In Defense of Strategy

by Lyndon H. LaRouche, Jr.

The following are excerpts from an article published in 21st Century Science & Technology*, Summer 2000. We have selected sections which emphasize the economic benefits, to the United States as well as other nations, of the cultural transformation that a Strategic Defense Initiative—conceived as LaRouche conceives it—would bring. Footnotes have been renumbered.*

U.S. President Bill Clinton's recent proposals on missile defense, were delivered in Moscow slightly more than seventeen years after the March 23, 1983, announcement of the Strategic Defense Initiative (SDI). I focus upon certain crucial, current strategic issues of physical science posed by those U.S. proposals.

For reasons I shall explain, I shall relegate the core of my treatment of those scientific issues, to the closing portion of this report. I must first situate those issues of science itself, that at some unavoidable length, within the relevant political-strategic domain: *the form of strategic defense specific to the need to preserve the institution of the modern sovereign nation-state.*

If we limit attention to the appearance presented by the list of usual suspects from the precincts of the New York Council on Foreign Relations, the current crop of putative leading U.S. professional strategists, might be judged, as a whole, as worse than merely incompetent, even seemingly mentally and morally deranged. Fortunately, contrary to that general appearance, we should recognize, from other evidence, that the general situation is not quite that disastrous—not yet!

Behind the scenes, usually overlooked in the accounts of the leading news media, there are, among leading military and other professionals, significant numbers, in the U.S.A. and other nations, who, aside from their accustomed lack of willingness to risk taking controversial leading positions on the public record, can not only think, but are otherwise sane, essentially well-informed, morally sound, and competent, at least within the bounds of their areas of specialization. The related fact is, that on evidence of performance, the leading news media currently prefer to mislead public opinion into believing that such a relatively less known stratum of competence, with its morality, and its opinion, does not exist.

Despite the false appearances created by government and the major media, the good news, which I wish to convey here, is, that were we to supply our less-heralded, competent specialists with the quality of leadership they require, leaders in the tradition of Abraham Lincoln or Franklin Roosevelt, the world has the chance—if no more than a good chance—to pull together the team needed to solve the most deadly threats menacing us now, thus to survive the present, global, economic and strategic crisis. . . .

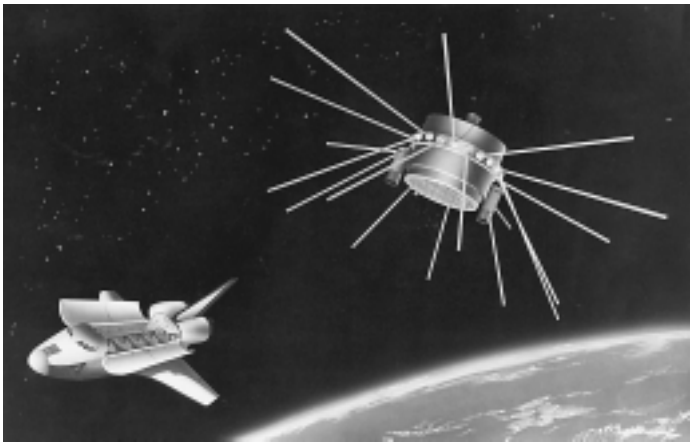
Physical Economy Was Crucial

The crucial test of validity of a proposed strategic ballistic missile defense, had to be based on those principles of physical economy which are banned from all those classrooms which are devoted to apologies for so-called "free trade" doctrines, systems analysis, and so on. The test of the validity of any proposed such defense was: *Is the effective cost of producing and deploying countermeasures less than that of expanding the assault against the "defensive screen"—supersaturating the defense?* This is not, as some misguided fellows proposed, a matter of financial accounting; it is the type of problem of policy-shaping which can be competently addressed only within the province of a science of physical economy.

Therefore, the definition of physical space-time curvature applicable to this problem, can not be situated competently within the narrower phase-space of physics as ordinarily defined in today's classroom. The definition of curvature must be situated within the domain of physical economy as such.

A crucial point must be stated again, at this specific juncture.

Many of the most important problems of policy confronting mankind, reflect the popular delusion, that living processes are, in the worst view of this matter, epiphenomena of physical processes, as today's conventional mathematical physics usually views this topic. In other words, the currently conventional doctrine is, that, ultimately, we must justify the existence of life at the blackboard, so to speak. This means, to advocates of that view, that we must discover the mechanisms by which living processes are generated entirely from non-living ones. The analogy is the increasing popular, tabloid-style delusion, that digital computer techniques are leading to the replacement of the human individual by robots with "artificial intelligence."



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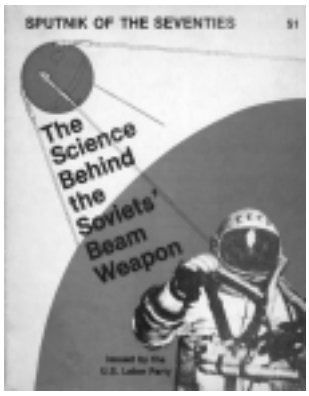

Left: Artist's depiction of an X-ray laser in space, a beam defense weapon based on new physical principles. Center: a 1982 pamphlet on beam weapons authored by LaRouche and (right) a 1977 pamphlet put out under LaRouche's guidance, "The Science Behind the Soviets' Beam Weapon."

One contrary view, the Classical Greek view adopted in a modern form by Vernadsky, is the so-called *hylozoic* view: that the universe already contained a principle of life from the outset, as from whatever might be assumed to be "the beginning," and that non-living processes are, in effect, subsumed by those superior, more universal processes, which correspond to the general characteristic of living organisms.[1]

It was the central feature of my original discoveries, decades ago, that I had taken this same issue a step further. The fact, that only the human species, among living species, is capable of willfully increasing its potential relative population-density, places living processes categorically into relatively the same position, relative to human cognition, in which the hylozoic view places non-living processes. The fact, that whereas mankind obeys the universe's known laws, in one case, but is also able to command the universe to change its lawful response to human intervention, as through validation of newly discovered universal principles, indicates, that cognition is not an epiphenomenon of living processes in general, but is a functionally higher, therefore more elementary form of existence, than merely living processes as such. (That is, of course, to put this profoundly important point of all scientific method, in terms as relatively simple as possible, but not in error.)[2]

By the standards of experimental method, this higher function of cognition can be conclusively demonstrated in but one way: within the domain of the science of physical economy. Thus, it was necessary to pose the issues of ballistic missile defense within the relevant terms of that science.[3]

The answer provided by this approach produced answers on two successively higher levels.

On the relatively lower, simpler level, the question took two forms of successive approximation. Can the method elected for proposing to neutralize a ballistic missile salvo, effectively "kill" the warhead's function more cheaply, as measured in physical-economic terms, than the cost of deploying increments of the attacking system, that latter in the effort to overwhelm ("supersaturate") the defense? Second, we must also factor in the effects ("cost"—human and other losses) of every failure to prevent an attacking warhead from completing the function assigned to its mission.

On the relatively higher level, I shifted the emphasis, to the impact of the ongoing process of continued, evolutionary development of the respective attacking and defensive systems. That aspect of the study became meaningful, if and when we abandoned the proposal to develop a fixed design of defense, in favor of a "crash program" of forced-draft, successive scientific discovery of principles. In this latter case, the "spill-over effect," from experimental validation of *a continuing generation of newly discovered physical principles,* reached, relatively soon, a level at which the superiority of the defense would emerge as absolute.

