EIR

Executive Intelligence Review

August 27, 1999 Vol. 26 No. 34 $10.00

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LaRouche's forecasting: How to tell the future

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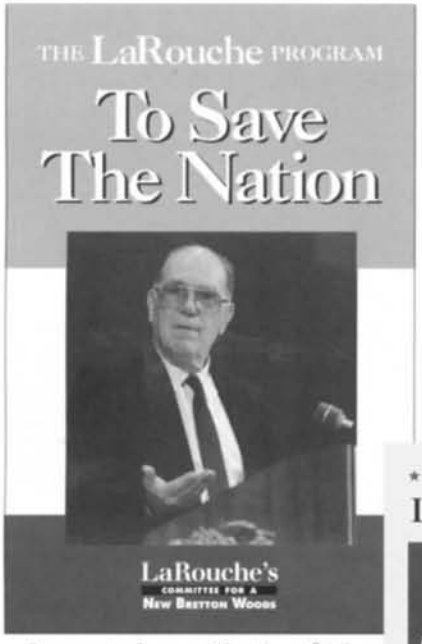

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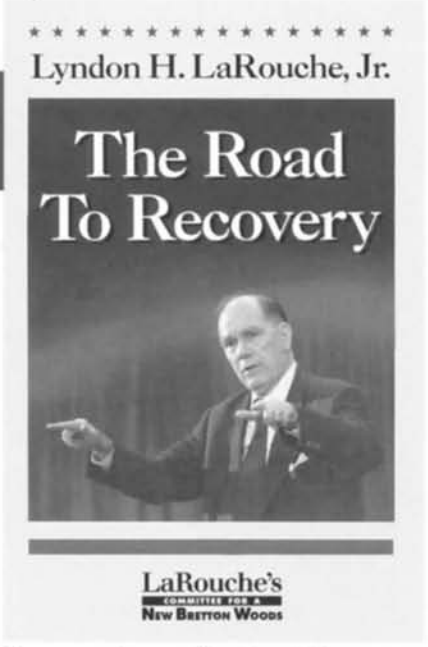

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EIR (ISSN 0273-6314) is published weekly (50 issues) except for the second week of July, and the last week of December by EIR News Service Inc., 317 Pennsylvania Ave., S.E., 2nd Floor, Washington, DC 20003. (202) 544-7010. For subscriptions: (703) 777-9451, or toll-free, 888-EIR-3258.
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Japan subscription sales: O.T.O. Research Corporation, Takeuchi Bldg., 1-34-12 Takatanobaba, Shinjuku-Ku, Tokyo 160. Tel: (03) 3208-7821.

Domestic subscriptions: 3 months—$125, 6 months—$225, 1 year—$396, Single issue—$10

Postmaster: Send all address changes to *EIR*, P.O. Box 17390, Washington, D.C. 20041-0390.

EIR

From the Associate Editor

It has come to my attention that some among our subscribers have allowed their *EIR*s to pile up on the coffee table, having read the news coverage, but waiting to "have time" to read those "difficult" articles by Lyndon LaRouche. At the rate at which LaRouche is turning out ground-breaking articles, you'll be left behind very soon, if you do that!

Yes, these are "heavy ideas." But LaRouche's entire life's work has been dedicated to the proposition that the creative process *can be made intelligible*. Unlike the pathetic Immanuel Kant, who built an entire philosophical system around his belief that it was not; or, the cultist Isaac Newton, who denied that human creativity is at all relevant to the rest of the universe. In this week's issue, LaRouche's "How to Tell the Future" deals directly with the question of why his own record in economic forecasting is so far superior to that of other so-called economic analysts.

Remember when you were 25 years old, and believed you *could learn anything*, if you put your mind to it? (Some 25-year-olds think they *already* know everything; but that's a different matter!) Rekindle that spirit in yourself and others, and you will find that, indeed, LaRouche's optimism about the human spirit is well-founded.

Proving, once again, that the universe is coherent, we also have in this week's issue a *Science & Technology* feature, by Jonathan Tennenbaum and Jacques Cheminade, which serves as a perfect complement to what LaRouche writes (as if the editors had planned it that way!). The two authors develop a highly accessible pedagogical example of the scientific process as LaRouche describes it: the work of physicists Augustin Fresnel and André-Marie Ampère. If you have never quite grasped, in reading *EIR*, exactly why the textbooks are all wrong about Newtonianism, you will understand it after you read this.

As for the news coverage in this issue, I suggest you start with the good news of the LaRouche Presidential campaign's filing for Federal matching funds (page 74). LaRouche's political enemies are already hysterical, as evidenced by the lying statement by an official of the Federal Election Commission, quoted in an AP wire. The current factional brouhaha in Great Britain also has LaRouche at its center, as Mark Burdman reports.

Susan Welsh

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Science & Technology

Economics

A young scientist at the Von Braun Observatory in Huntsville, Alabama.

Volume 26, Number 34, August 27, 1999

International

National

How to tell the future

by Lyndon H. LaRouche, Jr.

August 14, 1999

Feature

Forget the faked market statistics. The past week's reports of the troubles afflicting leading Swiss banks, have crushed the previously lingering hopes among the professionals, that the onrushing, global financial crash which I have forecast might still be prevented.

Compulsive gamblers and all other desperately wishful fools aside, the past two weeks insiders' reports, have shown, that serious market analysts are worrying less about the market, than what happens to their personal physical security, when it might be the turn of some fellow in their office to uncork a wild shooting spree.

Consider some typical facts. First, the British monarchy, which presently dominates more than ninety percent of the world's present, international financial system, has announced internal military-security plans, its operation "Surety," anticipating a violent social crisis expected for the United Kingdom during the period from September 9, 1999, through the end of the year. Meanwhile, an international conference of psychiatrists, meeting in Hamburg, Germany, this past week, examined the deadly mental-health problems lurking, too often unsuspected, among people speculating in the world's financial markets.[1]

Around the world, the warning-signs are abundant. The Japan "yen carry trade," which was a key factor in the August-October 1998 near-meltdown of the world's financial system, is, once again, a bubble near the bursting-point. Now, the "gold carry trade," launched just this past Spring, has joined the "yen carry trade," among notable motives for panic in relevant financier circles. The "Euro," which had been collapsing in price since it was launched, at the beginning of 1999, is being propped up by the money fleeing into Europe from the U.S.A. That recent flight of investments out of the U.S., was encouraged by talk of a much feared, upcoming Wall Street financial collapse, which many financial analysts are saying, openly, may reach levels of between 25% and 40%, or more, below current prices.[2]

Given the present level of collapse in the general moral quality of the U.S. and European populations, in particular, over the course of the recent decades, there is a great likelihood, that under the kinds of sudden financial crises and their effects which we must expect now, there will be sudden eruptions of both spontaneous and orchestrated forms of extreme, homicidal violence, by individuals and mobs of various sorts. Wiser minds say, "Forget the financial system; it's almost as good as gone. Worry about what happens when the financial system goes under, and that very soon."

Meanwhile, all of the key physical measures of foreign trade balances, production, and per-capita market-basket physical income of the U.S. economy, and those of the rest of the Americas, Africa, and Europe, are down—way down by comparison with 1987-1989, and also with the 1970s. The

1. The World Conference of Psychiatrists, meeting in Hamburg, Germany in mid-August, discussed the "Irrationality of the Stock Market Mania" as part of its official proceedings. See also, Lyndon H. LaRouche, Jr., "Star Wars and Littleton," ***EIR,*** July 2, 1999.

2. Other, circumstantially confirmed operations have used such sources of encouragement to attempt to fix the value of the Euro, somewhat upward, at a desired short-term level.

looting of the physical assets of basic economic infrastructure, farms, factories, and net savings of households, in a desperate effort of financial interests to keep the financial bubble from collapsing, has brought these looted sectors of the real economy, way, way down, and falling rapidly.

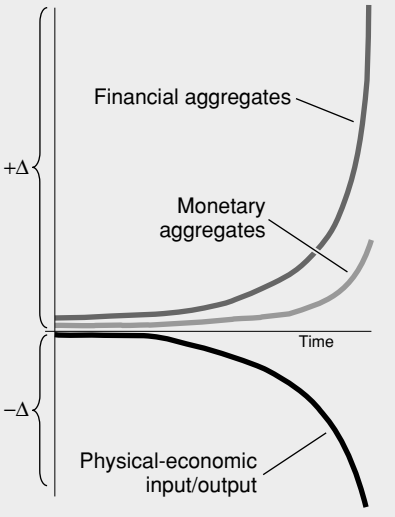
Forget the lying statistics fabricated and issued by certain Federal Reserve System, U.S. Government, and like sources. Behind the faked figures, the real data, on both financial markets and the real economy, are not only down, down, down, but represent the period since February 1999 as the deepest down-turn of the 1990s so far. Look at the increasing spread between discount-rates on corporate and U.S. Treasury bonds, for example, to understand why leading financial institutions' reading of the real figures—not the faked statistics admired by the ***Wall Street Journal***—has the top circles trembling in fear.

Do not be duped by the recent, cultish "millennium bug" side-show, the so-called "Y2K" panic. I always regarded Cobol as a costly folly, even back during the early 1960s, but that is not the cause of any danger to the world financial system come January 1, 2000. The reason a mountain—a virtual Mount Everest—of cheap credit is being built up for the last four months of 1999, is not "Y2K." The carefully cultivated rumor, that this credit build-up is for "Y2K" problems, is simply a cover-up of the fact, that this build-up of a tidal wave of cheap, "printing press" money for the coming months, is actually in anticipation of a coming, global financial blow-out which is already a rotten-ripe potential of the existing world financial system. The only situation which might possibly occur, which would require financial bail-outs on the scale of the emergency funding now announced, would be the biggest financial crash in history, occurring before the end of this year.

The collapse in the real economy of nations—their physical economy, is to be seen as my "Triple Curve" depicts the characteristic feature of the post-1971 world economy [**Figure 1**]. In net effect, the real economy, the physical economy, of most of the world's area, has been looted at increasing rates, looted to feed a cancer-like financial sector.

That looting, is the means on which the continued existence of the present financial system depends. That diseased financial system, is a cancer feeding on the real economy, consuming that body, in its desperate effort to support the world's post-1971 "floating exchange-rate monetary system." During the past two decades, as the world's real economy has been looted, more and more, to feed that financial cancer, the world's financial system has been characterized by a financial fever of combined austerity measures, junk bond plunderings, endless, "Woodstock-style" orgies of hedge-fund gambling, and sundry forms of predatory mergers and acquisitions.

FIGURE 1
A typical collapse function



Thus, in the U.S.A., the recent soaring of the Wall Street Dow-Jones Index and growth of mutual funds, for example, is not to be seen as a sign of prosperity, but directly the opposite. This so-called "boom"—in financial-asset-price hyperinflation—is actually the highly elevated fever that signals, and will bring about the financial system's approaching collapse and death, a sickness which has been named by Federal Reserve Chairman Alan Greenspan as "irrational exuberance," which Germany's former Chancellor Helmut Schmidt has recently described, more simply and appropriately, as psychotic behavior of the marketeers.[3]

Now, this past week, the announcement of major losses by leading Swiss banks, answers the question, "Where can I put my money for safety." Now, the answer seems to be, "Nowhere."[4] The big and smart money has already been en-

3. In an interview with ***Welt am Sonntag*** published on Aug. 1, Helmut Schmidt said, "Presently, many people are enthusiastic about the United States. But these people do not realize that the stock market boom is totally over-valued, and that there are psychopaths who are driving the stocks upward. It is only a question of time for the boom to come to an end, and for stock values to go down the hill—just as it happened in Japan."

4. Rumors are flying of huge derivatives losses by the Union Bank of Switzerland and Crédit Suisse, wrote Zürich-based financial expert Heinz Brestel in an editorial in the German daily ***Frankfurter Allgemeine Zeitung*** on Aug. 12. According to these rumors, which resulted in sharp declines of UBS and

gaged for some time, in a panicked effort to transform itself into gold and other physical assets of types expected to outlive the coming financial meltdown.

The urgent questions now, are only three. 1) How shall we keep the world's economic system—its real economy, its physical economy—functioning, under the condition that the financial systems of western Europe and the Americas are hopelessly bankrupt? 2) What radical changes must now be made, and that very quickly, to create a new monetary and financial system, and launch a genuine economic recovery? 3) From whom shall such urgently needed, expert advice come? Who has a proven record of competence on such economic issues?

In answer to all three of these questions, the following must be said.

Although there have been, and are other intelligent economists, the only statistically proven, scientific method of long-range economic forecasting is my own LaRouche-Riemann Method. The importance of this fact is shown by the evidence, that, even today, when the present world financial system is about to go over the cliff, there are still those, even among professional economists, who have come now to recognize, that the world's financial system is at the brink of new threats of "meltdown," but who, nonetheless, refuse, even now, to accept the most critical evidence as to the root-nature and causes of the presently ongoing, hyperinflationary mode of the monetary-financial collapse.

Like the Miniver Cheevy of Confederacy buff Teddy Roosevelt's favorite poem, these erring economists have their "reasons," as we shall point out here.

The issue today, goes way beyond, "Which economists made the best predictions—and, also, which, like Vice-President Al Gore, the worst."[5]

Even when, during the months just ahead, the now inevitable collapse is being entered into the future history books, there will still be those, including many of today's leading names in the teaching of economics, who still raise their same old objection to my forecasts, this time to my proposed recovery program. They will base that continuing objection on the same old shopworn delusions, which have been the source of the time-worn incompetence of their past objections to my repeatedly confirmed forecast of the ongoing crash-trend. Up to this point, but for relatively rare exceptions, virtually all academic economists and governments have thus shown themselves to have been consistently wrong, not only in their forecasts, but, more importantly, in their incompetent definition of the way in which a modern economy functions.

Now, when the onrushing doom of the present world's financial system has become undeniable by all but those persons driven mad by this reality, the continuing issue will take a new form. Now, sane people will ask, "What is the correct *method* for forecasting, *either* a general financial crash, or an economic recovery from that crash?" I answer that question as follows.

1. What can we forecast?

Re-phrase the previous question: To what degree can economists—any economists—foretell the future? Can we expect that anyone could make a simple, unqualified, rational form of prediction, that a certain price will reach a certain exact level on a certain date?

The answer to that question is, "Mere accidents aside, obviously not." To at least a certain degree, human intervention can, within certain limits, willfully nullify any such unqualified prediction. Powerful governments can intervene to such effect. Those powerful financial agencies, which rig what is called, most curiously, the present-day "free market," rig prices of markets—and also governments—as their customary way of—for example—making a profit on price-speculation in so-called "futures markets."

