

AN UP-AND-COMING SEPTEMBER 8TH BIRTHDAY

What Is There To Celebrate, Now?

by Lyndon H. LaRouche, Jr.

September 2, 2010

Speaking statistically, my 88th birthday will arrive on a customary September 8th.

On the surface of things, having just another birthday, will not be a novel experience in any other respect than the fact that I will probably have lived to experience it. The only functionally significant novelty of the occasion, will be located in the historical significance of, not only the most remarkably great issues of current world history which happen to coincide with the current world crisis, but, rather, the exceptional character of the historical responsibilities which have happened to descend upon me, at the age of 88, within this immediate time-frame.

Prologue

Here, I wish to focus your attention on two presently assured developments of this immediate period, and a possible third. This will be a combination which would make this birthday the occasion of an historically exceptional significance at this time. I explain as follows.

The first is my now confirmed, July 25, 2007 warning, to which Federal Reserve Chairman Bernanke has now confessed that he had, as a matter of fact, refused to consider my unique and widely broadcast warning at that time. A few days later, there was what came as my

widely promoted draft legislation, named The Homeowners and Bank Protection Act of 2007, all as part of my warning of the prospect, then, of what became, soon after that, the presently onrushing general breakdown-crisis of the U.S. economy.

The second consideration has been my April 11, 2009, now factually validated warning, that the then recently elected President Barack Obama was, and remains, still, the victim of the same class of deeply embedded, tragic fault as that of the Roman Emperor Nero, and also, the dictator Adolf Hitler. Now, of late, Obama, like those same predecessors in their own time, has shown significant signs of preparing to enter his own “bunker.”

The third prospect is that the actions of that failed President are now already bringing not only our United States, but this entire planet down into a chain-reaction collapse of the world economy. We are already at the presently immediate edge of what has been already a threatened, historical breakdown-point through the entirety of this Presidency. We are already, today, at what a great part of our citizenry recognizes as what is, for them, the break-point of choosing between, on the one side, a presently onrushing, chain-reaction form of planet-wide breakdown-crisis of all of the nations, and, on the other side, the hopeful prospect of some economic recovery which, would be, in fact, available, and which would be, truly, what my associates and I have



EIRNS/Christopher Lewis

LaRouche writes that he views his 88th birthday “as the timely opportunity in a moment of great world-wide crisis,” to explain why he foresees a “happier prospect for humanity, during the remainder of this presently still young century.” He is shown here at his birthday celebration in Wiesbaden, Germany, Sept. 8.

now indicated, factually, would be the most extraordinary leap of improvement in the history of the world’s economy, for all humanity, to date, so far.

Nonetheless, despite these facts, there remain, still, a large number of people, even in high places, who refuse to face the reality of this already deep and accelerating collapse of not only the U.S. economy, but the world economy. These are the facts, as shown by my matchless record of continued successes as an economic forecaster over a span of more than the recent nearly sixty years of forecasting, since my Summer 1956 forecast of a deep U.S. recession by about February-March 1957.¹

That recession happened, exactly as I had forecast,

1. It should be noted that this record of successes attests much more to the consistent incompetence of my putative rivals, than intellectual miracles on my part. Their relative incompetence on this account was not a lack of brain-power, but, rather, their devotion to the inherently incompetent methods inherent in, chiefly, the particular form of reductionist dogma of the adherents of the so-called philosophical liberalism of such notable followers of Paolo Sarpi as Adam Smith and Jeremy Bentham, or, even the more radical incompetence of Bertrand Russell’s Cambridge School of systems analysis.

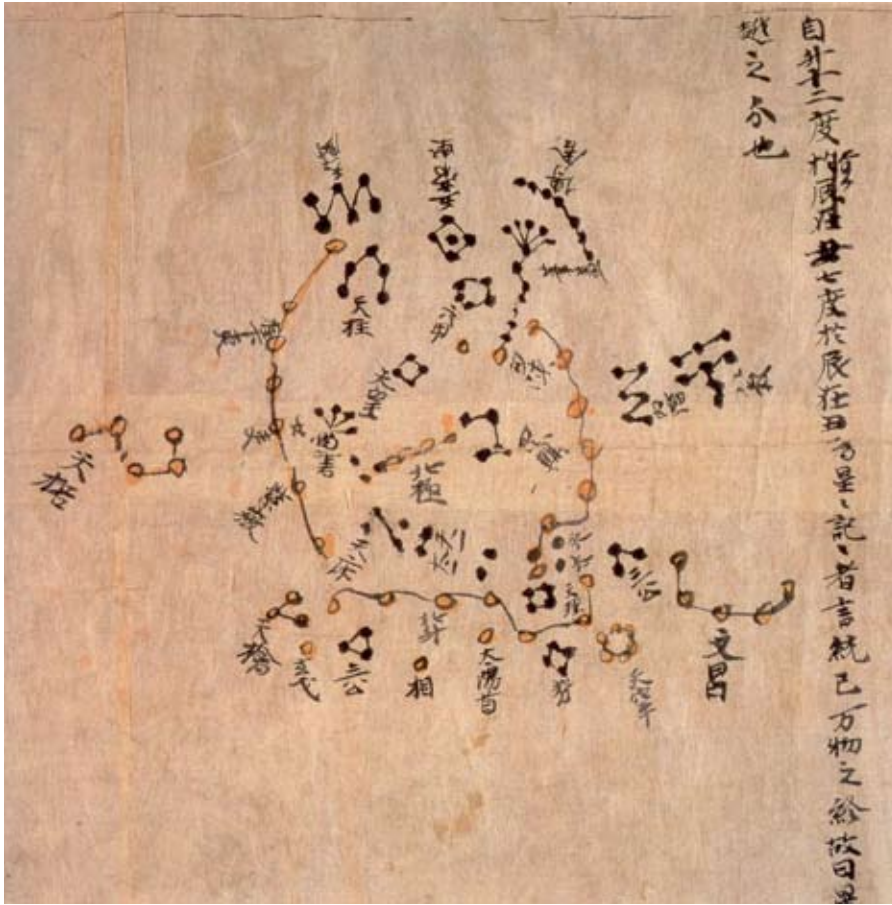
and for the causes I had identified, and on the time for which I had forecast it. That record has, in fact, rumors aside, never been spoiled since.

The significance of my currently updated forecast, first presented widely in a webcast of July 25, 2007, is expressed today in the fresh proof of what had already been my uniquely long-standing personal history as a repeatedly successful forecaster, that over a period since the latter half of the 1950s, up to the present date. The far more important fact of the matter, is the relationship between my uniquely successful methods of forecasting, and the presently existing possibility for adopting my presently existing design of a package of measures, which, if adopted now, would provide the needed options for launching not merely a general economic recovery of the United States, but of our planet as a whole.

The design of the actions I propose would, in clear fact, be a recovery which would echo the known historical precedents in known world history’s list of accomplishments dating since the creation of that system of transoceanic navigation, the discovery of the “finite, but unbounded”² domain of the star-map, the launching of an ancient breakthrough in human knowledge of practice on which the known steps of a process of creation of civilization itself has absolutely depended ever since. We have, thus, conquered the oceans, tamed much of the world’s land masses, and are aiming for man’s future destiny in NASA’s intended accomplishment, the realization of mankind’s extra-territorial destiny among the planets, and, then, the stars.

