SCIENCE VS. STATISTICS

When Fate Hangs On a Forecast

by Lyndon H. LaRouche, Jr.

The actual, strategic purpose and function of competent economic forecasting, is not to attempt to predict what will happen, but to cause it to happen.

Today's subject is a field of combat in which I have developed certain unique skills, skills in that branch of strategic intelligence called long-range forecasting. This is not merely foreseeing, passively, what might be likely to happen; it is about crafting policies of the type which I am presenting, with the intention to bring about an urgently needed action which might rescue us from a currently onrushing, global financial disaster, an oncoming disaster which has now entered its terminal phase.

It is not through bare perception that we might calculate what willful power lies, hidden from perception, between those mere dots upon the screen of our senses. It is by our acting upon the universe, to force its secrets to manifest themselves, not merely as perception, but manifest themselves as the higher authority of the mind which must test the unseen presence and suspected intentions of whatever willful power lies behind that action which might be otherwise only perceived.

These unseen powers must be forced, thus, to reveal themselves. They must be forced to reveal not only the efficient presence hidden behind the footprints we call perceptions. We must test the suspected willful intentions of those powers, tested intentions which true science knows as universal principles, as such principles were known as *dynamis* to the Pythagoreans, or modern *dynamics* of Nicholas of Cusa, Johannes Kepler, Gottfried Leibniz, and Bernard Riemann. From the knowledge which can be gained by us only in this way, we obtain the means by which man and woman made in the likeness of the Creator, are enabled to act more or less efficiently according to the manner which fulfils our mortal destiny, in a manner uniquely assigned to us by Him.[1]

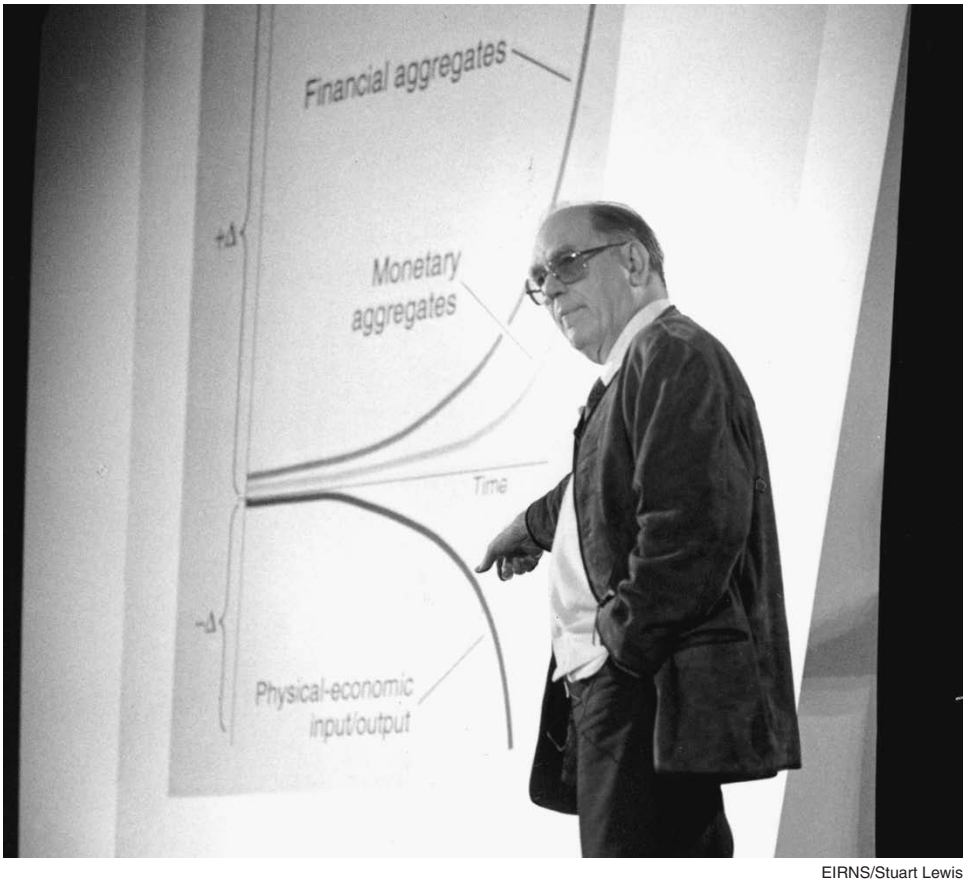
On this account, the fact is, that, since the time, during 1953, I settled upon Bernhard Riemann's method of physical geometry, no economic forecast I have ever delivered, has failed; and, only by exception has that forecast assumed the form of what might have appeared, mistakenly, by some, to have been what is usually regarded as merely a prediction.