Nonetheless, there have repeatedly been cases in which some people have accurately forecast financial collapses, as I have forecast the presently ongoing one. After each such forecasted crash, in my own and other confirmed forecasts, it has been shown, not only that the crash occurred as some economists had repeatedly forecast, but, also, that the crash was either caused, or, more often, merely triggered, by more or less exactly the factors on which the forecaster had based his earlier, qualified warnings.[6]

Nonetheless, despite such evidence of the precedents for the presently onrushing financial crash, such as the examples of the Seventeenth-Century tulip bubble, or the early Eighteenth-Century John Law-style bubbles, there are some wild-eyed liberals and other mystics, who insist, still today, that if the market is kept as free as the Mont Pelerin Society's dogma of "the invisible hand" demands, everything will ultimately work out for the best, in exactly such unknowably wonderful ways, as those which snake-oil peddler Adam Smith insisted,

CS stock prices on Aug. 10, the two biggest Swiss banks suffered from the dramatic increase of bond yields in recent months, and lost several billion dollars due to speculative transactions at the Cayman Islands.

Although the report was denied by representatives for the UBS, Crédit Suisse-First Boston, in deep trouble with its Japan operations, declined to affirm or deny. ***EIR*** sources affirmed the rumored "hit" suffered by Switzerland's banks to be true.

5. On the record, Al Gore ranks with the absolutely worst, most illiterate personalities in matters of economic forecasting. Poor Al can not even predict past events competently.

6. The case of J.M. Keynes warning against the outcome of the policies adopted by the predatory victors at the Versailles conference, in his ***The Economic Consequences of the Peace*** (New York: Harcourt, Brace and Howe, 1920), is a useful example. Today, even economists with whom I disagree fundamentally, as I do with Keynes, may happen to draw sound conclusions about some of the medium- to long-term consequences of a bad policy.

exist only in some magical domain, beyond human comprehension.[7]

Yet, despite those wild-eyed believers in the greedy little god of "the invisible hand," each of my long-range forecasts, since the beginning of the 1960s, has been right exactly to the degree of precision which I have claimed for it. Then, if I am right in my method of long-term forecasting, as I have been so far, and if all economists who opposed me have been wrong, as they have been so far, can we assume, from that evidence alone, that my policies can forecast an economic recovery, and that the policies of my political opponents can not?

You answer that question: "Not necessarily so," and you are right to say so. Too many people are taken in by their own irrational faith in so-called experts. Credulous people look at experts as a child looks at a milk-cow. The cow produces milk by means which the child regards as more or less magical.[8] The cow is, for that child, an "expert" at producing milk. Most adults, like those children, look at the economics profession in a similarly irrational, more or less superstitious way, as secreting "expert" advice in the manner a cow produces milk. Superstitious people depend upon their faith in such experts, whether those supposed experts are competent or not.

You are right to insist, that other evidence, other than the simple fact that I have been proven expert in correctly forecasting such past developments, would be required to make my case. I summarize that other evidence here.

Successful forecasting is not so simple that it would allow us to make a bare, unqualified prediction. Nonetheless, there is a direct connection between the way I have successfully forecast the most important such crises of the past nearly thirty-five years,[9] and the way in which I am prepared to forecast the general direction of the happy results of the global monetary reform which I have named "a New Bretton Woods" system. When those facts are considered, my past successes do point toward the evidence which supports my argument for the way an economic recovery may be organized, even now.

The first fact to consider, is that *I have never simply "predicted" an event. I am no witch. I have always specified the qualified conditions under which a certain type of event was almost certain to occur, or not occur*. The source of the attempts to deprecate my forecasts, has usually been the obviously fraudulent way in which my would-be detractors have attempted to misrepresent my forecasts. I have always insisted, "Unless we change the presently prevailing policies in the following way, we are now approaching the following event as early as . . . " The self-styled "critic" usually became extremely agitated at that point, insisting that I predict a certain event as of a certain date, *whether the presently prevailing policy-trends, on which my forecast was based, were changed, or not*. In other words, the fraudulent argument of that would-be detractor, was his insistence that I practice magic, not scientific forecasting. That fraud has been typical of them.

All those defenders of so-called "liberal economics" insisted, that programs of deregulation, "free trade," and "globalization," would ensure a successful economy. They even insisted that a growth of the financial cancer, such as a rise in the Dow-Jones index, is a sign of healthy prosperity. The onrushing financial debacle has proven them all so terribly wrong on those points.

The second, related fraud from such quarters, has been the sophistry, "If you are right, then why do almost no economists agree with you?" My answer to that paralogism, is simple: "If the doctrines of all the most influential economists, to whom you refer, were not, not only incompetent, but indeed radically in error, the world's economy, which has been shaped by their advice, would not be in the desperate mess it is in today."

For example, remember, that I forecast, repeatedly, beginning the end of the 1950s, that, *if the world's policy-shaping trends of the 1950s were continued into the middle of the 1960s,* the last half of the 1960s would experience a series of monetary crises, leading into a crash of the then-existing world monetary system. *Those global trends, which I had pinpointed by my studies of the economic policy-shaping of the 1953-1961 Eisenhower years, were continued as long-term trends, throughout most of the 1960s,* with the resulting November 1967 collapse of the British pound, and the March 1968 collapse of the U.S. dollar. Those crises, and the Penn-Central, Chrysler panic of 1970, were followed by the breakdown of the entire post-war, Bretton Woods monetary system in mid-August 1971.

That is typical of what I mean by the term "long-term forecasting."[10]

Note, that the reason my 1960-1971 forecast succeeded as it did, was that, even with the brief improvements in U.S. policy under President John F. Kennedy, the long-term trends of the 1960s were, overall, those I had adduced from the policy-trends of the 1954-1961 interval.

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7. Actually, as Al Gore's Wall Street financial backers could reveal to you, the only "invisible hand" in the U.S. economy, is Wall Street's hand, in your pocket. Adam Smith's (and Al Gore's) kookish definition of the "invisible hand," is to be found in his 1759 ***The Theory of the Moral Sentiments.*** From no later than 1763, Adam Smith was a lackey of Lord Shelburne, a member of the same stable of East India Company lackeys as Shelburne's Jeremy Bentham.

8. Of course, that child is a marvel of sanity when compared with the housewife, or others, who insist that it is the "free market," rather than the farm, which produces milk.

9. Since the British monetary devaluation of November 1967 and the dollar devaluation of March 1968.

10. Generally, in my usages, a short-term forecast is for a lapse of time of up to two years, usually one year or less. A medium-term forecast covers a period of not less than three to five years. A long-term forecast usually signifies a lapse of time of not less than seven years, and may include a period of up to thirty or more years.

Recall, if you are young enough to have remembered, that, until mid-August 1971, virtually every academic economist teaching in U.S. universities had absolutely insisted that the so-called "built-in stabilizers" of the system made such a crash impossible. The irony of their folly was, that the so-called "built-in stabilizers" of the post-World War II IMF system had been the tough regulatory measures instituted under Franklin Roosevelt's "New Deal" and the pre-1958 phase of the post-war international monetary order. It was precisely those most essential "built-in stabilizers," which these economists were insisting be gutted.

Of course, then as now, there were also those witless gossips, who taught that financial crashes occur only because some people "talk us into one." So much for the kookish variety of Economics 101 taught to virtually every university student of the recent forty and more years!

Remember, if you are old enough to do so, that within the weeks immediately following the August 1971 break-up of the old Bretton Woods system, I issued a new long-term forecast, issued under the title of "Depression Ahead?" I warned that, *if the new trends set up by President Nixon's foolish decision, the combination of austerity measures and a "floating exchange-rate monetary system," were the continued standards for policy-shaping,* the world economy, in its present, new, post-1971 form, would pass through a series of crises leading toward disintegration of the system as a whole. I indicated the causes underlying such a long-range forecast, by pointing to the role of the physical economy—the real economy—often more hidden than revealed by the published statistical portrait of the money economy.

That view of the policy-conflict between real economy—physical economy—and post-1971 monetary and financial policy, is now demonstrated fully to have been a correct assessment of what has happened over the subsequent nearly thirty years. That is the proverbial "bottom line" for what is happening now.

The lesson to be learned from those and my other successes in long-range forecasting, is, that *the ability to forecast long-range economic trends, depends upon a correct identification of the set of definitions, axioms, and postulates, which underlie the way in which successive, even radical changes in policy-making will be shaped over the relevant period ahead.* The only cause for the cyclical forms of financial crashes, is that influential people swindle governments, other economic institutions, and the population more widely, into blind faith in a certain "generally accepted" set of definitions, axioms, and postulates, a set of axiomatics which is, in fact, not only false, but, ultimately, more or less fatally so.

For example: The interrelated dogmas of "free trade" and "the invisible hand" are outrightly superstitious, anti-scientific dogmas, based on nothing but a combination of cheap parlor tricks and blind faith. The reason most people refuse to recognize that present trends in policy-making are leading toward a foreseeable crisis over the long-term, is that they refuse to recognize that their own beliefs are wishful self-delusions, rooted in false opinions about what they believe, and wish policy ought to be.

The only remedy for such an economic catastrophe, such as the presently ongoing doom of the world's present financial system, is to dump the existing set of "generally accepted" axiomatic assumptions, and adopt an appropriate new one. It is the refusal of institutionalized opinion to recognize a wrong prevailing policy, a wrong generally accepted opinion, which causes a society to continue travelling down the road to some awful new crisis, and it is through the tragic insistence of that opinion, that we must continue that misguided belief, that generally accepted opinion destroys entire nations, or nearly so.

Here, I shall show you how that works. Once you have understood the proof of the point I have just made, you will know the gist of the way in which successful economic forecasting works.

I shall address this proposition on two levels. First, I shall describe the problem of defining the physical principles involved in constructing a forecast. Second, I shall explain why it is not sufficient to consider only those physical principles. One must also focus upon the political-cultural factors which will cause societies to continue to cling to opinions which will, alternately, save them, or ruin them, the latter option almost up to the very end, or beyond.

A lesson from geometry

Ancient and modern witch-doctors' reading of animal entrails, Professor Milton Friedman, and ouija boards put aside, modern civilization inherited the idea of a rational kind of economic forecasting from physical science.

The scientific forecasting of any kind of future physical events, began in prehistoric times, with the construction of solar-astronomical calendars, and with the use of related methods for transoceanic and related navigation. As you might observe simply by reading an ancient design of the Zodiac, what such ancient astronomers and navigators observed, was the regularity of changes in positions which could be measured, not as straight-line connections, but as angular movements.

Those ideas of forecasting, which we have from such earlier historic societies as the Vedic calendars of Central Asia, the astronomy of Egypt, and the ancient, pre-Roman, Greek and Hellenistic astronomers and navigators, are the point of origin for the notion of *universal physical laws* which extended European civilization has inherited, and developed still further, up to the present day.

Never let sophists' tricks mislead you into overlooking the obvious. What does angular measurement in astronomy and navigation mean? It means that even the earliest stages of physical science began with the notion, that the laws of the universe describe the lawful distance between two observed points *in physical space-time,* as an *intrinsically* curved path-

way, not that straight-line pathway proposed by such fellows as Paolo Sarpi's personal household lackey Galileo Galilei, or by Abbot Antonio Conti's "Trilby" Isaac Newton.[11] In other words, a curved orbital pathway of a planet, moon, or comet, is not the result of forces acting along straight lines, at a distance. Regular orbital pathways are the result of the fact, first proved empirically by Kepler, and later by Carl Gauss, that physical space-time itself is intrinsically curved, and that each orbit is defined by its own specific, inherently curved, orbital characteristic of the Kepler-Leibniz-Gauss-Riemann type.[12]

The ancient Greeks, such as Plato, defined the physical universe in terms of spherical action, rather than straight-line pathways.[13] Cardinal Nicholas of Cusa founded modern experimental physical science on an elementary fresh proof of that point, using geometry.[14] After Nicholas of Cusa, Kepler was the next modern thinker who revived the ancient, pre-Roman, Greek civilization's knowledge, that the Earth orbitted the Sun.[15] On such premises, Kepler founded the first modern mathematical physics on the evidence which confirmed Plato's ***Timaeus.*** After Kepler's proofs for the Solar System, Huyghens, Leibniz, Bernouilli, Gauss, Riemann, et al., defined regular lawful action in our universe on the basis of regular action of non-constant curvature — and not as straight-line action, not as Galileo and Newton defined "action at a distance."

Thus, when these and related, most crucial facts of the history of physical science are taken into account, we must agree that the usual way most European classrooms today teach Classical Euclidean geometry is fraudulent in effect, even when such bad instruction is negligent, rather than intentionally a hoax. Most recent decades' classrooms have taught Euclid in ways which were directly contrary to the basis on which the ancient Greeks developed Euclidean geometry, the latter which was the same basis used by Plato and such successors of Plato as Eratosthenes. Today's commonplace falsification of Euclid was done in the effort to make it appear that Euclidean geometry agreed with what are called the "radically reductionist" doctrines of such fellows as Aristotle, Galileo, Descartes, and Newton, rather than the most crucial empirical evidence of both known ancient and modern physical science.

In the passing century's U.S. secondary and university classrooms, for example, Euclid was usually mistaught in ways intended to suggest, as most generally accepted classroom mathematics does, that one must accept as given, a set of definitions of space and time implied by the fraudulent assumption defended by caught-out hoaxster Maupertuis and his defender, Euler, that the shortest distance in physical space-time is along what most classroom teaching of Euclid-

A Hellenistic Greek astronomer in Alexandria, Egypt, in the Second Century B.C. "The principled notion," writes LaRouche, "that man's increase of power in the universe is orderable, is defined in respect to the 'clock' provided by regular curvature in astronomical processes."

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11. The correspondence of Galileo refers explicitly to the fact that Galileo's ideas about science were those given to him, by personal instruction of the powerful Venetian Paolo Sarpi, who employed Galileo as a lackey of his personal household. It was the same Sarpi who used England's Sir Francis Bacon as one of his agents, and the same Galileo who educated Bacon's intimate Thomas Hobbes in mathematics. Newton was elevated from relative obscurity by the intervention of the Paris-based, powerful agent of Venice, Abbot Antonio Conti. It was Conti, acting through a Europe-wide network of his controlled assets, such as Dr. Samuel Clarke and Voltaire, who created the Eighteenth-Century myth of Isaac Newton.

12. This is the Kepler-Gauss-Riemann notion which Albert Einstein adopted as a point of reference for his own later, more refined notions of General Relativity in a Riemannian form of physical space-time which is "self-bounded."