In this way, now, the mankind which had discovered the existence of the universe of the stars in that fashion, as discovered by the unknown great ancient navigators who have left clearly known scientific evidence of their accomplishment, is now faced with the hopeful, if still uncertain, prospective challenge of beginning, actually,

2. I.e., what I refer to, repeatedly, is Albert Einstein’s characterization of Johannes Kepler’s unique achievement in the discovery of the physical principle of universal gravitation.



Wikimedia Commons

The actions now proposed by LaRouche for a planet-wide recovery, echo the discoveries of the transoceanic navigators of the “finite, but unbounded” domain of the star-map,” the ancient breakthrough upon which the advancement of civilization has depended ever since. Shown: the Dunhuang star map of 700 A.D., from China, in which the constellations Ursa Major, Sagittarius, and Capricornus are recognizable.

to reach them. As the astronauts of the recent past, first from the United States and the former Soviet Union, had pioneered that prospect; we are now entering a time in which fresh discoveries of what had been, in large part, the hidden secrets of a universal system of cosmic radiation, await us, awaiting our recognition of what should now become known as the point in fact, that we live in a universe in which no region of “empty space” actually exists, a universe which now, thus, reveals the true challenge to be accepted as an immediate next crucial turn in the policy-shaping of not only U.S.A., but also world history. Today, we are reaching toward a nearer, more modest, but indispensable part of such upward progress, the security of the territory and atmosphere of this planet itself, but our future will not end with that.

The most efficient way for defining that presently existing option for the U.S.A.’s role in initiating, among

nations now, a planet-wide general economic recovery, is that which involves our necessary attention to the readily overlooked implications of what is to be made more readily obvious in the following terms.

We have before us now, the relatively simple, and more obvious facts posed by my associates’ recent pin-pointing of what has the prospect of resort to the presently active possibility of the national and also global effect of a somewhat enriched revival of the leading American Parsons firm’s 1964 design for that proposed, and still available project, known as the North American Water and Power Alliance (NAWAPA). When the meticulously defined original design, is situated within the context of certain subsequent scientific and other developments up to the present time, the presently prospective launching of the implementation of that program now, represents the essential keystone of the rescue of not only our own United States, but also for the Canada and Mexico which are, otherwise, also placed in rather immediate grave danger by the presently yet to be corrected,

global trends, to a NAWAPA-prompted recovery, provides us the means to adopt what is probably a unique choice of action for effecting not only the present survival of our United States, but serves as the keystone for building the prospect of recovery which must be given to all of the nations, for a better world, and for a clearer vision of mankind’s necessarily continuing, further mission in entering nearby interplanetary space.

However, this is not merely a matter of the intent for the survival of the principal nations of North America. That point is more readily demonstrated in the context of a challenging pattern of relevant, further scientific developments, a pattern which has existed in the form of potential, since 1964, up to the present time.

What lies in the immediate prospect before us, when the greater implication of the commitment to fulfill the NAWAPA mission is considered, is the prospect of a

new, and better conception of the truly practical nature of mankind's destined mission within our universe. It is also a choice of project which is peculiarly suited to the special preconditions under which some people came to North America from Europe, to initiate an intended special project of colonization, out of which came a unique conception for a new type of nation, as a republic based on the notion of credit-system, rather than a merely European monetary system. So, the resulting reforms of those pioneers became the American System of political-economy, a specific kind of system which we today can envisage as having been derived as an implicit future destiny for this planet under the combined influence of what had been started as both the Mayflower settlement and the original Massachusetts charter under the leadership of the Winthrops and Mathers in their time.

However, there is something of truly far greater significance to be considered for our attention now. That launch of NAWAPA's implementation now, would mean, not only a probably planet-wide change for the better; but, as some of the leading scientific professionals know best, those higher implications of NAWAPA's present implementation which would serve as the foundation for what one leading scientist, whom my wife Helga and I knew personally, who, in his time, had identified as mankind's "extra-territorial imperative." What NAWAPA represents, now, is not only a revolution for human life on this planet, but is also a thrust toward fulfillment of an attack on the challenge of those scientifically defined preconditions for mankind's steps toward the indispensable further goal of the virtual conquest of large volumes of relatively nearby Solar space.

Within that prospective, higher order of challenge before us, if we can master that, lies the implication of the existence of a great, and wonderful unknown.

I have selected this occasion, that of my prospectively imminent birthday, as the timely opportunity in a moment of great world-wide crisis, to report to you on why I am so confident, personally, in stating here my present knowledge of that happier prospect for humanity which I foresee as within reach of those several generations of humanity which we might hope would shape the direction of leading efforts during the remainder of this presently still young century.

I compare this young century with my experience of the greatest part of that past century into which I had been born. Perhaps, at least perhaps, this present century will prove to have been only that prospect, which,

in our society's past time, may have slipped between our fingers, as did the happier, but abandoned prospects for doing the good, in the later half of the earlier century. Nonetheless, when mankind fails to see, and to reach for the prospective good, that society's failure to respond as I do here, would echo the reasons my nation's leadership has failed so miserably under two Presidents of this past decade, a failure, then, which now threatens to become the inevitable prospect of the present. At this moment of writing, that threat, under such Presidents, remains the consequence of the present habits of the reigning, but also failed imperial financial circles reigning over much of the world today.

For all that, as a great Scotsman of his own time once said, my optimistic outlook on this occasion, relies upon the evidence that there were certain special considerations which I had also experienced in my own history. I emphasize those earlier considerations, as those which include the evidence of the consistent pattern of those earlier forecasts which had been a series of successes, even when the contrary official decisions actually made, had, for the most part, failed, and that repeatedly.

Those previous forecasts of mine which have since proven correct, time and time again, have been shown, repeatedly, to have expressed a method and a principle which has been essential in establishing the urgency, for today, of my own contributions toward the development of the presently more favorable options.

These considerations include a reflection of my adolescent rejection of the conception of a quasi-Aristotelean, aprioristic form of geometry, a rejection which included consideration of my location of the idea of human scientific creativity in Classical artistic domains. They included, most notably, my subsequent commitment to the standpoint typified by Bernhard Riemann's habilitation dissertation, a commitment which defined my approach to defining the principles of a science of physical economy. Those considerations are relevant, and important, as I have said; but, what has been decisive for practice, has been my increasing devotion to what is now shown, again, to have been my certainty of the validity of the legacy of President Franklin Roosevelt, despite the fact, that after his death, most among my own particular generation had, for the most part, shifted their moral outlook into directions which became, increasingly, contrary to that President's own.

Now, it is time for me to explain more of the elements of the background of an experience which you

urgently need to know, for understanding what I shall, next, then, present as the deeper implications of what I have said here so far.

