

LEARN FROM NAWAPA:

Mind or Body?

by Lyndon H. LaRouche, Jr.

July 27, 2010

What is now the urgently needed launching of the NAWAPA project, demands an essential, implicit rejection of what has been the customary, ignorant but popular misconception of the functional meaning of the term “infrastructure,” that in respect to the mandatory principles of “physical economy.” We have reached the point in the history of a physical, rather than monetarist science of economy, at which, the mere survival of civilization on this planet, demands a sweeping correction of the very definition of “economy,” on this specific point.

Therefore, I say the following to you, here and now:

With the rise of the corrupting influence of the evil Aristotle, Mediterranean-centered maritime culture of that time, lost its connection to a competent notion of the meaning of the term, “science,” and, therefore, also, to any competent notion of the meaning of the term, “economy.”

Aristotle, for example, had decreed that an end be brought to the practice of human creativity, and did so, by declaring, that, in effect, the universe had been fixed, forever, by the completion of the “Seventh Day” of **Genesis** 1.

For similar reasons, no efficiently truthful meaning can be attached to that commonly taught, but incompetent notion of Euclidean geometry, a notion rooted in a ridiculous, Aristotelean misconception. A competent study of real economy, rather than a monetary economy, is to be approached as being a branch of the study of what are, actually, physical curves, such as the physical principle of the catenary, as the catenary was first introduced to modern scientific practice by Florence’s Filippo Brunelleschi, and examined more closely, later, in Leonardo da Vinci’s treatment of the physical relationship between the catenary and the tractrix.

Geo-Engineering Is Back on the Agenda for North America

Revelstoke Dam in British Columbia, Canada, completed for hydropower, in 1984.



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LPAC

The NAWAPA project, first designed by the Ralph M. Parsons Co. in 1964, was never implemented. It would divert water flowing northward to the Arctic, southward through western Canada, the United States, and into northern Mexico. Launching it now will require a deep scientific understanding of what “infrastructure” actually means for mankind.



U.S. Army Corps of Engineers

The Tennessee-Tombigbee Waterway in eastern Mississippi, completed in 1984.



FAO

NAWAPA and related projects will greatly enhance Mexico's ability to irrigate crops in the arid regions of the north.



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The Rio Grande at White Rock, New Mexico. Heavy usage of water along the river, in parched regions of the United States and Mexico, has reduced its flow to the point that only one-fifth of its historical discharge reaches the sea today.

In fact, all actually competent physical science today, like the discoveries of Brunelleschi, of Cardinal Nicholas of Cusa, and of their follower Leonardo da Vinci, is still premised on strict regard for the notion of metaphor as expressing what can be considered, legitimately, as a physical principle, as also being the essential principle of all competent notions of both physical

science and Classical artistic creativity as in poetry, music, and otherwise.¹

1. I have emphasized in other published locations, that the term “metaphor” identifies the same quality of ontological intention in William Empson’s **Seven Types of Ambiguity** as in Johannes Kepler’s detailed presentation of the discovery of the unique principle of universal gravitation, as in Kepler’s **The Harmonies of the Worlds**. Kepler’s notion of

In the course of modern times, Paolo Sarpi, in turn, replaced what had long been Aristotle's still dominant regulation of putatively learned opinion, by eliminating all notions of principles from our earthly system of social practices, even the presumptions of the already meager, Aristotelean conjectures. So, Sarpi and his devotees launched, thus, the system known today as "*empiricism*."

Sarpi's argument was that copied by Adam Smith, as was stated explicitly, in Smith's **Theory of Moral Sentiments**. So, the entire British system of this world, hangs, at this moment of galloping awfulness, upon fraudulent presumptions which Smith copied faithfully from Sarpi, and from Sarpi's lackey known as that hoaxster Galileo.

So, with the death of Plato, had come opportunity for the rise of the influence on then Classical culture, as this was typified by that depraved, explicitly oligarchical ideology of the hoaxster Aristotle. So, the actual science which had reigned with the Pythagoreans and Plato, was pushed away. This pushing-away has been done in a fashion which reminds us of that more sweeping destruction of scientific competence, which had been done, in recent times, by the radical empiricism of the positivist followers of Bertrand Russell, as Russell's corruption came to reign in the thus corrupted channels of science during the time of the 1920s' celebrated Solvay conferences.

Thus, from the corruption typified by the frauds of the likes of Bertrand Russell, came the woe we have gained today.

It is notable for emphasis during these days, that Smith's faction had insisted that the entirety of both modern capitalist and Marxist dogma, depends, equally, upon the agreement of both, to share what was named, interchangeably, this Sarpian, or Newtonian fraud promoted by Smith. That is the fraud which presumes that man knows only his own emotional experience of sense-perceptions, but knows actually nothing, whatsoever, of any real universe, apart from that which an intellectual weakling's sense-perception might suggest to the credulous.² Smith's (and, therefore, also Marx's

this original discovery by him, is identified by Albert Einstein as the proof that the universe is always finite, but never bounded (i.e., it is intrinsically anti-entropic), or, in other words, inherently creative in respect to the phase-spaces named by V.I. Vernadsky as, respectively, the lithosphere, biosphere, and noosphere, (of which three, only mankind is creative in a consciously willful way).

2. Interest should be attracted by the ironical fact that the Soviet Union

own) method is premised upon the practically ruinously incompetent method of practice of statistical methods, from among what passes for economic practice, in most official academic and business circles today. That practice has been the principal method by which our United States, and other nations, have been ruined since the day that a great man, President Franklin Roosevelt, was succeeded by Winston Churchill's and Wall Street's nasty little stooge, Harry S Truman.

Hence, that combined effect of the successive influences of the ancient Aristotle and modern Sarpi, has been the drilling of children, in that modern teaching of so-called "economics," which has been that prevalent doctrine which has brought the entire planet, now, to that state of crisis, under which any attempt to continue the presently prevalent notions of economy, would have brought all humanity to the brink, of the darkest of all our known ancient, medieval, and modern dark ages.

Thus, with the span of the modern religious warfare which dominated all of Europe during 1492-1648, we have scoundrels such as Paolo Sarpi, and, much later, his follower Bertrand Russell. These and kindred missionaries of evil, have brought the world those lasting epidemics of woe which the world has gained in this awful present time. The principal feature of this reign of evil, since the wars associated with France's Louis XIV, has been, for the greater part of time, that evil which came to our planet under the reign of an already doomed domination of the financial life of the entire planet by the presently crumbling state of the British Empire.