13. See Plato's treatment of the Platonic Solids, in his ***Timaeus,*** in ***Plato: Vol. IX,*** Loeb Classical Library (Cambridge, Mass.: Harvard University Press, 1975).

14. ***De docta ignorantia*** (***On Learned Ignorance***), trans. by Jasper Hopkins as ***Nicholas of Cusa on Learned Ignorance*** (Minneapolis: Arthur M. Banning Press, 1985). Cusa's exposure of a crucial error in Archimedes' method for defining the ratio of the perimeter of a circle to the circle's diameter, thus defined regular action in the universe in terms of regular curvature, rather than straight-line connections.

15. Johannes Kepler emphasized his crucial indebtedness to the scientific discoveries of Nicholas of Cusa, and to the students of Cusa's founding of modern science, Luca Pacioli and Leonardo da Vinci.

ean geometry defines for the simple-minded as a straight line. That same, false, but generally accepted classroom mathematics, is the basis upon which all incompetent forms of statistical economic forecasting have been based, up to the present time.

Competent modern physical science rejects absolutely the widely taught misrepresentation of the Leibniz calculus, the linear fallacy presented to credulous students as the "limit theorem" of the celebrated hoaxster Augustin Cauchy. This is the same fraud introduced by such earlier hoaxsters as Galileo Galilei, René Descartes, Isaac Newton, Leonhard Euler, et al. The same hoax was defended even by a modern physicist as famous as Professor Felix Klein, in Klein's exaggerated claims for the work of Euler, Hermite, and Lindemann respecting the definition of the so-called transcendental. All of these fallacious systems are based upon the assumption that all physical relations in the universe can be ultimately derived, mathematically, from the absurd assumption that the straight line is the pathway of least action in physical space-time.

Not only are linear systems false, in and of themselves. Such beliefs as Cauchy's widely taught, radically linearized version of the taught calculus, also act as very efficient delusions. In their character as not merely misled persons' wrong beliefs, but vicious, systemic delusions, they not only uphold false beliefs, but blind the victims of such delusions, such as the followers of Bertand Russell and his clones Norbert Wiener and John von Neumann, to the most elementary principles of scientific progress, including those of competent mathematical forms of long-range economic forecasting.

It is in precisely this area of scientific method, that the supposed secrets of successful long-range economic forecasting lie. This is even more true for forecasting of successful designs for economic recoveries and growth, than it is indispensable for understanding the causes of crises such as the presently unfolding one.

By "scientific work," including the work of long-range economic forecasting, one signifies a body of knowledge premised upon a process of discovery of ever more, experimentally validatable, universal physical principles. This signifies not only the process of discovery of such validatable principles, but a view of that willful relationship of mankind to the universe as a whole, which is based upon the methods by means of which such discoveries of universal principle have been generated, up to any present time.

In effect, a linear mathematical view of physical science suppresses the most crucial features of the work of physical science, the work of discovering and validating universal physical principles. Once one understands this issue, and only then, is it possible to understand the deep reasons for my relatively unique success as a long-term forecaster.

Faiths contrary to reason

As Bernhard Riemann emphasizes the crucial point, in the opening of his celebrated 1854 habilitation dissertation. In Europe until that time, the teaching and practice of geometry were based on purely arbitrary, axiomatic assumptions concerning the meaning of the terms space, time, and matter. These false assumptions were defined as *a priori,* or "self-evident" definitions and axioms, arbitrary assumptions, such as those of Immanuel Kant's series of *Critiques,* customarily superimposed upon reality, rather than derived from it.

For our purposes here, these false assumptions, such as those of both Kant and G.W.F. Hegel, are fairly classified under the heading of "faiths contrary to reason." What I shall describe in the following paragraphs may shock you, but understanding those several points will enable you to understand why relatively few practicing economists have been effective long-range forecasters.

The fatally flawed, relatively popular method, which is derived from blind faith in such axiomatic assumptions, locates observed phenomena within a purely fictitious domain of space, time, and matter, as that conjectured domain is defined by the purely arbitrary, straight-line definitions and axioms of a generally accepted classroom version of geometry in particular, and of mathematics more broadly. To the degree that the relatively more popular classroom methods of mathematical argument (e.g., formulas), are subsumed under a principle of universal deduction, such a mathematics, based upon the array of definitions and axioms of a quasi-Euclidean geometry, confuses the victim's mind to the following effect.

The victim assumes falsely, that the arbitrarily assumed, deductive connection among those sense-certainties treated, respectively, as cause and effect, represents the primary form of physical relations in space-time, as that of straight-line connections. That victim tends to assume that the relationship between the two phenomena is either percussive, or of the form of "action at a distance." Hence, all such more popular ways of thinking, including many falsely called "non-linear" today, are axiomatically linear, "ivory tower" systems.

That kind of commonly taught, more popular assumption, is the first cause for the pervasive falseness inhering in today's teaching of generally accepted classroom mathematics, and of statistical economic forecasting. This cause is rooted in the adoption of an arbitrary set of *a priori* definitions and axioms.[16] These definitions and axioms have a systemic, pernicious effect on the thinking of the victim, even if that student is unaware of the planting and existence of such induced axiomatic assumptions in his, or her own deeper, axiomatically controlling mental processes.

The second, complementary source of falseness, is the popular failure to accept the authority of experimentally validated universal physical principles, as the axioms which must

16. The doctrines of "mathematical economics" derived from a melding of the legacy of Leon Walras and the positivist Lausanne School, with the systems of solutions for simultaneous linear inequalities which charlatans have derived from John von Neumann's and Oskar Morgenstern's ***The Theory of Games and Economic Behavior,*** are examples of this kind of folly.

replace, entirely, the *a priori* sets of definitions and axioms which are more commonly taught in universities, still today. This popular ideological contamination of mental life, is the problem which must be understood, and conquered, as a precondition for any rational comprehension of the means by which a generalized increase in the average productive powers of labor is made possible. The proof of the importance of overcoming this commonplace, and extremely important problem, is expressed in either the case in which increase of those productive powers is suppressed, or, conversely, happily, in which the increase of such powers is effectively fostered.

First, review summarily the connections of modern economic progress to scientific and technological progress. After that, we shall examine the more complex case, of the way in which the matters of both scientific and social progress are interconnected in determining the success or failure of a modern economy.

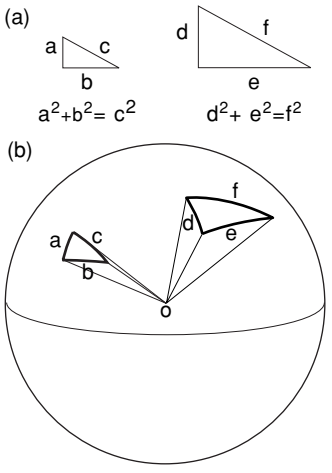
Thus, first, we focus upon the connection of productive powers of labor to scientific and technological progress as such. Mastering some of these points will take a bit of work, but, considering the terrible consequences of continuing not to understand this point, the chore is manageable, with a little study, and very much worthwhile.

Although the crucial features of the development of modern mathematical-physical science, can be traced to Kepler, Leibniz, and their contemporary co-thinkers, the crucial challenge was not mastered, until the successive work of Carl Gauss and Bernhard Riemann in defining the hypergeometric principles of a physical geometry expressed in the form known as a *multiply-connected manifold*. Don't let the strange words frighten you. Two distinguishing characteristics of all such Gauss-Riemann manifolds, are of the relatively greatest interest for the subject of long-term forecasting.[17]

First, that Riemann threw out all those misleading definitions, axioms, and postulates of an aprioristic formal geometry, and replaced these by an open-ended array of experimentally validated universal physical principles. Nothing but such experimentally validated, universal physical principles, was allowed. This restriction included the notions of space, time, and matter themselves; no purely mathematical definitions of these terms were permitted.

Second, Riemann, following Gauss's work on the general notion of curved surfaces, insisted that the multiple-connectedness of any such specific geometry is expressed by a unique characteristic of action, replacing the so-called "Pythagorean" measure used to compare a so-called simple Euclidean formal geometry with a spherical geometry [**Figure 2**]. The same function of a characteristic of any manifold applies, as Gauss and Riemann each show, to defining the higher orders of curvature by means of which one manifold is distinguished experimentally from another.

FIGURE 2
Euclidean vs. spherical geometry



The Pythagorean Theorem

On a plane, the shortest distance between two points is a line, which can be measured by the Pythagorean Theorem (a). But on a sphere, the shortest distance between two points is an arc of a great circle, and has to be measured as a combination of angular displacements. The Pythagorean Theorem does not hold on a sphere, because the sum of the angles of a triangle is variable, depending upon the size of the triangle (b).□

The latter characteristic of actual economies, can not be adduced by formal mathematical analysis of the manifold itself. It must be adduced by the methods of experimental physics. It can not be "proven" at the blackboard, or by a computer system; it must be measured in the laboratory, or in the actual performance of a real-life physical economy.[18]

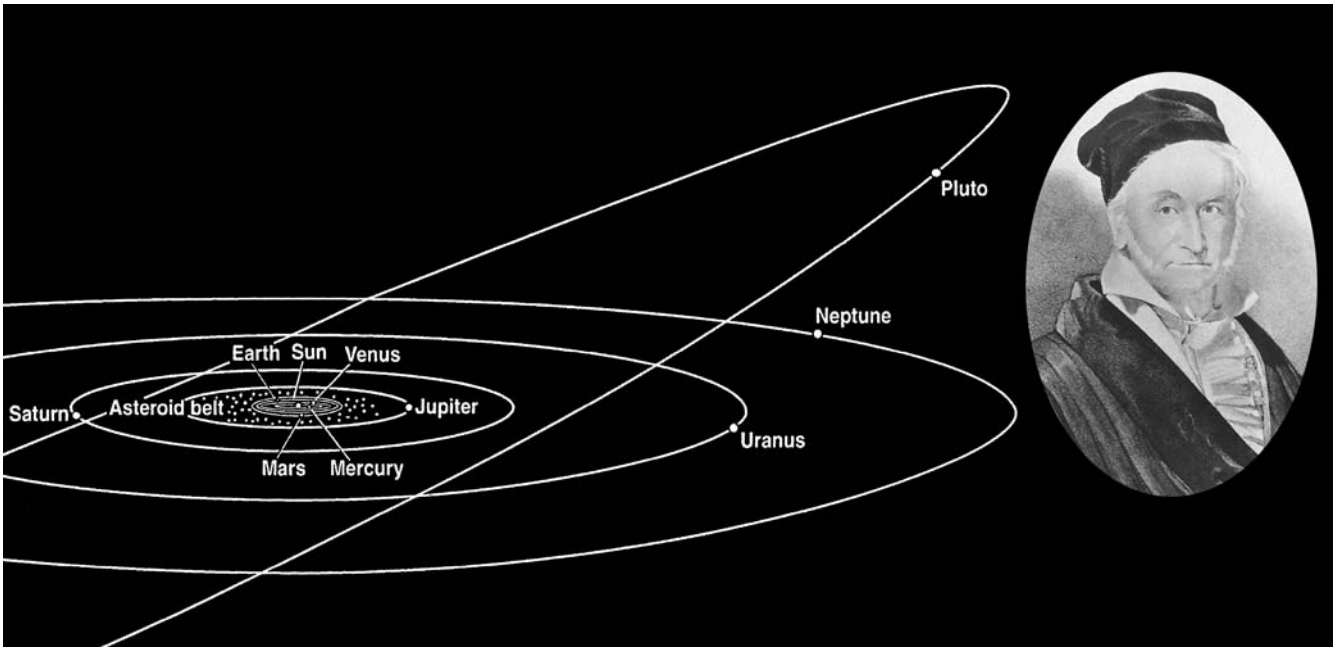
That means the following.

Whether within the domain of the physical space-time laboratory, or astronomy, as such, or in the relative change in economic physical-space-time caused by introducing a newly discovered universal physical principle to technology, the addition of a new universal physical principle to either the scientific investigation, or to human technological practice, results in a change in the physical-geometry of man's efficient relationship to the universe around us. The Gauss-Riemann manifold shows us how to understand the practical implications of adding such validated new physical principles of this axiomatic quality.

In the field of astrophysics, for example, the inclusion of a newly validated such principle, such as Kepler's discovery of the elliptical characteristic of the planetary orbits, requires us to measure the characteristic features of the whole domain in a new way.

17. Riemann's accomplishment is so deeply indebted to the preceding work of his mentor Gauss, that what we term a Riemannian manifold must be better named a Gauss-Riemann manifold. In that way, Riemann's unique contribution to the science of physical geometry is securely and precisely located, both historically and functionally.

18. i.e., the distinction on which Nicholas of Cusa premised the founding of modern experimental physics. The kind of experimental design required, a so-called *unique experiment*, need merely be mentioned for our purposes in the present report.



"Gauss's corroboration of the orbit of the asteroid Ceres as the orbit of a missing, formerly exploded planet specified by Kepler, is a demonstration of the exhaustive approach to that measurement of a characteristic, non-constant curvature of a regular process, which is demanded by Riemann's dissertation."

Kepler reacted to this discovery in two leading ways. First, he redefined characteristic interconnections within the Solar System according to the implications of this discovery. Second, he measured the characteristic interval of action to be associated with those implications, just as Riemann specifies this necessity in the conclusion of his habilitation dissertation. Gauss's corroboration of the orbit of the asteroid Ceres as the orbit of a missing, formerly exploded planet specified by Kepler, is a demonstration of the exhaustive approach to that measurement of a characteristic, non-constant curvature of a regular process, which is demanded by Riemann's dissertation.[19]

In the field of physical economy, we have a case which is more complex. Limiting ourselves, for the moment, to the physical side of the matter as such, we have the following.

Provided that we revise the physical processes of an economy, including both its modes of production and basic economic infrastructure, in ways conforming to the discovery of a new family of physical principles—a new manifold—the characteristic result of a constant quantity of individual human effort will be changed for that national economy as a whole. In the case of technological progress, the change will be a gain in the ratio of total physical output to the actually incurred costs of production.[20] Those comparisons are to be made in terms of market-baskets, rather than such inherently unscientific standards of measure as mere money-prices.

This gain in rate of growth, per capita and per square kilometer, for that economy as a whole, is a measure of a change, to a higher physical state, in the characteristic curvature of that economy's economic physical-space-time curvature.

Thus, if we can ensure that such validated discoveries of principle occur, and that the economy is modified in the way these discoveries imply, there will be a resulting, generally increased rate of physical-economic growth, per capita and per square kilometer.

