Science

'PROJECT SPACE':

The Thesis

by Lyndon H. LaRouche, Jr.

September 9, 2013

With the assassination of President John F. Kennedy, the U.S. economy had entered a net standstill, or, later, repeatedly worse conditions in its efforts for progress. Some new, useful things, such as some specific designs and processes, were added; but, the net effect of pluses and minuses had been, heretofore, the establishment of stagnation followed by a tendency for increase of net decay, and, then, recently, a continuing, worse national catastrophe introduced since the election of the misfortunate choice of the wretched George W. Bush, Jr., in 2001, and, thence, up to the present day. Generally, the same must be said, presently, concerning virtually all of the trans-Atlantic region of our planet through to the present date. If the new project to which I will refer henceforth in this report, were to proceed as intended, it will place great emphasis on what is to be applied in the trans-Pacific regions of the planet: a power supplied

within that region, which will also drive the planet's economy, as a whole, into the enjoyment of more than comparable benefits; it foreshadows the greatest achievement it will have achieved in a present prospect of the greatest actions in the history of mankind which will have then been achieved this far.

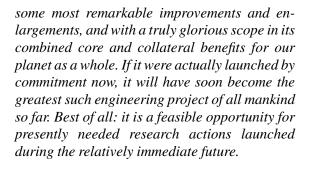
That project to which I now refer here, is one whose root and intention, lie in the spirit of the work done during the administration of President John F. Kennedy: a project which had then been based on the implications of great improvements in development of water-resources which had been intended, and otherwise planned as a development for realization in North America. This had implicitly included a single project, named NAWAPA, which included roles within the regions of Canada, the U.S.A., and northern Mexico. It is still waiting to be set fully into operation, now hopefully to be realized soon.²

The still newer project, now prompted by the investigations of my immediate associates, is to be built on the virtual "corner-stone" of the original NAWAPA design; but, this time, with

^{1.} The family of Prescott Bush, with the roles of his relevant son and a grandson who had played the role of disgusting Presidents in their time, is to be identified specifically with the wretched nature of their common incumbency in influential roles as de facto agents of the interests of the British empire, a role which includes close ties to Britain's Saudi tyrannies, and the fostering of those crimes against the United States such as the infamous "9-11" assault on our United States, and travesties concoted in kindred offenses against our republic.

^{2.} The 21st Century Science & Technology Special Report, "Nuclear NAWAPA XXI: Gateway to the Fusion Economy". See also: "The Pacific Development Corridor: Maglev Across the Bering Strait," *EIR* Sept. 13, 2013; "A Crash Program To Create the Fusion Economy," *EIR*, Sept. 20, 2013; and "Nuclear NAWAPA XXI, Desalination, and the New Economy," *EIR*, Sept. 27, 2013.





The Scope of the Project:

The immediately intended scope of the core of the newly projected project, reaches, primarily, from the area immediately west of the Mississippi, to the Pacific, and north to the Arctic; but also leads into great internal regions of East Asia. The scope and effect of this development will be enabled, not for warfare, but, by the means of peaceful uses of the set of intended thermonuclear-fusion programs which had been then, implicitly awaiting something like this present venture, since approximately the 1970s. The result will include



John F. Kennedy Library

President John F. Kennedy's Apollo program embodied the spirit of the projects we must undertake today. Left: The liftoff of Apollo 11, heading for the Moon, July 20, 1969. Right: President Kennedy inspects the Mercury program's Friendship 7 space capsule, Feb. 23, 1962. Three days before, Col. John Glenn, Jr. (shown here, behind Kennedy), had become the first American to orbit the Earth, in that capsule, setting the stage for the Apollo program.

the greatest, and most beneficial achievement in the expression of great works which had been ever achieved by mankind on planet Earth this far.

During the recent weeks preceding this present publication, my most immediate associates in this venture, who are often commonly identified, among us, with "the basement crew," had been engaged in a re-examination of the economic history of the U.S. economy, one which had been presented, originally, on behalf of the proposed fulfillment of the long-postponed realization of the great U.S.A. water system named "NAWAPA" (the North American Water and Power Alliance). That intention, which had been launched in an updated form of what had been the original, mid-1960s intentions, is now expressed as a freshly reborn project presented in an updated design by the leadership of our associate Michael Kirsch. Michael Kirsch's work, which had occupied several recent years on that project, had been a thorough-going effort, which our team and prospective associates are to extend, in due course, into the form of a thermonuclear mode of realization reaching across the Pacific, that done in anticipated cooperation with the participation of governments there.

This intended project will include a systemic treatment of the design for a systemically up-dated representation of a mapped installation, one which had thus become a campaign intended to bring the design of an illustrated working system, thence into a system whose updated statement of the original design goes into subject-matters of the historical depth and political background of the quality of achievement represented by the installation of measures which shall transcend the history of the opposition, transcending the predecessors of such a great prospective accomplishment, not only for North America, but, in due course, all mankind.

