
III. Where Are the Leaders?

October 20, 2002

THE TRUE STATESMAN

The Historical Individual

by Lyndon H. LaRouche, Jr.

In a time of crisis, like today's, the typically failed political leader is like the narcissistic actor who poses for his audience, from on stage, or on camera, while gloating, *sotto voce*, "Look at me!" He is more or less indifferent to the reality of the circumstances under which he postures; the objective of his performance, is, like that of a prostitute prowling the tawdry street, merely seduction.

In contrast to such pathetic creatures as that, the great Classical actor thinks and acts as one from the ancient Classical Greek stage, revealing the character he plays, by speaking from his place of concealment from behind a mask. As Shakespeare's character Chorus warned the audience, at the onset of **King Henry V**, see what you hear performed on today's stage, not by looking at the images on the poor stage of that theater, but upon the nobler, supernal stage of your imagination.

Shakespeare's Chorus gave the audience a knowing look, which forewarned them, silently, that when the play had ended, they would be astonished to be returned from the grandeur of the imagination, to see, then, where Chorus had stood, those actors who are not the roles which they had just played. So, in life, as on the Classical stage, so does the truly great statesman do, as Benjamin Franklin, Abraham Lincoln, and Franklin Roosevelt did, and so did the historical, sublime Jeanne

d'Arc or Rev. Martin Luther King, Jr. When such real-life actors as these appeared no more on the transient stage, the soul of such exceptional leaders lived on, unseen, immortal, more powerful in death than in life before.

The Classical artist, as actor, or composer, is a copy of such exceptionally great political leaders as those. He or she is a model, who teaches the people and their proper leaders the art of imparting to the imagination of an audience, what the poet Shelley identified as profound and impassioned conceptions respecting man and nature. It is by this same standard required for the exceptional political leader, that the performance of that artist, as an artist, is to be judged.

I explain.

During each tragic moment of great crisis, every nation, every culture is gripped by the need for a sudden and profound change in its quality of leadership. Its survival then depends upon its willingness to choose a new quality of leadership which is typified by those extraordinarily exceptional individuals who stood, in retrospect like immortal souls, apart from, and above mere popular taste of their time. Throughout all the future history of mankind, as during the past, this presence, or absence of the determining role of the exceptional individual will always be, as it has always been, one of those milestones which mark those pathways of choice, toward either serenity or self-destruction, choices which close in on every culture at its moments of such great, self-inflicted peril as we face today.

In the following pages, I shall show, that, as in great Classical tragedies portrayed on stage, in such times as this present moment, a moment of imperilled

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European civilization as a whole, the nation whose people abhor the exceptional individual in favor of popular opinion, is already doomed to be brought down: brought down, like foolish Romans drunk from their cheering for the popular mass entertainments of the Colosseum then, or foolish audiences at today's football stadium, rock concert, or video orgy, a people doomed by its own habituated, popular, inherently tragic misbelief in comfort and pleasure.

In the course of future history, the only likely improvement over that record of the rare contribution by the exceptional personality, will never be more than, hopefully, a greater number of such exceptional individuals than what is the unfortunately rare individual active in our imperilled nation today. The greatest peril of any crisis-wracked nation, such as our own, is a proliferation of moral mediocrities, or worse, mediocrities occupying the leading places where intellectual and moral giants are needed. Such is the choice provided now, between the opportunity, or doom awaiting the U.S.A., in particular, at the present moment of global crisis.

So, over the thousands of years of that European history sprung, as the child of Egypt, from ancient Greece, the role of the exceptional individual, has been the subject-matter of those great legends, tragic histories, and dialogues, which reflect the record of mental life of entire cultures from our past. The great Classical historians, such as Aeschylus, Plato, Shakespeare, Lessing, and Schiller, have set the real-life choice between what are named *the tragic* and *the sublime* on stage. Now, it is, once again, the turn of our nation, and you, the people who live within it, which waits to be judged by future audiences, when your tale, in turn, is relived upon that same Classical stage.

Our nation has a choice; you must choose your lead-



Benjamin Franklin. "When such real-life actors as these appeared no more on the transient stage," writes LaRouche, "the soul of such exceptional leaders lived on, unseen, immortal, more powerful in death than in life before."

ers accordingly. Tragedy, or triumph: which shall it be? There is nothing magical in that choice. The choice can be a clear and rational one, if you are willing, unlike the failed Denmark of Shakespeare's **Hamlet**, to see it so.

I explain.

Where Does True Imagination Dwell?

Properly spoken, names for what Schiller defined as the *sublime*, like *spirituality*, *immortality*, *the imagination*, and *truth*, refer to ennobling experiences which occur only among human beings, never to lower forms of life. The human individual is awarded a natural power to know these higher conditions of experi-

ence, if he, or she uses it.