Why should the Soviet Union have accepted that proposition, as stated to it, by me, during the period of approximately a year of U.S.-Soviet back-channel discussions, between February 1982 and February 1983? My point was, that on the condition that the United States and others viewed such a process of rendering MAD obsolete, as a science-driver for

1. Hence the axiomatic differences in definition of physical principles as such, among biophysicists such as Chicago's Rashevsky, Russia's Oparin, and Vernadsky.

2. This agrees with strong Christian theology, but, having noted that fact so, we may move on.

3. This means that the physical universe, otherwise defined, is axiomatically a sub-phase-space of the inclusive, higher, living domain, and that that living domain is a sub-phase-space of the cognitive domain.

raising the standard of productivity and physical income in and among the developing nations, through spill-overs of technological by-products, both the U.S. and Soviet economy, among others, would undergo a revolutionary technological upshift in their internal technological composition of employment, production, and related foreign trade.

In other words, the benefits to the people and economy of the Soviet Union, would include a unique solution for an increasingly deadly internal problem of physical economy which that state was otherwise unlikely to overcome. *Peace must always be conceived as of great advantage to each and all among the participating nations.* The advantage from the non-military, spill-over features of SDI, as originally proposed, would have been earth-shaking, and would not become available in any other available way.

The only influence which could effectively prevent the thermonuclear missiles from flying, would be the overriding common interest in the benefits of cooperation in such a program for effectively freeing mankind from the continued threat of MAD. We would, in due course, reach the break-even point, at which new systems of defense would be able to overwhelm the threat of MAD. However, it was my expressed belief then, as now, that the shift of relations among the nations of NATO and the Warsaw Pact, by replacing the institutions of MAD established since approximately 1962-1963, would generate a political-economic factor which would prevent nuclear warfare, by uprooting the issues which might prompt it, and that this happier state of affairs would be already in effect years before the desired mode of strategic ballistic missile defense had been perfected.

This confidence is reenforced in an elementary way, by noting that the British monarchy's motive for orchestrating what became World War I, was to set the 1877-1901 admirers and partners of the Lincoln-Carey American System at one another's throat. It was a war, launched by the British monarchy, to prevent a global coalition of Eurasian and Americas admirers of that Lincoln-Carey model, from becoming the securely hegemonic determinant of general relations among the peoples of the world. The British monarchy acted to organize World War I, because, had it not succeeded in causing that war to occur in that way, the impact of the American System would have led, as President Franklin Roosevelt had later intended, to eradicate the last vestiges of Portuguese, Dutch, British, and French imperialism from this planet.

The style of American republican model associated with the Lincoln Whig legacy, was and is, the historically defined, model precondition for realizing a general exit of the planet to peace under conditions of modern times. The additional reason for this optimistic view is supplied at a later point, below.

Look at this same matter of physical economy, from the standard of the fanatical faith which a typical dupe of Galileo's empiricism, applies to the notion of laws operating within a physical universe which is everywhere assumed to be simply Euclidean in its fixed (*a priori*—"ivory tower") definitions of space and time. The misguided, anti-Leibniz fanatic Leonhard Euler, for example, looked at the universe in this pathetic, empiricist's way. In such an imaginary universe as that of the empiricists, the universe is run under the regulation of fixed laws, governing both percussive interactions, and also action at a distance. In such an empiricist's perverted state of mind, the definitions of both "action" and of "physical laws" are congruently misdefined in common.

However, once we recognize that a valid discovery of a new universal physical principle, changes the curvature of our action within the universe, as such curvature defines "action," we must assign an entirely new meaning to not only the term "action," but also the connotations of the term "physical law."

Most elementary: since it is only through the valid discoveries of universal physical principle, that mankind is able to change his species' relationship to the physical universe, it is only the manifestly successful such qualitative—for example, Riemannian—changes which can be regarded as *efficiently* expressing universal physical laws.[4] It is only those forms of action, which define a new such conception of a manifold of such laws, which deserve the name of *action.* As I have emphasized above, the nature of human existence requires, that the measurement of that action, that change of curvature, must be located in the terms of physical economy.

The notion of physical lawfulness then becomes the following. From this vantage-point, discoveries of universal physical principle cease to be regarded as isolated individual discoveries. Instead, we must proceed in a way specifically contrary to the central sophistry of Kant's series of *Critiques.* From close examination of the way in which students, as in a well-arranged Classical-humanist education, re-experience, successively, original acts of past discoveries of validated universal physical principles, we should become aware of the existence of an attainable, well-defined, "synthetic" method of cognitive action, which underlies such an ordering of successive educational and analogous experiences. Directly contrary to the avowed enemy of truthfulness, Immanuel Kant, for example, we recognize that such qualities of education bring forth in the student a qualified cognitive, "synthetic-geometric," rather than deductive, "algebraic," way of thinking about the way in which successive such discoveries of universal principle are ordered with respect to one another.[5]

What makes a truly creative scientist, for example, is not

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4. This signifies an ontological definition of "change," a definition consistent with both the famous aphorism of Heraclitus, and the crucial ontological paradox of Plato's ***Parmenides*** dialogue.

5. "Synthetic geometry," as employed in connection with Gauss's work on the notions of general principles of curvature, and Riemannian geometry, has the connotations of "anti-Euclidean geometry," rather than "non-Euclidean," as this distinction was emphasized by Gauss's teacher Kästner. This is, of course, closely related to the work of Gaspard Monge, as well as Riemann's geometry teacher Jakob Steiner.

the accumulation of what he or she has learned. Rather, our concern should be, not what has he learned, but what will he be able to discover when faced with the challenge of the unknown? In other words, by taking this approach, the issue is transformed from the simplistic notion of valid individual discoveries of principle, to the discovery and mastery of a reliable "synthetic" method for generating an ensuing series of valid discoveries of new universal principles. This "synthetic" method is a method of "change," in the ontological sense of the use of the notion of "change" by both Heraclitus and in Plato's ***Parmenides.*** For which of two different qualities of such graduates, the pedantic formalist (Kantian) or the cognitive thinker, such as Leonardo, Kepler, Leibniz, Gauss, Wilhelm Weber, and Riemann, would you choose to employ a person to solve the need for a yet-undiscovered universal physical principle?[6]

It is the same in matters of education in Classical artistic composition and performance. A recent set of conference presentations on the subject of the method of composition represented by J.S. Bach's ***The Art of the Fugue,*** is appropriate reference.[7] It is by reliving the discoveries of principle, as these permeate and underlie the compositions of the greatest Classical composers, notably Bach and such successors as Haydn, Mozart, Beethoven, et al., that, through years of maturing experience, the greatest performers move closer to the ability to replicate the intent embedded within such works.

Thus, rather than interpreting the notes of the score, they perform that music for which the score serves merely as a mnemonic device for the aid of the literate musician. It is not simply a matter of getting the notes right, in a pedant's sense of the matter; it is a matter of discovering the ideas lurking among the lawful contrapuntal "dissonances"—the Classical metaphors—of the heard chorus of polyphony. It is a matter of hearing the ideas which are there, but would be otherwise lost from the performance, without breaking free of the stultifying habits of feigned, grumpy "seriousness" of all entrenched overtone-eavesdroppers and kindred Romantic formalists.

