Confederate Southern Strategy, and our ensuing decline as a nation, into the condition of the presently ongoing national economic catastrophe.

As President Franklin Roosevelt revived the legacy of Franklin, Alexander Hamilton, Quincy Adams, Carey, and Lincoln, to save both our national economy and Constitution, there are lessons from such sources as either our own national history, or that of modern European civilization more broadly, from which we may adduce the way in which to reach a solution to any man-made crisis threatening us today.

The method to which great modern leaders will always resort, to bring about such needed changes in direction to be taken by the ship of state, is what I define here was the method of *forecasting*, as distinct from, and opposed to the methods of *predicting*.⁸ Admittedly, I have raised forecasting from the

8. This is, as a matter of principle, the same argument made by Pope John Paul II on the subject of so-called “fundamentalist” predictions popular

relatively primitive level it was understood and used by most among my predecessors, but, otherwise, I have done nothing but carry forward the torch I chose to accept from their hands. It is that choice between the opposing methods of forecasting and predicting, as the choice confronts us in the present, specific set of historical circumstances, which is the subject of this report.

In all competent science, we approach the definition of a solution to any challenge, by recognizing the occurrence of a certain quality of difference between intent and result of practice, as being a paradox in fact. I signify what is defined in the relevant Classical literature on the subject, as an *ontological paradox* of the type illustrated by Plato’s *Parmenides* dialogue.

To identify that paradox, we must express it with a precision beyond reasonable doubt, which means, in the form of the immediate juxtaposition of two or more statements of fact, the which each summarizes a general, implicitly universal

among both the nominally Christian and Jewish varieties of gnostic Yahoo cults of today’s U.S.A. For the document issued by the Vatican Office on the Doctrine of the Faith, on the subject of the Third Letter of Fatima, see http://www.vatican.va/roman_cur./rc_con_faith_doc_20000626_message-fatima_en.htm 26.06.00.



From President Franklin D. Roosevelt's inauguration in March 1933, to approximately 1965, the trajectory of the United States was generally upward. After 1966, a cultural paradigm-shift took effect, which has led to the current global crisis. Here, Roosevelt campaigns in Seattle, Washington, 1932.

condition observed. An appropriate such juxtaposition expresses the form of paradox, an *ontological paradox*, which is associated in science with the interchangeable terms, "Analysis Situs" or "geometry of position."⁹ Those names were given to this method by Gottfried Leibniz, but the use of that method originated, in modern times, with Nicholas of Cusa's *De Docta Ignorantia*, and it was the method used by an explicitly self-defined follower of Cusa and Leonardo da Vinci, Johannes Kepler, to discover and elaborate the principle of universal gravitation, in Kepler's *The New Astronomy*, and by Fermat to discover the anti-Euclidean principle of quickest time.

In the present report, that function of factualness is focused, first, on the fact, that, as measured in physical-economic terms, the course of the U.S.A., from President Franklin Roosevelt's March 1933 inauguration, until his untimely death,

9. An excellent example of this principle of scientific method is to be found in the recent publication of the first full translation of a scientific paper by the great Russian discoverer of biogeochemistry, Academician Vladimir I. Vernadsky, "Problems of Biochemistry II: On the fundamental Material-Energetic Distinction Between Living and Non-Living Natural Bodies of The Biosphere," *21st Century Science & Technology*, Winter 2000-2001. In short, the search for the discovery of a universal physical principle of life, distinct from non-living processes as such, must begin by demonstrating factually, empirically, the existence of the relevant paradox which absolutely requires such a discovery. Vernadsky makes that point, sharply, and comprehensively, in that 1938 writing. Although Vernadsky's knowledge of the work of Bernhard Riemann is, unfortunately, sketchy and flawed, he has a sense of the importance, and relevance of Riemann's work for his own line of inquiries. As far as he goes, Vernadsky's remarks on his own choice of the method employed in that 1938 piece, would win approval from Riemann. The same application of the method of *Analysis Situs* is demonstrated by the related discoveries of Fresnel and his collaborator Ampère. This features, notably, Fresnel's proof, with help of Arago, of the folly of Newton's doctrine of the propagation of light, and the closely related issue of electromagnetism, Wilhelm Weber's proof of Ampère's principle of "angular force." On the

and even over two decades following, was generally upward. A similar, upward trend is found in, approximately, the first two post-war decades of cooperation between the U.S.A. and continental Western Europe, 1945-1965. Whereas, secondly, on the other hand, over the course of the interval since the orchestrated 1963 Profumo scandal, paving the way for the ruinously radiated example of the economic policies of Britain's Prime Minister Harold Wilson, the trajectory of Western Europe's economic development, to the present date, has been overall downward, and consistently so, as measured in physical-economic, rather than the always inherently dubious monetary accounting.

The sharp reversal in direction of *measurable physical-economic* trends, from the upward trend prevalent over the interval 1933-1965, to the accelerating trend backward and downward, over the 1966-2001 interval, corresponds to a typical form of the statement of a factually-defined ontological paradox, using the language of geometry of position. This is the only choice of language through which science is able to supply a rigorous proof of the existence of the need for discovery of a universal principle.¹⁰ In the case at hand, an-

latter, see Jonathan Tennenbaum, "How Fresnel and Ampère Launched a Scientific Revolution," and Jacques Cheminade, "The Ampère-Fresnel Revolution: 'On Behalf of the Future,'" *EIR*, Aug. 27, 1999.

10. My associates and I have long used Kepler's discovery of universal gravitation (in his *The New Astronomy*) and Fermat's demonstration of a relativistic principle of quickest time, as examples of the only competent form of modern scientific method, that traced from Plato and Nicholas of Cusa, through Leonardo da Vinci, Huyghens, Leibniz, Gauss, Riemann, et al. This scientific method stands in direct and essential opposition to the relatively incompetent, but currently fashionable choice, that of empiricists and Cartesians. Kepler reports, in his *New Astronomy*, that his empirical demonstration of the impossibility of predicting the next turn in a trajectory of non-uniform curvature, led him to break with the simple-minded "connect-the-dots" methods used by Claudius Ptolemy, Copernicus, and Tycho Brahe,

other term used to describe a change of this type, is a *cultural-paradigm down-shift*.

The Scope of This Summary Report

Accordingly, the following pages of this report, are allotted among a strictly ordered succession of four component, topical sections:

The first, and longest section summarizes the trans-Atlantic cultural-paradigm shift, 1933-1965 versus 1966-2001. This presents the relevant, principal ontological paradox of fact, and lays the basis for addressing the matters assigned to the subsequent sections. This first section concludes with a crucial observation on the reasons, in fact, which prompted most of the economists and some others of the “Baby Boomer” generation, to fail, not merely as academics, but, rather, to fail, morally, as men.

The second identifies the reasons why it is impossible to make competent predictions of a statistical type under the conditions in which cultural-paradigms are being shifted. This is the pivotal topic of the present report as a whole. In other words, what are, academically, generally accepted methods of economic forecasting, are even more incompetent than they are popular among that credulous set of persons and institutions.

The simplest explanation of the consistent incompetence of the forecasts of the leading academic economists and their kind, is the fact that we have been dealing, over about thirty-five years to date, with a *systemic*, rather than what is usually termed a “cyclical” crisis.

The notion of a cyclical crisis, implicitly assumes a system operating, over a prolonged period of time, during which several or more cycles occur, under a fixed set of definitions, axioms, and postulates: an hypothetically fixed system, usually a mathematically linear one, typified, at its worst extreme, by the “ivory tower” variety of “systems analysis” proffered by John von Neumann and Oskar Morgenstern. Whereas, a systemic crisis is one which, by definition, involves the need for profound and radical, sweeping changes in controlling

and to discover that principle of universal gravitation which Isaac Newton later attempted to plagiarize from the pages of Kepler’s *New Astronomy*, but failed catastrophically by generating for his own system the exact same fatal paradox which Kepler had recognized in the work of Ptolemy, Copernicus, Brahe, et al. Hence, Newton’s fatal “three-body paradox.” These discoveries, by Kepler and Fermat, combined to define the core of Leibniz’s original development of the calculus, contrary to the absurdity of Newton’s attempt to parody Leibniz, and contrary to those follies introduced by Euler, Lagrange, and Cauchy, which haunt the modern mathematics classroom to the present day. As this conception is developed at a later point in the present report, it is solutions to those paradoxes defined, from an experimental-science standpoint, in terms of geometry of position (“*Analysis Situs*”), that formal mathematics is brought down from its ivory tower of dreams, to be educated in behaving as reality demands it do. It is the clear definition of those kinds of ontological paradoxes which geometry of position makes comprehensible, that mathematics is brought, as by Gauss and Riemann, contrary to Bertrand Russell et al., from the realm of foolish fantasy, into conformity with the requirements of science.

axiomatic assumptions. A *cyclical crisis* is, by assumed principles, a cycle which is definable within the terms of an unchanging set of axiomatic assumptions. A *systemic crisis* reflects a condition brought about by the failure of the generally accepted set of axiomatic assumptions.

Thus, nations doom themselves to the horror they thus bring upon themselves, when their foolish influentials agree, “Let us be practical. Let us discuss this matter in terms most of us can accept.” It is that latter attitude which ensures the doom of a nation locked within any systemic crisis.

Hence, since all economies, when examined as physical economies, rather than in simplistic, financial terms, are undergoing continuing change in their actual and, also, required systemic features, the only competent mathematical or quasi-mathematical model for forecasting, is explicitly *Riemannian*, as I have defined the relevant connections in numerous locations published during recent decades.

Thus, in what I have indicated to be the second section of the present report, I show the principled difference between the only competent method, *forecasting* as I define it in this present report, and what has always proven itself inherently incompetent, those methods of race-track-style *predicting*, which have been widely, officially used, to silly, or worse effects, over the course of the 1966-2001 interval.

Notably, at the close of the 1950s, I made my first long-range economic forecast for the economy of the U.S.A. Basing myself on a study of policy-shaping trends during the successive Truman and Eisenhower Administrations, I forecast that, if such trends in policy-shaping were to be continued, the U.S.A. would enter into a series of monetary and related crises during the late 1960s, leading toward a breakdown of the existing Bretton Woods monetary system, and the threat of a period of increasingly savage austerity during the ensuing period.

The economic history of the 1966-2001 period has unfolded, to date, in exactly that way. Among all leading forecasters speaking and writing for the public, I stand, on the record of the 1966-2001 period, as the most competent forecaster in modern history. All who made contrary public predictions, during that period, including virtually the entirety of the U.S. academically trained economic profession, have been consistently wrong, relative to my forecast.¹¹

11. I made my first formal forecast, as part of my duties as an executive of a consulting firm, at the close of 1956. Then, I warned that the deepest U.S. recession of the post-war period was about to strike by the end of Winter 1957. The 1957 recession struck a few weeks after that, during the February-March interval, continued through the late Spring of 1958, and lingered as stubborn stagnation until after the election of President Kennedy. On the basis of the study of the 1950s U.S. policy-shaping trends, I developed my first long-range forecast during 1959-60. I stated then, that if the financial and economic policy-trends of the Truman and Eisenhower 1950s were continued into the middle 1960s, a series of international monetary crises would occur during the latter half of that decade, leading toward a collapse of the world’s monetary system in its present form, and the prospect of a still deeper collapse, and threat of fascist regimes down the line, should the U.S. react to the

What is demonstrated by that four decades of experience, is not that I have rare skills at predicting, but that I have become the world's leading forecaster of our present times.

Excepting certain exceptional circumstances, *I have virtually never written any forecast which could be justly assessed as a prediction.* Even in such instances as my June 1987 forecast of a probable mid-October 1987 deep crisis in the U.S. stock-market, I have only stated *a sequence of choices* which would confront the population, and the relevant decision-makers during the indicated periods ahead. *Being professionally competent, I leave all long-range predicting to heathen (gnostic) religious fanatics, such as the Armageddon fetishists, and other bunglers. I do not predict, nor attempt to read the fated future in the condition of chicken livers; I forecast.* As I shall clarify that during the course of the second section of this report, most of those who consider themselves economic forecasters, rather than predictors, are actually engaged in a form of predicting, rather than engaged in *the specifically Promethean work of actually forecasting.*

In the brief, third section following that, I summarize the reason why the change from a Classical-humanist policy of education, to the inherently destructive alternatives outlined in Club of Rome co-founder Dr. Alexander King's 1963 Paris OECD report, and introduced under the Brandt reforms in Germany, must necessarily destroy the development of the mind and personal moral character of the student, and thus undermine the ability of an economy to grow, even under the impetus of what are, otherwise, good investment and related policies.

In the concluding section, I summarize the most crucial, but, presently, least known topic of competent economic forecasting, a topic which I have sometimes identified as the "Jonah Principle": how to conceptualize the "map" of the historical terrain on which effective economic forecasting, such as my own, depends absolutely.

We proceed now, accordingly.

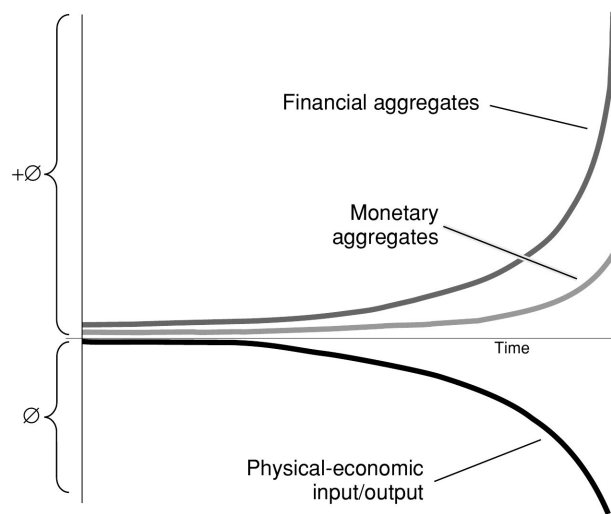
1. Two Contrasted Long-Range Trends

For the case at hand, the relevant ontological paradox, is, as already stated, the contrast of the secularly upward trend in physical-economic development of the U.S. economy over the long-term interval 1933-1965, as contrasted to the secularly decadent trend, of the same nation's economy, over the long-term interval 1966-2001. An appropriately ironical comparison of the evidence from the two intervals, yields a

monetary crises by resort to kind of "fiscal conservative" methods which were, in fact, introduced by Presidents Richard Nixon and Jimmy Carter. It is my published statements on that subject, during the 1960-1971 interval, which first established what became my growing international reputation as an exceptional successful long-range forecaster.

FIGURE 1

LaRouche's Typical Collapse Function



LaRouche's schematic "triple curve" diagram shows the physical economy plunging, as financial and monetary aggregates soar. When a critical point of instability is reached, the economy collapses.

statement in the required form of geometry of position. This statement, in turn, shows that the two intervals are of *characteristically different systemic types*: the first, predominantly *anti-entropic*, the second, predominantly *entropic*.

To understand anything important about the comparison of these two, long-term periods, one must always measure growth in performance, in the terms of physical-economy, rather than monetary-financial terms. Financial accounting can not be avoided, of course; but, no financial data can be competently presented as evidence, until it has been subjected to rigorous criticism from a physical-economic standpoint (**Figure 1**).

Even in the best quality of financial cost-accounting practice, counting in monetary units never rises above those relatively silly statistical methods which are fairly described as "the children's game of connect-the-dots."

The essence of all successful economic practice, is, that the cause-effect relations underlying sustainable patterns of growth in real-life economic processes, are intrinsically of a quality which is usually described today by the ambiguous term "non-linear," patterns which the Classical Greeks defined as "incommensurable," and which are otherwise defined, in the Leibnizian aftermath of the work of Kepler, as *geometrically defined trajectories of characteristically non-uniform curvature*.

Financial data never defines what might be justly termed "objective" reality; it represents nothing better than the mere, distorted shadows on the wall of Plato's Cave, the shadow of

a reality which is unseen by sense-certainty, and usually also regarded, foolishly, as “unknowable” among accountants and financial analysts generally.

The problem is, that among human beings, in societies so far, fantasies contrary to all objective reality, either perceived, or otherwise, often control the decision-making and related other behavior of leading institutions. Today, this is also the condition which has been induced in the population in general. Thus, in forecasting, as in atomic, nuclear, and sub-nuclear microphysics, for example, we must distinguish between those choices which are presented to us by an underlying, unseen, but demonstrable physical reality, and the often contrary set of choices, occurring as fantasies, in the opinion and practice of the credulous, of populations and their governments, alike.

Such discrimination, between the reality of the physical-economic processes, and the popularized delusions typically associated with the interpretation of financial data, is, therefore, the essence of all competent economic forecasting. This contrast between physical-economic reality and monetary-financial fantasy-life, must be apprehended as a case for the application of the methods known, alternately, as those of *Analysis Situs*, or *geometry of position*.