Unfortunately, so far in history, few of us have ever actually come to develop our innate power to know the reality to which those specifically human qualities refer. Most entrap their sense of personal identity within the prison of an ivory-tower delusion, such as the goldfish-bowl-like mental prison of the empiricist or Cartesian, who knows actually nothing of the real world, knowing only the images on that screen where the delusions called sense-certainty are displayed, and felt. In times of great crisis, society will be saved only if leadership is given to those relatively few free souls among us, to certain from among those “ugly ducklings” whom fools call “eccentrics.”

The indispensable leaders for such times, are those who have succeeded, from early in childhood, in letting ourselves be taken over by that natural potential for the sublime. Those who have kept good faith with that potential, born within each of us, are, therefore, the only qualified leaders of nations for such times. They are, therefore, *exceptional*.

Within the ancient to present span of today’s globally extended European civilization, one name, that of Plato, is best known for understanding this distinction of the exceptional, Socratic figure in society. For this reason, Plato’s dialogues are sometimes identified as *spiritual exercises*. All discoveries of what are experimentally validated as *universal physical principles*, such as Johannes Kepler’s uniquely original discovery of universal gravitation, were produced as the fruit of that method of *hypothesis* expressed by the Platonic dialogue.

The relevance of this for defining the exceptional individual, is elementary. Plato supplies many examples.

The human sensory experiences are an expression of the working relationship of the sense organs to a central nervous system. What we learn through our sense-experience, is the power to recognize a certain effect of the universe’s actions upon those sense-organs. What we perceive in this way, is not reality, but the mere



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Lyndon H. LaRouche, Jr. with civil rights heroine Amelia Boynton Robinson. The survival of a nation in crisis “depends upon its willingness to choose a new quality of leadership which is typified by those extraordinarily exceptional individuals who stood, in retrospect like immortal souls, apart from, and above mere popular taste of their time.”

shadow of the effect of actions by the real, unseen universe, chiefly from outside our skins, on the sense-organs embedded within our living biological organism. Therefore, in his **Republic**, Plato compares sense-experience to shadows cast on the walls of a dimly firelit cave. So, the Apostle Paul writes to the same effect in **I Corinthians 13**.

However, the human mind has an experimentally provable power which is superior to mere biology, a quality called *the power of reason*, a higher power which is unique to the members of our species. This power is also known as *the power of hypothesizing*. Through this power, we are equipped to discover what can be recognized by societies as *universal physical principles, hypotheses* whose validity can be demonstrated by those same, suitable forms of experiment displayed in the span of Kepler’s **New Astronomy**.¹ Such

1. This power of reason is otherwise named natural law, as opposed to a *merely positive law*. Kepler’s process of uniquely original discovery of a universal physical principle of gravitation, as presented autobiographically in his **The New Astronomy**, is an example of the process of natural law. Leibniz’s uniquely original discovery of a universal physical principle of least action, and Gauss’s 1799 announcement of his uniquely original discovery of the fundamental theorem of algebra, are also examples.



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Jeanne d'Arc, whose sublime quality of leadership made possible the founding of the French nation-state.

principles could never be seen by the senses, just as our unaided senses could never perceive the interior of an atomic nucleus; but, once we have proven the principle, we are able to apply that principle to make provable, efficient changes in the real, but unseen world outside our sense-perceptual powers.

In modern times, ingenious use of scientific progress enables us, more and more, to compensate for even the nearly full impairment of faculties of seeing, hearing, touch and so on. The famous case of Helen Keller illustrates the principle involved: the loss of sensory faculties does not lessen the innate power of the human mind to know the universe even by artificial substitutes for sensory organs. It is with the mind's spiritual power of hypothesis, not sense-certainty, that

man knows the universe.

This view of the efficiency of the experimentally grounded power of hypothesis, defines a real universe, a higher universe, beyond the shadowy illusions of a shadow-world of sense-perception. As for the case of Helen Keller's remarkable education, this real world is fairly described as *the universe of the scientific imagination*. It is the world of that *scientific truthfulness* which should always be the scientist's working approximation of truth. It is persons whose minds dwell consciously in that real world of truth, beyond illusory sense-certainty, which are the *exceptional* ones whom we may recognize as the great true Classical scientists in the tradition of Plato, such as Leonardo, Kepler, Leibniz, and Gauss, the great Classical artists such as Bach and Beethoven, and the great leaders for the perilous times of great crisis.

In the legacy of the Biblical Moses, this power of reason, this power of hypothesis, which is otherwise knowable as the quality of *spirituality*, defines man and woman equally as made in the image of a personality known as the Creator of the universe, and as given powers and responsibilities akin to His.

Before we come to politics, I must explain the significance for this for physical science, as follows.