These Classical, cognitive approaches, define the specifically anti-Kantian, anti-empiricist, Classical humanist methods in science and art, the same methods of education employed, in combination, for competent education in history, and in military science as other arts of statecraft. What such methods accomplish, is a relatively high rate of cultivation of those creative (non-deductive, cognitive) powers of mind, by means of which validatable original discoveries of universal principle are fostered within the affected population.

These methods of study and education typify the method of education and general practice appropriate for a society with a mission-orientation toward scientific and related progress. The more immediate military implication of such a mission-orientation, is that such a society has a relatively high rate of potential for being mobilized for great, even perilous, but often successful, otherwise impossible undertakings.

My emphasis on the proper definitions of "action" and "physical law" here, is to be considered as a way of conceptualizing the development of such a mission-orientation potential. This itself, is a crucial military-strategic potential, under appropriate circumstances; it is also the standpoint from which to conceptualize the principle underlying what President Reagan presented as an SDI task-orientation, in his March 23, 1983, address.

Ironically, but not accidentally, this deep and fundamental philosophical difference between my Leibnizian use of the term *action,* and Bertrand Russell's fanatically empiricist misdefinition of the same term, is classic.

Russell's Mind in the Very Small

By his nature, Bertrand Russell, for example, would have denied, with the kind of hysteria typical of him, even the scientific possibility of what President Reagan introduced as SDI. Russell would have shuddered with nervous embarrassment at the crude 1976-1983 anti-SDI ravings of the former U.S. Defense Intelligence Agency (DIA) chief, the Heritage Foundation's Lt. Gen. (ret.) Daniel Graham; but the gist of their arguments was common.[8] The so-called scientific issue was Russell's hysterical defense of his thesis, that physics could and must be created by formalist mathematicians, as if at the blackboard, the same view adopted—variously, explicitly or implicitly—by such Russell devotees and hoaxsters as information theory's Norbert Wiener and systems analysis's John von Neumann.[9] If we discount the crude defense-contractor-style greed permeating Graham's rhetoric, the whole crew of the defenders of the notion of "the exclusive primacy

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6. The difference between the pedant and the creative personality is most commonly expressed as the latter's wont for a certain, almost compulsive type of playfulness. This playfulness, expressed in a cognitive form, is the mode of human individual creativity. Thus, stodgy "professionalism" often proves to be a cloak of relative intellectual sterility.

7. The referenced speeches from the Bad Schwalbach, Germany conference of the Schiller Institute will in upcoming issues of ***Executive Intelligence Review*** [June 2, 9, 16, and 23, 2000].

8. Graham had opposed the idea of a ballistic missile defense based on new physical principles already during the mid-1970s. Later, during the summer of 1982, he launched a nationwide campaign of personal venom against me, and then also against Dr. Edward Teller, on this same matter. After President Reagan's announcement of SDI, Graham switched positions, pretended to support SDI, on the condition that it be limited to simplistic "kinematic" systems which could be purchased off the shelf of existing Wall Street-owned defense contractors. Graham's role was key in turning the SDI program into a double-dipper's boondoggle.

9. Both Wiener and von Neumann were expelled from David Hilbert's Göttingen University on charges ranging from incompetence to fraud. In von Neumann's case, there was a charge of plagiarism involved, but the scientific issues of the expulsion involved Wiener's and von Neumann's stubbornly fanatical adherence to the radical conceptions and method they had adopted under Russell's influence.

MIT

Mind in the very small: Empiricist Norbert Wiener here studies the record of his own brain waves, emerging from a newly developed "auto-correlator" computer in 1955.

of kinetic interception," can be efficiently characterized as impassioned foes of the very idea of the existence of those creative powers of mind—those powers of ontological "change"—by means of which validatable new discoveries of universal physical principle are generated.

In other words, the common stand of the empiricists, was their insistence that, axiomatically, there is no quality of the human individual which sets our species apart from and above the beasts. They insisted, that no physical principle could exist which could not, and should not be constructed, by deductive methods, at the blackboard—or, as so-called virtual reality, on today's digital computer. Russell's, Wiener's, and von Neumann's argument to this effect, can be reduced to Russell's insistence that nothing existed in this universe which could not be explained, if but ultimately, as the product of a universe which is "Euclidean in the very small." That was Wiener's axiomatic premise for "information theory," and von Neuman's for his hatred against Kurt Gödel's 1930 demolition of the central thesis of Russell's ***Principia Mathematica.***[10]

In the history of today's globally extended European civilization, the issue of this quarrel with impassioned hoaxsters like Russell, is very old. Take the case of Plato's ***Timaeus,*** for example.

Not only had Plato's Academy at Athens shown, that only five fully regular solids could be generated by action within a spherical universe. The fact that the Golden Section so determined, is characteristic of living processes, pointed, inclusively, to the fact, that a universe containing living processes could not be "Euclidean in the very small."[11]

This argument formed the kernel of the founding of modern experimental physical science, by Nicholas of Cusa and his successors Luca Pacioli and Leonardo da Vinci. The same conception was central to the founding and initial development of astrophysics by Johannes Kepler. The work of Fermat, in discovering a principle of least time, rather than least distance, underlying the refraction of light, led to the work of Huyghens and Leibniz on light, isochronism, and Leibniz's principle of universal least action.

The work of Abraham Kästner's pupil Carl Gauss, in proving Kepler's thesis for a missing planet located between Mars and Jupiter, and the refutations of Newton by Fresnel, Arago, and Ampère, among others, pointed to the mounting evidence, that not only was it impossible to derive universal physical principles by deductive methods at the blackboard, but, as Riemann insisted, that it is mathematics which must adapt itself to experimental physics, rather than the other way around.[12]

Despite this evidence, various mathematicians, including Helmholtz, Rayleigh, and Russell, insisted, that physical principles must be implicitly derivable at the blackboard, that according to the arbitrary, "ivory tower" assumption, that the universe is "Euclidean in the very small." All of the products of Russell's devious mind, like those of his devotees, are reducible to a mentality which is itself "Euclidean in the very small." Indeed, in all of his published writings on science and mathematics, Russell himself, like his acolytes Wiener and von Neumann, insisted on that point.[13]

The deductive-inductive method of all empiricists, Russell notably, is based implicitly upon the fatally vulnerable presumption, that existence is limited, in effect, to objects which are, in and of themselves, echoes of human sense-

10. See Kurt Gödel's 1930-1931 works "On Formally Undecidable Propositions of *Principia Mathematica* and Related Systems" and *Discussion on Providing a Foundation for Mathematics,* ***Collected Works,*** Vol. I (New York: Oxford University Press, 1986). This is also the formal axiomatic presumption underlying the interrelated, currently popular lunacies of "artificial intelligence" and "information economy." Axiomatically, both fads depend upon blind faith in the dogma that the physical universe is mathematically Euclidean in the infinitesimally small.

11. Note, respecting the account of these solids within ***Euclid's Elements,*** that Euclidean geometry itself was created by the mind of a living creature.

12. *Op. cit.*

13. Sometimes, after the publication of his ***Principia Mathematica,*** Russell made evasive concessions to physicists on the matter of Leibniz's notion of an *Analysis Situs* existing in physical reality outside the domain of mathematical analysis, but never actually confessed his own error on this point.

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H.G. Wells, shown with some stills from his 1936 film "Things to Come," which portrays a future world at war. The world is later rescued by the "Great Air Dictator," who arrives from the "World Council" at Basra to demand an end to national sovereignty and submission to the international force.

perception.

