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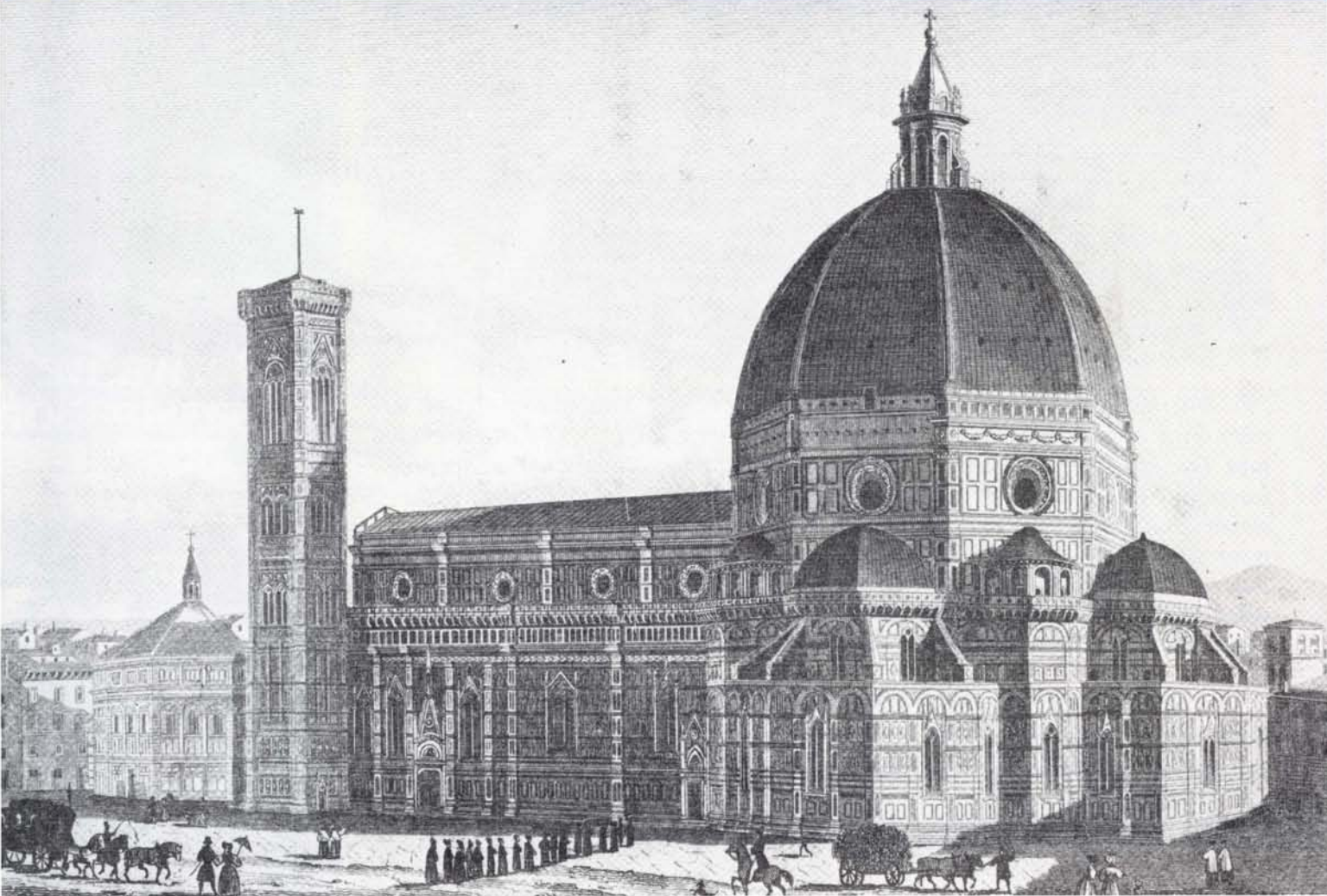
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Lyndon H. LaRouche, Jr.

The science of Christian economy



WHY

The British Establishment Fears Lyndon LaRouche

Books authored by Lyndon LaRouche and associates

In Defense of Common Sense, by Lyndon H. LaRouche, Jr., Schiller Institute, 1989, 110 pages, \$5. Order number SIB 89-001.

The Power of Reason: 1988, an autobiography by Lyndon H. LaRouche Jr., *Executive Intelligence Review*, 1987, 331 pages, \$10. Order number EIB 87-001.

So, You Wish to Learn All About Economics? by Lyndon H. LaRouche, Jr., New Benjamin Franklin House, 1984, \$9.95. Order number BFB 84-003.

How the Nation Was Won, America's Untold Story 1630-1754, by H. Graham Lowry, *Executive Intelligence Review*, 1988, 497 pages. Order number EIB 88-001.

Derivative Assassination, Who Killed Indira Gandhi? by the editors of *Executive Intelligence Review*, New Benjamin Franklin House, 1985, 266 pages, \$4.95. Order number BFB 85-007.

"We Americans, in our majority, are now caught asleep, unprepared for the terrible crisis now assaulting the very existence of our nation. . . . To where do we turn, on very short notice, for a different political perspective, a different philosophy of policy-shaping? All we Americans have immediately at hand is the sleeping nationalist heritage embedded in our bones over more than twenty generations—the heritage of the eighteenth-century, worldwide American Revolution, and of the proximate predecessor, the Golden Renaissance. . . . I am the voice of the Golden Renaissance, in my role as a defender of our American Revolution. It is time for all true patriots to awaken and to join me."

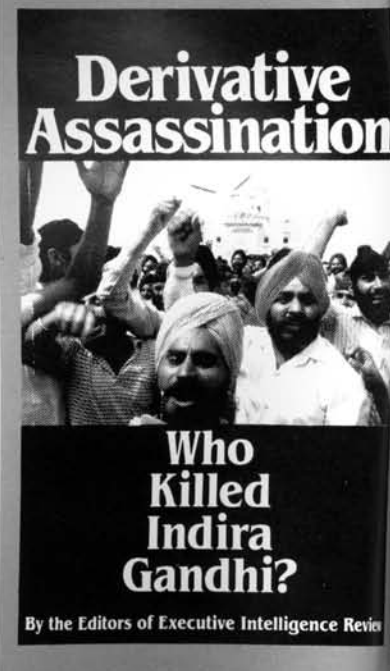
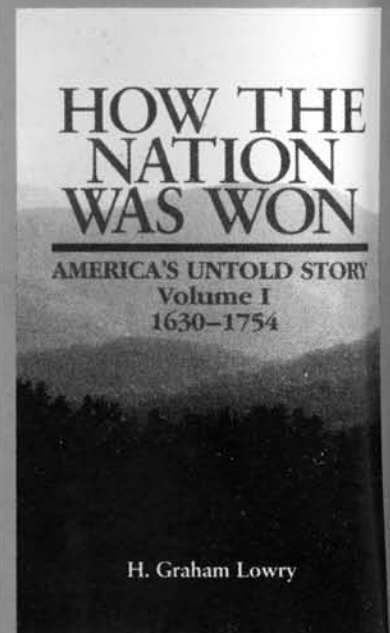
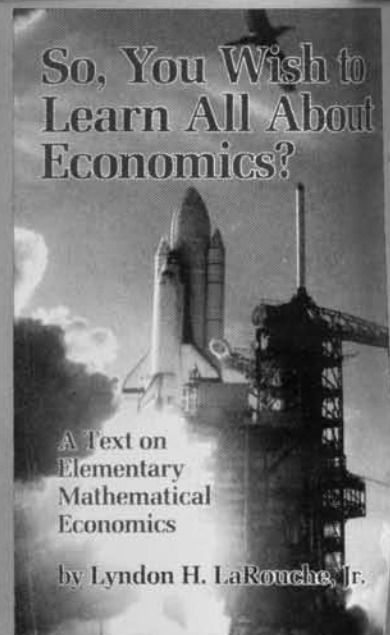
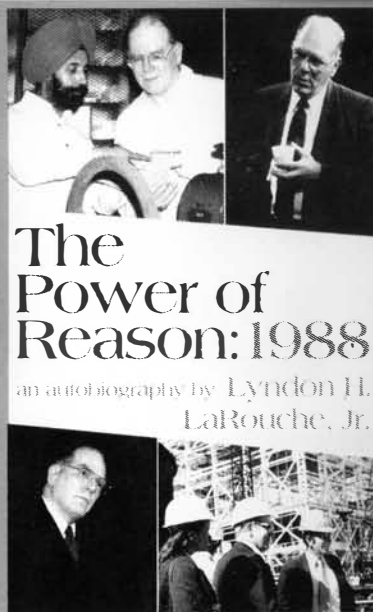
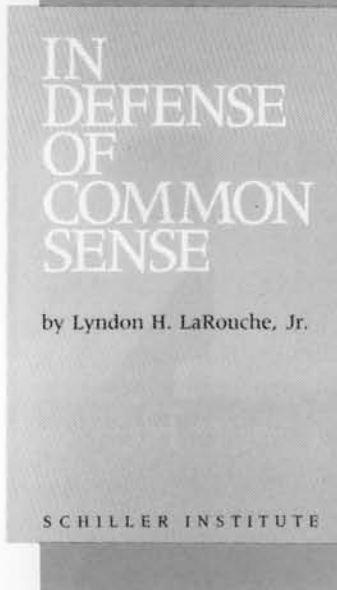
—Lyndon H. LaRouche, Jr.,

from "The Great Crisis of 1989-1992, The LaRouche Congressional Campaign Platform."

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From the Editor

For the first time ever, ladies and gentlemen, we present an 88-page special issue of *EIR*, in which there is not a single word of news. The entire magazine is devoted to printing the first edition of a new book by Lyndon LaRouche, the longest writing he has produced since he became the political prisoner of the Bush administration in January 1989. In this book, LaRouche charts the course for humanity to emerge victorious from the presently onrushing dark age of economic, moral, and cultural collapse.

We herald this occasion by displaying on our cover the monument which marked the triumph of human creative powers over the Dark Age of the 14th century. In the very Florence where this magnificent dome was erected by Filippo Brunelleschi between 1420 and 1438, less than a century earlier, in 1348, as much as 50% of the urban population perished in the bubonic plague outbreak known to history as the Black Death. In the total institutional breakdown that afflicted European society, it was above all the work of Florence's poet Dante Alighieri and the revival of St. Augustine and Plato, which provided the quality of ideas capable of lifting humanity into the Golden Renaissance. This was the basis of our industrial civilization—and the forerunner of LaRouche's Science of Christian Economy.

It is not necessary to repeat that experiment. Since human beings can learn from history, it is not necessary for millions to die, today, for individuals to take leadership for a reversal in the wrong values which are leading the world into the abyss once again. It is for that reason that LaRouche has written this book, which will also appear very soon in traditional book format.

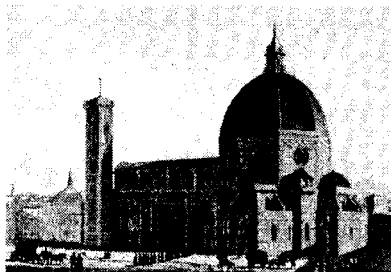
We are deeply indebted to the following people for preparing this edition: Susan Welsh, the project manager, who supervised copy preparation and selected pictures and figures; Katherine Notley, for editing the footnotes; and Ronald Kokinda and Marianna Wertz for assistance in editing and proofreading. Thanks go above all to Denise Henderson, who has had the task over many months of transcribing LaRouche's dictation of the manuscript from prison and seeing it through many revisions, as well as compiling most of the footnotes, to which a very large international team of collaborators contributed. Finally, a special fanfare for production editors Alan Yue and Eftalia DeGroot, who designed and composed this issue in less than a week!

Nora Hamerman

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The science of Christian economy

by Lyndon H. LaRouche, Jr.



The Cathedral of Florence, in an eighteenth-century engraving. Brunelleschi's solution to the challenge of constructing the dome in 1420-36 was a triumph of Renaissance science and technology, and proved the superiority of the Christian conception of economy, based on creative mental labor.

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PREFACE

On the 100th anniversary of 'Rerum Novarum'

During the course of these next several pages, we shall come to the point at which we shall turn the attention of our ecumenical readership to numbered section 72, of the famous 1891 encyclical of Pope Leo XIII, *Rerum Novarum*.¹ We shall then focus upon the concluding sentence of that section, and also upon the passage from Thomas Aquinas's *Summa Theologica* which the author of the encyclical has footnoted there.² The referenced sentence of the encyclical's text reads thus: "For laws are to be obeyed only insofar as they conform with right reason and thus with the eternal law of God."

The footnoted passage from St. Thomas Aquinas's *Summa Theologica* reads: "Human law is law only in virtue of its accordance with right reason; and, thus it is manifest that it flows from the eternal law. And insofar as it [man-made law—LHL] deviates from right reason it is called an unjust law; in such case it is not law at all, but rather a species of violence."³

A hundred years ago, *Rerum Novarum* treated the remedying of the evil then being run by a "devouring usury," which, "although often condemned by the Church, but practiced nevertheless under another form by avaricious and grasping men, has increased the evil" effected by the handing over of workers, "each alone and defenseless, to the inhumanity of employers and the unbridled greed of competitors."⁴

At the time of the assassination of U.S. President John F. Kennedy at the end of 1963, approximately three-quarters of a century had passed. It appeared to most observers then, that the pleas for economic justice in *Rerum Novarum*, if not yet successful, were assuredly on the way to becoming so.

In the so-called "industrialized capitalist" sectors of this planet, the trade-union movement and other meliorist agencies had won, and were continuing to win cumulatively invaluable, and putatively permanent gains in human rights for most strata of the populations. Although a vicious form of neo-colonialism had been established at the end of the 1939-45 World War, the spirit of the United Nations Organization's First Development Decade Project, and the U.S. Kennedy administration's Alliance For Progress, suggested a commitment to global justice paralleling, and perhaps echoing the rise of the civil rights movement inside the U.S.A. itself.

During the middle of the 1960s, that hopeful direction of development was reversed. During the recent quarter-century, social conditions in most parts of the world are far worse, on the average, than during the 1960s, and threaten to become soon far worse than one hundred years ago.

The impulses for evil which have caused this recent calamity are not altogether new. A conspicuously leading cause of the greatly increased immiseration and endangerment of the human species, during the past quarter-century, has been the willful murderousness with which such forms of the old "devouring usury" as so-called "International Monetary



The sin of usury, in an illustration by Guglielmo Girardi to Dante's "Inferno," Canto XV. Three infamous usurers of 1300 are seated on burning sand as flames rain on them from the sky. The foul-mouthed oligarchs bear heavy purses which hang around their necks, adorned with their family coats of arms. Like Thomas Aquinas, Dante categorized usury as a sin of violence against natural law, because it directed monetary wealth away from advancing technological progress in man's mastery over nature as commanded in the Book of Genesis.

Fund (IMF) conditionalities" have been so widely, so murderously, so shamelessly applied to the precalculable effect of rapid and large-scale increases of death rates by means of malnutrition, disease, and related mechanisms.

The most striking of the various included features of the new evil, is the dominant influence of the so-called "New Age." This feature includes such presently pandemic expressions of this as the "rock-drug-sex counterculture," and increasingly irrationalist mass-murderous expressions of self-styled "ecologism," or "neo-malthusianism."

The "New Age" is not itself an entirely new form of evil. It is as old an evil as the pagan roots of gnosticism. Prior to the 1963 launching of the "New Age" as a mass movement within the United States, this form of New Age satanism was an endemic cancer in such forms as the theosophical existentialism of the followers of the proto-Nazi Friedrich Nietzsche, and the pro-freemasonic satanists of Aleister Crowley's networks.

What is notable on these accounts is the increasingly emboldened way in which the two evils, the "New Age" and usury, have exhibited their natural affinities for one another, combining their forces in even the highest places of Anglo-American power, to demand, in the misused name of "freedom" and "ecology," the rapid extermination and global outlawing of every scientific and moral barrier which has hitherto existed as impediments to rampaging immiseration and dictatorial oppression of mankind.

Such are the leading characteristic distinctions between the problems immediately addressed one hundred years ago,

and those confronting us today.

The former hegemony of scientific and technological progress, upon whose continuation the existence of our populations depends, is being suppressed by both the loss of simple rationality in the education of the young, and by the spread of the paganist cults of anti-science, irrationalist "ecologism." As a concomitant of such specific, catastrophic effects as this one, those European and American forces which are committed to calculated mass-murder of populations of all developing nations, and which are committed to the extermination of the Christian faith and conscience, have come plainly into the ascendancy in the policy-making processes of most of the governing international and national governmental institutions which have gained leadership and dominance over this planet today.⁵

The ecumenical standpoint

We propose that it is necessary, but not sufficient to view the referenced state of affairs from a Christian standpoint; for practical reasons, it is essential that even the Christian standpoint itself be presented here from an ecumenical standpoint as *ecumenical* is typified by Cardinal Nicolaus of Cusa's dialogue, *De Pace Fidei*.⁶ On that account, we have considered it most important to reference the explicitly cited sentence and attached footnote from the encyclical.⁷

Different faiths, religious and/or secularist, can be brought to principled agreement only in two possible alternate ways of manifesting mutual good will. In the one case, they may agree on a common point of taught doctrine, such

as the principle of monotheism, as in opposition to the pantheistic pluralism of pagan Babylon, Rome, or the Apollo Cult at Delphi. Or, otherwise, differing faiths may reach coincidence of principled views by the means indicated in the referenced features of the encyclical's section 72. It is the latter alternative upon which we concentrate attention here.

It is the obvious intent of the author of the encyclical that his own intention and that of the referenced passage from the *Summa Theologica*, respecting reason, should be received as identical. We adopt that intent here.

Faith may read those writings it deems sacred, or authoritative commentaries on such writings. Or, faith may "read the bare book of universal nature," a book which plainly has been written directly by none other than the Creator Himself. It is certain to all men and women of ecumenical good will, that the two kinds of books—the written ones, and the book of nature—cannot contradict one another, on condition that the written one be true, and that both the written and the natural one be read by means of the inner eye of true reason.

So, where doctrinal writings differ, we may turn the eye of ecumenical reason to the common book of nature.

Let us argue the point in the following, twofold way. We emphasize, on the one side, the ecumenical notion of *intelligible representation* of a principle of knowledge of cause-effect in our universe, a means by which all men and women, despite differences in profession of monotheistic faith, may be brought by their own powers of reason to agreement upon a common principle of law. Second, we emphasize the importance of stressing *Christian* principles of Christian civilization as *Christian*, even within the framework of a monotheistic ecumenicism.

Consider next this simple illustration.

The most ancient among known astronomies, that of the ancient Vedic peoples of Central Asia,⁸ illustrates the obvious manner in which a so-called "primitive" people may construct a reliable solar astronomical calendar from scratch. Observe successively the position of the Sun, at dawn, midday, and sunset. Mark these observations each in stone. At night, observe the constellations and their stars, to which each of the respective three, day-time observations point. After five years, we have thus the data on which to base a solar astronomical calendar of approximately 365¼ days per calendar year, measuring the year either from the winter solstice to winter solstice or from the vernal equinox to vernal equinox.

By the same method, the long decimillennial equinoctial cycle is adduced. So, a system of solar astronomy, free of the whore-goddesses Shakti's and Ishtar's lunacies, is built up by aid of reason. So the book of nature may be read—God's book of nature.

In such successive revolutions, and related ways, *reason* reveals to us that our universe has the apparent form of a unified cause-effect process of *becoming*, a process of *be-*

coming which is subsumed by an indivisible, supreme Being, who embodies, among other qualities, what Plato admired as *the Good*.⁹ Of such matters of principle, in such a manner, do the very stones cry out.¹⁰

Consequently, when we demonstrate by access to reason that a certain universal or approximately universal principle must be true, a monotheistic ecumenicism has gained a twofold advantage. Since all of human knowledge is finally supplied by reason, there can be no valid teaching presented by any religion which contradicts true reason, as we define *reason* in the following chapters; there can be no valid objection to this principle which is to be tolerated on premise of secularist rejection of religious precept.

Physical Economy

By the nature of the case, there is no field of inquiry which unites all subjects of human reason—law, science, art—as directly, as immediately, as the science of Physical Economy which was founded by Gottfried Leibniz. That is a special standpoint of the work we preface here.

As is to be seen in summary in the appended document, *Physical Economy* is the science of *successful change*, a study of the dependency of the continued existence of a society upon *successful* forms of successive generation, transmission, and efficient assimilation of fundamental scientific progress. The measure of that effective progress is an increase in what Physical Economy defines as the rate of increase of the potential population-density¹¹ of that society as a whole. That thus serves as an efficient empirical measurement of both the appropriateness of the society's way of changing its method of reasoning, and, therefore, the appropriateness of the principle of change adopted for that practice.

Any society which defies those considerations, is threatening its own continued existence, and, a society implicitly becoming an abomination in God's eye, a society which is not only losing the moral fitness to survive, but which, by God's clock, will not long survive in its present form.

Historically, to date, the closest approximation of a form of political economy consistent with Christian principles is the so-called *mercantilist* form growing out of *Colbertism* in France, and the far-reaching influence of Leibniz. This outgrowth came to be known by the name given to it officially by U.S. Treasury Secretary Alexander Hamilton, "the American System of Political Economy."¹² This name came to be associated with the work of the U.S. economists Mathew and Henry Carey and of Germany's Friedrich List.¹³

The deadly adversaries of the so-called "mercantilist," or "American" system, were the Anglo-French-Swiss known in the early eighteenth century as the "Venetian Party."¹⁴ This was the political faction allied against Leibniz and his friends, and allied with the first Duke of Marlborough, allied with the networks of Voltaire, with the Physiocrats, and with so-called eighteenth century "British liberalism" of Hugh Walpole, David Hume, Shelburne, Adam Smith, Jeremy

Bentham, and Thomas Malthus generally. These Physiocrats and liberals were the chief guise for the pro-usury faction of that century.

That issue of the eighteenth century is more efficiently understood by emphasizing that the liberals and *illuminati* of Voltaire's eighteenth century were committed to a return to the model of a pagan imperial Rome. Hence we call them "romantics." These romantics were dedicated to the overthrow of Christianity for the purpose of advancing their *romantic imperial utopianism*. That is the root of the structures of sin in Western European and North American civilization today.¹⁵ These were then, and are still today both the pro-usury faction, and the utopian cultural form from which the present-day satanic "New Age" utopianisms have sprung.

We do not uphold the Leibniz-Hamilton-List form of "American System" to be a perfect model. We do not propose that the American leading stratum of 1776-89 was a pure embodiment of Christian principles.

The 'American System' model

We make two modest claims for that system. First, it was, in the domain of political economy, the only significant resistance at the time to the evils of eighteenth century British imperialism, and for as long as it did resist that evil thereafter. Second, that relative to the British liberal and communist systems, the Leibniz-Hamilton-List form of American System is the only historically notable form of modern political economy which is a proven successful alternative to the twin, catastrophic moral failures of British liberalism and communism. Thus, historically, this American System is the only significant approximation of a modern agro-industrial system which tends to afford the means to satisfy the requirements of *Rerum Novarum*. In contrast, British liberalism, intrinsically, implicitly fosters even in the worst degree all of the principal evils addressed by that encyclical.

In the relatively shorter, or even the medium term, sweeping changes in general practice can be successful only if much of the population can be induced to regard innovations as bearing the historical authority of a successful precedent.

So in the United States of America, for example, nearly every person over 40 years of age today has a vivid recollection of the moment and circumstances each first heard the news of the assassination of President John F. Kennedy. So, it is relatively easy to recall the happier economic policy trends of the Kennedy administration, relative to the comparably depressing trends of the adjacent Eisenhower and Johnson administrations. So, the idea of reviving anti-recession policies referencing successful precedents from the 1961-63 period, is one which must tend to enjoy support under the rudest economic circumstances of the United States today.

Similarly, it requires only a slightly longer reach of the American or European mind to recall the happier "mercantilist" policies of the American System, Friedrich List, Charles

de Gaulle, Konrad Adenauer, or Italy's Enrico Mattei.

So, those of us looking at today's global conditions from the standpoint of an ecumenical reading of *Rerum Novarum*, are compelled to take a practical historical view of available meliorative measures whose employment represents a philosophically *unobjectionable* tactic for furthering the cause of principles. Thus, we are obliged to inquire, formally and historically, why the American System of Hamilton, List, et al. is consistent with Christian principles, when British liberalism is adversary to those principles. We are not thus adopting the American System as a point of Christian, or ecumenical doctrine.

Nonetheless, although we are obliged to recommend such attention to historically proven methods, that required work does not allow us to descend into the moral mediocrity of mere pragmatism. It does not free us from the duty of setting forth principles which are fully consistent with the eternal laws which reason may make accessible to our knowledge. So, if we recommend the American System as an historically proven precedent for modeling short-term and medium-term remedial policies today, we must also set forth the lawful principles which must guide us through the medium term into the long term, which may be different than those of the American System precedent.

Notes

1. Pope Leo XIII, *On the Condition of the Working Classes, Rerum Novarum*, N.C.W.C. translation, (Boston: Daughters of St. Paul, 1942).

2. Pope Leo XIII, *Rerum Novarum*, p. 44n; St. Thomas Aquinas, *Summa Theologica*, I-II, Q. 93, Art. 3 ad 2.

3. St. Thomas Aquinas, *Summa Theologica*, (Chicago: University of Chicago Press, 1952).

4. Pope Leo XIII, *Rerum Novarum*, p. 7.

5. As early as 1975-76, this author had warned of the genocidal policies of the neo-malthusian faction centered around Henry A. Kissinger and the faction he represented within the United States government. On Nov. 3, 1976, the author, in an election eve broadcast, warned of the genocidal intent of the Paddock Plan, which called for closing the Mexican borders and "let them scream," and the similar policies of George Ball.

Newly declassified National Security Council documents reveal that from 1974-77 Henry Kissinger and Brent Scowcroft (successive national security advisers) outlined a strategic plan to reduce the population of the Third World. The plan was forwarded to then CIA director George Bush, among others, for implementation.

The 1974 Kissinger-supervised National Security Study Memorandum 200, (NSSM 200) "Implications of Worldwide Population Growth for U.S. Security and Overseas Interests," argues that U.S. national security interests demand the imposition of population control or reduction on the LDCs—the lesser developed countries, otherwise termed the Third World. Thirteen of these states are defined as "key countries" in which there is "special U.S. political and strategic interest," which requires special emphasis. The primary reason these states are so defined, is that the effect of their population growth is judged likely to increase their relative political, economic, and military, regional, and even world power. These key states are: India, Bangladesh, Pakistan, Nigeria, Mexico, Indonesia, Brazil, the Philippines, Thailand, Egypt, Turkey, Ethiopia, and Colombia. The countries on this special target list, as well as the LDCs generally, are ones which the author and his associates have fought to defend, against precisely those population

control policies over the years.

Among Kissinger's biggest fears is that leaders of the lesser developed countries might realize that international population reduction programs are designed to undermine their development potential. As he puts it: "There is also the danger that some LDC leaders will see developed country pressures for family planning as a form of economic or racial imperialism; this could well create a serious backlash." He adds: "It is vital that the effort to develop and strengthen a commitment on the part of the LDC leaders not be seen by them as an industrialized country policy to keep their strength down or to reserve resources for use by 'rich' countries. Development of such a perception could create a serious backlash adverse to the cause of population stability."

Consequently, one of the major concerns of NSSM 200 is to check the spread of ideas which are hostile to population control and which demand economic development as the solution to Third World problems. According to Kissinger's definition, such LaRouche-associated ideas are a threat to U.S. national security.

To highlight the dangerous growth of such ideas, the document presents the case of the World Population Conference in Bucharest in August 1974, where Helga Zepp (now Mrs. LaRouche) intervened to denounce the Club of Rome's population control policies, and John D. Rockefeller in particular. The document complains that the conference's proposed World Population Plan of Action was rejected by many of these states, because of the spread of such anti-malthusian ideas. The failure of the conference is one of the cited reasons for the drafting of the NSC memoranda.

Referring to this conference, the document states: "There was general consternation, therefore, when at the beginning of the conference, the Plan was subjected to a slashing, five-pronged attack led by Algeria, with the backing of several African countries; Argentina, supported by Uruguay, Brazil, Peru and more limitedly, some other Latin American countries, the Eastern European group (less Romania); the P.R.C.; and the Holy See."

Kissinger reports that the objections to the Plan were based on the idea that a "New World Economic Order" could be a basis for social and economic development of the former colonial sector. Related NSC memoranda from the period define the "wishful thinking that economic development will solve the problem" generated by supposed overpopulation, as the thinking necessary to eradicate. The reference is clearly to the Zepp intervention at Bucharest, and the author's influence more broadly.

Kissinger outlines various formulations to counter these ideas. For example: "The U.S. can help to minimize charges of an imperialist motivation behind its support of population activities by repeatedly asserting that such support derives from a concern with: (a) the right of the individual to determine freely and responsibly their number and spacing of children . . . and (b) the fundamental social and economic development of poor countries."

On Nov. 26, 1975, Brent Scowcroft (who had succeeded Kissinger as national security adviser, while Kissinger remained as secretary of state) issued National Security Decision Memorandum 314, which endorsed NSSM 200, making it the official, if covert, policy of the Ford administration.

In May 1976, the NSC released its "First Annual Report on U.S. International Population Policy," which examined the progress made over the previous year in implementing Kissinger's memorandum. The classified report was forwarded to then-Director of Central Intelligence George Bush for implementation.

Among the findings of the report was that it was difficult to implement population reduction in Third World states without the appropriate form of draconian government: "Prerequisites for real success are likely to involve three approaches that are interrelated and have proved highly effective, as follows: 1) strong direction from the top; 2) developing community or 'peer' pressures from below. . . .

"With regard to (1), population programs have been particularly successful where leaders have made their positions clear, unequivocal, and public, while maintaining discipline down the line from national to village levels,

marshaling government workers (including police and military), doctors, and motivators to see that population policies are well administered and executed. Such direction is the *sine qua non* of an effective program. In some cases, strong direction has involved incentives such as payment to acceptors for sterilizations, or disincentives such as giving low priorities in the allocation of housing and schooling to larger families."

Although relevant population policy documents from the subsequent Carter, Reagan, and Bush administrations remain classified, information in the public domain indicates that the approach outlined in the 1974-77 NSC memoranda remain U.S. government policy.

6. Cf. Nicolaus of Cusa, *De Pace Fidei*, translated by William F. Wertz, Jr., *EIR*, Vol. 18, No. 1, Jan. 4, 1991, pp. 19-39; or by Jasper Hopkins, (Minneapolis: A.J. Banning, 1990), pp. 33-70; for the Latin text, see *Nicholas of Cusa, Philosophical-Theological Writings, Vol. 3*, (Vienna: John Herder & Co., 1982).

7. Cf. Lyndon H. LaRouche, Jr., "On the Subject of Christian Civilization," address to the Sept. 1-2, 1990 Arlington, Va. conference of the International Caucus Labor Committees, *EIR*, Vol 18, No. 1, Jan. 4, 1991, pp. 2-11.

8. Cf. Bal Gangadhar Tilak, *The Orion, or Researches into the Antiquity of the Vedas*, (Poona, 1893; repr. Poona: Tilak Brothers, 1972); and *The Arctic Home in the Vedas, Being Also a New Key to the Interpretation of Many Vedic Texts and Legends*, (Poona, 1903; repr. Poona: Tilak Brothers, 1956).

9. Plato distinguishes between the Hypothesis of the Higher Hypothesis and the Good. The Hypothesis of the Higher Hypothesis is typified by the kinds of transfinite orderings referenced within the chapters of the following text. This is the *becoming*, a *becoming* which is a notion of a transfinite ordering of *changes* moving toward increasing perfection or decreasing imperfection. The Good, by contrast, is the state of perfection. It efficiently is the *changeless* idea of perfection which governs the process of change in the direction of increasing perfection or lessening imperfection. For one reading Plato, for example, we can say that the Good has the ontological quality of being, as distinct from the quality of *becoming*.

10. Luke 19:40.

11. See Appendix B.

12. Lyndon H. LaRouche, Jr., *In Defense of Common Sense*, Chapters 3-5, (Washington: Schiller Institute, 1989); and Lyndon H. LaRouche, Jr., *Verteidigung des gesunden Menschenverstandes, Kommentar*, pp. 157-193, (Wiesbaden, Germany: Dr. Böttiger Verlags-GmbH, 1990).

13. Nancy Spannaus and Christopher White, *The Political Economy of the American Revolution*, (New York: Campaigner Publications, 1977), p. 380.

14. Cf. Mathew Carey, *Autobiographical Sketches in a Series of Letters Addressed to a Friend Containing a View of the Rise in Progress of the American System, The Efforts Made to Secure its Establishment, The Causes Which Prevented Its Complete Success*, (Philadelphia: John Clark, 1829); and Henry C. Carey, *Principles of Political Economy*, Reprints of Economic Classics, (New York: Augustus M. Kelley, 1965); and *The Harmony of Interests: Agricultural Manufactures and Commercial*, (Philadelphia: J.S. Skinner, 1851, reprinted by A.M. Kelley, 1967).

For Friedrich List, cf. *Outlines of National Economy*, 1827, *National System of Political Economy*, 1837; (New York: Augustus M. Kelley, 1966) Also: by Prof. Dr. Eugen Wendler, *Friedrich List—politische Wirkungsgeschichte des Vordenkers der europäischen Integration*, (Germany: Oldenbourg-Verlag, 1989). Although this history defends the idea of a single European Market 1992, Dr. Wendler's work was written to give new stimulus to the discovery of List's life and his ideas of national economy.

15. Cf. H. Graham Lowry, *How the Nation Was Won, America's Untold Story, Vol. 1, 1630-1754*, Chapters 5-8, (Washington: Executive Intelligence Review, 1987).

16. Pope John Paul II, *Sollicitudo Rei Socialis*, (Boston: Daughters of St. Paul, 1987).

INTRODUCTION

On the subject of the science of Christian economy

Today, three years after the great financial crash of 1987, and two years after my October 1988 Berlin address on impending German reunification,¹ it is increasingly clear that the two formerly reigning economic dogmas of this planet, those of Adam Smith and Karl Marx, are being buried, perhaps forever, under an avalanche of post-industrial rubble and usury. Unless the specifically appropriate replacement for these two failed dogmas of yesterday is adopted soon, every part of this planet is to be judged now as already plunging into a New Dark Age, worse than that which crushed Europe, with nearly apocalyptic force, during the middle of the fourteenth century.

Had we been confronted, so immediately, by such awesome truths, at the beginning of our century, when a significant minority among economists and historians were still literate in their professions, the latter would have responded to the preceding paragraph here, with words to the following effect: "You are proposing an immediate return to the original 'American System of Political-Economy.'" They would signify so, those (anti-British) principles of economy and banking associated traditionally with such prominent names as U.S. President George Washington, Treasury Secretary Alexander Hamilton,² the two Careys,³ Speaker of the House Henry Clay,⁴ and the founder of the German economy's nineteenth-century economic supremacy, Friedrich List.⁵

The now freshly discredited such liberal dogmas were the leading evils of the eighteenth century, against which the U.S. War of Independence was then so justly fought by all patriotic Americans.⁶ The American System, on whose behalf those patriots fought against their British oppressor then, is imbedded implicitly in the 1776 Declaration of Independence, and in the Preamble and in Article I of the 1787-89 federal Constitution draft.

Since 1787, whenever the U.S. government has applied the policies of that American System, that nation has prospered, to the net effect that it once became for a period of decades the leading economy of this world. Whenever that same government committed the great folly of imitating the lunatic ideas of Adam Smith, as it did under Presidents Jefferson, Madison, and Jackson, for example, the United States has been plunged into economic ruin, as it is now being ruined by the accumulated follies of the past six Presidents following the assassination of President John F. Kennedy.

It would be a very good thing if the United States today, would overturn by a single law, immediately, every change in U.S. economic, financial, and monetary policy, which has been introduced since the assassination of President Kennedy. That would be a good thing; but more must be done. We must re-affirm the American System of Political-Economy, upon which all of the United States' economic successes to date have been premised implicitly; but, even that is not quite enough.

For reasons to be shown here, we must not admire the proven superiority of the American System so much, that

we overlook the fact that the American System is merely a successful approximation, for purposes of application, of something much deeper, of something less imperfect, something truly fundamental. The American System was chiefly a reflection of the combined direct and indirect influence of the founder of economic science, Gottfried Leibniz, upon certain leading thinkers of the English colonies in the Americas.⁷ Yet, there is something still more profound at issue here.

Let us focus for a moment upon the issue of the several wars which Britain either led or orchestrated against the United States during the interval 1775-1865.⁸ The central issue of those wars was Britain's refusal to tolerate those economic policies identified by President George Washington's treasury secretary, Alexander Hamilton, as "the American System of Political-Economy."

The more general significance of that economic conflict with Britain, is that the American System of Political-Economy is broadly in agreement with the principles upon which Christian civilization is premised. The original and continuing enemy of that American System is an anti-Christian dogma, an explicitly immoral dogma which was conceived, originally, by Adam Smith and other agents of the eighteenth-century British East India Company, as an emulation of the model of ancient, pagan Imperial Rome.

In the following pages, we summarize the deeper issues between Christianity and British neo-paganism, underlying London liberalism's continuing efforts to exterminate even the memory of that "American System." We address and defend thus, the "axiomatically" Christian features of Gottfried Leibniz's founding of economic science. We defend the "American System" in its implicit aspect as a reflection of Leibniz's influence among leading eighteenth-century American patriots.⁹ We indicate in this way, the crucial importance of those Christian principles and related matters for defining efficiently the strategic crisis of the 1990s.

Notes

1. See, Lyndon H. LaRouche, Jr., "U.S. Policy toward the Reunification of Germany," *EIR*, Vol. 15, No. 40, Oct. 21, 1988, p. 40, for the full text of LaRouche's Oct. 12, 1988 speech on German reunification; reprinted in *EIR*, Vol. 17, No. 38, Oct. 5, 1990, p. 23.

2. President George Washington commissioned his treasury secretary, Alexander Hamilton, to organize these founding policies for the U.S. government: a Bank of the United States, to counter private usury, and to secure credit for private industrial and agricultural investment; national sponsorship for the development of manufacturing, through tariffs, patents, and other means; federal investment in canals, roads, harbors, and other infrastructure. This general program, personally identified with both Washington and Hamilton, was implemented by the nationalist political faction up through the Lincoln and Grant administrations, and accounts for the industrialization of the U.S.A.

3. Irish Catholic rebel leader Mathew Carey (1760-1839), a protégé of Benjamin Franklin in Paris, continued Franklin's humanist political tradition in Philadelphia after the Revolution. Publishing scores of pamphlets, Mathew Carey attacked Adam Smith and the British Empire, revived Hamil-

ton's policies, and instructed Henry Clay and the second generation of American nationalists.

Mathew's son Henry Carey (1793-1879), the most widely known American economist of the nineteenth century, led the Philadelphia nationalist circle which built the main American railroads, iron, steel, and machine industries. Abraham Lincoln learned his economics from Henry Carey's books, as did many republican patriots in Latin America, Europe, and Asia.

4. Henry Clay (1777-1852) was the public spokesman for the "American System" of political economy, and for national sovereignty in explicit opposition to imperialism. Clay created the pro-defense movement that rescued the U.S. from British aggression in 1812. Leading the Whig Party against the Southern slavocracy and the Northern Anglophile merchants, he pushed protective tariffs through Congress which transformed the economy. Abraham Lincoln served as Clay's political lieutenant in Illinois before becoming U.S. President.

5. The Philadelphia-based nationalist American leadership adopted exiled German republican leader Friedrich List (1789-1846) as their tutor in economic science, principally through List's text, *The National System of Political Economy*. After helping form the Carey-Clay party, List returned to Germany, pioneered the railroads, and created the customs union (Zollverein) which led to German national unity and industrial greatness.

6. St. Augustine's concept of just war can be summarized as follows: 1) Wrongs are preferably redressed by patiently submitting to the loss of temporal advantage, to produce amendment of the ways of the wicked and to thus overcome evil with good; 2) war should be conducted only as a last resort, since it were better to stay war with a word and to procure peace by peace than to slay men with the sword and to achieve peace by war; 3) however, the legitimate sovereign of a state has a natural right to conduct war to defend the common weal; 4) such a war requires a just cause in the form of some injury inflicted and the failure to make amends; and 5) in the event of a just cause, war to remain just must have a right intention and be waged mercifully, in the spirit of a peacemaker.

Before the American patriots launched their War of Independence against their evil adversary, King George III and his liberal backers, they sent a number of missions to Great Britain to attempt to reach a compromise with the stubborn monarch and his advisers. It was only after King George III and the British government refused to ameliorate the economic policies which were strangulating the American colonies, that the war was fought.

7. Cf. H. Graham Lowry, *How the Nation Was Won* (Washington: Executive Intelligence Review, 1987).

By the early eighteenth century, the same Leibniz, sometimes called "the last universal intellect" of history, was at the center of not only the world's leading scientific circles, but was also the principal intellectual figure of Europe-based, global political movements. Among those were included the circles of Cotton Mather, Benjamin Franklin, et al., in the future United States. Franklin's far-flung conspiratorial networks of the period from approximately 1766 onward, for example, were principally Franklin's intersection with the still active networks of Leibniz's followers in Europe.

8. The ongoing war against the United States included the 1776 War of Independence, the War of 1812, the role of the Duke of Wellington in directing Mexican forces in the war with Mexico, and also the Civil War of 1860-65, which was being orchestrated by Britain chiefly, with the intent of dividing the United States into several quarreling baronies which might then be taken over therefore by Britain.

9. H. Graham Lowry, *How the Nation Was Won*.

I

The strategic setting

The underlying, principal strategic conflict dominating the planet today, is expressed as the varied threat of generalized warfare, famine, and epidemic disease, the which is caused, ultimately, and that almost entirely, by the several efforts to employ the model of pagan imperial Rome, and pagan Roman, or more barbaric ethics, for the purpose of establishing "one-world government," through the United Nations Organization, or some alternate instrument. Today, as in the earlier Roman times of the evil Tiberius, Nero, Caligula, and Diocletian, the chief impediment to consolidating such an evil "New World Order" is the force of Christianity.

This has been a persisting threat throughout modern European history, and a particular such threat since the time of the evil first Duke of Marlborough and Marlborough's "Venetian Party" cronies, at the beginning of the eighteenth century.¹ The displacement of Christian morality, and that morality's replacement by the amoral ethics of such sundry paganists as the British liberals and romanticists generally, was a characteristic feature of such would-be revivals of pagan Roman world empire as Pax Britannica, Bonapartism, or Dostoevsky and Hitler's sordid dreams of a Third Rome.

Inevitably, the campaigns for a pagan form of one-world imperialism appeared frequently in the guise of attempts to eradicate Christianity, and always appeared in the guise of preferring some form of secularist, pagan ethics to Christian morality. This paganist impulse is typified by the work of such figures as Francis Bacon, Thomas Hobbes, John Locke, David Hume, Voltaire, and Adam Smith. Another name for this paganist one-world cult is the "New Age." Strictly speaking, the paganist Francis Bacon was already a New Ager, as were Marlborough's cronies and followers among the British eighteenth-century liberals, and the cronies and followers of Montesquieu, Voltaire, and so forth, among French-speaking romantics. Usually, today, "New Age" signifies those beginning with Oxford's John Ruskin, for example, who espouse the astrological slogan of self-proposed Antichrists Friedrich Nietzsche and Aleister Crowley: to end the Age of Reason (Socrates, Christ), and bring on the Age of Aquarius (Dionysius-Apollo, Lucifer-Lucis, Satan).

Notes

1. cf. H. Graham Lowry, *How the Nation Was Won*, (Washington: Executive Intelligence Review, 1987) Chapters 4 and 5, and *passim*.

II

The genesis of economic science

The science of political-economy is premised upon the conclusive, empirical evidence of a fundamental difference which sets the human species absolutely apart from, and above, all of the animal species, as Moses specifies in Genesis 1:26.

This crucial difference, is mankind's power to increase the potential population-density of the human species as a whole by means of the voluntary generation, transmission, and efficient assimilation of scientific and technological progress. Mankind is capable of increasing intentionally the maximum size of the human population which could be self-sustained by its own labor per average square kilometer of land area, while also raising the average physical standard of living.

No animal species can accomplish this. The range of successful adaptation of an animal species is delimited, as if by genetic determination; mankind incurs no such limitation upon our population, nor the development of the individual members of that population.

This increase in man's physical productivity is properly measured in both per capita and per square kilometer terms: the rate of useful physical output per person, and per square kilometer.