The Lesson of the Noösphere

Vladimir I. Vernadsky, like Mendeleev, one of the exceptional scientific geniuses of modern Russia, was the first to present adequate definitions of what he named, respectively, the *Biosphere* and *Noösphere*.

He combined his own work in the field known as biogeochemistry, with the discoveries of Louis Pasteur and Pasteur's successors, to define a universal principle of life more sharply, as a universal class of physical principle, one distinct from the physical chemist's experimental definition of non-living processes. He defined that experimentally exhibited, increasing influence over the non-living processes of our planet, as presenting us with a *Biosphere*.

Using the same experimental method, Vernadsky demonstrated that the principle of discovery of universal physical principles, which occurs only within the

mind of the human individual, exerts a power to change the Biosphere itself, as it were from the outside. Since these powers of the human create principled effects not otherwise existent, such powers are not only physically efficient; they are universal physical principles. Since these principles exist efficiently, but outside the bounds of sense-certainty, they are a quality of *physically efficient, spiritual powers*, specific to the human mind, and efficient in their power over what is thought of as the material universe. This defined the *Noösphere*.

In broader terms of reference, Vernadsky's conception of the Noösphere was not an entirely new conception of the way in which the universe is organized. For example, I had adopted a similar conception of the general, categorical organization of our universe during late adolescence, that as a product of my personal defense of Leibniz's **Monadology** against Kant's **Critiques**. Vernadsky's notion of a Biosphere had been a legacy of a Classical Greek conception of a *hylozoic* universality, a notion also inherent in the work of Plato. Plato's dialogues, notably the **Timaeus**, define that hylozoic universe as bounded by a still higher, physically efficient, *spiritual* power, one corresponding to human reason; that already implied what Vernadsky named the Noösphere. The crucial difference is, that Vernadsky's thorough development of the experimental notion of biogeochemistry to the point of defining a Biosphere experimentally, provided the empirical-scientific basis for also defining a Noösphere in a similar way.

These *spiritual* powers expressed as hypothesizing, are the Classical domain of the true, the efficient *imagination* which acts, through our intention, to change the universe which we inhabit.

These discoveries presented Vernadsky with two additional challenges which he was not able to solve within any of the relevant known writings produced by the close of his life. First, since discoveries of principle are generated only within the sovereign bounds of an individual human mind's *cognitive* (hypothesis-generating) processes: by what principles are such ideas transmitted among the individuals within society, and from one society to another, as in a Classical-humanist mode of education? Second, if such cognition is an efficient mode of physical action on the universe, what is the corresponding, Gauss-Riemannian physical geometry of that universe, that it permits the efficiency of

such creative action by human cognitive powers to change the universe?

I have presented the essential principles which point to the answers to those two questions, in other published locations. The exceptional individual suited to serve as a leader for time of crisis, differs from the usual political figure in a specific, and usually fundamental way.

I explain.

Why Leadership Is Indispensable

Although what is called a classroom Euclidean geometry, is less false than a customary classroom arithmetic, it conditions the misled mind of the student to accept a falsified, science-illiterate's notion of the world of space, time, and matter. A Euclidean geometry is an attempt to explain the phenomena of sense-certainty in a way which is consistent with the way in which the poorly developed mind foolishly mistakes sense-certainty for physical reality.

Nonetheless, the geometry of **Euclid's Elements** contains, in part, useful reports of certain stubborn internal contradictions, reports which we have received from ancient Classical Greeks of the tradition from Archytas and Plato to Eratosthenes and Archimedes. These contradictions, which include the implications of constructing a doubling of the square, and the cube, and the physical implications of what are called the Five Platonic Solids, lead toward modern discoveries in a physical geometry existing outside the bounds of either a childish counting-number arithmetic, or a Euclidean or like sort of ivory-tower (*a priori*) geometry.

A modern appreciation of this work from Classical Greece's history, is identified, typically, by five principal categories of discoveries by modern European science: a.) Kepler's discovery of universal gravitation; b.) Fermat's discovery of a principle of quickest time, as opposed to shortest distance; c.) the combined effect of the work of Huyghens, Leibniz, and Jean Bernoulli, as expressed in Leibniz's uniquely original discovery of the calculus and the associated "quickest time" principle of the true infinitesimal and the elementary catenary form of universal least-action; d.) Gauss's first, 1799 report of his uniquely original discovery of the fundamental theorem of algebra; and, e.) Riemann's continuation of Gauss's 1799 announcement in his 1854 definition of the universal principles of a physical

geometry. These five, sampled sets of discoveries point to the basis for my own original discoveries in a branch of science founded by Leibniz, the science of physical economy.