My first such forecast was short-term, crafted in the Summer and early Autumn of 1956, a forecast in which I foresaw the worst recession since the immediate post-war period, as probably scheduled to erupt before Spring 1957; it came on time, and lasted, pretty much as long as the accompanying agony of the young of the "white-collar" Baby-Boomer households, an agony which it produced, until about the time of the November 1960 general election.[2]

My June-July 1987 forecast of a highly probable stock-

1. The greatest challenge in modern science, was Johannes Kepler's recognition of the underlying principle of dynamics which could be discovered only through going beyond the mere evidence of vision, to include the mind's faculty of hearing the harmonics which govern the ordering of the Solar system. It was with the work of Riemann that the goal which Kepler intended for his successors was clearly defined for practice. All competent economics today depends upon that notion of universal physical principles.

2. The effect on the group dynamics among the parental households of the children born to the "white-collar" branch during, approximately, the 1945-1958 interval, is of crucial importance for understanding the social-economic and related political history of the U.S. over the entire sweep of the 1945-2007 interval to date. At the high point of its euphoria, prior to the 1957-1958 downturn, the parental community of the "Baby-Boomer" sets was a rather disgusting "We are the wonderful people" outlook, as described in ***White Collar*** (1951) and ***The Organization Man*** (1957). The harsh economic slapdown, as of executives stockpiled in the $40,000 annual income-range, to hopes for new employment at the $10,000 level, was reflected from parents to child in the form of the rage factor of the "68ers."



EIRNS/Stuart Lewis

Lyndon LaRouche's famous "Triple Curve: A Typical Collapse Function": The top curve is a hyperbolic, self-feeding growth of financial aggregates; the second curve is the monetary expansion, by Treasuries and Central Banks and so forth, which feeds the money-flow in, to help pump up the growth of the financial bubble. The bottom curve shows the accelerating decline in real physical output and consumption, in terms of productive potential per capita and per square kilometer. Here, LaRouche explains the Triple Curve at a conference in 1998.

market crisis for early October 1987, is notable for what some erring observers would consider to be a prediction, rather than what it was, what I define, categorically, as a forecast.

Similarly, during the time of the 2000 Democratic Presidential campaign, I had forecast the development of a real-estate crisis within Loudoun County, Virginia; numerous among those who rejected that forecast were led by that error of theirs into making some very serious business or related mistakes, mistakes which will worry them now.[3] As in Gottfried Leibniz's uniquely original discovery of the calculus, all competent forecasting, even when it seems to point to a short-term prospect, is intrinsically the fruit of a method of long-term forecasting. As I shall indicate in the course of this report, there are scientific reasons why this is necessarily so.

Thus, my outstanding forecasts, from the late 1950s onward, until my Democratic Prolegomena of August 3, 2007, have been relatively long-ranging. Thus, you have my major, long-range, now realized forecasts, from 1959-1960 onward, of that break in the Bretton Woods system, which occurred in mid-1971. You have, also, the forecast which I had developed in late 1995, but first published in January 1996 as a Presidential campaign statement featuring what is known as my "Triple Curve." We must focus our attentions on the misguided personal motives of those who have argued, some loud and long, that I was "wrong" in any of these forecasts. All forecasts made by me then, and since, have been on the mark in respect to what I had actually stated, that in very carefully crafted terms on such occasions. The "Triple Curve" expresses, in appropriate symbolic forms, the dominant features of both the U.S. and world markets, combined, since January 1996 up to the present moment.[4]

The point is, that I had come to understand, more and more, and ever more clearly, how modern history works,

3. Since enormously expanded amounts of Federal money poured into Loudoun and adjoining areas, there was growth in Loudoun County, which was largely at the price of collapse in the states from which the growth of population in Loudoun, for example, flowed. This influx tended to draw attention of Loudoun suburbanites, away from the underlying collapse already in progress. When the net decay outran the sustainable expansion, the net collapse, already in progress, hit. The turning-point in the direction of change was Y2000, when Alan Greenspan's Y2K bubble collapsed. Now, seven years later, there is a net collapse of all leading combined factors. This outcome was already inevitable to those who thought in terms of real physical cycles of investment and depletion. "True believers" see only what is right under their noses, and thus tend to overlook the oncoming foot aimed at their posteriors.

4. I refer to those who duck what my forecast had actually stated, by their own resort to the habituated Sophist's "In other words, what you meant to say was…" and, then complained that what they, in fact, had stated, had not come true.

and, what happens to societies which brush aside the kinds of strategic forewarning produced by the method which I have employed.