The presently onrushing, relatively immediate economic "breakdown crisis" of the U.S.A. economy (among others), has now prompted us to recognize the urgency, for our planet, of an adopted and extended trans-Pacific, thermonuclear-fusion-oriented development of a project reaching, essentially, from approximately the region including the west of the Mississippi River, to reaching across the Pacific Ocean and the Bering Strait, and, thence, deep into some relatively large, eastern regions of Asia. The crucial feature of the presently proposed project, is the mobilization of the abilities for a drive for a peaceful sort of thermonuclear fusion, a drive which will be indispensable for securing the needed assistance from a great water-developmentproject, the which is now urgently required for the security of humanity, even globally. It will become a project producing continually improved benefits of a quality and quantity sufficient to meet needs for the challenge of the world's present and increased population during the span of time estimated as longer than the remainder of this presently still-young century.

There is nothing which, in principle, stands properly as an obstacle in the pathway of such a great project, except as by a threatened, vicious interference from what should be regarded as what should be the almost irrelevant, but nonetheless viciously criminal, Anglo-Dutch and kindred oligarchies. I mean by that just said, those opponents associated with the current, global, plan for genocide demanded by the present Queen of England's insistence for hastily reducing the human population, rapidly, a reduction from a recent upper limit of seven billions persons, to one billion, under the Queen's influence, from a region of the world which is now already rapidly collapsing. Be reminded: the Queen's stated goal for the period of future history in view, has been, and remains, as (to most recent account) an early goal of about one billion persons worldwide, rather than even maintaining the present approximately seven billions.

The means for the urgently needed, contrary alternative to the Queen's scheme of genocide by our, perhaps, otherwise seemingly impossible, but, actually feasible measures of seemingly miraculous success for the indicated, fresh approach to this now broader version of NAWAPA, can be realized, in fact. This goal can be accomplished, as through the inclusion of available methods known as the already existing (for decades since) principle of "thermonuclear fusion."

I. The Great Principles

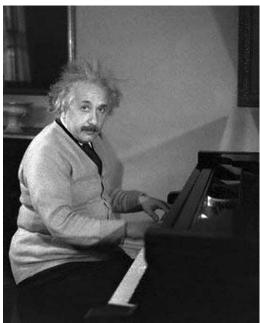
What is actually known as recorded history of mankind's societies, has been dominated, up to the present time, by the imprint of what is to be considered as results of the over-bearing influence of what is still prevalent, as a ruling, and also ruinous form of leading, politically-motivated directions of society on this planet generally, a design which is properly named "the oligarchical principle." That has been a scheme which had been typified by such examples as the cruelty of both the Roman empires past, and, also, and Anglo-Dutch empires of present time, still today.

However, despite the still reigning, controls exerted "top down" in society by oligarchical practices of the presently reigning trends in trans-Atlantic policies of practice, there have been excellent alternatives presented in opposition, were the presently reigning Anglo-American varieties of oligarchical circles lifted from the "back" of society generally.

For example, the New England settlement of the Seventeenth Century, up to the 1660s, and the later founding of our United States in the following century, had been more or less successful designs for alternatives which are contrary to a widespread oppression continued under the global reach of an imperial Anglo-Dutch tyranny, the latter a cruel tyranny intended for the period of the time of that regime's continued existence as a force specifically contrary to actual decency.

The change to be made now, urgently, must be one expressed in a fraternity composed in the form of truly sovereign nation-states, each and all based upon being, inherently, alternatives on which all progress of free people and their nations should have depended and implicitly shared progress in the condition of mankind, as





"The essential distinction of human from other expressions of life on Earth," writes LaRouche, "is located in the specific principle of mankind's inherent potential for access to a willful foreknowledge of the future." Scientists Max Planck (left) and Albert Einstein typify this specifically human capability.

when and where such a point of positive difference in direction has actually prevailed, that done in the mode of converging trends which serve mankind as leaps of progress, in their effects.

This alternative which I introduce for consideration in this report now, has been actually dependent, first of all, on a true conception of a universal principle of life, as distinct from, and opposed to all forms of what is not an expression of progress under the principle of life per se. However, specifically human life is profoundly distinct in its characteristics from all other presently known forms of life: it is distinct from all of those other known forms of life on this planet which are not specifically human. The essential distinction of human from other expressions of life on Earth, is located in the specific principle of mankind's inherent potential for access to a willful foreknowledge of the future.