As Galileo's mathematics pupil Thomas Hobbes emphasized, in his proposal to ban the existence of metaphor, the dogma of the empiricist does not wear well when compared with what is, in fact, human experience as a whole. Hence, Hobbes proposed to outlaw metaphor, thus to suppress the evidence that such uncomfortable ontological paradoxes existed.

There are certain kinds of experiences, whose efficient existence can not be denied, but which reflect conditions which do not conform to the empiricists' and materialists' definitions of sense-phenomena as such. Such troublesome evidence includes the non-trivial distinction between living and dead persons, the subtleties of astronomy,[14] and those controllable processes, reaching even beyond the microscope, which, by their nature, are beyond the direct reach of the senses. It is not sense-perceptions as such which define reality, but rather the power of the mind to impose willful choices of new orderings upon the domain reflected by sense-perception, especially as the new orderings represent the validation of a discovered universal physical principle. Man's certainty of knowledge lies not in his observation of nature, but his increase of his power to master it.

Most important of all, are experimentally validatable conceptions generated by individual cognition, cognition being a process lying entirely beyond the control of mere deductive operations. Hence, the empiricist's efforts either to ban metaphor, or to degrade it to the intellectually inert quality of mere symbol-mindedness.

Despite those pro-empiricist hysterics by both the empiricists and the Kantians, the evidence is, that validatable new discoveries of universal physical principles do occur, as willful productions of individual human cognitive processes. I think it important to repeat the point, that, as Riemann insisted upon the implications of Leibniz's and Gauss's discoveries, in Riemann's 1854 habilitation dissertation, and in his additional work on Leibniz's (and Abel's) posing of the challenge of *Analysis Situs,* it is deductive mathematics which must adapt itself to the implications of such experimental demonstrations, not the other way around.[15]

At root, on this point, the source of energy expressed in the hysterical outbursts by Russell and such devotees as Wiener and von Neumann, lies not within the practice of science, but, rather, as Wiener emphasized in his ***The Human Use of Human Beings,***[16] the insistence that the definition of

14. For example, the altogether anomalous Crab Nebula and its apparent role as the source of Earth's receipt of cosmic-ray showers.

15. *Op. cit.*

16. Norbert Wiener, ***The Human Use of Human Beings*** (Boston: Houghton Mifflin Co., 1950).

science must be limited by the view adopted by the oligarch and his lackeys, that the purpose of science is to assist in managing the generality of the human herd in the same sense that a farmer breeds, uses, and culls herds of cattle. The idea that mere "human cattle," the mere subjects of oligarchical rule over the human herd, might have a quality which sets each person above the beasts, is anathema to an oligarch such as Russell, or mere oligarch's lackeys: such Leporellos as H.G. Wells, Wiener, or von Neumann. H.G. Wells' 1896 ***The Island of Dr. Moreau,*** already typfies that lackey's view of humanity in general which he continues to the end of his miserable life.[17] The promotion of psychedelic practices by such Theosophy-linked cronies of Aleister Crowley, H.G. Wells, and Russell, as Aldous Huxley, and the related role of the circles of Russell acolytes Gregory Bateson and Margaret Mead, typifies this satanic view of people as merely human cattle.

The question is: *is humanity created to exert dominion within, and over the universe, or, on the contrary, as Adam Smith argues, is man assigned a more modest place, the administration of the many human cattle by the few?*[18] Russell's 1931 and 1951 published utterances on policies for culling the undesirably intelligent specimens of the lower common herd, are blatant, and express exactly the root of Mrs. [Madeleine] Albright's pro-genocidal policies toward sub-Sahara Africa and elsewhere.[19]

Once we take into account the fact that the universe is obliged to obey commands expressed as validatable discoveries of universal physical principles, the significance of the distinction in definition of the two qualities of action comes more clearly into view. The cognitive *action* which enables man to increase our species' power in and over the universe, through discovery of a new universal principle (for example, Leibniz's principle of universal least action), is to be distinguished from the lower quality of *action* expressed by applying previously established principles as if mechanically, deductively. The latter expresses the curvature of physical space-time in terms of a deductive view of previously known universal principles; the former represents the action of generating a new principle, resulting in a change in the effective physical-space-time curvature *within our action upon* the universe.

Consider the March 23, 1983, SDI announcement in these terms. *In terms of the principle of the flank, as viewed from this higher standpoint, can the discovery of an unending series of new universal physical principles, enable us to attack the essential principles of strategic thermonuclear ballistic salvoes from the flank of a higher order of physical space-time?*

Such questions typify the difference between mere rhyme and metaphor-driven Classical poetry, the difference between a silly Rameau and a genius such as J.S. Bach. Such, as a matter of cognitive principle, was the difference between the Roman generals commanding a physically superior military force against Hannibal, at Cannae, and Hannibal's virtual obliteration of the Roman force by his double-flanking assault, or, the way in which Frederick the Great, with vastly inferior numbers, doubly outflanked an attempted double-flanking operation by the Austrians at Leuthen. Hannibal, as Frederick at Leuthen, outflanked the minds of the opposing commanders.

In the case of my proposal for the SDI, our flanking attack, for which Reagan and I sought the cooperation of the Soviet leadership, was against the scientific bankrutpcy of Bertrand Russell and his world-government policy. Our proposed line of march—our action—was, like Hannibal's double-flanking of the foolish, ram-like deployment of the doomed Roman forces, through dimensions of physical space-time which our adversary, Russell and his accomplices, could not bring themselves to admit existed.

To summarize the crucial point made thus far:

The action by means of which the human species is enabled to increase its potential relative population-density willfully, is the higher form of action, that corresponding to Leibniz's notion of a universal principle of least action. This notion is specifically distinct from the action taken according to a preexisting manifold: cognitive actions, as distinct from, and superior to action according to a deductive form.

In this view of the subject-matter of physical science, the principal features of universal action are, in descending order, first, the cognitive powers of action associated with the human mind; second, the superiority of the principle of living processes over the non-living (as Vernadsky argued for this); third, and lowest in rank, non-living processes. The cognitive power of the human mind, is the only means by which man is enabled to cause the universe to submit increasingly to the human will. Thus, there, in cognition, lies the highest known expression of lawfulness. For reasons ably identified by Vernadsky, the universe of living creatures is, as some notable ancient Greeks insisted, *hylozoic.* It is a universe in which the principle of life reigns over non-living processes, rather than being an epiphenomenon of non-living processes. The evidence on these accounts, is elementary; only self-blinding hysteria, such as empiricism, denies such evidence.

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17. New York: Berkley Publishing Co., 1973.

18. Adam Smith, ***The Theory of the Moral Sentiments*** (1759).

19. See, for example, Bertrand Russell, ***The Prospects of Industrial Civilization*** (London: George Allen & Unwin, 1923), p. 273:

"Socialism, especially international socialism, is only possible as a stable system if the population is stationary or nearly so. A slow increase might be coped with by improvement in agricultural methods, but a rapid increase must in the end reduce the whole population to penury, . . . the white population of the world will soon cease to increase. The Asiatic races will be longer, and the negroes still longer, before their birth rate falls sufficiently to make their numbers stable without help of war and pestilence. . . . Until that happens, the benefits aimed at by socialism can only be partially realized, and the less prolific races will have to defend themselves against the more prolific by methods which are disgusting even if they are necessary."