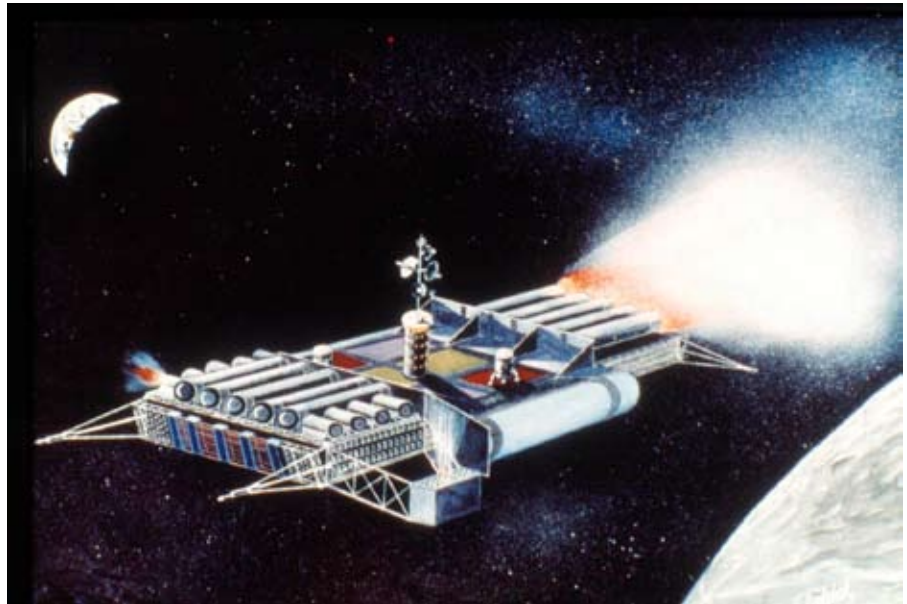
I. Classical Art as Science

I think it fair to write now, within the special context of this report, that the substance of the crucially competent ideas of principle to be used by societies today, does not reside in what might be identified, metaphorically, as mere formulas; the needed competence lies within the relivable experience of discovery provided through the social history of the succession of creative generations of such notions of principle.

So, out of precisely that same long and broad tradition of so many before me, it came about for me, that by the age of fifteen years, a little less than one hour after the beginning of my first day in a course in Plane Geometry, I had rejected, that irrevocably, a-prioristic presumptions of Euclidean geometry. This was, admittedly, by no means new to the history of science; but, it was a new thought for me, at that time.

I had thus already provoked that irrational reaction among my classmates, and others, too, which would actually continue, to my knowledge of such cases, to resonate among vocal elements who had attended that class, for nearly a pair of decades to come. Today, the evidence is conclusive, that what was the astonishing fact of that experience for me, was that what I had stated on that occasion had been nothing but a correct appreciation of the actual scientific principle involved. I had correctly rejected Euclidean presumptions as being incompetent, that on the basis of recognizing the fallacy which, previously unknown to me, had been embedded in Euclid's ontological premises. I continue to reject those premises to the present day.

On the subject of the fraud inherent in Euclid's Elements, it is my estimate from experience since that time, that all important discoveries which had once wrongly appeared to have been failures in the eyes of general



Krafft Ehricke

That realization of NAWAPA now, would mean, not only a planet-wide change for the better; but, it would serve as the foundation for what the leading scientist Krafft Ehricke identified as mankind's "extra-territorial imperative." Shown: Ehricke's drawing of a nuclear freighter capable of moving material to Mars.

opinion, have usually succeeded only because they enjoyed a different origin among other bodies of opinion.

The relevant specific facts of that matter, as from that past time, are as follows, still today.

During the course of about a year before that time immediately preceding that class in so-called "plane geometry," I had already enjoyed the happy experience of discovering the relevant principle of physical geometry, rather than what would I would meet subsequently as the aprioristic form of a Euclidean ideology, in the classroom. This had occurred, chiefly, as the result of several of my immediate family's visits to the Boston area's Charlestown U.S. Navy Yard.

There, the form assigned to structural steel beams, as I observed that work in progress there, showed me the notion of a functionally physical geometry, as opposed to a merely formal geometry such as that of Euclid.³

3. The relevant problem among many mathematicians, still today, can be better appreciated by considering Carl F. Gauss's avoidance of discussing the substance of the subject of the errors made in putting forth the non-Euclidean geometries of Lobatchevsky and Jonas Bolyai at that time. Gauss knew the answer, but as in a number of notable cases, avoided the clearly political risk to his ability to work, should he reveal that knowledge. What Gauss had actually known was first made known

Years of my subsequent efforts which were largely wasted on the taught geometry of the secondary and university mathematics programs to which I was subjected, had the similar effect of confirming my continuing rejection of a merely formal mathematics of those types which have been considered acceptable among the disciples of either Aristotle, or of the modern liberalism of the followers of Paolo Sarpi. In the secondary and university educational programs through which I suffered, came the realization that Cartesian geometry, and the commonly taught introduction of the Differential Calculus, became, for me, a painful waste which I tended to view as comparable to the ultimate futility of cleverly cutting-out paper dolls. I preferred Classical poetry to *a-priori* mathematics, even when the mathematics was truly clever, because that formal mathematics was not physically real.⁴ During my adolescence, English translations of writings by Gottfried Leibniz had become the chosen alternative to which I eagerly subscribed.

The related social experience of my family and related matters, was situated within my family's location of our household's self-interested occupation with the social process, and world-outlook, of production. Consequently, by the age of thirty-one, I became fully converted to what was typified for me by the 1854 habilitation dissertation of Bernhard Riemann.⁵ So, I became,

through the collaboration between Lejeune Dirichlet and Bernhard Riemann, as through Riemann's revolutionary 1854 habilitation dissertation.

4. It is true that modern followers of Sarpi's Liberalism, such as the notable Bertrand Russell, have argued for a pro-Aristotelean view of the irrationalist Liberalism of the dupes of Paolo Sarpi's followers Adam Smith and Jeremy Bentham. There is no inconsistency in my distinction between two varieties of the leading forms of modern reductionist systems of European ideology. Russell's view is not actually inconsistent, speaking axiomatically, with what might be regarded among some, as the "secret ideology" of Sarpi. Russell, like the actual Sarpi, personally believed that it was consistent with Aristotle's own original intention, to teach the Sarpian model of a pleasure-pain swindle supplied to serve as the irrationalism of the intended "ignorant masses from among the believers in popular delusions," that as a tactic for controlling the behavior of the latter "sucker class" among such as the duped followers of Adam Smith. This is the actual point made by Aeschylus in portraying the difference between what the Olympian Zeus knew, and what that Zeus prohibited as the knowledge of his victims. The same is to be said of the so-called "environmentalist" cult of the followers of Britain's and the Netherlands' founders of the so-called "environmentalist" cult of today, and the kindred doctrine of the Nazi movement shown more clearly during the late 1920s.

5. Read both the opening two paragraphs and the single, concluding sentence of Bernhard Riemann's 1854 habilitation dissertation, to sense

during the early through middle 1950s, a demonstrably successful professional in the field of economic analysis and forecasting, all of which I practiced from a standpoint of explicit reference to a Riemannian view of the principles of a science of physical economy. I never believed, as an adult, in the view that money represented a form of intrinsic value.

All that I have actually accomplished, subsequently, in related matters, during my sixty-odd years as a working physical economist, has been derived from principal personal concerns of mine which date from the immediate years following my wartime military service abroad.

Since that latter time, the combined outlook of the implications of Classical poetry, as by William Empson's **Seven Types of Ambiguity**, and a much earlier fascination with the work of Percy Bysshe Shelley, contributed significantly to informing my approach to this and related matters of physical scientific interest which were, for me, implicit in the actually creative aspects of Classical artistic composition, rather than mere literary formalities. This latter view occupied me much more than my recurring, occasional periods of sometimes intense, prolonged, but now long past experimenting with being a novice poet as such.