Mankind's knowledgeable practice of our access to the principle of access to both knowledge in the present, and foreknowledge of the future, is the most essential of the known principles which distinguish the human individual's naturally given, distinctive aptitude. That is an aptitude, both to possess, and to act upon knowledge derived from the future, as such, and, thus, the opportunity to change that future willfully for the better. For example: every case of a valid human discovery of a universal

physical principle, presents us with a demonstration of a human individual's ability to achieve an actual experience of foreknowledge of the future; that is done as a practice of the human will, which never can be achieved by methods of simple deduction, but, rather, can be achieved only by active insight into what has been repeatedly experienced by some among us as the crafting of the future by means of the specifically human will, as, particularly, in the initiatives of Max Planck and Albert Einstein from the 1890s onward, as against the actually evil oligarchical pestilences of the sort typified by the influence of Bertrand Russell.3

In any appropriate practice among the members of the human species, all such specifically creative human practice, has been, and is dependent upon the unique notion and practice of acts of what is a literally, and a truly creative discovery of new, and higher principles than had ever been known before. So, it is the proper requirement of performance for each generation of the human species, that the requirement to make such unique discoveries as those which are to be made as the additional contributions to net progress of mankind's intellectual revolutions, are revolutions expressed largely as the work of new generations added not only to the continued achievements in what is termed as "energy-flux density," but, that that be done with respect to re-exploring those of the earlier generations. As a matter of contrasts: "simply practical deduction" has been, chiefly, a practice of systemic failures on this account, failures contrary to the true principle which distinguishes the human species, which is the principle representing the commitment to the continuing, ever-revolutionary foresight into the future's generation of the systemic progress of our human species,

^{3.} The role of Bernhard Riemann, as in his celebrated habilitation theses, must be included as a matter of specially emphasized predecessors. It is important to reference the arguments which I presented in my **Nicholas of Cusa, Kepler & Shakespeare**, *EIR*, June 21, 2013, or LaRouchePAC.

as continued, always into the future, always in progress from present, to coming generations.

That distinction, is the great principle which truly defines the essential meaning of the practice of what is the expression of human life: a capability specifically unique to the human species. That is also the true moral principle, which exists, therefore, as the true definition of both the unique meaning, the mission, and the future purpose which defines the true principle of human life.⁴

The incidence of the discoveries of physical principle by Max Planck and Albert Einstein, are, therefore, to be emphasized as a crucially important sort of excellent examples of modern examples of discoveries which meet that specific standard for a true discovery of principle: as, for example, discoveries of *thermo-nuclear* capabilities, presently, and, then, some time later, those ends which have been proposed under the name of *matter-anti-matter*, as indicated presently for somewhere in times beyond.

That, which I have just stated, immediately above, is also what I will return to repeatedly, as follows, below.

The Shortfalls of Mankind Today

Mankind is represented, to our present knowledge, by no other than one very much specific, certain, single species and its principle: *mankind the fire-bringer*.

Some among us, often even many talented persons among us presently, do not measure up to that needed standard in human performance; but, they remain as having the natural right to be given the implied present option of participating in that potential. Those who are not crippled in their presently immediate practice, are therefore to be presented now with the evidence needed to remedy the fact of failures, the fact that there is a relatively large ration of the total human population which, unfortunately, has not yet been actually given the means to develop what are, manifestly, truly creative such necessary abilities in practice.

The practice of human slavery continues to be only one example from among the cases of a popular deprivation of "the will to know;" but, in modern human society this far, a relatively large class of human persons has been more or less deprived of the developed capacity to recognize the essential role of the same creativity

which has been exemplified in practice by the greatest scientists, poets, and Classical artists generally. The lack of such skills, can be attributed to the impact of the implications of corrupted and corrupting tendencies in the shaping of practiced cultures of peoples; a condition which must be changed to defeat the world's presently monstrous, Anglo-Dutch-led crisis of the world at large.

Truly human behavior is to be freshly defined as the creative power to generate knowable qualities of products of genuine creativity, products which are specific to knowledge gained from an experiencing of a discovery when it had been known as if received as knowledge from the future. Heretofore, this knowledge of the future has been made known chiefly by such as the true scientists and Classical artists, meaning the inclusion of scientists such as the aforementioned Max Planck and Albert Einstein, to whom I have referred on this account, above, and also to the greatest poets, Classical musicians, 5 and Classical dramatists.

The distinctions which I have just stated, immediately above, are those which express the distinction of fully capable human individuals, from among those who are in some degree representative of the class of subjects selected to serve under the domination of an evil class within society which is to be identified as such for their participation in tyranny, such as that of the current Wall Street types and their accomplices.

Actually Experiencing the Future

The specific quality of the "Human genius" is otherwise identified, properly, only by creating what had been previously regarded as the impossible deduction: it comes into existence as an experience which occurs only in the experience of what had become already foreseen as the past's present future.

As I have forewarned repeatedly over decades, in the course of my career as a physical economist in the principled tradition of the United States' founding economist, Alexander Hamilton: the greatest evil might be properly defined in its essential meaning as accepting what "you were taught in school and university under the proposition: 'Learn After Me'" The victim of that particular, commonplace foolishness, believes in the equivalent of the claim, that whatever is accepted by the teacher (or the teaching institution as such) is "Truth." Worse than that, is a student's cultivated interest in a kind of belief which might have been better

^{4.} Cf. (again) LaRouche: Nicholas of Cusa, Kepler & Shakespeare, June 10, 2013; How the Future Builds Its Past, *EIR*, Aug. 23, 2013; Now Return to the Future, *EIR*, Sept. 20, 2013.