Considering the presently ongoing global financial crisis, the behavior of those who have sought to deprecate those forecasts, now becomes, clinically, most interesting; in most among the studied cases, the reason they rejected my forecast, is that they were, more or less hell-bent, on continuing stubbornly in a wrong direction, and my forecast spoiled the pleasure of their obsessive search for pleasure in their own dream-world's foolish, and often fanatical fantasies.

Right now, understanding the validity of my forecasts, and the method which my forecasts have correctly expressed, is pretty much a life-or-death matter for our own and the world's economy. On that account, my just recently issued Prolegomena for a Democratic Party campaign platform, also provides a valuable illustration of the proper crafting and use of my forecasting method.[5]

As for what have been often foolishly self-described by a silly press as my usually anonymous "critics," every interval of U.S. economic history under Alan Greenspan's tenure, has been one successive interval of ruin of our economy, after another, during all of which, the U.S. physical economy was ratcheting down, down, down. Those who rejected my forecasts usually had their own peculiar reasons, but, looking back, over the record of the recent decade and longer, those reasons were always of a similar character to the motives of the alcoholic, compulsive gambler, or political figure behind the wheel, who, like President George W. Bush, Jr., snarls, "I'm driving!"[6]

Warning: Ideology at Work!

Since the LTCM crisis of August-October 1998, the most memorable example of a failed forecast has continued to be that caused by the prize-winning methods of Myron Scholes and his associates. That really took the prize, as the saying goes! At that time, President Bill Clinton and his U.S. Treasury Secretary Robert Rubin led the temporarily successful bail-out of a crisis-struck U.S. financial system. The effort was considered Herculean, and perhaps justly so; but, although the patient survived, temporarily, none of the causes for the LTCM crisis were treated, and, therefore, the crisis of 1998 has returned in a much more resistant strain, as the global monetary-financial breakdown-crisis of today.

The characteristics of the methods used to cause that crisis then, have been continued, in all essentials, by Scholes and others since, still today.

U.S. Treasury

President Bill Clinton and his Treasury Secretary Robert Rubin (shown here in 1999) led a Herculean, and temporarily successful bailout of the crisis-struck U.S. financial system, following the LTCM blowout.

The exotic methods crafted and employed by Scholes and his like, have been, in a certain sense, actually a leading contributing cause of the present lurch to the brink of a general, chain-reaction form of global monetary-financial breakdown-crisis. It is time to get the mathematical witch-doctors off the case, while the patient himself might still be saved.

As I have reported in earlier publications, such as the most recently published Prolegomena,[7] the issue posed by the repeated systemic failures of the methods of Scholes et al., must be traced to their origins in the dispute between Gottfried Leibniz, on the one side, and René Descartes and John Locke, representing the opposing camp. The principled root of that issue of method then, as now, is the contrast between the *dynamic* methods of Leibniz (and also his follower, Bernhard Riemann) and the mechanistic-statistical methods of Descartes.

Cartesian method is contemplation of what is essentially mechanical action among apparently discrete objects floating in what is wrongly presumed to be that otherwise empty Euclidean space where percussive interactions are presumed to occur. The Cartesian approach to analysis of the motions among such particles is guided, essentially, by the method of a famous medieval irrationalist, William of Ockham, whose methods were revived at the direction of the influential mod-

5. Lyndon H. LaRouche, Jr., "The State of Our Union: The End of Our Delusion," *EIR*, Aug. 31, 2007.

6. Now, since the beginning of August 2007, there are some changes in progress. More and more citizens who had clung, earlier, to the hope that I was mistaken, are now reacting as if in the legendary TV advertising clip, "I needed that!" Or, more in the direction of a wistful sigh of relief: "I wish I hadn't needed that!"

7. Op. cit., LaRouche, "Delusion."

ern Venetian Paolo Sarpi. The application of the neo-Ockhamite empiricist method of Sarpi and his lackey Galileo Galilei, is the principle otherwise associated with games of chance, such as casting of dice, the statistical method.

The risk this poses for the forecaster using modern neo-Cartesian methods, is that physical space-time, the actual space-time which we and our planet inhabit, is not Cartesian, but Riemannian. This includes the physical space-time which real economies inhabit.

In real-life physical space-time, action is governed by universal physical principles, such as Johannes Kepler's uniquely original discovery of the harmonic principle of gravitation among the planets of the Solar system. This action occurs within a physical space-time which is bounded by the role of those principles. The general method required for such work, is Riemannian.

Competent forecasting obliges the forecaster to consider the boundary-conditions characteristic of the kind of processes being considered. Thus, the Cartesian or neo-Cartesian projects statistical forms of mechanical action confined within the bounds of gambling expert Galileo's space-time. Since the heredity of the Cartesian method is that of Sarpi's empiricism, no principled boundary condition is taken into account. For Descartes and his devotees, the future is the indefinite projection of the present. In the Riemannian approach, we start from the principled definition of the discovered boundary conditions, and turn our attention, then, to the "object" whose behavior is determined, in the manner Riemann defined the function of a sonic shock-wave, by the manner in which it is approaching that boundary condition.