Similarly, if we suppress the continuation of such realized scientific and technological progress, or even go to such extremes as reversing previously introduced gains in technology—as the U.S.A. has done repeatedly during the recent twenty-eight years—a catastrophic trend toward collapse of the economy must result. Such a catastrophe must occur, either if a deliberate anti-science policy was imposed, as has been done to U.S. policy-shaping, increasingly, since 1966-1972 changes in long-term economic policy, or if such a disinvestment in the prerequisites of scientific and technological progress was imposed through the impact of financial and

19. Cf. Jonathan Tennenbaum and Bruce Director, "How Gauss Determined the Orbit of Ceres," ***Fidelio,*** Summer 1998. Kepler's discovery of the principle of gravitation was derived as a by-product of his derivation of what are usually misnamed Kepler's Three Laws. The combination of these three principles shows that we must measure the characteristic action of a Solar System in which elliptical planetary orbits exist, in a different way than were the orbits simply circular. The resulting difference in characteristic is expressed in terms of a measurable magnitude known as gravitation.

20. Whether those long-term trends in rising "equilibrium costs" are met in the short term, or not.

monetary policies, as has been done since 1971, especially since 1977.

Once those two mutually reenforcing sets of policy-changes were introduced, it became virtually impossible to generate a national real-economy profit in the way which had been characteristic of the American System of political-economy in all successful periods since U.S. Treasury Secretary Alexander Hamilton.

As the earlier investments in scientific and technological progress wore out, and as the quality of productivity-related and other education in schools and universities worsened since the mid-1970s, the only remaining source of profit for the U.S. economy as a whole, became, in effect, "carpet-bagging," looting of preexisting wealth. This took the form either of stealing from other nations and peoples, as the British Empire had done that traditionally, or looting our own population and existing, previous investments in basic economic infrastructure, development of the labor-force's households, and production as such.

The murder of more and more of the U.S. population through such measures as the Gingrich-Gore "welfare reform" of 1996, and the recent, deliberately murderous "reforms" in "cost-efficient managed health-care," are to be viewed, together with "outsourcing," as typical. They typify those financial accountant's methods, by means of which our national productivity per capita and per square kilometer, and our population itself, have been looted and ruined, even murdered, for the greater glory and profit of an increasingly damned few, Wall Street and kindred, profiteering parasites.

Whether these ruinous measures were taken in the name of "the environment," "promoting free trade," "deregulation," or "globalization," the overall effect was the same.

2. Self-destruction as a social process

The cultural change which led to the present process of self-destruction by the United States, and also other nations, emerged as a mass phenomenon, the so-called "cultural paradigm-shift" of the late 1960s, during the 1964-1972 interval, more specifically. By the early 1980s, this process of national economic self-destruction, as I have just described it in the preceding section of this report, was established as the seemingly almost incontestable, prevailing trend in cultural change.

Thereafter, more and more people departed the ranks of those who had caused the dumping of President Carter, as an expression of their angered opposition to the evil policy-changes of the Trilateral Commission's Carter-Administration period.[21] More and more of these former Carter opponents, went over to applying, in effect, for employment as virtual paid agents of the very same destruction, such as that launched by Carter's appointment of Federal Reserve Chairman Paul Volcker, which had earlier ruined the U.S. economy, and, for many, their lives, too. The recent, wide participation of a very large part of the nation's family households in mutual-funds adventures, typifies the way in which more and more of our current population of credit-card slaves, has since turned against our nation, and, in the end, against themselves as well.

Thus, it is broadly the case with much of our population, that the same system which they had opposed, until the beginning of the 1980s, became the virtual "foreign occupying power" which they had decided to support, from about the middle of the 1980s onward. That is how a virtual majority of the actually voting citizens of the U.S. came to decide, either through despair, or other expressions of personal moral corruption—i.e., cultural pessimism—to participate in destroying their nation, and themselves. "Look, I can't worry about what happens to the world as a whole; I have to concentrate on the interests of myself, my family, and my local neighborhood." That is the face of deep moral pessimism, deep moral corruption, the face of angry individuals occupied chiefly with destroying their nation, and themselves.

That is why so many today have so much to fear from those day-traders and the like, who might become the run-amok killers of tomorrow morning. Such times of sheer horror proliferate, when the moral fiber of a people has been ruined in the way so many Americans, and others, have been affected by the economic and social policy-shaping trends of the recent three decades.

If you did not see this very ugly side of the decadent role of many among your fellow-citizens, you neither understood what was being done to this nation, nor what so many among you, through your own folly, were contributing to doing to yourselves.

That accelerating moral decay among a very large ration of our post-1980 citizenry, was reflected in its similarity to the mentality of a defeated and conquered population, which has decided to seek a more secure personal life in a "Faustian pact" of service to the apparent occupying power, perhaps, in some cases, Satan himself.[22]

21. Never forget that both Carter and George Bush were among those initially coopted into David Rockefeller's Trilateral Commission. It was during that period, preceding the Trilateral Commission's election of its hand-crafted Jimmy Carter as President, that the core of the policies of the future Carter and Bush administrations was crafted by a team headed by Cyrus Vance, Zbigniew Brzezinski, et al. This was a project of the British Foreign Office's creation, known as New York Council on Foreign Relations' "Project 1980s" reports of 1975-1976, subsequently published, under a Lilly Foundation grant, by McGraw-Hill.

22. Since we are on the subject of the rooting of knowable political principles in the principles of Classical art, here, the case of Goethe's ***Faust*** is among the more revealing insights into a cultural phenomenon which has been the subject of special attention in Germany, but which is applicable to the population of most of all Europe, and also the U.S.A. today. The key to Goethe's use of Christopher Marlowe's subject, ***Dr. Faustus,*** for insight into the principled

We have seen this recently, in the case of the so-called Russian liberals who have sought lavishly unearned livings in lackey-like service to those foreign carpet-baggers who have taken over the richest chunks of loot to be extracted from the quasi-defeated nation. The typical self-styled "patriotic Americans" of today, such as Georgia's U.S. Representative Barr, are not far behind the notorious, mafia-linked, unpatriotic liberals of Russia, in the depraved things they do to their own nation and its posterity.

Recognizing this factor of moral decay taking over the U.S. population itself, had been key for my successful forecasting of the process which had unfolded, earlier, in the developments of the 1960-1971 interval. It was also key to my insight into the virtual political inevitability of the global financial crisis striking the world today. I focus on the narrower aspect of the latter developments, the moral decay within the U.S. population itself.

The recent, wide participation of a very large part of the nation's family households in mutual-funds adventures, typifies the way in which more and more of our current population of credit-card slaves, has since turned against our nation, and, in the end, against themselves as well.

Are you predictable?

You tell me, that you make up your own mind. How, in Heaven or on Earth, could I have been so rude, and also so efficiently insightful, as ever to doubt that you do?

In fact, most of the time, and on most of the really important decisions you make, you rarely, if ever, actually make up your own mind. That fact, however its mention embarrasses you, is what most of the mass media, crooked politicians, and pollsters and forecasters generally rely upon, in the way in which they win their incomes from the credulity of those suckers—the majority of the population—who, in recent times, have seldom actually made up their own minds about almost anything of relevance to the future of our nation and its economy.

Unless you help me wake up their sleeping minds, most people today actually know almost nothing, and will probably know even less as time passes. In place of knowing, they have adopted opinions, which, they believe, will cause other people to like them, or perhaps simply not dislike them, or even bring tangible forms of rewards, such as sex, money, and relatively higher rank in some real, or even merely imagined, social pecking-order. The popular cult of Hollywood "stars," is a leading example of this sort of widespread corruption of the population.[23] We see that in the substitution of "textbook learning" in schools, and the related use of methods of induced behavioral modification, as borrowed from animal training, for shaping the expressed opinions of both children and adults.

This pathological state of affairs, is shown most clearly, if one attempts to provoke individuals into submitting to a Socratic form of "knowing experience." Typically, they resist such provocations, rebuking the would-be Socrates, "I already have my own opinion." The conversation usually breaks up at that point, the opinionated person parading off, triumphantly, knowing nothing.

That same sucker-principle, is what has made a farce of the very names of "democracy" and "democratic methods," inside the presently Gored-out, but hopefully reformable leadership of our U.S. Democratic National Committee, in our Federal courts, or around the world today. You, with rare exceptions, despite your insisting that you make up your own mind, represent, at least typically, the most suggestible, most predictable victims of manipulation of both mass and individual U.S. opinion (in particular) of the entire Twentieth Century!

That, obviously, must change, and that very quickly. Otherwise, this nation will not live to see the bright side of the coming, Twenty-First Century. Here, in this concluding portion of my present report, I limit our attention to the way in which both hidden, and not-so-hidden popular, axiomatic assumptions control the way in which the individual members of society are controlled, to the degree of making mass behavior, including the behavior of the economy, usually so pathetically, tragically predictable lately, over periods as long as decades, or even longer.

This prompts us to revisit, briefly, the subject of Euclidean

moral flaw of a real-life German Faust, typifies the case of the morally depraved person who believes, that he can cling to the pleasures and profits of his corrupt practices, and have a wonderful ending, too. Faust has not degenerated to the much lower moral level of a typical existentialist, but he is nonetheless the type of person one should be ashamed to be, ashamed enough to stop being that.

23. Giuseppe Verdi, for example, was an Italian patriot in the tradition of Dante Alighieri, who used the model of tragedy as typified for him by Shakespeare and Schiller, to elevate the minds of Italians to the quality needed for citizenship of a true national republic. How many of the audiences for Verdi today, for example, cheer the play, rather than the individual "star performers"? How many in the audience respond to the powerful, important ideas which Verdi built into the design of his operas, for example? Yes, the leading performers must carry a heavy portion of the play, but it is the ensemble as a whole, including the musicians in the pit, who contribute to that total effect which the play (e.g., opera) as a whole must convey to the moral and intellectual uplifting of both the players and the audience.

geometry. In this report so far, we have identified the governing role of axiomatic assumptions about space, time, and matter, in shaping our policies of action, or inaction, toward the physical universe. Now, we must turn our attention to the analogous role of other kinds of axiomatic assumptions, about both man and society, which act to shape political and other opinions in much the same way that the definitions, axioms, and postulates of physical geometry do.

The two kinds of assumptions, those referencing physical geometry, and those referencing man and society as such, combine to form whatever governing "mind-set" usually controls the way in which individuals and entire nations shape their policies of practice. It is the trends generated by the impact of these "mind-sets," which make human mass behavior as ominously, tragically predictable as it has been, over periods of decades or longer. That appreciation of the role of "mind-sets" is key to all successful long-range forecasting.

As you may have learned, from my earlier published locations, it has been, so far, since nearly a half a century, my unique contribution to scientific thought, especially to the science of physical economy, to recognize that we must not separate the axiomatic assumptions of physical science from those axiomatic qualities of assumption which are best expressed by the greatest compositions of what are rigorously defined as Classical art-forms. In other words, I made the first successful break, through the barrier separating what England's C.P. Snow, for example, defined as "the two cultures."[24]

I summarize that connection, as I have repeatedly stated it in earlier published locations, and then show the specific application of that connection to the matter of economic forecasting of either catastrophe or economic renaissance.

The reader must think of the "axioms" of universal Classical artistic principles, as analogous in form of function to the validated universal physical principles of a Gauss-Riemann hypergeometry. For our purposes here, it is sufficient to consider but a few such axioms.

1. The Prime Axiom.

The first step toward the needed solution of the so-called "two cultures" dichotomy, is found, with a wonderfully ironic appropriateness, in the first chapter of ***Genesis.*** Man and woman are each made in the image of the Creator, designed by Him to rule within His universe. The solution to the "two cultures" dichotomy, lies in stating that in the form of an axiomatic principle as to the form of the function so described by ***Genesis.*** As Leibniz said, it is a very good beginning.

The nature of man, and of man's relationship to the universe, lies in a principle of change, the kind of principle which can not be stated in the terms of any merely deductive schema. The change in question, is *the process of mankind's increase of its physical power to command the universe, as measured in human-demographic terms, per capita, and per square kilometer of the Earth's surface-area.*

That power is located in a continuing, progressively ordered accumulation of discovery of validatable, universal physical principles, such as the notion of a regular ordering of astronomical changes in observed position. No assumption as to "straightness" is ever assumed; therefore, the ordering of such observed changes in position is defined as of some curvature, and that either constant or not-constant, but regular.

The principled notion, that man's increase of power in the universe is orderable, is defined in respect to the "clock" provided by regular curvature in astronomical processes. This is also the "clock" used for transoceanic navigation.

The fact that man can increase his power, per capita, and per square kilometer, as measured by such "clocks," by discovery of added universal physical principles, is the prime axiom on which the foundations of Classical artistic composition are lain. This is defined as the correlation between such changes in knowledge for practice, and the increase of man-

24. C.P. Snow, ***Two Cultures and the Scientific Revolution*** (London and New York: Cambridge University Press, 1993 reprint). Obviously, what I have done is no more than complete a needed stage in the way the greatest philosophers, typified by Plato and Leibniz, have attempted, over no less than thousands of years to date, to understand a common underlying basis in the interrelationship between man and nature. I was merely the first to make the connections to which they pointed, as explicit as a science of physical economy requires.

kind's power, per capita, and per square kilometer of the Earth's surface.

This becomes the prime axiom of Classical-artistic principle, the definition of the individual nature of man and woman, as absolutely distinct from, and absolutely above the beasts. This prime axiom thus defines human forms of individual behavior, as distinct from the merely animal-like behavior which can be, and often is imitated by persons.

2. The Cognitive Axiom.

The instant we focus upon that process, by means of which validatable universal discoveries of principle are generated, we encounter a second barrier. This barrier is associated with the cognitive axiom.

All discoveries of principle are generated, by individual minds confronted with the evidence of those kinds of errors in existing belief, for which there are no deductive solutions. These unique predicaments are called ontological paradoxes *in scientific work, and are usually identified as* metaphors *within the domain of Classical forms of artistic composition.*

All discoveries of principle are generated, by individual minds confronted with the evidence of those kinds of errors in existing belief, for which there are no deductive solutions. These unique predicaments are called *ontological paradoxes* in scientific work,[25] and are usually identified as *metaphors* within the domain of Classical forms of artistic composition. The two terms mean the same thing; the distinction in use of the terms, is that the one refers to the peculiarities of discovery of universal physical principle, the second to the peculiarities of generating a discovery of universal Classical-artistic, or analogous principle.

In science, such ontological paradoxes arise in the form of undeniable evidence which violates the doctrines of existing knowledge. If this evidence is of the form which defies any possible solution within the scope of deductive methods, it is to be recognized as a true *ontological paradox*. In such cases, validatable solutions are generated by those sovereign synthetic actions of individual minds which Immanuel Kant denied to exist, and are generated only in this way. The generation of such validatable forms of synthetic solutions is called *cognition*.