^{5.} I.e., J.S. Bach's collection of Preludes and Fugues.



"Might not the pupil know more?" From Los Caprichos, by Francisco Goya (1798).

identified as "the a-priori arguments which the student is forbidden to doubt." In principle, such practice in teaching is, therefore, inherently fraudulent education. "The Unnecessary To Doubt" becomes, in practice, the inherently untruthful, and, therefore, what is to be regarded as properly meaningless, or worse.

It should be considered alarming, that under the influence of the regime under the administration of U.S. President Obama, the presently continuing changes in public influence on education of primary and secondary students, and also a large, and increasing ration among present university graduates, should be recognized as being held captive to the process of scholarly reductionism of a type which was once already known in my own mother's time, now more than a century ago, during her work as an Ohio teacher in her own pre-

college days' time, when she had been working, in that time, to assist the reform of those Kentucky "hill-billy blab schools" located in steep hill-sides occupied by the poor. There should be no mystery in the fact that President Obama is, in his practice, a mere puppet of the current British imperial Queen, a Queen who shows no sense of shame for her bragging of her efforts for rapidly reducing the human population of Planet Earth from the current (or, already declining, at last account) seven billions human beings, to an accelerated rate of early decline to about a single billion, and aimed toward a significantly lower amount—perhaps, all relevant factors considered, to none.

It is no coincidence, that that Queen's ostensible sycophant, President Barack Obama, should have shown himself to have been complicit in fostering the acceleration of the mass-murderous "green pestilence," which actually requires the reversing of an already accelerating collapse of the presently false standard of both morality and human subsistence, a reversal of that currently on-going campaign of destruction of human minds, a reversal of those currently destructive practices under such as the President Obama regime, a correction which would be required for the hope for the future of nations. The same effect is to be recognized as common among persons who profess such fraudulent opinions as: "Not for me; I am practical." The continued existence of the human species, demands the leadership of those who bring on revolutionary discoveries of universal principles in the domains of Classical artistic compositions and physical science.

For example, the allotting of the making of what passes for knowledge among leading circles of nations now, often leads presently in the direction of a collapse in the quality of life of societies, even a probability of extinction of the people of some nations, exactly as we in the trans-Atlantic regions are now threatened by the influence of the current policies of the British Queen's Anglo-Dutch policies of genocide.

Consider the following section of this present report; the following sections include, unavoidably, some modest points which I had made a short time ago, in a recent publication titled **Now Return To the Future**.⁶ The requirements of this present report's function, as a thesis-statement, demanded a modest amount of duplication in the following sections of this present report. The intent should be considered as speaking for itself.

^{6.} See footnote 4.



Hieronymus Bosch's The Conjurer (1520) shows the trap of reliance on sense perception. Note that the man in the left foreground, eyes focussed on the pearl in the magician's hand, is having his pocket picked.

II. Sense Deception

Remember that: Human sense-experience is chiefly divided between what, for one case, are merely ordinary "sense perceptions," such as what are literally those deductions which are to be contrasted to true discoveries of principle as such, principles whose true discoveries are not to be treated as if they were merely experienced deductions.

In the case of ordinary human communications, including ordinary sense-experiences as such, the message has been expressed as intended to be represented as a persisting trend of emphasis on "the literal content" of the communication as such, as a residue which is left to the audience to be treated as a merely literal intention of the communication itself, rather than being treated as reliable content as to the subject of actual ideas.

When the true subject of the communication were presented, effectively, as equivalent to the act of a dis-

covery of a true scientific, or equivalent principle, the subject-matter does not correspond to a simply "literal statement of intention;" it is, instead, now expressed as a discontinuity in the field of communications as such, intentions which must be "interpreted" as occurring in the ordinary communication, but that only as an intrusive discontinuity in the fields of ordinary conversational meanings.

Scientific methods and those of Classical subjects of experiences, must replace assignable forms of merely literal forms of commonplace "meanings."

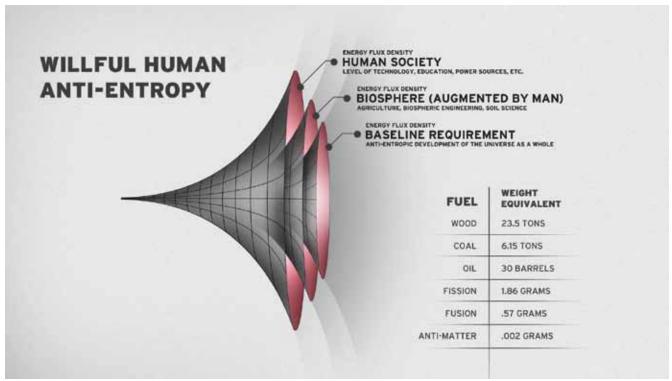
We may say, fairly, that statements rooted in ordinary sense-perceptual experiences (i.e., particular

"sense perceptions") are "merely" subjective perceptions in their nature; whereas, the assignable meanings of valid scientific principles, or, of Classical discontinuities specific to artistic compositions as such, can not be properly so treated. These, latter, so-called "nonlinear" cases must be treated as subjects in and of themselves, independently of simple sense-perceptual notions, as I now argue this in the following content of this present chapter.