In the modern expression of the Cartesian method, as applied to economics, the subject is the interaction of objects defined by their monetary or analogous qualities. The statistical method used becomes, in one disguise or another, something akin to the obscenely wild-eyed methods of John von Neumann and Oskar Morgenstern in their ***Theory of Games and Economic Behavior*** and virtual idiot-savant von Neumann's outrightly lunatic ***The Computer and the Brain***.[8]

In real economies, the boundaries are physical, not simply monetary. The physical acts of production and consumption, together with the physical function of the infrastructure within which these acts occur, define boundary conditions. To the extent that the approach echoed by Scholes et al. is employed, the unscheduled boundary condition which their forecasting encounters, produces a reaction of such forms as a Weimar 1923 hyperinflation like that at the beginnings of a take-off right now, and an ensuing general physical breakdown of that actual economy to which the ivory-tower variety of mathematical forecaster is, predominantly, indifferent.

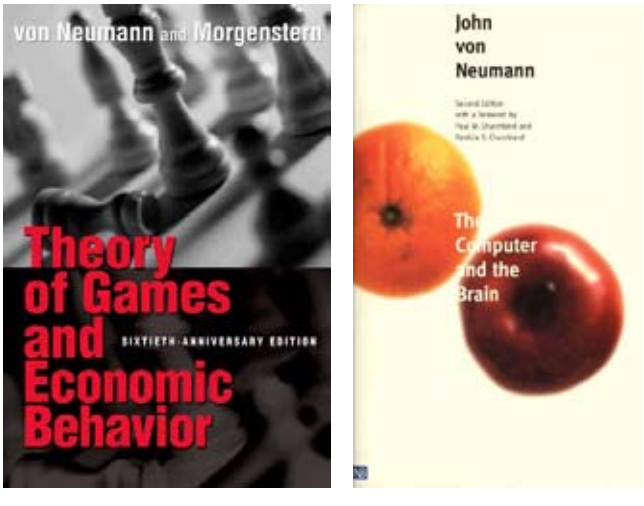
8. Morgenstern and von Neumann (Princeton, N.J.: Princeton University Press, 2000); von Neumann (New Haven, Conn.: Yale University Press, 2007).

Where Do We Go Now?

My July 25th LaRouche PAC webcast coincided with a point in history, at which we, in the U.S.A. and elsewhere, have entered the zone of a boundary condition, where we are at the verge of passing into the interior of a certain kind of "new world," a new physical phase-space. We live in a society, most notably in the Americas and Europe, which has passed about four decades in moving away from a time when *increase of the physical productive powers of labor, per capita and per square kilometer*, gave guidance to the combination of net economic growth and improved conditions of life. The ultimately ruinous habits acquired over the course of those recent four decades and more, since the Gulf of Tonkin Resolution, have now ruined us.

Since the riotous events of 1968, within Europe and the Americas, the emerging adult generations have been a leading factor within the population generally, for a sharp reversal in direction, into the direction of trying to get more money, while actually earning less, these days, even much less. That inclination to get money persists, but the currently reigning body of opinion has little desire to actually earn income by contributing directly or indirectly to effecting that increase of real, physical wealth per capita and per square-kilometer, for society as a whole, as by technological and scientific progress in farming and manufacturing, and building up, contrary to those marginal Laputan minds of the utilitarian schools, the net improvements in conditions of basic economic infrastructure, a class of improvements upon which production of wealth depends absolutely.

During these past four decades and more, since the Gulf of Tonkin incident, we have changed the physical characteristics of the U.S. economy, with presently disastrous effects. We have passed over, from being the world's leading physical



Oskar Morgenstern and John von Neumann represent the modern form of the Cartesian or statistical method, which has been counterposed to Riemannian economics. Their "obscenely wild-eyed methods" are touted in books such as these.

economy, to what is called a "post-industrial" economy, within what is called a "globalized" world. By exporting the production of the goods we used to produce, and buying those goods from so-called "cheap labor" markets abroad, we actually earn less and less, and in approximately that proportion; and, therefore, we soon reach a point at which we subsist on an increasing portion of our consumption for which we are less and less inclined, and less and less able to pay. So, many, like the current President of our U.S.A., have actually entered that sort of paradise which Jonathan Swift portrayed as the floating island encountered in Gulliver's travel to the island of Laputa.