Hence, under those historic conditions of modern European civilization, we have been subjected to that combined effect of the successively, bad to worse influences which modern history had inherited from the tra-

harbored what were, in principle, two mutually opposing notions which could not coexist, except as the common practice of the same universe. For example, consider the contrast of the scientific incompetence respecting living processes of that British ideologue of the Soviet scientific community, A.I. Oparin, as contrasted with the great V.I. Vernadsky. The relevant fact is, that both Karl Marx and Frederick Engels were, like the dupes of the British ideological cult known as IASA, avowed agents of the British doctrine of Adam Smith and Jeremy Bentham (and the school of the worshipers of the hoaxster Isaac Newton), while the relative incompetent Oparin was the pro-Newton incompetent, and adversary of that Vernadsky who contributed essential elements of the scientific basis for the continued existence of the Soviet Union, and of that Soviet Union's defense against the Hitler regime, and the legacy on which a viable Russia depends, still today. Oparin rejected the notion of life as a principle in itself; had Oparin been followed, rather than Vernadsky, Russia would not have continued to exist today.

ditions of the ancient Aristotle and modern Sarpi. These are influences which continue to be expressed today, expressed as an intrinsically fraudulent notion of economics which is still the prevalent doctrine among the principal parts of this planet.

It is the trajectory of action, as charted by those wretched, but widely believed doctrines of Aristotle and Sarpi, respectively, which has spread the evil of modern “Liberalism” even among many ranking professionals. It is this which has brought the entire planet, now, to the state of crisis under which, any attempt to continue the presently prevalent notions of economy, would have brought all humanity to the brink, of the darkest of all our hitherto known dark ages.

The Needed Change

The particular aspect of this problem, on which I shall focus your attention in the following report, is a needed emphasis on the remedy which would be implicit in an immediate action to employ the waiting NAWAPA program, a program which is the basis for a general recovery of our planet, a recovery from the presently terminal state of the world’s economy, when the implications for that economy are considered as a whole.

So, the dreadful time has come, today, when the future of all mankind depends, now, on this needed change in the shaping of the policies of, first, our nation, and then, the world. The time has come, when as Shakespeare put these words in the mouth of Hamlet, “... 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.”

When sung from the right throat, “Creation” can be a wondrous word. So, as I shall show here, the true song lives, not in the note, but, when song and mind, alike, dwell only in that process of constant change which resides “between the notes.”³ The secret of the economy lies not in the thing produced, but, rather, in the ordering which subsumes, and surpasses each mere, made thing. Man’s power to exist lies not in the things which exist, but in the process through which things, and

3. The celebrated point by Wilhelm Furtwängler, is frequently cited, but, even then, rarely understood. It is the process which subsumes the ordering, and the true meaning of the notes-in-progress which is the only true content of both the composition and competent performance of a work composed in the Classical tradition of J.S. Bach and his faithful followers.

mortal human lives, come and go, in the domain of the immortality of each soul of a very special species, mankind. Such is the true, and only form of real human knowledge.

Such is the meaning of “man’s universe.” Such is the true meaning of “infrastructure.” Such is the rarely understood grandeur of the intention of a NAWAPA whose idea could not be killed, even decades later, still today. Such is the true practical meaning of man’s access to the immortality of each great dream. It partakes of the immortality of a Creator. NAWAPA could not be killed, because it was the immortal feat on which man’s future presently depends.

So be NAWAPA, in our present hands.

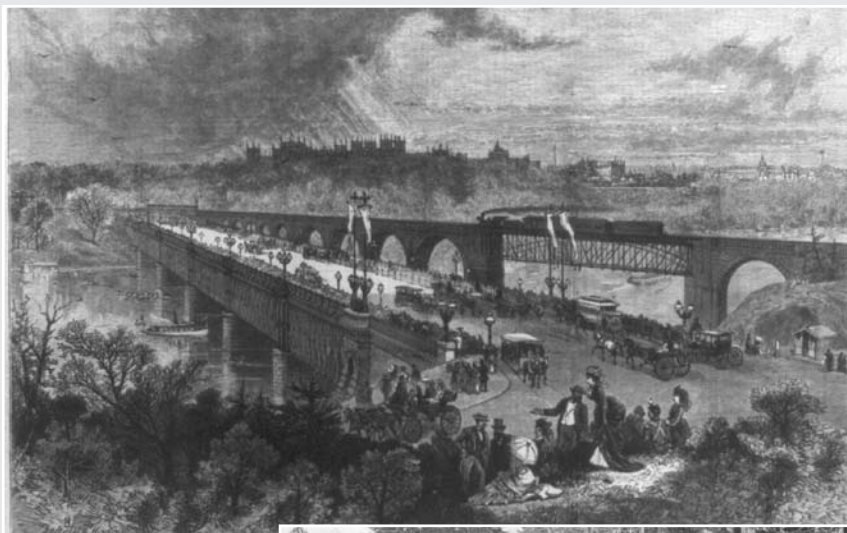
I. Infrastructure!

A desert brings either, a terribly poor crop, or even, virtually no crop at all. It is the duty of mankind to use those same creative powers for solving this problem, which are represented by what are to be recognized as man’s great productions in Classical art, as in the example of Albert Einstein’s relationship, as one of the greatest scientists of his time, to his violin.

My relevant associates and I have recently launched what must be accomplished, in effect, as one presently unique among the greatest masterpieces of mankind’s scientific endeavors at this time, as the leading undertaking for investment of our efforts in the use of the presently leading potential for the improvements of the conditions for human life on this planet, during the present century.

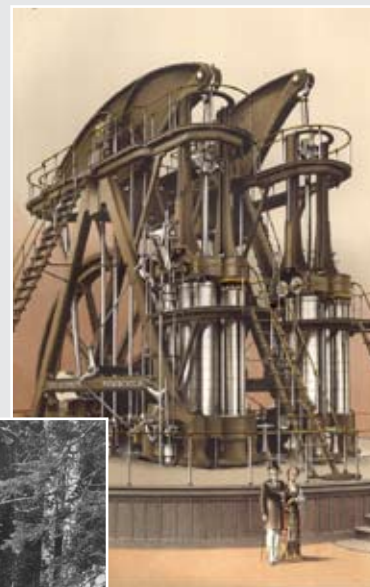
For this purpose, we have adopted, on the one hand, the energetic foundation for such a development within this planet, by an implementation of that already designed NAWAPA project as the starting-point of this new process for mankind. However, to this end, we have combined what we have adopted as that goal for the NAWAPA project with the implications of a mission-orientation of creating the pre-conditions of man’s ability to fly to, and return from a landing on Mars, that, hopefully, within this presently ongoing century, that on the condition that we can oust a far worse than merely useless President Obama from office now. That specification is supplied here, through the necessary application of what has been the hitherto relatively little known science of physical economy.

U.S. Centennial Exhibition: Impetus to Eurasian Development



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The Centennial buildings in Philadelphia can be seen across the river, in this work from 1876. Note the railroad bridge—a sign of the times.



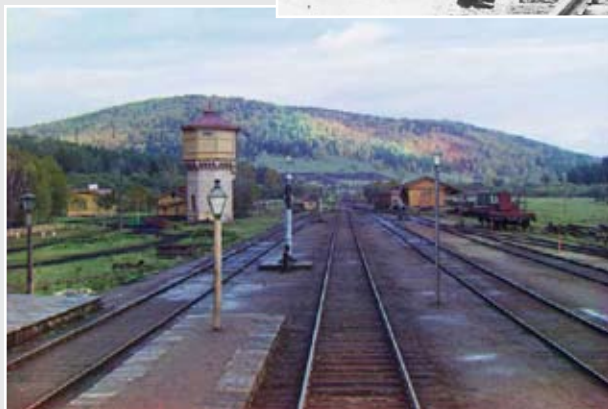
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The huge Corliss steam engine was featured at the Centennial exhibition.



