

WHAT YOUR ACCOUNTANT DOESN'T KNOW:

## The Science of Society

by Lyndon H. LaRouche, Jr.

November 10, 2009

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*The fact is, that for more than half-a-century, all accountants and most economists have been repeatedly wrong, whereas, during the same half-century all of the forecasts which I have actually presented have been "on the mark." There are two reasons for my unique success during that period. It is not that I am a better accountant than they were; the difference is that I practice economics as a science. I am not alone. For example: lately, a growing number of academic and related kinds of leading specialists in the subject of national economy, have shown deep insight into the reasons for my unique success. Get to know this subject as we do. Your life might depend upon it: very soon.*

*In the meantime, the world economy, or, a very large part of it, including, especially western and central Europe and the Americas, is now at the brink of yet another of the steps downward toward the doom which awaits nations which refuse to make those necessary changes in policy-shaping which I emphasize here.*

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### ***On the Subject of My Background in Economics:***

As I have reported in numerous published locations, my record of superior competence in economy was rooted in my adolescent rejection of that folly

named Euclidean geometry, in favor of a concept of economy as a branch of Leibniz's argument in physical science.<sup>1</sup>

My progress beyond my adolescent, anti-Euclidean, fascination with Leibniz, was continued during the immediate post-war years, in my role as, briefly, an admirer, but, then, by 1957-59, an opponent of the radical positivist methods of Professor Norbert Wiener and John von Neumann, an opposition which led to my conversion to the standpoint of Bernhard Riemann's 1854 habilitation dissertation by 1953. All my economic forecasts, beginning with a near-term forecast of the February-March outbreak of the relatively deep 1957-1959 recession, have been premised on the case for a physical science of economy based on the principles of Riemann.

The generally publicized features of my work as a forecaster, began to be more widely known through a restatement of a long-range forecast which I had first uttered during the 1959-1961 interval. I forecast that, unless certain changes in direction of U.S. policy-shap-

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1. Although the discovery of the concepts which Euclid parodied, had been made by competent authorities working in the tradition of Sphaerics earlier, the a-priori scheme of Euclid himself was a fraud. Competent geometry is the geometry of physical curvature, such as the adoption of the catenary by Filippo Brunelleschi, and Gottfried Leibniz's related universal principle of physical least action.

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*A poster from Lyndon LaRouche's first campaign for the Presidency, in 1976. Throughout his life as an economist, he has had three essential and consistent differences with the "Brand X" academic alternatives.*

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ing were made by no later than the mid-1960s, we must expect a deep U.S. recession, or worse, to emerge during the last half of the decade. The assassination of President John F. Kennedy, assured the worst choice which would be made by his successors. That 1959-61 forecast of mine, as I have reaffirmed it during the later 1960s, hit with a succession of downward developments in the U.S. physical economy during the 1968-1973 interval, including the Nixon Administration's launching of the break-up of the tattered remains of the Bretton Woods System in August 1968.

I had been the only known economist to have foreseen such a pattern of ensuing developments embedded within the 1968 and following events. The uniqueness of my success as a forecaster, among then notable economists, led both to my celebrity, in a December 2, 1971 Queens College debate with a leading British Keynesian, Abba Lerner, and to the ever-lasting hatred thrown against me, internationally, up to the present moment, by associates of that European Congress for Cultural Freedom associated with such as Abba Lerner's colleagues of the intellectually and morally depraved Congress for Cultural Freedom, such as my virtually lifelong, and unscrupulous adversaries Professor Sidney Hook and John Train.

Since that time, there have been three kinds of essential differences between my role in the profession, and those of what might be fairly named as the oppos-

ing "Brand X" varieties of academic alternatives.

**First:** I adhere to a concept of physical economy which has been characteristic of the constitutional American System of political economy, since the pre-1688 Massachusetts Bay Colony of the Winthrops and Mathers, the so-called Hamiltonian system on which our Federal Constitution was founded.

At the same time, I have been often an ally of some with whom I differed respecting the principles of economy, but with whom a certain practical degree of common cause was to be sought, such as certain Marxists with whom I agreed on certain issues, but never as a matter of an actual scientific method. My differences with those with whom I have sometimes cooperated as a matter of an issue of common cause, have always been of that character.