A prime example of the way in which that attitude has contributed to bankrupting the present U.S. financial-monetary system today, is the case of the role of Felix Rohatyn. Rohatyn is an exemplar of a type of many similar freebooters who insist that satisfying their peculiarly nasty and usurious form of greed at public expense, must be the only means by which some of the capital improvements of society will be met, doing this always in a way which leaves the country on which they prey, such as our own, poorer after that, than before. (Or, to make a city appear richer, as under a former tyrant of the Dominican Republic, by driving out its poor.)[9] The "hedge funds," whose practices should have been forbidden as criminal activities, express this in the extreme, as the Cayman Islands' version of a modern Caribbean pirate addressing his next corporate victim for takeover ("Would you please walk my plank, so that I don't have to kill you?").

The search for an understanding of how we did this terrible thing to our nation and ourselves, should lead us to the subject of the principles by which the great mass of populations of nations, or empires, are misruled, again, and again, then, as now, by a tyrannical few. This is also the subject of the indispensable role of forecasting, instead of predicting, in the design of policies to guide successful designs for political-economic *systems*. The two subjects are reverse sides of the same coin: to lack the power to know efficient universal principles, such as those of physical economy, is to be deprived of the efficient power to rule oneself under the conditions of crisis prevalent today.

So, you, like our nation, were swindled in the name of our people's own folly in the believing, by so many among us, in "free trade." By believing in "free trade," you abandoned the right, and power to forecast rationally, and became, thus, a true believer in what you imagined to be the witch's and croupier's power to predict. By adopting orientations such as a drift into "out-sourcing" and "globalization," we have not only lost productive employment within the U.S.A., but have been even hysterical in our determination to continue such economically suicidal national behavior.

To get directly to the foundations of that problem, I state the exemplary issue at hand, by stating it, again, in the terms of one of my favorite topics, the hallowed, Classical case of the Olympian Zeus of Aeschylus' ***Prometheus Bound***.

The Tyranny of Ignorance

Tragedy is the use of a rope of culture by which the leaders and others of a society hang themselves. The circumstances, within the U.S.A., among others, today, which would lead a society to continue to accept the methods employed by LTCM's Scholes to produce the 1998 crisis, once again, still today, illustrate what I point to as an ideological "rope of culture" with which that culture typically submits to a built-in cultural obligation to hang itself.

For such a tragedy, there is only one reliable remedy: destroy the rope. That is the implication of true strategy, the true essence of forecasting.

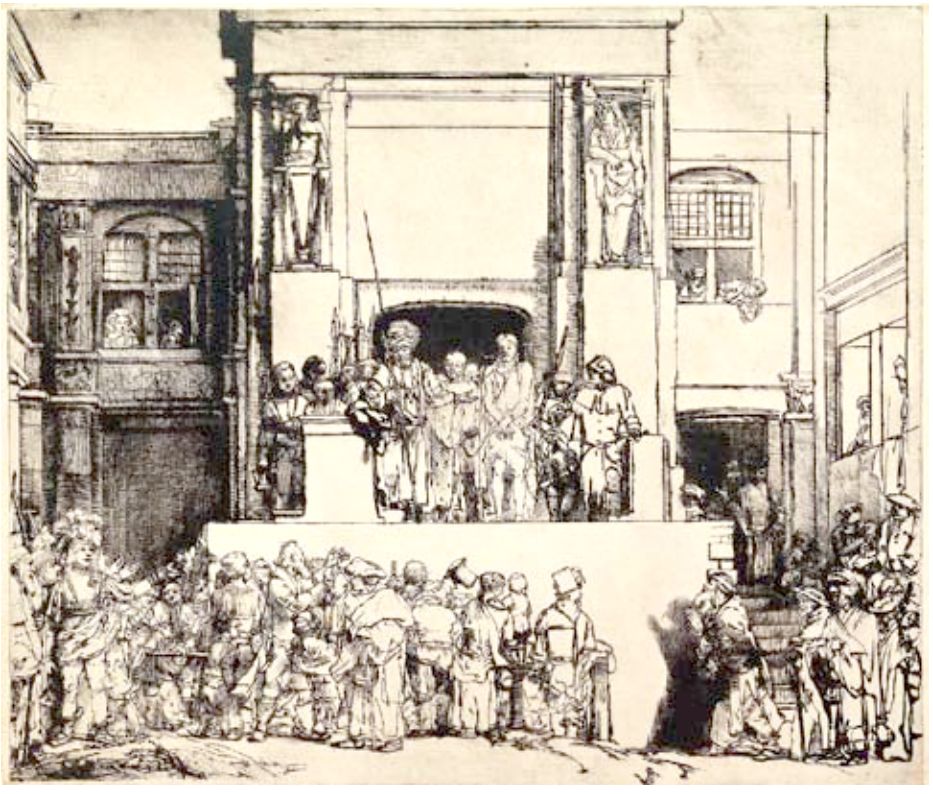
The evil Zeus represented an oligarchical society, in which Zeus was—as President George W. Bush, Jr. claims for himself—the bearer of the loutish title of "The Decider." During a certain time in Germany, a "Decider" was called "*Der Führer*." That convergence of Bush's and Hitler's idea of leadership is no exaggeration; similarly, the members of

Following the Nazi seizure of Paris in June 1940, Hitler (dressed in white) visited the tomb at Les Invalides of his hero Napoleon. Like Hitler and Napoleon, Dick Cheney ranks among the worst monsters in modern history since the Inquisitor Torquemada.