For more than fifty years, I have always measured economic performance in, primarily, physical-economic terms. As every representative of what has become today’s, admittedly, greatly endangered, vanishing profession of competent entrepreneur, has done, no competent economist would ever accept any set of financial data as being inherently truthful. We must always judge critically the usually misleading mere fiction which less able minds assert to be the financial accountant’s “bottom line.” Once again: Nothing said in the language of accounting is to be believed, unless that implied judgment is independently verified from the standpoint of the physical reality.

The financial data, at their best, never do better than merely echo, imperfectly, a reality which is essentially physical, rather than financial in nature: if, indeed, from case to case, it represents any physical reality at all. In any case, any picture of an economic process adduced from financial accountants’ data, is, at its best, a highly distorted, and intrinsically unreliable representation of the reality it merely reflects: in the fashion of mere shadows on the wall of Plato’s Cave.¹² I therefore repeat myself: *it is this contrast, and interaction, within the population as a process, between physical-*

12. This is also the reason all digital computer models of economic processes are intrinsically false to reality, and usually dangerously so. This does not signify that computer processing is useless; it is useful only to the degree one appreciates its axiomatic fallacy of the assumptions it requires. One must always keep two parallel sets of data for any competent computerized accounting system. The one set represents the financial-cost-accounting array; the second represents the non-financial physical activity. The cause-effect connections governing the financial array are to be located in the physical array, where non-linear physical principles apply.

economic reality and financial-monetary fantasy, which is the characteristic feature of all competent modern shaping of national economic policy.

“How is it,” one must challenge the financial analyst, “that if I stir into a pot a certain combination of physical ingredients, I may get more net physical product out of the pot, than I have put into it?” *Perhaps the gain comes from the pot itself?* In other words, any successful economy is rightly deemed successful, as an economy, only if it is systemically *anti-entropic*. Whence the *anti-entropy*? How shall we measure this *anti-entropy*? As I shall indicate, a bit later in these pages, *no competent measure of entropy or anti-entropy can be made, as Ludwig Boltzmann attempted to do, or Clausius, Grassmann, and Kelvin before him, within the bounds of a reductionist’s conventional statistical practice. This measurement can be made competently, only from the standpoint of the notion of ordered series of Riemannian manifolds.*

All such questions, respecting relative entropy or anti-entropy, must be couched in terms of the physical nature of man’s relationship to the universe at large: is mankind, per capita, increasing, or diminishing its power to exist in and over the universe as a whole? Thus, competent economics practice must rely, and that essentially, without exception, on the validation of certain sets of universal physical principles. It is the mastery of those principles, which, in turn, enables us to reach sensible conclusions respecting the meaning behind any set of financial and related data.

These are not “merely academic” questions. The essence of the challenge of entrepreneurial responsibility, is expressed by the constantly nagging question: “How do I bring about an increase in the relative *anti-entropy* of the economic process? What changes in the physical behavior under my control, must I take, to prevent the process from sliding into an entropic phase, such as the catastrophe which a fanatical, quarter-century-long cult of deregulation of energy utilities, and related other infrastructure, has created in the state of California now?”

Competent answers to such questions are always delivered, *primarily*, in the language of physical science, not financial accounting, nor monetary theories, nor currently popular notions of statistical methods. Often, as in the instance of the California crisis, the key fact ignored by the financial accountants, is the suffering of the people, and the bankruptcy which is breaking down the door of the fortress of fantasy, within which the accountants have barricaded themselves. The latter, like their monetarist cronies, have sought to barricade themselves against those distractions from their duties, which threaten to intrude from the clamor of social and political realities outside their Tower of Babel.

Such were the principles of the science of economy from its 1671-1716 beginnings, as *the science of physical economy* developed initially, by Gottfried Leibniz, to supersede the pre-existing levels of modern statecraft known as the practice of *cameralism*. In my own short-hand, the *primary* measure-

ment to be made, must be expressed in purely physical, rather than monetary terms. I have termed this implied unit of measure the *potential relative population-density* of the society. This means, in first approximation, to measure performance in terms of relative increases per-capita of both the population and its labor-force, and per square-kilometer of the relevant surface-area of our planet.

This means, that we must focus attention on the balance between the unavoidable costs of producing, and improving upon a certain level of physical output, per capita and per square kilometer, and the level of net output produced.

Two Views: LaRouche & Vernadsky

It is useful to restate what I have just said from the standpoint of Russian Academician Vladimir I. Vernadsky's definition of what he named the *noösphere*. A recent translation, arranged by my associate Dr. Jonathan Tennenbaum, of an extraordinarily important, long-neglected 1938 paper of Vernadsky's,¹³ summarizes an argument paralleling the approach I took along a similar route, back during 1948-1953, in developing my own original discoveries in the field of physical economy. Vernadsky's 1938 paper, recently made available to me, enables me to restate my argument now in even much stronger terms than I had earlier. The point which I made approximately fifty years ago, stands as fully valid today; Vernadsky's rediscovered work now taken into account, my familiar point can be much better said.

Vernadsky is outstanding among those physical scientists, who, proceeding in opposition to today's ultra-mechanistic, and actually dangerous ideologues of faddish molecular biology, have defined life itself as expressing a universal physical principle distinct from the notions of physical principle associated with non-living processes. His work to this effect, featuring kindred earlier approaches by Louis Pasteur and others, led him, not only to define the evolution of our planet as governed by a universal physical principle specific to life, as distinct from non-living processes, but to recognize that human cognition itself is also a universal physical principle, higher in order than either non-living processes, or the universal physical principle of life. Thus, we, today, have Vernadsky's conception of the *noösphere*.

During the 1948-1952 interval, I developed a view of this notion of principle which parallels Vernadsky's, but developed it from a different starting-point. In 1953, I generalized my earlier such discoveries, based upon my refutations of both Immanuel Kant and Bertrand Russell acolyte Norbert Wiener's "information theory" hoax. To this end, I have proceeded, since 1953, from the standpoint of expanding Riemann's notions of hypergeometric manifolds and geometry of position, to meet the requirements of a universe in which



Vladimir I. Vernadsky's view was that human cognition itself is a universal physical principle, higher in order than either non-living processes, or the universal physical principle of life.

economy is governed by the multiple-connectedness of three mutually distinct sets of universal physical principles, those of respectively non-living, living, and cognitive processes.

In constructing that view, then, I relied upon the fact that living processes are *characteristically anti-entropic*, whereas non-living processes are, taken in and of themselves, *characteristically entropic*. For me, already in 1946, it was basing myself upon that characteristic difference, as defined from the standpoint of geometry of position (*Analysis Situs*), that I defined life as a universal physical principle, as distinct from a universal physical principle of merely non-living processes. Thus, the subject of the study of the phenomena of life from the standpoint of a mathematical biophysics, such as the tempting but, what I came to recognize, with a sense of frustration, as the epistemologically flawed work of the internationally celebrated Rashevsky and Oparin, occupied much of my studies during the 1946-1952 interval. The result was a certain agreement, but also a certain notable difference between my views and those which Vernadsky specified for his notion of a *noösphere*. I shall come to that latter difference in due course, here, shortly.

Decades later, during studies which I launched and continued to steer beginning Spring 1973, I incorporated as much as my associates and I knew of Vernadsky's definition of the *noösphere*, to the effect of fusing that crucial discovery by him with my own earlier, 1948-1953, work, leading to my

13. op. cit.



The Earth as photographed from the Moon, by Apollo 11 astronauts in 1969. Vernadsky and LaRouche concur, that the cognitive powers of mankind have changed the functional characteristics of the relationship of the biosphere to the non-living processes of our universe.

founding what had become the LaRouche-Riemann Method in physical economy.¹⁴ The result of bringing together those two streams of Classical-humanist thought, my own and Vernadsky's, on the universal subject of *man in the universe*, was a product which is, today, far better, far richer, than might have been brought about by the work of either of us alone. The product is to be viewed as a crucial case-study in the implications, and applications of what Leibniz was first to define, alternately as "*Analysis Situs*," or "geometry of position."

It is only from the vantage-point of that result, that we could effectively conceptualize our crisis-wracked world's leading policy-shaping challenges of today. The core of that argument runs as follows.

Any empirically valid statement in the form of *Analysis Situs*, takes us out of the confines of the domains of either a formal classroom mathematics, or the use of language according to a deductive-inductive, reductionists' mode. To restate that same point, any valid statement of a paradox, in the lan-

14. This ironical choice of terminology, LaRouche-Riemann Method, may seem an awkward one, but it is precisely accurate, whereas the contrary, "Riemann-LaRouche Method," would be flatly wrong in fact. My original discoveries were essentially completed prior to my taking Riemann's work into account. Thus, by applying Riemann's method to my prior discoveries, my discoveries were transformed from "LaRouche" to "LaRouche-Riemann."

guage of geometry of position, defines what is strictly defined, as by Plato, as an *ontological paradox*. In effect, such a paradox obliges us to abandon further efforts to explain away the paradox with mere words, or mere mathematical deduction, and, instead, to search for some *thing*, existing outside our pre-existing vocabulary and syntax, the *thing*, so to speak, which has cast the specter of a paradox across today's generally accepted expression of either popular or professional opinion. That "thing" is either a universal physical principle, or a newly encountered aspect of one, or a combination of such principles.

In each such instance, this *thing*, corresponding to the paradox, whatever we may subsequently discover it to be, takes us out of that domain of ivory-tower opinion-mongering, which tends to dominate teaching at the lecture-hall blackboard or mere textbook, and compels us, instead, to enter into the realm of physics. Or, as Riemann expresses the same point, in the conclusion of his celebrated 1854 habilitation dissertation. We must thus depart the realm of mathematics, as mathematics is usually, incompetently defined in terms of ivory-tower mathematics, as, in the extremely pathological cases, by Bertrand Russell and his fellow-ideologues.¹⁵

Riemann's argument, as he situated it in that and related

15. Bernhard Riemann, *Über die Hypothesen welche der Geometrie zu Grunde liegen*, Bernhard Riemann's *Gesammelte Mathematische Werke*, H. Weber, ed. (New York, Dover Publications reprint edition, 1953).

locations, is the essential basis for competent forms of globally applicable arguments, in matters of economic policy-making today.

The proximate source of Riemann's revolutionary discovery of 1854, was Kepler's development of a new method, as elaborated within his *The New Astronomy*. That absolutely revolutionized astronomy, most immediately, but also led through Kepler's successors, as through Gottfried Leibniz's unique creation of the calculus (of his "monadology's" non-uniform curvature of least action in the infinitesimally small), to Riemann's discovery.¹⁶

All of this to which I have thus just referred, is essentially elementary in nature. That is to say, there is no reasonable excuse for any post-adolescent student's failure to grasp this notion more or less perfectly. The difficulties are always the result of unreasonable, but still widespread behavior commonly induced among teachers and students alike. Without addressing those unreasonable causes of difficulties, actual grasp of the point were as unlikely as evidence to date attests.

Thus, if we apply the principle of *Analysis Situs*, as Kepler, Fermat, Huyghens, Leibniz, Kästner, Gauss, Abel, and Riemann, et al. have refined this, to those domains of practice which are characteristically efficient modes of action on the universe as a whole, we term each of the three known such categories of modes, as respectively distinct, universal physical principles. Each among the three sets is universally efficient, and thus universal, and produces corresponding types of physical changes in the state of nature.

We, thus, have the indicated, three distinct types of universal physical principles: those of non-living universality, the universality of living processes, and the ability of the individual member of the human species, acting through individually sovereign powers of cognition, to make those valid discoveries of universal principle through which the power of the human species in and over the universe is increased. Hence, cognition as such, represents a universal *physical* principle, with the same emphasis on *physical* otherwise specific to living and non-living processes.

From that point on, Vernadsky's definition of the noosphere and my own, coincide in exactly that degree. The difference between our arguments, lies in my apprehension of the implications of Riemann's work on the subject of mani-

folds in general, and *Analysis Situs* in particular, and its application to economics. Our arguments coincide to the effect, that I, like Vernadsky et al., view the biosphere as dominating the non-living planet increasingly, and that Vernadsky and I concur, that the cognitive powers of mankind have the manifest power to change, repeatedly, successively, the functional characteristics of the relationship of the biosphere to the non-living processes of our universe.

However, I recognize that, as of 1938, Vernadsky had not grasped the actual implications of Riemann's discoveries as such.

Also, I have no indications available to me, that Vernadsky would actually have accepted my proposition, that the evolution of the universe *as a whole* is determined, as Kepler argued, top-down, rather than as the simple-minded reductionists view evolution, as vectored bottom-up. *In other words, living processes do not evolve within the bounds of the universal principles of non-living processes, and, that, contrary to today's ideologues of molecular biology, the human mind's cognitive powers are not evolved from within the bounds of lower forms of life.* Rather, a subsuming universal principle of each and all, which we may call a principle of *universal creation*, governs all three processes, as from the top down. *The proof of that principle of universal creation occurs in the form of a proposition in Analysis Situs.*¹⁷

I have no evidence that Vernadsky might not have concurred with the latter point; but, I have no evidence that he actually did, although I strongly suspect, on good grounds, that he might have agreed if my proposition had been put to him.

That much said, let us go directly to the nub of the implications of Vernadsky's own notion of the noosphere, for defining economic policy today.

The point to be emphasized, is Vernadsky's argument from his standpoint in biogeochemistry. He shows that the biosphere is a product, in the sense of also being a by-product of the action of living processes on the non-living universe. This includes the oceans, the atmosphere, the soil, and so forth. This action by living processes, in turn, provides the indispensable preconditions for the existence and development of living processes which depend upon such prior and continuing self-development of the biosphere as a whole.

Contrast Vernadsky's definitions with the directly contrary, arbitrary presumptions of the silly class of self-named "environmentalists," who presume that the biosphere itself is a given magnitude, which man's existence depletes. Vernadsky emphasizes that man accelerates the development of the biosphere of which man's living existence is an integral

16. Contrary to the fraudulent reconstruction of Leibniz's calculus, by the radical reductionists Euler, Lagrange, Laplace, and Cauchy, the interval of action corresponding to Leibniz's infinitesimal differential, is not linear, but corresponds in geometrical form to what Classical Greek thought, such as that of Plato, defined as an "incommensurable," as Kepler had exposed, through empirical proofs, the incompetence of the connect-the-dots methods employed commonly by Claudius Ptolemy, Copernicus, and Tycho Brahe. In other words, Leibniz sought to define the approximately infinitesimal differential interval of a trajectory which corresponded to an orbit of non-uniform curvature of a planet, and to generalize such solutions for physical processes in general. Hence, Cauchy's celebrated linearization of the derivative was a fraud.

17. Just as mankind may willfully develop the preconditions of an environment suited to support human life on a colonized planet, so the principle of universal creation developed both the non-living and living processes on which the necessary preconditions for human life came into existence on Earth.



Man accelerates the development of the biosphere of which man's living existence is an integral part, a part which is essential to continue such ongoing development: directly contrary to the doctrine of the neo-malthusian utopians, such as Greenpeace.

part, a part which is essential to continue such ongoing development: directly contrary to the silly, arbitrary doctrine of the neo-Malthusian utopians.

In economics as such, Vernadsky's notion of the noosphere, is extended to define a general category which we reference, commonly, as "basic economic infrastructure." The point is brought more sharply into focus the instant we take up discussion of the steps required to build the kind of artificial environment on the Moon or Mars, needed to sustain human existence and activity there.¹⁸ We are obliged, then, to measure *the relative anti-entropy* of the artificial "environment" (i.e., the basic economic infrastructure) we must induce

18. This is no arbitrary choice of example. The fact that the principle source of cosmic-ray radiation impinging upon the Earth is the highly anomalous Crab Nebula, typifies the coupling of radiation of the universe at large with actions specific to our Solar System as a Keplerian astrophysical system. To control those periodic and related natural catastrophes, by which human life on our planet has been repeatedly imperilled in times past, we must go out into Solar space, and beyond, partly with instruments, partly with human scientific parties, to conduct the kinds of experimental investigations relevant to the kinds of discoveries to be sought. This will require, as the late Krafft Ehrlicke emphasized, the development of those industries on the Moon, where the greater part of the weight of intra-Solar travel will be constructed, chiefly from Moon-based materials. It will require deploying scientific parties, in quantities suggesting the Los Alamos center, into habitable conditions for significantly extended periods on locations such as Mars. We have not ventured for very long into the relevant scientific and engineering studies needed for such plans, without realizing that everything accomplished in creating habitats on Mars, for example, defines technologies which can more readily revolutionize the opportunities for human life in the most stubborn deserts of Earth itself.

into coming into being there. We must thus see infrastructure rightly, as man's replicating, while also extending, the same kind of processes which life, as a universal principle, has done to create the conditions we recognize as an upward-evolving biosphere on Earth.