After such a discovery of universal physical principle is made, the solution can be proven by those methods which are associated with the notion of a *unique experiment,* a design of experiment cohering with Riemann's notion of a multiply-connected manifold. However, the discovery, once proven, can be known by a second person, only if and when that second person has repeated the cognitive experience of the first person. *This is the universal principle of cognition*. This principle, so defined, supplies the meaning of the terms "knowing" and "knowledge." It is validatable ideas (principles) generated by means of replicatable synthetic acts of cognition, which constitute the elements of the body of knowledge, as contrasted with mere opinion, the latter including merely learned opinion.

I must emphasize, that although the validated discoveries of universal principle produced by cognition, are products of the mind, rather than sense-perception as such, since their validation depends upon experimental validation, the adoption of such synthesized principles depends absolutely upon the demonstration of the efficiency of such principles in effecting a qualitative increase in mankind's power in and over the universe. Thus, all such principled ideas are securely rooted in man's efficient relationship to the universe. Thus, they are never "merely ideas," but are true, experimentally validated universal principles.

Thus, this principle of experimentally validated cognition is also a universal principle. It is this principle of cognition, so defined, which, in turn, defines the *active principle of individual human nature,* and that axiomatically.

3. The Classical artistic principle.

If two, or more persons, have shared the experience of generating the same, validatable universal principle by means of individual cognition, each is capable, as Immanuel Kant and his followers could not, of *recognizing* the act of discovery which has been generated within the cognitive processes of the other.

In such cases, we have touched a faculty of experience which lies outside mere sense-perception. Now, we have, in addition to those images associated with sense-perception, another set of images associated with *recognizable cognition*. These ideas are linked to physical reality through relevant forms of experimental validation. All ideas, whether scientific, or artistic ideas, or Platonic ideas of natural law[26] and politics, belong to this category of conceptions generated by recognizable cognition, rather than mere sense-perception. This is the definition of what are termed *Platonic Ideas,* in

25. They are sometimes referred to as "crucial paradoxes," for which solutions are associated with the relatively commonplace use of the term "crucial experiments." Normally, I do not use the term "crucial experiments," because the term is associated with a relatively sloppy way of thinking about the method for proving universal physical principles. I prefer the definition of *unique experiment,* as associated with Riemann's 1854 habilitation dissertation.

26. e.g., constitutional law.

opposition to mere opinions.

The fact that shared knowledge of validated discoveries of universal principles depends absolutely on this interactive relationship among the cognitive processes of individual persons, defines the axiomatic principle underlying the notion of the distinctively human quality of *social relations*.[27]

This axiomatic quality of human social relations, when addressed as social relations, defines the meaning of Classical artistic composition. The essential quality implied in such artistic composition is the Socratic quality of *truthfulness,* as Plato puts these notions of truthfulness and justice in the mouth of Socrates, as contrasted with the intrinsically untruthful opinions of the opposing characters Thrasymachus and Glaucon. This quality of truthfulness lies in reliance upon the peculiarly Socratic notion of validatable products of cognitive synthesis.

That much said, now focus upon the role of Classical artistic composition in defining the universal principles which apply to the proper ordering of social relations generally.

For purposes of education in classrooms, the best illustration of what is meant by ideas (i.e., Platonic Ideas), is the contrast between the model of Classical sculpture, as typified by the model cases of Scopas and Praxiteles, in contrast to the relative deadness of not only pre-Classical Greek and Egyptian "Archaic" sculpture, and also the decadent forms of Roman sculpture. Notable is the decadence of Roman efforts to imitate Classical Greek sculpture. This work of Scopas and Praxiteles must be compared with the paintings of Leonardo da Vinci, Raphael Sanzio, and Rembrandt. Leonardo's mural, ***The Last Supper,*** is the best choice of pedagogical model of the connection between the Classical sculpture of Scopas and Praxiteles, and the revolutionary perspective which Leonardo introduced to painting.

The characteristic of Classical sculpture is that it is apparently "off balance." In fact, the mind perceives this as a piece of static marble which conveys to the mind of the observer the notion of a body in mid-motion. Not anything "off balance" will produce this effect; it must register in the mind as a truthful image of a body in its proper mid-motion. This occurs in the mind in the same way that cognition functions to generate the notion of a true Idea.

The same principle underlies the methods of Classical musical composition of J.S. Bach, and such Bach followers as Mozart, Hadyn, Beethoven, and Brahms, in contrast and opposition to the virtually idea-free banality of the French decadent, Romantic composer Rameau. As Bach's ***A Musical Offering*** and his posthumously published ***The Art of the Fugue*** illustrate the connection, it is Bach's use of the principle of inversion, within a context of Florentine *bel canto* polyphony, which generates the principle of well-tempering, and the methods which, beginning with Mozart's compositions of the early 1780s, launched the method of Classical thorough-composition also associated with the subsequent compositions of Haydn, Beethoven, Schubert, Mendelssohn, Schumann, and Brahms.

In Classical musical composition, the use of the principle of inversion to generate, and to resolve lawful dissonances, and their resolution, in a polyphonic mode, produce compositions which in and of themselves represent true ideas, in the sense of Platonic Ideas.

The lawful resolutions of these successive dissonances, impart to the entire composition a sense of subsuming *motion,* of cognitive "energy," to an effect akin to the sense of the idea of motion evoked by a Classical Greek sculpture. It is the musical performer's (and conductor's) ability to evoke the idea of that contrapuntal motion, rather than a mere succession of transitions, from the performance, which produces the effect which the century's greatest conductor, Wilhelm Furtwängler, sometimes described as "performing between the notes."[28]

In the case of Classical thorough-composition, the power of the Classical medium lies in such exploitation of the medium of polyphony. Polyphony is premised upon Leonardo da Vinci's view of the characteristics of the six distinct singing-voice species, natural to the human singing voice's best potentials. The participation of several, or all among these singing-voice species, and the addition of instruments designed and performed to imitate the *bel canto* characteristics of the relevant singing-voice imitated, gives to such Classical thorough-composition a unique power as an expression of social relations in the performance of Classical art-forms.

In the medium of Classical tragedy, as marked by the tragedies of Aeschylus, Sophocles, Shakespeare, and Schiller, we have the most direct connection between Classical

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27. The quality of *loving*, as identified in the writings of Plato and the Apostle Paul by the Greek term *agapē,* is a quality which exists only within the domain of cognitive social relations, not sense-perception. One loves a person not because "they are beautiful to look at," but because the cognitive interaction with them is beautiful, because they have beautiful souls. This is the meaning of the term "beauty" as applicable to Classical artistic compositions, and to the passion for truth and justice, in opposition to the evil which is the Lockean or other notion of purely positive law.

28. The irreducible element of Classical musical composition, is the *polyphonic interval,* and not a mere interval between two successive tones of the scale. For example, when singing an interval, the mind must hear the inversion of that interval (for example). It is the dissonance generated, as in Classical thorough-composition, by the polyphonic antiphony of "parallel" intervals, which defines the polyphonic, as distinct from the ordinary, relatively linear sung interval of an individual voice. Hence, a minimum of a third tone must be added to each interval and its inversion, to bring the mind to focus on the metaphor located elementally within the simple unit of Classical musical composition. Hence, musicians must think in terms of well-tempering, rather than equal tempering. The singer (and Classical composer) uses the natural voice qualities of registration and coloration to reflect the polyphonic principle within the sung part. The polyphonic interval is not heard in the ear, but in the mind, in the same way, on principle, that the perception of motion in a static piece of Classical sculpture, defines the idea of the latter sculpture as something existing only in the domain of cognition, rather than mere sense-perception. Thus, well-tempering is Classical, whereas equal tempering is Archaic on principle. Hence, for Furtwängler, "performing between the notes."

artistic composition and political principles. It is that connection, and its practical implications for today, on which I focus, in defining the role of forecasting in defining a recovery program for the present U.S. situation.

Today's U.S.A. as a Classical tragedy

Shakespeare's ***Hamlet*** is, for various reasons, the most easily recognized demonstration of the relevance of Classical tragedy for defining the proper principles of political life generally. The essence of the matter is summarized by comparing the famous Third Act soliloquy, along with the ultimate outcome of the decision which Hamlet presents there, to the situation in the final scene of the play as a whole.

The most notable of the general follies which have defined the predictable course of the recent thirty-odd years of U.S. history, is the disengagement of the mind of the victim, the typical citizen, from his, or her former sense of an efficient connection between his existence, and the physical reality of the economy upon which individual existence depends.

Essentially, Hamlet refuses to change his ways, even after he has recognized that the decision perhaps dooms him and his nation. In the final act, with Hamlet and other relevant characters dead on stage, Shakespeare puts into the motion of a surviving character, the injunction, as if to the audience: Let us learn the lessons of the bloody outcome we have just witnessed, while the experience is fresh in our minds.

All of the great Classical tragedies, from Aeschylus and Sophocles, through Shakespeare and Schiller, have the utmost relative, sometimes even absolute validity, as demonstrations of universal political principle. A similar, and related importance, is to be found in such other expressions of the Commedia art as Bocaccio's ***Decameron,*** the ***Gargantua*** and ***Pantagruel*** of François Rabelais, Cervantes' ***Don Quixote,*** and Swift's ***Gulliver's Travels.*** Blood and ridicule, if either were well composed, may induce the cognitive processes of audiences to recognize, as a matter of principle, the penalties of certain kinds of folly.

The most notable of the general follies which have defined the predictable course of the recent thirty-odd years of U.S. history, is the disengagement of the mind of the victim, the typical citizen, from his, or her former sense of an efficient connection between his existence, and the physical reality of the economy upon which individual existence depends. This specific form of personal moral perversion was already rampant in English-speaking history, in the legacies of Thomas Hobbes and John Locke, and also in the radically irrationalist notion of the "invisible hand" adopted by the cult-followers of Bernard Mandeville and Adam Smith.

The form in which this erupted as a mass phenomenon in the U.S.A., during the 1964-1972 interval, owes its most significant proximate origins to the poisonous irrationalism of the German and French existentialists of the 1920s and 1930s, as typified by Martin Heidegger, Hannah Arendt, and Theodor Adorno for Germany, and Nazi philosopher Heidegger's clone Jean-Paul Sartre (and Frantz Fanon) for France.[29]

As Heidegger intimate Hannah Arendt emphasized, the root of the existentialism represented in common by herself, Heidegger, Jaspers, Adorno, and Sartre, is the radical irrationalism of Immanuel Kant: Kant's, and post-Kantian philosophical liberalism's denial of the knowable existence of truth. In effect, Arendt's most famous treatise paints herself as a kind of Gaea, a virtual consort of Python-Satan, and, in her own right, the "mother of lies." This existentialism, as purveyed in the U.S.A. by the Josiah Macy, Jr. Foundation's circles of Bertrand Russell, Margaret Mead, Gregory Bateson, Norbert Wiener, et al., formed the crucial point of reference for what became the "rock-drug-sex youth-counterculture" of the 1964-1972 university campus.

The essential significance of these expressions of existentialist irrationalism for the predictability of the post-1960s U.S. population's trends in opinion, is that these mass developments, initially centered in the university student populations of the 1964-1972 interval, became "a march through the institutions," a virtual locust-plague of irrationalism, whose spreading influence prompted more and more among the general population, especially the younger generations, to make an open break with reason itself. The characteristic of this increasingly lunatic trend, was a militant aversion to the suggestion that there must be some efficient connection between the material means for producing human existence, and the goals of human existence.

In summation, a break with the notion that opinions ought to be based upon validatable principles respecting mankind's relationship to the universe in general. Hence, especially after the effects of the 1979-1982 phase of Federal Reserve Chairman Volcker's rampaging destruction of the U.S.'s real economy, the trend in shaping of popular opinion became more and more insane—literally insane.

Typical of this process, was the increase in the ration of the labor-force employed in those forms of "services" which are of doubtful value to the real economy and the real popula-

29. The corrupting influences of the phenomenology of Husserl, and the neo-Kantian Karl Jaspers, are notable influences upon the development of the German existentialist followers of the satanist Friedrich Nietzsche.

tion, an increase coinciding with a collapse in the percentile of the labor-force employed in useful forms of employment. The break from the idea of producing, or assisting the production of useful physical goods, contributed to fostering a sense of a break away from a rational sense of the means by which a population acquires its income, from the production of the wealth on which that income depends. The man-to-nature relationship became more and more distant, even broken psychologically, in this way. Thus, the protective link to personal sanity was strained to the utmost, even broken in the manner the brutish Mark Barton episode illustrates.

Cut loose, thus, from earlier, traditional moorings to sanity, the post-1964-1972 population lost its moorings within the real universe. Reality ceased to be a standard for judging which opinions were sane, and which not.

The worst part of this, was not that psychological break with reality, which dominates the majority among "baby boomers," x's, and y's today. The worst part, has been the passion with which these errant minds defend those opinions and preferences which impel them to reject the physical reality of human existence, just because physical reality is seen as an alien force whose influence they must resist, even reject. Thus, they have an impassioned impulse to take pleasure from savaging those ideas which suggest submission of the mind to the validation of the principles of social practice with the real, physical universe.

This leads our attention to an additional, axiomatic principle of Classical artistic composition.

What makes the clock tick?

In earlier published locations, I have emphasized my agreement with Friedrich Schiller on the subject of the contrast between the way in which animals and people play. This connection is aptly illustrated by such cases as the child and puppy playing happily together, or observing the relationship between man and horse in dressage. In both cases, a certain point of similarity, but also, contrary to the impassioned belief of Britain's avowedly bestial Prince Philip, an absolute, principled difference, between man and beast, is demonstrated.

The happy puppy or horse at play displays a certain outward similarity to the happy child. The difference is, the child's most intense expression of happiness at play arises from the child's successful cognitive experience, of making a discovery of principle, which is, for that child, an original such discovery. This is complemented by the fact, that when the adult ceases to show the quality of happy play in attacking ontological paradoxes, or has no happy sense of metaphor, that adult is showing us that he, or she has gone creatively stale, as psychiatrist Dr. Lawrence Kubie described cases of neurotic distortion of the creative process.

The issue immediately under scrutiny at this moment, is, "What makes the clock tick?" We have pointed to certain characteristics of the cognitive process. What is the driving force which sets those characteristics into motion? What is the passion which pushes the thinker to reaching the cognitive solution, to holding like a terrier to the moral issue, until, finally, a truthful solution is discovered? Plato's Socrates, like the Apostle Paul, answered: *Agapē*.