See also, Bertrand Russell, ***The Impact of Science on Society*** (New York: Simon and Schuster, 1953), pp. 102-104.

In this configuration, what we are accustomed to regard as physical science, corresponds to those forms of universal action corresponding to validatable universal physical principles: man's mastery over nature, as implicitly measurable in demographic characteristics of populations, per capita and per square kilometer of the Earth's surface.

However, in order to share and apply this knowledge, we must bring the individual cognitive processes of the members of society to that degree of development of socialized cognitive relations, that the cognitive processes of discovery of principle are themselves efficiently engaged as the primary form of social relations. This condition can be realized only through those modes of cognitive relations associated with Classical forms of artistic composition, and with those studies of the principles of history and statecraft which are, in fact, the natural extensions of valid forms of Classical artistic composition and performance.

3. The Legitimate Object of War

It used to be elementary competency in the training of modern civilization's higher military ranks, as typified by General Douglas MacArthur, that the object of warfare, is to produce and offer to one's opponent the circumstances in which his own moral conception of his self-interest efficiently requires him to cease war-fighting. Such, as I have already stated, once again, in this report, were among the crucial lessons which modern, pre-Versailles Treaty Europe had learned from the 1648 Treaty of Westphalia. Such had been, earlier, the practical implication of the Augustinian principle of justified warfare.

However, there has never been a known instance of a durable application of this principle under any form of society corresponding to what "globalization" represented under the ancient Babylonian and Roman empires, European feudalism, or a region of the world under the hegemony of the Anglo-Dutch imperial model of modern financier-oligarchical rule, up to the present time.

Therefore, it is the proper leading concern of the strategist, to ask himself: Under what conditions, is there no likelihood of willingness on the side of the attacker, to relent, or his target to submit? Such expressed conditions, either in a distinctly military form, or otherwise, are the circumstances under which the existing society will probably destroy itself through either continuing or recurring warfare, rather than that the war be concluded by that society.

Such were the perpetual wars of the successive dynasties of ancient Mesopotamia, the Roman Empire, European feudalism, the lunatic prolongation of the U.S. war in Indochina, the continuing genocidal warfare against the people of Iraq, and the contemptible folly of Tony Blair's and Madeleine Albright's—in fact—continuing warfare against the Balkans as a whole. Such is the implied outcome of the present strategic and related "globalist" dogmas and strategies of the currently reigning Anglo-American power.

On the one side, the fact that the object of warfare should be an early exit to a durable peace, should be clear to any rational, literate, and intelligent person, especially to those who have studied the history of such matters. The evidence, that powerful civilizations, such as those of Mesopotamia and Rome, have preferred to destroy themselves, and much of mankind as well, rather than enjoy available benefits of peace, poses the kind of issue of strategic policy-making which is of the utmost, overriding importance today. *Pax Romana* always meant endless war, as long as that policy persisted. Comparing those cases to the way in which Alexander the Great established, so suddenly, a new system, ending the millennial nightmare of chronic warfare specific to Mesopotamian imperialism, is a case in point.

The starting-point for such comparative studies, should emphasize the notable successes of modern European civilization on this account, as during the period 1648 to 1901, in contrast to the general failure, on the same account, of all civilization prior to the Fifteenth-Century emergence of the first modern sovereign nation-states, the conclusion of the Hundred Years War by Louis XI's France, and conclusion of the Wars of the Roses by England's Henry VII.

Why, on balance, has the modern sovereign nation-state been, relatively speaking, a successful institution in its search for durable peace, relative to all known earlier forms experienced by the recent 2,500 years of globally extended European civilization? Why, in contrast, despite that superiority of the modern sovereign nation-state on this account, have such horrors as Portuguese, Dutch, British, and French colonialism persisted—actually, recently escalated in the name of "globalization" and "rule of law," up to the present moment of writing; and why did European civilization allow itself to become enmired in the plot of Britain's Edward VII to drown much of civilization in World War I? Why, after the lessons of 1914-1917, did the Twentieth Century continue to be the kind of recurring nightmare which World War I typified, as characteristic of the history of that century as a whole?

To restate the same point in the most relevant terms, *it is a flat lie, if also popular fools' babble, to say that the existence of the sovereign nation-state is the root of the impulse toward war.* It is the opposition to the sovereign nation-state, which has been the principal cause of warfare and related pestilence, throughout the history of globally extended European civilization.

For example, the history of globally extended European civilization, during approximately 2,500 years to date, shows that the mere existence of those impulses associated with the post-1945 drives toward what Russell et al. defined as "world government," represents a condition which ensures the perpetuation of forms of warfare, such as the continued, sense-

less, genocidal bombing of Iraq, and the recent NATO war against Yugoslavia. That pattern of conditions, unless overturned, as the 1648 Treaty of Westphalia did, can have no ultimate outcome but a "new dark age," such as the collapse of the Roman Empire in the West, the Fourteenth-Century "New Dark Age," and the 1618-1648 Thirty Years War.

That is precisely the pattern of doom which looms as an immediate menace before this planet as a whole, unless the current fads of "globalization" are now abruptly obliterated.

Indeed, because of the new kinds of epidemiological and related conditions existing world-wide today, the eruption of a "new dark age" as the result of the kinds of policies currently advocated by Prime Minister Tony Blair's United Kingdom, or the U.S. candidacies of Governor George W. Bush and Vice-President Al Gore, typify the greatest potential threat to mankind since at least the beginning of modern civilization in ancient Classical Greece.

Notably, all of the major European wars of the Sixteenth and early Seventeenth centuries, were wars organized by Venice's financier-oligarchy and its allies, in the effort to suppress the effects of the Fifteenth-Century Golden Renaissance, and to prevent the rise of modern forms of sovereign nation-states, such as those which had been established provisionally under Louis XI in France and Henry VII in England. The religious wars which erupted, at the instigation of Venice and Padua, in the wake of the defeat of the League of Cambrai, religious wars which thereafter dominated all of Europe until the 1648 Treaty of Westphalia, were nothing but products of the same impulse which the Venice-modelled financier oligarchy of London and the Netherlands launched, in their effort to abolish technologically progressive forms of modern nation-states, such as the wars launched from William of Orange's and Marlborough's Netherlands and Britain during the late Seventeenth and early Eighteenth centuries.

The latter was a pattern of imperial warfare conducted at the instigation of the Anglo-Dutch-centered financier oligarchy, a pattern extended over the entire span of time following, up to the presently escalating, genocidal campaigns for looting and recolonization of the territories of the former Portuguese, Dutch, British, and French colonies, today.

As I have summarized the matter in my recent Bad Schwalbach address, "On the Subject of Strategic Method," since the Roman subjugation of the higher form of Hellenistic civilization, at the outset of the Second Century B.C., until the present, the only factor which ever lifted globally extended European civilization up, from the plunging cultural degeneration represented by the Babylonian tradition of pagan Rome, was the so-called "neo-Platonic" current defined by the Christian Apostles' adoption of the legacy of Plato's Athens Academy, as an integral part of the cultural resources adopted by Christian civilization. The murder of the Apostles Peter and Paul by pagan imperial Rome, like the earlier crucifixion of Jesus Christ under the order of the Capri-based Emperor Tiberius's son-in-law Pontius Pilate, typifies the central issue of all European civilization and its legacy, the conflict between the respective Classical and the Romantic legacies of pagan Rome and the latter's corrupting principle of *vox populi*—the degenerate Walter Lippmann's *public opinion,* from then to the present day.