In other words, those actions we call production, are dependent upon preconditions which are a combination, of what we recognize as biosphere, with what man adds as supplements to that biosphere, supplements we refer to as "basic economic infrastructure," such as transportation systems, power generation and distribution, and water production and management. In a favorable climate on Earth, much of the infrastructure is already provided as what we might call the "given environment;" on a foreign, alien body in space, we must create the equivalent of such an environment, in addition to "other essential elements of basic economic infrastructure."

For example, to develop a sustainable sort of synthetic environment, for situating a science-city on the approximate scale of the famous Los Alamos mission, on Mars, it would not be sufficient merely to introduce what convention regards as "basic economic infrastructure." We would be fools to rely upon an "artificial environment" alone for anything of longer duration than a short visit. We must cause life to develop a biosphere within the planet Mars.

For this purpose, we must study the upward evolution of the biosphere, under the control of the universal principle of life, on Earth. We must take into account, that the existence of any level of species on Earth, required the emergence of a certain level of upward-evolutionary, anti-entropic develop-



In economics as such, Vernadsky's notion of the noösphere, is extended to define the concept of "basic economic infrastructure." That issue is most sharply posed, when we consider the requirements for terraforming Mars, shown here in an artist's rendition.

ment of the biosphere. In other words, man did not emerge from evolution within lower species; man appeared when the biospherical preconditions for human life had been previously established.

In other words, rather than attempting to create an artificial environment, we must master the principles of life as such, to the effect of knowing how an anti-entropic biospherical process on Earth, developed the preconditions on which the emergence of successively higher forms of living species and varieties became possible. For the long-term scientific expedition on Mars, we must cause Mars to develop those biospherical qualities, as it might, to provide the "infrastructure" needed for a relatively long-term presence of human life.

What I have just written may be received by the reader as an indictment of the concept of "micro-economics." "Micro-economics" do not exist, because they could not exist in the real universe, but only in some infantile "Robinson Crusoe" fantasy, such as that of the rabid reductionists John von Neumann, Norbert Wiener, and Oskar Morgenstern.

Once we recognize that life has produced the biosphere

upon which human existence depends, and that the improvement of human existence requires a further development of the biosphere as man-made basic economic infrastructure, the preconditions for continued existence and development of the real economy at large are defined in a corresponding way.

Therefore, among the physical costs accounted as incurred by any local economic activity, we must include the costs of sustaining and developing further a basic economic infrastructure which includes the entirety of the biosphere, and also its development to the level at which the referenced quality of local economic activity becomes generally sustainable. Therefore, for sane and literate minds, "micro-economics" does not exist; only "macro-economics" as I have just defined it, does.

Hence, those who call themselves "ecologists" today, such as Britain's Royal Consort Prince Philip "I wish to be reincarnated as a deadly virus" Mountbatten, and the World Wildlife Fund which he and ex-Nazi Prince Bernhard combined to launch, are, in point of fact, the most deadly enemies of that "environment" which they profess to worship so devoutly. The natural development of the biosphere to the level it reached in modern centuries, has depended upon precisely those preconditions needed to produce the present scale of human population and pre-1966 level of physical economy of the planet. Should those principles of the noösphere which brought man's existence into being, be frustrated, the environment of this planet would collapse to levels at which virtually no continuation of human life on this planet would occur.

For example, the only effective way in which to minimize destructive forest fires, is to "garden" the forests, meaning also to "weed them" of the accumulated waste they produce, so as to reduce the combustible potential. The idea that existing conditions, without human intervention, are "natural conditions," and represent a "pure state of nature" to be protected from human hands, is an epidemic form of mass insanity which threatens to bring about something approximating both the lowering of the level of the biosphere, and even the potential suicide of the human species, at least in its greater part.

Today, in the collapse of the "environment" caused, exactly, by the growing influence of the so-called "ecologists," we see the prospect of the self-doom of the human species by the hand of its own lunatic hatred of the principle of scientific progress.

The Hoax Named 'Information Theory'

The first step toward the development of modern computing machinery, was Kepler's design and use of a mechanical calculator which he developed and employed to simplify the labor of his astrophysical calculations. A few decades later, a virtual duplicate of Kepler's design was replicated by Blaise Pascal. In Paris, Leibniz went qualitatively beyond Pascal's device, in designing the first working form of what we should recognize as modern mechanical calculators. Later, Leibniz not only adduced the use of the binary system by the ancient

Chinese, but defined the elementary principles involved. During the Nineteenth Century, a leading English follower of Leibniz, Charles Babbage, perfected the design of mechanical devices which contain all of the essential working principles of the punched-card-using, digital electronic computers of the Twentieth-Century.¹⁹

Notably, Babbage's designs included the use of one deck of punched cards to contain the program controlling the sequence of calculations, as distinct from a second deck containing the data to be processed.

The advantages of the mid-Twentieth-Century development of electronic digital computing and control apparatus, over Babbage's engines, lay in the improvements in refinement of the methods and materials of production employed to construct calculators which were essentially copies of Babbage's original design. During the latter half of the past century, electronic modes superseded mechanical ones, increasingly, and improvements in materials and electronics brought about giant steps in increasing the capacity, rates of action, and reductions in cost achieved.

Notably, much of the improvement in the methods of construction of digital calculating machinery, such as the impassioned obsession with miniaturization and increased speeds, was the result of the impact of "crash programs," that in such spheres as the development of nuclear weapons-systems and in space-exploration programs such as the Kennedy Manned Moon-Landing program of the 1960s. This progress was, plainly, not the fruit of so-called "information theory," or "new economy," but "good, old-fashioned" fundamental progress in discovery and application of new physical principles.

Typical of this, one study of the results of the Kennedy "crash program" for space was the return of more than a dime's worth of increased productivity for the U.S. economy of the mid-1970s, in return for every government penny spent on the 1960s program.²⁰ All of this nothing other than good, "old-fashioned" physical science, not some rabid Crowleyite theosophist's infantile, satanic fantasy concerning the mystical magical powers of "information."

Think of "information theory" as an analog of the culprit Aaron Burr, and the "new economy" as a parallel to the work of Burr's heir in subversive schemes, Martin van Buren. Nei-

19. Babbage, together with Cambridge fellow-students Herschel and Peacock, produced the famous paper, ridiculing Newton and defending the Leibniz calculus, which subsequently prompted the British to abandon further wasting of time with Newton's hoax, and, instead, adopt the model of Cauchy's mutilation of the Leibniz calculus. From this point on, Babbage, partly in collaboration with his fellow-student and leading British astronomer, the younger Herschel, launched what became the basis for Twentieth-Century forms of digital computing machinery.

20. In April 1976, Chase Econometrics released a study on increased productivity from new technologies introduced by the space program. See Marsha Freeman, "Space Program Spending Paid for Itself Many Times Over," *EIR*, Feb. 23, 1996.

ther of those shell-games is actually a product of science, but the spawn of a lunatic belief which is, in turn, symptomatic of a modern revival of pagan religious mysticism. The clearest example of this, is the combined effort of British intelligence's H.G. Wells and Bertrand Russell, in their convergence around Wells' 1928 *The Open Conspiracy*,²¹ and their close association, together with Aldous and Julian Huxley, and George Orwell, with the psychedelic cult of the referenced theosophist of the "Golden Dawn," Aleister Crowley.

The religious issue, is typified by Fabians George Bernard Shaw's and Bertrand Russell's, pro-Venetian, Nietzsche-like hatred of Christianity. By this, I mean, specifically, their fanatical hatred of the Mosaic notion of man and woman, as each made equally in the image of the Creator of this universe, man as endowed with powers over all things in the universe in likeness to the powers of that Creator. In physical science, the correlative of the Christian view of that Mosaic principle, is the notion of human species and its sovereignly individual person, as set apart from, and above all other living things, by virtue of the sovereign power of the human individual for acts of *cognition*, as distinct from the dead soul's characteristic reliance on deduction. By *cognition*, we signify the potential of the individual human mind, not only to think in terms of what we have treated here as *Analysis Situs*, rather than merely deductive logic, but, also, the ability of that individual mind to discover experimentally validatable forms of truly universal physical principles, by means of which the human species' power to exist in, and control the universe, is willfully increased.

This view of the essentially cognitive nature of the human individual and species, as distinct from and above all others, is correlated with an absolute abomination of those conceptions and practices, by means of which some people, such as both the Confederate slaveholders and today's advocates of "shareholder interest," herd, use, and cull flocks of other people as if the latter were a human form of expendable cattle. These opposing views of man's nature, are best known in European history as representing the conflict between the Classical humanist standpoint, on the one side, and the so-called oligarchical, or Babylonian model, on the opposing side. In globally extended modern European civilization, these opposing conceptions of both man and Creator are recognized as the conflict between the Classical-humanist and Romantic conceptions of man, God, and society.

Russell and Wells typify, as *The Open Conspiracy* attests, as Nietzsche and such among his followers as the Nazi philosopher Martin Heidegger also do, the most murderous and rabid version of the Romantic, anti-Mosaic conception of man. The oligarchical view expressed typically by Wells and Russell, is common to ancient Babylon, the Delphi cult of the Pythian Apollo, and the culture of Latin Rome; but, that oli-

21. H.G. Wells, *The Open Conspiracy: Blueprints for a World Revolution* (London: Victor Gollancz, 1928).

garchical heritage, is most commonly to be recognized, today, in all its trappings, by the common name of *Romanticism*, so indicating it to be a legacy of the depraved culture and law of ancient Rome. By that, we should signify Romanticism as it is so identified in science, in art, and in law and politics.

Since the existence of today's globally extended European civilization took its origin from ancient Greece's building beyond the cultural foundations supplied to it from ancient Egypt, it is the traditional conflict between Classical Greek culture's conception of man, as typified by Plato's work, on the one side, and the Romantic legacy, on the opposing side, which defines all among the principal conflicts over culture, within globally extended European culture ever since.²²

At the center of these conflicts, there is always but one single underlying issue: the nature of the powers of the individual human mind. Is the nature of the human individual, either, that defined by the principle of cognition, or, by the notion of sense-certainty? *In matters of physical science, this conflict over human nature, is expressed as a contest between the standpoint of cognition (e.g., Analysis Situs) on the side of Classical humanists such as Jesus Christ and his Apostles, and reductionist deductive logic, such as that of Bertrand Russell, Norbert Wiener, John von Neumann, et al., on the opposing, Romantic side.*

The Classical view, correlates with Vernadsky's conception of the noosphere; the contrary, anti-humanistic, so-called "ecologist" standpoint, is derived from the legacy of Gaea's Delphi cult of the Pythian Apollo. It is that Delphi cult, as transmitted to modern times in the form of Romanticism, which is the enemy of mankind within, and the source of the fanatical blind faith in "information theory" and "systems analysis" exhibited so widely, and so destructively, today. There lies the essence of the fundamental political and moral conflict within the world as a whole today.

There lies, precisely, the nature of the conflict between sanity and "information theory." The conflict is not a product of some honest difference among working scientists. Rather, "information theory" is a purely a pagan religious belief, which has been superimposed upon science and economics by such pagan acolytes of Bertrand Russell as Norbert Wiener and John von Neumann, and enforced as if by some Babylonian *Gestapo*. Such is, predominantly, the role of such agencies as the committees of the peer-review priesthood, which, since Eliot's and William James' reigns at Harvard Univer-

22. The highest level of culture achieved by European civilization prior to the Fifteenth-Century Renaissance, was embodied in the continued developments within Hellenistic culture prior to the Roman murder of Eratosthenes' correspondent Archimedes. Contrary to Romantic legends, often mistaken for real history, Rome made no independent contribution to *the progress of civilization*, and sent Europe and the Mediterranean reeling backwards in cultural development and morality generally for far more than a millennium since its founding among the Latins according to the model of the Delphi cult of the Phrygian Apollo.

sity, rule over, and usually ruin both the certified opinions of our universities, and the authorized U.S. teaching of science in general.

The case of the notorious Physiocrat of Deer Park and Voltairean notoriety, Dr. François Quesnay, typifies the moral perversion which the modern European Romantics introduced to the shaping of the conceptions underlying the usual making of economic policy.

Quesnay's notion of *laissez-faire*, as dutifully plagiarized, as "free trade," by Lord Shelburne's lackey, Adam Smith, decrees that the net gain of the aristocratic feudal estate, is brought into existence by nothing other than the aristocrat's possession of an assigned hereditary title to the estate, on which the function performed by the farmers, as serfs, or the "dead souls" of the celebrated Gogol story, is merely that of human forms of cattle. Quesnay's views are, notably, those of the tradition of the Norman *Fronde*, with which that forerunner of the Emperor Napoleon Bonaparte, the corrupt Sun-King, pagan worshipper of Sol Invictus, and self-anointed Pontifex Maximus, Louis XIV, had allied himself, against the policies of Cardinal Mazarin and Jean-Baptiste Colbert. These pro-paganist, pro-oligarchical cults of Louis XIV and, later, Quesnay, were also a syncretic copy of the core dogma of that *Bogomil* cult which English jargon identifies as "the buggers," from which, thus, the form of "buggery" known as "free trade" is descended, to the present day.

More emphatically, the otherwise curious cause for the fact, that political-economy did not come into existence until Europe's Fifteenth-Century, Italy-pivoted Renaissance, is a direct reflection of that oligarchical tradition which defined the mass of the population, by conventional imperial law, as virtual human cattle. So, Quesnay's anti-Renaissance, pro-medievalist doctrine of *laissez-faire* defines the economic role of the serf.

As the notorious Venetian of Padua, Pietro Pomponazzi, typifies the same point, the oligarchical view of man is, in all its underlying systemic features, the *mortalist* conception of the human individuality, as all strictly deductive method defines the human individual as implicitly, *systemically*, of a *mortalist* type. For the oligarchist in general, as for Pomponazzi in particular, the human soul does not exist, because, as Immanuel Kant based all of his series of *Critiques* on this, cognition (e.g., "synthetic judgment *a priori*") is asserted either not to exist, or, according to Thomas Hobbes and other such fellows, that it should not.

On this, Kant merely followed the perfervid Leibniz-haters and Bach-haters, such as Voltaire and Leonhard Euler, who, in turn, were, like Quesnay, essentially mere creatures of the network of salons and Rameau- and Algarotti-lovers, created by the Paris-based Venetian Abbot, and Leibniz-hater, Antonio Conti. All in all, these Romantics were a sordid crew of pagan rascals.

Thus, since such rascals deny the existence of an actual

Creator, or, as Plato calls him, the Composer, they seek to fill the vacuum of belief so arranged by inventing all sorts of gods, such as the Olympian variety, Moloch, and modern empiricist, positivist, and existentialist forms of so-called secular belief-systems. The model of the Delphi cult of the Pythian Apollo, as used for artificing the belief-systems of pagan Roman culture, provides the feudal and modern context for all such perverted forms of syncretic and secular expressions of religious beliefs, such as the Bogomil variety of satanism emulated by the wretched Quesnay.

It was on the axiomatic premises of this anti-cognition, mortalist view of the nature of the human individual, that Bertrand Russell, H.G. Wells, and such Russell acolytes as Wiener and von Neumann, defined and launched the anti-scientific hoax called variously “information theory,” “cybernetics,” and “new economy.” The fact that fools believe that a principle of design of calculating machinery fully developed by the early through middle Nineteenth Century, was a new physical principle of the Twentieth Century, properly implies the smell of a hoax in the “information theory” myth as a whole. In fact, that myth is not a product of the modern Twentieth Century, but, rather, as I shall now indicate, an attempt to return economics to the medieval level already achieved by the eruption of the famous New Dark Age of Europe’s Fourteenth Century.

The Birth and Role of Economics

The founding of real political-economy was inevitably delayed until those forces within Christianity, which were associated with the Fifteenth Century’s great ecumenical Council of Florence, established a revolutionary new principle of statecraft: that no government had the moral right to exist, except as it was efficiently committed to promotion of the general welfare of all of the living and their posterity alike. This is exemplified, as to principle, by two writings of one of the architects of the Council of Florence: Nicholas of Cusa, in his *Concordantia Catholica*, in which the conception of a community of principle among modern, respectively sovereign nation-state republics was introduced; and, his *De Docta Ignorantia*, upon which the founding of modern European experimental physical science was premised. This revolution was set into motion, by the beneficiaries of Jeanne d’Arc’s martyrdom, by King Louis XI’s Italy-inspired revolutionary institutions in France, and by England’s Henry VII thereafter. Before these developments, modern political-economy existed in no known part of world history.

Here we meet the irreconcilable conflict between the hoax called “information theory,” and human nature.