The member of the human species had necessarily appeared to have begun life as a member of his, or her species in that category, apparently as if to be regarded as somewhat, but only as somewhat like an

^{7.} For example, truly Classical musical composition, as typified by the range from Johann Sebastian Bach, through to Johannes Brahms, is "non-linear." As a matter of contrasts: the compositions of Franz Liszt and Richard Wagner are premised upon essentially merely "linear meanings." Shakespeare's **King Henry V**, which features the role of "Chorus," falls into the same quality of category as the unique discoveries of principles by Johannes Kepler et al.

FIGURE 1



LaRouche PAC

"ape-man" intellectually; but, matters are actually shown, in due course, to have been obliged to be arranged and described otherwise. "He" or "she" had begun a life assessed, as known to some among us, as appearing to resemble that of a higher ape; but, the evidence of man as being no ape, was demonstrated, practically, probably early-on, on the evidence of the distinction of the human individual's unique use of forms, or equivalents of fire, the same notion of "man's use of fire" which has defined mankind as "no ape" ever since.

It should now be common knowledge of civilized modern societies, that, from that "whatever ancient" time, on, man's essential evolution has always remained as being man's changing relationship to a succession of ontologically higher orders of the quality of expressions of what we may term, categorically, as equivalent to "fire:" as "fire" is so defined from an overview of the chemistry of those rising states of relative energy-flux density, which, in turn, lead toward successive increases of relative physical-chemical modalities of man's use of the successively rising order of the categories of successive equivalents of "fire" (e.g., "the higher temperatures"). That now extended process of evolu-

tion of human society, has now brought our species up to, and into the use of thermonuclear fusion, that means which is now serving as the modality on which the necessarily required, present existence and future condition of mankind on this planet depends. The very notion of mankind's history, on this account, points toward a prospective future of what Albert Einstein had foreseen as a prospect for reaching to the foreseen prospect of the achievement of a condition of "matter/anti-matter" processes.

I now repeat, this time for the sake of properly needed emphasis: That the notion of a definition of difference defining the human species, as a species, is in accord with a sense of direction leading toward the implications of that notion which ranges from thermonuclear technologies, into a direction toward that of conceptions of a presently hypothesized notion of "matter/anti-matter" technologies. In the same sense of ordering, we note that the rising scale of human expression of energy-flux-density-driven rates of growth of the power, per-capita of the human species, is an ostensibly irreversible requirement for even the mere sustaining of the continued existence of that human species. It is that process of progressive change, upward, as a manifold



Viking Orbiter Raw Image Archive

conception, which must be preferred as the upward-turning, intended notion of the destiny of the human species, as we, on Earth, have known its experiences this far: as "the virtual law of the survival of mankind as a species." This body of what are simply truths, is directly the opposite to the demands of the sentiments of the current Queen, Elizabeth II of an "Anglo-Dutch" Britain.

That distinction follows from the known facts of the histories, not only those of mankind in general, but through a view of the specific varieties of expressions of the brutish intentions of past "great empires," empires such as those which have dominated vast arrays of even very numerous populations which have been kept as mere subjects of empires: cases such as that of ancient Rome, or of the assorted victims of the contemporary, implicitly globe-straddling, globally dominant, thoroughly wicked, Anglo-Dutch-Saudi imperium of the present time.

That, as a just-stated consideration by me, here, involves something more profound than the ordinary subject of oppressions of populations subjugated by empires.

NASA/JPL-Caltech/MSSS

Mars is a forbidding planet from the standpoint of human life there, under current circumstances, but our presence can be increased without physically going there, for the time being. Left: Mars' atmosphere, photographed from low orbit. Right: A photo of the base of Mount Sharp taken by the Curiosity rover, Aug. 23, 2012.

The Impact of Empires

The principal effect of empires, such as the case of the Anglo-Dutch "British" empire pres-

ently, is currently a trend toward the "virtual debriding" of the systemically human quality of intellectual conditions of life, as that depravity has been done by means of the suppression of truly scientific progress, a suppression brought about by imperial interests and their subordinate agents of imperialist systems, such as the brutishly vicious, Anglo-Dutch imperialist order afoot in most of the world of today. It is, after all, the progressive development of the noëtic intellectual powers of the human species, on which the so-called "sustainable" existence of our human species now depends.