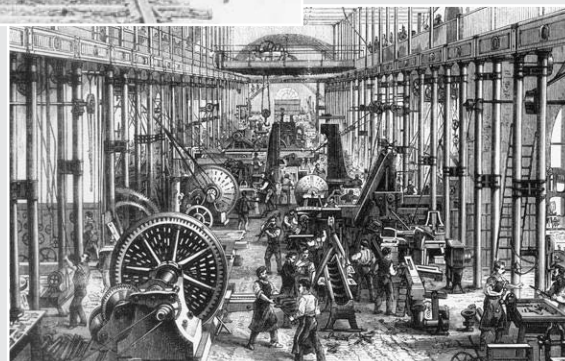
Construction of the Great Northern Railroad ended in 1893. It reached from Lake Superior to Seattle.

Forest History Society



Library of Congress

The Trans-Siberian Railroad was another “spin-off” of the U.S. Centennial Exhibition. Here it is shown at the Samara-Zlatoust station, in a 1910 photo.



German Chancellor Otto von Bismarck was keenly influenced by American System economists, and progress in the United States sparked the development of industry and infrastructure in Germany under his leadership. Here, the Chemnitz factory in 1868.

That much said, we must add a certain kind of word of caution against what should be identified as a certain, false kind of euphoria, a warning which I state here as follows.

It has been an integral part of mankind's great successes thus far, that many of the most meaningful kinds of successful results which we might have expected to be experienced in our own immediate lifetimes, have arrived either late in life of some then current generation, or even only several generations, so as, after our mortal "we" might have passed on.

To craft an image of the kind of perspective this implies, take the case of a relatively simple illustration of this point, the relationship between the implicitly, historically and strategically ironical, successful role of the Spartans at Thermopylae, and the resulting great victory against the same Persian emperor Xerxes, at Salamis (480 BC). Take note of the fact, that the consequence of this victory at Salamis, was to be echoed in Alexander the Great's great victory at Gaugamela in 331 BC. However, also note, that between 480 and 331, there was the continuing, paradoxical effect of the ruinous Peloponnesian War (431-404 BC). Unfortunately, in the time of the professional poisoner Aristotle, Alexander died rather young, and attrition then reigned in his place.

Later, modern European culture, as distinct from ancient Mediterranean maritime culture, prepared itself to emerge again, this time with Charlemagne's addition of a revolutionary advance to the founding of a riparian development of the nation-state form of an actual national economy. Modern European civilization began with the AD 1438-1445 great ecumenical Council of Florence, as continued through the consequent founding of trans-Atlantic colonies in the Americas.

So, as a consequence of this, modern European civilization had become dominant in the guise of the Mediterranean's maritime culture, as in the aftermath of Alexander the Great's victories; this continued until the shift away from the relative limits of the dominant role of the Mediterranean, toward a trans-Atlantic maritime culture, as begun with the roles of, first, the signal impact of the voyages of Christopher Columbus, and, then, from A.D. 1620 on, the establishment of the roots of the modern sovereign nation-state republic under the great charter of the Commonwealth of Massachusetts, for as long as that original charter remained in force.

The greatest development following the victory of

the U.S.A. in an A.D. 1782 victory, over the British Empire, was the later revolution effected in the defeat of the evil intentions of the British Empire in that time, by the leadership of President Abraham Lincoln, as this increased power of the United States was shown more clearly through the time of that great Philadelphia Centennial celebration of 1876, which had changed the trans-Atlantic region of the world in a fundamental respect.

That change, which threatened the British Empire with the spread of the American revolution, world wide, in agriculture, industry, and the mass-inland-based, continental system of railway transportation, prompted the thus menaced and enraged tyrant, the British Empire, to organize what became known as "World War I," a war which was begun, in fact, with the British Empire's 1890 ouster of Chancellor von Bismarck through the intervention of the British Royal family. This latter action by the British monarchy during the 1890s, launched a series of Twentieth-century, great, long wars, a series of such wars which has, for the most part, continued to rock and ruin the planet since that time, as under the present, Nero-like tyranny of the British puppet Barack Obama.

We of our United States, should have intended to continue both of the goals posed by the Philadelphia Centennial, within the period of the presently preceding century, had we not, foolishly, permitted the United States to lose that capability during an interval from the assassination of President William McKinley, to the inauguration of President Franklin D. Roosevelt, and, that attempted renewal of that great mission of President Franklin Roosevelt under John F. Kennedy, a mission which should have been continued to the close of that century, but was terminated by President Kennedy's relevant assassination.

It was the assassination of President Kennedy which made possible that approximately decade's duration of an insanely conceived, and unnecessary, U.S. war in Indo-China. The economic and social crisis created by that war and its duration, dropped the U.S.A. from the position of leader of the economic progress on this planet, in 1963, into the state of ruin set into motion by the subsequent U.S. Administrations of, chiefly, Presidents Richard Nixon and James Carter. It has been downhill, all the way from the election of that President Nixon, which unleashed the full-throated, presently on-rushing threat of an immediate, global, economic-breakdown-crisis of our entire planet.

In Earlier Centuries

On the crucial subject of “infrastructure,” there have been, so far, four, most crucial qualities of development of the basic economic infrastructure of the ancient through modern society of the world, as viewed, most notably from the standpoint of the trans-Atlantic world. I list these as follows.

The first of the qualities on this list, corresponds to the introduction of the discovery of what was, implicitly, a functionally finite map of the stellar system of stars and planets. A trans-Atlantic maritime culture, from no later than within the span of the most recent, great glaciation, navigated among the relevant oceans, from place to place, using the stellar and planetary arrays, combined, as the navigational map piloting the way linked among points within that watery world of maritime cultures during the great glaciations, then, or even earlier.

From that period, whatever was fiction, and which real history, onward, is shown by the emergence of maritime forms of imperialist monetarist cultures, from a time since the decline and fall of the Achaemenid empire, in the Mediterranean, and, through a civilization which had been dominated by the actually or implicitly imperial power of the principled form described for the reign of the not exactly fictional Olympian Zeus, in the great **Prometheus** trilogy of Aeschylus.

The second phase of development of the general infrastructure of European civilization, emerging in the form of the hegemony of that Mediterranean-pivoted form of maritime imperialism, was first challenged on a grand scale by the developments associated with the great reforms under Charlemagne. These reforms, based on extending the principle of extending the river channels within the land-mass by the development of a system of canals throughout a major portion of settled nations in Europe, continued to be the principal challenger to continued, maritime-imperialist domination, a shift in the basis of continued domination by maritime imperialism, a shift such as that secured by the British Empire of the British East India Company in February 1763, which continued until the emergence, in the 1820s, of the

Reading Railroad within what had been the recently constituted United States of America.