The establishment of the modern sovereign form of nation-state, according to the principles I have just summarily identified, was the greatest, and most profound political and social revolution in history or known pre-history. It was this revolution which, for the first time, introduced the Mosaic

conception of man as the real practice of society. For the first time, a form of state and of law of governments, was brought into being, which outlawed the continued practice of relegating masses of human beings to the status of virtual human cattle, a status which inheres in the juridical notions upholding either slaveholder and shareholder “values.”

By making the cognitive quality of human nature the premise for defining and implementing natural law, the development and utilization of the cognitive powers of the individual person, became the foundation of statecraft and its constitutional law. The correlated commitment to scientific, technological, and related cultural progress, combined, as implicitly embedded in the notion of the general welfare, or common good, brought the existence of political-economy into being for the first time.

Thus, the rate of progress, as progress is so defined, became the underlying expression of all good government, all good society. The rate of such implicitly measurable progress, in the development of the productive powers of labor, per capita and per square kilometer, and in the improvement of the actuarial, demographic characteristics of family households and the population as a whole, became, thus, the central feature of all good government, all good policy-making by society.

Here, the crucial connections between my own development of the science of physical economy and Vernadsky’s notion of the noösphere come into play. A notion of Riemannian forms of upward evolutionary development within the context of a noösphere, now define what we must agree to signify by the term “increase of the productive powers of labor.”

This increase of the productive powers of labor has two aspects, both of which represent the fruits of the role of the method of *Analysis Situs* in the cognitive functions of the individual member of society:

First, *the cause of every increase in the human species’ power to exist in the universe, is the expression of the discovery of valid universal physical principles.* This includes each and all of the three classes of universal physical principle I have underlined earlier in this report.

Second, *since the cooperation necessary for the social fostering and implementation of such discoveries, determines whether principles known to some will be used to increase the productive powers of the society (economy) as a whole, these aspects of the cognitive relations among persons, constitute a distinct body of scientific knowledge, of the type usually identified as validatable principles of Classical artistic composition.*

The latter body of principle includes not only the Classical mode of composition and performance of plastic and non-plastic forms of artistic composition. A religion based on the Mosaic principle’s, and Plato’s conception of Creator and man, shares all of the qualities of Classical artistic composi-

tion.²³ Similarly, Classical studies of history, law, and other matters of statecraft, are also part of the body of Classical artistic knowledge.

In all aspects of this second category of Classical principle, the relationship among persons, and of the individual with society, is essentially an expression of discovery of the principled features of the processes of cognition as such, as distinct from physical science's emphasis on the relationship of man to nature. Thus, by physical science, we ought to agree that we signify man's increased power, as a species, within and over the universe. By the principles of Classical artistic composition, we ought to agree that we signify those cognitive relations through which persons are enabled to cooperate in the fostering and application of the benefits of physical science, that to the included effect of increasing the potential relative population-density of the human species. We should understand, that these are not separate cultures, but two aspects of an inseparable functional quality of interdependency between both.

Political-economy, therefore, is to be defined as such a functional interdependency of the two. So, for example, the material costs to society, of maintaining the modes and qualities of education required to foster increase of the productive powers of labor per capita and per square kilometer, are an essential, functional cost incurred by production. Similarly, the cost associated with the fostering of Classical forms of artistic composition, is also an indispensable, "macro-economic" cost of production of the entire society.

Herein lies the key to the criminal implications of that perpetrated hoax called "information theory" or "new economy":

First, since the continued existence of society requires increase of the productive powers of labor, the emphasis must be on fostering the development and employment of the cognitive powers of the individual, individually, and in cooperation. Information theory not merely denies the existence of cognition, as Russell and his acolytes Wiener and von Neuman did explicitly, but attempts to eradicate those conditions which are necessary for the fostering of the development and use of the individual cognitive powers.

Second, the role of cognition in defining the existence of the noösphere as a noösphere, shows that fads such as "information theory," "systems analysis," and "neo-Malthusian" utopianism generally, must actually tend to bring about the very ecological catastrophe which the foolish utopians avow themselves dedicated to preventing.

Nashville and The Bomb

There is no evil widely perpetrated during the recent two centuries which represents as great a threat to the human species as a whole, not even Adolf Hitler's Nazism, which has

23. E.g., Plato, *Timaeus*, passim.

been as severe, and actually mass-murderous as the utopian ideology which rallied H.G. Wells and Bertrand Russell to common cause around Wells' 1928 *The Open Conspiracy*.

In the U.S.A. itself, the chief mass-based, practical political expression of that same quality of utopian criminality, is typified by the influence and ideology of a group of pernicious characters self-described as "The Nashville Agrarians."²⁴ This influential group, which trained and promoted utopian figures such as both Zbigniew Brzezinski and Henry A. Kissinger, among its prominent acolytes, brought together two currents of utopianism, those of racism-motivated, militantly pro-Confederacy nostalgia, and the doctrine of the Wells-Russell *Open Conspiracy* pact, under a single strategic intention. The result is that which has unfolded inside the U.S.A. itself during the recent thirty-five years, since the 1966 full-scale launching of the so-called "Southern Strategy" under the banner of Richard M. Nixon's 1966-1968 campaign for election as U.S. President.

As unfolding political developments inside the U.S.A. have shown, the pro-racist "Southern Strategy," which took top-down control over both the Henry Kissinger-linked Republican Party and the Zbigniew Brzezinski-crafted Jimmy Carter wing of the Democratic Party, did not aim actually to reinstall formal return to slave-status for U.S. persons of putatively African descent. Not that these sections of both major parties are not racist. Rather, it was a different aspect of the Confederacy tradition, which motivated the Southern Strategy, an aspect on which the British *Open Conspiracy* utopians found common cause with the Nashville Agrarians. These distinguishing features of the matter must be made clear, to understand the self-destruction which the U.S. economy has undergone during the recent thirty-five years.

The defunct Confederacy's special cant, the so-called "peculiar institution" rant,²⁵ had two aspects. Most glaring, was its insistence on its doctrine, that it was chattel slavery in the slave-states which enabled the South to produce a British-like gentry-class, whose alleged quality of nobility was to be admired and contrasted with the allegedly uncouth northern Yankee industrialist. However, the Nashville Agrarians did not profess an intention to revive the cause of slavery as such, but, rather, retained the intention to reconquer the U.S.A., by other means, but for the sake of a gentry-class in the image of what the Confederate ideologues of that "peculiar institution" identified as the goals served at the cost of freedom of the slaves. The objective was not to reinstitute the disbanded system of chattel slavery; the objective was to destroy those

24. See reports by Stanley Ezrol, "William Yandell Elliott: Confederate High Priest," *EIR*, Dec. 5, 1997; "Vanderbilt University and the Night Writers of the Ku Klux Klan," *New Federalist*, Oct. 7, 1996, p. 7; "Elliott and the Nashville Agrarians: The Warlocks of the Southern Strategy," *EIR*, Jan. 1, 2001.

25. See, for example, Kenneth L. Stamp, *The Peculiar Institution: Slavery in the Ante-Bellum South* (New York: Knopf, 1956).



The “Southern Strategy,” launched by the Nashville Agrarians, took off with Richard Nixon’s 1966-1968 campaign for the Presidency. Here, Nixon in Georgia, 1973.

independent farmer, industrialist, and related “Yankee”-style republican institutions, by means of which President Lincoln’s leadership had defeated both the Confederacy, and the efforts of Confederacy-backer Lord Palmerston to split the U.S.A. among a Balkanized set of perpetually quarrelling petty tyrannies.

Lincoln stopped what some top-ranking New York Democratic Party leaders around August Belmont reported and advocated, as the British monarchy’s intent to use the Confederacy to “Balkanize” the North American continent.²⁶ Yet, today, the goal of destroying the U.S. as a viable agro-industrial power, has been largely realized, along the lines of the Nashville Agrarians’ rant, during the course of the recent thirty-five years rise of the so-called “Southern Strategy.”

With this goal of types such as the Nashville Agrarians, not only Wells and Russell, but also Winston Churchill were implicitly in enthusiastic agreement. Enter the role of Nashville Agrarian William Yandell Elliott and his two most notorious Harvard acolytes, Zbigniew Brzezinski and Henry A. Kissinger. The pivotal feature of the connection between Russell, and Elliott’s two roguish misanthropes, is typified by the

circumstances of Kissinger’s acquiring what was to become his life-long devotion to Russell’s and Wells’ utopian dogma, of *world-government through sustained terror of the menace of nuclear weapons*.²⁷

Thus, Kissinger, after advanced training by British intelligence at the London Tavistock Institute, was assigned to a special team, under Wall Street’s John J. McCloy, at the New York Council on Foreign Relations. There, under the immediate patronage of oligarch McGeorge Bundy, Kissinger began his career in tandem with Russell and Russell’s leading agent Leo “Dr. Strangelove” Szilard. Thus, later Jimmy Carter-handler Brzezinski, a Wells follower who defined his expertise as within the domain of Mackinderesque geopolitics and post-industrial utopianism, emerged as the post-Nixon “Henry Kissinger” of the pro-“Southern Strategy” wing of the Democratic Party.²⁸

During the mid-1970s, the team assembled by Brzezinski to handle their Jimmy Carter puppet, compiled a series of policy-studies,²⁹ within which a policy called “controlled disintegration of the economy,” was elaborated, a policy formally put into effect by Carter-appointed Federal Reserve

26. Belmont, whose correspondence of the period emphasized the British intent to use the Confederacy as a means for balkanizing the U.S.A. in that way, backed 1864 Democratic Presidential candidate McClellan for the purpose of securing a separation and peace with the Confederacy. McClellan had been an able general, but was consistently unwilling to carry any victory to the point that it might lead to a defeat of the Confederacy’s ability to exist as a separate nation. Some would call both Belmont and McClellan traitors on that account. Actually, Democrats Polk, Pierce, and Buchanan would have to be included, too.

27. Bertrand Russell, *The Bulletin of the Atomic Scientists*, Sept. 1946.

28. Zbigniew Brzezinski, *International Politics in the Technetronic Era* (Tokyo: Sophia University, 1971). Naturally, neither Kissinger nor Brzezinski ever enjoyed the fact of even the mere continued existence of a patriotic Lincoln follower like me, even a little bit, and I have the scars from dirty U.S. secret-government operations Executive Order 12333 and related kinds of operations, to show for that.

29. *Project for the 1980s*, (New York: McGraw-Hill, 19..)

Chairman Paul Volcker, beginning October 1979. In fact, the anti-farmer, energy, and anti-regulation policies of Carter were already phases of implementation of that policy. Earlier, the policies of President Nixon had been along the same lines from the beginning of his first administration: Nixon's actions dissolving the post-war Bretton Woods agreements, as of mid-August 1971, and the ensuing austerity measures under the rubrics of Phase I and II, were measures for bringing about disintegration of the U.S. economy. Under Nixon, the Kissinger-orchestrated 1973 Middle East war and the ensuing oil-price shock, were also measures aimed at controlled disintegration of the economy. Later, the 1982 Garn-St Germain and Kemp-Roth legislation, were calculated actions aimed at furthering the disintegration of the economy. The pattern goes on, and on, and on, throughout the 1969-2001 interval to date.

The same policy of controlled disintegration was conducted on a world scale, as much as within the U.S. itself. IMF policies since 1972 have all been to that intent and effect, and the World Bank's, too. The so-called "structural adjustment" conditionalities of the IMF and World Bank could have had no different effect than we have witnessed in each case, to induce the controlled, systemic disintegration of each national economy subjected to such terms. The wrecking of both what had been the U.S. domestic economy, and also its principal export-markets for high-technology capital goods and engineering services, all contributing to destroying the economies of allies and others alike, as well as our own.

The 1989-1991 break-up of Soviet power, was used as the occasion to introduce what is called today "globalization": the dissolution of the sovereign nation-state, in favor of the kind of world government Wells and Russell sought, for which Henry Kissinger had worked, and whose results are in accord with the utopian social prejudices of the Nashville Agrarians.

Crucial in this, was the pro-nihilist "rock-drug-sex youth-counterculture" spread on the university campuses of the middle through late 1960s. The insertion of neo-Malthusian dogmas into those targetted strata, fostered an outpouring of hordes of brainwashed victims of this cult, from the university campuses, into the upward-rising ranks of the dominant economic, political, and cultural institutions of the nation.

The 1933-1965 recovery and growth of the U.S. economy had been based politically on the social basis provided by a vigorous technological revolution among family farms, the growth of industrial excellence, proud, closely-held, medium-sized firms led by technologically progressive entrepreneurs, and corresponding legions of able professionals. This represented, in aggregate, a powerful constituency, committed to the U.S. tradition of scientific, technological, and social progress. The mobilization around the Southern Strategy, combined with the calculated destruction of both the economic and political forces of technological progress, wrecked the U.S. economy, while shifting economic and political

power southward, away from what was condemned, thus, to become the so-called "rust belt," and into the hands of what was emerging as an increasingly, morally and economically decadent upper twenty percent of the nation's family-income brackets.

Meanwhile, the fear of "the bomb," was used to terrify the population increasingly into a fear and hatred of science and technology as such. The fear of radioactivity, which became suddenly acute during the 1962 missiles-crisis, drove masses of immature, susceptibly suggestible suburbanite minds into anti-technology fads, and a general leaning toward neo-Malthusian cults.

The result of the process summarily described so, was a shift in the set of assumptions upon which national policy-making was premised. The result was, that the preponderant trends within the political and economic-policy structures and institutions of the nation, was a going-over from policies which had been pro-growth until the middle 1960s, into policies whose net effect became increasingly actions to bring about negative growth, entropy, over the period 1966-2001.

Into this process of combined moral and economic degeneration of the U.S.A., the cult of "information theory" was unleashed during the middle 1960s. Instead of increasing man's productive power in nature, the trend became the mere manipulation of symbols. Technology, which used to mean increase in the productive powers of labor, came to mean the mere manipulation of symbols. One might say, the nation has become increasingly symbol-minded ever since.

Why Baby Boomers Usually Fail

To gain insight into the systemic quality of incompetence which predominates among both economists and other economic-policy influencers from the under-fifty-five, Baby Boomer generation, we must show a certain compassion toward the general run of such poor fellows. When we consider the circumstances under which such university students of the late 1960s and early 1970s reached adolescence and adulthood, we should not be surprised at those crucial deficiencies of their moral and intellectual development, with which most among them continue to be burdened, more or less severely, up to the present time.

The reasons for the prevailing incompetence of these social strata are, chiefly, two. One is a combined lack of competent education and of practical experience in the subject-matters for which they claim expertise. The other, is the lack of any true morality which was induced among most of that stratum, by the combined, successive effects of the their parental households of the suburbanite 1950s, and the post-1962 eruption of the radically existentialist "rock-drug-sex youth-counterculture." For our purposes here, it is sufficient to focus attention on several among the relevant features of that process.

To begin with, consider the differences in the adult experi-



Lyndon LaRouche (third from left) visits a school for shoe manufacturers in Italy, October 2000. His youthful training in the shoe industry was intended to provide him, like others of his generation, with an understanding of the outlook of top management “from the bottom up,” in order to understand it, also, “from the top down.”

ence, in education, and conditions of employment, of the person who was either in military service during World War II, or who, was, at least, employed in ways relevant to the profession of an economist or industrial and related management, during the post-war interval 1945-1965. My own experience, while exceptional in several respects, is otherwise typical of the best qualified professionals who came into practice during that post-war period.

From the age of fifteen, I was being trained, then under my father’s direction, to fulfill his intention that I follow in his own, and his father’s footsteps, to become a future executive in the shoe manufacturing and related fields. To this end, my education, at the age of fifteen, included part-time, Summer employment in lowly factory occupations. The point to be emphasized here, is that I experienced such employment under the governance of consciousness that I was intended to use this experience, to understand the outlook of top management from the bottom up, in order to understand it, also, from the top down.

This was not a unique practice among households similar to my own, during that period. The proverbial gut of the ownership and top executive ranks of those closely held enterprises on which the strength in depth of our economy used to be based, came from adolescents who were assigned to begin their future role as executives or owners in that same general way. This was as true of the typical closely held manufacturing enterprise or technologically progressive family farm, as

my own youthful experience typifies the general case.

The relevant, key phrase for the purposes of the subject under discussion here, is “from the bottom up.” In other words, toiling in the relatively lowest position of employment, as part of the process of “working one’s way up from the bottom,” preparing to assume a leading executive position in that type of enterprise: How does that young novice look at that day-to-day experience?