We are obliged to measure that output not merely as simple quantities of objects. Since we are referencing the rate of production in terms of the self-reproduction of the human species, we must measure both the inputs and outputs in reproductive-actuarial terms. We must take into account, as functionally causal variables, a system of measurement of inputs and outputs premised upon the family household as the social unit of both the quantitative and qualitative reproduction of not only entire societies, but mankind as a whole.

Therefore, we are obliged to measure the characteristics of the individual member of the family household in such terms of differentiation as *generations, age intervals, health, mental development, life expectancies, and fecundity*. We must measure not individual objects, but the average market basket of consumption required, per person and per household, in terms of the corresponding cause-effect relations.

We are obliged to measure the productive relationship in terms of mankind's productive changes in nature: that is, man's increase of the present and future fecundity of land for human reproduction. This is as we read the message of Moses in Genesis 1:28-30.

In order that such a process might be continued according to the instruction of Genesis 1:28, mankind must effect willfully those successively more truthful scientific discoveries by means of which increase in the well-being and productive powers of labor is accomplished. This willful progress can occur only under condition that there is a *knowable principle of ordering* governing the progress from inferior to higher levels of knowledge for practice.

Since the better ideas so discovered must correspond to a superior mastery of nature as a whole, the knowable laws



The Book of Genesis: panel by Lorenzo Ghiberti for the "Gates of Paradise" in Florence, ca. 1430. From the left to right in the foreground, it shows God creating Adam, God creating Eve, and the expulsion of Adam and Eve from the Garden of Eden. The temptation is in the left background.

which govern progress in fundamental scientific discoveries must be the laws which govern the universe as a whole. If this were not possible, then the human species population would never have risen above 10 million persons living upon our planet at any one time: a fair estimate of the potential population-density for a "primitive hunting and gathering society."

Man might employ successfully a tool whose design he did not understand correctly; however, the principle which orders successfully successive fundamental improvements in tool design, must be in at least approximate agreement with the principle ordering the underlying lawful ordering of our universe.

Indeed, the name of *science* is properly reserved to designating the discovery of those underlying principles which

can be shown empirically to order a successful ordering of successive scientific revolutions.

In that view of *science* as activity, man's conscious knowledge and mental activity is approximating the principles of organization of all creation. In that respect and degree, the mind of the individual scientist is mirroring the creative will of God the Creator. Thus, as we read in Genesis 1:27, man is created in God's own image.

This much which we have just outlined is all demonstrable to human reason by means of crucial, incontestable empirical evidence. More is similarly demonstrable. What has been outlined thus far bears chiefly upon mankind's interaction with the universe, and that only in a general, if nonetheless conclusive form. Examine next, somewhat more deeply, man's living likeness to the image of God the Creator.

III

Imago viva Dei

Although the development of the creative mental powers of the human individual occurs within a social process, the creative processes by means of which each individual may generate, transmit, or assimilate practically valid discoveries, are processes of concept-generation which are, demonstrably, wholly internal to each individual person. Therefore, those creative powers of the individual are *sovereign* powers of each individual in which that *divine spark* of potential for creative reasoning is developed.

It is not only the existence of the creative powers which defines man as in the image of the Creator; it is the fact that this creative power is in each instance a sovereign capability of the person, a sovereign essence of that individual, which defines the human individual as individually in the living image of the Creator or, in Latin, *imago viva Dei*.

Therefore, all human life is sacred. If a human life may be taken in the heat of morally justified warfare, or other mortal combat, no Christian may ever terminate a human life at leisure when the individual is helplessly in our power to sustain or kill. Otherwise, we sin directly against God.

The sacredness of human life is perhaps better understood, if we take into account the practical importance, to all of mankind, of each individual person who adds in the slightest degree to our fundamental scientific knowledge.

Put more simply, every improvement in mankind's store of fundamental scientific knowledge adds implicitly to the potential productive power and moral development of every person, present and future, of society as a whole. The rate of human progress thus tends to increase as we increase the total number of living persons whose mental powers are developed to generate, transmit, and assimilate the fruits of fundamental scientific progress. This is a simply demonstrated fact, which involves the deepest principles of the science of economic practice.

The malthusians argue, that the rate at which a society produces is the rate at which the entire society is depleting raw materials and other natural preconditions for human life. It should be obvious, that if the rate of scientific progress is great enough, no depletion will occur through expanded scale of production and consumption. Thus, on the condition that we develop and employ the creative potential of each new individual, a higher birth rate increases the relative scale of natural resources—a result directly opposite to the malthusians' well-known, but anti-scientific assertions.

Indeed, those create who might merely rear children in such a fashion as to nurture the creative potential of those children.

Any society which persists in what is commonly called today "a zero technological growth" policy of practice, indefinitely, must first stagnate, and then collapse ultimately into ruin. Archeology is occupied chiefly, although not exclusively, with the pitiful remains of such failed, inferior cultures.

The more obvious among the contributing causes for such

a wretched failure, is the inflationary and other ruinous effects of depletion of raw materials and analogous “environmental resources.” There are also deeper, underlying causes for the ruinous outcome, requiring deeper insight. We treat the case for raw materials first.

Generally, the relative quality of “ore” is defined in terms of the processes required, successively, to find it, to get it, and to refine it into the desired form of semi-finished, or so-called “intermediate” commodity. The predominant consideration, in nearly all of the cases, is the ration of labor required to bring a per capita market-basket’s ration of consumption of that intermediate commodity to the appropriate place, in the appropriate state of refinement. What we term “energy” has a leading bearing upon this determination of relative cost.

The case for metallic ores illustrates the principle.

The feasibility of reducing an ore to produce good quality ingot, involves the relative temperature (energy-flux density) delivered to each relevant molecule. For example, to go as directly as possible to the working point, if we can put a reduction-process into suitable magnetic confinement (“magnetic bottles”), and raise the operating temperature inside there to the critical level of temperature-equivalent (energy-flux density) at which tungsten exists only in the plasma-state, every kind of rock or solid or liquid waste in the universe becomes a more or less economical form of ore.

If we have available sufficient energy, at a sufficiently high energy-flux density, if we can handle that energy-flux density in production processes, and if the labor-cost of that energy and its productive application is a sufficiently small ration of the average amount of productive labor employed by that society, there is virtually no limit to the supply of commercial grades of ore. On the condition, that the *increasing* quantity of energy, the *rising* level of energy densities, and advances in employed technologies are proceeding in a properly coordinated way, at adequate rates, there is no “limit to growth” on the horizon of mankind today.

To show the fallacy of the obvious objections to what has just been stated, note the following.

Once we have achieved what is usually termed a “second-generation” fusion-energy device, in the range of a terawatt unit-output, mankind implicitly has escaped the bounds of planet Earth, to as far distant as the asteroid belt. Similarly, after that, the next energy-sources, controlled matter/anti-matter reactions, should be achieved by approximately the close of the coming century—on condition we are determined to bring this about. That upward step takes us to the outer limits of our solar system and into technologies carrying us far beyond that.¹

That destroys the implied objection to our observation respecting the limitlessness of prospects for growth.

Limits to growth appear, and close in upon us, only if our society is a foolish one. If a society is foolish enough to suppress the increasing of per capita consumption of energy,

the society will be crushed by its own stupidity. If a society is suicidal enough to call a halt to capital-intensive, energy-intensive investment in scientific and technological progress, or, even worse, to substitute labor-intensive “services” for capital-intensive, energy-intensive manufacturing, that society is implicitly dooming itself to collapse.

The possibility of a successful society depends upon two conditions. First, the society must generate scientific and technological progress; to do this, the society must have developed in its members the disposition and capacity for scientific progress. Second, the society must adopt policies which cause (the physical equivalent of) productive investment in scientific and technological progress to prevail over opposition to such policies.

Thus, with certain qualifications, we must speak now of “man the creator.” The mental-creative powers, which mankind demonstrates through the use of scientific revolutions to increase qualitatively the potential population-density of our species, is the generality referenced. This generality shows mankind to mirror the Creator. Thus, man is designed to become the “little creator,” the small mirror-image of the universal Creator. The former, the “little creator,” we call the “minimum”; the universal, the “Creator,” we call “the Maximum.”

Not only is this creative power uniquely characteristic of mankind, among all species; this creative power is located within the individual human personality, as a *sovereign* potential contained within that individual personality. Thus, it is the individual person who, by virtue of representing this *sovereign* power, is, individually, in the *Living Image of the Creator (imago viva Dei)*.

In the frequent case, that we may think that particular persons fail to express this Living Image of God in their conduct, those persons were born with the potential for creative reason, even though they may have abused or rejected that divine spark of potential within themselves. Thus, all individual human life is sacred.

Notes

1. See “Powered Flight to Mars in Less than Two Days,” Heinz Horeis, *EIR*, Vol. 14, No. 12, March 20, 1987, p. 18.

For the case that human space travel occurs at a constant acceleration/ deceleration of one earth gravity in a fusion process using helium-3, a spaceship could carry enough fuel for a round trip approximately as far as the asteroid belt. If we use the matter/anti-matter reaction gives a fuel-to-work ratio such that the same ship using a matter/anti-matter reaction, would be able to go three orders of magnitude greater distance approximately, which would carry us to the extremes of the solar system in a round trip.

IV

The sovereign personality

So far, we have indicated some of the leading facts which show all intelligent men and women that scientific and technological progress is the essential characteristic which distinguishes the economy of the successful society from the relatively inferior, failing culture.

In the author's recently published short book, *In Defense of Common Sense*,¹ the reader will find the required elementary definition of the term *creative*. That book makes clear the difference between deductive argument—the lower order of rational thought—and creative mental activity.

The discovery of a brand new, valid scientific conception is the expression of a process which, by its very nature, occurs entirely and uniquely within the mind of an individual person. No matter how numerous the external, social influences participating in developing that person's creative-mental potentials, the generation of a new concept is a process which occurs exclusively within the mind of that thinking person. As we have already emphasized, the process of generation of that conception is therefore a *sovereign* process.

These two conceptions, *the role of scientific and technological progress*, and the fact that *each creative mental act is a sovereign process of an individual personality*, are the essence of all economic science. Such an economic science is in a unique form of agreement with Christian principles. Moreover, economic science was developed, in fact, by Christianity; furthermore, the evidence is that perhaps economic science could not have been developed except by Christianity. The essence of this connection is expressed by the *Filioque* of the Latin creed; only Christianity, through the view of Jesus Christ reflected in this feature of that creed, organizes society implicitly according to the principle of the sovereignty of the human individual, defined in the way we have defined it here.

When we hear ourselves speaking solemnly words and phrases such as *survival, national interest, individual rights, human rights, equality, freedom*, and so forth, what do we really mean?

Given the foregoing outline of the matter, it should be clear, that the essential self-interest of the individual person is the self-interest implicitly associated with this notion of "sovereign creative process" of the individual personality. We now explore, summarily, step by step, the way in which such essential self-interest is adduced.

Firstly, since we are each mortal, and thus must die, our highest self-interest is associated with the best of our life's productions, which we leave after us. This donation which we make to our posterity presumes that there will be a posterity to receive the gift. These reflections guide us toward the understanding which we should be seeking here and now.

Think of the productions we might so bequeath. Begin with the most obvious of the implied queries.

Can this production be an object?

Suppose a man and his wife take a poor piece of wild or depleted land; suppose that this pair is raising a family there,



Philip Ulanovsky

The late Dr. Robert Moon, a nuclear physicist, instructs children in a project to reproduce crucial experiments in electromagnetism by André Marie Ampère, at a summer camp in Virginia in 1986.

and develop that poor patch of soil into a fecund farm. Suppose an architect designs a city, better than most in utility and aesthetical merits, which may endure to mankind's admiring advantage for several thousand years to come. Are these, or other worthy *objects, in and of themselves as objects*, the kinds of production we wish to bequeath to our posterity?

It is good to provide our immediate posterity with useful objects; but no object could embody, merely as an object, the quality of almost timeless, virtually inexhaustible durability respecting its benefits to future generations. We ought to desire, that our brief, mortal existence might contribute something of virtually timeless benefit to future generations.

This matter is examined rigorously in *In Defense of Common Sense*² to the following effect.

Any *object* we might fashion may crumble, or become relatively useless by virtue of technological attrition.³ In contrast, no valid scientific discovery of today can ever be rendered as having been historically unnecessary. All valid scientific discoveries will be superseded by more valid ones; but, nonetheless, each is the necessary foundation for each and all of its successors; in the latter fashion it enjoys a splendid immortality in the whole of human existence.

In this sense, valid scientific discovery of a more truthful comprehension of natural law, typifies the immortal fruit of

a mortal life. In this sense, to contribute, or even merely to service such a discovery, typifies, by reflection, what is truly the essential self-interest of any person. It is only a reflection; it is not yet an adequate representation of the true, deeper self-interest; but, this reflection points our thinking along the right pathway.

So far, here, we have said implicitly, that a person is expressing his or her self-interest as an individual human personality, only as he or she is engaged in activity which employs the same, sovereign, creative process of powers of reason which we associate most readily with the generation, transmission, and efficient assimilation of valid forms of fundamental scientific discovery.

That argument implies, in its turn, that the only true self-interest of the human personality is to express, and also defend, one's own human nature. Since mankind is set apart from, and above the beasts, solely by the person's sovereign potential for creative reason, only the individual's expression and defense of the supremacy of such creative reason is a truly self-interested action by a member of the human species.

For pedagogical and kindred reasons, we have considered here so far only one among the expressions of creative reason, those kinds of valid, fundamental physical scientific discoveries often termed both "crucial" and "revolutionary." We



Johannes Kepler (1571-1630), the great astrophysicist and geometer. Among his most durable contributions to scientific progress, were problems he posed for solution by his successors.

do not intend to exclude, or disregard, other expressions of creative reason. We are implying that, whatever is true for the case of scientific discovery, is also true, to kindred effect, for each and all other individuals' expressions of creative reason. For that reason, it is permitted to present our case for economic science as we do here initially, limiting our attention to the implications associated with valid forms of fundamental scientific discovery.

The achievement of a valid revolutionary discovery in physical science yields implicitly an array of useful objects. These objects may be judged "useful," only in the degree that, by class, they elevate significantly the productive powers of our species, and thus tend to increase our species' self-reproductive power. That defines the notion of "usefulness" of the object generated, as a by-product of creative reason's action.

Consider an outstanding example. The first comprehensive mathematical physics is that of Johannes Kepler.⁴ In connection with Kepler's work of founding a comprehensive mathematical physics, sundry instruments were generated as by-products of his creative reasoning. This included the first mechanical computer.

The weight of Kepler's influence lies in the success of the method by means of which he founded the first comprehensive mathematical physics. This is said in the sense, that

we might overlook all of the useful objects generated then as by-products of this work, without diminishing thereby the enduring historical importance, and continuing usefulness of the discoveries.

To the present date, although improvements in the secondary features of Kepler's solar astrophysics are necessary, the underlying conception of Kepler's design remains essentially competent, whereas the Newtonian and other proposed alternatives of the past are all discredited by means of crucial experimental evidence.

Look at the pre-history of the digital computer.

Kepler designed, built, and used the first mechanical calculator. The same principle was central to the later design, and construction, by Blaise Pascal. Kepler and Pascal were directly forerunners of Gottfried Leibniz's development of the mechanical calculator. The essential features of the modern electronic digital computer are nothing better than an application of Leibniz's principles for mechanical devices.

It is also illustrative of the same argument, that two of Kepler's most durable contributions to scientific progress were problems he posed for solutions by his successors: the development of the differential calculus, and the solution of elliptic functions. Pascal contributed to establishing a Keplerian differential calculus, followed by Leibniz, whose first successful discovery of such a calculus was completed by 1676.⁵ The mastery of elliptic functions was effected by Carl Gauss et al. during the first half of the nineteenth century, more than 200 years after Kepler had posed this challenge.

Today, more than 350 years since Kepler's death, Kepler's method for astrophysics has been proven also crucial for correction of the common failings of quantum mechanics respecting the atomic nucleus.⁶

Any valid "revolutionary" discovery in natural philosophy does much more than correct deep errors of contemporary popular textbook opinion. Each valid such discovery increases the rigor and creative power of the method available for effecting new, greater "revolutionary" discoveries. This point is made clear by imagining a proper form of secondary-school and university curricula, from which that abomination known as the course textbook is outlawed.

In physical science, as in geometry, too, the student masters the comprehension of the subject by reliving, as nearly as possible, the mental experience of the original discovery by the original discoverers. In that approach, a collection of original sources replaces the course textbook. The original crucial experiments are relived by the student; and improved, better experimental versions of the same crucial hypotheses are also scrutinized.⁷

Most important, physics discoveries are to be accomplished by aid of recognizing a faulty assumption imbedded historically in the supposed proof of a hallowed truism of contemporary professional certainties. A grounding in crucial historical source materials, is obviously the virtually indispensable foundation for scientific rigor.

So, the creative physicist will be forever, periodically, reexamining the work of Kepler and Kepler's predecessors, again and again; in this, and kindred Socratic enterprises, the foundations of coming scientific revolutions are being established, reaching so the indefinitely distant horizons of the future.

Thus, the essence of the scientist's true self-interest is that which he contributes, as sovereign creative activity, to furthering the endlessly continuing process of fundamental scientific progress. To restate this same point: The most essential contribution which the scientific discoverer may make, is less a particular scientific discovery, than an improvement of the known principles by means of which subsequent generations effect entire new generations of valid, fundamental scientific discoveries. In this way, the mortal sovereign person becomes the necessary individual mortal existence, who has enriched the power of the human species as a whole, for all time to come.

The way in which such a mortal life benefits present and future generations should be more readily obvious. To consider, next, the benefit to the past touches the subject of our inquiry more profoundly.

Let us return our attention to the two cited challenges which Kepler left to his successors: the development of a differential calculus, as accomplished by Leibniz; and the general solution of elliptic functions, solved essentially by Gauss et al. Did not Leibniz and Gauss benefit Kepler in a readily intelligible way? Does my work die with me, or is it reinvigorated to continued, efficient life, by the work of my successors? Kepler clearly sought a Leibniz, a Gauss: In good time, each responded to Kepler.

If and when relations of individuals across time, in the future and into the past, are seen in these terms, mortality is cheated of its fearfulness. For this author, for example, some such scientific figures as the fifteenth-century Nicolaus of Cusa and eighteenth-century Leibniz are, in many ways, efficiently as if living contemporaries, as are unknown figures from the distant future to whom this author is also morally accountable.

Science, thus, gives an *isochronic* quality to the linking of the work of diverse persons across even great expanses of past and future time. The same is true in matters of classical forms of art, and in all other matters truly important, by their nature, to the human species as a whole.

How shall we define here the purpose of this development to which the sovereign creative powers of the mortal individual contribute so *transfinitely*? The answer can be summed up on two successive levels.

On the first level, it is a physical advantage. The continued existence of the human species depends upon technological progress. We have already considered an illustration of that point. Technological progress increases the per capita productive powers of society; at the same time, technological progress transforms and improves nature. That improvement

is essential, or else human depletion of fixed varieties of so-called "natural resources" would doom us.

On the second, higher level, *it is a spiritual advantage*. It is the development of the quality of man by means of which the twofold, subsumed, physical gain is effected.

The net effect of a valid fundamental sort of scientific discovery, is to increase the sovereign creative power of virtually everyone who assimilates that discovery. Thus, through fostering the development and expression of individual sovereign creative powers, the net result is the self-increase of the sovereign creative powers of the members of the human species as a whole.

Let us, next, re-examine what we have said thus far, introducing a slight, but crucial change in our choice of standpoint.

Notes

1. Lyndon H. LaRouche, Jr., *In Defense of Common Sense*, (Washington: Schiller Institute, 1989).

2. *Ibid.*

3. The term *technological attrition* refers to the depreciation or devaluation through relative, or marginal obsolescence, of tools, equipment, and so forth, rendered less competitive in quality through being superseded by more technologically advanced means. This is associated with a relative lowering of the value of labor using the older equipment, relative to labor using the new.

4. It is a simple, literal fact of history, that Johannes Kepler was the first person to establish a comprehensive mathematical physics. In fact, as is shown in other locations by various authors, including the present one, Newton was by no means the discoverer of the law of gravity as given; what is attributed to Newton is simply an inversion of the determination of a universal gravitational constant derived directly from an algebraic manipulation of Kepler's famous three universal laws.

5. Consulting the original manuscripts in the Hanover Leibniz Archive establishes not only that Leibniz had completed the work leading to a submission of the first published discovery of the differential calculus, submitted to a Paris publisher in 1676, but that at that time, prior to that date of publication, he had also made many more advanced discoveries in this connection, discoveries which were attributed ordinarily to decades later in time by Leibniz or others.

This is to be compared with the examination of the newly discovered papers of Newton, during the course of the present, twentieth century, in which it is discovered that Newton had done no significant work toward any calculus, but had instead concentrated most of his laboratory and related activity on experiments in black magic. See Carol White, "Refuting the Second Law," *Fusion*, Vol. 8, No. 1, January-February 1986, p. 63.

6. The hypothetical structure of the atomic nucleus as developed by the late Dr. Robert J. Moon, professor emeritus at the University of Chicago and veteran of the Manhattan Project, is presented in Laurence Hecht, "The Geometric Basis for the Periodic Table of the Elements," (*21st Century Science & Technology*, Vol. 1, No. 2, May-June 1988). Moon's model is explicitly derived from Keplerian considerations of the structure of space-time and the necessity for expression of the Golden Section, or "Divine Proportion," as he always referred to it.

7. The popularity of both the textbook and of the textbook-based classroom course has tended to distract modern opinion's attention away from the fact that earlier, prior to the development of the textbook, a superior form of education had been used, in which the student had to re-work original experiments with the guidance of original literary sources, and thus relive as closely as possible the mental experience of the original discovery.

V

Agapē

Let us turn our attention to Paul's First Epistle to the Corinthians (I Corinthians 13). Let us now examine from this vantage point what we have argued thus far.

For the benefit of the layman, before proceeding to our point at hand, we interpolate here a preliminary, introductory definition of *agapē*.

Most literate adult persons have encountered, somewhere in their readings, or related encounters, a reference to a distinction between "sacred" and "profane" *love*. As a preliminary step, assume that the *love* (*agapē*, *caritas*, *charity*) referenced in I Corinthians 13, and other New Testament locations, is defined approximately as equivalent to "sacred love," the latter as opposed to "profane love."

"Sacred love" is exemplified by "love of God." We signify otherwise *love of truth*, *love of (classical forms of) beauty*,¹ and *love for mankind*. We signify the love of the parents and the grandparents for the development of the human potentials of the child.

We signify this set of *isochronic* relations, encompassing past, present, and future, defined always in terms of the individual creative reason's generation, transmission, and effective assimilation of valid, fundamental scientific discoveries. This is usually restated in terms of our proceeding section's discussion; these isochronic relations, encompassing past, present, and future, are defined always in terms of individual creative reason's perfection of individual creative reason, *by means of* the generation, transmission, and efficient assimilation of valid, fundamental scientific discoveries. This latter can be restated usefully in all the broader terms implied, respecting classical art forms, creative acts of love for mankind, and so on.

What is emphasized at this immediate juncture, is the agreement, the coextensive congruence of *agapē* and of universal acts of creative reason. The reaching out to the universality of mankind's past, present, and future, *for the love of God*, is *agapē* expressed practically, as a creative act directed toward perfection of the creative powers of mankind.

Without such *agapē*, there is no creative power, no creative act. It is by means of creative acts, as we have defined "creative" here and in other published locations,² that the emotional state associated with *agapē* is expressed and communicated.

To act, is implicitly, and efficiently, to prefer, to choose one way, among others, of using a portion of that pitifully finite resource which is the entirety of the allowed mortal existence of an individual person. It is the highest, true self-interest of that individual person, to prefer, to choose an act which is of the relatively greatest and most far-reaching benefit to future generations of all mankind. Such a choice is implicitly an act of *sacred love* toward mankind, on the condition that the chosen act is of appropriate quality, and is motivated by such a specific intention.

We have considered already some of the reasons the quality of that chosen act must express efficiently the individual's

sovereign power of creative reason. We have included among such universal acts, the development of the potential of moral character and creative reason in the individual child. However, we have also indicated, it is the higher development of the creative power of future generations, which, in itself, expresses the essential form of the true good, which expresses less imperfectly the choice of act which is consistent with one's true, deeper self-interest.

In his *Of Learned Ignorance (De Docta Ignorantia)* and other locations, Cardinal Nicolaus of Cusa develops a conception termed "minimum-maximum." This conception has

several subsumed significances for physical science; it has a more generally inclusive significance which we stress in connection with *agapē*.

We have defined the human individual engaged in use of developed powers of creative reason as a sovereign entity. This use of "sovereign" signifies, among related notions, that the process of constructing a single conception, a conception of the form of a valid revolutionary scientific discovery, or germ of a great artistic composition by Raphael or Beethoven, is a process which occurs entirely within the mind of the individual person. That also signifies, that whoever re-

'The greatest of these is love'

Chapter 13 of Paul the Apostle's First Epistle to the Corinthians, (the King James translation, in which the Greek word for divine love, agapē, is rendered as "charity"):

Though I speak with the tongues of men and of angels, and have not charity, I am become as sounding brass, or a tinkling cymbal.

And though I have the gift of prophecy, and understand all mysteries, and all knowledge; and though I have all faith, so that I could remove mountains, and have not charity, I am nothing.

And though I bestow all my goods to feed the poor, and though I give my body to be burned, and have not charity, it profiteth me nothing.

Charity suffereth long and is kind, charity envieth not; charity vaunteth not itself, is not puffed up,

Doth not behave itself unseemly, seeketh not her own, is not easily provoked, thinketh no evil;

Rejoiceth not in iniquity, but rejoiceth in truth;

Beareth all things, believeth all things, hopeth all things, endureth all things.

Charity never faileth; but whether there be prophecies, they shall fail;



Philip Ulanovsky

"It is the higher development of the creative power of future generations, which, in itself, expresses the essential form of the true good. . . ."

whether there be tongues, they shall cease; whether there be knowledge, it shall vanish away.

For we know in part, and we prophesy in part.

But when that which is perfect is come, then that which is in part shall be done away.

When I was a child, I spake as a child. I understood as a child, I

thought as a child; but when I became a man, I put away childish things.

For now we see through a glass, darkly; but then face to face; now I know in part; but then shall I know even as also I am known.

And now abideth faith, hope, charity, these three; but the greatest of these is charity.

lives that mental act of discovery—for example, as a student—in transmitting and assimilating that integral idea, is also acting in the same sovereign capacity.

In the case of such revolutionary discoveries in physical science, it is implicit that this sovereign creative process of the individual is engaged practically with the laws governing the universe as a whole. The latter represents the efficient Will of the Creator. The latter is the Maximum; the individual creative mind is the Minimum, which echoes the Maximum. To the degree this mirroring is in the process of being perfected, the Minimum is in *the Living Image of the Maximum (imago viva Dei)*.

The relationship so described between Maximum and Minimum is *agapic*, if it fulfills what we have pointed toward as requirements of both quality and intent. Also, this sort of relationship among two or more *minima* (Leibniz's *monads*), participates in the higher ordering, the higher, mirroring relationship to the Maximum. Thus, does *agapē* (*caritas, charity, sacred love*) permeate all; nothing is a true good unless it is so permeated with *agapē*.

The purpose of human existence, the truest self-interest

of both every individual person and every society, respectively and as one, is to order the proliferation and perfection of human existence in our universe, in this *agapic* way.

So, I Corinthians 13 may be read for the occasion of reflection upon this topic.

Notes

1. Classical philosophy divides beauty among two related forms, "natural," and "artistic." Natural beauty refers to harmonic compositions which are congruent with forms characteristic of healthy living processes as distinct from non-living ones. These natural forms all have harmonic orderings ultimately congruent with the golden section of geometry. All such living forms which have this harmonic ordering are physically (thermodynamically) negentropic. The mere imitation of nature is not considered artistic beauty. Artistic beauty consists in creating forms which are products of those creative aspects of the human mental processes otherwise responsible for valid, fundamental discoveries in physical science. The further requirement of artistic beauty is that artistic beauty be coherent with, although distinct from, natural beauty.

2. Herein, the definition of *creative* used is that supplied, for example, *inter alia*, in the author's short 1989 work, *In Defense of Common Sense*, and 1990 manuscript *Project A*, recently published in *EIR*, Vol. 17, No. 41, Oct. 26, 1990.

VI

Reproduction of man

The most crucial among the *specifically economic* facts which set a Christian economic practice apart from any other, is the manner in which both Leibniz's *science of physical economy* and Christianity define the *sovereignty* of the individual personality. As we have stressed that fact thus far, this *individual sovereignty* is strictly defined, uniquely, by that *universal historical fact* which sets the human species perfectly, and absolutely, apart from any and all beasts: *the divine spark* of developable potential for *creative reason*, as this is defined in such recent locations as *In Defense of Common Sense*¹ and *Project A*.²

The crucial historical fact referenced by economic science, is the combined increase in per capita productive powers, and in potential productive fruitfulness of land-area, resulting from society's progress from lower to higher levels of culture. This progressive change, in both elements, is incorporated within, and subsumed by the notion of a *rate of increase of potential population-density*. In other words, this is a notion of an *implicitly continuous function*, expressed in terms of a *functionally variable such rate of increase*. That function expresses the effect of increase of the level of development of the *potential mental-creative powers of the individual* in the society.

At first inspection, these considerations may appear almost self-evident. After a more thoughtful, more rigorous second glance, we find that we are among the most troublesome axiomatic problems of any mathematical physical science. There are principally two such issues posed by any rigorous reflection upon the reproduction of the successive generations of a society.

First, we discover that although we do employ the ordinary counting-numbers to effect a raw measurement of actual population-densities, we may not employ simple arithmetic methods in defining the number of individuals represented by an increase (or decrease) of potential population-density.

Second, the sovereignty of the person's creative-mental processes defines the "economic individual" of per capita calculations as both *formally* and *ontologically* a member of the higher of the species of Gottfried Leibniz's *monads*.³

A student of mathematical physics who had considered only carelessly what we have summarized thus far, would probably fall into a blunder of the following description. Imagine a teacher-student exchange including these elements.

We have identified the precondition for durable survival of a social culture, as a continuing process of successive increases in the average *physical* productive powers of labor, effected through the generation, transmission, and *efficient* assimilation of valid, revolutionary scientific (and related) discoveries, transforming generally social practice. We have summed up the interdependent benefits of such continuing scientific and technological progress, respecting persons, society, and non-human nature, in terms of *rate of increase of potential population-density*.

How shall we measure *potential population-density*?

To come directly to the crucial point: Shall we, or shall we not, use simple counting-numbers to identify *actual* or *potential* population-density per unit area of land-use? Essentially, it would be a sophomoric blunder to use the simple counting-numbers to measure their respective population-densities for simple comparisons. The nub of the issue, stated most simply, is, as we noted in an earlier section, that the typical individual in one set is an individual of a different *quality* than that of another set.

Let us examine one aspect of this difference in *quality*. Let us view this first in the most rudimentary and one-sided way: in terms of social costs of producing a unit per capita value of a family household's basket of consumption requirements.⁴

As we raise the level of technology in productive and related practice, we increase the required quality of educational and correlated development of the *creative potential*⁵ and moral character of the young. Therefore, we increase the per capita consumption and constructive-leisure requirements of the family household which produces these young. Nonetheless, we increase the per capita productivity potential of the society by a greater amount than the increased costs of the family household's basket of necessary consumption.⁶

Also, as society's condition is elaborated in these ways, the demographic characteristics of the society are altered.

Yet, important as these two kinds of changes are, they reflect something more profound, more spiritual, if you please.

In counting potential population density, we do not count the number of individuals as one; sometimes, we may make an approximation by counting the number of persons as individuals, in terms of countable numbers, for an estimation of *actual* population-density statistically, but that does not define *potential* population-density.

The obvious reason is that the use of the counting-numbers, particularly for the purposes of measuring density functions of any kind of counting magnitude, assumes that there is an equal magnitude usually, in some sense an equal magnitude, associated with each counting-number.

But that is not the case with human individuals. The quality in the human individual, relative to the density function, changes, as the density function of a *potential* population-density function increases. That is, both the activity, in the first approximation, and the consumption per person increases.

Furthermore, these functions are associated with a primary function, which is creativity: the higher order of creativity.

Thus, we have this nonlinear magnitude, the higher order of creativity, with its predicated features of required consumption levels, and potential productivity, in one sense or the other, occurring within a sovereign individual.

So, when we're counting individuals, we're counting sovereign entities, whose internal magnitude is determined

in the indicated, nonlinear way.

Thus, when we compare populations in two periods of time, assuming a process of development, we are comparing *non-comparable* magnitudes. What we're comparing, is simply the absolute number of equivalent of sovereign individuals who might satisfy that potential population-density function. We are not assuming that you are simply increasing the number of persons per se.

Suppose we increase our population-density over a significant interval between points A and B in historical time. The same society. The higher potential population-density at B does not mean a higher density of the *same* individuals as at A; but rather, a higher population of *transformed* individuals, or individuals of a transformed quality.

So, that's the point we're at in terms of reproduction. And it's on this point of the *quality* of the individual that the crux of the Christian aspect, that is, the *Filioque* Christian aspect of the science of Christian economy, pivots.

The ontological paradox of social production

If we attempt to represent rising population-density in an appropriate mathematical function, as an effect of a capital-intensive, energy-intensive mode of social investment in scientific and technological progress, we should recognize immediately why we cannot compare the individual persons undergoing such a transformation in this productive potential as simply-countable individuals. Over the duration of a continuing function, each person represents a changing magnitude from the standpoint of this function.

The same difficulty confronts the student in the case where a more generalized form of the same mathematical function is employed describing the condition of declining potential population-density.

In a third case, the apparent steady state, constant potential population-density must be determined as a representation by the same generalized function employed to represent both increased and decreased potential population-density.

However, the idea of a constant apparent potential value for potential population-density, that is, the notion of society maintaining such an apparent "steady state" over an extended period, presents the student with some provocative, and very relevant results.

Remember, that even the simply-continued existence of the society, at a *constant level of employed technology*, must determine a declining potential population-density. This fact is illustrated by the rise in marginal social costs, and lowered average productivity, caused by a marginal depletion of quality of resources. Only technological progress can offset that factor of marginal depletion. So, to achieve a net zero growth, "steady-state" condition for an economy (as measured in potential population-density), it is indispensable to maintain a corresponding level of capital-intensive, energy-intensive investment in scientific and technological progress.

Imagine a three-dimensional graph, in which the *x-axis* is *time*, the *y-axis* *technological progress*, and the *z-axis* *potential population-density*. So, for a constant value of potential population-density, in terms of a function of *z*, there must be an associated rate of increase in the function of *y*. This function of *y* is implicitly not a linear function.

This simplified imagery illustrates the point that, in order even simply to maintain a "steady state" of potential population-density, there must be constantly a significant increase in the level of capital-intensive, energy-intensive investment in scientific and technological progress. This defines a "world-line," as the locus of a steady value for potential population-density.

In this sort of function, the individual person corresponds to a *changing* function of activity. Thus, even in our hypothetical steady-state society, the average individuals in successive intervals are not equivalent individuals. Not only are they different magnitudes, but over the longer term, at least, the differences are reflections of a nonlinear function.

Although each person's biological individuality is simply countable, human and animal population functions are not comparable; we cannot count humans competently as merely biological individuals, as we are permitted to count animals with fair approximation. The functional significance of the differences in human individuality is not *merely* the biological individuality; rather, the biological individuality is, essentially, merely an indispensable *vehicle* for a different kind of individuality. That latter, different kind of individuality, is the sovereignty characteristic of the individual's developed mental creative powers.

In shorthand, even in a steady-state society, the average individual is a *nonlinearly* changing quality.

Land and people

We must never lose sight of the fact, that it is not sufficient to improve nonlinearly the quality of the average individual person. We must also transform the wilderness into a fertile place, a place where fertility is defined in terms of both the existing and emerging levels of productive and related technology.

In the earlier civilized, or quasi-civilized cultures, until modern times, more than nine-tenths of households were occupied in agricultural and related production of physical wealth. The introduction of steam-powered machinery along lines pioneered by Gottfried Leibniz, brought a drastic change over the course of the nineteenth century, a change which, when successful, has followed the outlines of cooperative relationship between township and countryside presented by U.S. Treasury Secretary Alexander Hamilton's 1790 Report to the U.S. Congress *On the Subject of Manufactures*.

From this modern vantage-point, we are able to offer certain securely proven generalizations respecting the mathematical forms of representation of physical-economic history

up to this time.

To this effect, we define the required improvement of land-area and waters in terms of physical-economic categories of *land-usage*. To this effect, we associate each among the family households of which the total population is comprised, with the primary physical-economic (e.g., household-income related) activity of the adult labor force members of that household.

In the statistical practice of physical economy, the functional relationship between per capita potential for *physical productivity*, and fecundity of improved or other land (and water), area, is treated in first approximation in terms of *categories of land use*. Seven such rough categories are employed: 1) basic economic infrastructure; 2) agriculture and related; 3) mining and closely related; 4) manufacturing; 5) residential; 6) commercial and administration; 7) other (including unused reserve land, wasteland, etc.).

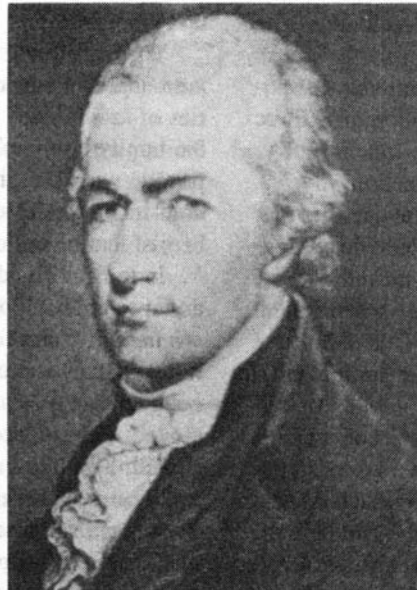
Basic economic infrastructure includes the development, maintenance, and operation of water management, general transportation, generation and distribution of power, general sanitation, and general communications. It also includes general education and related cultural support for the population as a whole, and general medical and related health-care delivery. These represent the categories of essential capital improvements in the society's total environment, required to sustain a population in its production at a given level of range of both technology in use, and of range of potential population-density.

In sane, civilized nations, the development and maintenance of basic economic infrastructure is the economic responsibility and customary function of government. In successful modern economies such as the pre-1964 U.S.A. (prior to the mid-1960s "post-industrial," "neo-malthusian," "rock-drug-sex counterculture" "cultural paradigm-shift"), basic economic infrastructure was supplied either as an economic activity of government, or as the function of a government-regulated, if privately owned public utility. If the state does not adopt and maintain efficiently its moral and economic obligation to provide adequate basic economic infrastructure, private enterprise generally will fail, and misery abound.

In the matter of determining the upper bounds attainable by production in general, three aspects of basic economic infrastructure are most conspicuous: water, power, and transportation. Examine each briefly.

Water. In the history of physical economy, the emergence of civilization is the history of oceans, shores, rivers, lakes, and of water-supplies as food for the hunger of the land. Water is the source of food from the sea, lakes, and streams, chiefly animal protein. Water is transportation, historically the superhighway along which every civilization has advanced.

Look to the development of Europe from the time of Charlemagne. The history of the development of Europe's



"American System" economists (left to right): Gottfried Leibniz, Alexander Hamilton, Henry Carey.

nations, cities, and population-densities, is the history of Europe's seas, coastlines, navigable rivers, and canals. Even today, water-borne freight has inherently the lowest cost per ton-mile, and, as cheaper, bulk cargo, also the lowest cost per ton-mile-hour or ton-kilometer-hour, better than the next-best competitor, rail. Coasts and rivers are the oldest arteries of civilized life.

The productivity of land, for agriculture, mining and refining, manufacturing, and residence, is expressed in correlation with cubic liters of water.

Similarly for *power*. For purposes of first approximation, we may measure power in linear quantities per square kilometer, and also in the simplest qualitative terms, *energy-flux density*, e.g., watts per square centimeter of a cross-section area of direct application.

Transportation. In order of increasing cost per ton-kilometer, we have transport of freight by navigable water, rail, highway, and air.

If cost per ton-kilometer were the only factor of cost in determining the per capita physical-economic productivity, then water would predominate such that long-haul highways and air freight transport would virtually not exist. Two considerations require heavy emphasis on rails, upon relatively short-haul highway freightways, and air freight.

First, there is the matter of *density*. The possibility for economical development of navigable waterways is limited, such that rails and highways are indispensable additions to our freight-transport repertoire. Otherwise, much of the world's land area could not be significantly productive.

Second, there is the cost factor of *time*. We are required to supplement measurement of costs in terms of ton-kilometers, by cost in terms of ton-kilometer-hours. *Spoilage* is an obvious consideration, a point which should require no

further elaboration in this location. Here, we emphasize the great increase required in a nation's work-in-progress inventory, if the average time to move goods from production point A to production or distribution point B is significantly increased. This consideration is taken into account in fair degree or first approximation, by replacing ton-kilometers with ton-dollars or ton-ECUs per kilometer-hour.⁷

Among the cost variables to be considered in such computational systems of linear inequalities approximations, are the capital and maintenance energy-costs of the respective modes of freight transport.

The physical costs of these cited, various forms of basic economic infrastructure vary significantly in two degrees. They vary in correlation with the normal level of productivity expressing, in turn, a degree of development of employed technology. They vary also according to category of land-use.

For example: At any level of quality of existence, the average member of a family household requires a minimum to maximum range of daily potable water consumption. This is reflected chiefly in the statistician's *residential* category of land-use. If we apportion the per hectare output of the *agricultural* land-use by average per capita requirements, we must associate these per hectare and per capita rations of output with a corresponding fresh water requirement. We have a similar case for *mining*, *manufacturing*, and so forth land-usages.

So, in this vein, the rising physical, plus absolute educational and medical costs, per capita consumption market-basket, required by a rising level of applied technology, is associated with infrastructural requirements expressed in such *combined* per capita and per hectare terms as *liters of potable* (and other qualities) *water*, *watts per hectare*, and

watts per square-centimeter cross-section, ton-dollars per kilometer-hour, and so forth.

So, our physical-economic universe is examined statistically in such units of infrastructure measurement per capita unit of land-use.

As to other categories of land-use, other than physical infrastructure, it is not necessary to elaborate these in any significant degree in a paper dedicated to the specific purpose of this one. A few further remarks should be sufficient.

Capital-intensity

The technological progress of society is reflected in the form of a changing composition of the division of (physical) labor within and among the family households of which a healthy society is composed predominantly.

As longevity is increased, as physical productivity per capita increases, the possible required modal "school-leaving age" converges asymptotically upon the mid-20s age of biological maturity. The ration of the total labor force employed in agriculture and other rural occupations declines toward what is apparently an asymptotic lower limit of perhaps approximately 1%. Within urban centers, the ration employed in production of producers' goods increases relatively to the shrinking urban ration employed in production of household goods—although the absolute physical content of the per capita household ration of consumption increases.

These shifts correlate with an increase in the power employed by society per capita. This is a *humanizing* of production, away from muscular, to mental means of controlling willfully the minutiae and end results of the productive process. This is expressed in great part, in a rise of capital-intensity, a capital-intensity reflected in the ratio of productive employment, between producers' and households' goods, of the urban labor force.

Private entrepreneurs

There is no reasonable doubt, but that David Hume and his follower, Adam Smith, were dedicated adversaries of both Christianity and Western civilization. It ought to be clear also, that to the degree that private entrepreneurship in high-technology family farms and manufacturing is essential to the superiority of modern European forms of economy, the superiority owes nothing to Smith's famous "invisible hand" dogma, but rather to the Christian fostering of the value of the human individual as *imago viva Dei*.

Adam Smith briefly

Smith is associated with a single conception so crucial to all his work, that everything else he asserts, or that which is asserted by his modern devotees, stands or falls absolutely upon that one point. It appears as the centerpiece of argument in Smith's two principal published pieces, his 1759 *Theory of the Moral Sentiments*, and as the "invisible hand" dogma, in his more famous, plagiaristic physiocratic piece, the 1776

Wealth of Nations.

Smith, following in the proto-positivist school of British philosophical irrationalism of such predecessors as Franc(i/e)s Bacon, Thomas Hobbes, John Locke, and David Hume, asserts in the 1759 book, that man is incapable of foreknowledge of the larger consequences of his actions, and is advised therefore to be indifferent to the ultimate effects of his acts of commission and omission. In the *Wealth of Nations*, Smith's advocacy of pagan (epicurean) immoralism assumes the form of the dogma of the "invisible hand."