In that setting, my confrontation with the pathologically reductionist features of the **Cybernetics** of Professor Norbert Wiener and the productions of John von Neumann, impelled me to turn to Riemannian notions of economics as a science rooted in the concepts of physical economy. There is nothing in achievements outside the domains of what I came to recognize as the close relevance shared between my two leading interests, economics apprehended as a physical science, and the related expressions of the principles of Classical poetry, which has much relevance to what I have accomplished professionally in my life thus far. This includes the way I have approached the practical implications of the NAWAPA project.

Therefore, for the sake of clarity respecting the subjects which I treat here, I must now open the body of

that spirit of creativity in Riemann which I read with a particularly joyful sense of my own consequent liberation from the follies of what I had studied, but never believed, in the mathematics and related programs to which had I been subjugated during my adolescence and later on. After reading those excerpts, imagine that you are, like Riemann, looking with gratitude at the senior, watching figure of Carl F. Gauss, as Riemann's own habilitation dissertation was being delivered by him on that wonderful occasion.



cluded references to the known personalities of some great-great grandparents dating from as early as the Eighteenth Century.

The latter were ancestors who were those known to me personally, either directly, or by their stated, vivid accounts of their immediate predecessors. I became acquainted with both types of such cases, then, as personalities of my own family experience, or, in turn, as the vivid recollections of the great-grandparents included together

LaRouche recalls his great-grandparent, Daniel Wood, “a passionate abolitionist who had operated the ‘underground railroad station’ at his farm” in Delaware County north of Columbus, Ohio. Shown: Fugitive African Americans fording the Rappahannock River, Virginia, August 1862. The map shows routes of the Underground Railroad, 1830-1865.



National Park Service

this report with this present chapter’s devotion to some remarks bearing on those aspects of my method of work. For this matter, the attitude with which the relevant work has been approached, is of crucial importance for insight into the substantial issues posed in the argument I present here.

My Life as an American

As I have been informed, in fairly recent times, by the work of relevant qualified scholars in such matters, my first known ancestor in North America had landed with the Mayflower voyagers. What had been, previously, much better known through my own, long-standing, directly personal experience of my ancestry traced to the relatively more recent parts of this ancestry in North America, as also associated with direct knowledge of some Irish and Scottish personalities which had been added to the original stock of Americans, had in-

together with my Scottish and Canadian ancestry. In addition to these, there was the published family record of the Lancaster family, a relevant book which had been enriched by handwritten details provided respecting my known family members’ connections to predecessors featured in that book. One of the strongest of such efficient influences to my personal recollection, was the family household’s frequent, and rather vivid accounts of a great-grandparent, Daniel Wood, a passionate abolitionist who had operated the “underground railroad station” at his farm in what was familiar to my childhood as the Alum Creek and neighboring community of Delaware County north of Columbus, Ohio.

The relevance of reporting those relatively few, bare genealogical facts on this present occasion, is, from my earliest recollections of childhood, the notion that the successive generations of the family, rather than the all-too mortal individual life, is the actual location of one’s concern with the importance of defining appropriate devotion to one’s identity as a citizen—in this case an American citizen, or the like, in one’s life’s work, a form of devotion which is implicitly a more powerful source of actual intellectual authority than the influences of contemporary opinions received.

What mark will each among you leave on life, as for

me, on behalf of that legacy given to you, and to those who come after? To some degree or other, the general idea of such connections is widespread, but, with some families, the attachment is more passionately extended than others. I have been among those in the former category. I would insist that it is urgent to be committed to truth, rather than to be accepted according to the precepts of current popular opinion. It is what you contribute to both the honorable past and future, so defined, which should become, for you, what the fact of your living speaks to the future of humanity.⁶

It is of notable relevance for the purposes of my report here, that that specific quality of emphasis on accountability of the individual to the implications of a family, rather than what would be, relatively speaking, a merely existentialist personal heritage, has lessened, that most considerably since the close of what we reference as “World War II” and since the onset of the reign of existentialist evils typically expressed by the European Congress for Cultural Freedom (CCF). There is some contrary good included in some aspects of that change, and, as it is said, often for “good reasons;” but there is also a significant risk, for today, in the loss of that sense of connections to the legacy of both President Franklin Roosevelt and the great American and European traditions which he, in particular, embodied, in turn.

The relevance of such considerations, for the purposes of my account here, is to be placed mostly on concern for the outcome of one’s own anticipation of “having lived.” In modern times, even under the manifest evils which have become prevalent, especially since the assassination of President John F. Kennedy, the principal responsibility expressed by the family connections, is the mortal individual’s responsibility for what comes after one has “passed on.”

Take as an illustration of this point, the impact of great enterprises in progress of society in defining the mission of the living individual’s connection to coming generations, as being a contributor of effects. Think of the proud grandfather pointing to some great improvement, and telling his grandson, “I helped build that!”

The implication in the grandfather’s telling that, is: “It’s now yours.” The additional implication is that, “When I’m gone, remember that.” Even better than that,

6. Who are you, mortal person, really, if you lack the development of a developed quality of critical insight into the origins, outcome, and appropriate purpose of your having existed? Those who lack that quality, lack the courage to exist under conditions of severe risk.

is the intention, especially while still young, to have dedicated a great part of one’s own life’s work, as I have done to a much greater degree than most others of my own or younger generations which I have known, to living for the purpose of creating a great and beneficial contribution to building a better future for one’s nation, and therefore mankind, while one is still young enough to enjoy that commitment to the anticipated outcome of one’s having lived, as a benefit to the betterment of the mission implicit in the moral fact of the existence of such a sense of purpose. It is more important, for truly moral human beings, to contribute, especially to mankind’s future, more than to consume. In the truly moral individual, that commitment to rise to the occasion of commitment, is one’s uniquely appropriate sense of the individual’s sense of social identity as a living personality.

There is a fundamental difference in outlook, between the opportunist who bets the meaning of his, or her life, on “being successful” within the set of the opportunities of one’s own life, as compared to the case of the person who reflects on the sense of essential self-interest reposing within the experience of both one’s predecessors and of the prospects for coming generations.

The hired hand milks the cow; the farmer breeds the herd. The corporation’s field-hands, sow and reap the field, and probably cut down the hedge-rows, as part of raping and ruining the farm; the farmer builds the hedge-rows. The hired hand uses the well; the farmer defends and builds up the water-table. The hired hand uses Monsanto’s seeds; the real farmer freely selects and proudly breeds his choice of strain.

That much said, now take the case of NAWAPA, for example.

Our primary mission is to create and develop better workers, who will therefore do better work. The best mission is to do what is good, but had never been satisfied with what has been done before, either by oneself, or anyone else.

It is that kind of sense of mission which our nation lost, in great part, when President Franklin Roosevelt had died, and Wall Street’s and Churchill’s Bozo-like clown, Harry Truman, had taken over.

How we prefer to see ourselves, is the fateful choice of what we and our society shall become. Recent generations have, on balance, done badly on this account, when we reflect on what has occurred under the generations which have been the victims of the rearing of the post-World War II generation. We passed from a commitment to what we gave, to one devoted to what they



NASA/JHU APL/CIW

It is only the impressions of our senses which lead us to imagine that space is empty. In fact: "It is chock-full of all imaginable ranges, and probably more, of cosmic radiation, some friendly to mankind, some ferociously menacing." Shown: The Earth and its Moon, as seen from the vicinity of Venus by the spacecraft Messenger.

get. We must return to emphasis on devotion to more powerfully productive capital-intensive, "energy-flux density" improvements in productive modes of capital investment.