**Second:** I have always insisted that real economy has the essential characteristics of a physical economy, rather than a monetary system. A system of money is a needed convenience for dealing with matters in the relatively small, but the success or failure of a national system is what it does, or fails to do as a physical-economic system. The inevitably terrible effects of monetary systems can be avoided only by means including the imposition of a fixed-exchange-rate principle among national systems.

**Third:** I have always insisted that the source of net physical profit, per capita and per square kilometer, of

## *The American System*

As I have emphasized in various published, or otherwise more or less widely publicized locations, except for the special case of the U.S. Federal constitutional system of Franklin, Washington, Alexander Hamilton, et al., other cases, such as the generally well-known phases of combined west-Asian and European social-economic systems known since Sumer and Babylon, have been dominated by forms of supra-national domination, properly defined as imperialisms, which are also characterized as pro-imperialist *monetarist* systems, such as that prescribed by John Maynard Keynes and his admirers.

By contrast, the American System, as launched by the New England succession of the Plymouth settlement and the Massachusetts Bay colony led by the Winthrops, and Mathers, was not created by persons enrolled in the function of refugees, but, rather of those implicitly acting in the footsteps of Cardinal Nicholas of Cusa, to bring the best fruits of European cultures to a new continent, where they could flourish free of the monetarist evils then represented, as still today, by the

Venetian monetarist tradition. The essential distinction between the American System, so defined, as by the foundations of this republic, is that of a credit system, as opposed to the intrinsically imperialist mode of that monetary system which has remained the dominant feature of the subject economies of Europe since Babylon, Cyrus, the cult of Delphi, and Venetian imperial domination of Europe's national economies by monetarist systems, to the present day.

The pathological element which binds together victims such as the G-8 or G-20 as slaves of a London-centered, international monetarist tyranny today, is the prevalent, mistaken belief that money as such is a standard measure of economic value. That is a delusion



*Alexander Hamilton, the first U.S. Treasury Secretary, established the National Bank in Philadelphia, shown here. "Such a bank," he wrote, "is not a mere matter of private property, but a political machine of the greatest importance to the State."*

any economy, depends upon the characteristically anti-entropic, mustering and application of discovery and application of fundamental physical principles.

A sound form of modern nation-state economy, is one in which the closely related systems of currency and credit are maintained in more or less fixed terms of relevance, but in which both the productive power of labor and physical capital-intensity are increased through the intended effects of physical-scientific and Classical-cultural progress.

Presently, some leading economists of the world have come to understand the basis for, and implications of the method expressed by my now widely known "Triple Curve" of interplay of financial, monetary, and physical changes. From consideration of the implications of that "Triple Function," the needed alternative, a double function, in terms of financial and physical "curves," is the remedy for the risk inherent in tolerating a monetarism-dominated system based on the three functions of monetary, financial, and physical organization of a national or world economy.

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taught by such as accounting professionals as a tenet of their practice still today. That is the delusion which has paved the pathway of folly carrying mankind as a whole to an immediately threatened destiny of global doom.

Viewing the great crisis now controlling the entire planet from that indispensable standpoint: the standpoint of the American System of political-economy, the standpoint which must now replace all of the financial-monetary systems of western and central Europe, and of central and South America now: if those regions are to survive the crisis-ridden weeks and months immediately ahead.

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## I. The LaRouche System

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Call what is the urgently needed alternative “The LaRouche System,” with the understanding that this means the same thing, in principle, as the system of credit (“scrip”) employed with great, if relatively brief success by the Massachusetts Bay Colony, prior to the colony’s disruption by, first, James II, and, more significantly, the evil William of Orange.

Think of what I propose here and now, as being the same thing as the credit system specified by Benjamin Franklin’s proposal for a “paper currency,” and Alexander Hamilton’s notion of a credit system. The goal is that of establishing a global system of fixed-exchange-rates among a set of what are respectively sovereign, fervently anti-monetarist, national credit systems. Under a two-function system (a financial credit system and a physical system), the value of money then becomes whatever the fixed-exchange-rate credit-system defines value to be.