In fact, the net result of every generalized application of the British model of liberal political-economy, has been the contraction, or even collapse, of the region of the world subject to the rule of that so-called "free trade" system. In the case of the U.S.A., whose federal constitutional government was founded successfully upon rejection of Smith's British liberalism, we see that each time the "free trade" dogma was introduced to the government, as under Jefferson, Madison, or Jackson, for example, the direct result was national economic catastrophe. The accelerating of the collapse of the home physical economies of Britain and the U.S.A., during the past 25 years, is a fresh example of this.

London's prosperity during the nineteenth century is no exception to this rule. It was Britain's looting of the population and natural resources of its empire, the looting of much of the rest of the world through the London market's dominant part in the bloodsucking practices of international usury, which were the source of Britain's economic power during that century.

Similarly, today, it is the Anglo-Americans' looting of most of the planet through aid of the mass murderously bloodsucking practices of the International Monetary Fund's "conditionalities," which produce hundreds of billions of dollars of loot annually into the collapsing U.S. economy of the mid-1980s.

Nonetheless, throwing Adam Smith and his dupes to one side, there is something of great practical importance to be said in behalf of private entrepreneurship. The history of England even prior to Adam Smith provides an important clue.

The efforts to promote scientific and technological progress during the fifteenth century, for example, met powerful resistance in the form of craft guilds' stubborn enmity against technologies offering economy of labor. Against this backwardness, stands out such notable cases as Brunelleschi's solution to the challenge of constructing the cupola of the Cathedral of Florence. One of the practical solutions found for the backwardness of the guilds was the use of the power of government to create limited corporate monopolies, of fixed duration, to promote the production and sales of useful inventions.

In the emergence of such patents in sixteenth-century England, for example, must be seen reflected the work of such as Nicolaus of Cusa and others, during the fifteenth century, in stipulating from the vantage-point of natural law, the right of nations to the benefits of scientific and technologi-

cal progress.

Those and related aspects of modern economic history serve here to illuminate a deeper principle. It is only through the direction of human society's behavior by means of the faculty of creative reason, that the human species exists, is able to survive as human, is in *imago viva Dei*. This is the connection to the true basis for promoting private entrepreneurship.

Scientific and technological progress is a characteristic reflection of that divine spark of potential for creative reason which defines man as *imago viva Dei*. As we have illustrated by reference to *classical forms of art*, and to the function of *agapē* more broadly, scientific and technological progress as narrowly defined is not the exclusive expression of the divine spark, but is the only form in which that spark is reflected as an approximate form of physical-economic practice of entire societies. Most simply, any contrary policy of practice for economy would negate man as *imago viva Dei*.

The qualification implicit in the foregoing paragraph taken into account, the object of society is to produce individuals who are *imago viva Dei*, individuals expressing a lessening of the imperfection, the realization of their true nature as in the living image of the Creator. Society and its individual members must thus live and work in a manner consistent with the purpose of human existence.

Insofar as entrepreneurship in physical-economy is a means for placing economic processes under the *lawful domination* of the creative principle reflected as fundamental scientific progress, either entrepreneurship or something equivalent to this specific effect, ought to be considered in principles of economic science.

This point is directly relevant to the causes and failure of the now-collapsing Soviet economy; but, it is equally cause for opposing, and despising those "free trade" dogmas which have brought about the presently ongoing collapse of the Anglo-American economies. In particular, what is called "Thatcherism" by some—notably the policy of "deregulation" and "privatization" which former Prime Minister Margaret Thatcher adopted as her principal stock of professed political wisdom—deserves to be put into the bottom of the rubbish bin of history as quickly, and as permanently, as possible.

We must demand, on the one side, that the hierarchy of governments' parts—national, regional, and local—each assumes, in a mutually coherent way, appropriate respective responsibilities for maintaining effective monopolies of regulatory power to supply an adequate development and maintenance of basic economic infrastructure. Yet, we must also insist upon preference for quasi-sovereign entrepreneurship as the form of ownership and direction in agriculture and industrial production and distribution of physical goods. That is no contradiction in our policy; rather, the differences in our political treatment of basic economic infrastructure and private owner-management of production, flows coherently

from a single principle.

Our principle is the nonlinear process of increase of society's potential population-density through the direction of society's physical-economy in a capital-intensive, energy-intensive mode of investment and production, under the rule of a form of scientific and technological progress consistent with the creative principle of *imago viva Dei*.

Wherever possible, we rely on social-economic forms which are consistent with the sovereignty of the relevant creative processes: hence, the principle of entrepreneurship. Yet, wherever the continued advancement of scientific and technological progress demands it, the government must be responsible for establishing and maintaining the necessary preconditions, both as basic economic infrastructure, and as regulation of the market.

For example, it is insane, and immoral in the extreme, to foster a market in which the prices paid to farmers are below the average cost of production of an adequate supply of food. Today, when governments intervene to prevent those usurers called food-cartel monopolies from drawing down the farmer's price so, the "free traders" howl insane moral indignation against "subsidies," and demand a practice of "free trade," which, in fact, will be globally more mass-murderous in effect than Hitler's Schachtian slave-labor system.

Similarly, society's political economy must provide, through government, an adequate development of basic economic infrastructure. That governmental provision is not an *exception* to private entrepreneurship in agriculture and industry; it is, rather, an indispensable precondition for a successful form of entrepreneurial economy.

The moral object of production is the reproduction of mankind according to the individual person in the living image of the Creator. On that account, we are each morally responsible for all mankind, past as much as present and future. We are responsible to our forebears, to fulfill in the richest degree possible, the potential of good they've contributed in their time. We are each responsible to the limit of what we may develop our creative powers to become.

Notes

1. See Appendix A.
2. Lyndon H. LaRouche, Jr., *Project A*, Appendix, pp. 64-71, in *EIR*, Vol. 17, No. 41, Oct. 26, 1990.
3. G.W. Leibniz, *Monadology*, trans. by George Montgomery (Peru, Ill.: Open Court Publishing Company, 1989), pp. 251-272.
4. Lyndon H. LaRouche, Jr., *In Defense of Common Sense*, pp. 5-9.
5. cf. Lyndon H. LaRouche, Jr., *Project A*.
6. Henry C. Carey, *Principles of Political Economy*, Reprints of Economic Classics, (New York: Augustus M. Kelley, 1965); and *The Harmony of Interests: Agricultural Manufactures and Commercial*, (Philadelphia: J.S. Skinner, 1851, reprinted by A.M. Kelley, 1967).
7. For example, a simple indifference curve can be constructed, comparing the net cost to the economy of moving coal by ship, or inland-canal barge, leafy vegetables by rail or truck, and transistors by air freight over long distances.

VII

'The One and the Many'

We have considered already the fact, that without those changes both in nature and in human social practice, which we associate with "scientific and technological progress," any culture is on the pathway toward, sooner or later, self-induced "entropic" collapse. Thus, the continued existence of the human species as a whole depends upon the relatively hegemonic influence of those cultures which uplift humanity as a whole, evermore, to higher plateaus of scientific and technological practice.

Thus, we have stressed, human existence taken as a whole requires, inclusively, but nonetheless absolutely, the generation, transmission, and efficient assimilation of scientific progress. This must occur to the specific effect of causing an increase in the human species' per capita power over nature. This principled policy defines the realm of Gottfried Leibniz's *science of Physical Economy*.¹

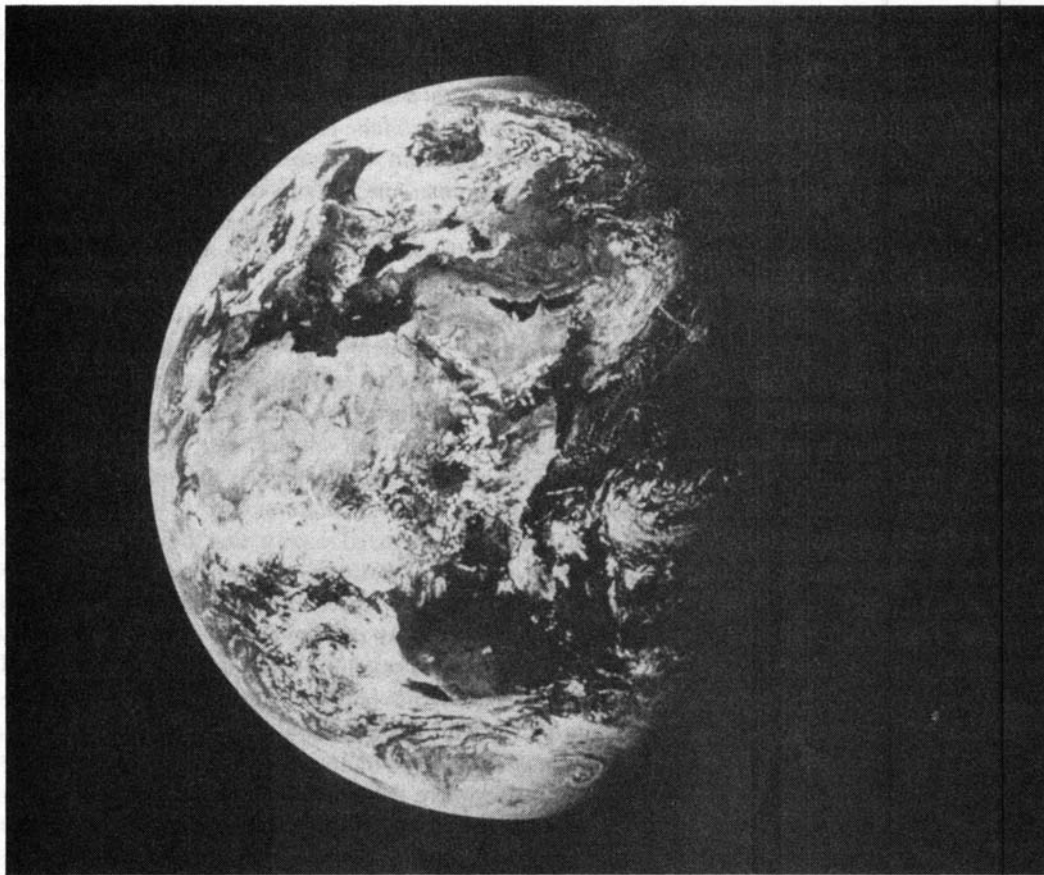
It should be recognized readily, that the empirics of such a *science of Physical Economy* are two-faceted. On the one side, *effects*, we study the increase in mankind's physical power over nature. At the same time, the *source* of this increase in power is scientific progress. So, at first glance, Physical Economy not only measures changes in man's per capita power over nature, but studies these changes as *the material effect of a spiritual (mental) cause*.

That descriptive definition of Physical Economy brings us, now, directly to the deepest among the common underpinnings of all classical European philosophy, and all physical science. We address directly the deepest of the quasi-axiomatic principles upon which the bare concept of the verb "to know" must be based.

Physical economy, as established in an exemplary way by Gottfried Leibniz, is the aspect of physical science as a whole, which addresses *most directly* this concept of principle. Inasmuch as Physical Economy is the science of social reproduction of mankind, it is the science of the way in which human survival is accomplished by the indispensable aid of scientific and technological progress. It is survival so effected, which is the test of the process of generating improved human knowledge, and thus, it defines the crucial experiments which must be referenced for a proper definition of the verb "to know."

As indicated earlier, this emphasis upon physical science has a twofold import. First, there is no principled distinction between the qualities of creative thought associated with valid fundamental discovery in physical science, and in classical humanist art forms. The widely popularized contrary arguments, such as those by Immanuel Kant and Karl Savigny, and others, are essentially absurd in fact. Thus, what is said of physical scientific activity is implicitly also true of all expressions of *agapic creative work*. Second, in Physical Economy, it is fundamental scientific discovery which is the most prominent causal feature of increase of the productive powers of labor.

In all of the literature of European culture's classical



The Earth, as photographed from the Apollo II spacecraft in 1978. "Truthfulness is expressed practically, only in a correct view of the reciprocal relationship between mankind as a whole and the universe as a whole."

NASA

philosophy, the most succinct statement of the related deeply underlying principle of human knowledge is *implicitly* uttered by Plato's *Parmenides* dialogue. That dialogue's *implicit* statement occurs not explicitly within the dialogue, but, rather, as a unique, required solution to the ontological paradox which the dialogue as a whole describes. Once that required solution is recognized, this implied definition of the verb "to know" is realized, without reasonable doubt. Physical economy is the empirical domain in which this solution to the Parmenides Paradox is most readily demonstrated.

The argument underlying the solution to that Parmenides Paradox is summarized as follows.

Any formal (deductive) system of argument is implicitly reducible to a deductive theorem-lattice derived from an original, integral (indivisible) set of (inseparable) axioms and postulates. Any idealized form of deductive mathematics is one such case; a deductive formalist's ideal mathematical physics is another such case. Deductive formalism prevails in academic practice, in most mathematical physics today; therefore, in present, customary professional practice, actual mathematical physics is treated, formally, as an imperfed approximation of a mathematical deductive theorem-lattice.²

The characteristic feature of such a theorem-lattice is what is often termed today an "hereditary principle." This principle can be described most easily in terms of the follow-

ing two corollaries.

A. No theorem of a deductive lattice may claim any essential quality or predicate of existence which is not already implicitly claimed by the underlying, integral set of "axioms and postulates," from which the theorem-lattice as a whole takes, putatively with perfect consistency, its origins.

B. Any theorem which is required by nature, which is not perfectly consistent with the underlying, integral set of "axioms and postulates," disproves each and all other theorems, hereditarily, and requires implicitly, a new, integral set of underlying "axioms and postulates" consistent with that theorem.

In actual scientific practice today, these two corollaries are at the center.³ The term "fundamental scientific research" is usefully circumscribed in use, to signify a special, higher class of experiments and crucial observations. This higher class of empirical studies is associated typically with the expression "crucial experiments." A "crucial experiment" is intended to test the kind of hypothesis (theorem) which has been rigorously defined to affirm or overthrow the theorem-lattice's underlying, integral set of "axioms and postulates."⁴

So, from the modern formalist's standpoint, the internal history of successful advances in fundamentals of physical science is defined implicitly by a succession of successful such, revolutionary "crucial experiments." Repeatedly, the

heretofore established scientific world-view is overthrown, replaced by a new one. The association of such revolutionary ("crucial") transformations is the formal representation of fundamental physical principles which, with resulting increased social-reproductive power of mankind, both per capita and per hectare, is the key to the formal proof and empirical definition of "scientific and technological progress."

In the case of successive scientific revolutions satisfying that practical requirement, we are confronted implicitly by three levels of scientific principle integral to a formalist (deductive) view of this process of successive revolutionary progress taken as a whole. Each of the levels of principle is represented by conceptions which are each *one* and *indivisible*.

1. On the lowest level, we have each of the one and indivisible "hereditary principles" associated, respectively, with each of the successive, each relatively successful theorem-lattices, A, B, C, D, E⁵

2. The fact that the empirically proven theorem-lattices are each and all ordered according to increasing per capita and per hectare powers of society, (A less than B less than C less than D less than E, less than . . .), defines the hereditary principle of each and all of A, B, C, D, E . . . as ordered commonly by a uniquely subsuming principle, which, in turn, is one and indivisible.

3. The existence of alternative orderings, on level 2, implies that the choices among each such are also ordered, as a set, according to a subsuming, ordered principle, which is *one* and *indivisible*.

Plato's *Parmenides* dialogue confronts us with a three-fold paradox. The elaboration of the dialogue confronts us with a problem in *knowledge*, a paradox defined in formal, deductive terms of reference. The dialogue taken as a whole defines an *ontological paradox*. Both facts taken together define a single paradox subsuming both others: a paradox respecting man's possibility of effecting a truthful, intelligible representation of the elementary nature of universal and subsumed (manifold) states of *being*.

Plato includes in that dialogue only one explicit clue to the required solution: that the formal argument has ignored the fact that *change* is an elementary condition subsumed by *being*.⁶ The significance of that reference to change, as a crucial feature of the dialogue as a whole, is not comprehended by most commentators. From the standpoint of Physical Economy, for example, the solution is derived more or less directly.

The connection may be represented as follows.

As in *In Defense of Common Sense*, A, B, C, D, E . . . is a series, in which each term represents a linear (deductive) description (approximation) of an indivisible *theorem-lattice* in encompassing the current technology of productive and related practice. Each successive term represents the twofold effect of a scientific revolution: 1) the replacement of one theorem-lattice by a second which has no formal consistency

with the predecessor; 2) the resulting increase in per capita and per hectare (physical) productive powers of labor (i.e., increase of *potential population-density*).

The combination of the two aspects, the ordered character of the formal change in theorem-lattice, and the increase of potential population-density, indicates that each member of the series, A, B, C, D, E . . ., when taken as a whole, is a member of a well-ordered series. That ordering-principle is thus an *indivisible unity*, a *transfinite one*, with a qualification that this is the lowest of the readily defined levels of transfinite ordering.

For most readers' benefit, the following qualifying observations are required here.

This strict usage of the term "transfinite," and earlier references to the "sovereignty of the individual's creative process," represent two coherent expressions of the same conception.

The easiest argument defining the indivisible unity of any truly *transfinite* conception, is the deductive case. For example, the "hereditary principle" specific to any deductive theorem-lattice is related to the associated, integral set of (inseparable) variously stated and implied axioms and postulates, and also to each and all subsumed theorems. Yet, relative to these two "Manys," the "hereditary principle" is *relatively transfinite*, and corresponds directly to a unitary notion which is indivisible; it is indivisible in the sense that it vanishes instantly the moment we might attempt to represent the principle itself as *composite* from the vantage point of either the axioms or subsumed theorems.⁷

In the illustrative case, referenced from *In Defense of Common Sense*, A, B, C, D, E . . ., the ordering-principle defining the series as a species of series, is the *change* determining each and all of the successors to each and every term of the array. This feature of our illustrative case is exemplary of the solution to the ontological paradox of Plato's *Parmenides* dialogue.

What "lies between" A and B, for example, is a "mathematical discontinuity" from a formal (deductive) standpoint. It is distinct and efficient, yet cannot be expressed by a theorem of any possible deductive theorem-lattice.

Its *ontological*, and *formal* character is, implicitly, "change." In the case of a well-ordered series, A, B, C, D, E . . . the "change" exists *ontologically* in the transfinite principle subsuming the ordering of the series as a whole.

If such an ordering does indeed define as subsumed a series corresponding to the *becoming*, the increase of potential population-density, the transfinite converges upon the principle which expresses the lawful ordering of the universe. That latter principle is also represented by the transfinite which subsumes the *becoming* of all series which converge so.

Thus, the proper definition of the term "science" ought to be limited to describing *efficient consciousness of those forms of consciousness which generate the kind of efficient*

transfinite convergence indicated here. In other words, consciousness not of discrete objects, but rather consciousness of revolutionary *change* as the proximate cause of increase of potential population-density.

Clearly, from this standpoint, we have already proven conclusively that no proposition consistent with any formalist theorem-lattice can state a *law of nature* explicitly, directly. It may reflect a law of nature, but it never states a law of nature.

Speaking most strictly, there are not *many* "laws of na-

There are not many "laws of nature," but, rather, what may appear as laws, are, ultimately, only reflections of a single One highest-ordered transfinite conception, which expresses a single, indivisible, universal law of nature. Leibniz's principle of least action points in the direction of the kind of physics conceptions subsumed by the relevant single, indivisible transfinite notion.

ture," but, rather, what may appear as laws, are, ultimately, only reflections of a single *One* highest-ordered transfinite conception, which expresses a single, indivisible, universal law of nature. Leibniz's principle of least action points in the direction of the kind of physics conceptions *subsumed* by the relevant single, indivisible transfinite notion.

Science is a matter of man's increasing mastery of the universe, a mastery expressed in such forms as increase of potential population-density, and accomplished through man's conscious ordering of his willful ordering of revolutions in scientific consciousness governing increase of the power of human practice.

There is no non-anthropocentric science, no so-called "objective science" in the positivist's sense of the latter term. What we know, is *not* that which we have experienced with our senses. What we know, are those principles for generating successive, successful, revolutionary advances in our mastery of fundamental laws of our universe; these are the principles that are efficient voluntary action upon the universe, by means of which actions we maintain and may increase the potential population-density of present and future generations of mankind as a whole.

By implication, that definition of *science* defines the fol-

lowing paradox. Is the primary importance of creative scientific (and related artistic) discovery, that it is the indispensable means for fulfilling man's obligation to satisfy Genesis 1:28? Or, is it, that by satisfying that obligation, by this means, man is forced to recognize himself as in the living image of the Creator? Is it not, rather, the case, that the two are inseparable, an indivisible oneness? The two are thus portrayed as the mirror-image of the relationship between becoming and the Good.

We do not know truth in the form of sense-perception. We know scientific truth only by means of a socratic form of successively successful criticisms of our problem-solving interpretation of those aspects of our sense-experience which bear upon increasing the potential population-density of the human species as an indivisible whole. *Truthfulness* is expressed practically, only in a correct view of the reciprocal relationship between mankind as a whole and the universe as a whole. The essence of truthfulness, is situated in the eternal practical contribution which a sovereign individual creative-mental process may add to the potential population-density of the present, future, and past generations of mankind as a whole.

This locates scientific consciousness in the activity of our own critical consciousness of our own critical consciousness: We employ the term *self-consciousness* in this restricted sense. Insofar as such critical consciousness is occupied with what is termed here an *intelligible representation* of an ordered succession of successful revolutionary advances in the implicit integral set of deductive axioms and postulates of physical science, *self-consciousness* treats the indivisible ordering-principle of this series as an indivisible conception, an *object of self-consciousness*. This latter is a true *transfinite*.

It is the comparison of such transfinite objects of *self-consciousness* with the appropriate quality of crucial-experimental evidence, which serves as the center of focus for scientific truthfulness.

It is in that perspective that truthful concepts of universal concepts of universal physical law are situated. This rejects, obviously, the view, that "laws of physics" pertain to observation of what appear to be repeatable pairwise interactions among phenomena. This situation demands what is associated with Gottfried Leibniz as the notion of *necessary and sufficient reason*. It is not conclusive that pairwise interaction repeats; it is required that there be necessary and sufficient reason that it repeats, or not.

The "scientific law" is situated in the proven transfinite ordering principle subsuming successive successful scientific revolutions. This is not a perfect representation of "God's law"; it is therefore not *perfected truth*, but is, rather, *scientific truthfulness*.

There exists, clearly, a higher ordering which subsumes a positive ordering of successively less imperfect scientific truthfulnesses. Approach the concept of Good and Becoming in these terms of reference. To this immediate end, define a

few essential terms of distinction.

Begin at the relatively low end of the scale, with a *crucial* experimental *hypothesis*, an hypothesis of the quality associated immediately with a single successful scientific revolution. Consider what Bernhard Riemann has termed Lejeune Dirichlet's discovery of "Dirichlet's principle" of topology, as an example of such an hypothesis, or Kepler's hypothesis of Golden-Section-harmonic ordering of solar planetary orbits.

The transfinite which subsumes an orderable series of such crucial hypotheses is then termed an *higher hypothesis*.

The fact that the latter is demonstrably subject to imperfection, obliges us to hypothesize (crucially) upon the subject of perfection of the higher hypothesis.

That, in turn, demonstrates to us the *ontological negativity* of the relatively best higher hypotheses; in this way, scientific truthfulness, by recognizing that ontological negativity, knows the certainty of the Good as the changeless cause of the changes represented by the necessity for perfection of the higher hypothesis.

This relationship between Becoming (higher hypothesis) and the indivisible being of the Good, is also the conception of the *One and the Many*. The *One* is the cause of the necessity of the *Many*.

This adoption of scientific truthfulness were impossible, except as the individual is consciously self-defined for practice as a servant of the Good for the work of the perfection of human existence as a whole.

The function of society may be represented as the duty of society as a whole to develop sovereign individual creative minds who each develop society as a whole in this way. That, in the last analysis, is the mission, and the true definition of the science of Physical Economy. The truthful notion of *economic value* cannot be different than this moral one.

Physics, briefly

We conclude this penultimate chapter with some necessary observations on, first, the physical notions of cause-effect implicitly imbedded in that which we have just previously developed, and second, some historically illustrated implications of those physical principles for statecraft in general.

To put the physics matter as simply as seems possible, we have argued earlier to the following effect. Given three relatively nearby, discrete bodies in space, we are implying that these bodies do *not* react with one another in terms susceptible of a simple pairwise analysis: rather, we have appeared to imply, that each discrete body might be a *monad*, which reacts *indirectly* to its neighbors, by interacting immediately with the universe as a whole. In other words, we defend the inference, that each body acts primarily by interacting with the universe as an indivisible entirety, and that it is through these interactions of each body with a whole, that

the bodies act indirectly upon one another.

Is that as wild a depiction of the situation as some critics might hasten to argue? Not really, not if a handful of elementary facts in the modern internal history of physical science are taken adequately into account.

A. Kepler versus Newton on gravitation

It is readily shown,⁸ that Newton's famous formulation for universal gravitation is simply a consistent algebraic manipulation of Johannes Kepler's Third Law, a manipulation which references not only centrifugal impulses but also the then-well-established inverse-square law for electromagnetic radiation. It is notable that Kepler, rather than Galileo or Newton, was, at least relatively, the original discoverer of universal gravitation. There is no deductive inconsistency in the derivation of Newton's formulation from Kepler's Third Law; however, in this simple algebraic derivation, there is a relevant problem.

In Newton's case, we incurred the notorious, insoluble paradox of the "three-body problem"; in Kepler's physics, this paradox does not arise. Given the demonstration, that Newton's algebra is consistently derived from Kepler's Third Law, how is it to be explained, that this paradox occurs in the copy, and not in the deductively consistent original? This takes us to the next, related point to be considered.

B. The orbital characteristics of the asteroids

Karl Gauss's successful demonstration, that the orbital characteristics of the asteroids Ceres and Pallas conform to Kepler's orbital calculation for the missing, exploded planet between Mars and Jupiter, proves that the axiomatic assumptions underlying the physical space-time of Descartes, Newton, et al., are absurd relative to Kepler's physics.⁹ The crucial-experimental point to make, is that Kepler's physics *as a whole* requires this planetary orbit, whereas the opposing, empiricist physics not.

These two anomalies, the three-body paradox and the asteroid orbits, cited thus far, combine to the following effect. Kepler's physics, as an entirety, depends, axiomatically, in a crucial, pervasive way, upon the preceding work of Leonardo da Vinci et al. on the subject of the Golden Section and related physics implications of the platonic solids: notably, that on the ordinary scale, the physical geometry of living processes is ordered in harmonic congruence with the Golden Section; whereas, on that same scale, non-living processes are not. This crucial empirical fact determines the attributable, axiomatic structure of Kepler's mathematical-physical method in its entirety. This is the feature of Kepler's physics most emphatically rejected by Galileo, Descartes, Newton, et al. The origin of the Newtonian three-body paradox lies in this axiomatic difference.

In Kepler, the available orbits, and their mutual harmonic

ordering, are determined by what we term, since Georg Cantor's work, a *transfinite* principle. Since the universe efficiently contains living processes, *the which are negentropically ordered*, the universe as a whole (a transfinite process of becoming) must become, according to Cantor's definition and proof, characteristically transinitely ordered (negentropically). This notion of *transfinite negentropy* is expressed within the work of da Vinci, Kepler, et al. as *harmonic* (least-action) *ordering* cohering with a determination of the platonic solids.

There is no non-anthropocentric science, no so-called "objective science" in the positivist's sense of the latter term. What we know, is not that which we have experienced with our senses. What we know, are those principles for generating successive, successful, revolutionary advances in our mastery of fundamental laws of our universe; these are the principles that are efficient voluntary action upon the universe.

Thus, in Kepler, bodies are situated in those Planck quantum-like orbits determined by the kind of least-action principle cohering with the constructive determination of the platonic solids. In the Newtonian case, the availability of orbits is indeterminate.

In the Kepler-Gauss configuration, and also in a synthetic, electromagnetic "history" of our solar system's derivation from application of Kepler's laws to slowing of the rotation of our aboriginal Sun, the mass of (polarized-fusion) determined plasma shed as the slowing rotation of the Sun, is distributed among available solar planetary orbits according to the relevant Keplerian principle of harmonic ordering. Thus, implicitly, in this model, the Gaussian toroidal distribution of the mass of material along the elliptical torus of the orbit, forms a planetary mass as a singularity generated within the continuing action within that orbit as a whole.¹⁰

The contrast which the two referenced axiomatic schemas illustrate as existing between the Keplerian and Newtonian schemas, can be received as confronting us with the notion of a Keplerian curvature of physical space-time, as opposed to the linear matter, space, and time, of the Descartes-Newton schema.

C. Non-algebraic functions

In both of the instances just cited, the crucial issue is some physical evidence which affects rigorous scientific thinking in two ways. First, there is the physical evidence which forces us to construct an *hypothesis* upsetting established opinion; second, there is the crucial evidence supporting either that hypothesis or a modified version of it. The same principle applies to the additional examples now to be considered.

The great battle within mathematical physics during the seventeenth and eighteenth centuries, was between the neo-Aristotelian gnostics, including the Cartesians and the Newtonians, the so-called analytical faction on the one side, and, on the opposing side, the current of geometricians, followers of Nicolaus of Cusa, Leonardo da Vinci, and Kepler, through Christian Huyghens, Gottfried Leibniz, and the Bernouillis. By the end of the seventeenth century, the characteristic essential feature of this factional affray within mathematical physics, was the Leibnizians' emphasis upon the so-called non-algebraic geometrical functions, and the analytical school's rejection of this non-algebraic systematic view.

The systematic study of these "non-algebraic" geometrical functions, was most intimately associated with three classes of physical phenomena. First, from Leonardo da Vinci into the nineteenth century, the study of the phenomenon of electromagnetic radiation (e.g., light). Second, the manifestation of the crucial isochronic processes in nature corresponding to the cycloids and related non-algebraic functions (e.g., the tautochrone, brachistochrone, optics, and the relevant evolutes and involutes). The union of these matters of light and isochronism is found in the general (Leibniz) physical principles of *least action* (Figure 1).

The geometrical school of Leibniz et al., continues, by way of the circles of Gaspard Monge and Karl Gauss, through the nineteenth-century work of such exemplary figures as Bernhard Riemann, Eugenio Beltrami (negative curvature), and Georg Cantor (Figure 2). There, fundamental (e.g., axiomatic) progress in mathematical physics comes not to an end, but, a zone of rapidly attenuating rates of progress respecting the axiomatic issues. During the twentieth century to date, there has been significant progress in experimental work, but very little progress in established scientific doctrine respecting deeper axiomatic issues. Indeed, the very mention of those deeper issues, formerly central topics of all serious scientific discovery, is virtually banned under the rubric of "philosophizing."

The feature of this on which our attention is focused at the moment, at the point, that a principle of *least action* presupposes a definite, universal, nonlinear *curvature* of physical space-time. This is already clear, even if only the relative validity of Kepler's physics—relative to the Cartesian and Newtonian—is taken into account. The deeper implications of non-algebraic isochronism confront us more

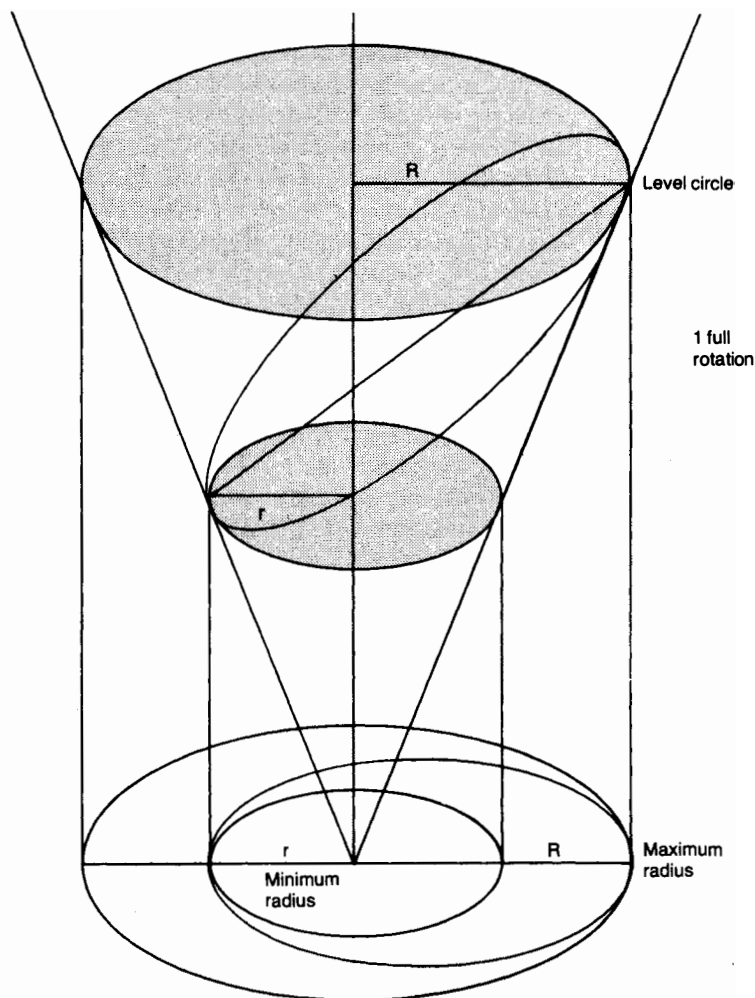


FIGURE 1

Contrary to the assertions of the so-called analytical faction within mathematical physics (the Cartesians and the Newtonians), real physical processes develop by conical rather than circular action, and on a cone, the least action is a logarithmic spiral. In one complete revolution, the spiral is bounded by two level circles. The axes of these circles can be projected onto a plane to give the minimum and maximum radii of an ellipse.

Source: *Fusion*

directly with the evidence of the pervasively ruling efficiency of that principle of curvature.

When we situate our working definition of the term “curvature of physical space-time” so, in respect to such notions as tautochrone and brachistochrone, we ought to begin to see the argument here more readily, more clearly, with a geometrical-experimental insight. The very term “curvature of physical space-time,” were either gibberish, or, at best, mere license of romantic poetizing, if it meant anything other than the startling statement of principle we have cited above: *Reactions among bodies are determined as secondary features of each body’s primary immediate interaction with the universe as a whole.* The refraction of a composite beam of light, composed of several distinct frequencies, is an illustrative image of this statement’s import for the novice. The (Leibniz) principle of least action exemplifies implicitly the content of the statement.

It is by means of the sovereignly individual agency of individual creative reason, a *spiritual* force emanating from the person as *monad*, that the universe as a whole is altered

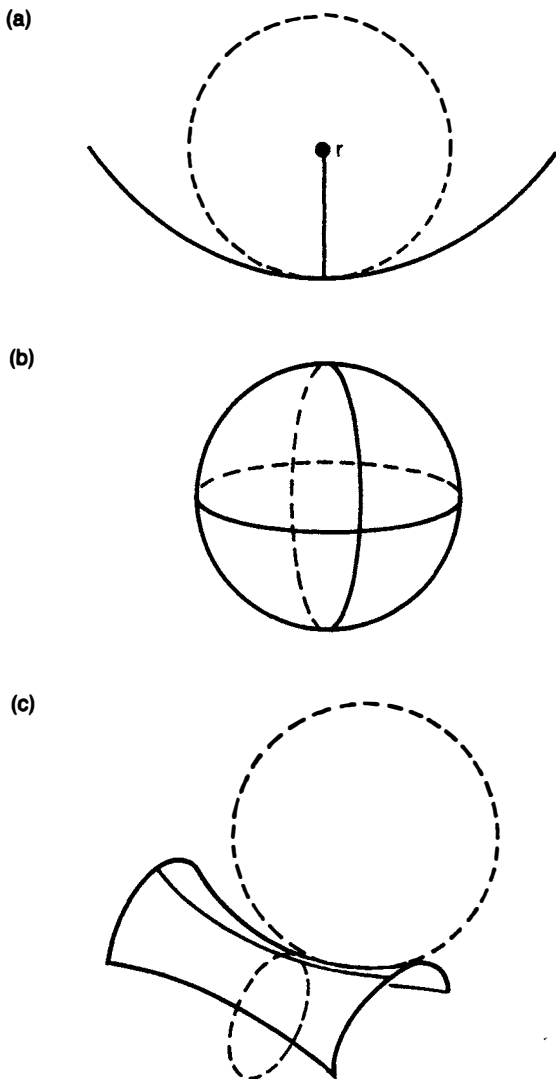
isochronically, by means of that generation, communication, and assimilation of valid fundamental discoveries, which, individually and cumulatively, increase the power of the entire human species over the universe.

This “entire human species” is not a finite, nor a “potentially infinite” collection. It is represented, in first approximation, as a transfinite magnitude. It is isochronic, in the specific sense that the relevant forms of present action affect the past as efficiently as the present and future. For, valid fundamental scientific discovery, for example, acts principally upon the outcome of a generation’s activity, and thus the present efficiently changes the past by altering its relevant quality of *outcome*.

The true self-interest of the individual person, and of the society, are so made known to law-giving reason.

The individual person is a sovereign individual person by virtue of that *divine spark* which we recognize in such form as the capacity for super-logical, creative reason to generate, to communicate, and to assimilate efficiently valid revolutionary transformations in science and technology. It is only

FIGURE 2



Source: 21st Century Science and Technology

Curvature: negative and positive. Curvature is measured by the radius of a circle that most approximates a curve (a). On a surface, the curvature is measured by two such circles approximating the curvature at the maximum and minimum extremes. These extremes, it turns out, are always perpendicular.

The curvature of a surface is positive when these two curves lie on the same side of the surface, as in a sphere (b) or torus. On a surface of negative curvature, the two circles will lie on opposite sides of the surface, as in the saddle curve (c).

from that standpoint, that a person, or nation, has the quality and rights of sovereignty.

The relationship of the sovereign personality, and of the properly sovereign state, to the universe as a whole, is ostensibly ambiguous, at least this seems to be the case at first

impression. For, from the standpoint of potential population-density, we can show that the individual sovereignty, as *One of Many*, locates its superior *One* practically in the relevant, subsuming scientific-historical process of *becoming* potentially a society of increased population-density. This *becoming* is a true *transfinite*, as we elaborate the proof of this in *In Defense of Common Sense*. It is therefore *not* the Good. Thus, the apparent ambiguity of connection to the *becoming*, and also to the *Good*. We must clear up this ambiguity.

It is sufficient, for purposes of this aspect of statecraft, to note the following. The process of change defining a transfinite *becoming*, defines perfection in terms of lessening imperfection, and thus identifies as unchanging an ordering principle of lessening imperfection. (This ordering-principle is equally congruent with the difference among any three, arbitrarily chosen, successive elements of the series, and is therefore a true transfinite.) The Good were such a transfinite, which is everywhere equal to every aspect of itself considered as part of a continuing process.

Thus, our reason grasps the meaning of the Good less unclearly than otherwise from the standpoint of the *becoming*; but we do not perceive the Good directly. We perceive and know its efficient reflections in the *becoming*. We know it as that which is reflected by the becoming. Thus, from day to day, and place to place, as we express our true self-interests in our work, the becoming, as typified by the increase of potential population-density, has for us the character of the pathway which the Good, and the Biblical book of Genesis, oblige us to follow.

Adam Smith and Karl Marx

Among other uses, the immediately preceding set of tightly interconnected sub-topics permits us to address with more devastating force, and greater relevance, the principal, twin economic pestilences of this century: British liberalism's ruinous cult-dogma of "free trade," and also Adam Smith's terrible grandchild, the economic doctrine of Karl Marx. The examination of that connection, from the standpoint of the immediately preceding topics, demonstrates a broader principle of statecraft to which we attribute great importance for reference here.

To begin, consider the superficial history of the connection between the "free trade" dogma of Adam Smith, and Karl Marx.

Smith (1723-90) was a follower of the British Secret Intelligence Service's David Hume (1711-76) in the teaching of an immoralist concoction perversely named "moral philosophy."¹¹ When, about 1763, Smith came directly into the employment of the Second Earl of Shelburne's British East India Company,¹² Shelburne et al. provided Smith access to Hume's old physiocrat and Rousseauvian cronies in France and Geneva. Out of this latter apprenticeship in the French physiocrats' dogma came Smith's famous 1776 apology for

the established anti-French and anti-American policies of his narcotics trafficking employer, the British East India Company: *The Wealth of Nations*, 1776.

It is relevant to the consideration of the Smith-Marx connection, here, that Smith's *Wealth of Nations* has been viewed as, substantially, a parody of Turgot's published work of that period.¹³

Karl Marx, recruited to the Mazzinian Freemasonry's "Young Europe" association by no later than the early 1840s, ended up, beginning a few years later, in London under the protection and virtual control of the same Lord Palmerston who maintained British secret intelligence service's connections to Mazzini's continental "Young Europe" through such channels as the British Museum's David Urquhart. Urquhart was noted by Marx as among those who steered Marx into indoctrination in the fraudulent myth of Britain's supremacy in scientific progress, British East India Company economics included.¹⁴

Thereafter, Marx always professed his intellectual debt in economic thinking to Smith, Smith's follower David Ricardo, and to Smith's instructors among the French physiocrats, Dr. Quesnay most notably. Marx, in addition to Friedrich Engels, was always thereafter vile in his praise of the British East India Company's usury-based political-economy, especially in his attacks on the American System of Leibniz,¹⁵ Hamilton, the Careys, and Friedrich List. In summary, he attributed the origin of "scientific economics" to the physiocrats and to the East India Company's usurers; and, the relevant British academics, especially the Fabians, have accepted this view by Marx without remarkable quibbling on the point.

Now, re-examine the same historical connection from the vantage-point of our earlier discussion of curvatures of physical space-time. Let us recognize thus, that the approximate simultaneity of the collapse of the Anglo-American and Muscovite economic systems shows the convergence of effects of the two systems sharing in common certain among the most flawed axiomatic assumptions implicit in each.

The history of European civilization, including the post-1492 Americas, is essentially, as Schiller portrays this,¹⁶ the struggle of *republicanism* (such as Solon's reforms in Athens) against the barbaric heritage of ancient Mesopotamia, usury-ridden oligarchism. British philosophical liberalism, the root of Hobbes, Locke, Hume, Bentham, Mills, and Smith's "moral philosophy," and of eighteenth-century British (Haileybury) political-economy, is in all essential features, a utopian *pantheistic* ethical dogma, modeled chiefly upon pagan imperial Rome, but also upon the ancient, pantheistic Delphic cult of Gaia, Python-Dionysus, and Apollo. The principal forerunners of Delphic oligarchism in Ancient Greece, is the so-called "Babylonian" model of ancient Mesopotamia and Canaan.¹⁷

To adduce the relevant common axioms implicit in the collapses of the British and communist political-economies,

it is perhaps sufficient to compare British and communist dogmas of national and super-national economic practice with the following reference-points in ancient and Renaissance history. We begin with the succession of usury-caused collapses of the ancient Mesopotamian "bow-tenure" system of agriculture. We include reference to the circumstances of Solon's anti-usury reforms in Athens. We examine the crucial, related issues associated, successively, with the Flammarian and Gracchi reforms of pre-imperial Rome. We include the process of collapse inhering in the axiomatic features of the pagan imperial Rome of Augustus, Tiberius, Nero, and Diocletian.

We examine the reasons for the upsurge of economic power generated by the Golden Renaissance, and view this with a reflection upon the great enterprises set into motion by Charlemagne earlier.

Two opposing features of these cases are emphasized: the role of usury, and the issue of increase of the per capita productive powers of labor, scientific and technological progress.

The forms in which usury's systematic taking of unearned income (i.e., "theft") occurs may be reduced to three general sub-classifications. First, there is *simple usury*: payment taken on account of debt, whether the original principal amount of that nominal debt may have been created in payment of money or real value advanced, or simply imposed upon the debtor either by fiat, or kindred means. Second, there is the role of monopolies (e.g., the international grain cartel), in exacting usuriously unearned income from both producers and consumers of some essential commodity. Third, there are the sundry guises of *ground-rent usury*. We include among these the evolution in the modern British model of central banking, and related forms of public indebtedness, from roots in ancient (e.g., Mesopotamian) tax-farming.