The development of the U.S. transcontinental railway system, over the interval from the founding of the Reading Railroad, and through the global impact of the establishment of the U.S. transcontinental-railway system launched by President Abraham Lincoln, as a crucial feature of the 1876 U.S. Centennial celebration, a process of development which won great foreign nations, such as Bismarck’s Germany and the role of the great Dmitri Mendeleyev to their launching of transcontinental rail systems within Eurasia.

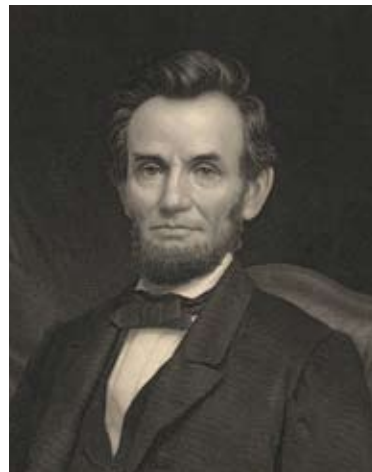
The spread of the influence of the progress of our United States, especially through our victory over British imperialism in the U.S. Civil War and the explosive spread of the American agricultural, industrial, and railway systems, was the revolution in economy which impelled a maddened British Empire to oust Germany’s Chancellor Otto von Bismarck, an expulsion of Bismarck which was the actually opening shot fired by the British Empire in launching the actuality of what was to become



1. *The Greek astronomer Hipparchus (c. 190-120 B.C.)*



2a. *Charlemagne, portrait by Albrecht Dürer (c. 1512)*



Library of Congress

2b. *Abraham Lincoln*

known as “geopolitical warfare,” over the 1890-1917 interval of “World War One.”

The third great change in the essential characteristics of basic economic infrastructure, came in the strategically crucial development of airborne transport; but, the most crucial, fourth, stage in the form of development of infrastructure came with the society’s entry, through the emergence of the science of physical chemistry, into the technology of transuranic and yet higher qualities of sources of power of relatively very-high energy-flux densities.

Each of these four successive levels of development of the crucially distinct categories of civilizations’ basic economic infrastructure, represented, in effect, the common feature of a relatively qualitative advancement in the power of mankind to exist, as adumbrated in terms of qualitative leaps in the energy-flux density of society, both per capita, and per square kilometer of territory.

Today, we have put our figurative “toe” in the waters of a fifth leap forward, that of the development of an intra-Solar-system mode of travel as a new historical, “extra-terrestrial imperative:” man in space.

Since each of these five qualitative advances signifies an increase in the available, practiced level of power employed per capita and per square kilometer, these effects are to be correlated with man’s progress in mastering and mustering the use of higher orders of reaches within both the domains of the “periodic table of physical-chemistry,” and the modes of increased energy-flux density of practice, both of which may be correlated with both such a “table,” and with the changing role of man’s employment of, and response to the challenge of cosmic radiation, rather than a system of particles.

The summary definitions which I have employed here to outline the characteristics of this array, are simply that, and little more than just that. However, that portraiture is sufficient for the purpose of introducing the concept to be introduced to the reader at this juncture in this report.



3. *The first successful human flight, by the Wright brothers, Dec. 17, 1903.*



Office-Museum of V.I. Vernadsky

4. *V.I. Vernadsky, portrait by I.E. Grabar*



Johnson Space Center

5. *Astronaut Neil Armstrong in the Apollo 11 lunar module, as it rests on the Moon’s surface, July 20, 1969.*

That much said to that effect, it is the progress of man’s knowledge of what we can rightly identify as universal physical principles of action, which is the virtual “foundation” on which any competent definition of economy, or of relative quality of economic performance by any, or all kinds of societies depends.

Take some of the most obvious of the problems posed by the intent to establish a feasible state of even temporary habitation on the Planet Mars, as illustration of this, as prompting us to adopt a more broadly conceived, general conception of the truly practical meaning of the physical-economic meaning of the term “in-

frastructure “—within, for example, our Solar System.

There are, admittedly, certain problems to be treated as challenges for science during the time ahead.

Mars has about one-third of the mass of our Earth, and there are numerous other, crucial kinds of qualitative differences posed by the very idea of man’s attempts to dwell on Mars, even for relatively very short intervals.

This does not signify, that the challenges are insuperable in principle. It does mean that there are major improvements in our knowledge of relevant, practicable

History will not treat kindly those who might seek to reduce NAWAPA to a mere legislative proposal. NAWAPA, like the TVA, was, and remains a work of science, not mere legislation. Those who do not treat this as a science-driver undertaking, should not be trusted as being competent to judge the awesome economic issues confronting the entire planet at this moment.

principles to be acquired, including that of effects which might fit the working term of “synthetic gravitation.”

All feasible production of the preconditions for human existence and its reproduction lie essentially within the bounds of the definitions of “basic economic infrastructure” which I have outlined here.

In The Present Century

Now, therefore, we must rebuild our ruined U.S. economy, beginning with the level of development of the prerequisites of qualitative and quantitative levels of basic economic infrastructure. Presently, that progress must be carried to a point equal to its level of potential identified with the close of the President Lyndon Johnson Administration, and, at the same time, foresee, at least, the coming three generations within the duration of this present Twenty-First Century, as a time for a process of upward-progressive generation, one to be considered as devoted to the role of our United States in building up our economy, once more, this time to reach the point of undertaking the mission assigned to the

third of three generations which are to be born, and brought to maturity, during the remainder of this present century. In short, we must include what must be assigned as a goal of a successful, manned Mars-landing, and safe return, during the closing decades of this present century.

To grasp the task thus placed before the United States at that hopeful, prospective, very early moment, when current President Barack Obama might have been soon expelled from office by the presently rising wave of popular disgust with both his crimes against this nation, and also offenses against humanity generally: let us now choose a point for comparisons between today’s situation and that of mid-Summer 1933, when the administration of President Franklin D. Roosevelt launched the Tennessee Valley Authority (TVA). Then, trace the prospect for a more ambitious undertaking intended for the post-World War II United States, the North American Water and Power project, known as NAWAPA.

History will not treat kindly those who might seek to reduce NAWAPA to a mere legislative proposal. NAWAPA, like the TVA, was, and remains a work of science, not mere legislation. Those who do not treat this as a science-driver undertaking, should not be trusted as being competent to judge the awesome economic issues confronting the entire planet at this moment. Put aside the mere political rhetoric; the authority for success lies with science. NAWAPA is a science-driven, science-driver program for sending the potential standard of human life on this continent to heights of productivity for the continent as a whole, bringing the progress of the human condition to levels which could not have been imagined by our leading political institutions during the just-concluded, ruinous thirty-odd years. It is somewhat like the TVA during its germ-conception under President Franklin Roosevelt; but, its practical implications, presently, for the remainder of this presently still young century, are those of a leap upward in the preconditions for human life beyond anything dreamed as possible during the Twentieth Century.

That is not to suggest that the Parsons company, the author of the proposed engineering project, did not understand what it was proposing. Rather, the fact is, that there have been great advances in science and technology, however poorly used, or almost totally neglected, but, nonetheless, advances in conceptions of scientific progress, since 1933-1964. The nuclear age had arrived, as if seventy years ago. Remember now, that nuclear

power and its correlatives came into being through aid of a crucial, contributing role by the success of the TVA launched in 1933. The Moon landing less than forty years later, marked mankind's successful entry into nearby space, and into the advances in scientific knowledge which accompanied that achievement.