To be emphatic, the source of the definition of value is not some calculated value attributed to the products of a sovereign nation; the value lies essentially, in the last analysis, entirely within the functioning of a fixed-exchange-rate credit-system, not the financial system as such. The function of the fixed-exchange-rate system is to provide a system of utterance of credit as the ut-



U.S. Department of the Treasury

*Benjamin Franklin was an advocate of a paper currency, but he was no monetarist. “When the people find that they can vote themselves money,” he quipped, “that will herald the end of the republic.” And, “He that is of the opinion money will do everything may well be suspected of doing everything for money.”*

tered debt of national republics, credit which is employed to support the increase, chiefly, of the fruitfulness of the productive powers of labor in each and all respective, sovereign republics. This may be credit extended for physical production, especially as advances in technology, but also for expansion of the scale of per-capita development of the physical-cultural potential of national economies.

The notion of economic value, so defined by a fixed-exchange-rate credit-system, is located in the relative improvement of the physical productive powers of labor, per capita and per square kilometer. The most appropriate way of defining that, pedagogically, today, is to think of these subject-matters in the Riemannian terms of both Albert Einstein and Academician V.I. Vernadsky, but with special emphasis on Vernadsky’s specifications of the respective roles of the Lithosphere, Biosphere, and Noösphere.

In general, that means that the “energy-flux density,” and also the “physical investment” of the economy, per capita and per square kilometer is being increased. This means the increase of the physical basic economic infrastructure of the economy, is being increased per capita and per square kilometer, and that the productive powers of labor are being increased, per capita and per square kilometer of the economy as a whole.

These increases are effected through the fostering of the increase of the creative productive powers of labor of the entire economy, as this effect might be measured, in effect, in qualitative increase of the energy-flux density of both the relevant investment employed to increase the



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*The Palabora copper mine in South Africa is the largest man-made hole in Africa: 2,000 meters in diameter and 762 meters deep. The looting of Africa has been an Anglo-Dutch imperial pastime for centuries, and remains so today.*

throughput of the productive process of the society as a whole, per capita and per square kilometer.

All measurements of value are to be subsumed by the aforesaid preconditions. This can be summarized by the statement, that a continuing increase of the energy-flux-density of human productive activity, per capita and per square kilometer, is the underlying, true measurement of the productive powers of labor, a measurement of relative productivity gained through what is essentially advances in Classical forms of artistic and scientific culture through fostering of the increase of the creative powers of the individual human mind.

### ***Mining, or Looting?***

Mining, as conducted by Anglo-American “capitalism” in Africa, for example, is not really productive in principle. Mining is productive only when it increases the wealth of the area in which mining is occurring; otherwise, mining is a process of depletion (e.g. “looting”) as in Africa under predominantly British operations up to the present time.

Mankind must increase the productive powers of labor, through increase in capital-intensity of net investment in primary resources and productivity, per capita, and per square kilometer. If not, then the behavior of that relevant society is directed toward a relative lowering of the productive powers of labor and of natural resources. Thus, for example, “globalization” has represented an imminently genocidal destruction of the

potential relative population-density of the planet, through destruction of developed regions, to effect production in less developed regions, while simultaneously destroying that in previously developed regions.

Take the case of China.

The development of China’s economy as a cheap-labor source of production to replace that which had been occurring in Europe and North America, was based on a cheaper cost of labor, per capita, both in production, and in the population, per unit of output by China. This was, thus, essentially a new, globalized version of looting under the old Anglo-Dutch imperialist system. In effect, the per-capita income of the world was reduced to the lowered level we experi-

ence in, for example, both the U.S.A. since 1966-1968, and, more recently, in a partially industrialized China today.

The remedy must be to increase the investment in capital-intensity and basic economic infrastructure in the United States and China simultaneously, through relatively long-term, increasingly capital-intensive, productive capital-formation, that in both of these nations, simultaneously, through capital-intensive, high energy-flux-density modes of increase of the productive powers of labor, per capita and per square kilometer of area.