9. Those citizens not wearing shoes were not permitted to enter the capital city, lest they might be seen by talkative modern tourists.

Bush's "Olympus," the so-called Federalist Society followers of the Carl Schmitt whose argument was used to appoint Hitler to the rank of dictator, insist on a Presidential authority which is no different, under law, than the authorities, copied from Schmitt, which Bush has claimed for himself! Is there really any difference between Bush's idea of his own and Vice-President Cheney's shared authority over what have appeared to be, so often, the helpless sheep of our Congress, and the parallel case of Propaganda Minister Josef Goebbels' and Hitler's reliance on a humbled German people's respect for the practice of *Gleichschaltung*?[10]

The comparison of the Bush-Cheney regime to that of Hitler, is, admittedly, strong stuff, but, from the history of statecraft, it is not merely a matter of comparison, but also a necessary one. There are many comparable cases of similar tyrants. Grand Inquisitor Tomás de Torquemada is not only the worst such monster in modern European history, until Vice-President Cheney, but is the model used for the design of dictators Napoleon Bonaparte and Napoleon's admirer Adolf Hitler. The tyrant William of Orange is also one of these types; a similar case is that of lackey Jeremy Bentham's master, Lord Shelburne, who was hated, but also feared, who ruled usually from behind and above the scene, all that in approximately the degree he was often hated at a safely respectable distance. Such tyrannical creatures, such as loutish George W. Bush, Jr., rule by buffoonery and myth, not as President Franklin Roosevelt led, according to the dignified principle of our constitutional law.



"The Emperor Tiberius' virtual son-in-law, Pontius Pilate, employed his special authority as surrogate in wielding of law for the Emperor himself, to order the crucifixion of Jesus of Nazareth," LaRouche writes. Jesus was feared by the Roman Imperial authorities "as the deadliest of its adversaries from within that region.…" In Rembrandt's etching, "Christ Presented to the People" ("Ecce Homo"), Pilate (wearing a turban) is the ultimate Sophist, leaving it up to the mob to decide whether Jesus, or the thief Barabbas should be crucified.

To see the innards of the relevant case of the George W. Bush, Jr. Presidency, look to what was called "the oligarchical model," the model expressed by the gods of Olympus in Aeschylus' ***Prometheus Bound***.

That said, now look back, for comparison, to Aeschylus' portrait of the brutish Olympian Zeus. What is the principle of law expressed by ***Prometheus Bound***? Ask the question: did Zeus believe that man's knowledgeable use of power were feasible? Or, did that Zeus object to man's use of fire precisely because he believed it was feasible—i.e., a universally lawful principle of man's specific nature? In fact, as all real-life adherents of the oligarchical principle of tyranny have suppressed the natural powers of the greater mass of humanity, as with imperial Rome's persistent attempts, over many generations, at genocide against Christians, they did so precisely because those powers they sought to uproot thus, were the means by which human beings distinguish themselves from creatures in the likeness of cattle.

Take, as an illustration of the principled issue involved, the case of one of the Federalist Society types sitting on the U.S. Supreme Court today, Associate Justice Antonin Scalia. What is Scalia's stated notion of the nature of law? He has been emphatic; his view, as he has described it, is that of what is named, and rightly derided as "dictionary nominalism," with the added qualification that fresh revisions of the dictionary, like those of Wikipedia, are formulated, and freely revised without regard to any lawful principle, even to simple truth, or to the matter of content. Scalia is thus in the tradition

10. As I have recently observed in at least one particular set of persons in Germany, the practice of *Gleichschaltung* has been passed down, as a cultural heritage, from the habits of the Hitler regime, to some Sophist representatives of the Baby-Boomer generation, thus to be expressed by that next generation as the practice of certain circles to lie in raucously factitious unison. One is left to doubt nothing except a suspicion that such ritual group-lying is accompanied by some exotic variety of organic sexual release.

of Paolo Sarpi's Liberalism, and a rather radical form of Liberalism at that. It is the "fire" of natural law which Scalia identifies as the principle he, like Federalist Society icon Carl Schmitt before him, is attempting to stamp out. Scalia, like Schmitt, has sought, thus, to stamp out specifically human nature, as both President Bush and Vice-President Cheney also echo Nazi ideologue Carl Schmitt.