The difference between the TVA back then, and what the reactivation of the NAWAPA means in practice now, is that the benefits inherent in realization of the NAWAPA now, would be not only global, but represent the foundation—the spark of progress—which must ignite the development of both the planet and the program's role in nearby space achievements beyond anything which could have been imagined as practicable at the close of World War II.

II. The Role of the Human Mind

Here, in this present chapter, I begin by restating a crucial point of principle which I had already presented in locations published earlier. In this case, I now carry the development of the same point to a more advanced stage.

It has been a prevalent delusion of many popular and some other bodies of opinion, that the overwhelming mass of public, and even much scientific opinion, has continued to be, until now, an expression of the view, that the proper definition of truth is located, primarily, in the functions of sense-perception as such.

Contrary to that still widespread delusion, the fact is, that, although what are called “sense-perceptions” are, proximately, the fruit of sensory functions of the human brain-system, sense-perception itself was never sufficient evidence of the real universe of our experience; mere sense-perception, in and of itself, is never evidence of actual processes which sense-perceptions echo only as shadows cast by reality. The quality needed for humanity's security, now, must be recognized in the rigorous observance of the principle, that truth is to be found only in the judgments which the human mind supplies in correcting those errors of still prevalent opinion which inhere in a naive reliance on mere sense-perceptions as such.

The point which I have made in the preceding paragraph, can, and must be now repeatedly restated in the terms of a famous work by that celebrated British author, whose essential argument I have now made

more accessible to the presently relevant readership, the late William Empson (1906-1984), in his **Seven Types of Ambiguity**.⁴ Empson's central point of concern there, is the fact that the human mind's ability to make truthful sense of mere sense-perceptions, depends upon imparting the relatively most exact expression of what is known as the ontological form of dramatic irony, a form which is to be defined as the expressed Classical principle of *metaphor*.

Empson's own notion of the role of metaphor in Classical poetry, drama, and, implicitly, the competent uttering of Classical musical composition, is, for the present readers, not only appropriate for William Shakespeare, Percy Bysshe Shelley, and John Keats, in English, or Friedrich Schiller's German, but is, otherwise, the exact same quality of conception represented in a crucial way, by the notion of a universal physical principle, such as that of Filippo Brunelleschi's discovery of the universal physical principle of the catenary, as the catenary was employed as a physical principle of the construction of the cupola of Florence's cathedral of *Santa Maria del Fiore*. That same point is delivered more dramatically, by Cardinal Nicholas of Cusa's **De Docta Ignorantia**, and by Cusa's avowed follower, Johannes Kepler, as in Kepler's systematic proof of his uniquely original discovery of the universal principle of gravitation, that as being the content of his **The Harmonies of the Worlds**.

To state that same point otherwise: the truly authoritative powers of the individual human mind, are to be located in the type of empirical demonstrations which have been shown to represent a consistent form of an experimentally defined, systemic, implicitly universal point of empirical disagreement among two or more, natural, or extended, synthetic sense-perceptual functions of the sense-perceptual experiences of the human brain-functions. Kepler's uniquely original discovery of the principle of universal gravitation, is exemplary.

The same principle is expressed as the principle of Classical methods for defining metaphor in all forms of Classical artistic composition, as for the case of the methods of counterpoint specific to the work of Johann

4. William Empson, **Seven Types of Ambiguity**, 1948. Much of the internet commentaries on Empson's work, to this day, has no relevant correspondence to the content of the work itself. I am not surprised. Under influences of the post-World War II period, such as the existentialists generally, and the post-war influence of the Congress for Cultural Freedom, the very existence of the idea of metaphor has been virtually banned, together with the very idea of the existence of history.

Sebastian Bach, and, for all of the great Classical composers who built the practice of their craft upon the precedent of J.S. Bach, as that is typified by Bach's celebrated, paradigmatic **Musical Offering**, and by the set of preludes and fugues, and by his **St. John** and **St. Matthew** Passions. The same is typified by the Classical mode of the Greek drama as by Aeschylus. The same principle of irony is typified by the genius of John Keats' **Ode on a Grecian Urn**, and in the concluding paragraphs of Percy Bysshe Shelley's **A Defence of Poetry**.⁵

In earlier reports on the subject of this equivalence of Classical poetic and physical-scientific notions of metaphorical irony, I have recommended that we imagine ourselves as if in the role of that of the captain of a vehicle traveling in intra-Solar-system space, who lacks command of any directly sensory access to control over the phenomena which his vehicle is experiencing externally, but, must therefore, as in the case of Kepler's uniquely original discovery of the principle of universal gravitation, rely on the paradoxical juxtaposition of contrasting categories of instrumentation, to synthesize a faithful reading of the crucial aspect of those contradictions among the data which are represented by the application of differing types of reporting instruments.

That is the principle of Classical metaphor, exactly as Albert Einstein was to recognize the deeper, universal implications of Kepler's discovery of gravitation.

Hence, we have a case, that of Johannes Kepler's

uniquely original discovery of the principle of gravitation, which is comparable, from within the domain of physical science, to the role of the principle of metaphor presented in William Empson's notion of the role of metaphor in Classical artistic composition. Indeed, the principle of scientific creativity expressed in every competent experimental definition of a universal physical principle, is never to be found within the bounds of a pre-existing mathematical scheme; but, only through the same aspects of human creativity which are congruent in their essential nature with the role of valid metaphor within the domain of Classical artistic composition. Indeed, it is a process situated within the intrinsically ironical principles of experimental physics, which creates the preconditions for a qualitative improvement in the use of a competent mathematics for physics, rather than the other way around.