The application of the science of physical economy, so situated, to the notion of the Noösphere, provides us a sense of the kind of anti-Euclidean geometry² which we must employ, for a modern understanding of that real universe which exists beyond naive sense-certainty.

That corrected, Riemannian view of a Noösphere, provides us a conceptual framework, within which to examine the differences between the actual behavior of a society, and notions consistent with a Riemannian form of Noösphere. This approach enables us to conceptualize the problem posed by the pathological effects of some among the implicitly axiomatic assumptions of currently prevalent popular opinion. Those pathological effects, we then treat as the characteristic, systemic pathologies of that culture. This approach to assessment of political-economic systems, has been the source of my unmatched success in published, long-range economic forecasting during the recent thirty-five years.

Although the potentially fatal systemic disorders of currently prevalent U.S. popular and other leading opinion, are not limited to the increasing, axiomatic follies of current, post-1964 U.S. economic policy of practice, all of the important such axiomatic disorders, economic or other, may be, and must be corre-



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Hamlet plays at killing King Claudius, while taking no action to save the disintegrating kingdom. Hamlet's folly was that he, like his fellow Danes, adhered to the cultural custom of the time, dooming not only himself, but the kingdom along with him.

lated with the specifically political-economic follies.

To provide the reader a fair view of the relationship of the exceptional leading individual to today's U.S. existential crisis, focus upon the 1964-2002 process of unfolding transformation of the U.S.A. from its earlier characteristic as the world's leading producer society, to its 1964-2002 progressive decadence as a "post-industrial" consumer society, a society in imitation of such respectively ancient and medieval models of imperial maritime powers as Rome and Venice.

The potentially fatal systemic conditions of social-political systems, such as that of the 1964-2002 U.S.A. today, are expressed by fundamental errors of assumption which underlie the way in which a society stumbles, more or less unwittingly, into making its choices of action, and inaction. Sooner or later, the continued toleration of such flawed sets of implied axiomatic assumptions, brings the conflict between society and nature to a condition approaching an existential crisis. It must then, like the U.S.A. today, alter its implied set of axioms, or collapse. This is the condition of crisis from which only the society's acceptance of the leadership of an exceptional individual can rescue that nation. So, Hamlet's foolish adherence to his Denmark's ruling custom doomed the Denmark of that tragedy, as Wal-

2. To the best of my information so far, the concept of an "anti-Euclidean," rather than "non-Euclidean" geometry was introduced by one of Gauss's two principal teachers, Abraham Kästner. In fact, Gauss's discovery of a mathematical form of anti-Euclidean geometry, is reflected in his 1799 publication of his original discovery of the fundamental theorem of geometry. The discoveries of Lobachevsky and Janos Bolyai, are rightly distinguished from Gauss's and Riemann's anti-Euclidean geometries as "non-Euclidean" geometries, which amend, rather than overthrow Euclidean geometry.

enstein's failure to defy his oath for the sake of natural law, his failure to overturn the Habsburg order, condemned Europe to more than a dozen horrible years of a continued religious war.³

Hamlet's folly was that, in the end, as he confesses in the Third Act soliloquy, he, like his Denmark of that time, adhered to that custom by which it destroyed itself. So, as Shakespeare's Horatio warns, even as dead Hamlet is carried from the stage of the same continuing, habituated cultural folly, he doomed not only himself, but the kingdom whose customary folly he had followed into death.

So, in a later time, the German generals replayed the folly of Shakespeare's Hamlet, and Schiller's Marquis de Posa or Wallenstein, in betraying Hitler's adversary, Chancellor von Schleicher, in the events of January 28-30, 1933, and, again, in the events of Summer 1934. For this, the institution of those generals paid dearly in July 1944, as the foolish Kaiser Wilhelm and his nation had played the fool, in backing the foolish Habsburg Kaiser, in Summer 1914. In these, and many, many cases in actual history, the ugliest tragedies are more often the fateful outcome of adhering to a flawed tradition, than violating it in that timely way consistent with that higher authority which is the same natural law invoked by the United States on July 4, 1776.

For the uses of modern science, including economic analysis, Gauss's 1799 report of his fundamental theorem of algebra, founds a modern mathematical form of anti-Euclidean geometry, by a devastating attack on the empiricist follies of D'Alembert, Euler, and Lagrange. That latter trio had dedicated their careers to defending, as Descartes had done, a pro-empiricist reading of the first nine books of **Euclid's Elements**, by sundry, fraudulent denials of the real existence of what they foolishly and fanatically deprecated as "imaginary numbers." Gauss successfully addressed the same problem which those leading empiricist mathematicians refused, axiomatically, to comprehend, the so-called "Cardan" paradox.