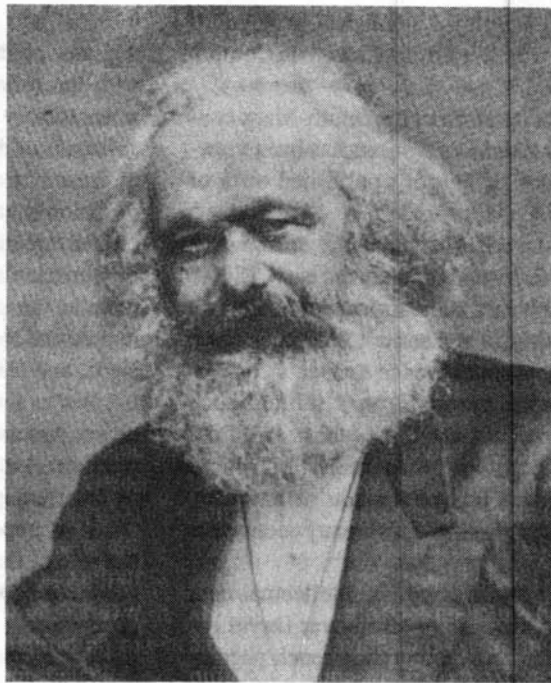
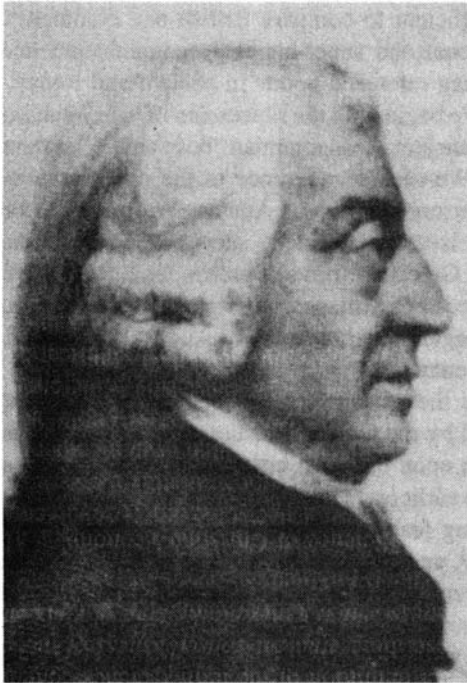
We counterpose *earned profit of physically productive enterprise* to the merely nominally "earned" *profit and interest* of usurious activities. We explain the necessity and functional basis for this distinction.

For various reasons, including the durability of clay cuneiform tablets, the earliest good accounting record of physical economies is our knowledge of ancient lower Mesopotamia.¹⁸

What we know of the economic history of the region shows that the critical physical factor causing the depopulating collapse of society after society successively in this region, was the effect of usury. This pattern extends from the most ancient cases known, through the usury-caused collapse of the post-Abbasid Baghdad.

Without the anti-usury referenced reform of the type introduced by Solon, Athens as a center for classical Greek culture would never have come into existence.

The monstrous failure of the pagan Imperial Rome of the emperors Augustus, Tiberius, Nero, and Diocletian, serves us as probably the best available case in point for



The British East India Company's apologist Adam Smith (left) and his terrible grandchild, Karl Marx.

classroom and related uses.

Whatever else may be said of the Gracchi and their proposed reforms, something akin to their leading proposal was the mandatory alternative to the nightmare which gripped Italy for centuries following the Gracchian faction's defeat.

Essentially, insofar as the returning farmer, from the ranks of Rome's legions, was settled productively on his farm, the aggregate families of Italy produced significantly more than Italy consumed. This, relatively speaking, represents a state of prosperity.

If that same returning legionnaire is denied his farm, and is relegated, instead, to the company of a proletariat enflaming the Roman *piazzas*, internal physical-economic bankruptcy grips ancient Roman Italy. As the engorged mass of a parasitical Roman idle rich gobbles up the formerly productive farmlands, to establish and to enlarge a sybarite's unproductive slave plantations, ancient Italy depends increasingly upon looting by force from the subjugated foreign colonies and satrapies, which provided, as tribute, the needed grain and other prime necessities.

This was the circumstance of the breakdown of the Roman republic, the condition of the civil wars and imperial designs of Julius and Augustus Caesar. Thus, like the bankrupt United States and Britain of 1990-91, the Romans of the first century B.C., rather than remedying the evil policies ruining the nation at home, prolonged their reign at home by foreign adventures. A parasitical mask of global imperial grandeur adorned that portion of the imperial capital abutting a sea of slum-helotry. Thus, then, as the Washington and London of 1990-91, did the rise and persistence of an Imperial Rome, rotting at its core, accomplish the general ruin

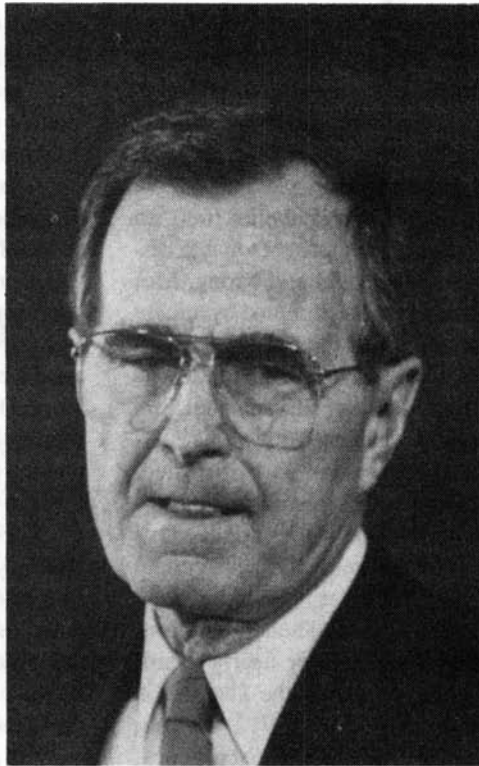
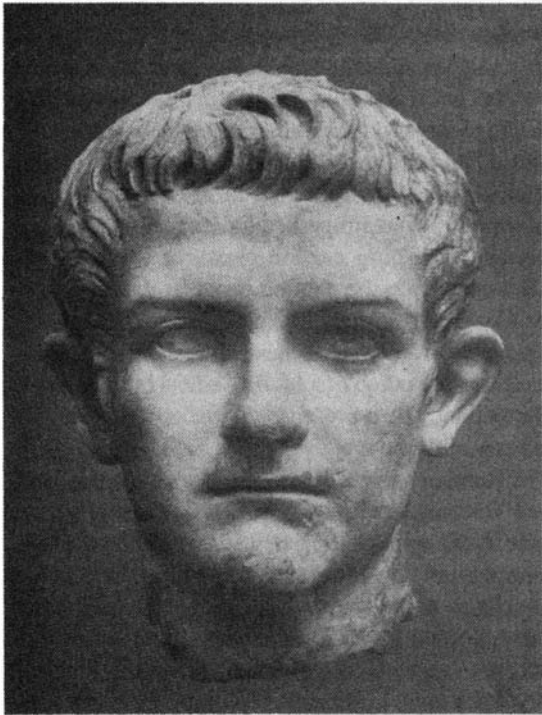
of not only Italy, but those colonies upon whose looting depended the Roman helotry's TV-like diversions at such places as the Circus Maximus.

So, the U.S.A. of 1991 is gripped, like the rotting Victorian British Empire before it. By permitting the internally rotting imperial British Empire of Castlereagh, Palmerston, Russell, Mackinder, and Milner to drag European civilization into the ruinous new Thirty Years' War of 1912-45, a war which London orchestrated against the Eurasian development perspective of France's Gabriel Hanotaux, the complicit governments of France, Germany, Austro-Hungary, and the United States (among others) did bring a monstrous ruin upon themselves, and upon the planet as a whole.

As a self-bankrupted ancient Rome sought an empire based upon naked force, thus to postpone the inevitable time of social-economic collapse at home, so the Anglo-American Liberal Establishment, the fanatical proponents of Smith's lunatic "free trade" dogma, have based their policy upon establishing a world-wide "Pax Americana" (directed from London), a "World Federalist," "one world," "new world order," a utopian's parody of the imperial pagan Rome of Augustus, Tiberius, Nero, and Diocletian.

To understand adequately the controlling impulses of the relevant neo-imperialist, Anglo-American liberals, we are obliged to study the rise, especially in eighteenth-century England and France, of the corrupting influence of so-called "Enlightenment Liberalism."

In Britain, this included most prominently the doctrinaires Francis Bacon, Thomas Hobbes, John Locke, David Hume, Adam Smith, the second Earl of Shelburne, Jeremy Bentham, and Thomas Malthus. In France, this must include



Stuart Lewis

The mad Roman Emperor Caligula and President George Bush. The Anglo-Americans' concept of a new world order today is a parody of imperial Rome.

René Descartes's neo-Aristotelian formalism as well as such shamelessly romantic figures as Montesquieu, Voltaire, Rousseau, the reactionary, oligarchical physiocrats of the Jacobin's salon of free-trader Jacques Necker and his notorious daughter, the Madame de Staël. Considering such exemplary cases, we trace the manner in which the axiomatic features of pagan Roman imperialism were imbedded in the "mind-set" of the modern liberal, fascist, and communist.

From that latter vantage-point, we may see more clearly, not only the true nature of the genetic links of Adam Smith to Karl Marx, but we see also why this connection is of such importance for understanding the common roots of the almost simultaneous collapse of the Muscovite and Anglo-American political-economic systems.

The pagan Roman imperial model of "new world order" adopted by the Thatcher-Bush circles of 1990, is, like most things of pagan Rome, a parody of someone else's earlier designs. Two precedents are of outstanding relevance. The nearest was the Cult of Apollo at Delphi and Delos in Greece. Ultimately, all significant European oligarchism and pantheism are either ancient Mesopotamian or Dravidian in traceable origins. By examining Mesopotamian and Delphic pantheism as the relevant models for modern liberalism and anti-republican oligarchism generally, we show how the archetypical oligarchical religious idea, ancient *pantheism*, is the axiomatic root of such modern phenomena as *gnosticism* and *satán-worship*, in religion; *liberalism*, *fascism*, and *communism* in social philosophy; *positivism* in legal philosophy of

practice; and *imperialism* in statecraft. Also, most directly to the point, oligarchism is impelled axiomatically not only to the parasitical practice of usury, but is impelled as if by instinct to destroy any society which bases itself upon the fostering of investment in scientific progress for increase of the productive powers of labor.

The known root of ancient pantheism is the cult of an Earth-Mother-fertility goddess, known variously as *Shakti* (Dravidian "Harrapan"), *Ishtar* (Chaldean), *Athtar* (Sheba-Ethiopia), *Astarte* (Canaan), *Isis* (Hellenistic Egypt), *Cybele* (Phrygia), or *Gaia* (Delphi). She is associated with a *satánic* male deity, a phallus-serpent deity known as, for example, *Siva* ("Harrapan"), *Python* (Delphi), *Dionysus* (Phrygia), or *Osiris* (Hellenistic Egypt). Probably, the earliest of the known origins of the Earth-Mother/Phallus cult was "Harrapan," spreading through "Harrapan" maritime colonies of the "black-headed people," such as Sumer and Sheba, to appear as such Semitic and Hellenistic utterances of "Shakti," as "Ishtar," "Astarte," and "Isis."

It is relevant in several ways, that these ancient Satán-(serpent/phallus-) worshipping cults are associated with the Moon-goddess and the lunar calendar, rather than the solar astronomical calendars of the earlier, Central Asian Indo-European cultures. The gods of the pagan pantheistic cults are, like imperial Roman emperors, apotheoses of the most degraded forms of lustful, existentialist, cupidity-ridden irrationalism. These pantheisms' ministry is the cult of fear, not agapic love; their so-called "law," is but the *ukase* of power's

capricious passing whim.

The endemic political impulse of pantheism is seen in the instances the gods of the new vassal are induced to submit to the gods of the conqueror. So, Anglo-American imperialism today demands submission to the Supreme Architect of Usury, and to the cult-dogma of universal "free trade."

The syncretic fusion of many pagan deities into an "Olympian" ethical Pantheon, prohibits any reasonable distinction between truth and falsehood, right and wrong. Morality is prohibited. And its place is fully occupied by a mere ethics, as Aristotle's *Ethics* and *Politics* show this.

Here is the pantheistic root of British liberalism and its political-economy; here is that axiomatically pantheistic¹⁹ feature of liberalism which leads consistently toward its self-expression in such forms of manifestation as British neo-Roman imperialism, fascism, and communism.

Two historical illustrations of this point are supplied here now. The first case is the apparent anomaly, that certain leading U.S. and British financier circles, including those associated with Morgan, Harriman, and Theodore Roosevelt, should have been not only actually or nearly "card-carrying Bolsheviks" during the course of the years soon following the so-called October Revolution of 1917, but also, later, supporters of the Mussolini and Hitler fascist regimes. The second case, is the common characteristics of Karl Marx's political-economy and the "malthusian" socialistic decrees of the Roman Emperor Diocletian.

During the period 1917-27, certain among the most powerful financiers and related political circles, chiefly in Britain and the U.S.A., were not only partners of the young Soviet governments, but also "co-owners" of those sections of the Communist International (and its communist spy service) later known variously as the "left" and "right" Comintern "oppositions," including circles associated with the U.S.A. "neo-conservative" extremists of today. In those terms, 120 Broadway in New York City's Lower Manhattan was a leading center of the obvious capitalist-Bolshevist entente.

Later, the same Harrimanite circles who were once associated so with Trotsky, Stalin, and so forth, moved to provide very significant support for both Benito Mussolini's and Adolf Hitler's neo-Roman cult of fascism.²⁰ The latter included the Harriman circle's public support for the Nazi Party's "racial purification" dogma,²¹ and the key role of Harriman's company, as bankers, in moving funds to aid Hitler's "legal coup d'état" in Germany in 1932-33.

The second historical reference, is the connection between the characteristic feature of Roman Emperor Diocletian's repressive, "malthusian" socialist decrees, and the most crucial among the attributable axioms imbedded in the formal side of Karl Marx's political-economic doctrine.

Although the establishment of romantic liberalism in Britain began with the evil circles of Francis Bacon and Thomas Hobbes, and although liberalism was formally established as the state philosophy of the United Kingdom with

the accession of the first Duke of Marlborough's King George I, for all practical immediate purposes here, we begin with Castlereagh's role in establishing London's institutionalized control over the internal affairs of continental Europe, by means of the 1815 Treaty of Vienna and the Holy Alliance.

Although it had been the German friends of anti-oligarchic Friedrich Schiller, who had led in bringing about the downfall of an entrapped Emperor Napoleon Bonaparte, it was London and Hapsburg carrion crows of usurious oligarchism who carved up the spoiled peace at the 1815 sessions of the Congress of Vienna. The infamous Holy Alliance's instincts were an echo of the malthusianism of Gian Maria Ortes and of the odious "socialist" edicts of the Roman Emperor Diocletian. The repressive "Karlsbad Decrees" expressed the essence of the matter.

The 1832 Hambach event signaled a de facto reversal of the Karlsbad Decrees, and the approaching erosion of the Holy Alliance itself. Against the renewed threat of a nationalist's effort for an anti-Jacobin republican renaissance in the domains of science and economy, the challenged oligarchy unleashed its own neo-Jacobin, Dionysiac forces of chaos, forces which soon came to be centered around the Mazzini Freemasonry of "Young Europe."

U.S. President Abraham Lincoln's qualified defeat of London's Confederacy, was a crucial turn in the post-Holy Alliance world order. Not only had republican, agro-industrial, mercantilist progress triumphed over London-backed chattel slavery and usury. Defeat of London in this affair, and the doom of that bloated British special constable, Napoleon III of France, had been ensured by the intervention of Russia's Czar Alexander II, threatening the use of Russia's naval and land forces against London and Paris, should those capitals carry through their intention, not only to invade and loot Mexico, but to intervene more directly in military assistance to London's otherwise doomed puppet, the Confederacy.

At the same time, Czar Alexander continued to reverse the barbaric devolution of Russia's social and economic life, under his two predecessors, and to reform Russia along the lines of the reforms which Peter the Great had launched on the prompting of Gottfried Leibniz.

Moscow's action for European neutrality in the U.S. Civil War of the 1860s, was one of the three major developments of the second half of the nineteenth century which impelled London to unleash the "new Thirty Years' War" of 1912-45 in Europe, and which prompted also the strange 1920s cohabitation between the Harrimans and the Bolsheviks. The other two developments were, first, the friendship between Moscow and Bismarck's Germany, and second, the efforts of France's great statesman Gabriel Hanotaux, to establish an anti-British bloc of North Eurasian cooperation for economic development.

The Fabians' Britain of Cecil Rhodes, Milner, and Mackinder,²² caused World Wars I and II for the same, deeper,

geopolitical motives, which, more recently, prompted the Britain of Margaret Thatcher, British agent-of-influence Henry A. Kissinger, Nicholas Ridley, and Conor Cruise O'Brien to launch what might very well become the plunge into World War III.

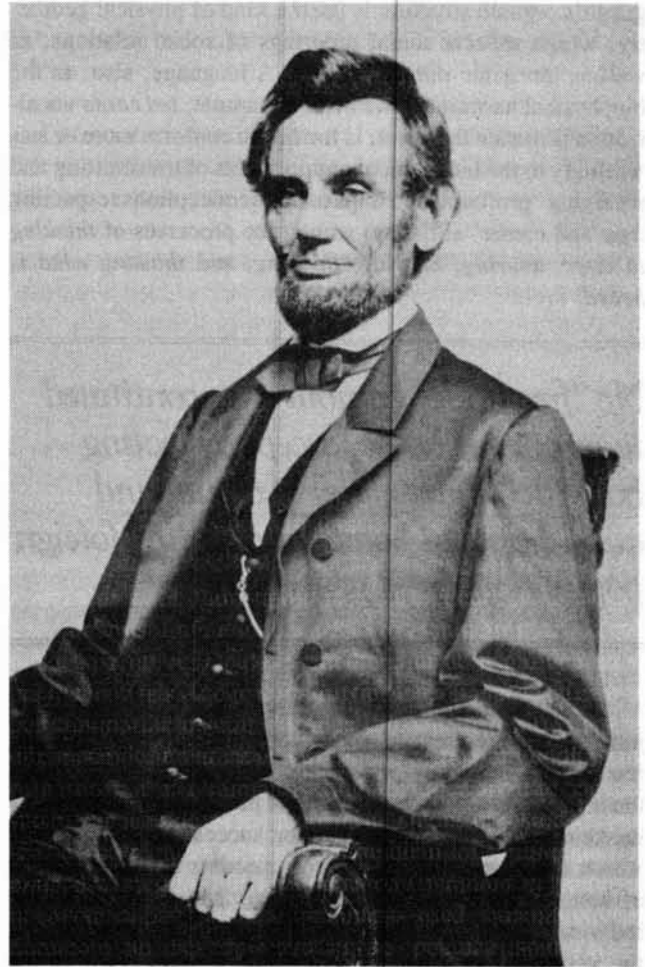
Britain then responded to the cooperation between Moscow and Bismarck's Berlin, by seeking war between Russia and Germany, more or less as Prime Minister Margaret Thatcher's circles reacted to German reunification in 1990. The convergence of Hanotaux's Paris upon continental European general cooperation with Sergei Count Witte's and, later, Stolypin's Moscow, brought from London a more profound reaction: World War I.

The Western oligarchical interests used traditional special channels into the old, anti-Petrine boyars generally, and into such institutions as the Third Section and Okhrana in particular, to unleash *raskolniki* forms of madness and terrorism against those institutions of Russia, from the czar on down, responsible for the friendship with Bismarck's Berlin and Hanotaux's France. This is the key to the anomalies of Averell Harriman's Broadway.²³

London's perception of this 1880-1900 threat of Eurasian continental economic development and cooperation, impelled the circles associated with Milner and Mackinder not only to corrupt France successfully with the *Entente Cordiale*, but to use the "messianized" *raskolniki* followers of Fyodor Dostoevsky and Nikolai Bakunin to destroy from within a czarist Russia which might seek cooperation with both Germany and France against Britain's control of the continental "balance of power." The greatest threat currently to civilization as a whole is, that the pattern of Mrs. Margaret Thatcher's apparent "Svengali-like" control over the United States' George "Trilby" Bush might persist, even under a change of the specific personalities occupying those official positions. If so, then as the pre-history of Britain's authorship of World War I was re-enacted during 1990, against the implications of Germany's reunification, so the danger of a "new Thirty Years' War" threatens the planet with a plunge into a "New Dark Age" by the outbreak of this coming century.

Before turning to the second of the two historical examples, let us underscore a crucial lesson demonstrated by the case just outlined.

The popularized, ignorant opinion of history presumes axiomatically the misanthropic Hobbes-Locke-Hume-Smith notions of peoples as hedonistic, instinct-ridden little *homunculi*, each born—bestial instincts apart—a *tabula rasa*. For such poor dolts, real history never existed, but, rather, nothing more than a "Zeno's Paradox" sort of "Achilles and the Tortoise" kind of separated, short intervals of current events. History for them is a succession of kinescopic still photographs, within which "current events" are determined with little or no regard for the cultural heritages of the preceding kinescopic frames.



President Abraham Lincoln, whose defeat of the Confederacy was a blow to Britain's scheme for a new world order. Under his leadership, the principles of the American System of Political-Economy were used to generate the investment and production needed to win the war.

The simplest, empirically-based disproof of the cited British man's Hobbes-Locke view of history, emphasizes two interrelated sets of facts. The first fact is the known, millennial, philologist's history of those languages in which all contemporary conscious behavior is molded. The second fact, is the relationship between a language-family's classical poetry, and the singing of that poetry under the influence of harmonic principles of vocalization genetically intrinsic to all healthy specimens of the human species, regardless of race or national origin.

No person ever existed as a *tabula rasa*. What is transmitted to each new member of society from preceding generations, includes not only that which is transmitted by the memory-medium of language, but those ideas which are characteristic of the developed grammatical and other structure of the spoken language itself. It is shown that a lan-

guage's organic structure is itself a kind of physical geometry, which reflects actual orderings of social relations, as well as inorganic ones generally. A language, also, as the biophysical harmonic laws of, for example, *bel canto* vocalization illustrate the point, is formed to conform more or less wittingly to the biophysical requirements of transmitting and receiving "profound and impassioned conceptions respecting man and nature" (Shelley) among the processes of *thinking to utter, uttering, hearing, thinking, and thinking what is heard*.

No "free trade" economy has continued to prosper at home, except by looting both an "under-class" of actual and quasi-helots at home, and looting foreign populations most generously.

In real history, like the most important, millennia-spanning example referenced, the underlying structure determining today's crucial events reaches back across centuries. In the more adequate view of historical processes, it is the transmission of embattled ideas, over successive generations, which determines the course and outcome of each moment of history taken in the shorter term. The free will of the individual is not a matter of indifference in the process, but the individual free will is historically efficient only to the degree that its action, wittingly or not, alters the quality and interaction of those ideas which pour, like a mighty avalanche of political-cultural traditions, out of the long past, into each momentary present.

Schiller argues that European history in totality can be understood as essentially a millennia-spanning, continuing conflict between but two historical-cultural traditions, *oligarchism* as typified by Lycurgus's Sparta, and *republicanism* as typified by Solon of Athens. Our example references directly the span 1812-1990; implicitly, we trace the same conflict to the end of the sixteenth century (Francis Bacon); we could have traced it to the times of Socrates and Solon, or, with increasing fuzziness of vision, to more remotely ancient times.

Given the fact, that the free will of individuals does alter the course of what is in the long term a culturally determined history, history is not determined by simple ideas as such. Determinism exists in the long-span cultural determination of history, not in terms of simply fixed kinds of ideas, but in terms of the transfinite principle which expresses the continuing characteristic of a cultural-factional body of thought throughout the multi-century span of the many changes introduced to it by action of sovereign individual free will.

Thus, it is types of cultural ideas, as, for example, oligarchism or classical-humanist republicanism, which act efficiently upon history. The sovereign individual free will acts upon such cultural ideas, that is, upon the efficient, transfinite characteristic of such ideas, to the effect of rendering the power of such ideas relatively greater or less.

This brings us to the case of the second historical example, the common axiomatics of the economic doctrines of Adam Smith, Karl Marx, and the Emperor Diocletian.

If we consider Marx's four-volume *Capital*, and his related writings, only in their narrower aspect, as a system of political-economic analysis as such, Marxian economics can be reduced essentially to a set of simultaneous linear inequalities purporting to represent a linear mathematical model of what Marx terms "extended reproduction." Two explicitly adopted assumptions of a formally axiomatic-deductive quality are then shown to be direct points of equivalency between Marx, on the one side, and, on the other side, Adam Smith and his physiocratic teachers.

First, Marx not only accepts, and defends fanatically Adam Smith's "free trade" model of competition; he adopts it as a method of linear statistical determination of the marginal distribution of what he terms "exchange value." He is virulently anti-mercantilist, and a faithful apostle of Adam Smith and the physiocrats on this account. He is, otherwise, an avowed, pro-British adversary of the American System of Political-Economy, as he underlines this in connection with his vile defamation of Friedrich List and Henry C. Carey.

Second, Marx observes, accurately, that in his constructing linear inequalities intended to describe "extended reproduction," he has ignored both technological progress and what Henry C. Carey describes as the "economy of labor" determined by technological progress. (Although Marx does seek to bring in technology as a depreciator of price, after the fact, in *Capital*, Volume III). In respect to principles of Physical Economy, it could be said that Karl Marx is a "knuckle-headed" populist, and a physiocratic one at that.

Among the relevant other absurdities in *Capital* which cohere with these two axiomatic assumptions, are Marx's—in fact, pro-usury—distinctions among *profit, rent, and interest*, and his fool's-errand quest for the "primeval hoard" of money.

The better approach to recognizing the disastrous folly of the two axiomatic assumptions, is to reflect upon the practical significance of what they require implicitly be excluded from policy-shaping considerations. The summation of this line of argument is partly repetition of points made earlier in this text, but usefully so: We see, one hopes, more clearly, how the issue of "the One and the Many" bears directly upon the determining connection between physical-economy and statecraft in general.

Since the practice of statecraft must be concerned with the *durable survival*²⁴ of the society and its included most essential social institutions,²⁵ there can be no competent

statecraft whose practice fails to address efficiently the requirements of a science of Physical Economy. Diocletian's decrees, the physiocrats, Adam Smith, and Karl Marx demand, on common included ground, that political-economy evade those conditions which are indispensable for the *durable survival* of a society.

We have indicated that a transfinite positive ordering of increase of an entire society's potential population-density is the general precondition for durable survival. We know, by definition, that the capital-intensive, energy-intensive investment in scientific and technological progress in both basic economic infrastructure and production of basic physical goods of producers' and households' consumption, is required policy and practice.

We can show, either on the basis of the physical geometry of those seemingly simple principles, or by reference to appropriate, crucial empirical evidence, or both, that the following set of general inequalities must be satisfied.

1. The per capita leisure and physical consumption of the family household must be improved, but under the condition that the per capita and per hectare physical output of the whole society increase more rapidly than the per capita household goods consumption.

2. That, with technological progress, the school-leaving age must increase asymptotically toward an average upper limit. This requires corresponding increases in health and longevity.

3. That, with technological progress, the ratio of required employment in physical production and manufacturing and basic economic infrastructure must increase relative to agriculture and related activity, up to a lower asymptotic limit for the latter.

4. With technological progress, physical-productive employment in producers' goods must increase relative to that in physical production of household goods.

5. That, with technological progress, we must increase not only the quality of energy available per capita area of potential population-density; we must increase the effective intensity of the applied energy.

That is enough detail for our immediate purposes. It is clear that successful growth must take into account the ration of the labor force trained for employment in each category, and must establish correlated priorities for fostering credit and capital to admit realization of such goals. This requires corresponding forms of "mercantilist dirigism" in the economy, otherwise no rational result will occur. Indeed, no "free trade" economy has continued to prosper at home, except by looting both an "under-class" of actual and quasi-helots at home, and looting foreign populations most generously.

While the "free-traders" howl loudly of their freedom to steal, they deny real freedom, the freedom to create, and to obtain the conditions of family and general social life needed

to foster the creative potential of the individual and his expression. This true freedom is exemplified by a truth-seeking commitment to valid, fundamental scientific progress, to related creative work in classical-humanist art forms, and so forth.

Without doubt, the Soviet political system denied true human freedom. Without doubt, as long as Moscow was perceived a credible strategic adversary, there was still much greater political freedom in the West, than in Soviet society.

We should add, relevantly, that the best Soviet scientific workers lived and worked at the rim of a chasm of political dissidence on this account. Part of the depth of the crisis in the U.S.S.R. today, is that the pre-1917 stock of Russian intellectual capital has been almost used up, in science as in the eradication of those productive farmers who used to be named "kulaks."

One is reminded thus from Soviet history, of the "malthusian" socialist decrees of the Emperor Diocletian.

The situation in the "free trade" West is not generally much better. Only by exception, such as following the leadership of a de Gaulle, Adenauer, Mattei, or John F. Kennedy, some genuine long-term growth was promoted during the postwar period. Otherwise, as in the case of occupied and quasi-occupied postwar Germany, the net relative productive potential has been declining from the high point reached, about 1944, during the course of World War II.²⁶ In general, apparent short-term growth has been realized by resort to what Marx, Rosa Luxemburg, and Yevgeny Preobrazhensky termed "primitive accumulation."

Look at the picture of the world from Japan circa 1983-84. Japan, which had made good use of purchase of otherwise idle U.S. patents, was faced with the collapse of U.S. expenditure in research and development, together with a catastrophic decline in quality of top-ranking U.S. science graduates. Thus, if Japan at that time were to maintain its rate of growth in "economies of labor," it had to increase rapidly and substantially its percentage of national employment in research and development.

Without "dirigist" decisions of that sort, in R&D, in basic economic infrastructure, and in education and employment generally, there can be no true opportunities for exercise of human freedom in the society.

Where cartels are permitted to loot agriculture, by the dropping of government parity-price protection for farmers, free agriculture vanishes, and, sooner or later, hunger enters. Where ultra-competition under conditions of reckless deregulation prevails, small industries, the bulwark of economic freedom, fail, and the margin available for freedom—technological progress—drops to below zero percent of the cost of sales.

Without real growth in potential population-density for the society taken as a whole, there is a net real decline, perhaps temporarily concealed by primitive accumulation, which means a disaster in the longer term.

For the most efficient route to uncovering the common,

principal axiomatic characteristics of Adam Smith, Karl Marx, and the Diocletian decrees, turn attention next to the common physiocratic features of each. Following that, place emphasis upon the explicitly immoral, populist form of irrationalism, which is professed repeatedly, with shameless openness, by Smith, and which is his sole premise for his esoteric “Invisible Hand” dogma of “free trade.”

As a matter of principle, the doctrine of “free trade” begins in history as the lunatic’s²⁷ worship of the Whore, or Earth-Mother goddess, Shakti, Ishtar, Gaia, et al. As for the

Kepler’s physics, as an entirety, depends, axiomatically, in a crucial, pervasive way, upon the preceding work of Leonardo da Vinci et alia on the subject of the Golden Section and related physics implications of the platonic solids. Notably, that on the ordinary scale, the physical geometry of living processes is ordered in harmonic congruence with the Golden Section; whereas, on that same scale, non-living processes are not.

Diocletian decrees, also for the pagan physiocrats, and Adam Smith, the source of *profit*, *interest*, and *rent*²⁸ is the mysterious “bounty of nature.” The neo-Aristotelian René Descartes, assists us perversely in decoding this esoteric pagan dogma, implicitly placing the “bounty of nature” among matters under the more general heading of *deus ex machina*.

Read Adam Smith on this:

The administration of the great system of the universe . . . [and] the care of the universal happiness of all rational and sensible beings, is the business of God and not of man. To man is allotted a much humbler department, but one much more suitable to the weakness of his powers, and to the narrowness of his comprehension: the care of his own happiness, of that of his family, his friends, his country. . . . But though we are . . . endowed with a very strong desire of those ends, it has been intrusted to the slow and uncertain determinations of our reason to find out the proper means of bringing them about. Nature has directed us to the greater part of these by original and immediate instincts. Hunger, thirst, the passion which unites the two sexes, the love of pleasure, and the dread of pain,

prompt us to apply those means for their own sakes, and without any consideration of their tendency to those beneficent ends which the great Director of nature intended to produce them.²⁹

We find a relevant observation in the work of Sir Isaac Newton, the apotheosized god of science among Britain’s pagan imperialists. Newton confirmed that his formal physics contained the patent absurdity, of portraying the universe, mathematically, as running down in the fashion of a mechanical timepiece. He observed, that this faulty mathematical construction gave the appearance, that for the universe to continue to exist, God must rewind it periodically. This is Newton’s fair representation of Descartes’s dogma of *deus ex machina*. Newton qualified his argument, by confessing that his faulty choice of mathematics was the only one he found acceptable.³⁰

Notably, Gottfried Leibniz referenced this “clock-winder” matter in the Newton-Clarke-Leibniz correspondence. The Cartesians’ and Newtonians’ fanatical refusal to accept the reality of *non-algebraic functions*, and to refuse to consider, therefore, a competent calculus, shows that Newton was indeed aware that a mathematics schematically different from his own, was an available choice.³¹

Newton’s fictional “clock-winder god,” is Descartes’s *deus ex machina*, and the omniscient, but impotent post-Creator of Aristotle’s schema.³² This pagan deity of Aristotle and Descartes is also the mechanistic Enlightenment’s Freemasonic concoction of Robespierre’s Jacobin Supreme Being cult. The quarrel of Leibniz with Kepler’s adversaries among the Cartesians and Newtonians, shows the crucial point at issue in the readily most intelligible, and historically actual form.

Over the decades, from the late seventeenth century through to the beginning of the twentieth, this issue is embodied in the mathematical guises of the geometric magnitudes, the “non-algebraic,” “transcendental,” and “transfinite;” each, successively, represents but progress in comprehension of the same matter already addressed by the preceding usages. For reasons which we have already considered above, the possibility that an intelligible representation of the lawful ordering of both the *becoming* within physical space-time, and human knowledge of that *becoming*, lie within the scope of combined notions of an underlying, harmonically ordered curvature of physical space-time, and the employment of those geometrical forms of mathematics associated successively with “non-algebraic,” “transcendental,” and “transfinite,” to represent the ordering of events within that curvature.

Thus, the mechanistic axiomatics of Cartesian and Newtonian are the persisting source, not only of the cited, Newtonian “clock-winder” delusion, that our universe is entropically ordered. The same, Aristotelian folly, termed the deductive/inductive method, is the sole rationalist form of

operation responsible for the belief in a *deus ex machina*. It is also, in the same way, the rationalist sophistry employed to support the physiocrats' version of the gnostic,³³ "fundamentalist," populist faith in the mysterious "bounty" of the Earth-Mother goddess Gaia, otherwise named "Mother Nature."

Like the ancient Aristotelian *organon*, the modern deductive/inductive method permits no consistent schema, but a universe of constantly linear physical space-time curvature, a universe of linear pairwise interactions among bodies in linear space and linear time. The corollary of this, in a linear system situated within a constantly linear physical space-

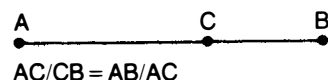
time, can be supplied a consistent representation within the terms of the deductive/inductive method.

That Aristotelian, or "neo-Aristotelian" method could not represent the lawfulness of our real universe in general, or, most emphatically, a living or living-thinking process.

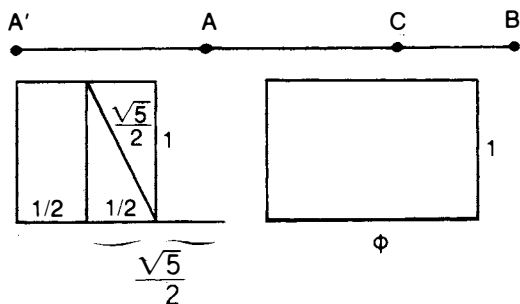
This is a corollary of the fact that the inevitably failed effort to understand the real universe, or living processes, or human thought from an Aristotelian, or neo-Aristotelian standpoint, must lead ultimately to something like a Cartesian or a Newtonian gnostic's occult phantasm, the *deus ex machina*. The Cartesian and Newtonian's rejection of the non-algebraic form of a *valid* calculus³⁴ illustrates the manner

An algebraic construction of the Golden Section

The Golden Section, or Golden Mean, divides a line into two segments, such that the ratio of these segments is proportional to the ratio of the whole length to the larger of the segments.



This being the case, when the length AB is extended by the segment AC, the ratio of the original to the new length, $A'B/AB$, will also be proportion to the Golden Section ratio.

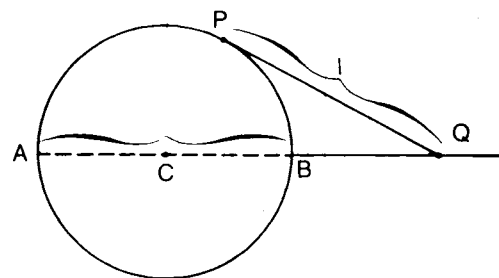
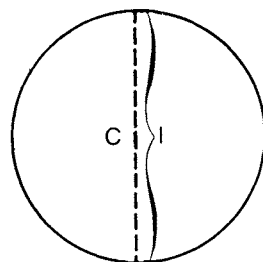


$AC/CB = AB/AC = \phi$
 (ϕ is the traditional symbol for the Golden Mean)

The Golden Section ratio is $(1 + \sqrt{5})/2$, which is approximated by the number 1.61802. A simple construction of the ratio $(1 + \sqrt{5})/2$ can be determined from the Pythagorean Theorem. Construct a square on an extended line. Draw a diagonal through one half of the square, and mark this length on the line. The extended line will be in the Golden Section ratio to the length of the side of the original square.

A geometrical construction of the Golden Section

The Golden Section can be constructed directly from a circle, as follows: Take any circle, and determine the length of its diameter by folding it in half. Now produce a tangent from any point on the circumference of the circle, which is extended so that it has the same length as the diameter. Connect the endpoint of the tangent to the center of the circle, and continue this new line until it reaches the opposite half of the circumference. This line will be cut in the Golden Section proportion (ϕ) by the diameter.



The relationship $\overline{PQ}^2 = QB \times QA$ can easily be shown by noting that PQB and PQA are similar triangles.

the gnostic's occultism slithers through the cracks inhering axiomatically in the deductive mind-set.

Most simply, the *non-algebraic* domain has two ostensibly equivalent modes of existence, a geometric one, and a physical one. At this moment, it is sufficient to prove the case, to limit attention to the vicinity of the cycloid.

Formally, there is the demonstrable geometric existence of the cycloid, and the system of related evolutes and involutes. These define non-algebraic functions which live within the cracks of the algebraic ones. Hence, even on formal

While the "free-traders" howl loudly of their freedom to steal, they deny real freedom, the freedom to create, and to obtain the conditions of family and general social life needed to foster the creative potential of the individual. This true freedom is exemplified by a truth-seeking commitment to valid fundamental scientific progress, to related creative work in classical-humanist art forms.

grounds, the argument which suggests the existence of something functionally efficient outside the scope of algebraic functions, obliges that the non-algebraic functions be preferred to an irrationalist, occultism-ridden *deus ex machina*.

Physically, we have already indicated some of the crucial-experimental features of physical space-time which correspond to the cycloid and nearby forms of function. Since such conclusive crucial evidence is beyond doubt, to propose to maintain a representation of physics in stubborn defiance of this evidence, is a gnostic's arbitrary, occult irrationalism.

So, we cannot exclude these functions, even on formal grounds alone, since they came into formal geometrical existence by methods of construction whose authority could not be denied without throwing out all of geometry. Not only do these functions possess a formal existence within mathematics; they are functions with a unique mathematical correspondence to elementary physical principles; so, no truly rational physics could exist without taking this non-algebraic domain into a leading position of authority. Finally, these functions address directly the location within which the gnostic Cartesians and Newtonians insist that the "Maxwell demons" of the *deus ex machina* lurk; to ignore the transfinite in that case, is not a mistake but a willful fraud.

Not only is the transfinite conception of a "becoming" indispensable to a rational representation of even an hypothetical inorganic physical space-time. There can be no rational comprehension of living or of thinking processes without it. This was already proven implicitly by the work of Leonardo da Vinci et al., as the harmonic ordering of living processes, in morphology of geometrically self-similar growth and function, in congruence with the Golden Section. As we have noted earlier here, this was made, successfully, the basis for determining the curvature of physical space-time by Kepler. The morphology of successful economic growth, measured so in terms of increase of potential population-density, has the same morphological harmonic characteristics. Thus, the creative mental processes, which cause such growth, define a function of the same general harmonic characteristics.

The highest form of functional activity which is known to exist within a process, is therefore the minimal level of form of activity characteristic of that inclusive process as an entirety. Thus, if the universe includes lawfully living, e.g., *negentropic* processes, the *minimal* characteristic of the lawful ordering of the universe as a whole, is that that universe is negentropically ordered as a whole. Thus, since efficient creative reason among sovereign individuals, is a characteristic of a successful society's relationship between man and nature, the minimal characteristic of the universe is represented by a transfinite ordering of *becoming* congruent with the definition of individual human creative reason.

That latter consideration, then, in turn, becomes the basis for assessing the conjecturable axiomatic congruence among sub-phases of the universe generally, or human behaviorisms in particular. So, finally, the coincidence among the Diocletian decrees, the physiocrats, Adam Smith's "free trade" dogma, and Karl Marx is to be adjudged.

Some common immoralities

That forerunner of President George Bush's long-standing, malthusian policies on population control, the Emperor Diocletian's decrees, prescribed a de facto ban on technological progress and a de facto fixing of a ceiling upon population totally, by limiting its growth locally. Yet, the population of the same region was far greater, far denser, more long-lived, and less impoverished 1600-odd years later. Indeed, it was the blocks on population-growth and against fostering technological progress, which characterized the collapse of the Roman Empire in the West, and also later in Byzantium.

Similarly, beginning approximately in the year of the assassination of President John F. Kennedy, the Dionysiac "New Age" of the neo-malthusian rock-drug-sex-irrationalism counterculture was launched into a mass-recruiting mode, from Aleister Crowley's Britain, into the United States of America. Under President Kennedy's successors, the U.S. economy and its population's intelligence level were



The rise of the rock-drug counterculture in Sweden: Alice Cooper in concert in Stockholm, 1989; and young fans at an Ozzie Osborne concert in Solna practice making "the sign of the devil."



systematically, intentionally destroyed by successive policy changes in the direction of a "pro-ecology," "anti-technology," "anti-nuclear family," "post-industrial" society.

Hence, from approximately 1967-68, there has been a visible, overall accelerating decline in useful physical output per capita and per hectare. This began, during the 1966-68 interval, as an average decline in the rate of growth of physical productivity, and became an absolute decline by approximately 1968-70.

Official U.S. opinion chose to see this in contrary terms. Since the old economic yardsticks of the 1950s showed decline, the U.S. government and other institutions adopted newly designed yardsticks, designed to measure decline in accord with a new definition of growth. These changes in yardsticks were of the form of the change of behavior which managed to replace the statement, "My family is going hungry," by "We have succeeded in eating less."

One of the first general indicators of a secular decline toward a new U.S. depression, was a net decline in per capita quality of maintained basic economic infrastructure, from 1970-71 onward. The precedent was the manner speculators earlier turned the New Haven Railroad into junk: nearly all maintenance of roadway and rolling stock was terminated. In the short run this curtailing of New Haven maintenance expenditures was employed to increase disbursements for New Haven stockholders' dividends. The price of New Haven stock shot up on markets. Later, the controlling New

Haven speculators sold out the stockholding at a vast nominal profit, leaving the railway company resembling a bankrupt scrap-heap. This is what has been done to the U.S. physical economy as a whole over the interval 1965-90.

The same principle of "business management," exemplified by the looting of the New Haven Railroad, can be applied to populations. Close down what appear to be relatively less profitable production facilities, thus presumably increasing the average nominal profitability of the surviving enterprises. Then, increase per capita incomes, by mass extermination of the unemployed and the poor: true "social Darwinism" at its most consistent. We have seen such "social Darwinism" practiced during 1990 against the new states of the Federal Republic of Germany, at the insistence of the co-thinkers of Margaret Thatcher and her anti-Germany trade and industry minister, Nicholas Ridley.