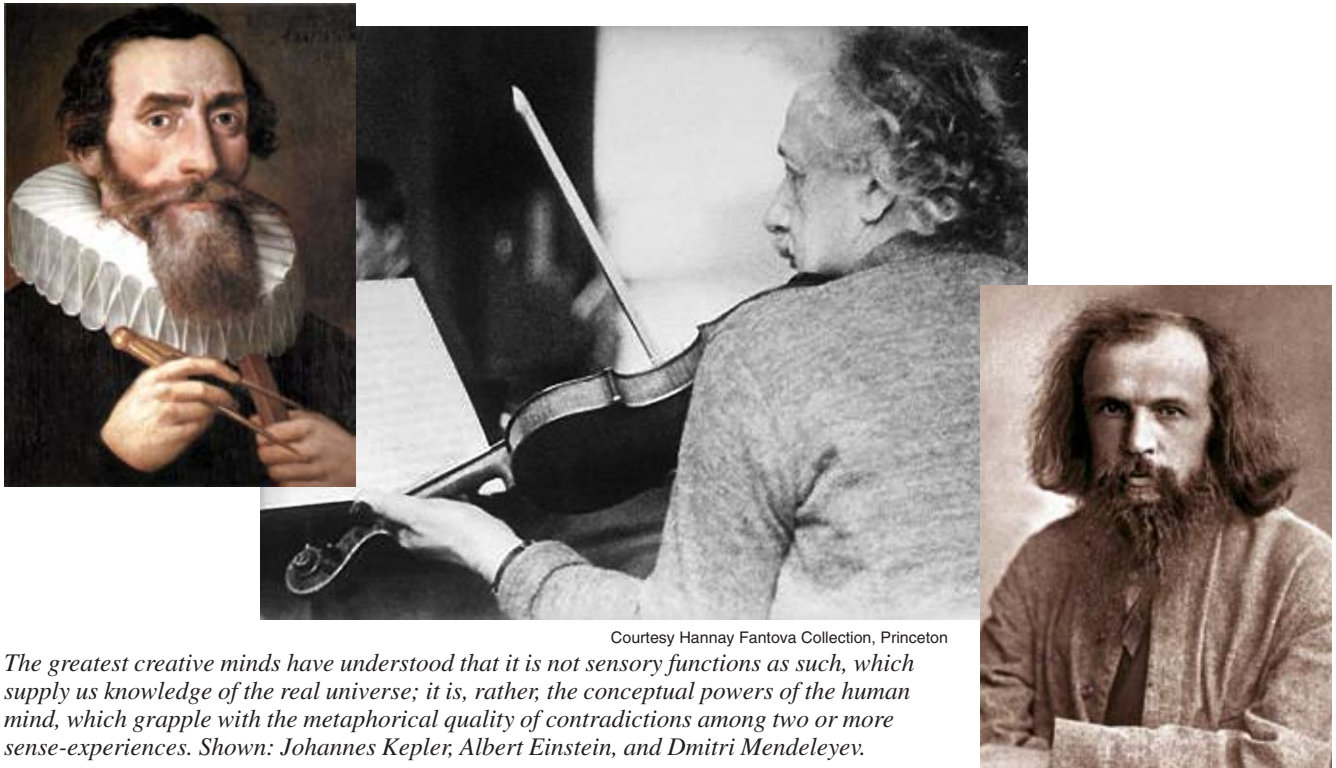
The principal conclusion which I am pressing in these comparisons, is the point in fact, that it is not the sensory functions of the human brain-function as such, which supply us knowledge of the principles inhering in that real universe we are experiencing; it is, rather, those conceptual powers of the individual human mind which are expressed in terms of the *crucial-experimental* feature of the *metaphorical quality of contradictions among two or more among the several categories of sense-experience* pertaining to a common process of experience. Therefore, it were of crucial importance that we make the corresponding distinction between the sensory features of the brain-function, and the crucial knowledge of principles which are demonstrated by the contradictory nature of the relationships among the products of any set of sensory functions as such. Such is the necessary distinction between the notion of a sensory function of the "human brain," and the *ontologically distinct* notion of the "human mind."

Admittedly, sensory functions remain conditionally reliable as sensory functions; however, even at their very best, they will remain only shadows cast by the real objects which sense-perceptions as such do not "know" directly.

This just stated distinction, is the essential definition of the human *mind*, as distinct from the *mere notions of sense-experience* delimited to notions of the sensory record experienced as located within the human brain.

This has been, among other considerations, the key to the conflict between the reductionist delusions of mere mathematicians such as both the relatively more respectable David Hilbert, and the despicable devotees

5. The commonplace, but factually absurd description of Keats, Shelley, Heinrich Heine, or composers Franz Schubert, Robert Schumann, or Johannes Brahms, as "Romantics," was promoted by the purely fraudulent presumption that the work of those musical composers, and comparable cases among poets, such as the composers Haydn, Wolfgang Amadeus Mozart, Ludwig van Beethoven, et al., represented anything but a continued process of development of the revolution in a scientifically valid notion of tuning and counterpoint launched by none other than the composer who is fairly considered as the greatest genius of them all, Johann Sebastian Bach. The relevant problem often is, that poorly advised musical performers perform the works of Classical composers as if those composers have been "Romantics." The practice of "elevated pitch," contrary to Bach, Haydn, Mozart, Beethoven, et al., not only prompts the early ruin of well-trained but abused performers to early retirement, through the wear-and-tear promoted by the fraud of post-World War II doctrines of elevated pitch. Scientific tests of the greatest violins crafted for use, originally, in those parts of the Eighteenth century, proved that the instruments had been perfected for nothing different than C=256. Such bestialization of the relevant human voices, or musical instruments, is a product of chiefly, the utter moral, scientific, and cultural depravity typified by the influence of my impassioned adversaries of the post-World War II, social-fascism cult, which was known as the "Congress for Cultural Freedom."



Courtesy Hannay Fantova Collection, Princeton

The greatest creative minds have understood that it is not sensory functions as such, which supply us knowledge of the real universe; it is, rather, the conceptual powers of the human mind, which grapple with the metaphorical quality of contradictions among two or more sense-experiences. Shown: Johannes Kepler, Albert Einstein, and Dmitri Mendeleev.

of the utterly depraved Bertrand Russell. The latter are typified by such creatures found among Russell's familiars as Professor Norbert Wiener, John von Neumann, and the devotees of the Laxenberg, Austria International Institute for Applied Systems Analysis (IIASA), as those, latter, poor wretches are to be contrasted with the original method of all competent modern science.

This set of distinctions provides us with a source of competence located in those roots of modern European science which are to be recognized in the complementary efforts of such as Filippo Brunelleschi (the discovery of the catenary's role as a physical principle), as also Cardinal Nicholas of Cusa's **De Docta Ignorantia**, and in the contemporary Riemannian physics expressed as contemporary physical chemistry as the latter is typified by the discoveries of Louis Pasteur, as through Max Planck, Dmitri Mendeleev, William Draper Harkins, Albert Einstein, and Academician V.I. Vernadsky and the latter's associates and followers.⁶

Add a crucially important distinction to be made on this account. Distinguish between two, respectively valid conclusions to be adduced in this fashion. For this pur-

pose, consider, first, what might be the two "classical" cases which I have often used before: the comparison of, first, the role of metaphor, as in William Empson's reference to metaphor, as compared with, second, Johannes Kepler's parallel case, Kepler's uniquely original, and successful discovery of the principle of universal gravitation, as in his **The Harmonies of the Worlds**.

All competent forms of what could be arguably competent principles of a science of economy, depend, absolutely, on those considerations. My own unblemished successes in forecasting of crucial events in the U.S. economy since my first forecast of Summer 1956, up through the longer-range forecasts, up through the present instant, are merely exemplary of the contrast of the standpoint of a science of physical economy to the infallibly erring efforts of the practitioners of contemporary types of ideological-statistical methods.

Kepler and Einstein

For the reasons implicit in what has been written here thus far, the appropriate appreciation of Johannes Kepler's uniquely original discovery of a principle of universal gravitation, must be defined, today, to the following effect.