Gauss recognized what ancient Greek scientists, including Archytas, Plato, and Eratosthenes, had defined as that physical principle of construction, the which is

3. Friedrich's Schiller's account in his **Wallenstein** trilogy, makes that same point, as does his earlier treatment of the essentials of actual history, in his **Don Carlos**.

expressed by solutions for paradoxes such as the construction of a doubling of the square, and of the cube, and the Platonic solids. Gauss recognized the same notion of physical *powers* cited by Plato for the case of the doubling of the square. Gauss showed this again, thus situating, in algebra, what Leibniz and Bernoulli had shown in their treatment of the catenary's reflection of a principle of universal least action, and also in their showing of the related significance of natural logarithms. These mathematical paradoxes reflected the natural, *physical* geometry of what Gauss defined as the complex domain, outside the unnatural, "ivory tower" mathematics of the celebrated mathematicians Euler and Lagrange.⁴

Gauss's work provides the basis for a general understanding of formal mathematics from the standpoint of experimental physical science, rather than an "ivory tower" (*a priori*) approach to so-called "pure" mathematics. This approach is necessary for a successful scientific treatment of any measurable physical feature of a modern political-economy. This con-

4. The following matter is of such relevance for the topic being developed here, that the following notes are implicitly required. Gauss's pioneering in the anti-Euclidean geometry of his teacher Kästner, dates from 1792, and plays a crucial part in the work leading to the 1799 publication of the discovery of the fundamental theorem of algebra. Unfortunately, the tyrant Napoleon Bonaparte's designation of Lagrange as Napoleon's favorite, occurred shortly after the 1799 publication of Gauss's first paper on the complex domain. The British appointment (e.g., by the Duke of Wellington) of London's asset, the despicable French Restoration monarchy, continued the published, fraudulent attack on Gauss of the then-deceased Lagrange; this anti-Gauss policy was continued under the predominant control of the hoaxsters Laplace and Cauchy. On the continent of Europe generally, as in Hannover, conditions did not improve until the 1840s. Gauss himself did not reference the anti-Euclidean implications of his 1799 paper, until qualified references, confidentially, to Janos Bolyai's work (1832) in his correspondence with Wolfgang Bolyai, and, quasi-publicly, in later correspondence on the matter with C. L. Gerling (e.g., 1844) and H. C. Schumacher (e.g., 1846). Thus, in Gauss's later reports on the fundamental theorem, Gauss was prevented, politically, from referencing his 1799 attacks on Euler's and Lagrange's follies. The truth of the anti-Euclidean implications of the 1799 announcement was first brought clearly to the surface by the 1854 *Habilitationschrift* of Gauss's protégé Bernhard Riemann, **Über die Hypothesen, welche der Geometrie zu Grunde liegen**. Riemann there traced the premises on which his own definition of an anti-Euclidean (not non-Euclidean) physical geometry rested, as to the relevant Gauss work on biquadratic residues, and Gauss's work on the general principles of physical-space-time curvature. The paradigmatic metric of the complex domain, as defined by Gauss-Riemann, is the catenary-keyed notion of a universal principle of a quickest pathway of physical least-action, as had been developed jointly by Leibniz and Jean Bernoulli.

ceptual approach permits the development of reasonable measurements of growth or collapse of the physical economy of a nation, or group of nations. This conceptual approach requires emphasis on study of medium- to long-term cycles in creation and depletion of physical capital improvements over the medium to long term. As I have demonstrated repeatedly, by my uniquely consistent success in long-range economic forecasting over recent decades to date, that view of capital cycles, is indispensable for defining the systemic characteristics of modern economy

over the medium- to long-term span.

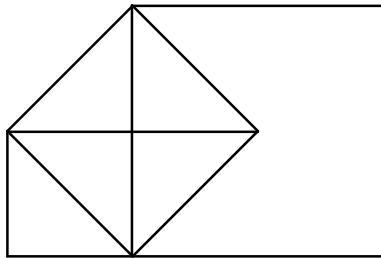
So it is, that scientific progress depends upon the application of experimentally validated discoveries of universal physical principle, discoveries which never occur except as the work of an individual discoverer's sovereign powers for hypothesizing. So, the same quality of creative powers of the exceptional individual within society, provides the corrective changes in ways of thinking, the quality of exceptional leadership on which the survival of a self-imperilled nation or culture repeatedly depends.

Gauss and the Theory of the Complex Domain

Carl Friedrich Gauss (1777-1855) founded a modern mathematical form of anti-Euclidean geometry, providing the basis for understanding formal mathematics from the standpoint of experimental physical science. The illustrations published here are taken from the pedagogical series on Gauss's work, produced by Bruce Director (See *EIR*, April 12, May 3, and Aug. 30, 2002).