There remains, despite the qualitative distinction, something to be learned from the happy puppy at play. In the beast, as in the person, we observe something important in common, something we might wish to name as "a zest for living." This, the happy person and happy beast share, at play. Yet, since this zest for living is a matter of expressing one's nature, there is a corresponding difference in the result. In short, the truly human person makes cognitive discoveries, not for profit, but because it is the natural expression of happiness to do so.

Cut loose from earlier, traditional moorings to sanity, the post-1964-1972 population lost its moorings within the real universe. Reality ceased to be a standard for judging which opinions were sane, and which not.

The added difference is, that while the beast, even the chimpanzee, can learn from experience, no beast can transmit cognitive discoveries of universal principle from one person, or one generation, to another. Thus, while the beast has a biological connection to its species as a whole, the pet's personality lives on only through participating in the life of the human beings associated with it. Only mankind affords its individual person a cognitive, personal identity in all eternity, through the radiation of the original discovery of validatable universal principles, both physical principles and those principles typified by Classical artistic composition.

Here, in the latter connections, the individual's zest for life is expressed, a zest, which, in its best expression, is the individual person participating in his species through receiving and generating those ideas which meet the standard of universal principles. Such uniquely human, creative playfulness, is the distinction of the human form of zest for life. This is the mainspring of society's progress, the energy which makes the clock tick.

When this form of the zest for life is at full tilt, we witness the creative personality optimistically at work. It feels like play, but it is the motor-force of all human progress at work. On the contrary, when cultural pessimism takes over, the crabby personality tends to behave as a Hobbes or Locke might propose, even to the degree of becoming what the Twentieth Century would recognize as the fascist beast-man of the type of Martin Heidegger, Hannah Arendt, et al.

Thus, in forecasting the direction in which the outcome of current history will be shaped, we must consider both the axiomatic characteristics of policy-shaping, and also the interrelationship of that with the contrasting qualities of cultural pessimism, or optimism.

The tendency has been, that when a combination of alienation from reality coincides with a self-feeding process of increasingly intense cultural pessimism, the very worst destiny tends to be the virtually inevitable outcome of the relevant part of current history. On this account, periods of cultural decadence, such as those of the 1964-1972 interval to the present date, tend to go to their limit. That limit is usually defined by a form of collapse of that society, a form consistent with the characteristic flaws of that society as an unfolding, degenerative process. This is what we, in the U.S.A. and much of the rest of the world, have experienced as an unfolding process, during the recent decades.

What is the passion which pushes the thinker to reaching the cognitive solution, to holding like a terrier to the moral issue, until, finally, a truthful solution is discovered? Plato's Socrates, like the Apostle Paul, answered: Agapē.

When the force of reality has shattered what had been the force of social authority attributed to the decaying regime, the society has a chance to recover. In such moments of crisis, the controlling delusions of earlier time are discredited. Reality stalks forth. If the society accepts reality, it may recover, and even learn from that experience, not to repeat such follies in the future.

That is the principle which every great Classical tragedy has taught its audience. It is from real-life tragedy, as the Classical stage brings that into focus for its audience, that societies may not merely revive, but rise to higher levels than ever before. All Classical artistic composition has a similar function. All that we know of man's nature, in this respect, we learn through the medium of Classical artistic composition.

3. Epilogue: crisis and mind-set

What, then, defines the outer limits of existence of a form of society self-governed by a tragically fatal sort of mind-set?

The general answer is already implied by the bare notion of a Gauss-Riemann manifold. In this instance, the manifold is of the LaRouche-Riemann form, as the interrelationship of universal physical and Classical-artistic principles has been identified here. Summed up in the fewest possible words: all such systems are self-bounded systems, in the same general sense that a sphere is a self-bounded system throughout.

The more specific analogy, is the case of a planetary orbit, as the Kepler-Leibniz-Gauss-Riemann notion of regular non-constant curvature defines a regular orbit, or any other manifold of this type. In such cases, or any analogous one, the limits of the system are self-bounded, as the analogy of the sphere suggests.

The U.S. economy and associated Bretton Woods system, as these have coexisted since the 1971 introduction of the ultimately self-doomed "floating exchange-rate monetary system," are an inherently self-doomed system, which, if their existence is continued in that form, must converge on a certain boundary-state, at which they must, in effect, be turned inward upon themselves, and destroy themselves in that way.

The key to understanding that system, in particular, is to place emphasis upon the vicious discrepancy between the characteristic form of action which is built into the system, axiomatically, and the real universe on which the system acts, the universe also acting upon the system.

My Triple-Curve illustration is the simplest possible representation of the way in which that tragic self-boundedness of the presently doomed system has been defined. The flight from reality, upon which the system has been based, since the 1964-1972 cultural-paradigm shift, has been into a "post-industrial fantasy life," but a fantasy-life whose physical continuation depends upon the very real economy from which the fantasy-life is fleeing, and attempting to destroy all at once. The resulting, geometrically increasing discrepancy between that fantasy and the rejected reality on which the fantasy's continuation depends, defines a limit, exactly as my Triple Curve simply defines the essential relations among the fantasy and the economic reality.

In such a situation, no matter what tricks are used, in the effort to perpetuate the doomed illusion, the more the tricks, the more inevitable the doom. When the rate of pressures from the real economy, against the fantasy-system, are increased more by the tricks, than the gains won by the tricks themselves, the system has reached its outer limit of continued existence. That illustrates the notion of a self-bounded system. That defines where the world is at this time.

Under such conditions, the question of survival becomes, simply, can enough people be prompted to make the necessary changes in their axiomatic assumptions, fast enough, in time, to set into motion the new, viable economic process, which is required if mankind is to be prevented from going to its doom along with the inevitably doomed, tragic old system now collapsing. The question is, can you organize your neighbor to awaken, and become sane again, in time to launch the new system, before we all go down together for failure to launch the new system in a timely fashion?

Bush and Gore are both losers in the 'who lost Russia' debate

by Edward Spannaus

The cover of the Sunday *New York Times Magazine* of Aug. 15 sports the headline "Who Lost Russia?" in huge red letters—thus resurrecting a debate that first surfaced about a year ago.

On the eve of President Clinton's September 1998 trip to Moscow, the question of "Who Lost Russia?" was broached in the online magazine *Salon*. Although no one had yet publicly raised that question, author Jonathan Broder wrote, scholars and experts considered that such a debate would be inevitable: "If it comes to that . . . the first to wear an 'R' on his forehead will be Vice President Al Gore, the administration's most outspoken proponent of the reforms that have decimated the Russian economy and fomented the current political crisis."

Russia specialist Stephen Cohen was quoted as saying: "The front guy in the administration is Gore," stressing his role in what was then still called the Gore-Chernomyrdin Commission. "That's been his baby. Of course, you can't find him now. He's hiding. This will hurt him in the Democratic primaries when Democratic challengers say this policy was Gore's and he'll have to take the responsibility." Cohen also correctly pointed out that the economic "reform" policies being pushed by the Clinton administration went back to the George Bush administration, which formulated these policies in 1991.

Today, the issue is being raised again, but this time it is being pushed by the people who are absolutely in no position to bring up the subject credibly—that is, former Bush administration officials who are now advisers to George W. Bush, the purported Republican party front-runner for the Presidential nomination.

The looting of Russia

The Aug. 15 Sunday *New York Times* magazine article, written by the former Moscow bureau chief of the London *Financial Times* John Lloyd, opens with a description of his own attendance at one of the meetings of the "reformers" held at a dacha outside Moscow in October 1991, attended by Anatoli Chubais, Konstantin Kagalovksy, Pyotr Aven, and chaired by Yegor Gaidar. (For a further account of those meetings, see *EIR,* Aug. 6, p. 12.) Lloyd notes that the meeting was discussing its declared mission "to make Russia a free, democratic, capitalist state," but instead, he writes, "today Russians are poorer, the wealth of the country has shrunk, and is concentrated in a few hands."

Lloyd goes back to what he describes as the debate already raging in 1990 as to what should come first: privatization of state assets, or the development of market institutions and infrastructure. On one side was World Bank official Joseph Stiglitz, who opposed rapid privatization; on the other were Harvard economics professors Jeffrey Sachs and Lawrence Summers—the latter who became Deputy Treasury Secretary in 1993, and is the current Treasury Secretary.

The "Who Lost Russia?" debate begins with the events of 1991-92, Lloyd writes, and in the course of his article, he provides a reasonably accurate description of the effects of shock therapy, and particularly of the IMF-promoted privatization programs which began in 1992.

When the new *biznismeny* ("businessmen") got hold of the privatized state properties, Lloyd says, their first thought was not how to spruce them up or to extend their product lines. "Rather, it was how to realize the assets in cash, change the cash into dollars and get it out of the country. Capitalism became capital flight." Lloyd cites estimates that between $200 billion and $500 billion has been taken out of Russia since 1992.

Lloyd also describes how, at the February 1996 Davos World Economic Forum, Chubais cemented the alliance of the "reformers" and the banker/oligarchs which still rules Russia today as the "Yeltsin government."

One of those who was at the 1991 dacha meetings was Konstantin Kagalovsky, whom Lloyd again visited recently. Lloyd says Kagalovsky was the first "reformer" he had gotten to know in Moscow in 1991; Kagalovsky then lived in a comfortless two-room Moscow apartment, and "talked of Adam Smith and Milton Friedman and Jeffrey Sachs." Kagalovsky entered government in 1991 and was Russia's chief negotiator with the IMF in 1992-95; he then took a position with the Menatep bank, and today is vice-president of Yukos oil company, which Menatep acquired through the loans-for-shares scam. Today Kagalovsky lives in an expensively renovated 19th-century Moscow mansion; on his wall are photographs of his meetings with George Bush and Margaret Thatcher.

Four days after the publication of the "Who Lost Russia" feature, the *New York Times* ran as its lead story, a report that Federal officials are investigating one of the biggest money-

laundering operations ever uncovered in the United States—involving as much as $10 billion funnelled through accounts at the Bank of New York. The *Times* reported that the bank has suspended two senior officers in the bank's eastern European division. One of these is Natasha Gurfinkel Kagalovsky—the wife of the very same Konstantin Kagalovsky.

Gore covers up Russian corruption

Lloyd makes the accurate point, that Vice President Al Gore "was deeply involved in Russia policy through the Gore-Chernomyrdin Commission," and he recounts the now-famous account of how the CIA sent a dossier on Chernomyrdin's corruption to Gore's office, which was returned with a "barnyard epithet" scrawled across the cover. "Gore will have much to answer for," Lloyd writes—but then he goes on to note, without a hint of irony, that it is the George W. Bush campaign that intends to make a big issue of it.

There is now "an increasingly cohesive 'Lost Russia' lobby," Lloyd says, noting recent comments by Pennsylvania Rep. Curt Weldon (R); the lobby's "mouthpiece" is likely to be G.W. Bush's foreign policy adviser, Condoleezza Rice, who is pressing to make the accusation "that the Clinton-Gore administration lost Russia a major part of the Presidential campaign." Of course, even Lloyd's own account makes it clear that the Clinton adminstration by and large simply carried forward the International Monetary Fund policy direction *already* established in 1991-92 during the Bush administration.

On the same day, a front-page article in the Sunday *Washington Post* "Outlook" editorial section also cited Gore's role in suppressing information about corruption in Russia. The article quoted E. Wayne Merry, who headed the "internal political" section of the U.S. Embassy in Moscow from 1991 to 1994, saying that, "after the creation of the 'Gore-Chernomyrdin' working group led by the American Vice President and Yeltin's longest-serving Prime Minister," the embassy was under pressure to find evidence that U.S. policy was producing tangible results, and it was blocked from reporting "about the realities of crime and corruption . . . failures in the privatization and general bad news." Many cables reporting such matters were drafted, but were never sent to Washington.

The current issue of *The Nation* urges that U.S. policy toward Russia should be a subject of serious debate in the Presidential campaign. Noting that Condoleezza Rice wants Bush to make Russia a major issue of Russia, the magazine says that Rice offers no alternative except to wait for a decade until real reformers appear—"a defeatist, condescending attitude." And Gore "is deeply implicated in the administration's failed policy," the magazine says, stressing Gore's vulnerability because of his role in the Gore-Chernomyrdin Commission, and "direct testimony that Gore suppressed U.S. intelligence reports revealing the corruption of Yeltsin officials, including former Prime Minister Viktor Chernomyrdin."

European analysts warn of 'financial crash'

In the United States, the month of August saw a stream of mindless commentary on so-called "positives" in the financial situation, such as government reports of low inflation indexes, hype over new mega-mergers, and the 11,000 Dow Jones index, while in reality, the global financial system unravels.

For example, "Good News on Inflation Sends Markets Up Sharply" (*New York Times,* Aug. 14), or, "It's Starting to Look Like a Summer Rally" (*New York Post,* Aug. 14).

But in Europe, the press is full of dire warnings about an imminent U.S. stock market collapse, and what the international repercussions will be. Leading commentators in London, Germany, and Switzerland are ringing the alarm, whatever their individual alignments and analyses may happen to be. As one London-based financial analyst described it to *EIR,* "We are getting near the end game for the Greenspan Bubble."

This senior source continued: "This U.S. stock market of the past days is rising on near-zero volume. The market technicals, as they are called, are very alarming. I expect to see one more push to try to hit the Dow all-time highs between 11,100-11,200. Then, the market will begin one of the worst sell-offs we have seen, sometime in the next few weeks. Already 57% of all New York Stock Exchange-traded stocks are trading below their 200-day lows, signalling that the broad market is already in a bear market. Only manipulation of the prices of a small handful of stocks is allowing Wall Street to maintain the illusion of a rising market.

"This market, reaching new highs just as interest rates on bonds continue to rise, is as vulnerable as I have seen the market in my 32 years in the business. And if Greenspan, for whatever reason, decides not to raise rates on Aug. 24, the long end of the bond market will simply crash, as confidence in the Fed vanishes."

Prominent among the pre-crash tremors are the rumored losses by major Swiss banking corporations, which reportedly had big bets on bad derivatives. Such developments are eerily reminiscent of the financial chain-reactions in the aftermath of the Russian default of Aug. 17, 1998.—*Marcia Merry Baker*

Commentaries

"Harbingers of Horror," editorial in *Handelsblatt,* German economic daily, Aug. 18.

One year after the panic over the Long Term Capital Man-

agement hedge fund, the "Harbingers of Horror" have reappeared: the spreads between corporate and government bond yields, which have risen so dramatically in recent days that everybody was forced to look back to the pre-Christmas 1998 period, "when the bond market was almost entirely coming to a halt." Now we are again witnessing spreads of up to 117 base points, reached in the United States last week for ten-year maturities, and this is of an "historical dimension. Something must be really going wrong."