Any competent form of modern European scientific method has been exemplified by the work of Nicholas

6. Consider the opening two paragraphs of Riemann's 1854 habilitation dissertation and the richly ironical single concluding sentence, as definitive evidence on this point.

of Cusa, a method also exemplified by the work of such followers of Cusa as Leonardo da Vinci, and exemplified for all modern science by the documented methods of Johannes Kepler. This pattern of practice, on which all competent expressions of advances of modern science were premised, is distinguished by an emphasis on successive approximations in respect of the discovery of universal principles, a notion of “principle” which is actually lacking in all the work of the respective followers of such as ancient Aristotle and the modern European Liberalism of Paolo Sarpi.

Kepler’s discoveries in astronomy and cohering subject-matters are to be viewed retrospectively, accordingly, today.

In any suitably adjusted view of matters from the standpoint of sense-certainty, as in the adjustment presented by Kepler’s principal discoveries in astronomy, such as his uniquely original discovery of the universal principle of gravitation, the proper notion of the human mind, rather than as a matter of mere sense-perception, must be adopted as that conception of an ontologically defined personality, which is expressed as the aspect of the mental life which pertains to the efficiently creative nature of the potential represented by the inner human personality itself.

Stated in other words, this signifies the following.

The actual human personality is not to be located as if it were confined within the bounds of sense-perception as such. The true human personality, which conceives the experience of the universe it inhabits, is, admittedly, greatly dependent upon the functions performed by the senses, but those senses do not contain that human faculty which it employs to such effect. It can be fairly stated, therefore, that *the existence of the actual personality of the human individuality is, in the language of the modern physical chemist, not a perceptible object, but is a singularity which expresses the explicitly voluntary functions performed by the human mind; but, it itself, is not bounded ontologically by the mere functions of sense-perception as such.*

Hence, Johannes Kepler’s method in his uniquely original discovery of the principle of universal gravitation, is a method which depended upon those of its actions, as if from above, on the mutually contradictory, notional senses of sight and harmonics of hearing, which are expressed as a quality of action by the human mind of a type which is not located within the bounds of the mere senses.

It is implicitly fruitful, to view this notion of the

human personality as a true, and efficient singularity, as one being located as if within the existence of physical space-time, and is to be located from the vantage-point of restating the developed periodic table which had been launched by Dmitri Mendeleyev, this time within the “framework” of a universe constituted as a field of cosmic radiation, rather than as an assembly of particle-like objects deployed within the bounds of the all-embracing emptiness of an imaginary space. There is nothing wrong with Mendeleyev’s work itself on this account; rather, the benefits of the discovery of physical relativity oblige us to regard the domain of singularities of cosmic radiation, as expressions of physical space-time, rather than simply physical-space imagined to be existing within mere time.

The immediate advantage secured by that marginal shift in approach, is that it prompts us to take into account the fact that when we examine what are considered, conventionally, today, as the evidence of the role of the human senses in scientific work, even including the augmentation of scientific process which reaches, more and more, into the very small and very large, as Bernhard Riemann emphasized this point in his 1854 habilitation dissertation; our attention is shifted to take into account the effects of those electro-magnetic experiences of universal, cosmic radiation, which are, in fact, part of the spectrum of communication among animals and human beings, but which are not powers defined within the confined range of what we treat as human communication defined in sense-perceptual terms presently. This includes that part of the role of mass social behavior which functions as an important form of communication under relevant conditions, but which lies outside the modes of literal communication as we presently tend to define the presumed limitations of communications bearing on interpersonal social behavior.⁷

That ironical thought is brought closer to our understanding, when we reflect on the case of ontologically crucial leaps in the practice of physical science which have been accomplished by modern developments. We presently treat as knowable states of nature, what are subjects of efficient human intervention into the universe, but lie entirely outside the domain of the axiomatic presumptions of the earlier practices of physical science, a progress which can be communicated among

7. A subject which is part of an active discussion among the participants in the “basement team” currently.

relevant scientific workers today. In this way, it has always been a physics which creates a new mathematics, not the other way around. The case of the discovery of the principle of relativity, as, most notably, by Albert Einstein, is an appropriate illustration of this general point.

As some among my collaborators have pointed out, this is already illustrated in the biology of living processes, by the existence of apparently obnoxious small creatures which operate on the basis of use of aspects of the spectrum of the cosmic radiation relevant to living creatures, but which lie outside anything we would attribute to ourselves, or to forms of animal life like our own. Once we take such phenomena as this into account, we are obliged to reassess our own categories of sense-perception, such as the emphasis on the principle of the “mass strike” emphasized as a form of mass social communication outside the customary notion of interpersonal radiation of dispositions within large populations, or, similarly, the related, metaphorical argument which occupies the concluding paragraphs of Percy Bysshe Shelley’s *A Defence of Poetry*.

All of my remarks on this subject-matter thus far, here, should be considered as returning our attention to what I have emphasized here earlier, as the ontological distinction between the actual human personality, which is not included, ontologically, as being confined within the ontological domain of the senses and their function in those terms of reference.

At this point in the report, I must emphasize the most relevant of the specific precedents for the portrait which I have just outlined above, as being located within certain portions of Bernhard Riemann’s 1854 habilitation dissertation. Firstly, to the opening two paragraphs of that dissertation, and, secondly, Riemann’s emphasis on the ontologically systemic distinction of those aspects of scientific knowledge which lie outside the bounds of ordinary sense-experience, in the very large, or very small.⁸

8. B. Riemann, *Über die Hypothesen, welche der Geometrie zu Grunde liegen*, III. Anwendung auf den Raum, 2 “...Dieser Umstand wird wichtig bei der Ausdehnung dieser empirischen Bestimmungen über die Grenzen der Beobachtung in’s Unmessbare grosse und Unmessbare kleine; denn die letztern können offenbar jenseits der Grenzen der Beobachtung immer ungenauer werden, die ersteren aber nicht. ...” [This consideration becomes important in the extensions of these empirical determinations beyond the limits of observation to the infinitely great and infinitely small; since the latter may clearly become more inaccurate beyond the limits of observation, but not the former. From translation by William Kingdon Clifford.] Riemann continues treatment

Albert Einstein’s cardinal observation on the subject of Johannes Kepler’s great, and unique, original discovery of the principle of universal gravitation, is that the fact that Kepler had proven that the universe is finite, but not bounded, leads us directly toward the preconditions for Einstein’s initial definition of the principle of general relativity. The most prominent of the difficulties in grasping the point made by both Riemann and Einstein, as implicitly, by Nicholas of Cusa and Cusa’s immediate followers earlier, is located in the common principal error of the argument by both Aristotle and Sarpi. The systemic error of the latter, is that of substituting an a-prioristic, erroneous notion of man’s knowledge, for the actual modern science of such as that of Nicholas of Cusa, replacing, thus, either that of Aristotle (like Friedrich Nietzsche: “God as Creator, is virtually dead”), or the doctrine of incurably infinite ignorance, that of Sarpi, from which British empiricism and related mental disorders take their presently adopted origins.