So, the Emperor Tiberius' virtual son-in-law, Pontius Pilate, employed his special authority as surrogate in wielding of law for the Emperor himself, to order the crucifixion of Jesus of Nazareth. Jesus was feared by the Tiberius resident on the Mithraic shrine of Capri, as what the Roman Imperial authority considered as the deadliest of its adversaries from within that region; hence, the Roman Empire of Tiberius crucified Jesus as "The King of the Jews," as the Emperor Nero did to Peter later.

What is natural law? What is the connection between the concept of natural law and competent modes of economic forecasting? How should a competent modern forecaster view and treat the factor of the religious beliefs of Jesus and his Apostles, especially John and Paul? How are these values expressed in the science of forecasting?

Whether You Like It, or Not

All reasonable law, in any society, is derived from the notion of the quality of immortality which, examined from the standpoint of rigorous experimental method, is specific only to man among all species of ostensibly animal life. Hence, whether you like this news, or not, mankind's nature requires of us, that, naturally, we must be self-governed by discovery of natural law, as Plato typifies the ancient root of modern practice of natural law.

On this account, it is impossible to separate the notion of decent law by society from natural law as I identify its crucial feature here and now.

Like a musical composition by Bach, Mozart, or Beethoven, the relationship of the mortal individual to past and future generations, up and down, from bass to soprano, is a performance of the composition of humanity as a whole, is the domain of an Idea, with no acknowledgment of the prototypical ideologue of Romanticism's modern fascist form of state, G.W.F. Hegel.[11] Hegel and his ilk thrown thus summarily aside, how must a lawful order in society be composed? Thus, one should ask: What generates the music?

In the method of J.S. Bach, of Beethoven, and of Wolfgang Mozart from the beginning of his Sunday visits to van Swieten's salon, the Bach choral work, such as the smaller motets and the great ***Passions*** and ***Mass***, the essence of any competent composition and its performance is the vocal chest of voices performing within the external and internal bounds of the Florentine *bel canto* chest of voices pitched at C=256.[12] As in physical science in the Pythagorean-Platonic and Kepler-Fermat-Leibniz-Riemann tradition, the musical domain is composed of a chest of singing voices (as also the instruments which mimic the vocal domain), in which counterpoint and development are of the same form as the Riemannian universe, such that development is expressed by transitions which are effected through the method identified by conductor Wilhelm Furtwängler as "performing between the notes."[13]

clipart.com

The creative powers of the individual human mind can be found in the expression of the ontological infinitesimal of Kepler's discovery of the planetary orbits; or in Bach's musical compositions; or in great poetry, such as Keats' "Ode on a Grecian Urn": "Beauty is truth, truth beauty,—that is all/Ye know on earth, and all ye need to know."

11. "Genetically," so-to-speak, the diabolical Tomás de Torquemada begat the idea of the Jacobin Terror, designed the synthetic personality crafted by Joseph de Maistre, as the Emperor Napoleon Bonaparte I, the Napoleon from which the passionately inflamed Metternich correspondent (and agent) Hegel extracted the model used to produce a new Bonaparte as the Nietzschean existentialist form of the philosophy of history and the state, which was, in turn, to be incarnated, by successive aid in matters of law, from Savigny and Schmitt, as the dictator, Adolf Hitler.

12. Laboratory tests confirming this implication of my own discoveries, showed that some great violins showed the instrument to have been crafted to C=256, just as the greatest singers from the same generations as my parents' and my own, based their art on that Florentine *bel canto* standard: until the existentialist freaks of the (implicitly perverse) Congress for Cultural Freedom (CCF) imposed their own copy of Nazi *Gleichschaltung*, as elevated pitch, on the terrorized musical institutions. The strongest among some of the greatest voices of my lifetime testified to me personally and others, that they could survive the new standard imposed by the Congress for Cultural Freedom's variety of fascist tyranny on the stage, but the majority of relatively weaker voices could not, thus reducing competent solo performances to a relative handful of super-stars to hold up Italy's traditional *great cultural tradition* as long as they could maintain their performing careers.