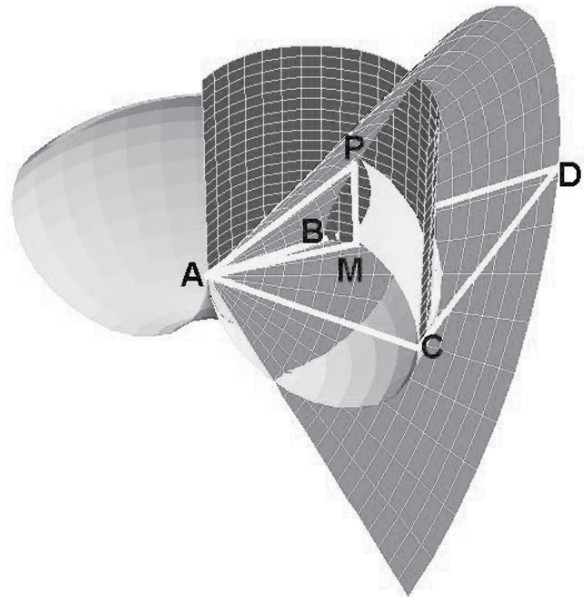
Gauss built upon the prior discoveries of Plato, Archytas, and Leibniz, some of which are shown here.

FIGURE 1
Doubling the Square



Gauss's Fundamental Theorem of Algebra is based on a generalized conception of physical powers cited by Plato in the Meno and Theatetus dialogues. There Plato makes the distinction between the "power" of a magnitude that produces a line and a magnitude that produces the square. The magnitude that doubles a square is the diagonal of the original square, which, as the Pythagoreans discovered, is incommensurable with the side. The harmonic relationship of a series of doubling squares was called by the Pythagoreans, "geometric." Each square was the geometric mean between its successor and predecessor.

FIGURE 2
Archytas' Construction To Double the Cube



To double a cube requires a magnitude of a still higher power, which was determined to be the equivalent of finding two geometric means between two extremes. Archytas developed a construction to find such a magnitude. His solution depended on a characteristic possessed by the curve formed by the intersection of the cylinder and torus. This curve could not be drawn on a plane, because it curved in two directions. Gauss would later define this characteristic as "negative" curvature.

The longer magnitude is AC, which is the diameter of a circle, while the shorter magnitude AB is a chord. That circle is rotated around A to form a torus. A cylinder is then produced perpendicular to the torus, whose diameter is also AC. AB is extended until it intersects line AD which is tangent to the circle at C. Triangle ACE is rotated around AC to form a cone. All three surfaces intersect at point P.

I explain.

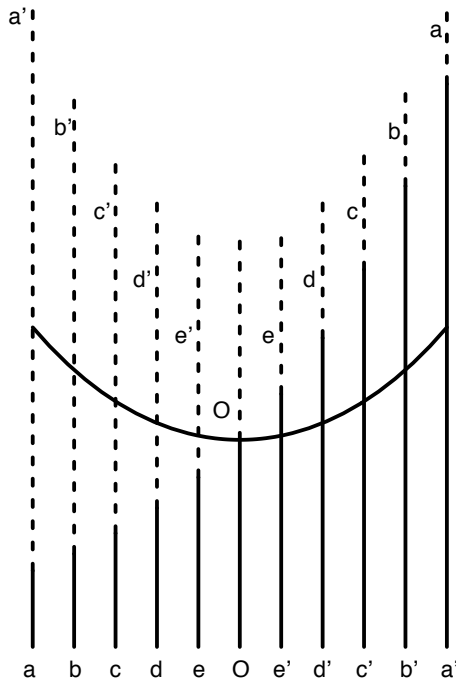
The Politics of the Complex Domain

The complex domain, as defined by the pioneering work of, chiefly, Gauss and Riemann, presents us with a physical geometry of real powers, a real universe, counterposed to the mere shadow-world of naive sense-certainty. What is “imaginary” is the Euclidean, or quasi-Euclidean form of “ivory tower” geometry, which sees only shadows of a real, physical geometry, not the physical substance which the shadows reflect. Nonetheless, in any competent understanding of the

origins and cure of systemic crises, such as the world’s self-inflicted, presently onrushing monetary-financial collapse, the cause of that calamity is the false assumptions which are implicitly valued, socially, politically, to possess the authority of axioms, that function approximately as if they were real axioms of an actual universe. Therein, in such intermingling of combined valid and false, popular assumptions, lies the cause for those qualities of systemic crises which sometimes bring about the extinction of once-powerful empires such as those of Biblical Belshazzar’s Babylon and Rome.