Thus, it must be said, value is not located within the domain of financial exchange as such. It is expressed, in one degree, within the bounds of the turnover of production and trade; but, the desired effect is a function of a notion of technology which is essentially increasingly capital-intensive, scientific-discovery-driven development of the economic process as a whole.

For example. Production in and of itself has an entropic effect, as the relatively richest and most accessible resources are depleted, and less rich, or less accessible resources must be employed, instead. Therefore, the net rate of increase of productivity requires a rate of increased capital-intensity, combined with an increased rate of advances in physical principles employed, which more than overcomes the rates of relative depletion. This combined function is a reflection of the role of what Academician Vernadsky defined as the Noösphere.

True economic value, is determined by consideration of the relative value defined by the functional set of relations to which I have just referred.

### *Economy as a Natural Process*

Actually, the rate of relative progress (after discounting for attrition) is a product of the interaction among the representatives of Vernadsky's three categories: Lithosphere, Biosphere, and Noösphere.

Contrary to all positivists and their reductionist forebears, the universe is not subject to any alleged "principle" of universal entropy. The so-called "second law of thermodynamics" is simply fraudulent, and a form of pseudo-science. The universe is anti-entropic in all respects, for each of the three categories which I have emphasized here (Lithosphere, Biosphere, and Noösphere). For what bears on the notion of the Lithosphere, the raw reflection of a principle of anti-entropy is a general succession of phases of increased anti-entropy comparable to a notion of qualitatively increasing levels of energy-flux density. Secondly, biological anti-entropy among living systems generally, is the relevant expression. Thirdly, we have the creative powers of the individual personality, as Leibniz defined "free energy" in physical terms of a principle of least action.

So, for example, living processes, by the collecting of specific arrays of minerals according to their nature, present mankind with more or less rich concentrations of what we treat as ores. Thus, in all cases, man tends to run ahead of the rate of replenishment of the relatively richest ores, which requires man to resort to modes of production of increased capital-intensity and higher rates of energy-flux density.

The array of these and related considerations, defines a physical notion of anti-entropy, which, in turn, points out the significance of the notion of higher levels of anti-entropy as the basis for the relevant notion of economic value.

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## II. The Moon-Mars Mission

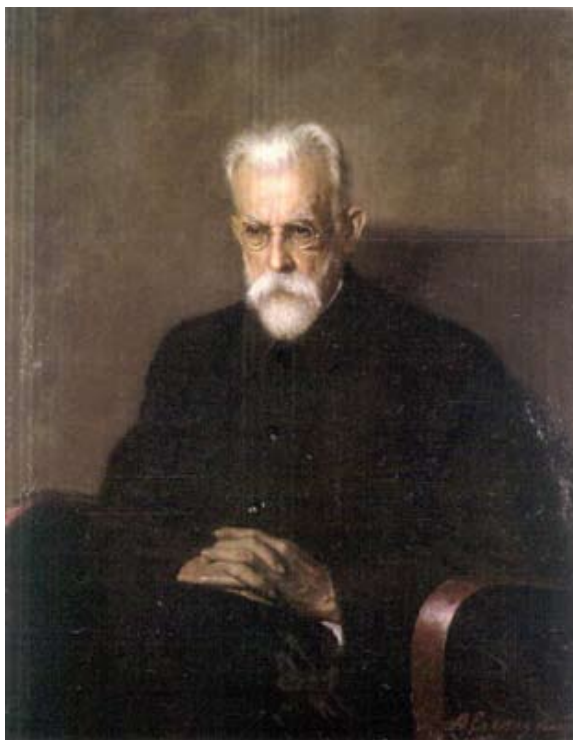
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The progress of human society to higher levels of "anti-entropy," is marked, all along the way, by an experience fairly described as "bumping against the upper limits" of society's progress at that time. Soon after the entry into the 20<sup>th</sup> Century, a new kind of such "upper limit" confronted us: "space travel." Albert Einstein's correction of the positivist margin of error in Hermann

Minkowski's celebrated declaration, typifies this turn.