In the less extreme case, there is the national economy, in which the appearance is, that some are wealthy and some are poor. In the extreme case, some social Darwinists might propose to increase the per capita level of wealth, by eliminating a requisite ration from among the poor; that was done, in effect, to the eastern new states of the Federal Republic of Germany during the second half of 1990. In another extreme case, a nation, as the United States of America did over the 1970s and 1980s, most notably, shut down more and more employing industries and farms, in order to use cheap labor abroad to increase the profitability of sales of goods to pur-



Chris Lewis

An abandoned railway line in Pittsburgh, Pennsylvania, 1985. The decline of basic U.S. infrastructure from 1970-71 onward was one of the first indicators of the coming depression.

chases within U.S. markets! The insanity of policy of practice illustrated by each of these examples ought to be apparent immediately.

Let us adduce the common principle characterizing such insane and immoral economic policies of practice.

The prosperity of a nation is, at first inspection, a matter of self-generated physical well-being per capita and per hectare. This requires not merely an average level of development of the productive powers of labor; it requires that, from each and all cases to another, the productive powers of labor not fall below a certain minimum. This latter requires that the standard of the nuclear family not fall below some minimum, from case to case. Thus, the general prosperity of a nation is not just a function of its average productive potential, but must also take into account as a determining variable term, each of both the minimum and also the maximum upper and lower ranges inclusive of the proverbial 99% of the nuclear-family households.

In summary of this point, it is the relationship of each hectare to all hectares, and the productive potential of each individual to that of all individuals. It is such a relationship between the individual and the economy taken as a whole.

It may be the passionately asserted opinion of some, that

what we're saying is either not true or is virtually irrelevant even if true. So much the worse for their mistaken opinions. We are addressing here adducible principles of Physical Economy.

A man may leap from a precipice to demonstrate his contempt for the principle of gravitation; the principle of gravitation responds to this by ignoring that man's opinion, with the relevant resulting consequences. So it is with the issues immediately at hand here. It is the inevitable consequence of the Diocletian decrees, "free trade," and Marxian doctrine which exposes most conclusively the common axiomatic flaws of each and all of the opinions we've attacked here.

Thus, reality responds to those common axiomatic features of all three follies with consistent kinds of effects, as we see in the near-simultaneous collapse of the communist and Anglo-American economic systems today.

The greatest economic crime is to devalue that which sets sovereign individual human personality absolutely apart from, and superior to each and all beasts. This crime includes the devaluation of the society's, and each individual's own duty to foster the development of that divine spark of potential for creative reason which makes man absolutely superior

to all beasts. That required development is not limited to the powers within the individual, but includes the appropriate environmental conditions for fruitful expression of that productive potential.

The benefit occurs for society, not as the arithmetic sum-total of individual case-by-case; it occurs as the individual participation in the benefit to the society as a whole.

The reflection of the "One and the Many" into this phase-relationship, presents itself at first in a twofold way. In the one way, it is the society as an indivisible sovereign unity, which stands as analogous to a *One* in relationship to the *Many* individuals of which the society in this contrary aspect, as a mere aggregation, is apparently composed. In the second way, the sovereign creative processes of the person are the *transfinite* surrogate for the *One*, and the society is treated in its aspect as the *Many*. Finally, the two views are subsumed by the corresponding higher vantage-point.

In other words, we have, at first encounter, both the development of the individual, as of the *Many*, by the society, as *One* again, and, also, the transfinite corresponding to the ordering of the continuity of the *Many* successive phases of the development of the society, as determined by the action of the developing sovereign creative potential of the individual personality.

This, twofold, reciprocal relationship implicitly defines that which integrates the two views, by subsuming both under one.

The true wealth of a society, is only ephemerally its eroding, depleted current, static form of wealth in the process of vanishing through consumption or other attrition. The true wealth of society is the rate, per capita and per hectare, at which the potential population-density of the future society is being generated.

To augment a part, at the expense of some other part, is what Luxemburg and Preobrazhensky recognized as primitive accumulation. It is what the U.S. Liberal Establishment, and its relatively moronic, Friedman-like "conservative" fellow-travelers regard as their market-oriented "social Darwinism," their own Marxian "primitive accumulation," which has thus ruined the Anglo-American imperial economies at home, as the Roman Caesars and their forebears used similar means to collapse, first, the internal economies of Italy, and, then, the colonies which they looted to supply temporarily a ruined economy of Italy.

The *science of political-economy* is not less than overthrowing, by means of absolutely crucial proof, the *materialist* delusions of the British and French-speaking occultists' Enlightenment of René Descartes, John Locke, Isaac Newton, Adam Smith, and Bertrand Russell. *The continued existence of the human species has depended upon the efficient spiritual cause fostered by aid of the material effects of that cause.* The efficient relationship, the essential, efficient ontological consubstantiality of the true material and the true spiritual, is the crucial evidence provided by historical human

existence to date. In no other way, and certainly by no contrary way, could our species continue to exist.

Notes

1. For Leibniz's writing on Physical Economy, see Gottfried W. Leibniz, "Society and Economy," pp. 12-13, in *EIR*, Vol. 18, No. 1, Jan. 4, 1991. See also "On an Academy of Arts and Sciences," *Leibniz Selections* ed. by Philip P. Wiener, (New York: Charles Scribner's Sons, 1951).

2. Lyndon H. LaRouche, Jr., *In Defense of Common Sense*, (Washington: Schiller Institute, 1989), Chapters 3-5.

3. To leave no reasonable margin for scholarly objections from relevant mathematical specialists, the issues represented by the two cited corollaries can also be represented in different terms, differently posed, but equivalent to what we have just said above. We summarize this alternative representation of the paradox of formalism, and then leave the reader to resume the argument in progress.

No formal, deductive system of argument, or thought could ever escape two devastating formal problems: *ambiguity* and lack of *completeness*. For the purpose of recognizing this twofold formal problem it is important to adopt the older sort of conventional distinction between *axioms* and *postulates*. In other words, the basis for the entire deductive theorem-lattice system is located within the *integralness of a set of axioms*, and the postulates are other arbitrary, unproven assumptions, which address the problems of ambiguity and completeness inhering in the set of axioms. This should forewarn us, that no deductive mathematics could ever support a durable form of valid mathematical physics.

The author's preference for the two corollaries he supplies above, over the more traditional emphasis on paradoxes of *ambiguity* and *completeness*, is prompted by the fact that the problems of *ambiguity* and *completeness* are not containable within the arbitrary domain of mathematical formalism. They are, in the first instance, reflections of *physics*: It is the physics of such relatively crucial matters of non-algebraic functions as isochronism, harmonic orderings, least-action, and so forth, which forces the overthrow of a deficient, analytical formalism, in favor of a constructive-geometric generation of functions cohering with such crucial physical actualities. In the second degree, physics itself is incompetently defined as subject-matter, as long as the deluded quest for a "non-subjective" form of physical knowledge is tolerated. The two corollaries given above, thus appear a more efficient way of representing these issues of formalism.

4. The distinction, *crucial* experiment, references most directly Riemann's habilitation dissertation published in 1854, which in English is "On the Hypotheses Which Underlie Geometry."

5. Lyndon H. LaRouche, Jr., *In Defense of Common Sense*, Chapters 3-5; and Lyndon H. LaRouche, Jr., *Verteidigung des gesunden Menschenverstandes, Kommentar*, (Wiesbaden, Germany: Dr. Böttiger Verlags-GmbH, 1990), pp. 157-193.

6. Ultimately, *being* is a quality which resides in the *Good*, not the becoming. The Good is *the changeless being of universal change*, the former One, the latter the generation of the *manifoldness* of the universe. *Being* is thus the residence of the highest which is higher than the transfinite ordering of change: the constant Good is this constant cause of change: *matter* is thus generated (created) continuously by the Good (being).

7. One example of this is the eruption of the "three-body" paradox, caused by the Newtonian parody of Kepler's three laws as the Newtonian Gravitation $= (km_1m_2)/r^2$. The paradox, which does not exist in the Keplerian original, is introduced by substituting mechanistic, pairwise interaction-at-a-distance for the unified Keplerian harmonic ordering principle. See also the German edition of *In Defense of Common Sense, Verteidigung des gesunden Menschenverstandes*, pp. 160-163.

8. The derivation of Newton's inverse square law of gravitation from Kepler's Third Law is as follows: Kepler's Third Law states that the cube of the mean radius (a) for any planet, divided by the period (T) of the planet squared equals a constant (k).

(1) Kepler's Third Law:

$$a^3/T^2 = k$$

(2) The speed or velocity of a planet in terms of the radius of the circular orbit (assume circular rather than the almost circular elliptical orbit of the planets) and the period is:

$$v = 2\pi r/T$$

where v = speed of planet;

r = the radius of a circular orbit;

T = period time for one revolution.

(3) Christian Huyghens had shown centrifugal acceleration to be:

$$A = v^2/r$$

where A = acceleration.

(4) Since $F = mA$, $F = mv^2/r$

where F = force;

m = mass;

A = acceleration.

From equation (2):

$$v = 2\pi r/T \text{ thus } v^2 = 4\pi^2 r^2/T^2$$

From equation (1):

$$a^3/T^2 = k \text{ or } T^2 = a^3/k.$$

Since the orbits of the planets are nearly circular, assume $a = r$, so

$$T^2 = r^3/k.$$

By substituting this value for T^2 into the value for v^2 —i.e.,

$$v^2 = 4\pi^2 r^2/T^2$$

the result is

$$v^2 = 4k\pi^2/r.$$

Now take this value for v^2 and substitute it in the value for $F = mv^2/r$. The result of this final substitution gives you the inverse square relationship in Newton's law of gravitation. So

$$F = 4\pi^2 km/r^2.$$

The preceding derivation shows how the inverse square laws and Newton's law for Universal Gravitation can be derived from Kepler's Third Law, assuming the orbits of the planets are circular, rather than the nearly circular ellipses that they are. It is generally accepted that Kepler's Second Law of constant areal velocity had indicated to Newton that whatever forces were acting on the planets were directed toward the Sun instead of tangentially to their paths.

Furthermore, Kepler had proposed this proportionality of masses and a force relationship in his 1609 *Astronomia Nova*. Kepler writes, "If two stones were removed to any part of the world, near each other but outside the field of force of a third related body, then the two stones, like two magnetic bodies, would come together at some intermediate place, each approaching the other through a distance proportional to the mass [moles] of the other." E. Hoppe claims the concept of mass, not for Newton, but for Kepler, who designates it by the word *moles*.

9. In the summer of 1801 the great mathematician Karl Gauss became acquainted with the astronomical discovery of the small planet Ceres. After Ceres, coming too close to the Sun, became invisible, Gauss developed new methods for calculating the orbit of Ceres. Gauss applied his new methods to the discoveries of other small planets, Pallas in 1802, and Vesta in 1807.

Gauss, recognizing that there are no two-body problems in the solar system, but n-body problems where other planets attract a given planet, and perturb the elliptical orbit, applied his mathematical genius to the problems. In 1818, Gauss published a paper on the theory of perturbations. Gauss determined the distribution of mass on the circumference of the ellipse by assuming a distribution of the mass according to Kepler's Second Law, the law of constant real velocity: Equal amounts of mass will be distributed on that length of the ellipse that requires equal times.

Pairwise interactions and point masses—Newton's method—did not and could not predict the existence of Ceres and Pallas, as Kepler's method did. For Newton, mass is primary and the size of the two masses determines the orbit of the planet. For Kepler, the mass is determined by the orbit and the orbit is determined by the curvature of physical space-time. For Kepler musical harmonies and the uniqueness of the five Platonic solids were the keys to determining why certain orbits were permissible, and others not. From these conceptions, Kepler developed his three planetary laws. God's universe flows from a principle of sufficient reason, which has manifested itself in the universe through the musical harmonies and the Platonic solids. From this standpoint, Kepler developed his three laws by exploring least-action/least-time/isoperimetrical qualities that the Creator has built into His creation. Kepler's solutions work for the multi-body problem presented by our planetary system.

Newton's point-mass/pairwise interaction approach falls apart as soon as the three-body problem appears. It also falls apart if we think of the simple problems presented by modern spectroscopy. Electrons revolving around a nucleus of an element in the gaseous state emit and absorb light at definite frequencies, which are characteristic of the element making up the gas. This is how spectroscopy can identify the gaseous elements of which planets are composed. There are many possible orbits around a nucleus. In some orbits electrons circle faster than in others. Why do electrons only circle in those orbits which have the assigned frequencies, and why do orbits only have an assigned frequency? Furthermore the collisions of atoms in a gas are occurring at 10^{12} times per second, which creates a large amount of heat energy. The impacts are powerful and should change the orbits of the electron completely in respect to size, shape, and frequency, were Newton's force prescriptions to apply. This does not occur, because the orbits are determined by a more fundamental process, the curvature of physical space-time, and not some simplistic notion of pairwise interactions of point masses.

10. The fact that 90-odd elements were known to exist in our solar system seemed impossible, if the elements had been generated by the kind of simple thermonuclear fusion which was usually thought to have occurred within our Sun, and that process was thought to have been the source of the material for these planets with 90-odd elements. However, if we assign the process of fusion generally, less to the interior of the Sun, and rather mostly to polarized-fusion occurring in the indicated plasma envelope around the Sun, under the indicated early conditions, 90-odd elements are implicitly accounted for by action within our solar system.

11. Adam Smith, *Theory of the Moral Sentiments*, 1759, (Glasgow: Liberty Classics, 1984). *Man, according to this Calvinist's argument, is not morally responsible for the consequences of his actions for humanity in general. If his blind indifferentism to morality, in following nothing but his hedonistic impulses, causes cruelty and other great harm to large numbers of humanity, then God is to be blamed for having provided such a Calvinist with his hedonistic instincts.*

12. The Smith family biography documents transactions between the Second Earl of Shelburne and Adam Smith, during a 1763 carriage journey. Shelburne coopted Smith as his personal agent, and instructed Smith on the axioms of a program for destroying the economy and semi-autonomous governments of the English colonies in North America. To train Smith for this activity, he was sent by David Hume to Switzerland and France for education in political economy by such Swiss bankers' assets as Quesnay and the circles of Voltaire. The content of Smith's anti-American *Wealth of Nations*, chiefly a plagiarism of A.M. Turgot, reflects the anti-Colbert Physiocratic elements of his indoctrination by Hume's cronies in Switzer-

land and France.

See also Lyndon LaRouche and David P. Goldman, *The Ugly Truth About Milton Friedman*, (New York: New Benjamin Franklin House, 1980); and *EIR Special Report* "The Trilateral Conspiracy Against the U.S. Constitution: Fact or Fiction?" Sept. 30, 1985.

13. Adam Smith's *Wealth of Nations* was considered by many (including eighteenth-century economist Pierre du Pont de Nemours) to be a rehash of French physiocrat Turgot's *Reflections on the Formation and Distribution of Wealth*. However, "Everything added by Smith is inaccurate," stated du Pont de Nemours.

14. When Karl Marx was offered free access to the British Museum, its director, David Urquhart, fed convenient documentation to Karl Marx. Urquhart is best described as the "St. John Philby of his day." Carol White, *The New Dark Ages Conspiracy*, (New York: New Benjamin Franklin House, 1980), pp. 326-27.

15. During the eighteenth century, the influence of Leibniz's economic science was strong in many parts of Europe, and spilled into circles around Benjamin Franklin in America. Over the period from 1791 through about 1830, Leibniz's economic science became identified worldwide as the *American System of political-economy*. This name was coined by U.S. Treasury Secretary Alexander Hamilton, in 1791, within a U.S. policy document submitted to Congress entitled "A Report on the Subject of Manufactures."

16. Friedrich Schiller, "The Legislation of Lycurgus and Solon," trans. by George Gregory, in *Friedrich Schiller Poet of Freedom, Vol. II*, (Washington: The Schiller Institute, 1988) pp. 273-307.

17. Cf. St. John's "Revelation," or "the Apocalypse," in the Bible. If the Apocalypse is read in terms of the concrete realities of the century when it was written, there is no part of that book which is either allegorical or symbolic. The same kinds of forces which St. John identified as arrayed in support of the "Whore of Babylon" then, are the concrete forces of Evil in the world of today.

The personality of Evil is clearly and concretely identified as "the Whore of Babylon." This is no symbolism; it is the name of a very specific mother-goddess, whose priestesses practiced prostitution as part of religious ritual, to such effect that the names of Ishtar, Astarte, Isis, and Venus, are venerated as the goddesses of the lesbian's and the whore's professions into modern times. The source of these whore-goddesses' cults, in Mesopotamia, in Sheba-Ethiopia, in Egypt, in Palestine, and among the Phrygians, is the worship of the whore-goddess Shakti by ancient "Harrapan" culture of the Indian subcontinent, introduced to Mesopotamia through the "Harrapan" colony at Sumer. The Satan-figures of ancient Mesopotamia, Sheba in Ethiopia, and of Osiris, Apollo, and Lucifer, are, like the Phrygian Dionysos, derivatives of the "Harrapan" Siva. The most powerful forms of this satanic cult then, was the Syrian Magicians' cult of Mithra, which had been established as the leading cult of the Roman imperial legions, through an agreement reached between Augustus and Syrian magicians at the Isle of Capri.

In the Apocalypse, St. John attacks the question: To what consequence must the war between Good and Evil ultimately lead? Evil's persistence must bring the very existence of mankind into jeopardy, through such features as wars and pestilences. Evil must reach such a state, that it prizes its gains in power so much, that it would prefer to allow humanity to be destroyed, rather than compromise the policies promoting such apocalyptic destruction. The men and women who then adopt the cause of Evil, and support its policies, by that adoption adorn themselves with the designating mark of the beast, and seek to exterminate the men and women who are resistant to the policies of Evil.

This conjunction of the struggle between Good and Evil must emerge, because the essence of Evil leads it to no other result than this one. Evil cannot possibly be a permanent condition within the human species. The increase of power at the disposal of Evil, will, by itself, cause Evil to reach the point that it becomes, immediately, the cause of threatened extermination of the human species. That is Armageddon and the Apocalypse.

18. Contrary to that slovenly act of British "Biblical archaeology" go-

phers, who treated the tablet collections which they uncovered in the most immorally reckless fashion, civilization first came to Mesopotamia very late in ancient times, probably first introduced by the "black-headed people" (i.e., Dravidians) who established their maritime colonies at Sumer, Shebe, Ethiopia, and (according to Herodotus) Canaan. Furthermore, the practice of lunacy in ancient Mesopotamia shows the early civilized Semites of that region to have risen to a much lower cultural level than the Vedic peoples of Central Asia had reached, those responsible for the solar astronomical calendars referenced by Tilak from the Orion Period interval of 6,000-4,000 B.C.

19. For the axiomatically pantheistic feature of British liberalism, see Carol White, *The New Dark Ages Conspiracy*, Chapter 8, "The Roots of British Radicalism," and *passim*.

20. For the truth about the sponsorship of Hitler and Mussolini, see Carol White, *The New Dark Ages Conspiracy*. See also the Schiller Institute, *The Hitler Book*, ed. by Helga Zepp-LaRouche, (New York: New Benjamin Franklin House, 1984); and *EIR Special Report* "Project Democracy: The 'Parallel Government' behind the Iran-Contra Affair," April 1987.

21. On the racial purification dogma of the Nazi Party, and the agreement of Averell Harriman with that dogma, see Anton Chaitkin, *Treason in America, From Aaron Burr to Averell Harriman*, second edition, (New York: New Benjamin Franklin House, 1984), Chapter 19.

22. Cf. Carol White, *The New Dark Ages Conspiracy*, Chapters 1-3, and *passim*.

23. Allen and Rachel Douglas, "The Roots of the Trust," unpublished MS., 1987. The standard accounts of pre-1917 Russian history, in which a dreaded Czarist secret police (from 1826 the Third Section, then after 1881 the Okhrana) struggled heroically against bands of "proletarian" terrorists to defend the Czar and state, are entirely mythological. The Okhrana was controlled by 102 highly intermarried Russian noble families, known historically as the *boyars*, whose bitter opposition to the Czar and Russian state dated back to the establishment of a Western-style state by Peter the Great in the early eighteenth century. These families deployed the terrorist bands such as the Socialist Revolutionaries and the Bolsheviks, virtually all of whose leaders, e.g. Stalin, were Okhrana agents, to overthrow that state. The *Raskolniki* ("Old Believers"), a seventeenth-century splitoff of the Russian Orthodox Church, were also fanatically opposed to Peter's Westernizing reforms, and in the late nineteenth and early twentieth centuries, financed the Bolsheviks.

The noble families and *Raskolniki* collaborated with Western oligarchical interests to first overthrow Westernizing institutions in Russia and then, after 1917, to use the Soviet state as a battering ram against Western civilization more generally. A Western command center for these efforts was the Equitable Life Assurance building at 120 Broadway in Lower Manhattan, dominated by the Harriman and J.P. Morgan interests, and home of the notorious Sidney Reilly. Reilly was an Okhrana agent pre-1917, a Soviet intelligence agent afterwards, and an agent of the British Secret Intelligence Service throughout.

24. Cf. LaRouche, *In Defense of Common Sense*, Chapter 3.

25. The nuclear family is obviously one of those essential institutions.

26. William Manchester, *The Arms of Krupp, 1587-1968*, (Boston: Little, Brown and Company, 1967), p. 455 and p. 639 make this point. This is contrary to the usual nonsense in the U.S., that the U.S. built up German industrial potential after the war.

27. "Lunatic" in this case refers to those societies which base themselves on the lunar calendar, as opposed to the solar calendar.

28. Karl Marx, *Capital*, Vol. III (New York: International Publishers, 1984).

29. Adam Smith, *Theory of the Moral Sentiments*, 1759.

30. Cf. Carol White, *The New Dark Ages Conspiracy*.

31. Leroy E. Loemker, editor, *Gottfried Wilhelm Leibniz Philosophical Papers and Letters, Vol. II*, "The Controversy between Leibniz and Clarke," (Chicago: University of Chicago Press, 1956), pp. 1095-1169.

32. Philo, *On the Creation*, (Cambridge: Harvard University Press, 1981), pp. 134-137.

33. The Emperor Constantine's reforms, "legalizing" Christianity under the traditional authority of the emperor as "pope" (*Pontifex Maximus*) of all legalized religious bodies, reflected the failure of the Roman emperors since Nero and Tiberius, to crush Christianity by crude Gestapo methods of mass-murder, and reflected most emphatically the strength of Apostolic Christianity among heirs of Plato's tradition within the Greek-speaking population. This "Constantinian reform" meant: "Let them worship the name of Christ with as much devotion to that name as they may choose; we will control what they believe about Christ." Bishops appointed by the emperors of the Eastern Empire (Byzantium) used their authority in matters of doctrine and liturgy, to introduce into Christianity the doctrines of the "Roman mystery religions," and even the priests were assigned to wear costumes of the Ptolemaic cult of Isis. This evil practice is often termed, euphemistically, "syncretism"—the fusion of Christianity with elements of pagan cults, like the Jesuits' "Liberation Theology" and "Christian-Marxist dialogue" of today. The practice is better described as "gnosticism," the transformation of Christian doctrine by saturating taught doctrine with the cult-beliefs of the Roman "mystery" cults, "gnosis."

The gnostics degrade persons, from creatures in the image of the living God, to children of the soil, creatures of immediate and original hedonistic instincts. Man exists, therefore, for the pleasure of other men, the ruled for the pleasure of those who rule, and the people of one race or nation for the pleasure of the rulers of another.

34. The calculus of Leibniz consists of analytical methods for the solution of problems about curves using variable geometric quantities as they occur in such problems. The starting point of curves for Leibniz can be seen in his theory of envelopes, where curves are viewed as a locus of tangents. Leibniz's "characteristic triangle," which he uses in the transformation of quadratures, came out of his study of Pascal's work on the cycloid. The characteristic triangle, generated by ordinate, tangent, and sub-tangent, or ordinate, normal, and sub-normal applied generally, gave Leibniz the ability to find relations between quadratures of curves and other quantities, such as moments and centers of gravity. The importance of the involute-evolute relationships in the theory of envelopes, together with the study of the

cycloid, and caustics, placed the non-algebraic higher curves at the center of the calculus.

Bernoulli's method of integrals used the "inverse method of tangents," where a curve is determined from a given property of its tangents. Bernoulli teaches, that the property of the tangent has to be expressed as a differential equation. The method of integrals applied to this differential equation will yield the curve itself. So once again, the curves are seen from the standpoint of the theory of envelopes.

Bernoulli applied himself to arc length and quadrature problems involving caustics, cycloids, the catenary, logarithmic spirals, and the form of sails blown by the wind. The brachistochrone-tautochrone properties of the cycloid made it rich in least-action, least-time qualities of self-organization as did the other higher curves, which made them the appropriate foundation for examining the calculus. They combined geometrical and physical principles.

Huyghens, in exploring the isochronic property of the cycloid and the fact that the evolute of a cycloid is another cycloid, discovered that he could design a pendulum clock that wrapped around sheaths in the shape of a cycloid, which would be perfectly isochronic and therefore keep accurate time.

The proof that the path of quickest descent is the cycloid, was a *tour de force* for the Leibniz-Huyghens-Bernoulli faction against the Newtonians and Cartesians. Johann Bernoulli's solution combined three different areas—the motion of light, the laws of free fall, and the mechanical laws for a rolling circle. By looking at the laws of refraction for light and shining a light through a changing medium, Bernoulli was able to come up with a curve. Since light takes the fastest possible path of optical time, and since light changes its speed as it travels through media of varying density, Bernoulli changed the speed by varying the density according to the laws of free fall. Each of these light rays, changing direction as the media changes its density, is tangent to a curve. The curve is the envelope of these tangents. The curve that Bernoulli gets is the cycloid. The use of light traveling through a non-homogeneous medium demonstrates that gravitational pathways do not have to be determined by an innate quality of mass, but, in fact, can be a reflection of the curvature of the physical universe, which defines least-action pathways throughout nature.

VIII

A world under the rule of law

I. The principles of modern statecraft: a summary

Let us now use illustrative references to some among the currently leading global issues of today's practice of statecraft, to summarize the practical import of the chapters preceding this one. Let us begin by identifying some ostensibly axiomatic features of our implicitly proposed general policy:

1. The essence of good modern statecraft is the fostering of societies, such as sovereign nation-state republics, the which, in turn, ensure the increase of the potential population-densities per capita of present and future generations of mankind as a whole, and which societies promote this result by the included indispensable, inseparable means of emphasis upon promoting the development and fruitful self-expression of that *divine spark* which is the sovereign individual's power of creative reason.

Here, as elsewhere, the definition of *sovereign power of creative reason* is exemplified by, but not limited to indispensable successively successful, valid, revolutionary scientific progress in advancing per capita and per hectare potential population-density, by means of increasing capital-intensive, power-intensive investment of productive resources in scientific and technological progress.

2. The *anti-oligarchical* form of *sovereign nation-state republic*, itself based upon the nation's self-rule through the deliberative medium of a literate form of common language, is the most appropriate medium for the development of society.

By "literate form of common language," is signified not only the written and spoken verbal language, but also a rigorous constructive geometry, and a classical form of musical-poetic language. This combined notion of "literate language," should be understood to signify, in the words of Percy B. Shelley, a language corresponding to the power of "imparting and receiving the most profound and impassioned conceptions respecting man and nature."¹

3. We emphasize that such anti-oligarchical, sovereign nation-state republics are *almost* perfectly sovereign. This sovereignty is to be subordinated to nothing but the universal role of what Christian humanists, such as St. Augustine, Nicolaus of Cusa, and Gottfried Leibniz, have defined as that natural law fully intelligible to all who share a developed commitment to the faculty of creative reason.²

4. As the statesman Charles de Gaulle, for one, has argued for this point, a truly sovereign nation-state republic finds a sense of national identity for each of its citizens, in a general spirit of commitment to the special mission which that republic fulfills on behalf of civilization as a whole.³

What we must establish soon upon this planet, is not a utopia, but a *Concordantia Catholica*,⁴ a family of sovereign nation-state republics, each and all tolerating only one supra-national authority, *natural law*, as the classical Christian



St. Augustine preaching: a detail from the altarpiece by the Master of the Augustine Altar.

humanists recognized it. Yet, it is not sufficient that each as a sovereign republic be subject passively to natural law. A right reading of that natural law reveals our obligation to co-sponsor certain regional and global cooperative ventures, in addition to our national affairs.

The division of humanity's self-government among respectively sovereign nation-state republics, is not a partition of the world's real estate, but a most preferable arrangement, by means of which all of humanity governs itself as a whole.

A. Literate language and the sovereign republic

This last point of argument is illustrated by aid of a preliminary examination of the functions of a literate form of language in Dante Alighieri's sense of such a popular literate language. By "language," we should understand the spoken form of communication of ideas; but, we must also include a coherent constructive geometry, as "the language of vision," and also the development of the well-tempered polyphonic

form of *bel canto* musical communication, the language of hearing.⁵

We have witnessed, in the preceding chapter, emphatically, that elementary forms of existence are necessarily not simple, and their relations are not intrinsically deducible to aggregations of linear, pair-wise ones. Therefore, just as a competent mathematical physics requires a suitably developed rigorous language, so do all important matters bearing upon the policy of nations. Without mastery of a language of such quality of literacy, no person is qualified to participate in shaping directly the policies of a nation. Without a common proficiency in a literate form of common language, a people lacks the competence in power of communication to govern itself. So, without a common literacy in geometry and music, in addition to the spoken language, a people is intellectually and morally crippled in its potential qualifications for *effective* self-government.

The political issue of literacy, as a qualification for full citizenship, faces strong, usually hypocritical, often more or less racist, sometimes even violent objections. Those objections come partly from among populist fanatics. They come also from influential bodies of so-called "professional opinion." The most fanatical, and most relevant among the latter professionals, are academic and like-minded representatives of those radical positivist, inductive pseudo-sciences, which first mushroomed in Auguste Comte's and Emile Durkheim's France during the sordid heydays of the Holy Alliance and Napoleon III.

Respecting the positivist's objections, one need not rely upon conjecture; the Anglo-French nineteenth- and twentieth-century positivists, and their spiritual brethren of Theodor Adorno's and Hannah Arendt's "Frankfurt School," have made their objections against the introduction of the issue of *truthfulness* in matters of statecraft a central feature of the entire history, and leading pre-history of positivism's existence as a sociological phenomenon.

The most obvious of the subsuming issues posed by the positivist's objections, is whether the well-being, or even perhaps the very survival of a form of society might be determined by that society's success in discovering and adopting policies consistent with laws of nature. (Let us begin with the simplest facets of the issue.) If that theorem is true, we demolish the positivist's objection with the observation, that it is urgent that the policy-shaping processes of society be weighted (vertically) in favor of those agencies and persons which have developed a capacity adequate to distinguish between scientific truth and any contrary assertion of a more strongly held majority opinion.

The classical illustration of the evil inhering in a populist's political dogma of "majority," is the 2,400-year-past trial of Socrates.

The immediate victim of that politically motivated judicial murder, was, of course, the innocent Socrates. The putative victors, if only for the short term, were the chief prosecu-

tor Meletys, and Meletys's Democratic Party, the latter then, for the moment, the ruling political party of Athens.

This ancient Athens Democratic Party was a concoction whose self-adulating conception would drown the hall at a Thomas Jefferson-Andrew Jackson dinner with reverent tears from the assembled multitudes. That Athens party's political show-trial charge against Socrates embodies implicitly the kernel of the radical populist's and positivist's enmity against our observations on natural law and literate popular language.

Yet, the corrupt Democratic Party's prosecutor, Meletys, was himself later justly condemned by an Athens court for his party's capital crime against Socrates. The corpse of that Democratic Party itself soon found a permanent resting-place in history: obloquy. Athens itself, for allowing earlier the death sentence on Socrates, soon found itself conquered by those very forces against which Socrates had sought to defend it.

Turn the eye back to the time of Aeschylus and Aeschylus' surviving fragment of his *Prometheus* drama. The Delphic pantheon of Gaia, Python-Dionysus, and the rest of the would-be immortals of the Olympian oligarchy, reigned in smug, hubristic delusion that no true God, no natural law existed to punish, or to check the oligarchy's capricious pranks against poor human beings. For that, the Olympian pantheon was inevitably brought down, by the action of natural law; and those Greeks foolishly corrupted into adoring such false gods, suffered the conquest and enslavement which their cowardly insolence, in serving such gods, had brought upon themselves and their posterity.

We, as human, may lack the direct access to perfection in our mortal selves, by means of which we might know the unblemished *truth* in a manner and form as if at an instant. Yet, we are equipped by the potential lodged within the *divine spark of reason* in each individual person, to walk the upward path of *truthfulness*. This transfinite pathway of truthfulness is efficient in respect to natural law, to such effect that a society which prefers truthfulness efficiently, benefits, and a society of contrary impulses must suffer.

A literate form of popular language has the formal merit, that it is a constructive geometry of an open-ended type, which permits the rigorous use of the hypothesis-forming capacity associated with the proper use of the subjunctive.

As for well-tempered polyphony cohering with what is termed today *bel canto* vocalization, how could Plato and Leonardo da Vinci, et al., have led Johannes Kepler to establish the first valid form of a general mathematical physics without a *bel canto*-based polyphony? Read the *Republic* and *Timaeus*, for example. Read the relevant work of Leonardo da Vinci. Read Kepler. See the failure ("the Newtonian three-body paradox") which punishes us (according to natural law) when we abandon the rigorous notion of a *bel canto*-based polyphony!

What is *bel canto*, but the result obtained when qualified



Nicolaus of Cusa, from an altarpiece in Bernkastel-Kues.

teachers and their attentive pupils see the joy of singing *naturally*, as the normal genetic endowment of every human being endows virtually all with but one choice of developable least-action mode of singing. On what is this all based? Leonardo and Kepler are emphatic; on the scale of ordinary observation, all healthy living processes' morphology of growth and movement is harmonically congruent with the Golden Section; non-living processes are not—except, at both the maximum and minimum extremes of scale.

How does that bear directly upon a literate form of *musically spoken constructive geometry*?

The fact that living processes are harmonically ordered morphologically, negentropically, in congruence with the Golden Section, proves implicitly, and conclusively, that the universe as a whole is characterized thermodynamically by a *negentropic* ordering of itself as a whole. That is plainly *anti-pantheism*, although the actually or potentially *gnostic* deductive formalist will insist sophistically that it is pantheistic. This has also been shown experimentally for the micro-physical domain. Thus on to *bel canto*-defined (i.e., well-tempered) polyphony.

The *bel canto*-ordered, well-tempered polyphony is also a reflection of (e.g., *negentropic*) harmonic congruence with the Golden Section. So, the combining of such polyphony with constructive geometry, as Plato's referenced locations illustrate this,⁶ forces the issue of a non-algebraically (*transcendental*) ordered mathematical physics upon a bare physical geometry.

The common use of the term "music" is too narrow for our purposes here. All natural language must tend, as a Renaissance-revived healthy Italian language does, toward a natural, *bel canto* vocalization. This vocalization, as we might compare a literate form of *bel canto* Italian with Vedic hymns, for similarities, determines the musical structure of a literate form of language.

We state our theorem on literate popular language in this light.

The kernel of the issue of *literacy* in language, is central in the development and employment of the individual person's *divine spark* of creative reason for the functions of generating, communicating, and assimilating efficiently, conceptions equivalent to valid, fundamental revolutionary advances in a (practiced) science and technology. There is no available medium for extending this process from one sovereign person to another, except the medium of literate language as we have defined it implicitly here.

In order that we may receive and impart "the most profound and impassioned conceptions respecting man and nature," the creative thought sovereignly generated within the indivisible unity of our creative mental processes must be *communicable*. If we are careless, and disposed to rush too quickly to a plausible conclusion, we might say, *mistakenly*, that to communicate a conception, we must express it as an image in the material of communicable language: Not so. Something far more interesting, and useful, must be said, instead.

How do we teach, for example, secondary-level mathematical physics effectively? Look closely, and the textbook is ejected from your classrooms, to be replaced by both original sources, and modern-language restatements of the content of those classical sources. What is it that the effective teacher does, which the textbook teacher usually does not do?

Look at such classical sources. Imagine presenting this to a class of secondary students. What ought to be your objective in this matter? Do you wish the pupil to swallow the text, word for word? You do not; you see our point, perhaps. We wish to have each pupil work through, not the text, but the process whose identifiable steps are *indicated* by the text.

What we should seek to communicate by use of such a source, is chiefly two results. First, one mind (essentially), the author of the source-text, issues a set of instructions to the mind of his audience (to you, and to the pupils), to relive the mental experiment outlined. Second, a similar mode is employed, to direct the mind of the individual audience-

member to conceptualize an identified conclusion obtained from the experience. (That is enough said of that for our immediate purposes here).

The point so illustrated, is that the idea is not contained within the explicit communication. Rather, the communication is a more or less reliable guide, as a key to a locked compartment, to the secret of the message. The receiving mind does not "decode" the message. Rather, the receiving mind relives—"unlocks," in a sense—the sequence of mental actions prescribed as the explicit message (geometric construction is an example of this). It is the interior of the creative processes of mind, in response to the stimulus represented by the message, which regenerates more or less faithfully the concept which prompted the sender to compose the selected set of instructions which are aggregately the relevant working-content of the message itself.

To oversimplify, without doubt, the relevant features of the process of communication are aggregately devised, by the sender, to set up the receiver's state of mind in such-and-such a combination of ways. Thus, respecting the essential idea to be regenerated in the mind of the receiver, *the message is not the medium*.

The study of topology, originally from the standpoint of Gottfried Leibniz's mind respecting *analysis situs*, past Riemann surfaces, through Georg Cantor, indicates to us in significant part the existence of general, transfinite principles of cardinal ordering of non-algebraic constructions, which are to a valid physics in general as the form of mathematical-physics-like aspect of language-communication is to the substance of the creative thinking on physics matters.

When we examine more intimately the role of a non-algebraic constructive geometry, and also of well-tempered *bel canto* polyphony, in defining the morphological and physics qualities of a literate form of language, we see the matter in less inadequate terms of reference.

We ought to become thus more sensitive to the fact that, although language does not, and could not "contain" important classes of ideas, the function of language in the social radiation of creative conceptions generated with an indivisibly sovereign individual mind, demands a kind of rigorous maintenance of the language-media (spoken, geometry, music), in its truer form and in its true form as a unified whole. This maintenance and development, which is the proper referent for the term "literacy," puts relatively upper limits on the yet-developed capacities of virtually all persons sharing the use of the commonly used form of this language and its various, subsumed phases.

Thus, the possibility that a society is able to achieve that *truthfulness* requisite for policy-shaping leading toward *durable survival*,⁷ depends upon the level of literacy developed and maintained, especially, by those in the society in power to exert substantial influence upon policy-shaping. Indeed, in the extreme case, it were in the vital interests of those not so qualified, that they be disenfranchised, rather



"Dante Illuminating Florence with his Poem," by Domenico di Michelino.

than put the entire nation in jeopardy because of their illiterate incompetence.

Howls of righteous indignation! "Elitism!"

We must respond. No, no, you asses! The issue here, is the modern republic's vital self-interest in fulfilling its implicit moral obligation to have provided an adequate quality of education to all graduates of a virtually universal, compulsory secondary schooling. The term "adequate quality of education" must not be construed to mean other than, or less than a twenty-first-century equivalent of a nineteenth-century Schiller-Humboldt program for development of both the individual moral character, and in the fullest possible, broadest intellectual potential of *each and all pupils*.

That requirement must not be construed to signify what, for example, numerous, themselves miseducated "conservative" U.S.A. parents have been misled to support as a proposed educational form: a *Brotgelehrte*⁸ quality of public education, "tracking" the student narrowly to receive shallow indoctrination in the "three R's," with no more breadth or depth of subject-matters than might not exceed the intellectual requirement of the student's projected future levels of employment and income.⁹

Every pupil must have experienced, by means of exemplary instances, a reliving, as by reliving the experience re-

flected in a crucial source-document, the successive development of those conceptions upon which the successful outcome of the past thousands of years of known history of development of civilization had been based.

The core of education in European, and closely associated history, should be presented under such a descriptive heading as: "*The Republican Idea: the continuing struggle for individual human freedom, against the common enemy-forces of pantheism, usury, oligarchism, and imperialism.*"

The idea of history to be presented is the history of ideas. Therefore, the idea of history itself is presented empirically upon the basis of a classical philology which recognizes the language of generation, communication, and efficient assimilation of valid innovations and ideas as including the spoken, constructive-geometric, and musical facets. This is not a history of the mere contemplation of ideas, but of the advancement of the social-reproductive power, coordinately, of the sovereign individual person and of mankind as a whole. In this overview, that advancement of the individual in mankind is both the general mission of human labor, and also the crucial-experimental domain in which the nature of the success and failures of customary and proposed ideas is rendered *intelligible*, by means of a literate language, to the human mind.



Bel canto singers.
Sculpture by Luca Della
Robbia for the choir-loft of
the Florence Cathedral.

Thus, it is the paradox of individual mortality addressed implicitly. Here, in this connection, we confront education's task respecting the development of the moral character of the republic's prospective new citizen.

The positivist apologist may often seek to allege, that we propose to disenfranchise the relatively illiterate. On the contrary, the person who is denied that quality of compulsory education needed to attain literacy, is already disenfranchised, and those who disenfranchise him of that quality of education are the morally guilty parties. Contrary to our critics among "conservatives" and liberals, he who has denied the right to compulsory literacy, is the party who has injured the rights of the persons allowed to remain illiterate.

In pedagogy generally, we observe three general types. The populist liberal attempts to drag the subject-matter down to the level of illiteracy which he assumes the pupil to bring into the classroom. Or alternately to his own level of illiteracy.

The successful teacher works, in the image of a Swiss mountain-climbing guide, to bring the pupil up, step by step, to the level of literacy (proficiency) which competence in the subject-matter demands. The third recites litany, which artful, if uncomprehending pupils regurgitate successfully in examination-papers. The practical issue confronted by the thoughtful teacher of the second persuasion, is what, concretely, defines the "level of literacy" at which competence in even the most rudimentary features of the subject-matter is possible.

To illustrate the point, consider as a subject-matter one

of the most essential Christian subject-matters, *consubstantiality*. In known literature, the first effort to supply a rigorously intelligible representation of this conception is found as we approach the conclusion of Plato's *Timaeus* dialogue. To master the *Timaeus* to such effect, one must master the deductionist's ontological paradox, as delineated in Plato's earlier *Parmenides* dialogue.

Compare this with another illustration. The most distinguished, late Prof. Winston Bostick, has shown, out of a life's work in high-energy plasma physics, that all of the so-called "elementary particles," from photons on up, are not only far from "simple" in their composition, but are highly complex processes. Professor Bostick referred to these as "L'chaim" entities, signifying what we term their manifest *negentropic* characteristics. This is the same negentropy which Leonardo da Vinci showed in the Golden Section congruence of the characteristic harmonic ordering of living processes. Professor Bostick's work to this effect has the quality of "crucial-experimental"; it requires a revolution in the mathematical form of mathematical physics, before the generality of professionals will all begin to grasp efficiently the sweeping implications of these crucial experimental discoveries in plasma physics.

In both of these illustrative cases, it is impossible to construct anything better than babbling gibberish on either of these topics, at the level of literacy from which the college-educated populist expresses his opinionation. Similarly, on matters of national economic policy bearing upon Physical Economy, most of today's prestigious business-school grad-

uates babble gibberish. On other important matters of statecraft it is relatively the same.

Consider a third illustration, the ridding of the mathematics curriculum of a grounding in classical geometry. This was begun, at the close of the 1960s, with the fostering of the so-called "New Math," and was accelerated by the influence of the avowedly white-racist, neo-malthusian Dr. Alexander King¹⁰ in the 1963 education policy-utterance from the Paris OECD office.¹¹

The simple empirical evidence is, that today's university graduates are markedly inferior in quality to those of 25-15 years ago. The lack of a grounding in classical geometry¹² is an outstanding correlative of this decadence.

It is implicitly a straightforward matter, to show how all mathematical orders are derived from a synthetic constructive geometry. This includes, of course, the role of the "non-algebraic" (transcendental) geometric constructions to represent a nonlinear "curvature" of elementary physical space-time. These qualities of a generalized synthetic geometry are indispensable for full *transparency (intelligible representation)* of a coherent mathematical physics. Lacking that discipline, as a consequence of "overdose of the New Math," or kindred afflictions, the very notion of anything more advanced than the very simplest ontological notions of *continuity* becomes virtually incomprehensible.

It was emphasized, only a bit earlier, that we must now not view *spoken language, geometry, and music* as three respectively distinct phenomena, but as *elementarily inseparable facets of a common substance*. Only in academic or kindred fantasy, can we imagine *vocalization* of spoken language, without the musical harmonics shown to be the *natural* one by both *bel canto* and the successful line of development of modern mathematical physics by Kepler.