FIGURE 3

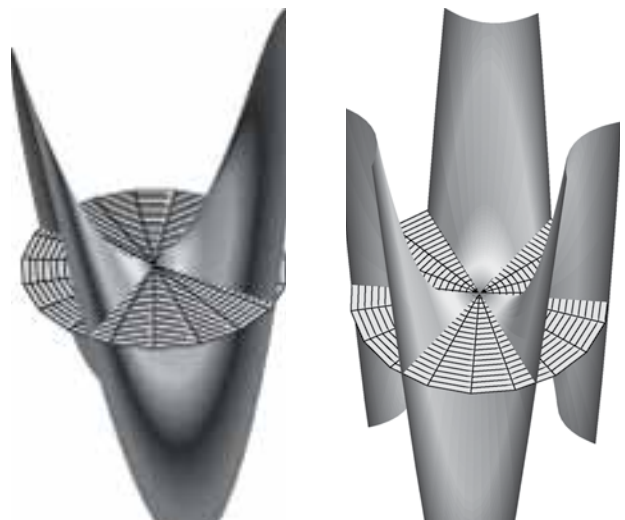
Leibniz’s Construction of the Catenary



Leibniz’s investigation of the catenary (Figure 3)—the curve formed by a hanging chain—led directly into the work of Gauss on curved surfaces. The catenary is formed as the arithmetic mean between two curves which Leibniz called “logarithmic,” and are today called exponential. In the figure, the lines are spaced equally along a horizontal axis. The “logarithmic” curve is formed by the vertical lengths which are in geometric proportion. $OO=1$, $e'=OO^2$ and $e=1/OO^2$; $d'=OO^3$ and $d=OO^3$, etc. The catenary is formed by adding length e to e' and dividing the combined length by two; then adding length d to d' and dividing the combined length by two, etc. The points of the catenary are equal to $(OO^n + 1/OO^n)/2$.

FIGURE 4

Gaussian Surfaces



In Gauss’s 1799 doctoral dissertation on the fundamental theorem of algebra, he investigated Plato’s conception of “powers,” generating complex surfaces such as those shown here: a Gaussian surface for the second power (left) and the third power.

A critical study of the pathological features of a Euclidean geometry helps the student's development of insight into the relevant characteristics of systems premised on an assumed a priori set of deductive definitions, axioms, and postulates, such as those of a Euclidean deductive ("logical") system of theorems and corollaries. Study of the falsehoods inhering in any such deductive system, is key for understanding the pathologically systemic states of general belief responsible for self-inflicted cyclical-systemic crises, such as that rather immediately threatening the early disintegration of the U.S.A. today.

The principal cause for the doom of any culture, is that mental disorder typical of popular opinion, which is to assume the validity of any assumptions currently adopted by a learned profession, or religious teaching, or more crudely adopted as "generally accepted popular opinion." So, as a foolish class in geometry always returns, directly, or indirectly, to the assumed authority of some set of unquestionable definitions, axioms, and postulates, a foolish people seeks the comforting authority of those same false, axiomatic delusions which, if continued long enough, will send that society plunging into self-inflicted ruin.

The Romantic tradition of *vox populi*, which was the underlying mechanism of ancient Italy's self-inflicted doom, is an example of this form of mental illness on a mass scale. The pathological system of Immanuel Kant, which Kant crafted as argument against the existence of knowable truth, should be referenced because it exposes the pathological type of mental mechanisms by which a pathological state of tradition may bring even a once-powerful culture to ruin. For this purpose, I refer to the defense of irrationalism, under the rubric of "the negation of the negation," which Kant features, under the sectional topic of "The Dialectic of Practical Reason," in his **Critique of Practical Reason**.

Kant, who, throughout his writings, rejects the existence of truth as a matter of principle, argues that the victim's acceptance of society's repression ("negation") of impulses to which it objects (as "negative"), produces a "positive" impulse consistent with the society's imposed "morality." This generation of a positivist ethical impulse, by "negation of the negation," serves as Kant's proposed alternative to truth.⁵ In the

5. Kant's referenced argument takes its included origins within earlier, medieval European history from such sources, as the doctrine of the

writings of the follower of the positivist fanatic, Ernst Mach, Dr. Sigmund Freud, we meet the same doctrine of "repression," but expressed in a muddier, and also smuttier form than in Kant's original. Kant is, unfortunately, correct in describing the widespread apparent effect upon the people of defective cultures. Kant's substitution of such pathologically induced lack of belief in truthfulness, is that pervasive moral corruption of national cultures which fosters such a society's cyclical-like descent into systemic, potentially fatal crises of national and broader cultures.

On this account, the exceptional political leader who rescues his people from the precipice of self-inflicted cultural collapse, performs a function which expresses the same characteristics as the discovery of an experimentally validated universal physical principle. Rather than arguing for remedies within the bounds of the generally accepted culture which threatens to destroy that nation, the valid leader for a time of such crisis, does exactly what Shakespeare's self-doomed Hamlet refused to do:

... Who would fardels bear,
To grunt and sweat under a weary life,
But that dread of something after death,—
The undiscovered country, from whose bourn
No traveller returns,—puzzles the will,
And, makes us rather bear those ills we have,
Than fly to others that we know not of?
Thus, conscience does make cowards of us all;
And, thus, the native hue of resolution
Is sicklied o'er with the pale cast of thought;
And, enterprises of great pith and moment,
With this regard, their currents turn awry,
And lose the name of action.