In some respects, this Twentieth-century confrontation with the challenge of space-travel was brand new. It involved the higher orders of physical processes associated with the chemistry of nuclear fission and thermonuclear fusion. In principle, it was, otherwise, a new step in a long series of steps of progress in what Academician V.I. Vernadsky was to define as the domains of the Lithosphere, Biosphere, and Noösphere, and in what might be identified as "conventional chemistries" of earlier centuries and millennia. Notably, fission and fusion were a fundamental breakthrough—off the top!—with respect to earlier forms of progress.

It was readily obvious to certain relevant Twentieth-century scientists, that the defining of the processes of fission and fusion was a qualitative breakthrough. However, what was even more important, was that



V.I. Vernadsky Institute of Geochemistry, Moscow

*Vladimir I. Vernadsky and his collaborators Marie and Pierre Curie were the first scientists to understand that radioactivity would have enormous potential for the generation of energy. Vernadsky wrote in 1922: "We are approaching a great transformation in the life of mankind, with which nothing it has lived through previously can be compared. The time is not far off when man will take atomic energy into his hands, a source of power that will make it possible for him to construct his life just as he desires. This may happen in the immediate years ahead, it may happen a century from now. But it is clear that it must happen."*



*Space pioneer Krafft Ehricke (1917-84) wrote: “Our Moon will . . . become man’s cosmic front yard on which he has built super-observatories for astrophysical and stellar-planetary research, a communication center serving planetary bases, interplanetary ships and stellar vehicles, a space port for planetary and stellar vehicles, as well as hotels and hospitals.”*

these technologies implicitly defined the notion of man in space, rather than man confined to regions near to the surface of planet Earth.

Thus, man reached the Moon, but, to define that achievement properly, we must regard the Moon as the space pioneers of the last century did, as merely the essential stepping-stone to Mars. Johannes Kepler would have been gratified by that thought. The manned Moon landing brought back news of large deposits of Helium-3 isotope on the surface of the Moon; the prospect of relativistic flight to Mars orbit in as little as some days of transit, was now the subject. Could man withstand the combination of known and yet undefined hazards of riding in a craft traveling a highly accelerated/decelerated relativistic trajectory between the Moon and Mars-orbit? What is the exact relationship between electromagnetic and gravitational fields? How does this bear on human flight along such trajectories?

We have thus become man as functionally an inhabitant of our galaxy, on condition that we abandon the popular delusions of sense-certainty, to recognize that there is no true “empty space” within the domain of our Solar system, or the galaxy, or the universe in the very

large. Thus, while we can conjecture the use of Helium-3 to power accelerated flight of some mere days’ duration between Earth-orbit and Mars-orbit, we have not yet clarified the effects of such relativistic trajectories on the physical-space-time transited, effects on either the crew of the craft, or the regions of physical-space-time penetrated in this way.

Nonetheless, once we have conceptualized the challenge of such enterprises by living human beings within the Solar System, or, perhaps, our galaxy, man’s conception of himself has been changed—*uplifted!*—by sitting down to work through the questions so posed.

The most significant such consideration, at least for the present moment, is mankind’s notion of physical-space-time, rather than time by itself. The significance of that is within reach of understanding, but, so far, only in a limited way, a mere, rough approximation.