To know this language, one must know it in an appropriate sort of historical way, in terms of reliving in one's own mind some of the most crucial, at least, among the valid creative discoveries elaborated in terms of language in general to date.

Thus, do we say, a viable nation-state republic could not be maintained by a population which does not share primary dependency upon a literate command of a literate form of common spoken and written language. Except by means of shared communication and dependency upon such a common literate form of language, a people cannot truly reason together, and therefore could not become sovereign as long as this defect were not remedied.

For the same reason, in principle, that an individual person's creative processes are sovereign, the nation's reaching of agreement to a development policy-conception, through means of deliberation in the medium of a literate form of common language, is also a sovereign (e.g., *indivisible*) act. A process of self-government so defined, is therefore a sovereign quality of self-government. Hence, for that latter reason, such a process of deliberation must define the scope of a

sovereign political process, a sovereign nation-state republic.

The qualification for a sovereign form of nation-state republic, must include, absolutely, the efficient use of a common literate form of language in all matters of policy-deliberation; that is indispensably necessary, but not sufficient. The state must be founded upon a common principle expressed efficiently in all use of a literate form of common language. Otherwise, if there were divergence in respect of principle, the policy-deliberations could not have a sovereign character. That common principle of a true republic, is the (Christian humanist's) *natural law*.

B. A community of republics

It may be said fairly, in summary, that, under the highest fully intelligible authority which the Christian humanists know as natural law, modern mankind as a whole ought to be nothing differing from a community of such natural law, a community of respectively sovereign, anti-oligarchical, anti-usury national republics. The desired clarity of principled conception in this matter is aided by referring to the notion of cardinality of a transfinite ordering.

We review briefly, the notion of such a cardinality.

We have situated a notion of a transfinite ordering dialectically in respect to the axiomatically nonlinear sequence of states representing higher levels of potential population-density, achieved successively under the continuing impetus of a society's investment in the generation, communication, and efficient (productive) assimilation of scientific and technological progress. In this case, the same causal principle is generating the next term of a series, ostensibly from the immediately preceding term in each and every part of a series of terms.

Thus we have:

1. The generating (ordering) principle is always *equivalent* to itself.
2. The generating (ordering) principle in each locality is *equivalent* to the same principle as the characteristic of the series as a whole, or in any part.
3. The ordering-principle, in each and every *equivalent* form, is always absolutely indivisible in every interval, and in respect to the process as a whole.

So, modern mankind as a whole or any community of principle based upon natural law, in any anti-oligarchical sovereign nation-state republic, or the sovereign person, are each and all sovereign processes, which are definite (discrete) in respect to the self-bounding character of self-similar equivalence and indivisibility of determining transfinite cardinality.

This overview treats the collection of modern, mortal mankind as a whole as both a *becoming*, in the Platonic sense, and also approximately, a *One*. The nuclear families of which the most viable portion of the mortal collection is composed, are each distinct as a definite kind of nuclear

family, by means of a reproductive function of such a family which is *indivisible*, thus definite, implicitly a transfinite process in development of the new individuals. The sovereign individual, is by virtue of the functions of the divine spark of creative reason, also transinitely definite. And so on, the relative ones and manys of that process which is society, are arranged.

Take the relationship of *Many* sovereign national republics to *One community* of principle containing them in that light. What defines that community as relatively a Platonic

What we must establish soon upon this planet, is not a utopia, but a Concordantia Catholica, a family of sovereign nation-state republics, each and all tolerating only one supranational authority, natural law, as the classical Christian humanists recognized it.

One among Many, is, for example, the transfinite principle of natural law, by which the community is defined. *Natural law* thus displays, in respect to the functioning characteristic of community as a coherent community, transfinite qualities of self-similarity, equivalence, and indivisibility. This overlaps the similar role of a continuous creative progress in respect to such indispensable forms of manifestation as valid fundamental scientific progress. As the principle of creative reason is the means by which natural law is known efficiently, as scientific progress so ordered is the means by which scientific knowledge exists, so the two facets, commitment to creative progress, and natural law, cohere as two facets inseparable as they come to form a principle of community which is in form itself indivisible.

C. The controversy

1. Empiricism

During modern centuries, the principal advocates of these cohering views have been the modern Augustinians, typified by Nicolaus of Cusa, and Gottfried Leibniz, otherwise fairly described as the "Christian humanists." During a more or less equal period, the chief opponents of these principles have been the positivist gnostics (e.g., empiricists), including, most relevantly, Thomas Hobbes, John Locke, David Hume, Adam Smith, Jeremy Bentham, as well as John Stuart Mill and Mill's godson, Bertrand Russell.

It is relevant to stress, that during the most recent times

some of these gnostics have followed the term which Thomas Huxley fabricated, "agnostics," or have termed themselves "secular humanists," indicating their devotion to hatred of Christian humanism. Respecting the issue of British neo-imperialist world-federalism, it is sufficient to put Hobbes and Locke together as at the center of our adversarial interest at this moment.

For both Hobbes and Locke, as for Adam Smith, Bentham, Malthus, Darwin, John Stuart Mill, et al., man is but, at best, an elegant variety of cultivated farm animal. Such a man, as he is closer to the wild predator species, or dull-witted, domesticated vegetarians, is always governed by mere "instincts." So, for Hobbes and Locke, society is but a state of each individual implicitly at war against all others, and respecting impulses more sociable than the primeval heteronomic instincts, man begins as a *tabula rasa*. Hence, for them, the state, at best, is no better than a tyranny by the relatively few, or a tyranny, by social contract, by the majority. In consequence, for example, of such positivists, the nation-state, assumed by them as being composed of bestial beings, has also the instinctively inherent, alternate qualities of a carnivorous or vegetarian beast; the state is, in other words, a bestial "ego-state." "Hence," they agree, "away with the cause of war, the nation-state. On, with the absolute world-federalist tyranny of a one-world, imperial *Pax Romana*."

World federalism, in all those among its names which are legion, is a sophist's intellectual and moral fraud. War long antedates the first emergence of the republic. So, the world-federalist argument is an historical fraud. There are conditions far more murderous than war, such as International Monetary Fund "conditionalities"-induced spread of famine and epidemic disease. Or a peaceful submission to a "new world order" implementing the racialist genocide of the Draper Fund, "Global 2000," and the Club of Rome. Most wars, such as the Thirty Years' War in ancient Greece (the Peloponnesian War), the Persian Wars, the wars of the Roman Empire, the usury wars of the fourteenth century, the 1618-1648 Thirty Years' War, Marlborough's War, and the British-orchestrated 1912-1945 "Thirty Years' War," were caused by oligarchism and, like the wars of Teddy Roosevelt's cronies on behalf of murderous imperialist usury in a form as crude as London's and Napoleon III's conquest and looting of Mexico.

"Is not anything better than war?" the sophists of the neo-Roman imperialism, the "new world order," argue. "Yes," the thoughtful Auschwitz slave replies, "there are worse conditions than war." The peace which the "new world order" provides, were an evil far worse than any war to free mankind from slavery to such a satanic world-rule.

Indeed, whence comes today's danger of war? As the unjustifiable U.S. butchery in Panama and Iraq illustrates the answer, war today is brought to crush in the most mass-murderously, exemplary fashion, those who resist the spiritu-

al heirs of Diocletian's use of famine and epidemic as the means to reduce the world's population-level, especially the darker-skinned portion, over the next pair of generations or so, by approximately 80%.

It is not the nation-state which is the cause of modern war; the cause of war today is chiefly the satanic lust of oligarchs for one-world rule.

The picture of man painted by the evil Francis Bacon's evil protégé, Thomas Hobbes, appears to have been the self-image which the English-speaking oligarchy has adopted for itself. Such oligarchical bestiality is not the natural moral characteristic of mankind in general.

2. Goodness/Keplerian negentropy

We have all experienced frequently the essential goodness to be found among the majority of men and women. Each time we reflect upon that fact, the thought may occur to the Christian: "God had His reason to love humanity as the Gospel of St. John affirms this to be the case." Humanity is worth saving; we find evidence of this even among the proverbial cesspools of humanity.

For our uses here, it is sufficient to add now two distinct, although interdependent evidences of the quality which makes humanity lovable by God.

The one facet of this is the natural law; the second is that quality manifest to us even among very young children, the which, upon deeper examination, locates for us the proximate cause of man's impulse toward living according to natural law.

Now, examine this indicated connection from the vantage-point implicit in Kepler's axiomatic approach to the first successful approximation of a comprehensive mathematical physics. Bring into consideration, in studying the apparent intuitive genius, especially, of Kepler's relatively most elementary discoveries, the warning supplied earlier here against the absurd "cyberneticist's" assumption, that the message "information," is contained statistically within the medium.¹³ Remember, that the central feature of Kepler's discovery of the possibility of a comprehensive mathematical physics, is that same principle, earlier emphasized by Leonardo da Vinci et al., which Kepler addresses with relatively greater conciseness in his "Snowflake" paper, on, in fact, *analysis situs*, or "physical topology": that, on the ordinary scale of perception, all living processes are characterized, morphologically, as a class, by harmonic ordering congruent with the Golden Section; non-living processes are not.

Kepler's work as a whole, his astrophysics most luminously, is based on the courageous, and fully accurate recognition of the fact, that if the universe contains living processes as proximate causes of physical effects upon the inorganic domain, the universe as a whole is axiomatically ordered in a manner not inconsistent with a Golden Section congruence of the harmonic congruence of the universe, a universe taken everywhere, always as a *One*, as a sovereignly indivisible

transfinite unity as a whole.

Compare this with Professor Bostick's "L'chaim" characteristic of the photon, and so forth.¹⁴ Compare this with the work of Prof. Dan Wells, a long-time collaborator of Bostick, et al., on the "Keplerian" characteristics of the atom. The *negentropic* characteristics of living organisms (or, the relevant remains of such living forms), are not some super-Turing-like configuration of dead inorganic building-blocks; the tiniest singularities of material processes already show such embedded *hylozoic* characteristics. These are the characteristics of the curvature of the physical space-time in which the existence of the photon, etc., is a determined singularity of a continuing process.

So, can we be properly surprised if the principle of living processes asserts itself, even in defiance of the philosophical dogma of that most efficiently tyrannical, anti-life state? Can we rightly protest ourselves to be incredulous, at the fact that this principle of life is not only in accord with *natural law*, but that biological substrate of our mental processes is in apparent accord with our mind's peculiar capabilities for constructing ever-less imperfect intelligible representation of that natural law?

As an individual personality locates his or her social identity in that personal contribution which makes one's completed mortal life to have been historically necessary to mankind to have existed, the difference between a poor quality of nation, and the personality of a truly honorable republic, is, as France's President Charles de Gaulle warned his nation's citizens, that a true republic defines its distinctive national self-interest as in the continued success of some essential function it provides to the effect of defending, maintaining, and improving civilization as a whole.

"Of what good is the existence of your cruel nation to me?" the citizen of a looted African or South American nation, who dares to speak frankly, speaks bitterly, as he rebukes the, unfortunately, typically arrogantly chauvinistic, morally shallow, and callous representative from the citizenry or officialdom of the United States of America. Shame upon the United States, and shame upon those citizens who defend the evils of monetarist usury, and genocidal malthusianism, which the U.S. government over the past 25 years has imposed upon the developing sector nations increasingly and generally.

What U.S. citizen can rightly claim any honest self-respect, and not do better than merely wish that the foreign policies of his nation's government and financial establishment might become, at the very minimum, civilized behavior?

There are today those general tasks of mankind as a whole, around which all the persons of good will of all nations, ought to be united, tasks in respect to which each nation might find its necessary place in the general division of labor for the common good.

1. To establish on this planet no oligarchical sort of



Embassy of France

French President Charles de Gaulle (right) and German Chancellor Konrad Adenauer, two of the great statesmen of the twentieth century. "A true republic defines its distinctive national self-interest as in the continued success of some essential function it provides to the effect of defending, maintaining, and improving civilization as a whole."

world-federalist utopian tyranny, but rather an expanding community of anti-oligarchical, sovereign nation-state republics, a community committed to increasing the potential population-density of all mankind, by the included indispensable means of the fostering of investment in scientific and technological progress, progress made effectively available to all republics of this community. To this purpose, to ban the practice of usury from relations among nations, and to establish a just international monetary order, fostering the expansion of trade and related credit.

2. To end, and to eradicate the effects of that monstrous injustice typified by the recent, malthusian, pro-usury "conditionalities" policies of the International Monetary Fund, the World Bank, and other relevant institutions.

3. To begin to move mankind beyond the limits of this planet Earth, into expanding programs of colonization and exploration of intra-solar and interstellar space.

The importance of the first two listed of these three missions is virtually self-evident, at least in light of relevant

matters taken up at earlier points. The third requires some clarification; we treat the subject as such "Gaullist" kinds of "dirigistic" mission-orientation in respect to the crucial exemplary feature of a space-colonization orientation.

3. Smaller and further

The indefinitely extended general increase of the per capita value of mankind's potential population-density, correlates with both an increase in the per capita and per hectare *power* ($action \rightarrow work \propto power$). This correlates with an extension of both the astrophysical and microphysical limits of man's currently effective range of reach of effective comprehension of physical processes. In smallness, we progress to the cubic millimeter, toward the micron, the Angstrom unit, to the scale of characteristic molecular, then atomic, then nuclear, etc. action, scales corresponding to ranges of increasing frequency of simple electromagnetic radiation. So, at the same time, the realm of the stars is reached by the simple nighttime's eyesight, by simple and improved optical

and radio telescopes, followed at last by man's ventures into space.

As we travel, on Earth, and into space, we meet the obstacles of ratio of range of effective power per units of weight and volume of fuels. This translates into the succession of chemical, fission, fusion, and subnuclear sources of power: absolute distances reached, during what lapsed time, in respect to the ratio of fuel weight to total weight, and rate of power generated per unit of fuel weight consumed, and so on and so forth.

This pushing back, more or less simultaneously, at more or less coordinated rates of scale of advancement, of the microphysical and astrophysical limits of our useful action, correlates with the emergence of those successively successful (e.g., decreasingly imperfect) advances in scientific conception, and with potential increases in per capita and per hectare generation and application of *power* to accomplish useful work. Thus, to sustain progress in this way, it is not sufficient to extend merely contemplation of the universe; we must also extend man's range of practice, down into the microphysical, and outward, toward beyond the stars.

This view of the matter just portrayed suggests, that if we choose practical missions of scientific exploration which are in accord with the correlated directednesses just identified, we shall force scientific progress along those lines of fruitful inquiry which generate valid scientific revolutions more rapidly with a greater rate of fruitful result to relevant effort applied. Thus, on condition society is committed to give priority to capital-intensive, power-intensive modes of investment in scientific and technological progress, the kind of coordinated microphysical and astrophysical state-promoted "crash programs" implied here, represent "science-driver" programs, as a sort of effort which supplies society in all its facets the highest rate of fostered increase of potential population-density per ration of society's available effort applied.

We should mean to include emphatically in an appropriate form of coordinated microphysical/astrophysical "crash aerospace program," a program in *extended optical biophysics*, extended to the limits of the notions of electromagnetic forms of "optical."

Such commitments by a republic, and community of republics to a microphysical, "optical biophysical," and "crash aerospace" program, becomes, first, a manner for locating the identity of each republic as a necessary personality for mankind as a whole. This assists in elevating the individual sovereign person within each such republic, to access directly, practically, to an intelligible representation of oneself as both a patriot and a world-citizen, and locating one's practical reflection of higher self-interest along such pathways.

Those scientific and economic considerations have their correlate reflections in the realm of classical-humanist art-forms. All taken together, define implicitly a "level" of literacy required of the current form of literate popular language.

4. Democracy?

The case of Meletys' wicked, then-ruling Democratic Party of Athens, warns us of the evil, and onrushing tyranny which mankind incurs whenever a people embraces longer than briefly a radical version of "faith" in the populist principle of "a Jeffersonian-Jacksonian democracy." By "radical," one signifies the model of British liberalism otherwise known as British philosophical radicalism, the model of Hume, Adam Smith, Jeremy Bentham, and John Stuart Mill.

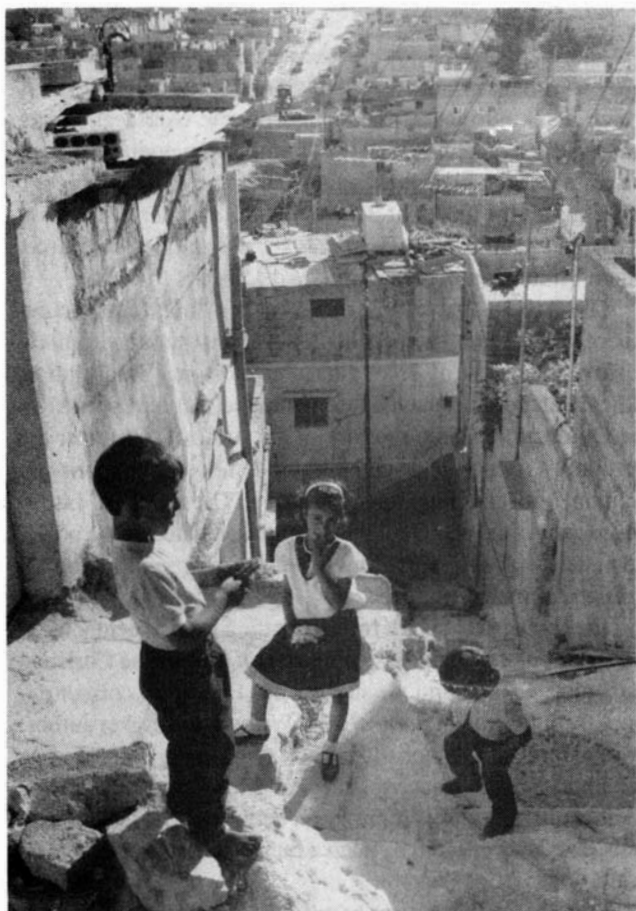
The crux of that matter of a liberal's "blind faith in democracy," is the agreement with the fascist-tending, amoral positivism in law of John Locke's tradition. This kind of radical democracy spawns fascism in the manner typified by the Democratic Party's jurors of the trial of Socrates; the irrational tyranny of a perceived "democratic majority in opinion," in crushing its opposition. The issue of fascist *philosophy* is the positivist's irrationalist advocacy of a political equality of virtually "value-free" (e.g., amoral, immoral) opinion, as mere opinion.

The remedy for such a fascist-tending faith in democracy, is the notion of *a republic under natural law*, as the Christian humanists have supplied, succeeding Plato, the correct exemplary definition of *natural law*. Without the higher authority of natural law, which often finds a few in the right, against the impassioned sincerity of wrong-headed majorities, a democratic majority is morally no better than a fascist lynch mob. The laws enacted by such a majority are no proper laws at all.

Hypothetically, it were better for all men, more advantageous to the individual true freedom of all persons, to be ruled by an autocrat whose conscience is awed by that natural law's higher authority, than by a perfect democracy of the "New Age." The fascist epidemic of "political correctness" invoked among many leading university campuses of 1990-91, illustrates the evil of radically populist democracy on this account.

Yet, as the history of monarchism attests, after the good king, we were likely to suffer several or more corrupted successors. The remedy is, as Schiller's Posa in *Don Carlos* says to the drama's Philip II, a state in which the king is among a million kings. In short, a democratic republic, under natural law, based upon a classical-humanist, compulsory universal secondary education, in turn based upon a truly literate, obligatory form of popular speech.

A sovereign democratic republic under natural law, were the most secure, and highest known form of government. The question, as the young U.S.A. federal constitutional republic was considered by its Founding Fathers, Benjamin Franklin, et al., was how "to keep it." Without a general, compulsory classical-humanist form of secondary education, *in terms of reference to one's own adequately literate form of common language*, what occurs is the probable erosion of general qualifications for citizen, as witness most emphatically, the past 25 years' widespread degeneration of U.S.



Palestinian refugees in a camp set up by the U.N. Relief and Works Agency.

language, morals, and intellect, of the under-50 strata of adults in the U.S.A. today.

II. Economics and natural law

A. The example

For the purpose immediately before us now, let us select two examples as the cornerstones of reference for our discussion. Let us focus at relatively greater length, upon some leading, crucial policy-shaping problems respecting a successfully guided development of a new, durable, peaceful, and productive relationship among the peoples of Eastern and Western Europe. First, let us focus briefly upon the second exemplary case, the impossibility of a “purely political” solution for the half-century conflict between invading Israelis and the indigenous Palestinian Arabs.

During a period of approximately 15 years to date, for example, there have been several periods of relatively more promising—or, if one prefers, “less unpromising”—attempts to begin a process of serious peace discussions be-

tween Israelis and Palestinian Arabs. One of the principal contributing reasons for the pre-assured failure of these tantalizing moments of hope, has been the delusion expressed in such form as, “We must concentrate on seeking a political solution; discussion of economic development must wait, until a political solution establishes the basis for negotiating economic cooperation.”

Take the maps of the physical and physical-economic geography of that portion of the Near East. Put a canal and tunnel, cutting below Beersheba, leading down to the fabled Dead Sea approximately 1,300 feet below sea level. The salt waters of the Mediterranean, rushing toward the evaporation-basin which, among other things, that Dead Sea represents, augment the mining and related potentials along the Jordan, West Bank, and Israeli shores.

Along the portion of this new waterway devoted to a canal, a series of the latest model of high-temperature gas-cooled fission-power plants is constructed, producing, among other useful output, electrical power, a liquid-chemical transported power, and, aggregately, a river’s worth of fresh water processed from the Mediterranean influx.

This promotes new, dense agro-industrial development in the area through which the canal cuts. Piped fresh water from here supplies Jordan, Gaza, and the West Bank, as well as Israel’s territory.

This canal-tunnel typifies a general commitment to provide added fresh water supplies equal to a new river in that Israel-Palestine-Jordan region. Water and power are the indispensable, interdependent added ingredients upon which such a sustainable, rational exercise of the per capita and per hectare physical wealth of the region depends.

This approach toward mission-oriented economic-development cooperation for that region, creates, in that development itself, a vital interest in common among the participating nations. That vital interest becomes, in turn, the basis for a common “political” interest, and that, in turn, supplies the motive for a “political settlement.”

The opposite approach, to postpone economic cooperation pending a “political” settlement, must almost certainly fail in the short term, and fail more assuredly over the medium to longer term. Simply, there is no true common interest.

Our comprehension of this difficulty is enriched, if we inquire: Which portion of each national grouping—say, of Israelis and Palestinians—is pro-usury? That pro-usury current in either camp is inherently—“objectively”—the adversary of the vital interests of virtually every other family household, whether Jewish, Muslim, or Christian, in the region as a whole. Consequently, for as long as Israeli unity against the Arab, or Arab unity against the Jew, prevails on either of the respective sides of the quarrel, a toleration of the pro-usury interest’s veto-power is virtually the certain death of any proposal for a durable Middle East peace negotiated among the principal nationalities themselves.

Once an indivisible economic development mission, as



UNRWA/M. NABE

A classroom for Palestinian girls in Jordan.

illustrated by the cited Dead Sea canal, is adopted in the manner indicated, that mission becomes the shared interest which acquires the form of a common, or mutual interest. It "acquires the form of," is a crucial nicety. The interest lies not within the acquired objective wealth, but the use of the production, maintenance, and operation of that useful object, to foster a significant rise in the development of the sovereign creative potential of the members of nearly all among the region's affected family households.

Much of the inability shown among educated persons, the inability to grasp the concept just illustrated, is derived from the unfortunate success of the British liberals in spreading the empiricist/inductive philosophical poison of John Locke and so on. Usually, the proposed, "non-economic political solution," echoes the empiricist's definition of a "social contract." The brainwashing of Middle East political-science students, at London and elsewhere, in Adam Smith, Karl Marx, J.M. Keynes, et al., has polluted the intellectual bloodstream of the Jewish and Arab intelligentsia alike. They are thus conditioned to the notion of a "peace" achieved through the Kantian mechanisms of negativity. As in Kant's *Critique of Practical Reason*, the "positive" (e.g., "peace") appears to your imagination only pathetically, negatively, as

a "negation of the negation" (e.g., of the "horrors of war"). Apply the foregoing illustrative case's lessons to the vast, and vastly more complex issues of, first, Charles de Gaulle's continental Europe "from the Atlantic to the Urals"; and, extend that further, to the vastness of the issues uniting Eastern and Western Europe in the urgent economic development of Eurasia as a whole.

The Soviet Union, like czarist Moscow's imperium before it, is a quilt of nations and of smaller quasi-autonomies. It is at this moment a crumbling domain of numerous languages and many dialects. In size of area and population alone, it is most nearly comparable to the U.S.A. It lacks the kind of "melting-pot" tendency for integration around a common language, which was formerly a leading characteristic of the U.S.A.; the comparison, on this and other leading counts shows as the inherent instabilities of Moscow's present domain, and so shows us implicitly, the more clearly, in this way, the kind of forces which have held this assemblage together under a central authority for seven preceding decades, and, also, the similar case for the old czarist Moscow earlier.

If one attempts to resolve the crises of the former Comecon domain, or, more narrowly, within the Soviet Union's

borders, by means of “political solutions” alone, the entire latter region of this nuclear-armed superpower were likely to converge upon civil war, a development of incalculable global implications.

This poses implicitly a point central to any effective programmatic understanding of the situation. To put the point in a suitably startling form: The inherent, chief source of potential civil warfare within the territory of today’s Soviet Union, is identified by the simple statement of fact: The very notion of “racial equality” is an affirmation of the blood-strewn evil of racism.

1. Racialism

Whoever chooses to describe himself or herself as of a different race than some other persons, is inherently, axiomatically a racist, and a—possibly dangerous—fool. Thus, to speak of “racial equality,” is to draw certain biological distinctions among classes of persons, analogous to the distinctions rightly made among breeds (“races”) of dogs, cats, horses, pigs, cows, and cockroaches. Once such liberal nonsense is established as official opinion, along come the liberal racists, such as the notorious liberal perverts Jensen and Shockley,¹⁵ to remind us why, the assertion of “racial equality” is to concede defeat of the struggle for *individual personal equality* to the “genetical racistist.”

Christians rightly emphasize the mission of the Apostle Paul. As was stressed earlier in this present location, the only quality which defines a person as human, is that which sets all persons axiomatically apart from, and absolutely superior to all species of beasts: the *divine spark* of each and every person’s innately sovereign capacity for creative reason; there is but one human race; there is but one feature, one demonstrable singularity, that *divine spark* of humanity, which defines, elementarily, absolutely, each person as a person. One such defining distinction: one race.

This, as will be elaborated, is programmatically crucial for solving today’s Eurasia crisis. Before coming to that practical application, we explore the issues associated with the distinction itself.

Consider the relevant implications of the Jensen-Shockley case.

Shockley, associated with a singularly important accomplishment in the field of engineering,¹⁶ brought into, and out of that accomplishment an increasingly bloated, fanatical quality of overconfidence in the commonly taught, but axiomatically defective positivist version of excessively algebraic classroom mathematics. He shifted away from his field of relative usefulness and competence, to deploy his defective mathematical learning in service of a purely arbitrary, irrationalist, “social Darwinist” sort of racistist prejudice. Out of this came the atrocious, Nazi-like dogma, which won 1969 public endorsement by then U.S. Rep. George Herbert Walker Bush (R-Tex.).¹⁷

Recognize the efficient, central role of something *hereditary* in those 1969 racistist utterances of Congressman Bush.

Here, “hereditary” is employed in the same general sense one speaks, narrowly, of an “hereditary principle” in deductive theorem-lattice systems, or, more profoundly, more generally, of a true, Cantorian transfinite ordering.

In the Shockley-Bush case, we are referencing Shockley’s affinity for a positivist current of excessively deductive mathematics. As some might read the current U.S. government’s economic reports, former Congressman Bush does not impress us as exactly a mathematician. Shockley’s defective mathematical heritage, yes, but only as that is congruent with a flaw also central to Congressman Bush’s mind-set.

This is to focus attention momentarily upon the common, hereditary roots of Shockley’s and Congressman Bush’s converging racistist policies. That common root is chiefly the modern British tradition of *gnostic* cults, as typified in modern history by sixteenth- and seventeenth-century Oxbridge *cabbalism*,¹⁸ and also by the permeating influence of the *Rosicrucian* cults upon the empiricism of Sir Francis Bacon and such followers of his as Isaac Newton.¹⁹

In the case of Shockley, we trace the hereditary influence of gnostic cultism from the introduction of the anti-scientific principle of *induction*,²⁰ into one influential, reductionist faction in mathematical physics. In the case of Congressman Bush, we are tracing the same gnostic tradition as Shockley’s, in such forms it is transmitted, from Bacon, down to the 1960s, by aid of such notable Anglo-American names as John Locke, David Hume, Adam Smith, Jeremy Bentham, Thomas Malthus, John Stuart Mill, Thomas Huxley, William James, John Dewey, Walter Lippmann, and such myth-makers as Thorsten Veblen and R.H. Tawney.

2. Descartes and Kant

Not only does Bush’s Yale baseball-diamond empiricism have, predominantly, the same British origins as radical positivist Shockley’s engineering-school classroom reductionism. Any positivist statement, if sufficiently rigorously so, if issued first in the medium of spoken English, can be restated in mathematical or formal-logical quasi-algebraic form. On both counts, first, common religious (gnostic) roots, and, second, linear equivalence of positivist statements in different choices of forms, there is a simple—i.e., linear—kind of functional congruence between the 1969, country club locker-room’s “social Darwinism” of a Bush, and the stiff formalism of race-theory crank Shockley.

The extra annoying feature of dealing with British empiricism, is that the British empiricists lard their utterances with irrelevant sophistries, usually relying more often upon an appeal to the irrelevant bit of rhetoric, than force of argument on the issue debated, to persuade the dupes in their audiences. For that reason, it is often desirable, and also admissible, to attack a British empiricist proposition, by two successive steps. The first such step, is to address the content of the British empiricist’s argument as the same conclusion is argued in a relatively less turgid, more rigorous form, by French or German notables. The second, following step is

to prove that underneath the Oxbridgean lard,²¹ the British empiricist has actually offered nothing more of substance than the relatively more translucent French or German case considered for comparison.

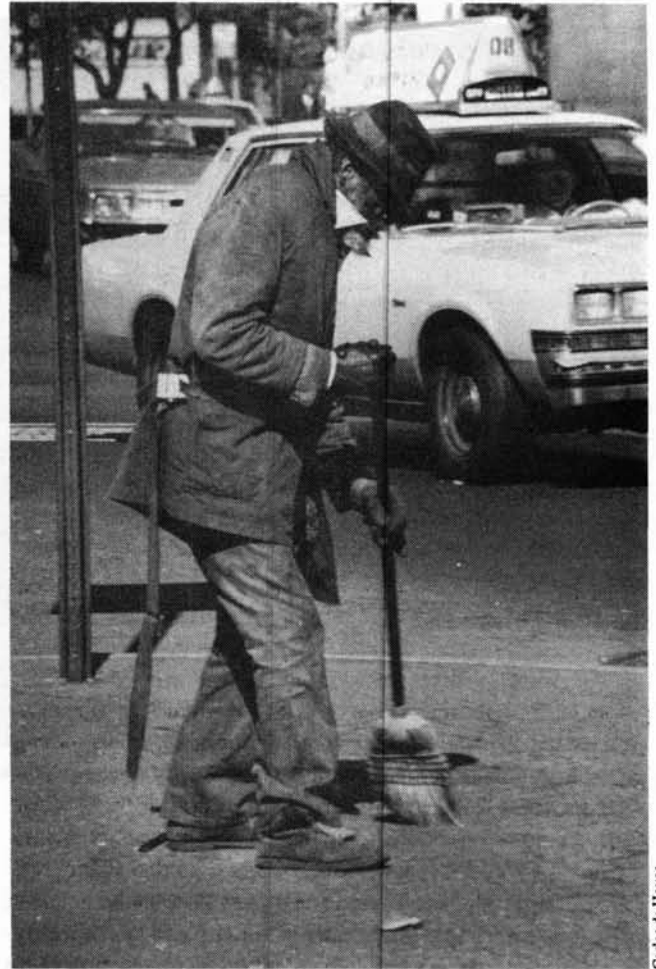
Although neither Descartes or Kant should be termed an empiricist, most of the crucial propositions of British empiricism are included with more compelling logic among the work of these two continental neo-Aristotelian gnostics; for related reasons, where the indicated sort of comparison is appropriate, these two are usually the modern continental sources to be preferred.

Refer to a point underscored in the preceding chapter. Newton's "clock-winder" paradox is a constructed paradox which rests upon nothing different than Descartes's case for his *deus ex machina*. Without further ado, it should be sufficient at this point, to call to the reader's attention, that the notion of *deus ex machina* relegates to the domains of, if not the nonexistent, the unintelligible, both all in the universe which reflects *negentropy*, and all in the powers of the human mind by means of which *negentropy* might be comprehended.²²

Kant is more important to us than Descartes on this specific point, for two principal historical reasons. Not overlooking the development of those differences with the more radical turn Hume took later in life, as Kant's *Prolegomena* indicates: Prior to the appearance of his *Critiques*, Kant had chosen to become the chief disciple of Hume's empiricism, and opponent of Leibniz, in the German language. Despite the issue with the aging Hume, referenced in the *Prolegomena*, Kant remained a gnostic defender of empiricism's quarrel with Christian humanism to the end of his life. During the nineteenth century, Kant's work, and so-called "neo-Kantianism" contributes an indispensable part to the survival of fledgling radical positivism in France and the German language.

Examining briefly once again Kant's restatement of Descartes's *deus ex machina* argument, leads us now to the needed fresh view of that paradox of Eurasian development being treated here. To show the roots of the Anglo-American-dominated policy-conflict, we must begin our summary of the Kant case with a glance toward the English roots of former Congressman George Bush's policy today.

The summary begins with the accession of the wicked first Duke of Marlborough's political ally, George I, to the newly established throne of the United Kingdom. This was a triumph for Marlborough's British liberals, otherwise known as the "Venetian Party," the pro-usury party, over that pro-development party which included Leibniz's British admirers.²³ Under the long prime ministership of Sir Robert Walpole, a prolonged orgy of moral, intellectual, and economic decadence produced the curious phenomenon of Scottish apologetics for the moral degeneracy among their wealthy English neighbors to the south. This curiosity was advanced under the perverse title of "moral philosophy," as concocted by an alleged lunatic, David Hume, and his



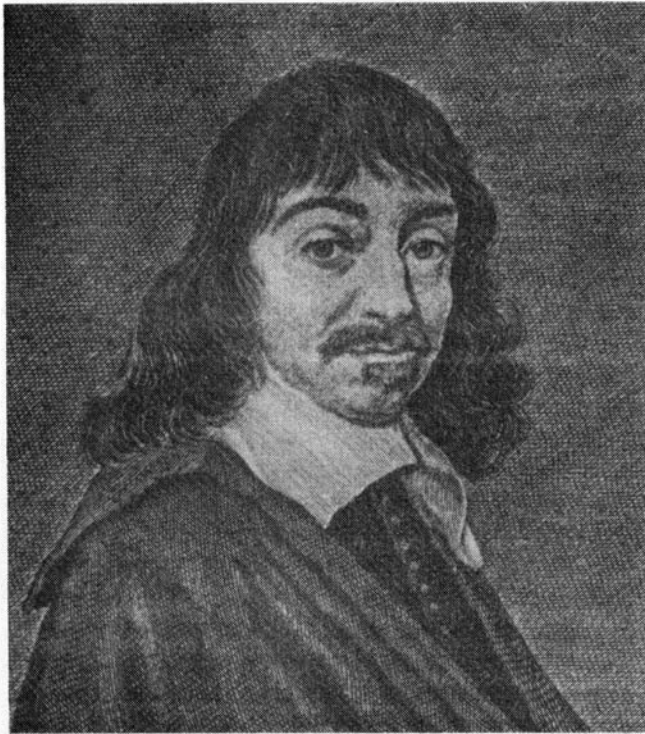
Carlos de Hoyos

As a congressman, George Bush promoted the racist doctrines of liberal perverts Arthur Jensen and William Shockley. Here, one of those people the racists consider "useless eaters," on the streets of New York City.

emulator, Adam Smith.²⁴

The crux of this "moral philosophy" is summed up in two principal books of Adam Smith, his 1759 *Theory of the Moral Sentiments*, and its sequel, the 1776 work known best by the abbreviated title of *Wealth of Nations*.²⁵

Smith argues, that since man is, in his view, incapable of anticipating the longer-term consequences of policy of practice, the individual must forget such concerns, and limit himself to pursuit of the simplest instinctual sense of narrow individual self-interest. That, at least, is a fair summation.²⁶ In *Wealth of Nations*, this Nazi-like argument ("all is permitted") of Smith serves as the defense of Smith's employers, the British East India Company, Baring's Bank, conducting the opium-trade against China at that time. It serves also as the sole apology for the infallibly ruinous, irrationalist Smith cult-doctrine, "the Invisible Hand"—"free trade." It is the same argument used later by Jeremy Bentham in his own



René Descartes (left) and Immanuel Kant: "Most of the crucial propositions of British empiricism are included with more compelling logic among the work of these two continental neo-Aristotelian gnostics."

"In Defense of Usury," and "In Defense of Pederasty," in addition to his book, *Principles of Morals and Legislation*.

Kant later applies a more challenging sophistry in defense of Hume's and Smith's immorality. This sophistry is a central feature of Kant's *Critiques*, as summed up in relatively more popular language in his *Critique of Judgment*. This sophistry is essentially a fresh defense of Descartes's *deus ex machina* and implicitly, therefore, also of the Newton "clock-winder" copy. Although Kant, in the Preface to the first edition of his *Critique of Pure Reason*, features a devastating attack upon (British) philosophical (moral) "indifferentism"—a kind word to employ as euphemism for the satanic abomination of Adam Smith's apologetics—Kant himself supplies the theorem upon which the nineteenth-century positivism depends for a mere show of philosophical credibility.

Kant denies categorically the possibility that human beings might develop an intelligible representation of those processes of mind by means of which a valid creative discovery is generated as hypothesis.²⁷ He derives from this theorem the corollary assertion, that there exists no possible, rational criteria for defining artistic beauty. These featured, failed aspects of his *Critique of Judgment* represent the relatively most rigorous among known extant efforts to justify theorems equivalent to Descartes's *deus ex machina*. For related reasons, Kant's failed theorems are congruent with any rigorous form of formalists' attempted proof of Smith's "Invisible Hand" dogma.

To the point immediately at hand, the entire systems of empiricist or positivist theorems depend upon an assumption equivalent to Kant's failed attempt. This is underlined by a fact, cited earlier, that the fledgling nineteenth-century positivist movements of France and Germany invoked the neo-Kantian authority of Kant in the attempt to fill up gaping epistemological holes in their systems.

Thus, we have such a qualified congruence among the Cartesian *deus ex machina*, the central Kantian theorem (of the *Critiques*), and the elementary assumptions of empiricism. The mind-set underlying these relatively more rigorous, mathematical and other formal representations, is the same empiricist mind-set transmitted across the centuries since the appearance of Oxbridge cabbalism and Rosicrucian gnostics' empiricism, as reflected in the referenced, 1969, racist utterances of Congressman Bush.

Before a final bit of tidying up significantly relevant loose ends on the history of empiricist gnosticism, consider a significant aspect of both the Israeli-Palestinian and Eurasian paradoxes to which this line of inquiry is addressed. In short, how do issues of philosophy, as philosophy, exert an efficiently direct, overriding influence on strategic processes?

Earlier, the fact was stressed,²⁸ that despite the significant number of what have been, in some among these instances, rather radical successive changes in U.S.A. economic and monetary policies, domestic and foreign, the succession of change is, with rare deviation, in a constant direction. That

direction is summed up as three doctrinally regulated policy-trends: the objective of an Anglo-American-ruled world-federalist order; the objective of an "Aquarian" "cultural-paradigm shift"; and, a global, malthusian "post-industrial" order, the latter modeled as a matter of historical fact, upon those notorious "socialist" decrees of the Roman Emperor Diocletian (the, de facto, "malthusian" doctrine upon which the subsequent Byzantine order was based).²⁹

The case of Congressman Bush is exemplary of the philosophical determinism of the 1963-1991 "cultural paradigm-shift" in the United States of America.

Bush is derived from a Yale "Skull and Bones" chapter cult-circle, of such moderns as Averell Harriman (Bush's father's employer), Henry Stimson, McGeorge Bundy, et al.³⁰ This circle produced the Eugenics Society of the United States, an overt supporter of the "racial purification" dogmas of an Adolf Hitler's Nazi Party during the early 1930s. Congressman and President Bush's affinities for malthusian racialism have been openly associated with the Draper Fund³¹ since the period of his 1960s terms in the U.S. Congress.

This is not to single out Mr. Bush. Quite the contrary. One may quip that there are three functional categories of Anglo-Saxon racism appearing significantly in the U.S. population. Category "A" is the country club or barroom loud-mouth stratum. Category "B" includes the punctured pillow-case set. Category "C" includes those patrician Establishment figures, like Britain's Bertrand Russell, who may be classed fairly as representing the "gas oven," or "famine-and-epidemic" set. The Draper Fund, like the Club of Rome, the Carter administration's *Global 2000*, or International Monetary Fund and World Bank "conditionalities," belong to those who, like Bertrand Russell, prefer "the more efficient" means of famine and epidemic to "gas ovens." The important thing is *not* to single out Congressman Bush, but rather to show that Bush's referenced, shameful political utterance echoes the prevailing philosophical mind-set in the relevant Harvard-Yale patrician elements of the U.S. part of the Anglo-American liberal Establishment as a whole.

Thus, did persisting such Establishment-centered philosophical influence exert an erosive influence upon what was taught by positivists in universities, what seeped from such university and think-tank circles into government, news media, Establishment media, and political parties, into the shaping of most policy-reshaping actions.

B. History

So, in general, history is made. It is but rarely that decisions on crucial events shape history. Usually, the accumulation of decisions which appear to shape history, are reflections of the influential philosophical, religious, and other "mind-sets" which determine what the prevailing trends in decisions will become. This connection is roughly analogous to the effect of the "hereditary power" of an integral set of axioms and postulates in determining the theorems of a corresponding deductive theorem-lattice.

To effect a real change of direction in current history, we must focus efforts upon the "integral sets of axioms and postulates" which define a "mind-set," or "cultural paradigm." In the two illustrated cases referenced here, there are two or more, respectively distinct, cultural "mind-sets" to be addressed.

In these cases, as the case of the Dead Sea canal-tunnel project illustrates the point, the proposed approach to solutions gives us a practically much-needed physical-economic program to catalyze the needed shifts in "mind-sets."

Any much-needed economic-development program which fosters emphasis upon conscious employment of the sovereign individual's creative powers of reason, tends to shift the "cultural paradigm" toward inclination for agreement with natural law. On the contrary side, any policy of practice which suppresses emphasis upon scientific, technological, and related progress, is an affront to the individual's potential for creative reason; the result is a tendency to "bestialize" the members of that society.

Thus, the empiricist—e.g., British-style liberal—mind-set is inherently a racist one, a perverted view of mankind which, like Britain's Thomas Huxley, cannot distinguish effectively between the breeding of cattle and dogs and the reproduction of the human species.³² The necessary reason underlying the causal relationship of positivism and racism (of the Shockley-Bush type) are already identified implicitly. Identify those connections, and then apply the lesson of the connection to the Eurasia case.

The Cartesian *deus ex machina* has two common noted relevant, interdependent effects. It relegates creative reason, as Kant does, to an unknowable spiritual domain, outside the physical domain, and human flesh. To consistent effect, all that is suggestive, empirically or otherwise, of a "Keplerian" negentropic physical space-time curvature of the universe as a whole, is banned from neo-Aristotelian mathematical physics.

On the first account, Descartes is to be compared with the Manichean gnostics, and also with the Cathar-Bogomil roots of Rosicrucian gnosticism, the gnostic Percival/Parsifal myth, and so on. Take, for example, the celebrated "clock-winder" admissions of Newton,³³ already noted earlier, and Maxwell's similar emphasis, in a letter supplementing the introduction to his famous published work, that his falsifications of certain known crucial evidence³⁴ was done out of a governing determination of Maxwell's own work, "to exclude any geometries but our own."³⁵ The early Bertrand Russell publication of his assignment to attack and defame the work of Gauss, Riemann, and Georg Cantor, among others, attests to the same feature of English empiricism.