He, or, today, she, too, is of two minds. In the one mind, he is toiling away at the bottom. In the other mind, he is trying to see himself, his situation, and the purpose behind his employed activity, with a special kind of critical view, as if from the top of the enterprise’s management. From my experience back then, an experience affected by the fact that, at the same time, I was engaged in defending Leibniz against Immanuel Kant’s *Critique of Reason*, I chose to adopt the term “self-consciousness,” to describe the importance of looking at oneself as if watching oneself from above, as if seeing one’s individual activity in the functionally definable context in which it is situated.

This habit, of looking at one’s individual activities, as if, simultaneously, from above, and from the standpoint of the functional context in which the activity is situated, was not peculiar either to me, or limited to persons who were being groomed, from the bottom up, to become future top executives. In every relevant case, from my more than two decades of experience in industry, whether as executive, consultant,

or “lowly operative,” all of the best industrial and related operatives looked at their life’s experience in and on the job in a kindred way.

A study of the contents of the suggestion-boxes from those decades, attests to precisely that. The superior quality of top executive, or lowest-ranking operative, is to be found in those who viewed their own personal experience “on the job” in just the way I have just described my own apprentice’s experience from the late 1930s.

For persons of such experience and disposition, the ceaseless question was: *How should quality and productivity be improved?*

Constantly, that question came back, again and again, to technology. By “technology,” we understood *physical* technologies. Even when we broadened our concept, to consider administrative technologies, for example, we defined the latter in terms of practical relevance to matters of physical technology: product design, product quality; increase of the productive powers of labor, maintaining and planning inventories, physical distribution of supplies, materials, components, and product output, and so on.

As some of us came to look at technology in a deeper way, from the standpoint of proof-of-principle experiments, we came to recognize that the proper definition of “technology,” is either a by-product of experimental proof of some universal physical principle, or a similar problem arising from combining two or more already known technologies in ways not known to us earlier.

Therefore, any among us who passed through that kind of combined experience with lowly and other levels of the work of operatives, on the one side, and the design and direction of productive technologies and output, on the other, never lost a physical sense of economy in general. Thus, on this account, there was always, in every relevant industrial corporation, a systemic conflict between the most successive industrial executives, especially the most effective production executives, on the one side, and the epidemic “ivory tower” ideologies of the Wall Street types of financial representatives and accountants, on the other side.

In short, the latter type’s method, was the children’s game of connect-the-dots, the proverbial “bottom line;” whereas, the industrialist’s and progressive farmer’s standpoint, was that of the intrinsically “non-linear” physical principles, of physical science for example, which represent the real connection between successive points in the economic trajectory of real economy, physical economy.

Even before the post-missile-crisis panic of 1963-1966, the typical suburbanite Baby Boomer was already tending to shrink away from the idea of a term of youthful apprenticeship on the proverbial factory floor. The mythos of “White Collar” and “The Organization Man,” was taking over among the households from which a dominant portion of the university undergraduates of the late 1960s would come.

The trend among those Baby Boomers, which more and more of the parents strongly encouraged, was to plan to go directly to “top management,” or the equivalent, “without ever passing Go,” without ever gaining a sensuous feeling for the physical realities which top management must, presumably, direct!

With the notable fraction of exceptions, the general trend of suburbanite Baby Boomer effluent into the late 1960s university classroom, was to find the formula which would serve as a substitute for one’s lack of real knowledge of the processes one aspired to manage. For that sort of defective student personality, the attractions of cultish nonsense such as the “number theory” of Bertrand Russell’s acolytes, and “information theory” and “cybernation” in general, were more or less inevitable attractions. “Mother said: ‘Don’t do anything to get dirty;’ and ‘always plan to wear a white shirt to work, when you are grown up.’ ”

Thus, in the main, out of the generation of university graduates from the Baby Boomer generation, our nation produced a type whose intellectual relationship to the realities of economy, and physical science generally, was, quite literally, functionally schizophrenic.

This, by itself, was bad enough. The worst functional brain damage was usually done in the so-called liberal-arts departments. It was the combination of the two morally corrupting influences, which suffice to account for the pervasive intellectual bankruptcy of today’s still-prevalent type of professional economist silly enough to actually praise Federal Reserve Chairman Alan Greenspan today.

The explicitly immoral characteristics of the educational policies imposed upon the Baby Boomer and succeeding generations, boil down to statements of the form: “There is no truth; there is only opinion, and you will accept my opinion, if you know what is good for you!” This rampant indoctrination in galloping immorality, took one form in the English-speaking world, and only slightly different form in such currents radiating from continental Europe.

In the English-speaking world, the names for this moral corruption were known as empiricism in general, and pragmatism. From continental Europe, the relevant titles are existentialism and positivism, especially logical positivism, such as that of Russell acolytes Wiener and von Neumann. Typical of the very worst of these influences, is that of existentialist imports into the U.S.A. from the Frankfurt School, used for the stated intent of aiming to brainwash the U.S. population, such as Theodor Adorno and Hannah Arendt, the latter the one-time crony of Nazi philosopher Martin Heidegger. The putatively “left-wing” fascists, Adorno, Arendt, Horkheimer, Walter Benjamin, et al., defined the “enemy” as any typical representative of what Henry Kissinger has denounced as “the American intellectual tradition,” the so-called “authoritarian personality,” meaning anyone who insists on telling nothing but what one

knows to be the truth of an important matter.³⁰

Thus, the victims of that syndrome, cut themselves off from reality, by retreating from physical reality, into the ivory-tower world of symbolism, while, at the same time, reducing the judgment of opinion, as Kant, Hegel, Savigny, Carl Schmitt, et al., did, to the caprices of what the fascistic Hegel identified as a *Weltgeist*, or other terms used as synonyms for *vox populi* or popular opinion. The victims of such indoctrination become the kinds of prospective recruit to fascism who says, "It is right, because the people I like to be associated with agree with me."

The result of such combined effects, is a body of leading policy-shaping opinion which can not bring itself to do anything which deviates from the prevailing, arbitrary standards of belief of those currents of opinion which are regarded as constituting current authority. These are the lunatics who tell us that "globalization is inevitable," merely because certain circles currently in positions of power decide it should become inevitable. Thus, since a policy of globalization would ensure the early onset of a planetary new dark age, what is actually inevitable is the early destruction of any civilization insane enough to insist on attempting to enforce the alleged "inevitability" of globalization. Such insanity, is but typical, and obviously so, of the majority of the current crop of Baby Boomer economists and kindred policy-shapers.

2. Forecasting Versus Predicting

Think of forecasting, not as like a bettor's attempt to predict the outcome of a horse-race, at some defined point in time, but as navigating according to a map, a map which covers a number of varieties of terrain, various climates and seasons, and under varied other conditions. Think of forecasting in terms of posing to oneself such questions as: "What destination shall we choose; what route shall we take; in what season; and by what means?" In such approaches, the notion of hard-and-fast determinations in simple clock-time, is pushed to one side. A sense of early and remote, near and far, persists, but the notion of exact time is pushed aside, out of preference for notions of: what is relatively near, and what is relatively far; what is the general rate at which a likely destination will be approached, whether the decision were likely to lead along a downward or upward slope, and that at what general rate?

If the reader might regard the lack of greater precision on the matter of date and precise clock-time, as representing a lack of the forecaster's scientific competence as a statistician, the reader needs to greatly improve himself on the matter of the most important point of all about science itself.

30. T.W. Adorno et al., *The Authoritarian Personality* (New York: Harper, 1950). Henry A. Kissinger, London Chatham House address, May 10, 1982.

The characteristic distinction of all social processes, is the implication of the fact that human beings are creatures of free will. They will react to actual, or even purely imaginary developments, either much earlier than the occurrence of the relevant critical point for decision, react much later than is good for them, or act willfully, decisively, in favor of a choice, including the decision not to choose, which may be even the worst possible action they might take. The imprecisions of timing, which the forecaster's professionalism obliges him to impose upon the impatient consumer of such reports, are not the fault of the forecaster, but are characteristic variabilities in the behavior of those persons who are the subject of his report.

Only an incompetent observer would commit the folly of demanding a more exact result, and that in a narrower than rational choice of date and clock-time. Only a fool of a forecaster, would bend to the demand of that observer.

Nonetheless, there are bounds within which forecasts bind the subjects of their projections. For every action by the human will, or lack therefore, there is a countervailing response, either from within the society, or from nature itself. Human decisions are bounded, as to scope of choice and timing, within the approximate limits set by such countervailing reactions. Hence, on account of such limits upon free will, we are able, and obliged to forecast with confidence, but also with prudent regard for the limits within which forecasts might seem to coincide with what the economics illiterate demands as "exact predictions."

In point of fact, I am, compared to all of the known competition, so to speak, very, very good at this sort of forecasting, the best available, in fact. I may not have everything relevant in tow, or supply you with more precision in timing, but I am the best available so far. It is more important that you come to understand the way in which I forecast, than even the contents of those forecasts themselves. I will not be around forever; you should learn what you need to know from me, while I am still around.

The "map" to which I refer here, is a *map of sequential choices* of decisions available over the course of the medium-to long-term period ahead. The simplest design for such a map begins at a point in past developments leading into today, and then looks ahead to some roughly defined interval of time in the future, at which the time to make a qualitative decision about courses of action will have run out. At that point, at whatever more exact point in future time it might arrive, the relevant decision-makers will have one, usually more, sometimes several alternative choices of changed policy available, for his or her selection. Any among those choices will, in turn, lead toward a consequence, one located some approximate lapse of time ahead. And, so on and so forth.

Back during the 1950s, in the early days of Univac and competing computer designs, a similar kind of map was adopted, to assist administrators in coordinating large-scale, multi-agency, multi-firm "crash programs," those of the sort

we would tend to associate with the development and production of some new types of military “hardware,” or space-exploration applications. This was sometimes referred to as a “Critical Pathway” chart. One such computer-applications-oriented application, then called PERT, is an example of such an administrative tool.

In economic forecasting, as I shall indicate some of its crucial features during the following pages, we have something with marked similarities to the kind of mapping which a “Critical Pathway” diagram represents; but, there are also certain crucial, qualitative points of difference.

First of all, the lapsed times are not exact, and, even in the case of a near-term critical point, may vary by a range of months. My June 1987 forecast of a probable, mid-October 1987 U.S. stock-market crash, or my 1956 year-end forecast of the eruption of a probable, Spring 1957, deep recession, are about as precise as one can might ever expect to get. More typical was my 1959-1960, truly long-range forecast of a probable series of international monetary shocks, during the late 1960s (as actually happened), and with a likely crash of the Bretton Woods agreements to follow that, and a probable trend toward ruinous austerity measures akin to fascist economics, during the medium- to long-term following that. Remember, that I repeated every element of that forecast, many times, in writing, and in economics classes which I taught during the course of the 1960s; moreover, it turned out to be the only publicly known long-range forecast to appear prior to the critical August 1971 collapse of the Bretton Woods system. At all times, from 1959-60 through the present day, in point of fact, that forecast has never failed: it has always been right, as events have proven, up through the present day.

Some among the critical events which such forecasts specify in their mapping may, or may not occur. That, in and of itself, does not invalidate the competent forecast in which such foreseen options are included. Critical points in such a mapping, represent the approximate phase in a process, by which time a critical change of policy were either likely, or must be introduced, or, in the case of a wrongful action, might be interjected. In a competent forecast of that type, were the forecast decision not to be made, that omission would itself represent a choice of decision; that latter choice would have a consequence: if one does not recognize the fact that the bridge is out, in a timely fashion, driving across that bridge may prove extremely hazardous.

The non-occurrence of a critical decision forecast as likely, does not impair the quality of the forecast, if the option of a pathway leading from a different decision has been implicitly included in the forecast as a whole. The purpose of long-range forecasting, is not to predict decisions, but to map the array of available critical decisions and their corresponding consequences. The purpose is to construct a map, of this type, of the decision-making process. The decision-makers must, then, chart, and navigate their routes within that mapping.

The purpose of long-range forecasting, is to create such a mapping, by means of which relevant institutions may more competently chart their available critical pathways of choices. This echoes the competent forms of practice of general staff war-planning, such as the U.S. war plans Red and Orange, in which the Japan bombing of Pearl Harbor was long foreseen as a critical point of decision for both a future Japan and the corresponding U.S.A. Von Schlieffen’s famous *Cannae: The Theory of the Flank*, and the 1937 publication of his 1891-1905 studies, are excellent examples of the way in which the most skillful practice of military forecasting echoes the best practice of economic forecasting.

Therefore, what we are mapping, is not a series of inevitable events, but the advantages and penalties of making, or failing to make critical decisions by a certain approximate point in time. These points of decision represent “turning points,” at which decisions must be made which will introduce a marked change in the curvature of the pathway followed by the economy.

For example, the set of decisions made, approximately 1966, following both the 1962 missiles-crisis and the 1963 assassination of President Kennedy, resulted in an overall downward, and generally accelerating shift of the U.S. economy (in particular), from the overall anti-entropic trend of 1933-1965, into the overall entropic trend of the interval 1966-2001 to date.

In such forecasts, the timing of the actual occurrence of critical events, is usually only approximate; the optional branches which might be chosen at any critical point are usually several; and the cause-effect relations are measured not in a mechanical way, but in terms of the significant shifts in rates of increase or decrease of the relative entropy or anti-entropy of the process as a whole. The result is the mapping of chains, in a way for which there are notable examples in chemistry, for example. The difference between those kinds of chains and long-range forecasting chains, is not only the fact of human free will, but the way in which changes in relative entropy tend to affect the way choices are made by the human will.

Imagine what the result must appear to be. Think of a relief map constructed using some rubbery material, on which there are routes plotted, across plains, hills, valleys, precipices, and so on. These routes are marked by critical points, which are, in each case, the junction from which two or more choices of further travel lead out, and into which one, or several routes may lead. The hills and valleys of that map correspond to changes in relative entropy of chosen routes leading outward.

This measurement of time on this map is not clock time, but relative time. The notion of time used is, to begin with, *before and after*. Generally, this means that as a consequence follows a decision, and as a consequence generates the requirement or option of a next decision, the map has a general, sequential orientation. In place of simple clock-time, actual

lapsed times are determined, as relative times, by the principle of relative entropy or anti-entropy consequent upon critical decisions made.

Choosing that mapping-approach, as I outline it, step by step, a bit later in these pages, may appear uncomfortably complicated to the simple-minded fellows who wish quick and simple answers, but in the real world's wars, simple-minded fellows usually die trapped in their fox-holes, or, shot down in their hysterical flights forward, or, perhaps ending their days struggling in the quicksands into which they have unwittingly stumbled. It is better to construct a reliable, if somewhat complicated map, and to use that map in the way a great military commander will study both the map and his adversary, in choosing a likely flanking-attack on the problem at hand.

To see how a strategic forecasting map must look, consider the following summary form of outline of the map of the world's events leading into the present situation.

2000: A Point of Critical Decision

Take the case of the recent U.S. Presidential election, with such a method of mapping in one's minds eye. Consider some highlights of the kind of forecasting map I have outlined, as it applies, inclusively, to the period from the 1962 missile-crisis to a point beyond the present moment. Construct an appropriate mapping of the relevant critical options for decision-making.

During World War II, President Roosevelt had foreseen using the great power which the U.S.A. would have at the close of that war, for three purposes of the most momentous significance for life on this planet as a whole. First, to eliminate the control over the affairs of the planet by what Roosevelt derided as "British Eighteenth-Century methods," the Adam Smith dogma of "free trade." Second, to use the close of the war as the occasion for immediately shutting down all relics of Portuguese, Dutch, British, and French colonialism, to the effect of establishing a John Quincy Adams (Monroe Doctrine) style in community of principle among a global system of perfectly sovereign modern nation-states, thus replacing the relics of imperialism and colonialism. Third, to use the economic, monetary, and financial mechanisms which the U.S. had mobilized against the Depression and for the conduct of the war, as the launching-point for a global process of long-term economic reconstruction which would, among its included objectives, promote the development of the basic economic infrastructure, with marked U.S. assistance, which Africa would require to develop its own sovereign nation-state economies out of the ruinous conditions associated with colonialism and the London-dominated system of looting the world through the mechanisms of international financial and monetary loans.

Then, Roosevelt died, a most untimely event. President Truman's administration immediately chose three epochally disastrous courses of action, reversing most of the critical

features of President Franklin Roosevelt's intention. The first point in the long-range forecasting map, thus begins no later than the immediate consequence of Roosevelt's death. The long-range forecasting map of the world to date, and beyond, is based upon the understanding of a world in which the immediate consequences of Roosevelt's untimely death have determined the critical pathway of strategically crucial decisions from that time, to beyond the present moment.