Ask: what is your purpose in life? Ask: what is the purpose of mankind in this universe? Take the following case in point.

The Truth About Art

I have already made reference to an important book, which, strangely, some contemporary readers have reported to me as being "difficult to understand:" William Empson's **Seven Types of Ambiguity**. By "ambiguity," he signified the crucial role of forms of statements whose subject could not be interpreted as uniquely simple deductive (e.g., "dictionary") meanings of a statement, but were crafted to identify an intention which encompassed a certain, coherently definable range of meanings. This was to be done according to a

lawful intention to convey a meaningful ambiguity of subject-matter, as typified, in the standard case, by the specific form and function of *metaphor*.

Kepler's uniquely original discovery of the principle of universal gravitation, may be selected as the best kind of definition of the functional concept of *metaphor*.

That is to emphasize, that while Kepler premises his discovery of gravitation on the contrasting images of a visual to an harmonic sense of the relevant experiences, neither of those expressions of sense-perception defines the power exerted by gravitation as such. For this reason, none of the later opponents of Kepler, as shown in the case of the failed Laplace, nor Titius-Bode, could actually generate an empirically believable explanation for the actual phenomenon. Albert Einstein not only succeeded in this matter, but has provided a much deeper insight into the broader implications of what Kepler had achieved.⁷

The deep issue posed by the uniqueness of Kepler's success in this and related matters of physical science, is the fact that the evidence provided by Kepler, and understood by Einstein, provides us a rigorous physical-experimental definition of the human "soul," a conclusion which had been provided by both Plato's **Phaedo** and would be emphasized and enhanced by the commentary on the **Phaedo** by the great intellect of Moses Mendelssohn.

That view of the conclusive experimental evidence of Kepler's uniquely original discovery of a universal

7. Considering the roles of the Duke of Wellington's political assets, Pierre-Simon Laplace and Augustin Cauchy, in their willful wrecking, under Wellington's blocking of the impending Lazare Carnot Presidency of France, and the installation of the Bourbon restoration monarchy, instead; the science program of the Ecole Polytechnique's Gaspard Monge and Lazare Carnot was the victim of an attempted spread of corruption. We should not be surprised at the dubious scientific pretensions of Laplace and the sometime plagiarist (of Abel's original work) Cauchy.

principle of gravitation, emphasizes the proper distinction between mere “sense perception” and actual human knowledge. Sense-perceptions, as the matter of this subject is recognized by Plato and Moses Mendelssohn, are not self-evident realities, but are the shadows cast by reality upon the sovereign powers inherent in the potentials of the individual human mind. The real nature of the human mind’s own potential, lies not in sense-perception as such, but in the actually creative powers of the mind, powers which are to be distinguished ontologically from those mere shadows cast by real experience in the guises of sense-perceptions.

Plato is by no means as ancient in his scientific achievements as is customarily presumed among our typically mis-learned contemporaries. There is nothing intrinsically false in the attempts to develop a meticulously critical account of sense-experiences, as Plato did, in fact. Plato’s work includes a most notable consideration of the merit of supplementing the inherently biological senses by scientific instruments which are, themselves, subjects of human sense-perceptual potentialities. An error arises if and when we perpetrate the error of presuming that the human mind itself is, ontologically, a predicate of the powers of sense-perception.

The paradox so posed by these preceding remarks is clarified by a presently most amusing problem of physical science. “Is space ever empty? Therefore, does space actually exist—ontologically—or, is belief in space merely a by-product of either our lack of a relevant sense-organ, or a failure to recognize the existence of a different kind of access than those identified as conventional?”

Accordingly, once experimental methods are applied to the boundary-conditions which protect the existence of life on Earth from that field of Solar radiation from which we are largely protected by the Earth’s immediate environment itself, the notion of human travel to Mars confronts us with the fact that space is by no means empty; it is chock-full of all imaginable ranges, and probably more, of cosmic radiation, some friendly to mankind, some ferociously menacing.

As soon as we go as far from Earth as our nearby Moon, even into near-Earth orbit, we are faced with paradoxical implications of the customary modern idea of gravitation. That is only a beginning. However, for the purposes of this immediate aspect of my reporting here, the important fact is that, whether or not we actually experience travel from Earth to Mars, the presump-

tion of the existence of a universe in which bodies float around through a slightly sullied, but otherwise empty space, must be abandoned for any practical purpose whatsoever.

Ask: why does today’s conventional opinion tend, still, to tend to consider “space” to be “empty?” The customary answer would be a simple: “We see it as empty!”

This case has broad ranges of practical implications. First of all, we should recognize that the power of acquiring human knowledge can not be defined as bounded by a general conception of sense-perceptions. The creative powers of the human mind contain, as if subsuming, the powers of sense-perception, rather than the other way around. Since it is “we,” who express the bounding agency, rather than the mere powers attributed to sense-perception, we have in this fact the sufficient and necessary evidence of an ontological proof of what Plato and Mendelssohn define as the individual human soul.

The narrowly useful feature of accepting that crucial quality of ontological fact, from the standpoint of a practice of physical science, is that this fact of the human soul impels us to do much more than merely abandon the conventional prejudice named “belief in empty space.” We are now impelled to replace the notion of matter, space, and time, by a general notion of efficient substance which is to be identified most conveniently as “a cosmic radiation densely populated by a constantly increasing accumulation of singularities.” Like the universe of Albert Einstein’s assessment of the discoveries by Kepler: our universe is finite, but not bounded.

We who adopt the view of an experimental physical science, rather than the varieties of “mathematical physics” inclusive of the sanitary David Hilbert and the very dirty-Bertie Russell’s devotees, are impelled, thus, to examine the spectrum of cosmic radiation generally, as constituting the actuality of the physical universe, rather than a view of physical space-time aduced from a naive notion of human individual sense-certainty premised upon given senses.

This practice is not properly limited to Classical poetry and drama, nor merely to use of written or spoken expression of language. It is the essential substance of all media of Classical artistic composition, an array which presents itself typically in the actually creative moments of the process of physical-scientific discovery.

It is, for example, what is presented by Percy Bysshe Shelley in the concluding paragraphs of his **A Defence of Poetry**. Shelley's argument there, impels us to examine our relationship to the universe of cosmic radiation from the principled feature of the critical, willful distinction of mankind from the powers of the lower forms of life, as this distinction was refined by the work of V.I. Vernadsky's categorical distinctions of the lithosphere, biosphere, and noosphere.

Classical artistic composition, the exemplary expression of the distinction of man from beast, wins out, thus. We cast our continuing argument here accordingly.