The crucial feature of strategy which provides for a durable form of exit from war to peace, is the same principle enthroned in the opening paragraphs of the 1776 U.S. Declaration of Independence and the Preamble of the Federal Constitution. The appearance of that principle in the U.S. struggle against the force of evil represented by the British monarchy then, was a product and reflection of a long struggle rooted in the work of the early Christian Apostles. It was an expression of the revolutionary policy introduced by France's Louis XI and copied by England's Henry VII; it appeared in the Declaration of Independence as a perfected expression of the same motive which inspired the architects of the 1648 Treaty of Westphalia to bring to an end more than a century of religious warfare. Just as the United States was conceived as a republic, to promote the general welfare of all of its people and their posterity, so the principle of the general welfare had exerted its rightful higher authority over factitious religious issues, and over the claims of supranational governments' interests, in the Treaty of Westphalia.

On the condition that the United States and others viewed such a process of rendering MAD obsolete, as a science-driver for raising the standard of productivity and physical income in and among the developing nations, through spill-overs of technological by-products, both the U.S. and Soviet economy, among others, would undergo a revolutionary technological upshift in their internal technological composition of employment, production, and related foreign trade.

The only durable basis for peace, is the commitment of victor and vanquished to the common purpose of the general welfare of each and all equally. Thus, according to that

principle, President Abraham Lincoln, at the conclusion of an awful civil war, in his final public address, shortly before his assassination by a British intelligence service's operation, proclaimed that each and all of the states briefly associated with the cause of the treasonous Confederacy, should be returned to the Union as if they had never left it.[20]

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McGeorge Bundy

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Henry Kissinger

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Zbigniew Brzezinski

In contrast to the nobility of Lincoln's stated "exit" from warfare, consider the morally degraded, hate-brimming politics of revenge of the victor, of reparations and retribution, such as the legacies of Versailles; the recent NATO war against Yugoslavia, and the genocidal measures against the population of Iraq still continued by the U.S.A. and the United Kingdom, are the marks of governments of victor-nations which, among their other offenses, are neither Christian nor civilized in any meaningful sense.

The policy of the founders of the U.S. republic, the policy of my fellow American Whig Abraham Lincoln, was not an inclination peculiar to some U.S. patriots. It was the aspiration of all of the greatest souls of modern Europe, notably those figures from all Europe's nations, who have contributed what they might to bring forth in North America, the kind of republic, committed to the general welfare, which they desired to spread back into aching, oligarchy-oppressed Europe. The basis for durable peace lies within the victor's commitment to the freedom and general welfare of the vanquished, that as much as for himself. That was Wolfgang Mozart's reworking of the script for his ***The Abduction from the Seraglio,*** and is also the implicit lesson of the Treaty of Westphalia

The problem is, that the legacy of our republic's deadly adversaries, are a powerful force of anti-republican financier oligarchy, within our nation today, as they are world-wide. Thus, among the nations of Europe and the Americas, and Asia and Africa, too, the desire for a durable peace represents a still-viable charter for the application of the lessons of the 1648 Treaty of Westphalia to world affairs. However, that peace will never exist, until we defeat its opposition; that fight for peace, against the continuation of oligarchical rule; that is the only legitimate pretext for justified warfare.

That opposition, which is to be defeated, is represented by the oligarchical forces—chiefly, today, the London-Wall Street-centered financier oligarchy—rallied behind the neo-imperial cause called variously, "globalization," "free trade," "rule of law," and "world government" today. We can not have peace anywhere on this planet, until we remove from power those specific types of oligarchical forces, merely typified by the followers of H.G. Wells and Bertrand Russell, which remain fervently dedicated to imposing the institutions of a "New Age" of world government, even at any cost to humanity as a whole.

Locate the solution to this paradox in the domain of science-driven strategic thinking.

Science: The Power for Peace

From a moral standpoint, it were virtually impossible, to repeat the following point too often:

The essential folly underlying all official U.S. discussion of missile defense today, is that the currently ruling political authority in the United States today, despite its widespread, fashionable, and baldly hypocritical "anti-nuclear" and kindred protestations against so-called "weapons of mass destruction," does not desire, either to end the reign of the nuclear-missile threat, or to secure a peaceful state of relations among all, or any of the existing nation-states. Quite the contrary, the current policy of the United States is, still today, that announced by Governor George W. Bush's father nearly a decade ago, and avowed by Vice-President Al Gore today: a neo-Romantic's new world order.

That intended new world order, is still, today, a parody of the old pagan Roman Empire, under whose reign no nation is sovereign. As under the ancient Caesars Tiberius, Claudius, Caligula, and Nero, and as seen in the foreign policy of practice of Mrs. Albright, all peoples are subject to the caprices of whatever so-called "globalization" decrees in the name of "universal rule of law" the presently ruling Anglo-American

20. Address at the White House, April 11, 1865; ***Collected Works of Abraham Lincoln,*** Roy P. Basler, ed. (New Brunswick: Rutgers University Press, 1953, Vol. VIII), pp. 399-405.

EIRNS/Stuart Lewis

George Bush, Sr. and Margaret Thatcher

EIRNS/Christopher Lewis

Tony Blair

EIRNS/Stuart Lewis

Al Gore

financier oligarchy happens to concoct, as pretext, at that moment.

As we have seen above: in the proposals for missile-defense against a threat to peace from alleged "rogue states," what the authors of that rhetoric intend, as Zbigniew Brzezinski and other present-day Mackinders have insisted, is to settle the last obstacle to permanent Anglo-American imperial power, by preparing to go to, or beyond the brink of geopolitical war, over the issue of their lust for control of the raw materials in the region of Central Asia bordering the Caspian Sea. Just as Adolf Hitler cried "Peace!" when he intended to seize Czechoslovakia on the road to an intended world war, so today's would-be Anglo-American Caesars cry "Peace," or "rule of law," or "missile defense," when their intentions could have no outcome but generalized warfare.

Nor are these presently hegemonic oligarchical circles motivated by concern for the welfare of the population of even the U.S.A. itself As we see from the consistently worsening secular trend in the welfare of the lower eighty percent of U.S. family-income brackets, since the time of President Jimmy Carter's 1977 inauguration, there is no intent on the part of the presently reigning Anglo-American financier oligarchy, to satisfy the welfare of the general populations of even the imperial U.S.A. and United Kingdom themselves. Indeed, as the U.S.A. itself plunges toward the deepest world depression in more than a century, the current Congress and Administration are seized by an obscene zeal to remove all of those protections of our people, such as the Glass-Steagall Act, which were adopted, under President Franklin Roosevelt, as lessons in law learned from the brutish debacle of the last depression.

These would-be mad mass-murderers of today and tomorrow, are like the modern Caesars, Napoleon Bonaparte, Benito Mussolini, and Adolf Hitler before them, or Tony Blair today. They are the old pagan ruling class of Rome in modern plebeian disguise. Today's Blairs and their like, are the Caesars who proclaim themselves, once again, as Hitler did, the humble-as-Uriah-Heep, dutiful servants of the popular will, of currently inevitable, remorselessly unstoppable current trends in public opinion, as innocent instruments of the *Zeitgeist, Weltgeist,* and *Volksgeist,* of the fateful spirit of the age: *The New Age.* "We, who are about to die, salute you!" *"Duce! Heil Hitler!"* Nietszche hailed the Anti-Christ, who, perhaps, had been Tiberius lurking on Capri. So, the pattern unfolds. The cry is often different; but the evil is the same.