The case of Africa today, properly considered, is paradigmatic on precisely this account: as respecting the actual principle of murderous evil to which mankind has been subjected among many, even most, of mankind as peoples. Meanwhile, the Anglo-Dutch empire's imposition of an inherently mass-murderous, and also a stupefying, lowering of the standard of efficient energy-flux density per-capita, is now being spread throughout even those nations which had, earlier, sought some significant increase of the productivity of mankind, but, have now been sent downwards into a present plunge which is nothing other than the same

mass-murderous practices of proposed population-reductions of humanity itself as demanded by, among others, the present Queen of England, Elizabeth II, herself.

The Mars Mission, for Example

The subject of thermonuclear fusion has been, practically, an available reality for no less than four decades. It is in that context itself, that we have been more recently provoked to consider the prospect of bringing Mars very much closer (in the sense of *practically*) in fact, and, also in effect, than by attempted methods needed for a presently meager prospect of a viable system of human space-travel.

Happily, the accomplishment of man-launched landings of functional apparatus on Mars (without man's own, accompanying actual travel to that destination), has been accomplished in principle; and, the mere acceleration of the process by means of thermonuclear modes, improves that condition, even crucially, but does not change it otherwise. Respecting the future of an introduction of mankind into Mars, or comparable cases, what may become appropriate in that direction for, possibly, the concluding quarter of this present century of ours, is not to be forced upon the agenda presently. Man is not to be spent wastefully, as by merely reductionists' fantasies, when precious, more urgent space-missions for mankind are urgently needed. As for Mars itself, the acceleration of the development of robotic and quasi-robotic programs there, or in comparable cases, should be emphasized as a practically urgent and expanding mission.

Therefore, we must be forewarned, that the idea of an actually human landing on Mars, has tended to have been much over-rated by commentators from recently current generations. It is exerting certain forms of influence on what mankind, operating from Earth, can do, directly, or indirectly, *on Mars for Earth's purposes*, which is, indeed, properly typical of an immediately crucial importance as priorities for man on Earth, at this present time.

Only a poor, amateur-ranking explorer could presume that man's attempts at directly controlling developments introduced to "relatively nearby" planets or asteroids, is seriously "science" for the present time. Specifically direct human landings for operations proposed to be personally conducted by man residing very briefly on Mars (as was, and is properly done for the Moon, briefly, for example) as an exceptionally employed standard of practice, may better be postponed

for a time much later in this century; in the meantime there are practicable ventures based on improvements in man-directed robotics delivered to Mars, as in the case of dealing with asteroids, which were more likely choices (practically) of assignments. Our Earth's Moon is obviously the uniquely appropriate meeting-place for defining a general program for developing an active interface between mankind and space-oriented robotics. Even the fact that the gravity on the surface of Mars is preferred to that on the Moon as such, does not supply a pretext for "pushing a manned Mars landing."

The most convenient illustration of that fact, is presented to us as the highly practical matter of the need of preventing an actual, or even merely partial destruction of human life on Earth from asteroid hits, a measure which would be prompted by preventing strikes of asteroids from within whatever might become our currently chosen belt for defense of Earth, or, also, for the Mars which is in the process of becoming "functionally" an increasingly important asset in participating in Earth's defense against such menaces as "asteroid attacks." Some threatening asteroids could be averted from that course; but that is not sufficient. The immediate object for our development of the controlled processes deposited for functioning in Mars, is the extending of mankind's various defenses of "colonized regions" within Earth's ever-widened choices of "neighborhoods" from within the Solar system.

Planning the Future in Space

I would propose that we estimate that the steps of count-down for man's probably future prospects for space projects within this present century, should divide the present century into lapsed-time spans of four "generations," each life so lived, to be defined as approximately twenty-five years of age: the twenty-five years' spans of individuals' personal lives, which would be required as representing the nominal requirement for producing a successful doctorate in physical science's ability to generate a matriculated specialist of the qualities of a matriculated professional participant in the tasks of "space engineering" by "earthlings" during the span of this present century. Contrast that consideration with the fact, that during the course of the present century, so far, the net rate of progress has become currently negative, and, so far, "accelerating" in that same miserable direction of "backwards." We might have hoped to have overthrown that trend before 2050 (if we are fortunate); but, only a project of the specific type I

have proposed as an example in this present report, would promise the kind of illustrations of results which I have indicated here.

The Problem with Sense-Perception

Take four actual ranges of cases which, inherently, properly warn properly well-educated people against notions of "self-evident" trust in sense-perception. In the meantime, if you prefer the enjoyment of pain, sense-perception is an efficient mode for your choice of practice. I think it highly relevant that we interrupt further discussion of the limits just stated, with a pause, that done in order that we might pause to consider the following, probably troublesome, but necessary argument:

Nonetheless, the mistake of regarding *mere sense*perception as a determinant of "truthfulness in general," appears to have always been, not only a virtually capital mistake in opinion for any design of human practice, but also merely a trick used to degrade the ignorant into submission to a virtual state of something threatening to become actual slavery: in other words, a state, sometimes named "common sense," which has been developed and sustained as being built as a captors' trap for the human species' own breed of incautious under-dogs.