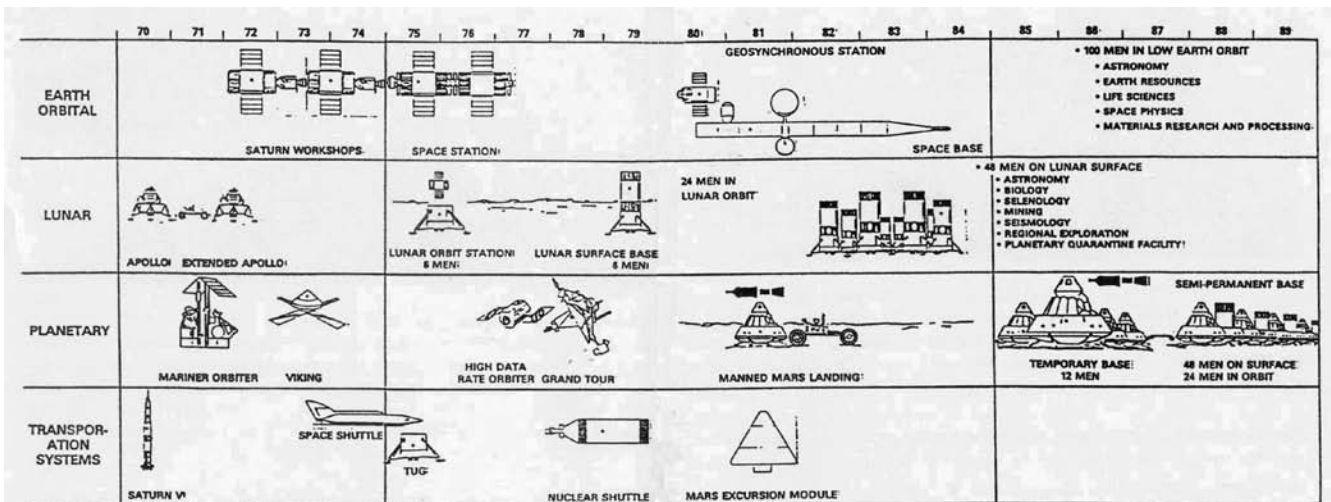
The crucial issue to which such contemplations urge us to turn, involves a fundamental quality of difference between human nature and the nature of beasts. The following argument is required.

### ***Time & Creation***

All processes in the known universe are intrinsically creative. The universe itself evolves upward in the large. The chemical composition of the Sun and its planets evolves. Living processes are characterized by upward evolution in all directions. Yet, human creativity is of a special quality. In all other systems, insofar as they are known as systems, creativity occurs without the agency of the individual will. With mankind, it is different. Actual creativity among human individuals is of a voluntary character. This quality of willfulness in human creativity is a notion comparable to the notion of a Creator of the universe.

This notion of the human individual as having access to an aspect of human nature comparable to that of a Creator, as Philo of Alexandria denounced Aristotle on this point, defines an existential quality of human creativity as such. This notion has been treated by some Christian theologians and others as expressing a concept known as “a simultaneity of eternity.”

This means, that the creativity which may be expressed by an otherwise mortal form of human individual, has an ontological efficiency which permeates the successive generations engaged in a continuing creative process, a process expressed by the creative individual human mind, but a process which subsumes the creative processes of that individual human mind, or



Source: NASA

NASA

those of an entire society. Thus, on such accounts, we make a distinction between the human individual's biological existence, which is temporary, and that quality of efficient creativity which we associate not with the human body, but the soul. In other words, the notion of the soul as an efficiently existent being dwelling within a process of universal development known as a simultaneity of eternity.

With mankind, thus, the human body is a passing expression of the essential nature of the creative powers associated with the human mind. The individual, as a creative personality, appears, thus, as an expression of a creative being, a person, who is at once both mortal and eternal in the sense of a simultaneity of the creative process with which the existence of mankind is associated in this universe.

For convenience, consider Raphael Sanzio's **The School of Athens**.

Consider each figure in that portrait. Assign the place of habitation, and dates of birth and death of each figure. Now consider the interactions among these historic figures, the interactions of ideas, as for better or for worse.

The principal lesson to be adduced is the aspects of that image of **The School of Athens** which should bear on the choice of motives of a person's sense of the purpose and meaning of the outcome of having lived one's mortal life: the notion of what one must become in the immortal outcome of living a mortal life, and living that life according to the notion of a universal principle of



NASA

Wernher von Braun (1912-77), director of NASA's Marshall Space Flight Center, envisioned a comprehensive 20-year "Integrated Space Program, 1970-90" (shown here). He led the development of the Saturn V booster rocket that helped land the first men on the Moon in July 1969.

creativity as the distinction, the essential content, and the true purpose of a human mortal life.

It is those fears which lack of attention to the role of creativity engenders, which are the essence of evil in mankind. To live for the fulfilment of a creative destiny for mankind, is, ultimately, the distinction between the impulse for greedy depravity and the eternal sublime.

That is the true secret of a science of economy.