Let us end the reign of ideology over the empty minds of the sightless crowd of what Wells follower Walter Lippman defined as manufacturable public opinion. It is time to trash that glitter of cheap tinsel called today's popular opinion. People should cease cheering for slogans, and examine instead, the issue of what those slogans mean in practice. When we speak of security, whose security do we mean? What kind of security do we mean, provided by whom, and for whom?

What, then, are the essential elements which must be brought together for the sake of peace?

First, there must be the desire for true peace, a desire which is stronger than other motives.

Peace requires not merely the bare desire for peace from both the prospective victor and vanquished alike. It requires an efficient form of such desire. There exists no efficient desire for peace among any of the leading powers of the world today; there will be no peace, until that condition is radically, and suddenly, changed. The very early resignations of Mrs. Albright, Vice-President Gore, and Tony Blair, might be merely a suitable, token first step in that blessed direction.

The state of mind of both which elevates "peace" above the level of self-righteous hypocrisy, is a belief, by both parties, especially the victor, in the general welfare of all mankind. It means, therefore, a state of mind which has rejected

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Lincoln at Gettysburg: "The true peacemakers do not merely act; they act to raise mankind ot a higher state of relationship to the universe at large."

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President Franklin Roosevelt in 1941,looking at a Norman Rockwell illustration of the Four Freedoms. "Even if great public works were not otherwise needed, we must provide them, even if no other reason for that effort were proposed, but the uplifting moral effect of constructing them."

what the modern English-speaking tradition recognizes as the Hobbesian conceptions of human nature, power, and conflict. Unless those preconditions are satisfied, peace will come, if at all, falsely, like hyenas at night, like Christians being slaughtered in the Roman arena, solely as the death-like subjugation which those too powerful impose upon those too vulnerable.

Granted, my subject here is the role of science in strategic defense; but, only a fool could avoid the challenge of asking and answering the question: *who will bring such peace, by what means, and, above all, out of what personal motivation?*

Peace could never come, except to the degree that the rule by oligarchy is outlawed, as the opening paragraphs of our 1776 Declaration of Independence and the 1789 Preamble of our Federal Constitution prescribe. As long as oligarchy's claims are tolerated—whether Babylonian, Spartan, Roman, feudal, or financier, there is no peace on this planet, and can be no peace, except that of the grave.

Second, therefore, there must be the all-too-rare individual peacemakers.

View this matter of motive from the vantage-point of what Plato defined as *agapē,* as this is presented in ***I Corinthians*** 13.

Peace is not the artefact of a legal contract. Peace is not a utopian's set of rules. *Peace exists only to the degree it is brought into being, over the opposition of a corrupt popular will, by those rare persons rightly known as the peacemakers.*

The study of history should have informed the literate, that, contrary to popular, foolish paeans to the empyreal delights of "democracy," the true peacemakers are not popular opinion, but the still rare individuals of each relevant time of crisis. These peacemakers are, like our memory of the officially martyred Rev. Martin Luther King,[21] the egregious personalities of their time, who act, not out of what they enjoy from the immediate fruits of mortal life, but what will satisfy them about their having lived, when they think of one's future identity as one deceased. These exceptional individuals, the peacemakers, express a natural quality of human nature, a quality which appears only when a certain maturity has taken over their being.

So far in history, instances of such individual moral maturity have been relatively rare.

That heretofore rare, but only normal concern of a morally matured, redeemed member of our species, is that defined by the nature of our species, as distinct from that of the lower forms of life.

Moral maturity means to reconcile the fact of individual mortality with some special sort of joyful reward which might surely endure in some efficient way, even after all of the pleasures of sense-perception have vanished into one's grave. So far, in the known history of cultures, only a tiny fraction of the individual members of society has grown to the moral maturity of that point of view. It is upon such still rare individual leaders, that the effective leadership of society for times of great peril has always depended. These, sometimes described by Plato as our "philosopher kings," are the only true peacemakers for times of great peril to entire cultures, or mankind in general.

21. The echo of ***Murder in the Cathedral*** comes to mind among those who have studied the still-continuing record of official complicity in the case of Reverend King's assassination.

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Martin Luther King, Jr., in Arlington Cemetery. "It is, thus, if and when mankind acts according to that perceived immortal self-interest of the mortal individual, that recognized self-interest impels us to embrace the general welfare of mankind as the most intimate and compellng interest of each and all among us."

The fate of mankind, in such moments, depends not upon the blind instinct of masses, but upon the heretofore exceptional existence of such individual, usually egregious peacemakers, and the role they attempt, and are permitted to play in opposition to such creatures of Mephistophelian evil as Bertrand Russell and Madeleine Albright's H.G. Wells.

Such is the personal motive of the truly great and moral physical scientist, for example. The peacemakers are those, who, above everything else, find the meaning of their personal mortal lives in their contribution to the future peace and welfare of humanity as a whole. They are what are sometimes described as men and women "of Providence," as the great Classical tragedian Friedrich Schiller presents the case of the Jeanne d'Arc who made Louis XI's reconstitution of France possible. Only such leaders of society, the Solons and Platos of their time, are to be entrusted by the people with making the policies which, in times of greatest crisis, will prejudge the future welfare of mankind.

These true peacemakers have an additional distinction. Their moral maturity enables them to see that the true form of action, is that which raises the human condition to a higher level of power within the universe, as valid discoveries of universal physical principle do. The true peacemakers do not merely act; they act to raise mankind to a higher state of relationship to the universe at large.

Third, the peacemakers must bring what is called an "exit strategy" from warfare.

For example: several times, but in one ironically notable moment, President Bill Clinton has attempted to play the part of a peacemaker. Unfortunately, he failed to live up to that promise.

This Classically tragic failure of U.S. President Clinton, was expressed, and typified by his failure to adhere to the exit strategy he had outlined a few weeks prior to the close of NATO's war against Yugoslavia. This case aptly illustrates the point. What Mr. Clinton had proposed, from the time of his notable address on this subject, to a group of West Coast journalists, had been a well-considered "exit strategy" for that war, a policy which was in accord with the 1648 Treaty of Westphalia. Suddenly, at the close of the bombing, he changed: disaster! Vengeance and retribution transformed the cessation of ill-conceived and bungled NATO hostilities, into a farce which threatens, a year later, to ignite the tinder remaining in the war-torn underbelly of Europe, into a spreading holocaust worse than the recent Balkan wars themselves.

What was required, instead of that tragic turnabout, was, as the President had strongly implied, a "Marshall Plan" style of generalized reconstruction for the Balkan region as a whole. The physical means for such an undertaking existed, in fact, if not in the will of the NATO member-nations as a whole. What had been done in war-torn post-World War II Europe, notably in France, the western part of Germany, and Italy, under the provisions of the 1945-1958 Bretton Woods system, could have been repeated, promptly, in the Balkans as a whole.

Consider, as an example of the point about strategic defense we are developing here, the way in which such an "exit strategy" could have produced, rather quickly, a condition throughout the Balkan region better, for each and all, than had existed since the war there had first been provoked and unleashed by the Anglo-American circles associated with the preceding "Desert Storm" adventure. Look at this example, first, and then compare the implications of that example with both what I and President Reagan had proposed as SDI cooperation with the Soviet Union, and the contrasting farce of the missile-defense proposals being emitted from the U.S.A. today.