But: Only the Fooled, Trust Sense-Perception

The attempted estimates for the usefulness of senseperception for the human individual's ordinary experience, suffer the drawback that that experience is merely a matter of sense-perception, "after all;" all the evidence in the world could never honestly present senseperception as being, honestly, the standard required for measuring the most crucial among the prospective facts which we must come to know.

Out of that concern, we must take into account cases such as that represented by Johann Sebastian Bach's **Preludes and Fugues**.

Let us begin this part of the discussion with a focus of attention on the related efforts of the great Renaissance leaders Filippo Brunelleschi and Cardinal Nicholas of Cusa, who were the predecessors of the most crucial role of the work of Johannes Kepler in the process of the founding of modern physical science. Note, with special emphasis, precedents including such as Brunelleschi's crafting of the Cathedral Dome of Florence, and Cusa's own thesis in that **De Docta Ignorantia** which had supplied the essential basis for Kepler's indispensable contributions to the founding of modern

physical science. Consider the particular importance of the contributions of Nicholas of Cusa and Kepler's crucial, but rarely comprehended interrelationship between his notions of *vicarious hypothesis* and the notion of *metaphor*, which I had treated here earlier in my June 10, **Nicholas of Cusa, Kepler & Shakespeare**. None of these three cases corresponds in principle, to common use of the forms associated with the ordinarily spoken language. On several occasions, I have emphasized the intrinsically "non-linear" characteristics of truly physical principles (except for purposes of relatively crude simplifications chosen as to be regarded as forced impositions of arbitrarily chosen, linear correlatives).

Take the subject of *Human Life*. Show me how you choose to measure the difference-in-principle, between what we call a state of life, and that which we call a state of death. How would you measure the action which generates that difference? Obviously, both cases correspond to an object which finds no linear measurement which could represent such a system of "connection." "Non-linear" fails as a term of action in such cases. The attempts to interpret those unique categories of merely description are intrinsically absurd when regarded as anything better than illustrations of the useful use of crude approximations. We are, therefore obliged, in such cases, to discard all attempts at merely linear definitions; yet, those phenomena are real as mere phenomena, whereas the popular expressions of "scientific description" are inherently absurd in fact. "Nonlinear" can not do justice to the actual conception to be considered: you cannot carry a "bucket of life," although the actual conception controls measurable actions which might be experience-able selections, as if in the domain of sense-perception.

There are hints at the solution for this apparent paradox: The attributed aphorisms of the ancient, Classical Greek Heraclitus, such as, water does not flow through the same river twice, are related to the still much-needed denunciation of the fraud perpetrated in the name of the hoaxster, Euclid. I explain the problem.

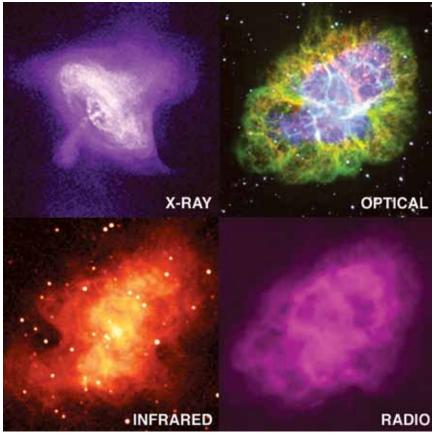
The Fraud of 'Euclid'

The fraudulent character of the radically reductionist form of dogma of the notorious Euclid, was clearly understood, and stated, in an appropriate fashion, among Christian and Jewish scholars most notably, during the time of the Roman Empire. The notion of a system based on slavery, has been a long-time characteristic of the slavery-based practices of oligarchical

rule, as in the Anglo-Dutch-Saudi system of virtual slavery practiced still today. Euclid and Aristotle, like Euclid, have been typical of the rabid irrationalism of systems of slavery or quasi-slavery through to the present time, as the Saudis exemplify such fraudulent "beliefs" still today.

The prevalence of such fraudulent systems of belief remains, still today. These are a hallmark of the practices of traditions associated with the deeply rooted traditions of systems of slavery which have been inherent in the existence of what is to be classified, still today, as "the oligarchical system," the same oligarchical fraud taught in schools today, which ancient Rome shares in common with the present world-wide empire known as the Anglo-Dutch (e.g., "British") empire of today.

It is necessary to examine that connection traced from the siege of Troy to the legacy of present systems of government from then, as reflected as echoes from the ancient past today.



Chandra X-ray Observatory Center

The Crab Nebula as "seen" by four different instrumentalities. No one dimension of the human sensorium can give a truthful image of this amazing celestial object.

III.

Not Only When, But Why Should Mankind Enter Solar Space?