The neo-Aristotelian form of gnostic mind-set being addressed here, is thus typified for our presently immediate uses, by the three cited landmark examples: Descartes's *deus ex machina*, the echoing, "clock-winder" theses of Newton, and the two corollary theses of the Kantian system as featured in Kant's *Critique of Judgment*. These are, each and all,

equivalent to all those varieties of explicitly gnostic mind-sets, which, like Manicheism, postulate a more or less hermetic separation of, and mutual hostility of, a spiritual and physical universe, which are supposed to oppose, more or less fanatically, the concept of *consubstantiality*.³⁶ These include the Bogomil-Cathar cult-tradition. Cartesianism's hostility to Kepler et al. is thus fairly described as the *Cathar cult*³⁷ disguised as mathematical physics.

The forms of gnosticism, most conspicuously when expressed as an ideological imprint upon a mathematical physics, deny the existence of an intelligible mental-creative power capable of being necessarily an efficient cause within physical processes. In the same way, gnostic pseudo-Christian cults deny the existence of a *necessarily efficient* "divine spark" of creative reason in the individual person.

This has two included hereditary effects to be underscored here. The notion of the sovereign individual person does not exist as a theorem for such a cultist ideologue; nor, does there exist a theorem which specifies a necessary, fundamental distinction between man and beast. This either leads to racism, or, for an obsessed racist, this gnostic denial of a "divine spark" is sought out, and embraced as an axiom necessary to provide the racist a suitable mind-set.

The same cult-ideology allows the practice of usury. Either the society's increase in per capita wealth is the result of the sovereign mental-creative powers of persons, or it is not. If not, then we have the theses of the Physiocrat, the theses of a gnostic worship of the "Mother Earth" whore-goddess, Ishtar-Gaia-Cybele-Isis. Similarly, there is no sacredness of individual human life.

Conversely, whoever denies systematically the theorem of the sacredness of an individual human life is neither a Christian nor a respecter of natural law.

We can now leap directly from the foregoing to the point in view.

C. Dealing with Moscow

In dealing with Moscow, currently (1991), from "the West," one approach will assuredly produce nothing but disaster for all concerned: Continue to insist that Moscow et al. submit to the disastrous "Polish model" of International Monetary Fund, Group of Seven, Schacht-like "conditionalities," as a "precondition" for this or that. The second approach to be considered, is the more complex correlative of the cited Arab-Israeli case: the political solution, the demand for sovereign independence by nationalities which have been under decades of Moscow's rule.

The case of pre-1989 Moscow trade-relations with such crucial Comecon trading partners as Czechoslovakia and East Germany (G.D.R.), illustrate a principal included feature of the matter to be considered. Focus upon the transition from 1988-89 to 1990-91 in trade relations between Moscow and the part of a now-united Germany which was formerly the G.D.R.'s "Land of Mielke and Honi."

First, prior to the political change, East Germany and

Czechoslovakia were suppliers of crucial products to the Soviet economy; without a continuing flow of such trade, on the Soviet side, the resulting bottlenecks are crippling for Soviet industry as a whole. Without such trade, a very significant segment of the former G.D.R. economy has no suitable source of orders to keep its production going.

A similar situation confronts not only all of the newly reformed, former Comecon states of Eastern Europe; the avowedly or prospectively independent states from within 1989 Soviet borders, such as the Baltic states, Georgia, Ukraine, et al., each and all have acute interdependencies with what has been the Soviet economy as a whole. The nearly disastrous effects of a 1990 cutoff of former lines of such trade between eastern Germany and Moscow illustrates the general problem.

This aspect of the matter overlies the military-strategic problems.

Moscow's Red Army (in a larger sense) continues to be a thermonuclear superpower. Worse, the recent behavior of the Anglo-American forces, in the enunciation of "the Thornburgh Doctrine," actions against Panama, actions in the Persian Gulf, as otherwise, put lower limits on Moscow's willingness, or, indeed, political capacity to retreat as far, strategically, as the legal, morally legitimate, national aspirations of the Balts and others obviously desire, and demand. "Two steps backward," thinks the Voroshilov Academy's General Staff group, "but not three, and never four."

1. The SDI

In 1979, as part of his own U.S. 1980 Democratic presidential nomination campaign, the author published a personal "Campaign Platform Plank"³⁸ which later became known as President Ronald Reagan's Strategic Defense Initiative (SDI) announcement of March 23, 1983. The point on which emphasis is to be placed, for the purposes of the matter immediately under discussion, is the special offer to Moscow which President Reagan included in that March 23 address, and repeated at least several times after that.³⁹

Consider the following relatively very compact summary of the "SDI" proposal as this writer came to see it, over the period 1977, 1979, and later. The autobiographical accounting given in published locations elsewhere, is largely omitted here for sake of brevity.⁴⁰

The summary given in text, above, is a repetition of the author's conception of the problem-area during 1977-78. However, some of the facts used here to represent aspects of that conception, were not documented in the writer's proposal until some point during the 1979-1982 period.

As Bertrand Russell reflects this in his famous, Churchillian contribution appearing in the October 1946 edition of the *Bulletin of the Atomic Scientists*, the original British strategic goal for the post-World War II period, was to use the United Nations Organization as a vehicle for establishing a global, new Roman Empire of the principal victors of World War II. Essentially, this signified a global Anglo-American/



Miners in the Soviet Kuzbass region on strike in 1989 against horrendous economic conditions, and for political freedom. If the West continues to demand that the Soviet Union and Eastern Europe submit to "Polish model" austerity conditionalities, certain disaster will be the result.

Ogonyok

Soviet condominium, the Soviets a junior partner, and the virtual Anglo-American arrangement, according to the transatlantic watchword of that time, "British brains, American brawn."

As Russell emphasized, in that October 1946 piece, and in later published writings and published interviews on the same theme,⁴¹ the temporary postwar Anglo-American monopoly on nuclear arsenals was a key feature of the proposed world-federalist forms of "new world order" at that time. That 1946 piece was the first of a series of occasions, during the post-1945 Stalin period, that Russell delivered to Moscow his Churchillian "Iron Curtain" threat of "pre-emptive nuclear war," should Moscow continue Stalin's postwar rejection of the proposed Soviet junior partnership in the world-federalist scheme.⁴²

To his Western readers, beginning with that 1946 piece, Russell warned that he believed that the Anglo-American powers lacked the courage to go to the brink of preemptive nuclear war with Moscow in time to force Moscow to submit to the world-federalist arrangement on terms relatively most favorable to London and Washington, i.e., at some point prior to the inevitable Soviet acquisition of nuclear arsenals.⁴³ Russell predicted essentially, that because of the West's lack of nerve, the new world-federalist arrangement would emerge only after Moscow had such weaponry.

So, as if Russell had predicted it, the first step toward such an Anglo-American/Soviet global condominium occurred under Nikita Khrushchov, after Stalin's death, beginning with the appearance of four Soviet representatives at the 1955, London meeting of Russell's own World Association of Parliamentarians for World Government.⁴⁴ Out of this

came the Fabian-sponsored Cyrus Eaton's Pugwash Conference, which set forth the first, Dr. Leo Szilard-detailed arms-control arrangements preparatory to world-federalist government, at the second, Quebec Pugwash Conference of 1958.⁴⁵

Put aside the ups and downs of 1958-1982 relationships between U.S. Presidents, on the one side, and Khrushchov and Brezhnev on the other. Essentially, supported by the Council on Foreign Relations' New York City branch of London's foreign intelligence organization, Henry A. Kissinger's Chatham House,⁴⁶ the U.S.A. and Soviets reached agreement on Pugwash Conference terms under Henry A. Kissinger's terms as National Security Adviser (1969-1975) and Secretary of State (1973-1977) for Presidents Nixon and Ford. The most prominent features of Kissinger's role as a Pugwash Conference agent, for which many suspected him of being a Soviet agent,⁴⁷ was in dealings with Moscow and Beijing. The arms-control negotiations, including the crucial 1972 ABM (Anti-Ballistic Missile) Treaty, are the most directly relevant for examining SDI policy.

Already, in 1958, fourteen years before Kissinger rammed through the 1972 ABM Treaty, Bertrand Russell's accomplice Dr. Leo Szilard⁴⁸ had proposed to outlaw anti-ballistic missile weapons, as a way of ensuring that both thermonuclear superpowers remained in a state of pristine vulnerability to intercontinental thermonuclear warheads of the other. Why? To force a world-federalist sort of Anglo-American/Soviet imperial condominium upon the world as a whole.

Kissinger, trained by British foreign intelligence's Chatham House, under Prof. William Yandell Elliott at Harvard, and at Tavistock in London, was a hardened follower of



Lyndon LaRouche presents his conception of a beam-weapon defense program at a conference in Washington, D.C. on April 13, 1983.

the Castlereagh of "Masque of Anarchy"⁴⁹ notoriety, before being assigned to work on Russell-like Pugwash dogmas, under George Franklin, John D. Rockefeller III, McGeorge Bundy, et al., during the mid-1950s at the New York Council on Foreign Relations.⁵⁰ During the interim years, from the time he was booted out of his consultant's position with the Kennedy administration, until he became virtually "acting President" during the years 1969-1977, Henry A. Kissinger's principal association was with the ostensibly left-wing co-thinkers of Bertrand Russell, at Pugwash.

By the middle of the 1970s, the Russellite Pugwash dogma had put the world on a short nuclear fuse. So, this author found the situation, in launching his 1976 campaign for the

presidency of the United States.

By the mid-1970s, the introduction of increasingly accurate medium-range, MIRVed thermonuclear land-based and submarine-based missiles, such as the conspicuous Soviet SS-20, had put the world *potentially* on a hair-trigger. The reduction of preemptive missile-attack warning-time, from more than 20 minutes, to the order of 5, or even less, meant that the detection of close-in submarine launch of a relatively few Soviet missiles against U.S. territory, or analogous targeting of Soviet territory, could even probably mean a full-scale launch, in reply, by the threatened party. So much for Szilard's "balance of terror," and the McNamara-Kissinger "Mutually Assured Destruction" (MAD).

If, however, *both* the U.S.A. and U.S.S.R. possessed an anti-ballistic missile defense (BMD) capable, in the 1963 words of Soviet Marshal V.D. Sokolovsky,⁵¹ of eliminating "a strategically significant" ration of missiles launched against it, the hair-trigger effect could be brought under control. During the early 1960s, Sokolovsky's Soviet strategy⁵² had rightly deprecated what 1980s convention came to term "kinetic-energy weapons" of strategic ballistic missile defense; Sokolovsky had emphasized the emerging alternative, which, later, the addenda to the U.S.A.-U.S.S.R. 1972 ABM Treaty defined as anti-ballistic missile defense based upon "new physical principles."

During the mid-1970s, the chief of U.S. Air Force intelligence, Maj. Gen. George Keegan, noted the Soviets were working on a "new physical principles" BMD, and proposed that the U.S.A. match this. Defense Intelligence Agency head Lt. Gen. Daniel Graham was only one prominent figure among those influentials who shot down General Keegan's findings and proposals at the time. On the basis of an independent scientific audit of General Keegan's report, in the fall of 1977, this writer publicly supported that report at the time, and also went further to develop what became the "SDI" plank in his own 1980 Democratic presidential nomination campaign, and, in a larger form, the author's 1981-82 "SDI" proposals to the Reagan administration. This was also the subject of the author's 1982-83 White House back-channel discussions with official Soviet representatives.

What this author proposed during 1981-83 to the Reagan National Security Council and other relevant U.S. institutions, represented in U.S. back-channel discussions with the Soviet government, to institutions of U.S. allies, et al., was a precursor to what he projects now as a basis for working discussion on the Eurasian crisis of 1991. Now, review the mere highlights of the LaRouche 1982 "SDI" proposal in that light.

The 1982 LaRouche "SDI" proposal was first brought prominently to international attention before several hundred participants, at a two-day seminar held in Washington, D.C., for this purpose on Feb. 17-18, 1982.⁵³ This public announcement was followed by the issuance of a published version of the same announcement.⁵⁴ This proposal had three leading components: military, technological, and political represent-

ing, taken altogether, a *war-avoidance policy*.

1. *Military:*

The military element of this war-avoidance package, was the reliance upon introduction of a high rate of technological attrition in strategic and tactical methods of warfare, centered around a “crash program” employing so-called “new physical principles” to construct a global ballistic missile defense capable of destroying assuredly a strategically significant ration of an adversary “first strike” missile-launch.

This design was premised upon the feasibility of early deployment of a new generation of electromagnetic weapons systems, with an estimable, inherent design-principle advantage of approximately 10-to-1 cost of destruction advantage over (relatively) lumbering intercontinental missiles and their warheads and busses. The same family of “new physical principles” technologies was extended to the tactical battlefield (e.g., Europe) and the seas.

2. *Technological:*

The apparatus which is developed to effect a relatively perfected form of a crucial experiment is, as a matter of geometrical-physics principle, the model of reference for designing a corresponding family of weapons and *machine-tools*. The machine-tool developed in conjunction with a weapons program, is the means by which the physical advantage of the weapon-design becomes the device introducing a greater or lesser degree of technological revolution and quality of products and productivity into production in general.

Thus, insofar as military production is an applied reflection of high rates of scientific progress, etc., and on condition that military technologies are encouraged adequately to spill, via the machine-tool interface, into high rates of *capital-intensive, energy-intensive* investment in technological progress in the economy in general, a “breakeven point” is implicitly projected, above which level of rate of such latter investment, a large military program may be maintained at a *net negative cost* to the economy as a whole. This became known as the “spill-over” principle.

This reflection of the principles of Leibnizian Physical Economy, was the point of the proof of both military and economic feasibility of what later came to be known as the “Edward Teller” version of the SDI.⁵⁵ That is: a) the U.S. could afford whatever a proposed BMD program required, and b) the “spill-over” principle allowed the U.S. to go as far as necessary in the direction of advanced technology, to achieve the performance required.

2. **The economy**

This military-technological package was also conceived as a “science-driver” form of “jump start” for the world economy. In this respect, during 1982, the author conceived, and presented his BMD package as complementary to a package of global economic-recovery packages including his famous *Operation Juárez* of August 1982.

The general perspective was to combine a science-driver “jump start” industrialization boom in the industrialized na-

tions, with a general international monetary reform. The intended result, as *Operation Juárez*, and the 1983 LaRouche “Indian/Pacific Basin” reports typify the point, was to unleash a self-sustaining, growing capital-goods export boom from the industrialized to developing sector.

The other distinctive feature of the 1981-82 LaRouche proposals for the Reagan administration, was that the U.S.A. must propose the new BMD program-package to Moscow as a basis for cooperation between the two strategic blocs.

Why not? *The two adversary-blocs were already cooperating militarily*, along Pugwash lines. Medium-range rocketry had proven what should have been apparent all along: e.g., Bertrand Russell is perhaps the most evil man of the century, and Dr. Leo Szilard had been arguably insane; his “Rube Goldberg” scheme was leading rapidly toward the very thermonuclear war it was alleged to prevent.

Some concrete features of the LaRouche BMD “crash program” addressed aspects of the 1982-83 U.S.A.-U.S.S.R. SDI negotiations which bear upon the solution for the Eurasian crisis today.

Approximately eight weeks prior to President Reagan’s first public announcement of the SDI, the following three-point response was relayed from Moscow to the U.S. National Security Council by way of this writer: 1) We agree that your BMD (based upon “new physical principles”) is feasible; 2) We agree with the feasibility of technological economic “spill-over”; 3) However, we will reject any such proposals from your government, because, under “crash program” conditions, you will race ahead of our economy.

When President Reagan did announce the SDI, the Yuri Andropov government in Moscow reacted as the three-point message had indicated about two months earlier. Instead, Andropov ordered the package-proposal publicized through his interview with *Der Spiegel*’s publisher, Rudolf Augstein.⁵⁶ The U.S.-Soviet negotiations, since some time during 1984, until the beginning of 1990, generally followed the outline of that *Der Spiegel* interview with Andropov.

Today, in retrospect, Moscow’s reaction to the offer of cooperation in deploying BMD based upon “new physical principles” appears to have been more or less a tragic error.

At that time, 1982-83, both the Soviet and Anglo-American economic systems were sliding near to the brink of that collapse which erupted to the surface, on the Anglo-American side, in the October 1987 financial crisis. By 1982, both the Anglo-Americans’ radically malthusian monetarism, and accumulated effects of Soviet “socialist primitive accumulation,” were converging asymptotically upon the collapses we are witnessing today.

At that time, 1982-83, the joint U.S.A.-U.S.S.R. adoption of a “crash program” to escape a worsening of the MAD-caused “hair-trigger” threat of the late 1970s, relying chiefly upon “new physical principles,” would have initiated a desperately needed, global economic renaissance, with proportionate benefits on both sides of the “thermonuclear divide.”

This writer’s design for a “BMD based upon on ‘new

physical principles,' " developed and deployed, in separate, successive phases,⁵⁷ in open coordination among the powers, represented the combination of, first, a uniquely effective, real-life solution to the indicated military crises,⁵⁸ and second, an urgently needed "cultural-paradigm shift" in political and economic thinking on both sides. It was understood by this writer, at the time, as an initiative in imitation of Gottfried Leibniz's eminently successful reforms proposed to Czar Peter "the Great." It was also, in fact, an echo of the Eurasian development projects of France's great statesman Gabriel Hanotaux.⁵⁹

It was not a "peace proposal." It was, rather, something far less ambitious, far more realistic, something effective. It was proposed as nothing more ambitious than *a necessary means, by means of which the temporary avoidance of war might be significantly prolonged and that avoidance otherwise enhanced.*

3. The question of peace

"Peace," as the term is used customarily, has merely a *negative* meaning, as the term "negative" is employed in the setting of Kant's "dialectic of practical reason," which is the same general quality of meaning "peace" has when the idea of "peace agreement" is referenced to the romantic/empiricist notion of "social contract."

The virtual worthlessness of such popularized, negative usage of the term "peace," is as a description of a *symptom*, the mere absence of "non-peaceful" conditions.⁶⁰ Whenever this *negative* meaning is misused, to treat negative peacefulness as a positive condition to be constructed, politics acquires the hues of a possibly dangerous delusion.

The delusional character implicit in popular attribution of rapture to the mere sound of the word "peace," ought to remind us how deservedly contemptuous is this century's experience with other such mere words as "a war to end all wars," "League of Nations," "Kellogg-Briand," or "non-aggression pact." Kant's "perpetual peace"—a social contract for peace—by negation, is a bloodstained folly which we must not repeat.

Peace in the positive sense exists only in that sense of truth, beauty, and charity which is characteristic of a natural law's community of principle among nations. It is a positive state of affairs which must be built, as an Indian parent plants mango trees whose fruit will nourish his children and grandchildren.

If one were instructed to describe this positive, true, *agapic* peace in strictly formal terms of deductive approximation, one would say that such peace is a constantly regenerated, necessary theorem of practice, affecting all dimensions of social life within and among the nations comprising a community of principle. This "hereditary" determination is rooted, one would say, "axiomatically," in the shared confidence of each such nation, that all the others are committed *truthfully* to be self-governed according to the natural law.

In the language of the "Tavistockians," it is by building

up among all of a certain prospective community of nations, an appropriate "cultural paradigm,"⁶¹ that we bring about the state of affairs represented approximately by such a formalist attempt at description.

Apply now, in somewhat greater detail and depth, what was said of the Dead Sea project, to the image of a project of physical-economic cooperation, to develop a community of principle "from the Atlantic to the Urals," within Europe—and beyond.

D. Eurasia's great projects

If one accepted the low standard of personal political "success" popular among most of the North American and European mass news and entertainment media, it would be said that Soviet General Secretary Mikhail Gorbachov's bad luck was to have his patron, Yuri Andropov, die prematurely, and thus leave poor Gorbachov to receive the blame for the inevitable failure of Andropov's *perestroika* economic and monetary reforms. So, today, Soviet power is disposed to attach itself to whatever leading political faction is credited with having put "meat and potatoes" more or less regularly on the table for the Soviet people.

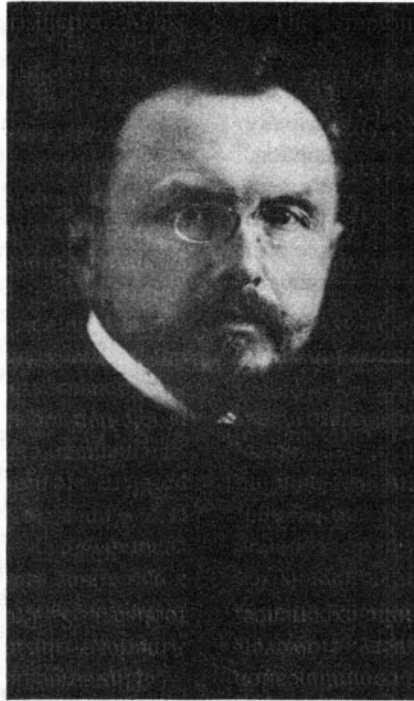
Unfortunately for a public afflicted with today's popular opinion, there are no simple, distributionist, or so-called "free market" solutions for this problem of hunger and other current or imminently threatened grievous material want. The presently functioning levels of employment and productivity in basic economic infrastructure, agriculture, and manufacturing, are variously underdeveloped, and also collapsing rapidly, so much so that a general catastrophe of spreading material want is the preponderant reality globally, until an essentially global, "dirigist" form of economic-recovery program reaches the level of net effect, at which the presently downward trend in physical economy is reversed.

History

Let us now consider, once again, summarily, the degree to which twentieth-century world history was determined chiefly by certain global events unleashed during the 1860s. The latter was centered around the relationship which emerged between U.S. President Abraham Lincoln, and Russia's Czar Alexander II.

The so-called U.S. Civil War, and the Union victory, became key to the British motive for causing World War I, and also, thus, implicitly, World War II. This is contrary to what is popularly believed, of course, but the documented truth is overwhelmingly contrary to the vastly popularized mythology.

The British plot to create the Civil War began, in approximation, with the successive U.S. victories in the 1776-1783 U.S. War of Independence, and the War of 1812-1815. London, to this day, has never given up its determination to retake, and keep, all of North America. Following the 1812-1815 "War of 1812," the British and their Scottish Rite Freemasonic agents (such as the 1814 Hartford Convention



Left to right: Czar Alexander II, Gabriel Hanotaux, and Sergei Witte. It was to defeat the tendency for cooperation among them in a Eurasian development perspective, that London corrupted France with the Entente Cordiale, and organized World War I.

crowd) inside the United States, adopted a new strategy. To establish a branch of the New England Scottish Rite, which became the pro-slavery “Southern Jurisdiction,” while the New England Freemasons, although profiting, like Friedrich Engels’s family British firm, from cheap, slave-produced cotton, became the “abolitionist” backers of John Brown et al. As the letters of British agent, and treasonous head of the U.S. Democratic Party, August Belmont, revealed, the British intent, behind such figures as August Belmont and British spy Judah Benjamin, was to tear the United States apart, into a “balkanized” set of quarrelsome, tyrannical baronies, easily controlled from London.⁶²

Thus, the leadership of the Confederacy, around London agent Judah Benjamin, was not a collection of bravely independent Southerners; they were slaveholding oligarchs in the worst sense of human rights violations *en masse*. These proud families were purely and simply British-controlled traitors of the lowest sort. In fairness, their Freemasonic, “abolitionist” brethren of New England, were not much better.

The plot was coordinated from London, by the opium-trading circles around the Mazzinian libertarian Lord Palmerston, and Palmerston’s confederate, the same Lord Russell who is the grandfather of super-racist Bertrand Russell. So, Palmerston and Russell planned to rescue their Confederate agents as they directed Britain’s agent of influence, Napoleon III, into a Suez-like operation, against Mexico.⁶³

At Lincoln’s front, were his enemies and London and the Confederacy’s Freemasonic Southern Jurisdiction. At his

back, were the Democratic Party “Copperheads,” whose darling of the day was General McClellan, and also the “abolitionist” New England Freemasonry.

Into this situation, during 1862-63, intruded the shadow and then the military substance of Russia’s Czar Alexander II. The Russian Navy deployed *en masse* on friendship visits to New York City and San Francisco; the Czar warned London and Paris that Russia would unleash war in Europe, should Britain and Napoleon III attempt to do against the U.S.A.⁶⁴ what they did do in full at that time against Mexico.⁶⁵

Then, the British intelligence services assassinated anti-carpetbagger President Lincoln, bringing into power the President Andrew Johnson who set back the United States a whole half-century, by establishing usurious “carpet-bagging” against the region of the former Confederate states.⁶⁶ Meanwhile, Czar Alexander II re-freed Russia’s serfs, at least to the degree of lifting Russia out of the barbarism into which it had been returned over the course of the preceding 100 years.

It was in the context of these Russian developments, that France’s Hanotaux launched his efforts of aid of Eurasian economic development. It was to defeat the natural tendency for the cooperation of economic-leader Germany in this Eurasian perspective, with Hanotaux’s France and Sergei Witte’s Russia, that the British corrupted France (by circa 1900) with the Entente Cordiale, and organized World War I.⁶⁷

The symptomatic evidence is plain enough and crucial;

the relevant British lies on these matters prevail in global policy-shaping today. Does France's leading opinion have the courage, even 90 years later, to accept the truth that the Entente Cordiale, was not only France's shameful, virtually catamite strategic submission to Milner's Fabian London, but was the crucial folly by France's corrupted government which made World War I almost inevitable? More than 70 years after World War I, how many credulous people still tolerate the popular lie, that Germany, not Britain, sought and caused that war?

The persistence of the falsehoods inherent in the popularized, and also official, Anglophile myths, betrays, in a crucial way, the existence of corresponding elements of "axiomatic" assumptions of belief in most relevant public and private, national and international institutions. These myths reflect also an aggravation, as well as persistence of those "axiomatic" assumptions of institutionalized belief which permitted the British to corrupt 1890s France against Hanotaux, successfully, and to bring about the monstrous combined direct and radiating effects of World War I. In short, most of us appear thus to be greater fools today, than our grandparents or great-grandparents at the beginning of this century. They made their horrible mistake; we appear to insist upon repeating it.

The 1989 developments which brought the subsequent reunification of Germany, evoked the vilest anti-Germany propaganda outbursts from such circles of Britain's Prime Minister Margaret Thatcher as Nicholas Ridley and Conor Cruise O'Brien. There were supporting echoes of this irrationalist hate-propaganda from leading circles in France, and France's and Moscow's support for a Thatcher-ordered, 1956 Suez-modeled U.S.A. Middle East adventure, the latter of which was plainly unleashed to target the economies of Germany and Japan, and to erode as much as possible the possibility of a Germany-led, vigorous economic recovery in Eastern Europe—and also the Soviet Union.

Echoes of 1900-1914! The British Empire was up to the old "geopolitical" war-mongering tricks of those scoundrels Mackinder, Milner, and H.G. Wells.⁶⁸ Mitterrand's France of 1990 had rejoined the Entente Cordiale, was joined once more with London in a new "Suez" adventure, and a rearming of the old Anglo-French Sykes-Picot atrocity. Meanwhile, the neo-Bukharinist "cosmopolites" of Russia were also up to their old tricks. The events which the British-led cabal unleashed in the Middle East, blended with the simmering Balkan crisis to echo the 1900-1919 breakup of the old Ottoman Empire; the pattern of Entente Cordiale-like policy-action in Europe echoed the British efforts to organize World War I.

Yet, history is not "repeating itself." On the contrary, it is but displaying, that the cultural paradigm set into place over the 1900-1990 period still prevails. Men are not making history; history is dangling entire nations and continents by its puppet-strings.

As long as nations refuse to recognize how a lunatic "cultural paradigm," such as that whose outlines we have just reviewed, controls their consistently foolish behavior, and does so again, and again, and again, over spans of a century or longer, the tragedy will continue its bloody course up to the disastrous end which brings down the closing curtain on such an effort of mass folly.

"I refuse to accept such conspiracy theories," an objector retorts from onstage.

From off-stage, the mocking, Delphic voice of the puppet-master is heard: "Then die, you poor fool of a nation which refuses to show sufficient intelligence to be qualified to survive."

Look at this history, this British-led cultural paradigm, from the standpoint of economies. Start with British hatred against Lincoln's U.S.A.

Under President Lincoln's leadership, principles aduced from the American System of Political-Economy were applied to generate the investment credit, the investment, and the production needed to win the war, and to prepare to defend the U.S.A., if needed, against a British and French military aggression like that conducted against Mexico during that same period. Thus, the U.S. emerged from the most ruinous war in the history of the federal republic, vastly more powerful in economy and military capabilities than at the outset of the British-directed Confederate insurrection.

The kernel of Lincoln's postwar reconstruction policy is summed up in his last public address, shortly before his assassination at British hands.⁶⁹ Had this Lincoln policy, instead of Johnson's, prevailed, the ruined southern states would have become immediately a center of a nationwide "infrastructure-building boom," led by railroad development, establishing the mandatory basis for a great agricultural and industrial growth throughout the United States as a whole. President Johnson prevented that. With British success in corrupting the U.S. Congress of the 1870s, the London-designed U.S. Specie Resumption Act was passed, an act which made the U.S.A. economically a semi-colony of London, and kept the growing U.S. economy in a state of depression, or near it, from 1877 through 1907.

With the assassination of U.S. President William McKinley by a transient from New York City's and Emma Goldman's Henry Street Settlement House, the leftist and Anglophile Teddy Roosevelt became President, thus putting the U.S.A. fully in the British Fabian camp of Mackinder, Milner, and H.G. Wells for a war against Germany. Roosevelt established the U.S. military as the British collection-agent in the Americas,⁷⁰ and made war against the American System of Political-Economy in general.

Despite a threat of a London-directed British-Japan war against the United States during the 1920s, with Teddy Roosevelt's accession to the U.S. presidency was born the later watchword of the century's Anglo-American partnership, "American brawn, British brains."



Friedrich Schiller, the great German poet and dramatist, identified the fundamental differences between the republican and oligarchical models of society. Shown here is a rally of the Schiller Institute in Weimar, Germany, in front of a monument to Schiller (the figure on the right) and J.W. Goethe.

Birgit Viti

Teddy Roosevelt was the creator, through his attorney general, the nephew of France's Napoleon III, Charles Bonaparte, of a national political-police agency to control political opposition, the National (later Federal) Bureau of Investigation. He was crucial in the process of putting the United States under a plainly anti-constitutional, British form of oligarchical (usury-based) central banking, the Federal Reserve system. He ensured that Taft would be defeated,⁷¹ bringing Harriman-House dupe, Woodrow Wilson, into the presidency for 1) ramming through the Federal Reserve Act, 2) ramming through the Federal Income Tax law, and 3) for the case of an expected war against Germany.

Why should 1890s Britain regard Germany a strategic threat? Were not the royal families cousins? Had the Hohenzollerns not been Anglophiles since the Napoleonic Wars, or even earlier?

The British of the 1890s were even more clear than Mrs. Thatcher's cabal on this matter: The prosperous growth of Germany's economy was the *casus belli*. We have an analogous situation today, as Washington, D.C. voices threaten Japan and Germany for "unfairness." How are the latter nations unfair? Simply, they have refused, thus far, to be as self-destructively stupid in their economic policies of the past 25 years as the U.S.A. and Britain have been. The 1897-1900 Britain might have resolved to gain the benefits of

initiating policies already proven then successful in Germany; instead, they elected to create an Anglo-French-Russia alliance to destroy Germany rather than correct the insanity of their own economic policies at home. That is the issue in a nutshell.

The policy for the great projects

The British of 1897-1900 were still the liberal oligarchs they had been during their 1763-1814 efforts to crush economic development in the English-speaking American colonies. The issue is defined by Schiller's view of the conflict between the oligarchical model of Sparta's Lycurgus and Athens' Solon. The leading expression of these fundamental philosophical differences was and is physical-economic policy. This is so, just because physical economy is essentially the mode of social reproduction and development of the society and of the individual personality within it.

The area of Europe east of the former, pre-1990 western border of the Federal Republic of Germany, is a desert of a previously already insufficient development of basic economic infrastructure, which has been ruinously depleted subsequently by 50-odd years of "socialist primitive accumulation," by 40 years of war and of deep economic depression, and of more war, before that. Talk of the "miracles of free trade" is worse than infantile babbling in such circumstances.

There must be a mobilization of all otherwise idled or wasted productive resources of labor, to create rapidly the trunk lines of a network of modern forms of basic economic infrastructure from the Atlantic to the Urals, and beyond. The market defined by this massive infrastructure-building provides the base-line for the development of agriculture, high-technology small entrepreneurs, and modern manufacturing operations.

The mobilization of this region's population for such a great undertaking, in common interest of *Europe as a whole*,

A family, a nation cannot live safely in a Christian household, while we permit the devil to reign in those economic processes to which the material existence of the household is kept hostage.

is the practical foundation for conditions of durable, just peace among all of the rightfully sovereign nationalities of that continent. Conversely, to allow the described geopolitical syndrome of World War I to rule, by default, would ensure the worst possible outcome as the probable one.

The crux of the matter is, the specific way in which the *Becoming* of a physical economy based upon investment in scientific and technological progress reflects *natural law*. That *Becoming* does not contain the *Good*, but like the instructions in the message which is a crucial historic source-document in the history of revolutionary scientific progress, it bestirs the divine spark of creative reason in the individual mind to find the echo of the *Good* within itself.

Since we have emphasized science and Physical Economy so much, this is a most appropriate point to give credit to the creative role in classical humanist art, in this case classical tragedy. We reference the manner in which certain kinds of messages—such as an historically crucial scientific source-document, or masterful tragedy—unlocks the mind of the recipient to knowledge generated from within the recipient's own sovereign creative-mental processes. In such ways do creative minds employ mediation by inferior means to address one another's innermost voices directly.

Contrary to Wiener, Shannon, von Neumann, et al., in such exemplary cases of scientific and classical-artistic communication, what is transmitted to the recipient is far greater than might be estimated as the statistically significant content of the transmission itself.

To illustrate the principle most simply: "Remember that day in __, 19__?" All significant scientific communication of ideas is broadly analogous to such a query. However, instead of invoking the recollections of a finite experience,

as the illustrative message suggests, in statements describing a process of scientific discovery, we invoke the transfinite generative capacities of the recipient's mental-creative powers. Within the relatively brief statement of an important problem, are months of justified labor by the recipient of that statement, to explain adequately the proper solution to that problem. Such also is all great artistic composition.

Consider a Shakespeare tragedy, *Hamlet*, for example. Or, Schiller's *Don Carlos*, for example. Is the power of the drama in any of the utterances—even in Posa's "king of a million kings"? The passion is located in the juxtaposition of essentially simple, more or less stylized words and movements, to force upon the audience a conception of something which might be said to "lie between the cracks" of anything said or done onstage. Hence, the form of a dramatic composition is as essential as the form of a non-Euclidean constructive geometry is to creative thinking in mathematical physics.

So it is with a configuration of individually simple tasks of labor, when those tasks are an essential part of a useful process of increase in the productive powers of labor (increase of potential population-density). It is not the acts per se which define what is special in this case. What is crucial is that the basing of the meeting of elementary household needs of consumption upon a process of production governed by generating, communicating, and efficiently receiving valid scientific and technological progress, defines the relationship of person to person in terms of those activated qualities of sovereign creative reason which are the resonators of natural law.

A family, a nation cannot live safely in a Christian household, while we permit the devil to reign in those economic processes to which the material existence of the household is kept hostage.

Let it be clear, the attempt led by the Anglo-American, liberal imperialist Establishment, to establish now, irrevocably, their neo-Roman, world-federalist "one world order," impels an increasingly brutalized, increasingly immiserated world into a kind of global "Thirty Years' War."

In this set of circumstances, as long as it appears to be the hegemonic trend, the tendency of Moscow, and elsewhere, is, in Kant's language, predominantly *heteronomic*, and that with increasing propensity for violence. Moscow, for obvious reasons, will prepare for the likelihood of global war, if, indeed, its military is not already doing so as slyly as is manageable under presently difficult circumstances.

In this circumstance, respecting nearly all of the territories recently within Soviet or Comecon borders, Soviet doctrine will be, in effect, *two steps backward, one step forward*. This would be, under that circumstance, the underlying, Muscovite strategic view of the Baltic states, Georgia, Ukraine, and so forth.

This strategic horror is the result of longstanding Anglo-American oligarchical (liberal) imperialist policy, as the foolish U.S. President Woodrow Wilson, London's Lord

Lothian, Chatham House, Bertrand Russell, and so forth expressed this. This liberal, neo-Roman, neo-malthusian imperialism, is the correlative of a pro-usury, oligarchical economic policy, synonymous with the "free trade" dogma. Thus, "free trade" means global tyranny and global warfare; the conditions in Eastern Europe would be determined accordingly.

If, instead, we unleash a general economic-development approach of the characteristics indicated here, a different state of affairs dominates Eastern Europe, and Europe's central position in today's depression-wracked world as a whole becomes a positive one for all humanity. Relations among nations, political as well as economic, would be susceptible to a corresponding sort of creative initiative.

Notes

1. Percy Bysshe Shelley, "In Defence of Poetry," in *Shelley: Political Writings*, ed. by Roland A. Duerksen, (New York: Crofts Classics, 1970), pp. 164-197.

2. It is to be stressed, that Grotius and John Locke represent typically a standpoint wholly antagonistic to the Christian conception of natural law.

3. Charles de Gaulle, *Memoirs of Hope: Renewal and Endeavor*, (New York: Simon and Schuster, 1971), p. 269.

In 1970, Charles de Gaulle wrote: "Thus, from every part of the world, people's attentions and preoccupations were now directed towards us. At the same time, on the Continent, the initiatives and actions that might lead towards unity emanated from us: Franco-German solidarity, the plan for an exclusively European grouping of the Six, the beginnings of cooperation with the Soviet Union. Besides this, when the peace of the world was at stake, it was to our country that the leaders of East and West came to thrash things out. Our independence responded not only to the aspirations and the self-respect of our own people, but also to what the whole world expected of us. From France, it brought with it powerful reasons for pride and at the same time a heavy burden of obligations. But is that not her destiny? For me, it offered the attraction, and also the strain, of an onerous responsibility. But what else was I there for?"

4. As elaborated by Nicolaus of Cusa in 1433 in the Latin treatise, *De Concordantia catholica*. An English edition has just appeared: *The Catholic Concordance*, by Nicholas of Cusa, trans. and ed. by Paul E. Sigmund, (New York: Cambridge University Press, 1991).

5. Other forms of music are "language," but more or less brutish, or brutalized degrees of musical illiteracy.

6. For Plato's references on constructive geometry, see "Plato's *Ti-maeus*: The Basis of Modern Science," *The Campaigner*, Vol. 13. No. 1, February 1980; or for Greek with English translation, see Rev. R.G. Bury, ed., (Cambridge, Mass.: Harvard University Press, 1966) and *Meno*, ed. by W.R.M. Lamb, (Cambridge, Mass.: Harvard University Press, 1966).

7. LaRouche, *In Defense of Common Sense*, (Washington: Schiller Institute, 1989), Chapters 2 and 3.

8. Friedrich Schiller, "What Is, and to What End Do We Study, Universal History?" trans. by Caroline Stephan and Robert Trout in *Friedrich Schiller, Poet of Freedom, Volume II*. (Washington: Schiller Institute, 1988) pp. 253-272.

9. See Carol White and Carol Cleary, *EIR Special Report*, "The Libertarian Conspiracy To Destroy America's Schools," April 30, 1986. See also Herbert Kohl, *Basic Skills: A Plan For Your Child, A Program for All Children*, (Boston: Little, Brown and Company, 1982) and E.D. Hirsch, Jr., *Cultural Literacy: What Every American Needs to Know* (Boston: Houghton Mifflin Co., 1987).

10. One among the proud founders of the malthusian Club of Rome,

former director of the Organization for Economic Cooperation and Development (OECD), Dr. Alexander King, provides a real-life example. Dr. King volunteered that his motive had been to rid the world of what he considered an excessive number of darker-skinned races. Bertrand Russell, like King, revealed his racist motives in books he wrote and caused to be published himself. Russell, like King, was spiritually a follower of the racialism of Cecil Rhodes and Charles Dilke.

In essence, King agreed with Russell's 1921 statement in *Problems of China* that "the less prolific races will have to defend themselves against the more prolific by methods which are disgusting even if they are necessary."

The motive of the "sincere malthusians," according to their own repeatedly stated account of the matter, is the practice for which we hanged Nazis at Nuremberg.

11. See *EIR*, Vol. 8, No. 25, June 23, 1981, "Club of Rome Founder Alexander King Discusses His Goals and Operations." On May 26, 1981, in an interview with *EIR*, Dr. Alexander King, Commander of the British Empire and of the Order of St. Michael and St. George who in 1968 was the director general for the Scientific Affairs Section of the OECD, an apparatus considered a subordinate feature of NATO but which is actually its policy controller, described the role of his office in helping to create the New Math, and shift students' focus away from problem-solving and into a more practical approach.

"We invented the whole question of curriculum reform, trying to teach mathematics and chemistry, etc. in new ways," said Dr. King. "We were very much criticized for this. The ministries of education were all culturally based. Education was something that passed down the riches of posterity to new generations, in their view. To tie education to the economic wagon seemed terrible."

12. Sol H. Pelavin and Michael Kane, *Changing the Odds: Factors Increasing Access to College*, (New York: College Entrance Examination Board, 1990). The study indicates that black and Hispanic students who take at least one year of high school geometry vastly improve their chances of getting into college and receiving a bachelor's degree. The study of almost 160,000 students found that the gaps between college-going rates of whites and minorities virtually disappeared among those who had taken a year or more of geometry. Author Sol Pelavin commented in the Sept. 24, 1990 *Washington Post*, "I think we're looking at something that is more basic than those other courses," and attributed the findings to the "logical-thinking skills taught in algebra and geometry."

13. God is a far more capable mathematician than such as the late Professors Norbert Wiener and John von Neumann.

14. Winston Bostick, "The Pinch Effect Revisited," in *EIR*, Feb. 8, 15, and 22, 1991, Vol. 18, Nos. 6, 7, and 8; (reprinted from *International Journal of Fusion Energy*, Vol. 1, No. 1, March 1977).

15. Arthur R. Jensen et al., "Environment, Heredity and Intelligence," reprint from *Harvard Education Review* (Cambridge, Mass.: Reprint Series No. 2).

16. In 1939, while working at Bell Telephone Laboratories, William Shockley began to study semiconductors as amplifiers. That work led eventually to the development of the transistor. Between 1942 and 1945, he did antisubmarine research. For their investigations on semiconductors and the discovery of the transistor effect, Shockley, J. Bardeen, and W.H. Brattain shared the 1956 Nobel Prize.

17. Then-Congressman George Bush invited William Shockley and his co-thinker, Arthur Jensen, to testify about their contention that blacks are genetically inferior to whites before the Republican Task Force on Earth Resources and Population on Aug. 5, 1969. In a statement published in the Sept. 5, 1969 *Congressional Record*, Bush reported on Shockley and Jensen's testimony, noting that the Aug. 5 hearings had focused on "the hereditary aspects of human quality" and "the environmental problems created by our rapid rate of population growth." Summarizing the testimony, Bush said: "Dr. Shockley stated that he feels the National Academy of Sciences has an intellectual obligation to make a clear and relevant presenta-

tion of the facts about hereditary aspects of human quality. Furthermore, he claimed our well-intentioned social welfare programs may be unwittingly producing a down-breeding of the quality of the U.S. population." During his congressional career (1967-70), Bush was in the vanguard of the drive to institutionalize population control as a key component of U.S. domestic and foreign policy, and personally sponsored the most important initial "family-planning" measures, including the Family Planning Services and Population Research Act of 1970, which sought to reduce the number of people on welfare by funneling taxpayers' money into Planned Parenthood clinics in poor areas.

18. Cabbalism is a form of Jewish mysticism and occultism first brought over into Christian culture by the Renaissance scholar Giovanni Pico della Mirandola, who adopted and propagated the belief that the Old Testament scriptures would disclose deep secrets if interpreted according to the Jewish cabbala.

Some of the prominent Englishmen involved in cabbalism in the sixteenth and seventeenth centuries were Robert Fludd (1574-1637), physician, mystic, and Rosicrucian who entered into controversy with Kepler; Henry More (1614-1687), theologian, leader of the so-called "Cambridge Platonists," who twice refused appointment as a bishop; Elias Ashmole (1617-1692), antiquary and astrologer who authored or edited Rosicrucian works, and whose collection of curiosities is preserved in the Ashmolean Museum at Oxford University; and Sir Isaac Newton (1642-1727), according to "Newton and the Wisdom of the Ancients" by Piyo Rattansi in *Let Newton Be!* (see note 19 below). Further clues to the employment of cabbalism as a medium of oligarchic thought can be gleaned from *The Third Language* by Lloyd Jones (Manchester, U.K.: University of Manchester Press, 1986).