The U.S. Federal Reserve was very alarmed about the rise of bond spreads; and, therefore, at the beginning of the week of Aug. 16, the Fed secretly asked for explanations from the City of London and Wall Street.

London and New York bankers told the Fed that there is absolutely no reason to worry, because it's only the big appetite for bonds by the "booming U.S. economy" which is driving up the yields, in particular before the expected rate increase on Aug. 24. Should this "very optimistic view" of the present "dramatic developments" turn out to be not in correspondence with reality, concludes the editorial, then we have a big problem.

Heinz Brestel, "Flood Danger" editorial in the German daily *Frankfurter Allgemeine Zeitung,* Aug. 19.

The corporate bond market will run into turmoil in the autumn, states Swiss financial expert Brestel. He warns that international bond markets are being flooded right now with private sector issuances, in particular in the United States, but also in Europe. Corporate bond issuances have been multiplied in recent years due to the huge number of corporate mergers.

Concerning Europe, Brestel points to an eruption of junk bond emissions in some of the southern European Monetary Union member countries. As a consequence, corporate bond yields are rising across the board. So far, newly issued corporate bonds were still finding buyers. "However, the question is, how long can this go on, as markets are being flooded with new emissions? When will the dams break?"

Brestel notes that, according to market specialists in London and Zürich, "this is the biggest danger this autumn." Watch out for the first signs of market hesitance to buy up new corporate bonds. Then, "over-night, the short-term period of summer weather on markets will suddenly come to an end and will be replaced by the first autumn storms."

Brestel adds that the Daewoo disaster in South Korea will, in the coming weeks, cause further financial turbulence, leading to "thunderstorms over Far Eastern markets," including Japan.

"Stock Market Crash Will Halve Equity Values," London *Guardian,* Aug. 16.

"Wealthy people should start liquidating their stock market holdings now before a crash that will halve share prices and keep them depressed for up to 20 years."

The article quotes a senior investment consultant, Andrew Smithers, from his foreword to the 1999 edition of an investment guide to private asset managers: "Massive over-pricing is a common feature of all equity markets, though Wall Street seems to represent the most extreme example."

Smithers calls on investors to liquididate their stock holdings, given that "share prices have reached levels that may not be seen again for 20 years or more and will probably halve." Investors should not count on their fund managers to take the appropriate measures, because, "faced with a conflict between the risks to the clients' money and the risks to their own careers, fund managers will not hesitate to act in their own interests and it would be unreasonable for the outsider to expect them to behave differently."

Smithers advises "those who seek to be responsible stewards of their own and their families' fortunes" to "read widely and sceptically about stock markets" and to "absolve the investment manager" from responsibility for his decisions about their money.

John Grieve Smith, editorial in the London *Observer,* Aug. 15.

"Do we need a collapse on Wall Street and a run on the dollar," before finance ministers become "interested in tackling the instability of global financial markets?" asks Smith. He states, "The international financial system is overdue for an overhaul. The last time this was done was in 1944, when the Bretton Woods Agreement set up the International Monetary Fund and the World Bank as part of an international regime designed to avoid a repetition of the instability and mass unemployment of the inter-war years. It is time for a new Bretton Woods that will take into account the way in which the world has changed since then."

However, Smith offers only an agenda for mini-reform, such as limiting the liberalization of capital markets by regulating the inflow of short-term capital, and perhaps introducing a tax on speculative transactions. Smith calls for setting "informal arrangements" on foreign exchange, but not fixed exchange rates as in the early Bretton Woods period.

Otmar Issing, chief economist of the European Central Bank, interview published in the *Frankfurter Allgemeine Zeitung,* Aug. 19.

The central issue, Issing argues, is whether there is "asset price inflation" on world financial markets, what the consequences of this could be, and whether central banks will have to take counter-measures. He concludes that asset price inflation is already in the making, even though consumer prices show no sign yet of inflation.

He concludes that a situation of "general and rapid rise of asset prices . . . would cause the highest alarm for a central bank. Then it's time to act."

New statistics show Ibero-American economies are in free fall

by Dennis Small

What would you think of the scientific competence—let alone the moral standards—of a measurement of the economic health of your city which was based on surveying the quarterly sales of the corner grocer, the failing local widget plant, and the troubled downtown restaurants, and which then gave equal statistical weight to the booming business of ghetto and suburban crack and heroin dealers?

Sounds crazy? Yet that is exactly how the International Monetary Fund (IMF) and the World Bank—the ruling financial institutions of today's global world order—calculate the economic "growth" of every country around the world. The IMF has mandated that drug production and distribution be included in all official GNP statistics. No longer does GNP stand for Gross National Product; it now means Gross *Narco* Product (see Dennis Small, "The IMF and Wall Street Are Gunning for Drug Legalization," *EIR,* July 16, 1999).

And what would be your conclusion, were you to learn that even those drug-inflated GNP statistics have been plummeting across Ibero-America over the course of 1999 to date? Does this sound like the "recovery" that you keep reading about?

All in all, GNP is a thoroughly unscientific measure of an economy's growth. Even before drugs are added in, GNP includes all sorts of pointless and unproductive activities in its summation of what is called monetary "value added"—such as financial services, administrative overhead, and so on.

Keeping that in mind, consider **Figure 1,** which shows projected GNP growth or decline figures for 1999, according to a forecast issued recently by the Wall Street investment house Bear Stearns. It shows declines for most of the principal economies of Ibero-America, with Mexico being the major exception: Mexico's GNP, it predicts, will "grow" by 3.5% over the course of this year.

Don't believe a word of it. By this same GNP fraud, the Mexican economy has been steadily growing since 1981, and even grew by an average 2.5% per annum in the four years of crisis since Mexico's December 1994 debt blowout. But the fact is that, if you analyze Mexico's *physical economy* with Lyndon LaRouche's methodology—calculating changes in the economy's ability to produce standard market baskets of consumer, producer, and infrastructure goods, as measured in physical (not monetary) units per capita—an altogether different picture emerges.

FIGURE 1
GNP, 1999 projection
(% annual change)

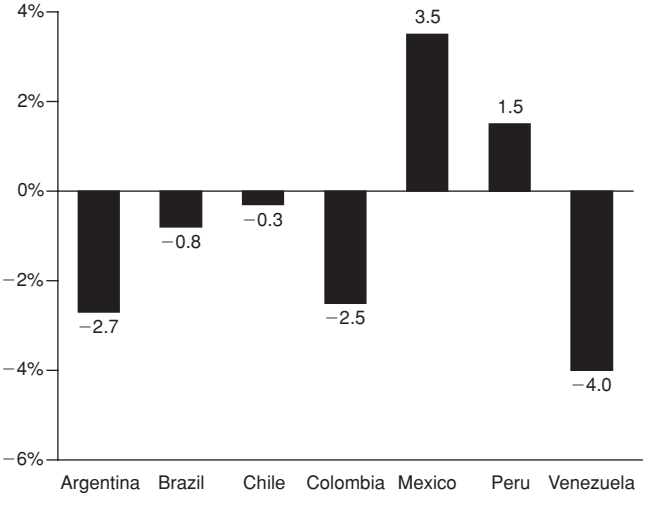


Figure 2 shows what has happened in Mexico to such a physical market basket of consumer goods, contrasted to the geometric growth of the country's real foreign debt. Consumer goods production did in fact rise modestly from 1970 to 1981, but, starting in 1982—the year that IMF policies were forcibly imposed on Mexico—per-capita physical output of the market basket of consumer goods has consistently *declined,* contrary to the GNP hoax. By 1994, it had fallen almost 20% in real terms from its 1981 high point. Moreover, between 1994 and 1998—the same four years where the GNP crowd would have us believe that Mexico's economy grew by over 10%—the consumer goods market basket plunged an additional 17%.

1999: The bottom falls out

But this is only the beginning of our story. Because, as destructive as the IMF policies of the 1980s and mid-1990s were in Mexico, as in all of Ibero-America; and as devastating as the effects of the global financial crisis of 1994-98 have been in this region; they are as nothing, compared to what is

FIGURE 2
Mexico: typical collapse function
(index 1981 = 0)

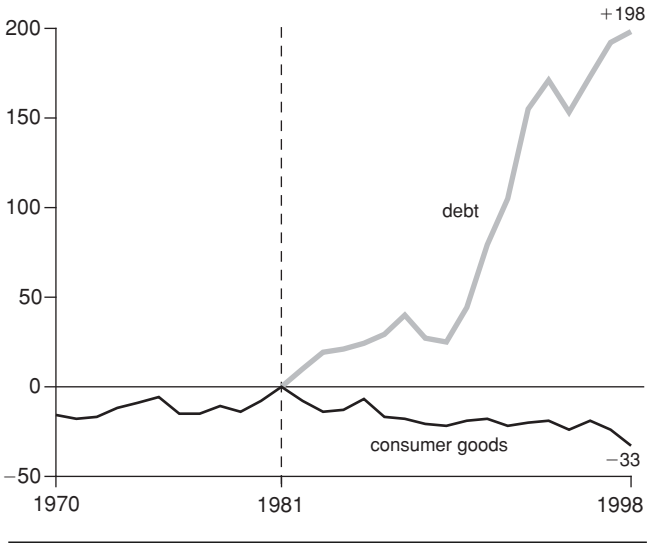
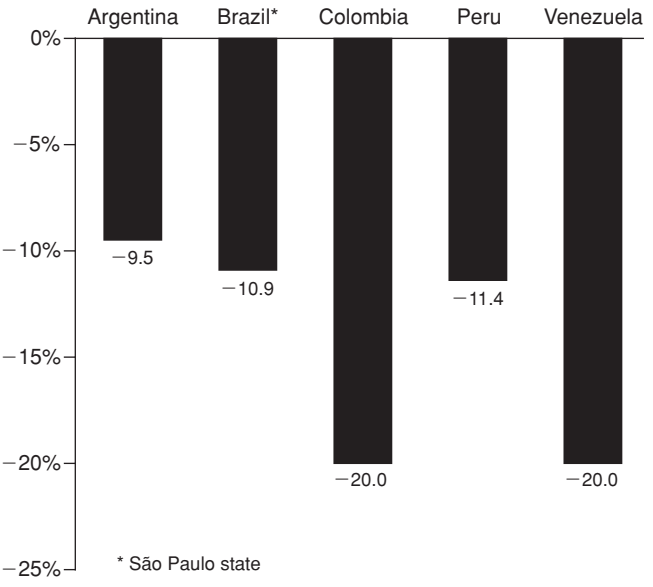


FIGURE 3
Industrial output
(first quarter 1999)



now happening to Ibero-America's physical economy over the course of 1999 to date.

In Mexico, for example, the first 20% decline in the consumer goods market basket took some 13 years to happen—from 1981 to 1994. The next nearly 20% drop occurred more quickly, in only four years time. But, available figures for the first quarter of 1999 show yet another 20% plunge in the consumption of basic food staples, this time in a *one-year* period.

The Mexico consumer goods case is merely symptomatic of a broader pattern. *Across Ibero-America, the first quarter of 1999 witnessed completely unprecedented rates of physical economic collapse of 15-20% per annum, in both food consumption and total industrial output*, as we shall demonstrate below. And, everything indicates that the second quarter of 1999 was even worse than the first, and that there is no end in sight to the plunge.

In other words, what we are witnessing is more than a simple acceleration of the decay under way for nearly 20 years in Ibero-America. Rather, it is a drastic, non-linear free fall, an implosion which will have wide-ranging economic, political, and social consequences unforeseen by most observers and participants in the process. Because the continent is not only financially bankrupt; it is now also being "Africanized," as *EIR* has been warning for years.

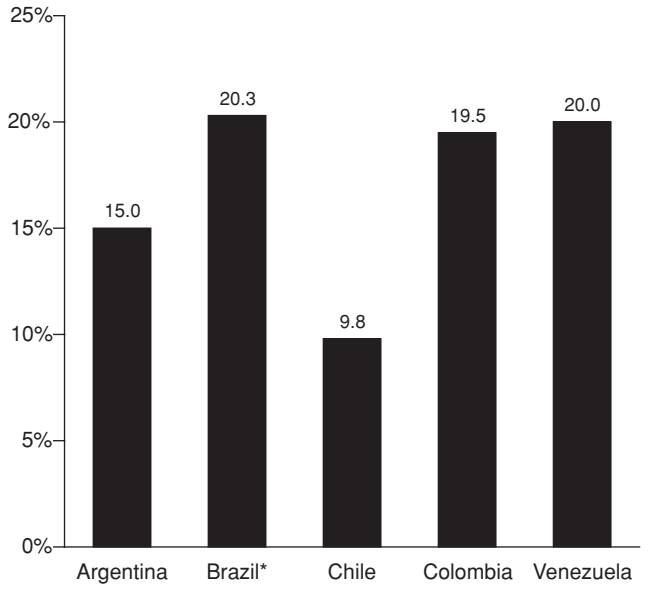
Nor will these consequences be limited to Ibero-America. Consider the fact that German exports to Ibero-America as a whole were down 5.1% in the first quarter of 1999, compared to a year earlier; German exports to Brazil fell 9% in the same period. As for the United States, some 20% of all U.S. exports currently go to Ibero-America. Can the United States continue to export into a market that is plunging into this kind of a depression?

The economic free fall of 1999 in Ibero-America is a direct consequence of the latest stage of the global financial crash ushered in by the combined Russian debt default of August 1998, and the September 1998 bankruptcy of the giant Long Term Capital Management hedge fund. These events led to a global liquidity crunch and a financial stampede out of all "emerging markets"—i.e., former East bloc and Third World nations—emphatically including Ibero-America. One prominent result of this was the Brazilian debt crisis and maxi-devaluation of January 1999, which in turn became the immediate trigger for the first quarter blood-letting across Ibero-America.

Brazil, it should be recalled, is the economic giant of the continent, representing half or more of Ibero-America's total economic activity, in most categories. With Brazil plunging into deep depression in early 1999, the rest of Ibero-America began to feel the knock-down effects immediately. Most vulnerable is Argentina, about 30% of whose exports go to Brazil. The combination of the Brazilian devaluation and the contraction of its economic activity as such, has meant that the market for one-third of Argentina's exports has dried up overnight. There are tens of thousands of newly unemployed Argentines who are the shocked victims of this process today.

But, the depression is not limited to Argentina and Brazil, as **Figure 3** shows. Industrial output for the first quarter of

FIGURE 4
Official unemployment
(first quarter 1999)



*São Paulo state

1999, compared to the same period of 1998,[1] is down by about 10% in both Argentina and the Brazilian state of São Paulo, which is the economic powerhouse in that country, representing almost a half of total national output. But Colombia and Venezuela are collapsing at twice that rate—by about 20% per year. In Colombia, this is the sharpest rate of decline that the country has seen since such statistical records began to be kept there, in the middle of this century.