The Ironies of Sense-Perception

One might consider it astonishing, that so little regard is given to the ironical fact that the tendency to ignore the evidence of what might be termed “extra-sensory” features within human social behavior, should have been left in the domain of obscurity, such that when this matter has been treated, in society today, even the apparently anomalous proofs of relevant statistical correlations are either brushed aside, or relegated to the domain of the allegedly, exotically extra-terrestrial. I do not find that factual anomaly in putatively scientific behavior to be so strange as that. For me, it is clearly clinical whenever the relevant selection of physical-scientific evidence is taken under consideration.

The most obvious of the immediate causes for that kind of failure of judgment, is obviously that such a failure is a reflection of the denial of the knowable existence of reality by those devotees of modern British Liberalism whose frankly admitted rejections of the existence of any knowable kind of actual universal scientific principles, are typified by the direct copy of those arbitrary assertions by the slimy Venetian Paolo Sarpi,

of that theme to the end of his dissertation, which he concludes with his “this takes us into the domain of another science, the domain of physics, which the nature of the present deliberations” (i.e., mathematics) “does not permit us to enter.”

and, therefore by British Liberal ideologues made, not of suspected mud, but according to the dogma of Adam Smith.

Notably, the relevant consequences of the doctrine of Sarpi devotee Adam Smith, include the almost inevitably consistent failures of modern attempts at forecasting by contemporary Liberal economists who rely on statistical methods. A similar folly is met in the presently continuing influence of Aristotle's quasi-Nietzschean, implicit "Any Creative God is now Dead." The mystical perversion known as "zero growth" as a perversion typical, of both the Aristoteleans and British Liberals, is to be emphasized on this account.

However, the asserted predicaments, typified by the cases of the dupes of either Aristotle or Sarpi, can be put aside in the following approach.

The key to understanding the origins of the inherent incompetence shown by those alleged scientists, or others, who claim to proffer a systemic proof of the so-called "principle" of universal entropy, is revealed most clearly by those, such as either of the type of David Hilbert, or the hopelessly depraved co-thinkers of the Cambridge school of Bertrand Russell and his followers' International Institute for Applied Systems Analysis (IIASA), who insist that physical science must be derived from mathematics. This is in contrast to the physical scientists, such as relevant practitioners who oppose the radically reductionist standpoint from within the domain of physical chemistry, such as Dmitri Mendeleev, Max Planck, William Draper Harkins, V.I. Vernadsky, and Albert Einstein.

The examination of the issue so posed, is to be traced in the modern European history of science from what I have already referenced here as the principled discoveries of such most notable cases as that of Filippo Brunelleschi, Cardinal Nicholas of Cusa, and their teachers, followers, and associates, such as Leonardo da Vinci, Johannes Kepler, Gottfried Leibniz, and Bernhard Riemann. The direct connection of Albert Einstein's appreciation of Kepler's discovery of gravitation, as demonstrating a finite but unbounded universe, as, also, to Einstein's conception of physical relativity, illustrates the crucial point to be emphasized.

Experimental physical science, when it is applied to the history of modern scientific progress from an experimental standpoint, rather than subsumed under a notion of the body of Aristotelean or Sarpian "mathematical formalism," demands discerning the existence of universal physical principles which reign over a

mathematical apprehension of phenomena. In fact, in a world of decent behavior, it is the progress of discoveries of principles of physical science, which, as Albert Einstein's case illustrates the principle, drives the progress of an actually competent physical-scientific progress in the use of mathematics.

Thus, the fact of "mass behavior" of a form to which Shelley refers in the concluding paragraphs of his **A Defence of Poetry**, is a physically-efficient fact. That fact defines an implied physical principle governing the direct connections expressed by such mass behavior.

To the same point, the fact that the human individual's primary sensory capabilities are limited, does not measure the universe. Thus, we must keep our minds open to the existence of what should be regarded as social phenomena of a principled type which reflects channels of communication beyond the boundaries implicit in a certain, selected array of sense-perceptions. We must, on this account, cultivate and develop experimental methods which assist us in such investigations.

Imagine an encounter with some intelligent species of life which relies upon sense-perceptual organs other than our own. We already know cases of species, which are not intelligent life, which do "communicate" through types of organisms other than our own.

The Practical Implications Now

Once we have distinguished the inner human personality from those instruments of sense-perception which the inner human personality, to be known as the mind, employs for its purposes, we are prompted to look into a future state of human exploration of the universe, a state in which the mind itself exists as that of an efficiently acting and reacting individual, but in which the present-day notions of "body" and of "sense-perception" lose much of their presently indicated character. That is to say, that in the future, the mind of the human individual will also dwell as an efficient agency within physical conditions which no human body itself would tolerate.

In principle, such seemingly very novel relations already existing among our best scientific and Classical-artistic minds, demonstrate the efficiency of the principle involved. The human body can not tolerate the internal conditions of our Sun, but the human mind, once its nature and identity are properly acknowledged, can experience seemingly impossible physical conditions for human life, even so as if at a distance from locations habitable by living human bodies. It is pre-



BüSo

The principles of scientific creativity are congruent, in their essential nature, with the role of valid metaphor within the domain of Classical artistic composition. Here, the LaRouche Youth Movement performs the choral movement of Beethoven's Ninth Symphony in Berlin, March 25, 2010.

cisely here, in this notion, that the notion of human individual immortality assumes a very real meaning. As the ghosts in my favorite German film from the 1950s said it, "the most important thing is the effect!" Even for a "spook"!⁹

The time has now arrived, at least for those who are engaged most seriously in the business of securing humanity's future, even when our Sun will have blown up, perhaps some billions of years, ahead, that what those worthy to serve as those leaders of our society working in the fields of building mankind's future will do, that we must discover the specific kinds of steps which ensure the fulfillment of man as a consciously efficient being in the universe, whatever might happen for the ages yet to come, a creature crafted in the image of a Creator.

That future may be mistakenly judged by some, even many currently, to be practically irrelevant for us living today; but, this is not the case for those among us who are sufficiently wise to locate the meaning of the mortal life we experience now in what we are able to contribute, as discoveries of useful principles, to future mankind, as done through the new foundations we add to humanity's repertoire even as we are living now.

9. "Die Hauptsache ist der Effekt!" From "Das Spukschloss im Spessart" (1960).

All this begins to be clear at the moment we take note of the evidence which is the proof of the reality of the inner self, for which the powers of sense-perception are useful, attached appendages supplied to a truly creative being which is no mere appendage of experienced sense-perceptions.

The hopeful aspect of this matter, which I have emphasized in the immediately preceding paragraphs, must be more brightly illuminated. What is the alternative to the hopeful portrait of man's inner self to which I have pointed just above? What is the haunting sense of worthlessness which accompanies the belief that the human individual is merely an expression of notions akin to mere sense-certainty? We should recognize that consequence as something we should consider ourselves as knowing, "all too well."

To measure the breadth and depth of evil loose on this planet today, consider the case of the program of willful, impassioned genocide, represented by Britain's Prince Philip and his erstwhile colleague, Prince Bernhard of the Netherlands, a Satanic-like expression of pure evil, an evil supplied chiefly by the British empire and its Wall Street financier appendages, an evil which has taken over the currently "Nero-like" U.S. Presidency and much of the law-making by an intimidated, virtually Neronic, U.S. Congress at this present time.