The Classical-Artistic Soul

The Classical employment of the Classical expressions of the use of expressions of relevant such irony, has fallen away increasingly since the close of World War II, that especially so because of the influence of both the existentialist fads typified by the post-World War II Congress for Cultural Freedom (CCF) and the extensive damage done to the practice of scientific inquiry since the influence of the likeness of Bertrand Russell's radically mathematical reductionism on developments during the 1920s Solvay conferences, as the published set of letters of the Max Born-Albert Einstein correspondence shows the destructive effects of both Russell's and Russell's spokesman Niels Bohr's and like radically reductionist influences on Born.⁸

8. Bertrand Russell's agents constitute an included category otherwise known as the products of a collection identified as "the Cambridge school of systems analysis," whose notable offshoots include the British "secret" intelligence organization otherwise known as the International Institute for Applied Systems Analysis (IIASA). IIASA is an Austria-based (Laxenberg) concoction to be ranked among one of the most notable collection of witting and duped British strategic intelligence agents known to recent history, including, quite notably, the former Soviet and present Russian associates of that coloration. The Club of Rome, itself a product of the World Wildlife Fund (WWF) and related "causes," is entirely a product of the same breed of British intelligence agents and their relevant dupes as IIASA. Former U.S. Vice-President Al Gore is an



EIRNS/Fletcher James

By juxtaposing two sense-perceptual types of imagery, vision and harmonics, metaphorically, Kepler made the original discovery of the universal principle of gravitation. In this relief sculpture, the "Cantoria" (detail), Luca della Robbia confronts the viewer with the paradox of making the stones "sing," harmonically; Opera del Duomo, Florence, Italy (1431-38).

Although original discoveries of physical principle lead to necessary, and valid revolutions in the language of mathematics brought into play through experimental physical science, competent scientific discoveries of principle can not be adduced from reductionist mathematics; the case of the celebrated systemic failures by David Hilbert merely illustrates the generality of the problem. The discovery of actual scientific principles, is a reflection of the principles of Classical modes of artistic composition, rather than the inherent cognitive sterility of deductive method. As the case of Albert Einstein's violin illustrated the point, it is precisely in Classical art, rather than mathematical systems, that the principle of hypothesis re-

habitué of the same general pedigree. The Inter-Alpha Group, founded on behalf of the interests of the British monarchy at the same time as the U.S. Nixon administration's take-down of President Franklin Roosevelt's Bretton Woods, fixed-exchange-rate system, lies within the same category of strategic intelligence interest.

sides, and, therefore, that the process of discovery of universal physical principles is located, as located within that typically Platonic domain of *hypothesis*, which supplies the inspiration which, in turn, science supplies to the discovery of the relevant new physical principles.

When the implications of the distinctions of Classical artistic composition from the implications of ontological trash such as the existentialism of the anarchoid post-World War II Congress for Cultural Freedom (CCF) are considered, we are impelled to distinguish the creative (*noëtic*) powers of the human mind, from the deductive powers of perception and conception. This distinction is the most exact of the definitions of the separation of man from both beasts, and also from the relative bestiality of the reductionist follies of the existentialists generally, and of the Aristoteleans such as Euclid. This is also the distinction of the empiricist following of Paolo Sarpi and his British philosophical Liberalism, as the latter is typified by such wretches as Adam Smith and Jeremy Bentham.

As I have often emphasized this point as crucial, as I have done again here, above: the best choice of a way of focussing upon a modern Classical method of hypothesis, is the case of the uniquely original discovery of the universal principle of gravitation by Johannes Kepler, as presented in Kepler's **Harmonies of the Worlds**. Two sense-perceptual types of imagery, vision and harmonics, are juxtaposed in the contrast provided by such a relatively, truly grand expression of the scientific principle of metaphor, to such effect that the experimentally verifiable conflict between the two sense-oriented meanings, locates the existence of the principle which could not be actually defined by either sense treated separately.

Thus, Einstein's great achievements included the fact that he had defined Kepler's discovery as showing the universe to be finite, but not (externally) bounded.

I repeat that point now, to situate the following line of argument.

Problems of the type implied by my reference to the case of metaphor, from among the other forms of ambiguity which are implicitly, or otherwise referenced by William Empson, are to be distinguished as outside the competence of both the ancient reductionist scheme known as Aristoteleanism, and the latter's modern rival, called the empiricism of the modern followers of the dogma of Paolo Sarpi, such as René Descartes, Abbé Antonio S. Conti, Conti's apprentice Voltaire, and from

that Adam Smith's 1759 **Theory of Moral Sentiments**, within which the substitution of the pleasure-pain principle for science has reigned.

For reason of the latter, empiricist influence, that modern statistical malpractice of economics which I have denounced in this report, relies on statistics, rather than science. Smith has explained this reliance on statistical method as follows.

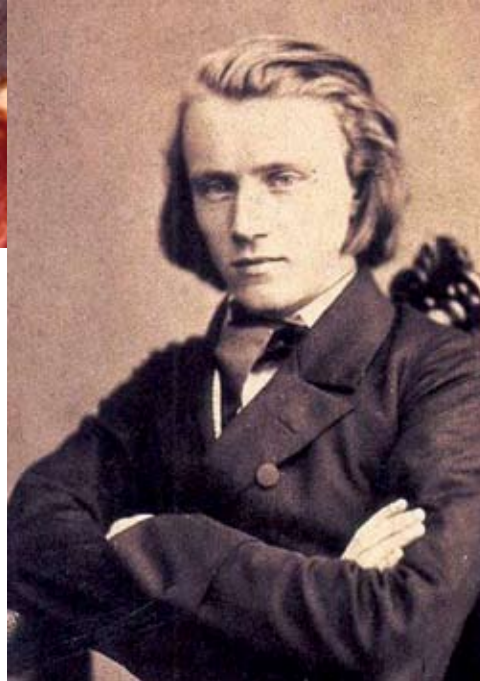
Smith, following the standard line of the followers of Paolo Sarpi, insisted that human beings are not capable of knowing the real world, and that, therefore, their capabilities are limited to the sensations of pleasure and pain; This attitude is a constraint which allows them no method other than the statistical, *post hoc, ergo propter hoc* experience of pleasure and pain, but not the actual determination of future consequences of present actions, but, rather, only assumptions premised on the currently attributed "trends" adduced from current versions of the notion of a "pleasure-pain principle" which presumes assumed prevalent impulses which apply to satisfy a corresponding emotional taste. All application of merely mathematical statistics as such, when applied to such domains as economic phenomena, suffers that inherent incompetence for forecasting which is the typical expression of the usually incompetent arguments of today's conventional mathematical economists.

For that reason, both modern empiricism, and the earlier fad of Aristoteleans, such as the followers of Euclid, are inherently incompetent in their attempts to foresee the future. It would therefore appear that a more competent science of today, is that which is presently associated with the consequences of the revolution in the domain of physical chemistry associated with the followers of such as Louis Pasteur, D. Mendeleev, Max Planck, William Draper Harkins, V.I. Vernadsky, and Albert Einstein. This science is strongly resisted by both the modern Aristoteleans and their empiricist and existentialist rivals among the academics; it is resisted as by a more or less strict adherence to the methods of the Aristotelean and empiricist schools. For them, hypothesis in the strict, Classical sense of that term, simply does not exist.

The usual tendency for misjudgment in the attempts to apply that objective science to human behavioral patterns as such, is that the relationship of the subsuming authority of the Noösphere as such, in the matter of the direction it supplies to the Biosphere and Lithosphere, has not been properly understood. Man as a



Only mankind is capable of willful creativity, a principle which can be illustrated by the Classical musical revolution created by Johann Sebastian Bach (1685-1750), and continued through Johannes Brahms (1833-1897). Portrait of Bach by J.E. Rentsch, the Elder (1715); photo of Brahms, at age 20 (1853).



species is not something which interacts, as if “democratically,” with the Biosphere and Lithosphere, but, rather interacts as does the farmer to the processes he manages on the farm.