The adequate leader for a moment at the brink of systemic crisis, like the scientific discoverer at a critical juncture in his work, must lead the nation away from its suicidal instinct, to adopt sweeping changes in the axi-

"elect" associated with the neo-Manichean, Cathar cult whose influence infected the regions centered upon the axes of the Garonne and Rhône. That Cathar tradition was exploited syncretically by Venice's Paolo Sarpi in launching the cult of empiricism, of Francis Bacon, Galileo, Thomas Hobbes, et al. In the later "Enlightenment" phase of empiricism, that of John Locke, Bernard Mandeville, François Quesnay, Hume, Adam Smith, and the utilitarian Jeremy Bentham, the neo-Manichean irrationalism of the Cathars assumed such forms as the doctrine of "the Invisible Hand."

omatic assumptions on which that society has been operating up to that point. The would-be, “practical” leader, who seeks approval from the authority of prevalent popular opinion before acting, is, like Hamlet, a menace to his nation. The needed leader, is an *exceptional individual*. No other will do, if the nation is to escape its imminent peril.

How To Make a Leader

An adequate prospective leader for such a time of systemic crisis as today’s, must have devoted much of his, or her personal mental and moral development from childhood and adolescence on, to studying, and despising what prove to have been the systemic falsehoods which have become more or less generally accepted by peers, and also preceding and later generations. This impassioned awareness of widely accepted, implicitly axiomatic systemic falsehoods of assumption, as embedded in the customary practice of his, or her society, promotes in that young and maturing mind a disposition for emphasis on subject-matters pertaining to what Shelley identified as “profound and impassioned conceptions respecting man and nature.” This has been the conscious characteristic of my personal life, experience, and development, since childhood. For this reason, I am much quicker than most persons, to recognize relevant qualities, or lack of such qualities, in others, both living acquaintances and historical figures.

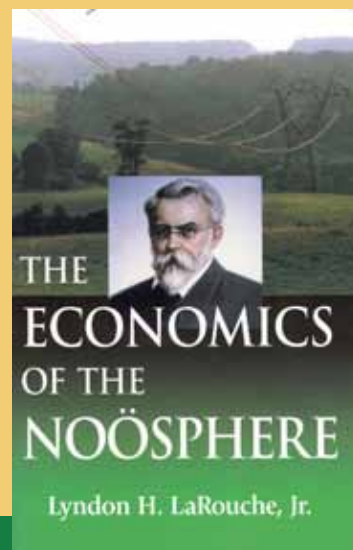
If the insights of such a developing, relatively exceptional personality are well grounded, he, or she acquires what sometimes amazed spectators see, in him, as the “gift of prophecy.” For as long as I can recall with certainty, since early adolescence, I have enjoyed the possession of such an apparent gift. Over the course of the recent forty-odd years, I have never been mistaken in my judgment concerning the direction and approximate tempo of developments pertaining to the long-range unfolding of the economic and related social processes. Consequently, on those long-ranging issues of policy on which I have premised my U.S. Presidential candidacy, since 1975-76, I have never been mistaken, as the published record of those actual forecasts attests.

Hence, my foresight of February 1983, that were the Soviet leadership to reject the policy I had recommended that President Reagan present, the Soviet economic system would collapse “in about five years.”

Now, all of the axiomatic-like policy-assumptions

of my supposed rivals among leading political figures and economists, have failed, utterly. Most among them are still clinging hysterically to failed policies, policies which express a bankrupt way of thinking about the processes of policy-shaping as such. However, do not permit yourself to be so occupied with the particular errors of their opinion and practice, as to overlook the root of their compulsion to commit the same, or more desperate errors of the same systemic type today. Look at the systemic roots of their crisis; look at the “geometry” of their mental life, a geometry which they do not know to exist, but which, nonetheless controls their mind as if it had “preprogrammed their thoughts.”

Therefore, I have presently two principal missions. First, to get you safely through the worst of the presently onrushing world and national crisis, and, second, to foster a new leadership, from among the ranks of our young people, which will understand the systemic features of history, and, therefore, were much less likely to make mistakes as foolish as most members of the recent two adult generations have made until now.



The scientific concepts of biogeochemist Vladimir Vernadsky — the initiator of the idea of the Biosphere — whose concept of the “Noosphere,” has been cited and further developed by Lyndon LaRouche.

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