13. This great artistry has gripped me since I first heard a recorded performance of his conducting while sitting in a U.S. Army replacement depot in India, fresh from northern Burma (Myanmar) in early 1946. What Furtwän-

Between the two media, we have physical science and Classical musical composition from Johann Sebastian Bach onward through Bach's great students and followers, such as Haydn, Mozart, Beethoven, and Schubert.[14]

The point I am making at this juncture, is that the ontologically definable creative powers of the individual human mind are located in the expression of the ontological infinitesimal of Kepler's elimination of the notion of quadrature from the concept of the ontological character of the action of the elliptical planetary orbit, and the identical sort of mental action expressed by functions such as performing a great Bachian form of contrapuntal work as between-the-notes, as the Bach concept of the fugue situates this pedagogically. The same appears in great poetry, as, succinctly in Keats' ***Ode on a Grecian Urn***, or the revolution in perspective discovered by Leonardo da Vinci, or similar accomplishments by Rembrandt.

This ability of a discovery of principle, which is unique to the individual human mind, is the ability of the individual member of the human species which separates us, as human, and that absolutely, from the essential characteristics of all beasts. The *infinitesimal* as defined by Nicholas of Cusa's correction of the fault in Archimedes' attempted quadrature of the circle, as by Kepler's discovery of gravitation, in Fermat's discovery of least action, in Leibniz's uniquely original discovery of the calculus, and the genius of the great followers of Bach's method in composition, express what is otherwise met among living species only in what mankind can do: willfully increase the potential relative population density of our species.

This unique quality of advantage of a species conforming to the definition of man and woman in ***Genesis*** 1, is the location of what the curiously brilliant founder of so-called General Semantics implicitly defined as the distinction of man from beast, as mankind's "time-binding" mode of existence. The distinction lies not in the making of signs and sounds, but of "singing between the notes," as Cusa, Kepler, Fermat, and Leibniz did with the concept of an ontologically infinitesimal, rather than algebraically infinitesimal, as the expression of the action of universal physical principles in qualitatively changing man's intrinsic power to exist as man.

It is the transmission of human progress over successive generations, by means of this principle of action unique to the human species, which then serves as the location of what can be competently presented as expressions of natural law.

On this account, our true self-interest as human beings, is not confined to the bestial dimensions of life afforded the individual member of an animal species. Our essential self-interest lies in the outcome of our having lived, the outcome for mankind at large, especially future mankind. Our essential interest therefore lies, also, as the 1648 Treaty of Westphalia prescribes at its outset, in the future of other people's, and nations' future, even more than our own.

The essential interest of mankind is the improvement of the human future, and, for that reason, the precious heritages similarly bequeathed from earlier times and places.

The greatest achievement of our republic, on which account we at our best have been, is, as Lafayette proposed, as a beacon of hope for all mankind. We expressed this in our best moments, as in the fruit of the victory bequeathed by President Abraham Lincoln, as by President Franklin D. Roosevelt, by the great productive power we unleashed to inspire men and women of good will throughout much of the world.

Unfortunately, with the successive deaths of President Franklin Roosevelt, and by the President John F. Kennedy who avowed his intention to return the nation to the Franklin Roosevelt legacy, and others, the misleaders in sundry places of relatively great influence have robbed us of our honor and our prosperity. Often, as recently, as the long wars in Indo-China and Southwest Asia should rebuke us, we are like a stinking old man who refuses to change his socks, or his underwear, because he has become accustomed to their aroma.

My duty is to chart a return to such a noble course for our republic, a republic to become again a beacon for all mankind. The course we must chart on that account, is not simply a repeat of the past, but a new leg, never before travelled, in a continuing, eternal journey.

To sum up the crucial lesson of mankind's known experience:

The greatest evil is the conception of the oligarchical model of society, as depicted by the condemnation of the Olympian Zeus as an essentially satanic being, in Aeschylus' ***Prometheus Bound***. The essentially satanic evil is therefore the notion of zero-technological growth, the notion of Giammaria Ortes as flagrantly plagiarized by Thomas Malthus, or the "Global Warming" hoax of former Vice-President Al Gore. Such people are of a disposition as to bring, again, upon themselves, an outcome like that which Friedrich Schiller described for the Habsburgs' Netherlands wars, of wars not between men, but as among beasts.

In that respect, man always wills his destiny, whether to prosper in a new journey into the future, or to be doomed, as often in the past, to rot in the tired and tragic swamp of his own stagnation in old, failed ways. The question posed to the citizens of our U.S.A., and also of the world at large, is which destiny will they choose? Will they change their foolish ways within the bounds of the brief, relevant time remaining?

---

gler does with that concept, is equivalent for music, of what the "performance" of the Leibnizian infinitesimal becomes in the hands of Bernhard Riemann.

14. Furtwängler's famous post-war recorded performance of Schubert's "Great" Ninth Symphony is an outstanding demonstration of what is either wrong, or missed in the conducting of the same work by other notable conductors. The second movement does not fall apart, but retains, at its tempo, the great burst of energy expressed by the last. The similarity lies in the conducted execution of transitions between the notes. Thus, here, in this way, C.P. Snow's paradox vanishes.