In other words, matters go as the opening chapter of the Mosaic **Genesis** states the case rather neatly.

Summing Up This Chapter

Lower forms of life learn novelties, and do generate new species, in addition to generating new varieties of their species, but do not create *willfully*, at least not in the sense of willful creation of new, principled states of living processes. This quality of specifically human creative novelty is what we should recognize as a strictly appropriate, restrictive, and practical definition of “creativity.”

The simplest choice of illustration of this distinction, has been provided by Johann Sebastian Bach’s revolution in the combined effect of tuning and counterpoint, in which a principled ordering of a generative creative process of work of the imagination, exemplifies the way in which the human mind actually gener-

ates the introduction of new states of nature, that as in the manner of explicit creative expression of the powers of the imagination of newly defined, lawful states in nature.

Thus, it is that set of Classical musical principles which had been exemplified by a series of cases spanning the interval from Johann Sebastian Bach through Johannes Brahms, which exemplifies the same principle of generation common to all that we may recognize as the modern medium of Classical artistic composition, in all branches of Classical composition. The problem which I am therefore obliged to underscore in this report, is that the separation of the conception of physical science from that of Classical artistic expressions of the creative imagination, is among the great obstructions to the realization of a more general production of true human scientific and related creativity.

In decades now much earlier than today’s principally living generations, since the work and influence of Johann Sebastian Bach, it was not uncommon to find that exemplary figures of physical science were often producers of better than merely amateur competent performance of Classical musical works, and in other distinguishable ways. This fact itself is attested by the required reading of the influence of

a composer upon others, usually the later ones, on the reading of the newer compositions. The influences of Johann Sebastian Bach on Haydn, Mozart, Beethoven, and so on through Brahms, have such a relevant, implicitly “genetic” quality which is to be located, as Wilhelm Furtwängler spoke of “performing between [the succession of] the notes.” This particular separation of a science of physical chemistry from that of Classical artistic participation, bears heavily on the failures of the impulse on which a successful proliferation of scientific efforts has depended in relevant times past, as today.

This is no mere coincidence.

The principle of creativity as such, can be otherwise fairly identified as the quality of the intentional impact of the future on the present, as this expression of the

principle of actual human creativity, is to be counterposed to merely deductive argument.

This same connection of scientific progress and Classical artistic composition, is expressed in the adducible proper essence of the essentially ironical principle of composition in the use of language itself, as through great achievements in Classical poetry. The quality which distinguishes creativity in such cases is the quality of irony as the term was employed by William Empson for the composition of his **Seven Types of Ambiguity**. The concept of metaphor there, is relatively crucial; there are no literal meanings in the expression of the generation of valid ideas, as Albert Einstein's appreciative insight into the genius of Johannes Kepler's discovery of gravitation illustrates the point. Classical European poetry is the best case for illustration of the connections within the cultures of the history of trans-Atlantic civilization since what is identified as Classical Greece.

II. Science as an "Intimation of Immortality"

Since my post-World War II fascination with the subject of Classical poetry and its correlatives in what is termed Classical musical composition, my method has been increasingly an emphasis on attention to the influence of the future, or shall we better say, a prescience of the future, for its proper impact on the present time, rather than the more customary, other way around.

In my post-war "early days," this impulse was usually expressed in the form of hypothesis as a form of play in the domain of the imagination, a play of the form: "Might we imagine how it could become, otherwise?" and, simultaneously, "Why not?" As I wrote then, my image was of the movement of ideas through space and time, as a noëtic process for which the poetic imagery was that of a literally lyrical sense of the experience of the mind's capacity for thoughts which are expressed as if in a domain of a thought which is expressed as by my "bending stars like reeds."

Today, as is rather well known among those who have observed my current methods, my attention is usually focussed on my recognition that what we might consider the creative processes of the human mind, are the creation of the future organization in the universe as a willful act of the mind today.

The significance of such thoughts, whether as playful speculation, or as scientific practice of progress, or as the essential principle of valid Classical artistic compositions of all varieties of sensation, is that they must satisfy the requirement that they represent either the actual future created by such thought, and do that according to some adduced, lawful principle, or are the oncoming embodiment of that which has been imagined. Take the case of the Bachian principle "of the future," as of Furtwängler's "performing between the notes," which subsumes all creative progress in Classical modes of creative musical composition. Take the case of the present efforts to bring about the actual realization of NAWAPA as a case in point. Take the case of all valid scientific progress as the same matter of method.

This is nothing other than what should become the "normal way of thinking" of truly free and creative individual human minds, and of the societies which they inhabit. In my life, I have experienced this quality of passion, and I have come to be certain that it is true.

There is a passage, as unfortunately, but also providentially set as the **Prometheus** of the Romantic composer Hugo Wolf, which employs a text from the unfinished drama of Goethe's **Grosskopta**. It appeared to me more than a half-century ago, as a collection of Hugo Wolf settings of poetry from the work of Goethe, at a time when I had presented the recording and my own contrasted rendering of the poetry to my host and hostess of that evening in Gloucester, Massachusetts, from the days in which I was still practicing the composition of some poetry of my own. My hosts suggested that my reading of the Goethe was a much more persuasive representation of Goethe's intention than the Hugo Wolf Society rendering. I had to agree, I think quite objectively, since I had already been inspired by the Goethe, but not the want of needed subtleties in the Wolf. Rust has gathered in the meantime; I would not, probably could not, as my expert poet and critic Helga would assure me, repeat that evening's performance today, even with precautionary rehearsals. No matter; I have sufficient new fish which I must fry to keep me busy in matters of current urgencies. In the meantime, I heartily recommend the experience of what I have now reported as the subject-matter to you.

Such are the presciences of immortality. Such are the presciences which become the proper, principled practice of any economist who is truly qualified to be a



NASA

*“The process of man’s safe arrival on Mars, and safe return to Earth, are the quality of event which now defines the future of the human species within this neck of the universe at large. The necessary precondition for attempting that accomplishment, is the present launching of the NAWAPA project.”
Shown: an artist’s rendering of crewmembers analyzing samples from the Martian surface.*

professional. It should be sufficient to consider the unique achievement of Johannes Kepler in his discovery of gravitation presented in his **Harmonies**, when this achievement has been considered by Albert Einstein, that the principle of the role of the future in the present, might begin to be aptly understood.

Some people think about the future; some other people are already citizens in good standing, of that future domain. I heartily recommend that identity.

A Mars Scenario

We have already, successfully dispatched a variety of very useful instruments to function on Mars. Some of them have survived the experience, as experience of such things goes. Some others did not. Worst of all, some malicious idiot here on Earth has shut off those which should have been kept as functioning. Grrrr!

The process of man’s safe arrival on Mars, and safe return to Earth, are the quality of event which now defines the future of the human species within this neck of the universe at large. The necessary precondition for attempting that accomplishment, is the present launching of the installation of the NAWAPA project, both in respect to its direct application in North America, and the immediate effect in shaping the policies which even the mere launching of that undertaking will have throughout most of the entire planet’s nations and their regions.