19. John Maynard Keynes, the economist, identified Newton as "the last of the magicians, the last of the Babylonians and Sumerians" whose alchemy was "wholly devoid of scientific value." Keynes had purchased at auction a chest of Newton's papers, and reported on their contents in "Newton the Man" in the Royal Society's *Newton Tercentenary Celebrations* (Cambridge, U.K.: Cambridge University Press, 1947), pp. 27-34. It had been hoped by Newton's admirers that the chest would disclose evidence that Newton actually developed the calculus. This hope was dashed, and Keynes was instead shocked by the mumbo jumbo he found there. A new assessment of Newton in light of his obsession with magic and alchemy is *Let Newton Be!* edited by John Fauvel et al. (New York: Oxford University Press, 1988). Unlike Keynes, the authors are not shocked by Newton's occult interests, and argue the thesis—as familiar as it is false—that science emerges from magic.

20. Sir Isaac Newton, in his *The Mathematical Principles of Natural Philosophy*, (New York: The New York Philosophical Society, 1964), stated that "hypothesis non fingo" ("I don't make hypothesis"), and explained his reasons for this on grounds of induction versus hypothesis.

Newton wrote, in part: "In the preceding books I have laid down the principles of philosophy; principles not philosophical, but mathematical. . . . It remains that, from the same principles, I now demonstrate the frame of the System of the World. . . . For since the qualities of bodies are only known to us by experiments, we are to hold for universal all such as are not liable to diminution, can never be quite taken away. We are certainly not to relinquish the evidence of experiments for the sake of dreams and vain fictions of our own devising; nor are we to recede from the analogy of Nature, which uses to be simple, and always consonant to itself. We no other way know the extension of bodies than by our senses, nor do these reach it in all bodies; but because we perceive extension in all that are sensible, therefore we ascribe it universally to all others also. That abundance of bodies are hard, we learn by experience; and because the hardness of the whole arises from the hardness of the parts, we therefore justly infer the hardness of the undivided particles not only of the bodies we feel but of all others. That all bodies are impenetrable, we gather not from reason, but from sensation."

21. For a list of the relevant writings by Russell, see Carol White, *The New Dark Ages Conspiracy* (New York: New Benjamin Franklin House,

1980), pp. 365-390n. The writings of the late Bertrand Russell are models of one Oxbridgean style of laying on the rhetorical "lard." Witness Russell's success in recruiting so many avid admirers among those Indians and other "Third World" intellectuals of nations which Russell plainly proposed virtually to exterminate by means of famine and fostered epidemic disease.

22. There is more than a hint of *Les Bougres*—the Cathars-Bogomils, of the Manichean, and perhaps Templar Baphomet worshippers, too, in Cartesian formalism's gnosticism on the subject of matters relating to this topic of *deus ex machina*.

23. H. Graham Lowry, *How the Nation Was Won: America's Untold Story Vol. I: 1630-1754*, (Washington: Executive Intelligence Review, 1987), Chapter 4.

24. Hume's reported insanity was the reason for his family throwing him out of Scotland for the sake of appearances before the neighbors, into France, from whence he returned with the first version of his book.

25. Adam Smith, *Theory of Moral Sentiments*, 1759, (Glasgow: Liberty Classics, 1984) and Adam Smith, *The Wealth of Nations: An Inquiry into the Nature and Causes*, ed. by Edwin Cannan (Chicago: University of Chicago Press, 1977). See also David P. Goldman and Lyndon H. LaRouche, Jr., *The Ugly Truth About Milton Friedman*, (New York: New Benjamin Franklin House, 1980).

26. Adam Smith, *Theory of Moral Sentiments*.

27. Lyndon H. LaRouche, Jr., *In Defense of Common Sense*, pp. 67-110.

28. See Chapter VI.

29. For a fuller discussion of the strategic implications of the Diocletian decrees, see *EIR Special Report* "Global Showdown: The Russian Imperial War Plan for 1988," July 24, 1985.

Diocletian's reforms created an Oriental despotism of the most pervasive type, in which all aspects of life were most minutely controlled by the state. This was most evident in economic matters. The Codex Theodosianus of Roman and Byzantine law documents the obligation of every citizen to provide compulsory public service in the guild or corporation in which his father served. This was a class society, in which class status was inherited and enforced by administrative sanctions: No one was allowed to change his station or way of making a living. At the same time, the practice of each corporation or guild was rigidly fixed, also by imperial decree, according to "ancient custom." The affairs of shipmasters, breadmakers, charioteers, cattle and swine collectors, limeburners, wood transporters, and others were prescribed in adamant detail. This amounted in practice to an outlawing of any form of technological innovation, which would have interfered with the stability of the guilds and the value of their property, which could not be transferred or otherwise changed.

The case of George Gemisthos (Plethon)'s economic-policy counsel to the Paleologue dynasty highlights the point, that the early fifteenth-century, onrushing doom of dwindled Byzantium, reflected accumulated centuries of the de facto malthusian "decay," echoing the earlier demographic collapse of Rome and the West, and echoing also the "socialist, malthusian" characteristics of Diocletian's code.

30. For a fuller discussion of the implications of Skull and Bones' "old boy" network for U.S. policy-making, see "American Leviathan: Administrative Fascism under the Bush Regime," (Executive Intelligence Review Nachrichtenagentur GmbH, Wiesbaden, Germany, 1990).

The political power associated with Yale is associated with the infamous secret freemasonic lodge called Skull and Bones and the Russell Trust. Among the clubs of 15 graduating seniors "tapped" each year for Skull and Bones, we find such key Establishment figures as Col. Henry Stimson, a member of the Republican administrations of the 1920s, and later selected by Franklin D. Roosevelt as secretary of war in the bipartisan national unity cabinet that waged World War II. We find Averell Harriman; several Tafts, including William Howard, the man who became U.S. President in 1908; and former national security adviser, architect of the Vietnam War, Stimson biographer, and former chief Establishment spokesman McGeorge Bundy

of the Lowell clan of Boston. It is clear that Skull and Bones constitutes one of the most important avenues of advancement toward positions of power in the State Department and, after 1947, in the Central Intelligence Agency. The rituals and ceremonies of Skull and Bones remain secret, although it is well established that they involve the use of human remains.

Skull and Bones has recently fallen on hard times due to its "males-only" policy. The club has been suspended by its own board of alumni for a year rather than admit women into its ranks.

31. See "American Leviathan." The Population Crisis Committee/Draper Fund believes that population growth, particularly of non-white races, is a national security issue for the United States, and has promoted "population war," or the use of warfare to reduce population in the developing sector, as a national policy of the United States. Both William Draper, Jr., and William Draper III have had long "public service" careers and their policies have been promoted by George Bush since his first years as a congressman.

32. Wags may say this may account for tendencies for sodomy among some British social strata.

33. *Gottfried Wilhelm Leibniz, Philosophical Papers and Letters, Vol. II* trans. and ed. by Leroy E. Loemker, (Chicago: University of Chicago Press, 1956), "The Controversy between Leibniz and Clarke, 1715-16," pp. 1095-1169.

34. See Alfred O'Rahilly, *Electromagnetic Theory, A Critical Examination of Fundamentals, Vols. I and II* (New York: Dover Publications, 1965), republished from the original 1938 title, *Electromagnetics*, for documentation of Maxwell's falsifications with regard to the Weber-Gauss-Riemann electrostatics and Ampère's famous experiments (pp. 110-113, for example).

A more recent work detailing Maxwell's falsifications in this regard and reviewing experimental evidence which demonstrates this is Peter Graneau's *Ampère-Neumann Electrodynamics of Metals*, (Nonantum, Mass.: Hadronic Press, Inc. 1985). Possible major implications of this Maxwell falsification in terms of frontier scientific work is exemplified by the recent, controversial "cold fusion" experiments as seen, for example, in the recent paper, "Nuclear Energy Release in Metals," by F.J. Mayer and J.R. Reitz, *Fusion Technology*, Vol. 19, May 1991, pp. 552-557, with the report of the formation of virtual neutrons through the condensation of electrons on protons. That is, according to the Maxwell falsification, condensation of electrons onto protons to form virtual neutrons (hydrons) is impossible, while from the standpoint of the Ampère-Weber-Gauss electrostatics, and according to the detailed calculations of the late Dr. Robert J. Moon of the University of Chicago, it is possible.

35. "Maxwell's demon" is a hypothetical creature who controls a trap door over a microscopic hole in an adiabatic wall between two vessels filled with gas at the same temperature, as to supposedly decrease the entropy of the gas as a whole and thus violate the Second Law of Thermodynamics.

One should note, that the "Maxwell's demon" referenced by cyberneticist Prof. Norbert Wiener, is but another name for Descartes's *deus ex machina*.

36. See "Plato's *Timaeus*: The Basis of Modern Science," *The Campaigner*, Vol. 13, No. 1, February 1980.

37. We hear of the Bogomils for the first time in the tenth century A.D. in Bulgaria. In Bulgarian, *Bogomil* means "beloved of God" and it may be that their founder took this name. Among their beliefs is the characteristically gnostic one that the Father of Jesus Christ was not the creator of the world. For the Bogomils and later the Cathars, the power of the Devil worked through the nature and constraints of the material world. Since God the Father, it was believed, could not have created such an evil instrument (the world, that is), it was logical to suppose that the Devil (Satan) not only frustrated the intentions of God the Father, but had constructed the stage of the world for that very purpose. It was indeed a wicked world. To be bound to the world, then, was evil and the realization of the source of evil, coupled with the fervent desire to extricate oneself from it by virtuous practice in a religion of love and goodness, was salvation. One was redeemed to Heaven

by knowledge of the Good God. In short, matter and spirit were never meant to cohabit. This division and its corresponding principles of good and evil, light and darkness, is broadly called dualism—the doctrine of two opposing principles between which Man is pulled. See also Tobias Churton, *The Gnostics* (London: George Weidenfeld and Nicolson Ltd., 1987).

Although Catharism spread across southern France and northern Italy, it was especially prevalent in Languedoc, to the extent that the condemnation of heretics by the Council held in the town of Albi in 1176 led to their being generally known as Albigensians. The heresy had its roots in much older religious movements but no precise date can be assigned to its first appearance in Languedoc; its end, however, was another matter. In 1244 Catharism and all it stood for came to a violent and catastrophic end with the fall of Montségur. On March 16, 1244, more than 200 Cathar "Perfects"—heretics in the eyes of the Catholic Church—were taken from the castle of Montségur in the foothills of the Pyrenees and burned alive in the fields below.

The most important of all Cathar ceremonies was the *Consolamentum*, the Baptism of the Spirit by which the Credent was admitted membership of the Church and became a "good" Christian. These alone possessed the truth and virtue which Christ conveyed to His Apostles and which had been transmitted solely by the intermediary of the Cathars. The *Consolamentum* is at once baptism, absolution, and ordination. The essence of it is the communication of the Holy Spirit by the laying on of hands. But the Holy Spirit thus received was not conceived by the Cathars as that of the Trinity. It was rather that individual portion of the Holy Spirit for which the soul had been separated at its fall into matter which was now restored to the soul at its liberation from the bondage of matter.

Catharism claimed to be the only true expression of Christianity, grafting selected parts of Christian doctrine upon an ancient dualism that rejected utterly the humanity of Christ. Thus the Cathars denied the doctrine of Atonement, rejected large parts of both Old and New Testaments, and condemned Popes, priests, and sacraments alike. See also Walter Birks and R. A. Gilbert, *The Treasure of Montségur: A Study of the Cathar Heresy and the Nature of the Cathar Secret*, (The Aquarian Press, 1987.)

Both Cathars and Albigensians were basically followers of the religion of Manicheism, which began in Bulgaria and found its way into northern Italy and the southern part of France. Their chief was Manes. He was born about the year A.D. 216 and was crucified and flayed alive by the Persian magi under Bahram I in the year A.D. 277. His Persian name was Shuraik. See Lady Queenborough (Edith Starr Miller), *Occult Theocracy*, (California: The Christian Book Club of America, 1933). Attracted in his youth to the Manichean cult, St. Augustine condemned it after his conversion to Christianity in A.D. 386.

38. Lyndon H. LaRouche, Jr. "Presidential Campaign Paper Number 5: Military Policy of the LaRouche Administration," published in *New Solidarity*, Aug. 18, 1979.

In February 1982, at a two-day conference sponsored by *Executive Intelligence Review*, this author proposed that the United States and Russia agree that each would proceed with the most rapid possible development of space-based relativistic beam weapons capable of destroying "the proverbial 99%" of all nuclear-armed ballistic missiles in flight; and further agree that such weapons would be employed as part of a policy commitment to thus destroy nuclear weapons fired anywhere in the world by any nation. "EIR Conference Bursts Intelligence Myths," *EIR*, Vol. 9, No. 9 March 9, 1982. See also, Lyndon H. LaRouche, Jr., "Only Beam Weapons Could Bring to an End the Kissingerian Age of Mutual Thermonuclear Terror," Policy Discussion Memorandum (National Democratic Policy Committee, 1982).

39. For the Soviet rejection of President Ronald Reagan's March 23, 1983 proposal to make "nuclear weapons impotent and obsolete" through a U.S.-Soviet sharing of beam defense technologies, see "World Council of Churches Conclave: A First-hand Report," and "The Two Military Faces of Yuri Andropov," *EIR*, Vol. 10, No. 33, Aug. 30, 1983; "Beam-weapons Strategy Relaunched at Erice Conference"; "The Soviet Union Threatens Pre-emptive Nuclear War"; and "Open Letter to Yuri Andropov: You Have Chosen to Plunge the World into War," *EIR*, Vol. 10, No. 35, Sept. 13,

1983.

The final rejection of President Reagan's offer came of course in the form of the shooting down of the civilian plane KAL-007 by the Soviets on Sept. 1, 1983. See "Moscow Goes on a Global Rampage," and "U.S. Policy toward Moscow after the KAL Incident," in *EIR*, Vol. 10, No. 36, Sept. 20, 1983.

40. On April 9, 1977, Maj. Gen. George J. Keegan, Jr., speaking under the auspices of the American Security Council, gave his honest professional assessment of the present strategic situation: "The Soviets on a war-winning philosophy . . . are 20 years ahead of the United States in its development of a technology which they believe will soon neutralize the ballistic missile weapon. . . . They are now testing this technology.

"The intelligence community was consistently wrong in its estimate of the development of broad-based Soviet science," Keegan continued. "When people talk about technological superiority in this country, they are talking about potential and futures that have not yet been bought and paid for, distributed and manufactured and deployed to our forces. . . . I object to the failure to observe the normal checks and balances, of letting the public know, letting the leaders know, letting the press know, and letting the full range of uncertainties be in the open—lest we make the kind of mistakes that have gotten us into every war this country has ever been in."

See *Aviation Week*, March 28, 1977 and *New Solidarity*, April 12, 1977, "Air Force General Admits: Soviet Technology '20 Years Ahead of U.S.'" In the fall of that year, LaRouche commissioned the publication of a report from the Fusion Energy Foundation, "Sputnik of the 70s: The Science Behind the Soviets' Beam Weapon."

See also, Carol White, *The New Dark Ages Conspiracy*, Chapter 2; and Lyndon H. LaRouche, Jr., "Only Beam Weapons Could Bring to an End the Kissingerian Age of Mutual Thermonuclear Terror"; "The LaRouche Doctrine: Draft Memorandum of Agreement between the United States and the U.S.S.R. *EIR*, Vol. 11 No. 15, April 17, 1984; and "Global Showdown," July 24, 1985.

41. For a list of the relevant works by Bertrand Russell, see Carol White, *The New Dark Ages Conspiracy*, pp. 365-390n, and *EIR Special Report* "The Trilateral Conspiracy Against the Constitution: Fact or Fiction?" 1985.

42. In October 1946, Bertrand Russell, father of the so-called peace movement, wrote an article in the *Bulletin of the Atomic Scientists* advocating the creation of a totalitarian world government "to preserve peace":

"When I speak of an international government, I mean one that really governs, not an amiable façade like the League of Nations or a pretentious sham like the United Nations under its present constitution. An international government . . . must have the only atomic bombs, the only plant for producing them, the only air force, the only battleships, and, generally, whatever is necessary to make it irresistible. . . .

"The monopoly of armed force is the most necessary attribute of the international government, but it will, of course, have to exercise various governmental functions . . . to decide all disputes between different nations, and will have to possess the right to revise treaties. It will have to be bound by its constitution to intervene by force of arms against any nation that refuses to submit to arbitration."

43. Russell, in an article titled "Humanity's Last Chance" (*Cavalcade*, Oct. 20, 1945), called for the creation of a world confederation under American tutelage, and in sole possession of nuclear weapons. The Soviet Union would be offered a place in the confederation, but "if the U.S.S.R. did not give way and join the confederation . . . the conditions for a justified war would be fulfilled. A *casus belli* would not be difficult to find." See also White, *The New Dark Ages Conspiracy*, pp. 72-73.

44. The "fulcrum" used to establish the Pugwash Conference as a "back-channel" for negotiations designed by British and Soviet agencies involved to rope influential U.S. accomplices into complicity was the World Association of Parliamentarians for World Government, or WAPWG.

In response to persisting offers from Russell and Leo Szilard, four official Soviet delegates were sent to the 1955 London conference of

WAPWG. This event set into motion the Fabians' launching of the Pugwash Conference series, and the adoption of Russell's proposed nuclear deterrence agreements by the New York Council on Foreign Relations, the launching-point for Kissinger's career in diplomacy.

See also Lyndon H. LaRouche, Jr., "How Kissinger Tricked President Nixon on Soviet Beam Weapons," and Lex Talionis, "The Pugwash Papers: Kissinger Imperiled U.S. National Security: Suppressed Evidence on Soviet E-beam Program," *EIR*, Vol. 10, No. 22, June 7, 1983.

45. For Dr. Leo Szilard's proposed arms control arrangements preparatory to world-federalist government at the second, Quebec Pugwash Conference of 1958, see "Global Showdown," Appendix, "Leo Szilard's 'Pax Russo-Americana.'" "

46. For the text of Henry Kissinger's May 10, 1982 address, titled, "Reflections on a Partnership: British and American Attitudes to Postwar Foreign Policy," before the Royal Institute of International Affairs, see *EIR*, June 1, 1982, Vol. 9, No. 21.

47. As Kissinger bragged later, in his May 10, 1982 Chatham House address, during his time in the Nixon and Ford administrations, Kissinger was in fact operating often behind the President's back, as an agent of influence of the British foreign intelligence establishment.

In that May 10 address, Kissinger said, "The ease and informality of the Anglo-American partnership has been a source of wonder—and no little resentment—to third countries. Our postwar diplomatic history is littered with Anglo-American 'arrangements' and 'understandings,' sometimes on crucial issues, never put into formal documents. . . . The British were so matter-of-factly helpful that they become a participant in internal American deliberations, to a degree probably never before practiced between sovereign nations. In my period in office, the British played a seminal part in certain American bilateral negotiations with the Soviet Union—indeed, they helped draft the key document. In my White House incarnation then, I kept the British Foreign Office better informed and more closely engaged than I did the American State Department—a practice which, with all affection for things British, I would not recommend be made permanent. But it was symptomatic. . . . In my negotiations over Rhodesia I worked from a British Draft with British spelling even when I did not fully grasp the distinction between a working paper and a Cabinet-approved document."

48. The fictional "Dr. Strangelove" played by Peter Sellers in the famous film was modeled principally on Szilard's address to the second Pugwash Conference of 1958.

49. Henry A. Kissinger, *A World Restored: Metternich, Castlereagh and the Problems of Peace, 1812-1822*, (Boston: Houghton Mifflin, 1973).

Stanza II of "The Masque of Anarchy: Written on the Occasion of the Massacre at Manchester" reads:

"I met Murder on the way—
He had a mask like Castlereagh.
Very smooth he looked, yet grim;
Seven blood-hounds followed him;

Shelley Poetical Works, ed. by Thomas Hutchinson (London: Oxford University Press, 1970).

50. Henry A. Kissinger, *Nuclear Weapons and Foreign Policy*, ed. by Philip Quigg (New York: W.W. Norton & Co., 1969).

51. The two translations of the first edition are: *Military Strategy*, first edition, with an introduction by Raymond L. Garthoff (New York: Praeger, 1963; London, Pall Mall Press, 1963), and *Soviet Military Strategy*, first edition, Trans. and with an analytical introduction, annotations, and supplementary material by Herbert S. Dinerstein, Leon Gouré, and Thomas W. Wolfe (Englewood Cliffs, N.J.: Prentice-Hall, 1963).

Soviet Military Strategy, third edition, edited by V.D. Sokolovskii, trans., edited, and with an analysis and commentary by Harriet Fast Scott (Moscow: 1968; Stanford: Stanford Research Institute, 1975), p. 298.

Whereas the first edition had contained numerous references to beam-related weapons, the third edition deleted all such references, which may explain why the Soviets delayed making the third edition publicly available

by as much as 16 months. At that time, there were ongoing efforts by the United States to have defensive missile systems included in any future arms reduction talks. Moscow most probably had received assurances from its allies among the U.S. presidential advisory community that the White House was hooked on the fraud of the ABM Treaty and would not be informed of Soviet efforts in the field of directed-beam weapons systems.

52. *Ibid.*

53. "EIR Conference Bursts Intelligence Myths," *EIR*, Vol. 9, No. 9, March 9, 1982.

54. *Ibid.*, see also *A Program For America*, The LaRouche Democratic Campaign, 1985, p. 130.

55. Lyndon H. LaRouche, Jr., "The Difference between LaRouche's and Teller's Role in Creating SDI," *EIR*, Vol. 13, No. 38, Dec. 5, 1986.

56. In that April 24, 1983 interview in *Der Spiegel*, Andropov's first widely publicized interview with a Western publication, then Soviet Communist Party General Secretary Yuri Andropov reiterated his full-scale rejection of defensive beam weapons.

57. Proposed in 1982 were four successive upgradings of a global strategic ballistic missile defense, the deployment of each separated from the other by an estimated three to five years. For a summary of this proposal, see "How Beam Weapons Would Spur Recovery," in *EIR*, Dec. 28, 1982, Vol. 9, No. 50; and Lyndon H. LaRouche, Jr. *The Power of Reason: 1988* (Washington, Executive Intelligence Review, 1987), pp. 239-240. For a summary of the potential "spill-over effects" of this proposed program, see *EIR Quarterly Economic Report, The Recovery That Never Was*, April 15, 1985.

Mark I, estimated at 1982 dollars \$200 billion, would be the use of systems based upon new physical principles to provide a margin of strategic defense acting, in effect, as enhanced strategic deterrence without increasing the "hair trigger" factor; *Mark II*, would be the deployment of supplementing elements of strategic defense, developed at the same rate of investment as *Mark I*; then *Mark III*; then *Mark IV*. *Mark IV*, deployed about the end of the twentieth century, or slightly later, would be a full-blown global strategic defense. The "payback," via the federal tax-revenue base's increase, from economic "spill-overs" into the civilian sector, should hold the total cost of *Mark I-IV* to not more than the initial 1982 dollars \$200 billion outlay or investment.

58. An "SDI" based upon "kinetic-energy systems," such as the Lt. Gen. Daniel Graham's proposed "High Frontier," is not a workable system, physically or economically.

59. E.g., a proposal for a Paris to Vladivostok railway.

60. "Negative" is used here in the sense "negation" is central to Kant's dialectic of "practical reason" (as in the second part of his *Critique of Practical Reason*). This Kantian negativity of the term "peace" is rightly projected also upon all uses of the term, such as "peace agreements," which are consistent with the term "social contract."

61. The reference to "Tavistockian" is to British Intelligence's psychological warfare section's London Tavistock Clinic and Tavistock Institute. The clinic, which was founded and built up in the pre-World War II decade, under leadership of Brig. Gen. Dr. John Rawlings Rees, Dr. Eric Trist, et al., is among the principal coordinating centers for "New Age" attacks upon Christian civilization, especially since the 1963 launching of mass recruiting for the drug-sex-rock and neo-malthusian counterculture inside the United States of America. "Cultural paradigm-shift" was used among such professional social-planners' circles to describe inducing of deep changes in belief, induced in populations, to the purpose of shifting apparently "instinctive" popular values, away from a Christian, to a Dionysian world-outlook of practice.

62. Anton Chaitkin, *Treason in America*, second edition (New York: New Benjamin Franklin House, 1984), Part II, "The True Story of the Civil War."

63. Konstantin George, "The U.S.-Russian Entente That Saved the

Union," *The Campaigner*, No. 2, 1978, pp. 5-33.

63. *Ibid.*

64. *Ibid.*

65. Chaitkin, *Treason in America*, pp. 256-259, and Paul Kreingold, "Grant and Mexico: When the U.S. Had a Republican Military Policy," March 23, 1990, *New Federalist*.

66. For Abraham Lincoln's last public address, see Allen Salisbury, *The Civil War and the American System: America's Battle with Britain, 1860-1876* (New York: Campaigner Publications, 1978), pp. 247-251.

67. For a full account of the shift in French foreign policy, see Carol White, *The New Dark Ages Conspiracy*, pp. 36-79, and Georges Michon, *The Franco-Russian Alliance: 1891-1917*, (New York: Howard Fertig, Inc., 1969).

By way of explanation, the events of 1898-1904 are the relevant events in France and in French-English relations, so we say "circa 1900."

In June 1898, French Foreign Minister Gabriel Hanotaux was replaced by Théophile Delcassé, who had consistently worked to isolate Hanotaux in the cabinet, and had set up the forced French backdown before Britain in Fashoda, Egypt. Delcassé used the ironical end to the Dreyfus Affair to destroy the last remnants of his predecessor's policy.

Indeed, after first initiating the ill-fated expedition of Captain Marchand to Fashoda in Egypt, Delcassé forced France into a humiliating withdrawal in front of advancing British troops. By 1899, Delcassé had accepted a treaty with the British establishing "spheres of influence" which totally excluded France from the Nile Valley. As part of the package, Delcassé reinterpreted Hanotaux's "Dual Alliance" with Russia into a policy of aggressive encirclement of Germany. The shift was completed with Delcassé's signing of the secret "Entente Cordiale" with Britain in 1904.

68. Carol White, *The New Dark Ages Conspiracy*, Chapters 1-3.

69. Allen Salisbury, *The Civil War and the American System* p. 248. On April 11, 1865, in his last public address, on the subject of Louisiana's re-entry into the Union, Lincoln said, "Some twelve thousand voters in the heretofore slave-state of Louisiana have sworn allegiance to the Union, assumed to be the rightful political power of the State, held elections, organized a State government, adopted a free-state constitution, giving the benefit of public schools equally to black and white, and empowering the Legislature to confer the elective franchise upon the colored man. Their Legislature has already voted to ratify the constitutional amendment recently passed by Congress, abolishing slavery throughout the nation. These twelve thousand persons are thus fully committed to the Union, and to perpetual freedom in the state."

70. In 1902, Germany, Great Britain, and Italy surrounded and launched a naval bombardment of Venezuela followed by a blockade to collect their debts. Roosevelt's administration publicly acquiesced to this action and only complained in order to turn the incident into anti-German propaganda.

Roosevelt perverted the original anti-imperialist intent of John Quincy Adams's Monroe Doctrine with his infamous Roosevelt Corollary, which attempted to arrogate an international police power to the United States. This police power was then repeatedly used for purposes of debt collection in the service of Anglo-American and other international bankers, with a typical script including the seizure of the customs-houses of the country in arrears and the use of import duties to pay the international creditors.

71. In the presidential election of 1912, Theodore "Teddy" Roosevelt ran a third-party campaign known as the Bullmoose Party, which split the Republican vote and thereby ensured that Woodrow Wilson would be elected over Republican incumbent William Howard Taft. Much as the Liberty Party had been created around the issue of anti-slavery in 1844, solely for the purpose of denying the presidency to Henry Clay, Roosevelt's Bullmoose or Progressive Party effort centered around Roosevelt's "new nationalism," an anti-monopoly, anti-corruption corporatism, was a diversionary effort to throw the election to the Harriman-controlled Wilson.

APPENDIX A

'Anthropomorphic science'

Since we did not desire to narrow our audience to exclude non-specialists in the following matter, the author has chosen to relegate to this appended section the treatment of certain topics relevant to Chapter VI, "The reproduction of man." To indicate the fuller scope of relevance of the technical difficulties addressed in this Appendix, we excerpt two passages from a writing by Max Planck.

In his 1947 scientific autobiography (New York: Philosophical Library), Max Planck writes (pp. 144-145):

It could be maintained that a relationship possessing such profound significance as the causal connection between two successive events ought to be independent by its very nature from the human intellect which is considering it. Instead, we have not only linked, at the very outset, the concept of causality to the human intellect, specifically to the ability of man to predict an occurrence; but we have been able to carry through the deterministic viewpoint, only with the expedient of replacing the directly given sense world by the picture of physics, that is, by a provisional and alterable creation of the human power of imagination. These are anthropomorphic traits which ill-befit fundamental concepts of physics, and the question therefore arises whether it is not possible to give the concept of causality a deeper meaning by divesting it as far as it can be of its anthropomorphic character, and to make it independent of human artifacts, such as the world picture of physics.

Now we come to a second quote (pp. 149-150):

The law of causality which immediately impresses the awakening soul of the child and plants the untiring question, "Why?" into his mouth, remains a lifelong companion of the scientist, and confronts him constantly with new problems. For science is not contemplative repose amidst knowledge already gained, but is indefatigable work and an ever-progressive development.

The fact, that a "non-anthropomorphic science" is a contradiction in terms, did not prevent that catch-phrase from gaining today a widespread, and stubbornly persisting popularity within academic and other strata. In the chapter from which we have just quoted, Planck is much too generous with his positivist adversaries on this point. A more precise treatment of the issue bears directly on the material within Chapter VI, above.

First, a matter of terminology.

To define the word *science* in the first approximation, we restrict initial inquiry to the domain of so-called *physical science*, or, earlier, *natural philosophy*. It is useful, because of a relevant dispute between the followers of Leibniz and the Kantians, to equate physical science, in first approxima-

tion, to the nineteenth-century usage of the German term *Naturwissenschaft*. Later, we shall complement our initial case by integrating the remaining aspect of science in general: what is named in German, *Geisteswissenschaft*.

The term, *modern physical science*, covers the period of, initially, European history beginning the early fifteenth century's, Italy-centered *Golden Renaissance*. By modern physical science so defined historically, we signify what is better described as physical geometry, a study of physical principles from the standpoint of demonstrable geometrical constructions.

The essence of *physical economy*, and therefore also of *political-economy*, is subsumed in conception by the single fact of the human species' absolute separation from, and superiority and proper dominion over, all other species of organic and inorganic processes. Unlike the animal species, mankind exists by means of a process expressed as scientific and technological progress.

This fact, this process of scientific and technological progress, is tested in practice by the yardstick of human-reproductive requirements. As we have already indicated in the text above, these requirements are associated with the need for a rise in the average, per capita, physical-productive powers of labor, and also a corresponding increase in the physical standard of human consumption, longevity, and health combined. This requires coordinate improvements in nature, to the effect that those improvements, combined with a rise in per capita productivity, represents a durable, continuing rise in the potential population-density of the human species.

Those facts summarized, lead us to the following proofs respecting the essential characteristics of human scientific knowledge. These proofs bear directly upon the relationship between Christian principles and sound principles of economy.

As we have identified that policy in the text above, everything we say rightly respecting the potential scientific-creative powers of the individual human mind, is also implicitly a statement respecting the role and activity of those same processes in the generation of classical artistic beauty. With that point so emphasized once again, we proceed as follows.

As is shown in other published locations, the ordering of scientific progress consistent with increase of mankind's potential population-density is an ordering susceptible of intelligible representation. This intelligible representation of the principle of that successive ordering, is itself out of the character of a cardinal notion, a *transfinite cardinality*. Strictly speaking, the name of physical science ought to be restricted in definition by direct and exclusive reference to this notion of transfinite cardinality.

At this point, we ought to take our conscious processes, in progress here, socratically, as objects of our consciousness. We have just shown, implicitly, that the idea of "objective science" is a contradiction in terms, an absurdity. We

have just said, implicitly, that absolute scientific truth exists only *subjectively*! We have said, implicitly, that ~~there~~ exists no science, or possibility of knowledge by any person, apart from the subjective instrument, the individual creative reason, by means of which socratic method, scientific knowledge of the transfinite cardinality is acquired.

Let us describe this process as follows.

First, through either crucial experimental or equally significant observation, we discern some *axiomatic* flaw in principles of established physical science. The identity of such a flaw is sought by means of the same method permeating Plato's socratic dialogue. The *Parmenides* dialogue is a beautiful, and relatively simple, illustration of this method.

Second, this socratic treatment of established physics implies hereditarily efficient axioms and postulates, points us toward a potential form of creative solution through the detected error. That solution is in the form of an hypothesis, as hypothesis is explicitly and implicitly defined by Plato's dialogues as a whole.

Third, this hypothesis is subjected to either crucial-experimental or comparably significant tests. This test is initially addressed to the particular case or cases which had led us to discover the axiomatic error in established physics. If the result of that is satisfactory, we must also test the appropriateness of the hypothesis for physics in general.

Fourth, if the latter shows the hypothesis not only to correct the prompting error, but to increase practically the power of physics in general, the new principle is established, and the activity leading to the success is viewed as a successful revolution in physics.

This increase in the power of physics means a demonstrable sort of potential increase of the power of the human species over the universe as a whole. This measurement is implicit in terms of *rate of increase of potential population-density*.

Such a success is a reflection of the *divine spark of reason* sovereignly situated within the individual personality. In other words, this is that *Minimum*, the creative individual, the Leibnizian *monad*, which is in relationship to the *Maximum*, the Creator.

As is shown among my published locations treating this matter, the successive successful revolutions in physical science, insofar as they are cases rigorously in conformity with what we have illustrated by the step-wise form, just above, defines within science historically a series of transformations which do satisfy this requirement. The revolutionary work of Cusa, Leonardo da Vinci, Kepler, and Leibniz is exemplary. This typifies the notion of succession of successful scientific revolution. That notion of succession implies the relevant notion of a governing, *transfinite* ordering. The notion of that self-developing ordering as a cardinality, is the proper notion of *science in general*.

That *science in general*, is associated with man's potential power over the universe. Thus, as long as we adhere

to this rigor, the idea of separating the subjective from the objective is absurd. There exists nothing "objective" outside the realm of this rigorous kind of "subjectivity."

There is no possibility of a true science which is not of this rigorously *subjective*, or "anthropomorphic" form. We see, in science, efficient forms of *subjective* certainty of the Creator's universal natural law. By that means, we increase the potential population-density of our species *in this universe as a whole*. The implicit increase of potential population-density is the proof of the *anthropocentric* experiment on which even the mere possibility of science depends. Since this science is produced by the sovereign faculty on which account the individual person resembles the Creator, the potential creative reason, the only possible form of science is in that image, that *anthropomorphic* image.

APPENDIX B

Physics and natural law

The characteristic flaws of modern classroom opinion on the subject of science, are chiefly, that in virtually all instances, these opinions are *empiricist* and therefore *reductionist*, and in all but a dwindling minority of cases frankly *radical-positivism*. For purposes of illustration, two summarized cases are chosen as examples here. The first, is the fact, that although the formulation of Newtonian gravitation is a simply algebraic parody of Kepler's Third Law, Newtonian physics is subject on this point to a pervasive folly called the "three-body" paradox.¹ The second is the reductionist's refusal to recognize the most crucial kind of importance of non-algebraic functions in shaping the internal history of mathematical physics.

As viewed today, the first mathematical physics, that of Johannes Kepler, is shaped, in effect, by the corollary of the "hereditary principle," that the existence of a single case of a theorem required by nature, requires a corresponding theorem to be implicit in whatever corresponds to an underlying, integral, indivisible set of axioms and postulates of science (mathematical physics) as a whole.² The relevant point permeates Kepler's three principal works,³ and appears, as a central feature, in the "Snowflake" paper.⁴ That is key to understanding the Newtonian blunder underlying the three-body process, and addresses thus implicitly the objections which might arise to our use of the "book of nature."

As the success of Kepler's "missing, exploded" planet, illustrates the point,⁵ the Keplerian laws are derived from the construction in which available planetary orbits are not left undetermined. In the London Royal Society's algebraic manipulation of Kepler's Third Law to derive a formula for Newtonian gravitation, the "hereditary principle" of Keplerian physics is disregarded, thus generating the "three-body" paradox.

That "hereditary principle" is a fact, adduced by Leonardo da Vinci et al., that the universe includes living processes, which are harmonically ordered, in morphology of growth and function, in implicit harmony with the Golden Section. This is the characteristic feature of *action* in Keplerian mathematical physics which defines action within the universe as reflecting a specific physical space-time curvature of the universe as a whole, in contrast to the simplistic error of Descartes, Newton, et al., in presupposing a *linear* space, time, matter manifold.

The relevant general import of this first example, is that *reason*, whose action here is centrally expressed as the corollary of the "hereditary principle," shows the mere existence of a *crucial phenomenon*—in this illustration, the da Vinci-Kepler harmonic topology of all living processes—to be sufficient to define an aspect of universal natural law.⁶ This example demonstrates the dangerous absurdity of Isaac Newton's famous motto, "I don't make hypotheses." To reject an hypothesis, is to reject all hypotheses but those embedded in one's own peculiar choice of blundering ignorance. Newton, for example, adopted his own policy in defiance of the avail-

able (e.g., Kepler's) evidence, and thus, as a result, stumbled into "three-body" paradox.

The second example to be considered here, is the proper view of the discovery of *physical least action* and isochronic qualities located within non-algebraic geometries as two facets of the same, one concept. The discovery of these qualities by Christiaan Huyghens, Leibniz, and Johann Bernoulli, was *explicitly* the foundation of Leibniz's calculus; the rejection of the cycloid-related non-algebraic functions by the Cartesians and Newtonians is analogous to the nature and consequences of Newton's blundering into the "three-body" paradox.

Look at the physics of the *tautochrone* and *brachistochrone*, as Huyghens, Leibniz, and Bernoulli viewed this successively.⁷ Here is the germ of not only a large family of constructions based upon multiply-connected circular action, but these constructions are also the determination of a mathematical physics of Leibnizian *physical least action*. Or to state the corollary point, these physical principles which are common to all processes of a definitely curved physical space-time, are thus susceptible of a constructible, and therefore *intelligible representation*.

That said, turn attention to the central ontological issues of classical Greek and Hellenistic philosophy, from Pythagoras through Archimedes. As Plato and Archimedes, and Nicolaus of Cusa after Archimedes, exemplified this, the Platonic dialectic treatment of the universalist issues of ontology and form of process of knowing, is best fostered by situating the propositions to be examined in the context of such an effort to supply intelligible representation by means of a proper selection of *transfinite* "hereditary principle" of geometrical construction.

It is the case, that for physics as physics, the generation of the non-algebraic family and its functions, is the most appropriate method of such intelligible representation.

Now, to close the circle, to sum up the point immediately at issue. We reject the notion that the authority of the "book of nature" is extended to the reductionist view of physical science in general or to the modern positivist views in particular. Add the following important observation.

The common characteristic of the practice of law under Adolf Hitler and the U.S. federal courts today, is radical positivism in law. For Nazi Germany, the forerunners are Prof. Karl Savigny and Karl Schmidt. For fascist trends in the U.S. law-practice today, the authors are the British empiricists: Hobbes, Locke, Hume, Adam Smith, Jeremy Bentham, and John Stuart Mill, for example.

The Nazis cried, "All is permitted!" The Anglo-American liberal empiricists propose a global neo-malthusian mass murder ("population control") vastly more extensive and savage than that of the 1920s-1940s Harriman-Hitler "eugenics" movement.⁸

The argument to be made against the more obvious objections to our "book of nature" is summarized as follows.

The fundamental laws of our universe are imbedded for human reason's knowledge in respect to the principles of hypothesis formation which we bring to observation of crucial empirical evidence. The use of crucial experimental evidence to explore the question of the validity of the hypothesis-forming functions, is the universalizing aspect of rigorous scientific thinking. This is the classical method of such as, notably, Plato, Cusa, Leonardo da Vinci, and Leibniz, for example. The principle of hypothesis-formation tested experimentally in this way, is of the form of a higher order *Cantorian transfinite*. The higher reality under which that latter transfinite is subsumed, is itself a transfinite ordering-principle of yet a higher order.

By knowing these three levels, the immediate generation of hypothesis, the higher hypothesis, and the hypothesis of the higher hypothesis, we make each and all of these three directly the subject of our conscious reason. We know each of these levels *consciously*, by means of constructing a geometrical or analogous intelligible representation of each, and also of the relationship of each to each and all. To say that, is simply to supply a succinct description of the dialectical method of classical philosophy as Plato, Cusa, and Leibniz exemplify that practice.

In the chapters following the preface, the branch of physics which is the Leibnizian science of political-economy is presented in its essentials, from the standpoint of those features which are crucial in such a way as to bear more or less directly upon a constructible form of intelligible representation of *natural law*, upon the ecumenical content of the "book of nature."

Notes

1. Lyndon H. LaRouche, Jr., *In Defense of Common Sense*, (Washington: Schiller Institute, 1989) Chapters 3-5, and *Verteidigung des gesunden Menschenverstandes, Kommentar*, (Wiesbaden, Germany: Dr. Böttiger

Verlags-GmbH, 1990) pp. 157-193. See also above, Chapter 7, notes 7 and 8.

2. Lyndon H. LaRouche, Jr., *In Defense of Common Sense*, pp. 11-42.

3. Johannes Kepler's three principal works are *Mysterium Cosmographicum*, *The Secret of the Universe*, trans. by A.M. Duncan, (New York: Abaris Books, 1981); *Harmonices Mundi*, (*The Harmonics of the World*); and *Astronomia Nova, Astronomie Nouvelle*, (Paris: Librairie Scientifique et Technique Albert Blanchard, 1979.) (The frontispiece of the 1609 French translation of *The New Astronomy* continues, "explaining the causes of heavenly physics presented by the commentaries on the movements of the planet Mars on the basis of observations of the illustrious Tycho Brahe.")

4. Johannes Kepler, *The Six-Cornered Snowflake*, trans. by Colin Hardie, with the Latin text on facing pages, and essays by F.J. Mason and L.L. Whyte (Oxford: Clarendon Press, 1966).

5. Lyndon H. LaRouche, Jr., *In Defense of Common Sense*, Chapters 3-5, and *Verteidigung des gesunden Menschenverstandes, Kommentar*, pp. 157-193. See also above, Chapter 7, Note 9.

6. See Max Planck, *Vom Wesen der Willensfreiheit*, (Frankfurt am Main: Fischer, 1990), p. 35. For comparison, consider the definition from Max Planck's 1949 "Zur Geschichte der Auffindung des physikalischen Wirkensquantum": "Was mich in der Physik von jeher von allen interessierte, waren die grossen allgemeinen Gesetze, die für sämtliche Naturvorgänger Bedeutung besitzen, unabhängig von der Eigenschaften der an den Vorgängen beteiligten Körper." ("What I was interested in in physics from the beginning mostly were the great universal laws which are important for all natural events independent of the properties of the bodies participating in this event.")

7. Christiaan Huyghens, *The Pendulum Clock*, (1673), and then the Bos translation, Ames, 1986, and Jean [Johann] Bernoulli, "On the Brachistochrone Problem," D.E. Smith, *A Sourcebook in Mathematics*, New York, 1959, pp. 644-655.

8. Not only did the U.S.A.'s Skull and Bones lodge brothers Averell Harriman and Prescott Bush perform important collaborating roles in putting Adolf Hitler into power in quasi-occupied Germany in 1932-1933, the Harriman family, with shameless openness, avowed the sympathy by the Harriman-led eugenics movement in the U.S.A. with the Nazi Party's "racial purification" policies.

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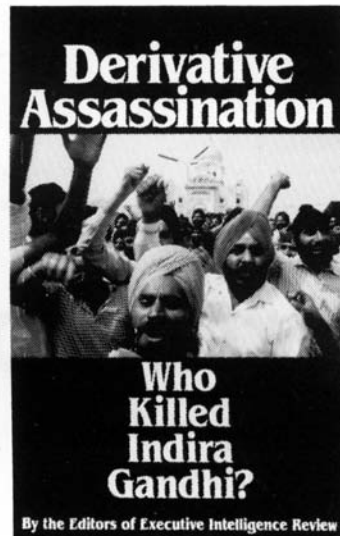
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