Do not be foolishly misled any longer, by the delusions lurking in a continued belief that sense-perception is a basis for evidence of truth. Sense-perception has its practical uses, which are not to be disregarded, but, they are also only limited forms of usefulness for people whose minds as well as their mere bodies are confined to the experiencing of human life on Earth. Once man attempts to define life as man "normally" experiences it, but also works to define man's existence in terms of the Solar system beyond, the amateur inside the person tends to reject, even with desperation, what he, or she, tends to regard as "impossible," and to cling to that popular myth with the desperation of a person misled into virtually religious worship of a "certainty of sense-perception for its own sake."

Even some significant students of science fall into the same illusion with a certain degree of frenzy. Consider, for example, the large ration of even students of physical sciences who will tend to rely on sense-perception as their choice of a standard for measure of relations of gravity in "empty space." The root of the problem, in such cases, is the consolations of believing that sense-perception within the bounds of Earth's habitations is the "yardstick" for "measuring" existence within the fields of gravity which they "feel," or even "smell," that they have experienced here on Earth. We must insist, instead of such misguided "certainties," that everything on Earth and within the Solar system, or the galaxy, and so on, is the container of what is possibly true even on Earth.

The only true universal knowable by mankind is the universality of all that which contains human life on Earth. Contrary views exist, but, in the greater span of things which matter, they are only childish fancies to be outgrown in the course of any true progress of mankind, either on, or beyond Earth. In other words, persons who believe in simple certainties respecting existence on Earth, can not be permitted to claim to set

standards for that which affects life on Earth.

The source of that folly which I have just identified, is not inherent in the human species as such, but is mostly in the nature of a foolish sort of religious belief which would be spurned by the actual Creator. On that account, the Christian Testament were a better approach to science than that of the pitiable so-called "practical atheist." The nearest of the relatively widespread insights in the proper direction, is the attitude of devotion to what can be actually discovered of "the forces of nature" which mankind on Earth can experience from closer experimental approaches to discovering how the Solar system reacts to the existence of mankind on Earth. The zest for such knowledge, is typified by that of Nicholas of Cusa and his follower Johannes Kepler, in their role as introducing the foundations of a competent modern science in spite of the legacy of Cusa's enemies, such as the reductionist school of fools such as silly Isaac Newton and the Anglo-Dutch successors of the purely evil rulers of the Roman Empire.

It was Cusa's commitment to a society beyond the great oceans outside of Europe, which created what became the United States, and which continues the resistance against the evil influences which have dominated such regions as those toward which Nicholas of Cusa had aimed in creating the foundations of the development of an anti-oligarchical system, opposed to that which still dominates imperialism-ruled Europe.

The search for the future existing in our Solar system, and beyond, is the search for truth existing in the universe, as much as on Earth otherwise. The true heroes, and also, I think all true scientists, poets, and Classical musical composers, qualify in common as the immediately manifest potentials of the role which we know, from our experience of discoveries, as the truth which we are seeking when we reach out to the experience of the Solar system, beyond. It is the seeking of the truth, despite all actual or would-be empires, which is the only source of truth concerning our universe.

In all that I have composed respecting such matters, it is this view, which I have just emphasized here, which is the only source of truth to be known by mankind through the broadening of our own experience of the universe thus far. When we, like fools, rely upon habits of man's common experience of sense-perception as such as a test of validities, we have often brought our own destruction upon us. Truth lies in its search for its own identity.

That which I have just prescribed here, must now

replace those so-called traditions of imperialism and its likeness, which are presently centered in the oligarchical principle of the "British," and also "brutish," Anglo-Dutch-Saudi empire which is ruining the life of human-kind, and threatens even worse, on this planet now.

For Example:

The history of mankind's existence as what we might recognize as mankind, is finite in respect to known practice. We are a unique species, unique because we express—at least some among us—a commitment to what we regard as the humanity which is defined uniquely by the capacity to foresee the existence of the actual future.

We, for precisely that reason, are distinguished, essentially, from all other presently known cases this far, as having been living species of that specific distinction. However, within that just-stated context, we share an always relative future, so far, of those who worked toward the goal of bringing such progress about, as I have done, this far, in approaching, sooner or later, the end of this experience. In the meanwhile, I must still presently seek, not so much to have realized available steps of future progress, the which I have, plainly, done, but to live as having been devoted, as if relentlessly, to certain changes for the better in the specific category of an eternity of human progress—whatever human progress may turn out to have been in various stages of a continuing purpose.

The essential change which I must emphasize here and now, is that. On that account, I emphasized the future, as in those terms, rather than seeking the rewards in pleasure this side of the future of mankind. My essential motive has been that, and will probably continue for as long as my faculties and passions might continue to exist. That—precisely that!—is the proper expression of living an appropriately human life. There is no death in such matters, only a continuation of that progress on which the meaning of human life, of everyone, should hopefully depend.

We now hover so, on the threat of, or escape from the terrible consequence which some presently ruling nations might, or might not bring down, now, upon themselves.

More could be said, but looking at the possible future, as I have indicated here, above, must be recognized as a continuing devotion to the process of reaching out from our earthly habitat, into those wonderful moments which I have already experienced, this far.