NAWAPA, once the agreement is reached to set it into motion, is one matter. The way the ricocheting effects of a U.S.A. launch of NAWAPA will affect the other regions of our planet, is another. The way in which a spread of the principle of this NAWAPA project will affect the general future prospects of life on Earth, and will, in turn, define the process of setting the preconditions needed for a Mars colonization directive by a body of nations including our own United States, is yet another.

This sequence of developments will suffice to change mankind’s definition of the meaning of being mankind, not only on Earth, but within this universe as to be seen from Earth today.

There are several points of this perspective to be considered here and now.

First of all comes the matter of getting there.

To reach toward the prospect of a manned Mars landing, if done in a rational sort of way, requires two very large considerations before planning the trip itself.

First, we must adopt a practical recognition of the fact that “empty space” does not exist in any part of the voyage between Earth and Mars. Then, there is the matter of the return trip.

Second, while the matter of travel of objects, such as robotic instruments, to function as part of a one-way Mars landing mission, is beyond doubt, the matter of

transporting persons engages both the conditions in the space between, and also the very crucial matter of the required conditions for that flight by human beings itself.

Among the crucial conditions are, hypothetically, travel under conditions of a one-Earth-gravity flight-condition, and, of course, the issue of an hypothetical one-gravity simulation after a successful arrival. This means the very highly probable requirement of the feasibility of something akin in effect to a one-gravity acceleration-deceleration trajectory between the orbits of the respective two planets. This begs the development of the use of Helium-3 isotope fuel which can be found as a Solar deposit on the surface of the Moon. That, of course, has implications for craft and passenger.

In between take-off and arrival, there is the most crucial issue of the matter of protection of the human travellers, who are living beings, in respect to exposure to the cosmic radiation from which Earth protects us dwellers within its protective screens.

In efforts to engage the space through which the travellers must conduct their voyage to Mars, or other such destinations, we are confronted by the harsh reality of the fact that “empty space” does not exist. Neither, as Riemann emphasized in the concluding section of his habilitation dissertation, in either “the very large,” or “the very small.” So, just as Albert Einstein destroyed the image of an infinite space, competent sub-atomic physics recognizes only singularities in wave-like functions, not sub-atomic particles. This actuality is demonstrated in the most forceful manner by the sheer density of cosmic radiation which inhabits what credulous folk accept as the fairy-tale myth of “empty space.” It is essential, especially when one intends to travel between the orbits of Earth and Mars, that they give up their superstitious faith in the myth of “empty space” as surrounding the objects traversing the volume of physical-space-time. The distance to be traversed is chock-full of a super-dense mass of cosmic radiation, of which only a small portion could be appropriately considered as “friendly.”

Once those preliminary concerns have been addressed to reasonable satisfaction with the treatment of matters of travelers’ risks, we are confronted with the task of what might be identified as the “terra-forming” of the planet Mars itself.

It is not at all my intention to place the emphasis on risk as such, but only the urgency of progress in over-

coming what appear, presently, as risks. True future-thinkers, greet great risk with great leaps in progress. Despite the nature of the risks we are considering in matters beyond the protective screen on which life on Earth relies now, the principle of risk-solving which we have experienced as a soluble challenge so far here, embodies the kind of learning-experience which our science’s progress must muster for the future tasks of reaching Mars and returning in the form of viable specimens of humanity.

It is love of that new dimension of meaning of the name of “future” which is the most essential feature of the challenge I, in particular, for my own part, wish to set before us.

Settling those, and related issues of the transport, arrival and return, becomes the virtual platform on which the additional considerations depend. As President John F. Kennedy said, famously, in his launching of the policy of the Moon-landing: we must meet such challenges precisely because they are hard, rather than easy. Such is the nature of man and woman made in the likeness of the Creator.

Us, from Deep Inside

Once you have accepted that evidence toward which I have already pointed earlier here, that you are not essentially a creature of mere sense-perceptual capabilities of will, much of what people have believed about people, in most known cultures, drops away as simply a habit which is not really “us.” We are to be recognized, then, as some kind of existence of a certain kind of singular willfulness of powers which relies upon the instruments of sense-perception but which is not merely sense-perception in and of itself. The familiar “mind-body” paradox, otherwise reconsidered as a “soul-body” paradox, must then be considered in a fresh way.

Since my competence in such matters of belief is the impact of the first chapter of **Genesis** on Christian and related belief, I have no difficulty, in this present setting of the discussion, in treating the view implicit in the Mosaic **Genesis** 1 as universally appropriate. To say the least, the author of **Genesis** 1, putting aside the rest, whoever that was historically, was a very, very wise old soul, who happens to show excellent scientific credentials up through the best knowledge available to the present day.

In fact, it should be clear, once we have freed ourselves from habituated delusion, that the individual

person, as defined by the creative powers specifically unique to the human species, is essentially what corresponds to the name of a “spiritual,” rather than “animal-like” being.

Does a Good Dog Protest?

What of our animal pets?

Wild animals, unless they are rather large, hungry, and potentially rather dangerous, have little social interest for me. What are called “domesticated animals,” is a different matter. Apart from those creatures which annoy us, or which we eat, domesticated dogs and donkeys are, for my experience, among the most interesting animals because their behavior is, outwardly, the most human-like. They imitate human behavior according to their own natures and capacities. Small cats, but not relatively large ones, are sometimes regarded as amusing, and are probably gloating at the thought of their manipulations of human prey when they are purring in someone’s lap. The electronic herding of certain insects can be a useful practice, as for agriculture, but that does not constitute a proper sense of the use of the term “pets.”

Such are my particular prejudices respecting the non-human varieties of bestiality.

Many avenues of further discussion along such lines are possibly available, but we must limit our further present discussion of such contingent matters to the likeness of those issues which confront man’s ventures into inter-planetary “space.”

The essential fact, in the Riemannian domains of both astronomical and microphysics, is the fact that there is no “empty” space in the presently knowable universe. What we mistake for “empty space” is a delusion fostered by our lack of a quality of sense-perception which provides access directly into the perception of what we mistake for “empty space.”

From the standpoint of reference provided by Riemann, as in the instance of the concluding section of his habilitation dissertation, there are three great lessons of physical science in the concluding portion of that publication. First, physical space-time in the very large; second, physical space-time in the very small. Third,



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“Domesticated dogs and donkeys are, for my experience, among the most interesting animals because their behavior is, outwardly, the most human-like,” LaRouche mused. “They imitate human behavior according to their own natures and capacities.” Shown: LaRouche, with his favorite donkey, Ambrose, at Ibykus farm, 1987.

non-existence of physics within the domain of “pure mathematics,” as Riemann says with a mathematical wink in the close of his presentation of the habilitation dissertation.

I do not, and could not presently claim to know more about the matters I have treated in this chapter than I have either stated explicitly, or have implied to any reasonable mind which I may have addressed on this occasion. So what? Real-life science is like that. There is always something as important as, or even more important than what we have managed to know with a certain amount of what can be called reasonable certainty. We must just be satisfied to progress in learning, without any presumption that the final answer to all possibly relevant fundamental questions will be presented.

So far, I know that we are human, and essentially as partaking ultimately of what appears to be the spiritual aspect of the human consciousness rather than what is presumed by a naive view of the admittedly very useful contents of a shadow-land we recognize as sense-perception. Why not accept the fact of that present limitation of our outlook, until we have breached some present barrier, to discover something more on the other side of experience?