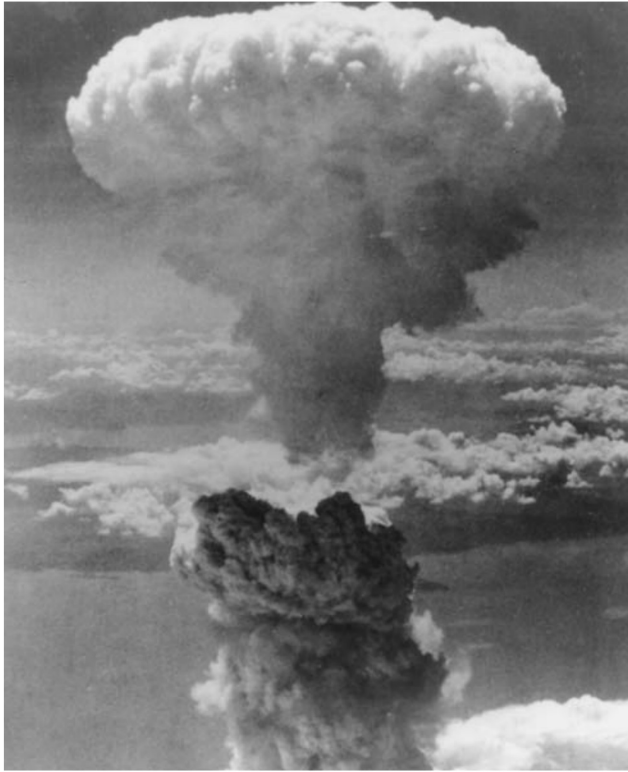
First, Truman adopted the policies of Roosevelt's war-time ally *and adversary*, British Prime Minister Winston Churchill: the liberated former colonies were returned to colonial occupation, by force of combined British, Dutch, and French arms, and with U.S. support for such brutal, often Nazi-like military repression. *Second*, Truman made the decision to follow the nuclear doctrine of Britain's Bertrand Russell, by dropping the only two nuclear weapons the U.S. possessed upon the civilian populations of Hiroshima and Nagasaki, that neither to save American lives, nor for any other morally acceptable military purpose. Third, Truman led, in concert with the Federal Reserve System, in collapsing the level of economic output of the U.S. economy, thus creating the inflationary crisis of the late 1940s, and returning the U.S. to submission to what Roosevelt had denounced as "British Eighteenth-Century methods," that in an immediately rather large, and subsequently increasing degree.

In addition, that then-impooverished, grey-faced succubus squatting on the U.S.A.'s neck, the British monarchy, stirred up a U.S.-Soviet conflict, provoking Stalin into ruthless measures in eastern Europe and elsewhere, which had not been intended until Churchill's "Iron Curtain" provocation had set what became the 1946-1991 U.S.-Soviet conflict into motion.

The key to what became known as "The Cold War," was *the nuclear-weapons policy of the cronies H.G. Wells and Bertrand Russell: world government imposed upon the terrified nations of the world through the unendurable psychological pressures of protracted threat of nuclear war*. Thus, the nuclear bombs were dropped on Hiroshima and Nagasaki, and the war-ravaged, and enraged, Soviet Union, was provoked into becoming the credible nuclear adversary which the implementation of the Wells-Russell nuclear-weapons dogma required for its implementation.

That set into motion the post-World War II map of the critical decisions of the world. Even in the aftermath of the 1989-1992, willful dissolution of the former Soviet power and its economy, still, today, the world set into motion by critical aid of President Truman's 1945-46 decisions, is the long-range forecasting map referenced by all competent historians and strategic thinkers, competent economists included.

The next crucial change in the strategic map occurred after the death of Josef Stalin, when N.S. Khrushchev made his public accommodation to the "ideas of Bertrand Rus-



After President Franklin Roosevelt's untimely death, Sir Winston Churchill (above) succeeded in getting President Truman to reverse Roosevelt's policies, adopting the "one world" policies of Britain's H.G. Wells (left). First among these, was the militarily unnecessary atomic bombing of Hiroshima and Nagasaki.

sell.”³¹ This Khrushchev decision, which led to the formation of the so-called Pugwash Conference series, led to Khrushchev’s personal confrontation with President John F. Kennedy at Vienna, and the 1962 missiles-crisis through which Russell et al. mediated the founding of the process later referred to as “détente.” The assassination of President Kennedy a year later, effectively locked the world into a curious sort of partnership between strategic nuclear adversaries, under which the world as a whole came under the co-management of the principal détente parties, the Anglo-American nuclear power, on the one side, and the Soviet nuclear power on the other. With the Kissinger-keyed détente and arms control agreements of 1972, the system was fully locked in, to all apparent intents and purposes. Therefore, the Soviet system collapsed during 1989-1991, as I had, in 1983, forecast this likely event to begin “about 1988,” and had later forecast the imminent break-up and reunification of Germany, in my Berlin press conference of Oct. 12, 1988.

It is not necessary to repeat here those developments of the 1960s and 1970s which I have identified earlier in this

31. Through four Soviet emissaries whom Khrushchev dispatched to a 1955 London meeting of Bertrand Russell’s World Parliamentarians for World Government. These emissaries publicly repudiated the Soviet government’s and press’s earlier, and fully justified denunciation of Russell as the worst monster of the Twentieth Century to date, and announced Khrushchev’s affection for, and sympathy for the ideas of Russell. The 1962 missiles-crisis was among the most notable outcomes of this curious Russell-Khrushchev amiability.

report. However, it is crucial that I emphasize the catastrophic impact of President Nixon’s August 1971 actions breaking up the existing form of the Bretton Woods system. Like the British sterling crisis of 1997, the ensuing U.S. dollar crisis of February-March 1968, and the Penn-Central and Chrysler crisis of mid-1970, the Nixon decisions of August 1971 and beyond, were nothing but confirmations of my long-range forecast issued repeatedly during the 1960s. Just as it was the U.S. Carter Administration which did more than anyone else to permanently wreck the U.S. economy itself, it was the Nixon Administration’s monetary decisions and austerity measures of 1971-1972, which set into motion a process of wrecking the world economy from which the world has shown no signs of likely recovery to the present date.

Similarly, it was President Reagan’s refusal to dump Federal Reserve Chairman Paul Volcker and his policies, combined with the 1982 Garn-St Germain and Kemp-Roth legislation, which ensured the continued wrecking of the U.S. and world economy along the lines set into motion by Brzezinski, Carter, Volcker, et al.

The last major chance to rescue the U.S. and the world from the mess created, came in the form of my proposals, concerning German reunification, beginning with my Berlin press conference of Oct. 12, 1988. Unfortunately, the combination of Prime Minister Margaret Thatcher, and her flunkies, France’s President François Mitterrand and President George Bush, prevailed, and the great opportunity for economic recovery has been lost, until the present moment.

Such illustrates the highlights of the practical form assumed by competent forms of long-range economic forecasting. As one final point, look at the 2000 U.S. Presidential campaign, in which the pre-locking in of the Democratic candidacy of Al Gore, beginning Autumn 1999, virtually guaranteed that Texas Governor George W. Bush would be anointed the next U.S. President.

Had the Democratic Party used its head for some better purpose than providing a hat-rack, the Party's mandarins would have arranged to conduct the 2000 Presidential primary campaigns with the intent of conducting an open nominating convention in Summer 2000. Had that choice been made, the character of the primary campaigns themselves would have ensured a mobilization among voters which would select a candidate who was virtually certain to win the November 2000 Presidential election by approximately 55-60% of the popular vote cast.

By the nomination of Gore, a situation was crafted in which there was no substantive debate over the crucial issues facing the nation during the weeks and months immediately ahead. The role of the candidates in what foolish people regarded as TV debates between the two nominees, created a situation in which the management of massively funded mechanics of the campaigning, rather than meaningful ideas and issues, would determine the outcome. Since both candidates were equally worthless as candidates in their own right, power, not the electorate, was certain to determine the ultimate outcome. In the end, raw power, not the Constitution and its provisions, did make that decision. It was a foregone conclusion, that, under those conditions, Bush would be the hand-picked choice of the so-called "establishment." Actual votes had virtually nothing to do with it.

As a result of that critical set of decisions of 1999-2000, bearing upon the outcome of the November 7, 2000 election, we have been brought, by such kinds of critical choices, to a well-defined critical situation bearing upon the likelihood of even the very continued existence of the U.S. in its existing Constitutional form.

We have an administration in office, which has been pre-selected to fail, and that disastrously. This is not a prediction; it is a fact. If that new administration, given its composition and the composition of its popular base, follows its predetermined profile of response to crises, the U.S. would be doomed to early experiencing of a catastrophe beyond the capacity of the imagination of most persons, even at very high levels of information and influence.

The point is not to predict that catastrophe, but, rather, to forecast it, with the hope, that by aid of that forecast, the catastrophe might be averted.

The Theory of the Map

The slice of history sampled immediately above, must be recognized as being selected on account of a functional character of that choice of time-span. I mean "functional" in

the sense, that the term "function" is employed in experimental physical science. This entire period, from the death of Franklin Roosevelt, to the present, has one dominant functional characteristic, which subsumes two contrasted characteristics, those of the 1945-1965 and 1996-2001 intervals. The significant events which occur during that span of history do not occur as if by a wanderer following his "free choice" impulses on the surface of an historical blank slate. Whether the actor is sensible of that reality, or not, his behavior is situated with, and to that degree controlled by a set of characteristic features of the entire period within which his actions are located.

Thus, in same sense that Kepler speaks of each planet as following a trajectory corresponding to an intention built into an orbit of non-uniform curvature, and superior to any orbit determined by the connect-the-dots methods of a Copernicus or Brahe, so distinguishable periods of history have a similar quality of characteristic intention ostensibly built-into each of them. On this account, the first responsibility of a long-range forecaster, is to adduce such characteristics of the specific quality of that interval of history within which the subject-matter of his forecasting is to be situated.

On that account, the entire sweep of U.S. policy-shaping, from the death of Franklin Roosevelt, to the present, has an historically specific underlying characteristic. Within that period as a whole, from the start, the pro-Roosevelt, anti-Roosevelt conflict within U.S. policy-shaping, and within a world subject to Anglo-American dominant influence, has been the characteristic feature common to both the 1945-65 and 1966-2001 intervals.

Similarly, as I have indicated here earlier, as in earlier published locations, the assassination of President William McKinley proved itself a turning point in the entire sweep of the history of mankind to date. Thus, the Twentieth Century is to be appreciated, especially where the emphasis is upon the role of Anglo-American affairs, as divided among four general periods, each with distinct underlying characteristics. The first such period, spans the 1901-1933 interval, from the assassination of McKinley and the then-in-progress accession of Britain's King Edward VII, to the inauguration of Franklin Roosevelt. The second period, is the Franklin Roosevelt period of recovery from the Depression and World War II. The third, is the post-Roosevelt period, 1945-65; the fourth is that of the counterrevolution against the U.S. Declaration of Independence and Federal Constitution, of the period 1966-2001.

It is the historically specific functional distinctions of such periods, as viewed, functionally, in the way in which they succeeded one another, which locate, in that process of changes, the historically specific quality of the Anglo-American domination of the planet as a whole over the span 1901-2001.

Persons and institutions living and acting within the bounds of such notions of functional historical specificity, will, in the main, act in ways for whose causes they themselves

are largely unwitting puppets. They act according to the differentiated form of what is called “custom,” as they situate themselves within a variety of such a generalized custom. That custom reflects an accommodation of the society and its inhabitants, to the reflections of the underlying historical characteristics of not only the particular period in which they are acting, but also of the changes in historical characteristics which have had a cumulative impact upon the way in which the individual reacts to the pressures of current prevailing custom upon himself or herself.

That insight, so summarized, is key to the means by which qualified persons are able to develop long-range forecasts of a useful degree of reliability.

What I have written, in this present section of the report, until now, is perhaps sufficient to supply the intelligent layman and others with a sense of what this business of long-range forecasting is all about. What I have described so far, respecting the key points of difference between predicting and forecasting, is of a quality which should be within the reach of any moderately intelligent and well-informed person with relevant experience in working to influence the general national and foreign policy of our government. However, that is not enough; I must do something more.

I bear an additional responsibility here. I must render the deeper implications of the method I employ accessible to responsible professionals, and to the relevant agencies, including those of government, which must be induced, for the sake of our nation’s present survival, to adopt the authority of the method of forecasting which I present. On this account, I must include, at this point, a summary identification of the relevant technicalities.

Therefore, for that purpose, I shall now set the reader up, for a crucially significant experience of an exercise in the application of *Analysis Situs* appropriate for defining a fundamental principle of economics, the principle governing any competent attempt at forecasting.

First, to define the terms within which the discussion of this topic shall proceed, it is essential that the reader acknowledge, that the shocking truth explicitly introduced to geometry by Riemann, is his elimination of all arbitrary definitions, axioms, and postulates, such as those of so-called Euclidean geometry, and “action at a distance,” from mathematical physics, and his replacement of such *a priori* assumptions by experimentally validated universal physical principles. Thus, every such, proven, or hypothetical principle, takes the place of such notions as those of space and time in a Euclidean system. Here, in this definition, lies the distinction between a Riemannian geometry, for example, and, for example, that of Lobatchevsky.

That Riemannian conception, is the indispensable first step, toward competence in the technicalities of any degree of professionals’ competence in long-range economic forecasting.

Second, I, like Vernadsky, have added two sets of univer-

sal physical principles to the geometrical definition of the physical universe as specified by Riemann. We have, thus, three such sets of principles within the physical geometry (i.e., hypergeometry) of a Riemannian universe so defined: non-living processes, life, and cognition, all with respect to what Vernadsky has defined as a noösphere. The two crucial points of difference between Vernadsky’s and my own definition of such a three-fold universal physical geometry, are that my definition is actually Riemannian, and that I use the evidence of physical economy to locate and define the principle of cognition.

My special contribution on that account, is the secret of my unique relative degree of success as a long-range forecaster to date. This contribution of mine, too, you must prepare to master, otherwise you will never be competent in long-range forecasting, and should not be attempting to make the economic policy of our government without the assistance of a qualified guide.

Thus, each time we validate an hypothetical universal physical principle by appropriate forms of experimental demonstration, we have added a new dimension to the entirety of the geometry of the system, and have thus generated a new global geometry, of more dimensions than the previous one, whose truthfulness lies in its experimental or equivalent validation. At this moment, the stress is on physical principles related to non-living processes. Some added qualifications are required to take into account living and cognitive processes.

From that starting-point of reference, the following considerations follow. I now break that down into successive steps of approximation, so that you, the reader, might build up a model of what I am describing in your own mind. You may have to study these successive steps several times, before the point becomes clear to you; but, if you are serious about the future of our nation, you will consider your effort a necessary one.

It should not be contestable among qualified mathematicians and physicists, and should be clear to you without great difficulty, that *all ideal systems which are fully consistent with any fixed set of definitions, axioms, and postulates*, would contain no possible action which would alter that system *as a system*. Whether you are a university graduate or not, the general idea of what I have just said, should become clear to you more or less readily.

For that case, we would distinguish two such geometries from one another as qualitatively different systems. We prove that a new geometry exists, by an experimental demonstration of a difference between the respective measurable characteristic of elementary action within each of them: a simple Riemannian characteristic, as defined in the concluding portion of Riemann’s habilitation dissertation.

Once Again: Plato’s Cave

If you are experiencing some difficulty in grasping the immediately preceding point, let me point out the most proba-

ble cause for the difficulty you are experiencing. Once you understand the nature of the mental block which may be causing you to frustrate yourself on this point, the block will vanish, and the point will begin to become clear.

The probable source of the mental block you might be experiencing, is made clear by thinking through the implications of the allegory of Plato's Cave.

My standard argument on this goes as follows. The difference between the so-called ecological potential of the human species, and that of all other living species, is that it is only the individual member of our species who has made a discovery of universal physical principle, through which the relative ecological potential of the human species, as a whole, has been increased *absolutely*.

The primary form of action through which this effect is accomplished, is the discovery, by an individual's, non-deductive form of "synthetic" cognitive processes, of an experimentally validatable universal physical principle. The replication of that discovery, within the sovereign individual cognitive processes of other persons, and cooperation in society, in applying that principle for the purpose of changing the quality of human practice upon nature, is the only way in which a species might willfully increase its species' relative ecological potential as a whole.

This brings us to the following question. "Have you ever seen a universal physical principle walking?" Obviously not. Obviously, therefore, the most powerful agency man knows, physical principle, is not an object of the senses.

Or, in other words, the fellow who insists, "I believe only what my senses tell me," is calling himself a mere animal, not a true human being. That is, even if he is born to be a human being, his fanatical obsession with his sense-perceptions and related sorts of pleasures, self-describes a man who prefers to be a lower type of animal. Unfortunately, all too often, he succeeds in that attempt.