Consider three aspects of the implementation of such an "exit strategy."

1. It has the general effect of tending to shift the axiomatic world outlook of increasing portions of all those nations, and their benefactors, too, from a pathetically Romantic, Nietzschean-like bestiality, deeply imbued with murderous, vengeful cultural pessimism, into an opposite direction, that of pro-Classical cultural optimism.

The post-war moral decline of the populations of that region, relative to the earlier moods, even during the heat of those wars, is sickening; but, it is merely a lawful expression of the consequences which the NATO allies have imposed upon each and all of the nations of both the Balkans and the immediately adjoining regions of the Danube and eastern Mediterranean. The promotion of Hobbesian-like conflicts among nations, ethnic groups, and so forth, tends to transform

men and women so affected, into feral beasts, beasts whose every reference to "my interests" resonates like the cry of a predatory hyena.

2. The most general consideration, in adopting the kind of "exit strategy" which President Clinton had advocated prior to his reversal of that policy, is located in the effect of two contrasting forms of labor upon the mind of the individuals and households engaged in that labor. As we in the United States should have learned from observing the American family farmer and the industrial operative, when a spirit of technological progress, and increased physical productivity of the economy arises, the cognitive factors tend to predominate.

First, the operative whose work calls upon his or her cognitive potentials, rather than merely repetitive, cattle-like labor, is more culturally optimistic, more moral, less likely to beat his wife and children routinely. Second, even if the form of labor does not produce significant tangible benefits for the individual operative, the fact that the society is visibly on an upward track, fosters optimism about each individual's participation in the work which promises a better future for coming generations.

3. Great public works, as typified by the effects of the Tennessee Valley Authority upon the population of that region of Tennessee and Alabama, have an important, most positive philosophical impact upon the culture of all affected. These kinds of enterprises, hold up the mirror to mankind, reflecting an optimistic image of man in the universe. The net result, is the tendency of the individual to think, less of what he or she is acquiring, than as the importance his or her existence assumes as a contribution to the benefits enjoyed by a larger humanity, that over the course of generations yet to come.

Thus, even if great public works, and so forth, were not otherwise needed, we must provide them, even if no other reason for that effort were proposed, but the uplifting moral effect of constructing them. It is as Benjamin Franklin's early mentor, the great American patriot Cotton Mather, once warned, the axiomatic root of remedies for nearly all human afflictions, is the simple passion "to do good."[22] Science, as I have defined it in this report so far, is the appropriate example of the motivation otherwise to be described as the commitment to do good.

Fourth, the commitment to do good must be defined not as commitment to take a specific action, but as a principle of continuing action. Here, on this point, we touch the core of the issue, the issue of the role, and the corresponding, corrected definition of science. We must supply a relevant correction for the popularized misdefinition of science.

For reasons already given above, today's customary definition conflicts with two sets of facts. First, in the relatively lesser degree, it conflicts with the hylozoic view, as echoed by Vernadsky. Second, it ignores the fact that so-called physical science itself, to the extent it has any experimental validity, is a product of human cognition.

On this latter account, it should be acknowledged, that the categorical separation of knowledge from a standard of truth is false, and, similarly, that the separation of so-called physical science from Classical forms of artistic composition, is the common fraud of such Romantics as the empiricists and Kantians. Thus, to summarize this point: the required functional redefinition of science, subordinates what present convention terms "physical science" to the higher authority of Classical artistic composition.

Once science is so properly redefined, then we are able to say that science, and scientific progress, are the form of action which constitutes the essence of human nature, the essence of the distinction between mankind and lower forms of life.

This has crucial implications for defining appropriate policies respecting war and peace.

From this corrected view of science, it follows, that morality, as ***I Corinthians*** 13, for example, rather than a set of shibboleths, defines morality, requires the individual, and society, to act in all matters in a specifically human way. By human, one should signify scientific progress, as I have corrected the definition of science here. That is to say, that morality is to practice scientific progress, as I have corrected the definition from the standpoint of a science of physical economy, for its own sake.

In other words, mankind must follow its own nature, this nature, as I have just defined it. It is to the degree that this is done, that mankind progresses, and that present generations find in the future they help to bring forth in a fully practical way, the immortal importance of their individual mortal lives.

It is, thus, if and when mankind acts according to that perceived immortal self-interest of the mortal individual, that recognized self-interest impels us to embrace the general welfare of mankind as the most intimate and compelling interest of each and all among us. It is to the extent, that we respond to all problems of society by a scientific imperative of the quality I have identified here, that the natural compulsion for peace will assert itself in a most durable way.

It is by practicing that scientific way of life, that we embrace the moral impulse called *agapē,* the impulse accessible to us. If we reject the impulse, or simply failure to nurture it, we lose a practical sense of that which sets us apart from inferior forms of life. If we affirm that impulse in practice, we affirm our true nature, affirm the immortal, universal interest

22. Cotton Mather, ***Essays To Do Good*** (1710), as cited by H. Graham Lowry, ***How The Nation Was Won: America's Untold Story*** (Washington, D.C.: Executive Intelligence Review, 1988).

of our mortal individual selves. We may then take joy in being ourselves, joy in experiencing the discoveries of universal physical principle, and their application, and joy in that Classical artistic composition which expresses the essence of cognitive relations among human beings.

In this connection, the very nature of science, so correctly defined, demands the primacy of the role of the perfectly sovereign form of nation-state republic. Since the relations among cognitive individuals are primarily, axiomatically of a Classical-artistic form, the role of language, in the most general sense of the development and use of language, has the dominant role of the medium through which cognitive relations are developed and maintained. Hence, a language, defined and viewed more or less as Dante Alighieri specified the necessity of nation-states premised upon a literate development in popular language, becomes the foundation for the moral existence of political society.

The essential feature of a literate language, has nothing in common with mathematical or related forms of symbolic deduction. The essence of the cognitive function of language, as expressed typically by great Classical poetry, or by the paintings of a Leonardo da Vinci and Raphael Sanzio, is Classical metaphor. It is the posing of ontological paradoxes, by means of Classical forms of language—in the broadest definition of language—and the sharing, similarly, of the discoveries of principle which overcome those paradoxes, which is the essentially, specifically human, cognitive quality of language, to which Dante's imperatives refer.

Hence, the sovereign nation-state does not separate humanity as much as it is an essential instrument for uniting peoples. It is in the translation, for practice, of the metaphors posed and shared within one language, with the speakers of another, that the common efforts of humanity are united in a specifically human way. Thus sovereignty does not divide humanity, but, rather, is the only efficient way to unite it, through the medium of the interstices among its sovereignties.

Thus, to dissolve the sovereignty of the nation-state, is to bring on a descent into the barbarism of a Tower of Babel, such as those of "information society." Such has always been, and will always be the case.

It is for the cultivated state of affairs among the sovereign nations of mankind, and that alone, that we are allowed, and sometimes compelled, not only to make, but to win war, when war were necessary, that with nothing but that goal, that "exit strategy," in view.

Thus, on that account, strategic ballistic missile defense, as I have defined it, as President Reagan proposed on March 23, 1983, is essentially nothing differing from the most natural expression of a properly cultivated, moral way of life. The proper motive for all important policies, is not limited to a specific calculable proximate outcome; the proper motive for every policy, for action, is to affirm, constantly, continuously, being a person, and part of a society, acting in accord with the special moral nature of a member of the human species.