Truth is to be found, not in one's senses, but in one's power to command the universe to obey the universal physical principles which the human cognitive processes acquire, and deploy. This brings us to the Socratic method of Plato, and, for the moment, to Plato's Cave. Do universal physical principles exist? Yes. Are they efficient? Yes. Can they be known directly through the senses? Never. They are to the senses, as the shadows cast by the firelight upon the irregular wall of a dimly-lit cave. They exist, but can not be seen; they are objects of the mind, not of the senses. Such is the meaning of *Platonic ideas*.

Think about the subject of microphysics, the domain inhabited by unseen creatures such as atoms, nuclei, and the tiny processes most immediately associated with them. Can you observe any of such matters with your senses? Is a thermonuclear explosion less real because you can not see a nucleus in action?

Focus attention now solely upon the subject of those specific qualities of ideas to be recognized as validated universal



Johannes Kepler, the founder of modern astrophysics, laid the groundwork for the later discoveries by Riemann, and, in the science of physical economy, by LaRouche.

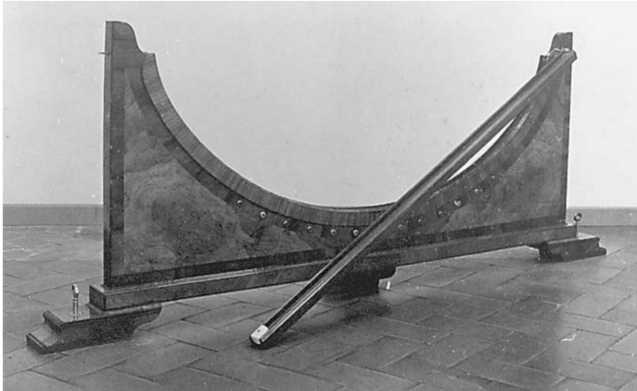
physical principles. Look at this notion of ideas as Kepler used it to found modern astrophysics, and then move on, quickly, to the basis I have adopted for representing my discoveries in the science of physical economy, using the notion of a manifold as defined by Riemann.

Consider, once again, but briefly, the way in which Kepler made the original discovery of a principle of universal gravitation. I reference here, chiefly, the original discovery of that principle, by Kepler, as detailed in his *The New Astronomy*, a work later plagiarized, with incomplete success, by Isaac Newton, et al.

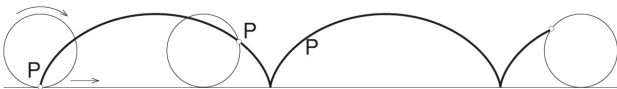
Kepler's measurements, showing him that the orbit of Mars is approximately elliptical, prompted him to recognize a point entirely overlooked by the bungling admirers of Claudius Ptolemy, Copernicus, and Tycho Brahe's efforts to define orbits by the statistical method of connect-the-dots. Kepler posed the question: How does a planet know that it must change its curvature as it follows its assigned, recurring trajectory? Clearly, that orbital pathway is neither self-evident, nor statistical, nor to be explained in any way consistent with the *a prioristic* assumptions associated with common classroom versions of Euclidean geometry. The later attempt

FIGURE 2

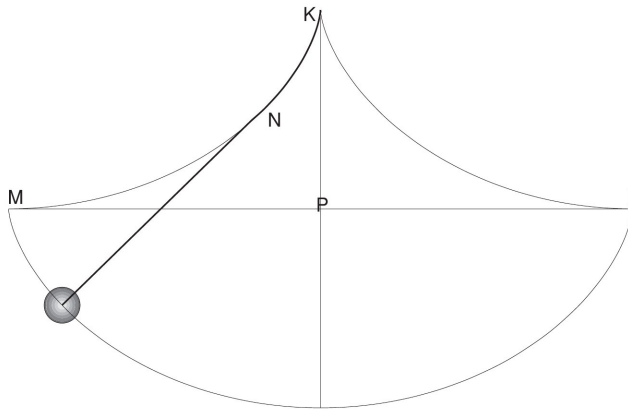
Properties of the Cycloid



(a) A brachistochrone model built by Francesco Spighi in the 17th Century. A ball that rolls down the cycloidal track reaches the bottom faster than one rolling down the straight track.



(b) The cycloid is the curve traced out by a point on a circle, as the circle rolls along a line.

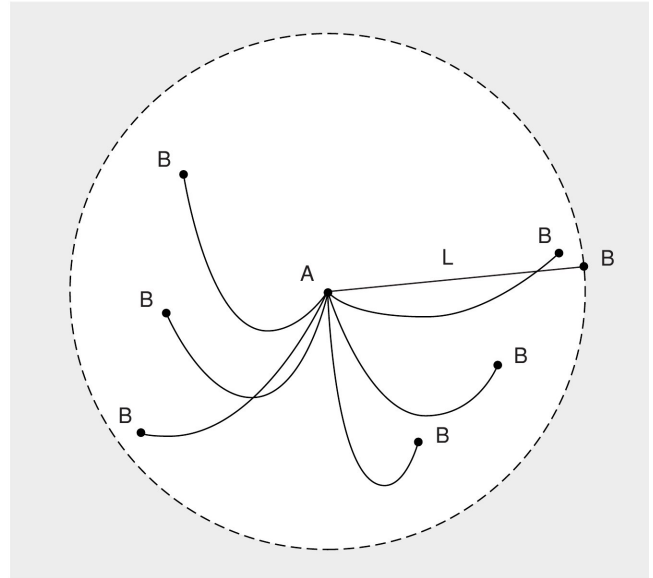


(c) The 17th-Century scientist Christian Huyghens used the cycloid to make a pendulum clock, because no matter how wide the swing, the time of the swing remains constant.

of the followers of the empiricist Galileo, to explain the principle of universal gravitation discovered by Kepler, in terms of “action at a distance,” produced nothing but the folly of the “three-body paradox.” Kepler’s notion of the (Platonic) *idea* of universal gravitation, stands, just as does Leibniz’s related, original discovery of a calculus, as rooted in a Keplerian-like differential whose curvature is not straight-line, but of a specific quality of non-uniform curvature cohering with the

FIGURE 3

Generation of the Catenary



The catenary is formed by suspending a chain between two fixed points. Varying the endpoint position of the chain generates a family of catenaries.

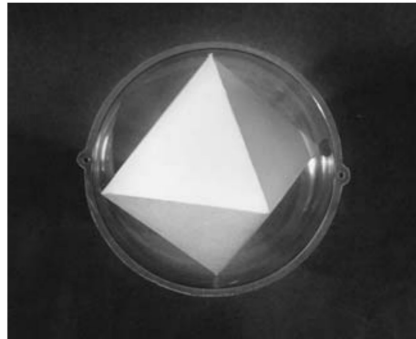
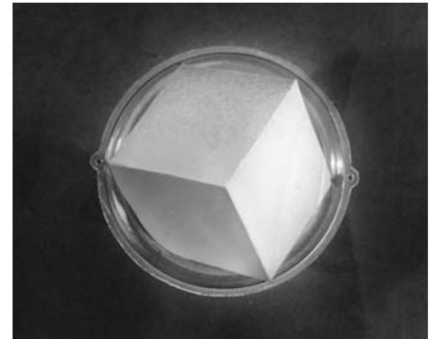
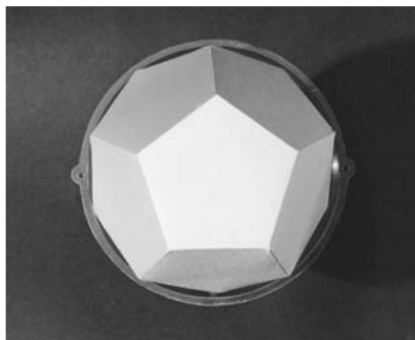
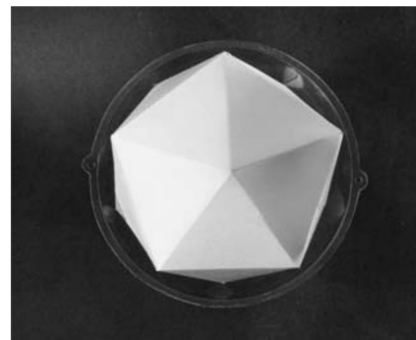
corresponding integral “pathway.”

Thus, it was consistent with accomplishments typified by such work of Kepler and Leibniz, that Riemann went the next further step, of outlawing from physical science all so-called “self-evident” definitions, axioms, and postulates, and limiting the notions of functionally efficient dimensionality in physics to experimentally validated universal physical principles: (Platonic) *ideas*.

From that standpoint, which is explicitly the position of Bernhard Riemann’s principal discoveries, the only significant form of action among two or more such idealized physical geometries, would be the action of changing one or more among the adducibly underlying, actual or presumed definitions, axioms, and postulates of the system as a whole. Such changes are reflected in the form of statements expressing hypothetical solutions to paradoxes defined in the terms of *Analysis Situs*. Such changes in the experimental characteristic, when we proceed from one manifold to another, is the form of action which is of primary concern to us.

There is nothing accidental in Riemann’s discovery. The entire history of the development of scientific thought in European civilization, since ancient Greece, converges upon that conclusion. A few points of illustration will be sufficient for our uses here.

FIGURE 4

The Platonic Solids*Tetrahedron**Octahedron**Cube**Dodecahedron**Icosahedron*

In the history of modern physical science, we have, beginning with Nicholas of Cusa's *De Docta Ignorantia*, a series of successively higher orders of curvature, beginning with Cusa's proof that the curvature of the circle is transcendental, as Cusa distinguished the significance of π , from the attempted quadrature of the circle and parabola by Archimedes. In purely abstract geometry, we have, then, the cycloid; but, in physical geometry, as opposed to merely formal geometry, the function of the cycloid is superseded, typically, by the catenary and caustic, and, then, of still higher orders of non-uniform curvature (**Figures 2 and 3**).

The generalization of such higher orders of curvature of physical space-time manifolds, beginning implicitly with the work of Plato (**Figure 4**), Brunelleschi (**Figure 5**), and Leonardo da Vinci (**Figure 6**), began to be generalized by Kepler's original discovery of a principle of universal gravitation, in his *The New Astronomy*. The next step toward solving Kepler's challenge to future mathematicians on that account, was accomplished by Fermat's discovery of a principle of *shortest time* governing the refraction of light. Leibniz's development of both the original calculus, and his principle of non-uniform curvature of the differential in the infinitesimally small, prepared the way for the later work in developing modern physical hypergeometry, by Gauss

and Riemann.

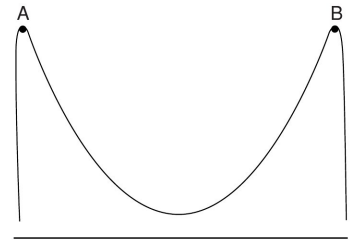
Do not think that hypergeometry is unreal, merely because you can not visualize it with your sense-organs. Real is not sense-experience; real is what is efficient. Reality is expressed not by what you think your senses tell you; reality is the discovery of those principles by means of which you can willfully control the changes you make in the physical world around you. The hypergeometry of Gauss and Riemann is about as real as the real world gets for anyone, you included.

Once we had the successive work of Leibniz, Gauss, and Riemann, respecting the principles of a physical hypergeometry, we were obliged to shift our emphasis, beyond single systems of fixed empirical characteristics, to the characteristic features of changes from one such experimentally validated geometry to a successor. It is here, that the principles of long-range economic forecasting emerge for practice. Expressing this, in first approximation, in general terms, the result of that shift, is described as follows.

Therefore, on that specific account, I have limited the definition of *significant action within physical economies*, to changes in the underlying axiomatic characteristics of the fixed type of individual system. Up to that point, I claim nothing which is not already implicit in Riemann's discovery.



FIGURE 5
The Catenary



In Brunelleschi's dome for the famous Cathedral of Florence, the surfaces between the ribs of the dome are families of catenaries.

In short: the important thing to be measured, is the characteristic form of action within the system as a whole; that is, in first approximation, the measurable characteristic of action *within* the assumed bounds of such a single, fixed system, or manifold.

It is experimentally measurable changes in that characteristic, which supplies my Riemannian definition of *significant action* in economic processes. Here, I distinguish between the single characteristic of a simple system, and the characteristic action (change in characteristic "curvature") expressed by the transition from one manifold to a successor. Again, the principle of *Analysis Situs*, as I expressed this in my counterposing the characteristics of the 1966-2001 economy to those of the 1933-1965 interval.

That means, conversely, that such significant action within the economic process, reflects the existence of some axiomatic change in the underlying characteristic of the economic process as a system. Again, this represents nothing but the simple application of Riemann's explicitly stated principle of experimental physics, to that type of general case so specified.

Now, those rudiments listed, from this point on, we are occupied, principally, by the implications of changes from one physical-economic manifold to another. We are concerned to define, and resolve the differences between validated manifolds, on the one side, and, on the other, those assumed manifolds which govern the behavior, *systemically*, of a significant number of people, but are false to reality.

The types of action which match that effect, are of two general classes: first, *the discovery, experimental validation, and application of those universal physical principles, which mankind may apply to the universe in which it exists*; and, second, *those universal physical principles which correspond to cognitive relations among persons*.

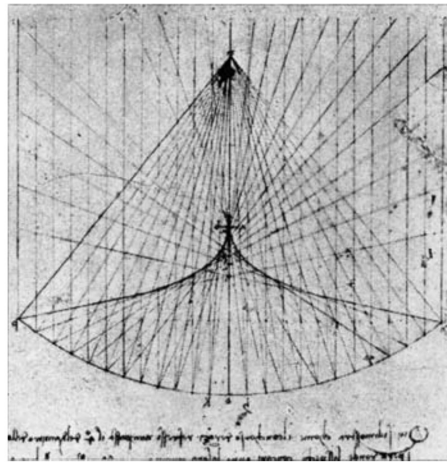
By forecasting, we should signify the effect of realizing some combination of those two kinds of discoveries of principle, to the effect of *significant action* upon the process as a whole.

Thus, in such latter types of cases, we are not dealing with single manifolds of a fixed type; we are dealing with ordered series of manifolds, each of its own distinct Riemannian type of characteristic. However, the very notion of such an ordering among manifolds destroys the notion of simply fixed series of manifolds; in other words, the very conception of a *form of action* which transcends a succession of ostensibly fixed manifolds, is, in itself, a proposition in *Analysis Situs* (geometry of position). As Plato's *Parmenides*, among other relevant locations in his writings, warns us: such ontological paradoxes oblige us to shift from assuming the primacy of fixed objects, akin to simple sense-perceptions, and treating *change per se* as elementary, instead. That notion of change is congruent with the notion of *significant change* which I have defined above. It is not simple sense-perception, but the ability, or inability to make efficient changes willfully, which constitutes reality for mature and sane persons.

This notion of *significant change*, or *change per se*, then

FIGURE 6

The Caustic



Light shining through a wine glass produces the caustic curve, an envelope of rays emanating from a point, which are refracted or reflected by a curved surface. The drawing is Leonardo da Vinci's presentation of a caustic.

becomes the underlying principle of forecasting, as distinct from predicting.

The Idea of Forecasting

In forecasting, we are confronted with two general types of change.

The first type is that we have emphasized repeatedly since the outset of this present report. There, we contrasted a 1933-1965 long swing of generally net-upward development, to a 1966-2001 long swing of overall decadence; in this case, we pointed out a simple contrast between anti-entropy versus entropy. The implication of the comparison, is that the U.S. is reaching the limit of its continued existence in its present form, unless something akin to a return to the 1933-1965 "model" replaces the present policy-matrix. This kind of crisis typifies the type of event on which competent forms of long-range forecasting are premised.

In this aspect of that comparison of 1966-2001 to 1933-1965, the emphasis is upon simple, point to point forecasting. Apart from discovering that one "model" is much to be preferred, and that urgently, to the other, very little that is axiomatically original is proposed.

In the second type, we are dealing with a much more complicated terrain, on which many routes from one point to another exist, and in which some places on the map actually exist, and others do not. In such a case, we are mapping a terrain defined by many pathways of change, as if from one point to another, each point corresponding to a system of an

approximately fixed type of cultural paradigm. Each point corresponds to a set of both valid and false axiomatic assumptions. Pathways lead into such points, and each point has pathways which usually lead to several other points. The sense of up-down corresponds to the relative anti-entropy/entropy of the passage from one point-system to another.

In long-range forecasting, we are occupied, chiefly, with the following considerations.

Think of studying a map, in preparing to make a journey.³²

Given a pathway from a point of reference, what is the rate of change in relative entropy along that pathway, with respect to the passage of time? Toward what alternative points, along what pathways can the system choose to move? In what directions is it likely, given relevant considerations bearing upon choice, is it likely to choose to move?

That said, now concretize the problem in several, successive degrees of approximation.

As a first step to this goal, construct the notion of what is called a "full set" economy in your own mind. . . .

Consider first, only the universal physical principles associated with non-living systems, as in the production of manufactured articles. Consider the effect of increasing, or decreasing the number of universal physical principles expressed by the full set of the production by that society.

In what is ordinarily considered the domain of physical science, we are confronted by the traditional modern notion of universal physical principles and the measurable physical constants we associate with them. Each of these principles corresponds to an experimentally validated discovery. In the experimental validation of such discoveries, the practical reflection of the principle, is to be found in certain distinguishing features of the design of the relevant, successful experiment. These features of successful experimental designs, we know as *technologies*. As we combine these principles in new ways, and as we vary the choices of media in which to express their relationship experimentally, we add the discovery of

32. Never trust a driver who relies chiefly on asking for directions (from the passing stranger who may, one often has reason to suspect, be either a professional joker just waiting for sucker like you to ask him directions, or a lunatic who has just wandered away from a local asylum). Learn to construct and use maps; to understand maps, and how they are constructed and should be used, it were helpful if you had done a bit of backyard or other astronomy during childhood and adolescence, and had been thus obliged to consider the problem of normalizing stellar observations.

usable added technologies even to a fixed total array of validated principles.

In mankind's, society's physical relationship to the universe at large, the potential increase of man's potential relative potential population-density is delimited (bounded) by the accumulation of universal physical principles known and expressed by that culture.

We must add to the role of the universal physical principles of non-living and living processes, the implications of Classical principles of artistic composition and performance, as I emphasized the inclusion of a science of history, statecraft, and law within the Classical principle as a whole. This means, essentially, that the prevailing practice of the idea of human nature, and of the nature of man's willful relationship to the universe, as ideas which correspond to the universal physical principles of Classical artistic composition, exert a determining influence on both the way persons react to their society, but also their conception of man's relationship to the living and non-living universe as a whole.

It is, thus, the contrast between truth, as these definitions of the universal physical principles of non-living, living, and cognitive processes, and false beliefs and the latter's associated customs, which are the basis in ideas for the notions and practice of effective long-range forecasting.

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3. Economics and Social Science

The most striking fact about our knowledge of both history and pre-history combined, is that all known forms of society which were extant, prior to Europe's Fifteenth-Century creation of the initial form of the modern sovereign nation-state republic, were failures, although we are greatly indebted to the contributions we have inherited from within those cultures whose societies ultimately failed. Like all true paradoxes, that is one from which we have much to discover.

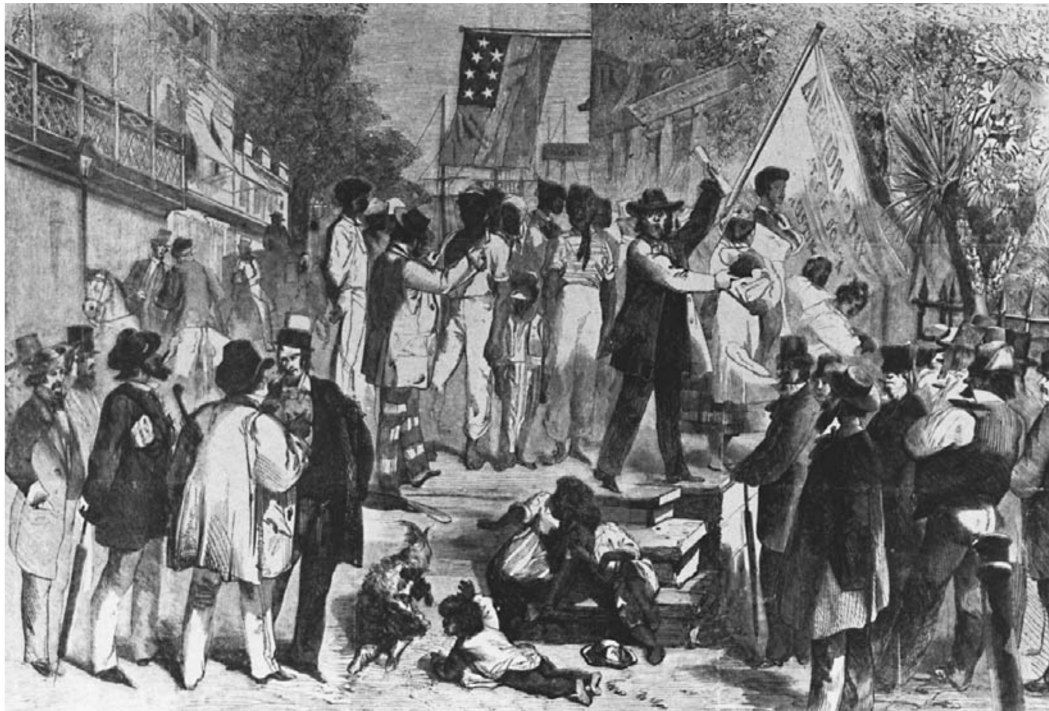
We discover, for example, that that development of the recent thirty-five years most likely to bring about the self-induced doom of globally extended modern European civilization, is not so much the economic-policy follies on which I have concentrated attention thus far, but, rather, more the anti-Classical educational reforms of the type instituted at the prompting of Dr. Alexander King's 1963 educational policy of the Paris office of the OECD.

In short, contrary to those noxious fools called "cultural relativists," some cultures, such as that of Moloch-worship, or the Confederacy, are intrinsically bad cultures, which it were better had never existed. Since doom of a cultural lacking the moral fitness to survive, is a proper topic of long-range forecasting, it is obligatory, and also useful, that we examine the implications of that proposition here and now.

The known cause for the cyclical and related forms of collapse of entire cultures of prehistory and historical times, is typified by what was known to the ancient Greeks as the so-called oligarchical model on which the intrinsically evil cultures of Mesopotamia, Tyre, and the Delphi cult of the Pythian Apollo, were premised. The fatal flaw permeating the cyclical patterns or self-extinction of earlier cultures, is the consequence of degrading the people of other cultures, or large segments of one's own society, to the status of human cattle, bred, used, and culled, at the pleasure of the relevant classes of self-esteemed cattle-owners and their armed and other lackeys.

That habit of treating large portions of humanity as virtually human cattle, as the Confederacy's slaveholder class did, and as contemporary doctrines of shareholder interest do, degrades both the master and his chattel to induced moral self-degradation, the master often more than the slave. It is that kind of degradation which engenders the rise of the force of political evil within society, the force by which even leading nations may be self-destroyed. So, the legacy of France's Louis XIV and the Physiocrats plunged, into Phrygian Jacobinism and Bonapartism, the France which had otherwise been on the road to continuing greatness under the heritages of Louis XI, Cardinal Mazarin, and Jean-Baptiste Colbert.

The key to understanding the process by which the oligarchical model and its like, lead into the kind of cyclical doom



A slave auction in the Confederacy. The system degraded both the master and his chattel to induced moral self-degradation, the master often more than the slave.

gripping trans-Atlantic European culture today, is a careful scrutiny of the principles which must be observed in the practice of rearing and educating the young. The relevant kinds of vulnerability of the new generation, are to be defined in terms of the natural sequence of stages of cognitive development of the child, from infancy to full adulthood, and somewhat beyond. In short, the problem is the tendency, especially in societies conforming systemically to the oligarchical model, such as that prescribed by the Code of the Emperor Diocletian, to produce a biological adult whose personality is usefully classed as infantile, childish, or adolescent. In prudent psychopathology, the appearance of cultural traits normal to the infant, child, or adolescent, in an adult, is rightly considered a neurotic psychopathology, or even outright insanity.

Never turn your unprotected back on an adult who exhibits a disposition to appear winsomely cute in a childish way! You may be witnessing the flip side of a bi-polar pathology's brutality.

For example, the promotion of habituated use of Nintendo-style games by children, ensures the conversion of a large portion of the coming generation, into adolescent and adult persons with an acute degree of proclivity for violence of the character which shocked the nation at Littleton. Hence, the willful fostering of the takeover of entire societies by a principle of pure evil, as we witness in the case of the moral degeneration exhibited by the culture of Sparta, the spectators for the Roman arena's blood-sports, or the massed religious

rituals of the Aztecs.

The core of the problem to be addressed on such accounts, lies in the special needs which a human individual incurs by virtue of being a cognitive individuality, a being set apart from, and above the animals. The crucial question is posed most efficiently in a religious form, in the discussion of the prospects for personal immortality.

The propensity for evil is usually located in acceptance of the empiricist's intrinsically perverse notion, that the individual person's self-interests are essentially, more or less immediately biological needs and appetites. Then comes death: *Where, dead man, lies your self-interest now?*

For the matured human individual adult, self-interest lies in that enduring outcome of the interval between birth and death, which is an efficient enrichment of the outcome of the lives of one's predecessors, and a foundation for the good to come in future generations. This connection to an immortal eternity, is to be viewed functionally as *a cognitive simultaneity of eternity*. The exemplification of the relevant connections of the totality of an individual mortal life, to the past and the future alike, is found only in the equivalent of a Classical-humanist form of education, as approximated by the famous Wilhelm von Humboldt reforms in Germany.

This functional connection to individual immortality, lies in the generation and propagation of *ideas*, as Plato defines ideas. Hence, it should not be surprising, that actual expressions of Christianity, and humanistic religious Judaism, in particular, premise their theology, as Moses Mendelssohn

did, on Plato's notion of *ideas*.

Without some efficient social expression of human relations of the individual to society in general, and to past and future generations, the moral and intellectual development of the individual, must necessarily be a crippled one. Without the ability to recognize one's individual identity as located primarily within the domain of *ideas*, man becomes, to himself, a mere parody of a beast.

This means, in practice, that a morally healthy form of society, must not only recognize all other persons, of every part of the world, as human in this specific, cognitive way; but, that the relations among persons within society, and within the family household itself, must be predominantly, systemically, cognitive in their functional aspects. On this account, the way in which a society organizes itself around the thus appropriate forms of education, and practice of physical science and Classical forms of artistic composition and performance, will determine the degree to which that society achieves a quality of moral fitness to survive.

The kernel of that required policy of practice, is to be located in the experience of one child sharing the rediscovery and empirical validation of some universal physical principle as an experience induced in a peer. Such an experience induced among children, as in schools, as distinct from and opposed to what is usually considered learning today, is a leading characteristic of a healthy form of society. Contrary educational policies, such as those become prevalent in the U.S.A. and Western Europe since the 1963 OECD report, degrade not only the student population, but the entirety of the society which degrades its own young in such a way.

The problems so implied are illustrated aptly for the U.S.A. today, by a glance at the legacy of *a Confederacy of evil*, that defeated, for a time, by the leadership of President Abraham Lincoln.

That treasonous Confederacy, whose flag has been raised again, during the recent thirty-five years, among the leadership of the Federal Court and that of the two leading political parties of the U.S.A., based its constitutional (e.g., systemic) character on three points of commitment to evil. The first of these, was the rejection of Leibniz's definition, "life, liberty, and the pursuit of happiness," as embedded in the Declaration of Independence, for the evil expressed by John Locke's "life, liberty, and property." The second, was the insistence that persons born as property, remained property, included enslavement by virtue of heredity. The third, was the toleration of even a death-penalty sentence for complicity in bestowing literacy upon a slave.

Persons who carry forward, and also advocate that legacy of evil today, are not Christians; they not merely deny, but relish the destruction of the rights inhering in the cognitive notion of the individual human personality. They were better recognized as satan-worshippers in fact, like both Dr. François Quesnay and the ancient *Bogomils*, rather than anything else.

Thus, in summary of this point. The essence of economy is mankind's relationship, as master, to the universe as a whole. This requires a suitable development of the individual human potential. Education typifies the battlefield on which the struggle for development of that human potential is to be fought. This requires, in fact, that the policies of education, be cognitive in fact, rather than mere learning, and that the subjects of education of the child and adolescent must be predominantly within the domains of science and Classical humanist forms of artistic composition, more or less exclusively. The goal of such primary and secondary education, must be the moral development of the student, to the purpose and degree that the graduate of such educational programs is able to situate his or her identity, and existential self-interest, within the cognitive framework of the simultaneity of eternity.

The essence of policy-making, is the standpoint from which policies are defined and chosen. The standpoint is to be located as an expression of the way in which the nation's population and institutions define human nature, and, therefore, national interest. With a wrong conception of human nature, as the treasonous and doomed Confederacy typifies a culture lacking the moral fitness to survive, wrong policies will prevail, as has been the trend in the U.S.A., increasingly, during the recent thirty-five years.

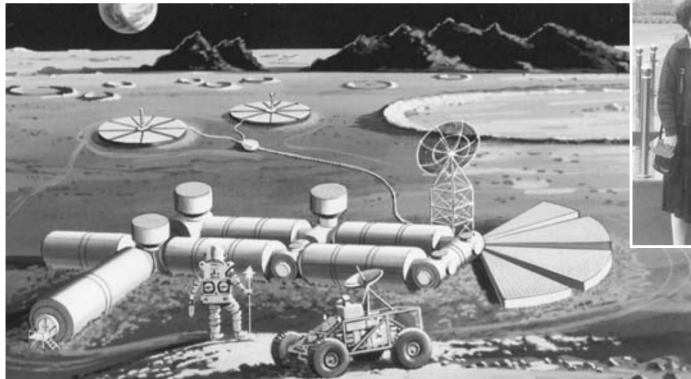
On that account, without a social policy pivoted on such a notion of the mission assigned to the education of our young, the best choice of technical practice in economy, will fail.

4. How To Construct a Map

Competent long-range economic forecasting is never "objective." Like a well-crafted war-plan, forecasting is a map of the range of plans by which a people musters itself to accomplish a great mission.

Therefore, in conclusion of this report, I point to three great missions which I, in concert with some among my associates, and others, have developed during the course of the recent quarter-century. A competent long-range economic forecast, is an assessment of the options which such mission-orientations require.

The first of these three missions, was a proposal which I developed following the death of a friend and sometime collaborator, space scientist Krafft Ehricke, outlining a forty-year mission-goal of planting a Los-Alamos-Laboratory-style scientific mission as a colony upon Mars. The second case, which grew out of my proposal and exploratory negotiations on behalf of what President Ronald Reagan presented as SDI, on March 23, 1983. This was continued by me in the form of a mission proposal which I presented in the referenced Berlin press conference which I convened on October 12, 1988. This proposal was elaborated by me, in concert with associates, as the proposed European Productive Triangle of



Three great missions developed by LaRouche during the recent quarter-century: a project to found a colony on Mars (below left: an artist's rendition of a Moon base, which would be essential for such an undertaking); the European Productive Triangle, the outgrowth of a policy announced by LaRouche in Berlin on Oct. 12, 1988; and the Eurasian Land-Bridge (pictured at left, Helga Zepp-LaRouche, on the right, at the Lianyungang Port in China, the Eastern Terminal of the Eurasian Land-Bridge, in October 1998. With her are Schiller Institute associates Mary Burdman and Jonathan Tennenbaum).

1989-1990. The third case, is that of the extension, beginning 1992, of the European Productive Triangle in the form of the proposal for a Eurasian Land-Bridge Development, featuring continental European, and, hopefully, also U.S. cooperation with a group of nations centered around Russia, China, and India.

All three of these are to be seen as derived from a common principle of long-range economic mission-orientation.

All three missions, so identified, express two underlying goals. One of these, is the goal of fostering those practical economic undertakings, which are equitably beneficial to each participant, but also tend to foster the emergence of a community of principle among sovereign nation-states participating as partners in such great, and durably long-term missions. The second, is to promote those types of long-term mission orientations, which will tend to foster the highest relative rate of improvement in the productive powers of labor among all participating nations.

Two broadly defined such objectives are served by each and all among those three missions. First, as I have emphasized the functional connection of the notion of basic economic infrastructure to the notion of a noösphere, earlier here, each and all of these missions were aimed to develop the basis

for rapid improvements in the productive powers of labor among all of the participating nations. Second, the concentration on projects such as “crash” space-development programs, was prescribed in order to generate the quality and intensity of science-driver programs needed to accelerate the rate of technological progress on Earth to the relatively greatest degree.

The latter objective signified increasing, as if “artificially,” by concerted efforts of governments, a leap in the ratio of persons employed in “crash” science-drive programs, to total employment. The goal of that, in turn, was to increase the ratio of total human activity engaged in producing science and technology, to all other labor-force activity. The associated goals, was to use those science-driver programs’ scope and intensity, to foster the propagation of the relatively highest degree of optimism respecting the nature of man, throughout the planet.

Thus, from the kind of mission-oriented vantage-point so represented, all of the important points of critical decision-making are brought into coherent focus. Such is the proper intention of long-range economic forecasting. Without an appropriate, viable mission-orientation, no competence in long-range forecasting were possible.