(It should be noted that Figure 3 uses *monetary* values for total industrial output. If one were to look at output in *physical* units, such as tons, per capita—data which are generally not made available by the respective national economic authorities—the collapse would unquestionably be far worse. The same point applies to Figure 5 below.)

A human catastrophe

The sharp slowdown in economic activity has translated into wave after wave of layoffs. **Figure 4** shows that official unemployment rates now stand in the 15-20% range in most of Ibero-America, and this is rapidly worsening. For example, Colombian unemployment in August 1998 was 15.2%, but had risen to 19.5% by March 1999. In the state of São Paulo, Brazil, unemployment was at 17.8% in January 1999, but had increased to 20.3% by April. Since the physical economic downturn has worsened in the second quarter of this year, it is certain that unemployment rates will continue to skyrocket. Countries such as Colombia and Venezuela—especially given their notorious involvement in the drug trade—cannot hold together as viable nation-states with 20% unemployment rates.

Note that the above are *official* unemployment figures; *real* unemployment (including massive under- and misemployment in the so-called services and "informal" sectors, including the drug trade) is significantly higher in all cases. Mexico is a good example of this: whereas official unemployment figures are in the single digits, *EIR* has published detailed studies of Mexico's real unemployment rate which placed it at 49% of the labor force at the end of 1996. It is certainly well more than 50% today.

If you want a job in Mexico, your only sure bets are the drug trade, or the slave labor *maquiladora* plants along the U.S. border. Thanks to George Bush's North American Free Trade Agreement atrocity, *maquiladora* employment and output continue to boom, most recently growing at 10.2% in April 1999 (compared to April 1998), while the employment and output of the rest of Mexico collapsed. Wages for even these slave-labor jobs have steadily declined, and are now 23% lower than the miserable levels of five years ago. The average *maquiladora* wage today is about 70¢ per hour.

Overall poverty in Mexico is reaching alarming proportions. More than 40% of Mexico's 100 million people live in poverty; 26% of them (i.e., 26 million souls) suffer *extreme* poverty, which means that they go hungry most of the time. Back in 1994, it took 1.6 minimum wages for a family to purchase the government's definition of a minimal market basket of food items: a small amount of tortillas, beans, rice, cooking oil, and other staples, with no milk or meat included. By 1998, it took 2.5 minimum wages to buy the same basic market basket—a 56% decline in the real purchasing power of the minimum wage. Since 67% of the population earned less than two minimum wages in 1998, it is obvious that close to two-thirds of the population cannot even afford this meager market basket of food items. In 1998, the official minimum wage in Mexico was 30 pesos (about $3) *per day*.

And what happened in 1999? It all got worse, much worse.

Figure 5 shows the consumption of basic food staples in four countries of Ibero-America. In Mexico, as we noted above, food consumption in the first quarter of 1999 dropped 20% over the same period of 1998. In other words, on average, the Mexican population—26% of whom are already enmired in extreme poverty and endure daily hunger—are today eating one-fifth less tortillas, beans, and rice than they were one year ago. Milk and meat have virtually disappeared from their diet. Under these conditions, hunger will not only spread, but in growing numbers it will pass over into outright starvation, and the epidemic diseases attendant upon such conditions will increase. It is for this reason that we insist

1. The data used in **Figures 3, 4** and **5** correspond to slightly different months of 1999 for the countries in question, because of the unavailability of identical time series for all the countries. For example, in Figure 3 Brazil/São Paulo, Colombia, and Venezuela are first-quarter data; Argentina refers to the first five months of the year; and Peru to February.

FIGURE 5
Drop in consumption of food staples
(first quarter 1999)

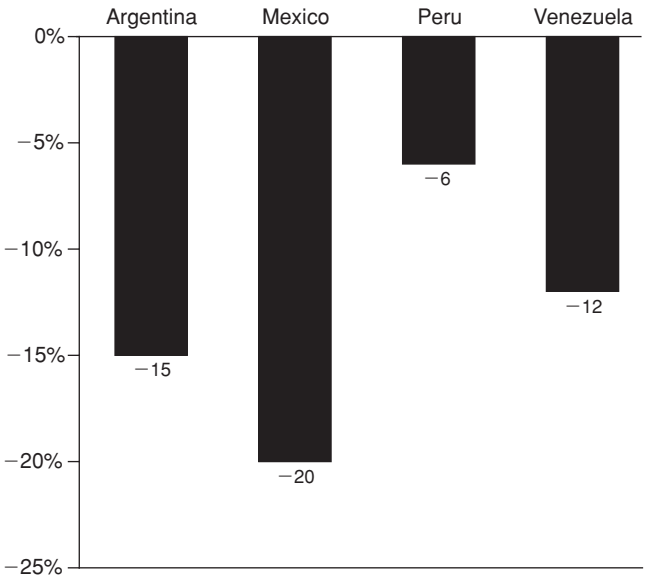
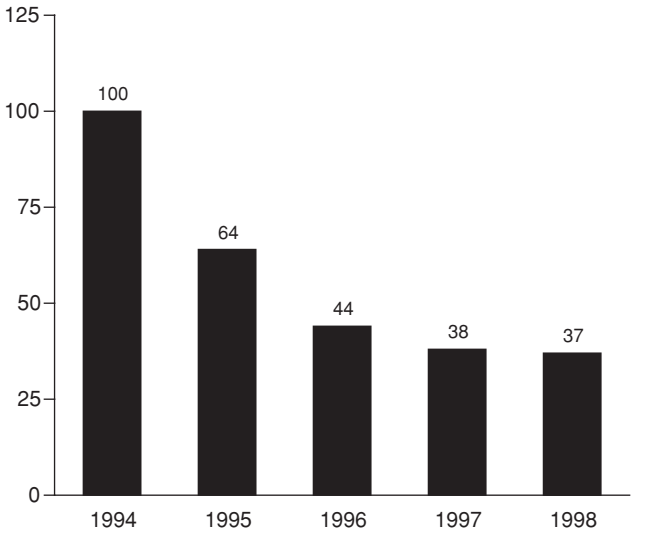


FIGURE 6
Mexico: commerical bank loans
(index 1994 = 100)



that Ibero-America is being "Africanized."

Mexico may be the most dramatic case, but food consumption is also plummeting in Venezuela (by 12%); in Argentina, a former breadbasket and agricultural powerhouse (by 15%); and in Peru, by 6%.

Banking systems disintegrate

The banking systems in almost every country of Ibero-America have also cracked under the pressure of the ongoing international financial crisis. They are all completely bankrupt, and they are now beginning to vanish from the map altogether.

Again, the case of Mexico is exemplary. Mexico's private banking system went belly-up in the aftermath of the December 1994 debt blowout, when the IMF forced Mexico to jack up interest rates to over 40%—supposedly to "attract foreign [speculative] capital." This, along with the economic collapse described above, led to massive defaults on business and personal loans owed to the Mexican banks.

In 1995, rather than carry out the kind of bankruptcy reorganization that Lyndon LaRouche has repeatedly called for, the Zedillo government chose instead to bail out the banks to the tune of $65 billion—an amount close to two-thirds of their total loan portfolio at that time. But that money didn't go to stabilize those banks, so that they could resume domestic lending. It went instead for the Mexican banks to pay off their own foreign creditors, and to make good on their various bets in the global derivatives market. Today, there is talk in Mexican and international financial circles that *another* $25 billion is needed to "save" Mexico's banks—pushing the total bailout up toward the $100 billion mark.

In fact, while the Mexican government has been pumping more and more taxpayer money into the insolvent banks, they have been lending less and less to Mexicans. As **Figure 6** shows, lending by Mexican commercial banks has dropped by almost two-thirds from the levels of 1994. For all intents and purposes, Mexico no longer has a banking system—at least not one of any use to Mexicans.

So, where did Mexican companies turn for credit to keep operating? To foreign lenders, in droves. Mexico's private sector foreign debt had grown to $62 billion at the end of 1998; and $42 billion of it comes due between now and the end of the year 2000. Already, a number of major Mexican corporations—such as AHMSA steel and Bufete Industrial—have defaulted on their international payments, and have been forced to file for bankruptcy. More, many more, will soon follow.

The banking systems of Colombia, Peru, and Ecuador are in similar straits, with numbers of major banks in each of these countries going bankrupt over the course of this year. A late June 1999 edition of the London *Financial Times* reported that the banking systems of these three countries are in danger of collapse in the short term, and it added that, whereas Mexico's $65 billion bank bailout in 1995 amounted to 17% of the country's GNP, Ecuador's required bank bailout could gobble up as much as 33% of its GNP. As for Peru, with its second-largest bank, Banco Wiese, going belly up this year, there has been widespread talk about a possible collapse of the whole system. "If the banking system collapses," an official at Peru's Foreign Trade Society (Comex) told a local paper in early May, "it will drag all other activities with it."

Business Briefs

Natural Gas

China, Australia ready $10 billion contract

Chinese and Australian authorities are rushing to complete a deal, whereby China would buy $10 billion worth of Australian natural gas, in time for Chinese President Jiang Zemin's state visit to Australia in September. The deal will be the biggest resource sale in Australia since a deal was struck to supply natural gas to the Japanese a decade ago.

According to Australian sources, a senior Chinese official told Australian Foreign Minister Alexander Downer during his visit to Beijing in July that relations between the two nations were better than at any time since diplomatic ties were established in 1975. China's Ambassador Zhou Wenzhong told the *Australian Financial Review* on Aug. 5, "We appreciate Australia's view on Taiwan," and he said that "this has made it possible to intensify the relationship." Bilateral relations are improving "all round. . . . Trade between our two countries at the moment is about $10 billion. The Australia-China Business Council wants to double this over five years. It's very ambitious, but I support this goal. If we can make an agreement on LNG [liquefied natural gas], it will not just add hundreds of millions, it will add billions of dollars," he said.

Asia

Japanese, S. Korean firms forming alliances

A growing number of Japanese and South Korean companies are forming partnerships, in which South Korean firms aim to take advantage of Japanese capital and Japanese firms hope to secure a foothold in the South Korean market, Nikkei reported on Aug. 11. Both governments support the trend. South Korean Trade Minister Hong Soon-yong plans to visit Japan in late August to talk with the Japanese government about a bilateral investment pact that would guarantee Japanese companies the same treatment as domestic concerns. An accord is expected to be reached by year end.

Samsung General Chemicals and Hyundai Petrochemical of South Korea, which will merge later this year, plan to invite more than $1 billion worth of Japanese investment in the merged firm. Mitsui & Co., as financial adviser, has already begun soliciting Japanese firms. Hyundai and Samsung intend to own 49% of the new company, and to have Japanese investors take control of the firm, Korean industry sources said.

In telecommunications, Shinsegi Telecomm, a major South Korean mobile phone company, has started selling handsets made by Tokyo's Sanyo Electric. Japan's Kyocera Corp. and SK Telecom Co. have struck a similar deal, and Japan Telecom and Seoul's Dacom Corp. agreed in July to cooperate on cell phone development. Also, Kawasaki Steel and Dongkuk Steel Mill Co. have agreed on an alliance, including an equity tie-up. Toray Industries and Saehan Industries will set up a joint venture this fall.

Germany

Labor leader: To create jobs, tax speculation

Hanjo Lucassen, chairman of the Saxony state section of the German Labor Federation (DGB), told *EIR* on Aug. 10 that, while the industrial managements are to blame for their lack of commitment to create new jobs, the Social Democratic Party (SPD)-Greens (red-green) coalition government is also to blame, because it has failed to pass legislation that taxes "idle capital," which is not being invested.

When asked about a tax on speculation, Lucassen said that the DGB does not want to be "ideological in this sensitive situation," but that, "indeed, the banks must contribute to the task of creating new jobs. And what we have proposed, is that if the public sector gets relief of only 1% from its regular debt service, this would provide us with 10 billion marks every fiscal year." This sum could be used for government programs to create jobs, and the government budget would get relief in the same range, he said, adding that the government should take the initiative, because the banks will not propose such a thing on their own.

Lucassen pointed to the high youth unemployment, notably in eastern Germany, saying that despite all the declarations from Bonn, nothing has been done. Against the general background of rising unemployment, the government will have no other choice this autumn but to re-launch costly job-creation programs, to take several hundred thousand jobless off the streets, at least for 6-12 months. And, if the red-green government tries to fund that program by cuts in the social and welfare budgets, the labor movement will revolt. Lucassen said that particularly in eastern Germany, labor is "not very enthusiastic" over this government in Bonn, and to many, it looks "worse than the former government." Labor protests are certain, if the situation does not change in the near future, he warned.

Saxony will hold elections for Parliament on Sept. 19, and three other eastern states will hold elections in the next few weeks: Brandenburg on Sept. 5, Thuringia on Sept. 12, and Berlin on Oct. 10. In all cases, the wind is blowing fiercely against the SPD.

Papua New Guinea

New Prime Minister goes back to IMF, World Bank

Papua New Guinea is returning to the International Monetary Fund-World Bank fold under Prime Minister Sir Mekere Morauta, who was elected on July 14. Three years ago, Prime Minister Sir Julius Chan kicked the World Bank out of P.N.G., but he was in turn driven from office in a hoked-up scandal involving hiring mercenaries from the British-tied Sandline firm to put down a Rio Tinto-inspired insurgency on the island province of Bougainville. Chan was replaced by Bill Skate, who continued Chan's policy toward the IMF, but Skate was also forced out. Thanks to intense political manipulations involving pressure from Australia, Skate's chosen successor was passed over in favor of Sir Mekere, a candidate approved of by Australia, and by the IMF and World Bank.

Sir Mekere has announced plans to re-

structure P.N.G.'s economy under the guidance of the IMF, and has established a privatization commission to oversee a radical program of selling state asset to pay off a 22 billion kina ($15 billion) national debt. The assets slated to be sold off include a cement company, the harbor authority, a sugar company, the government insurance company, the government broadcasting company, the national airline, and the national telecommunications company. More than half of the debt is owed to the central bank.

The national airline, Air Niuguini, upon the country's return to IMF policies, sacked its 98 person engineering workforce over a pay dispute. The engineers had walked off the job in protest at management's unwillingness to grant a pay raise in line with inflation. They were summarily dismissed by airline CEO Andrew Ogil, who accused the engineers union of striking illegally by contravening laws that stipulate seven days' notice and a secret ballot before industrial action, but bristled when his own 400,000 kina salary was raised as an issue. Ogil assured the public that their safety was "absolute, there is no compromise of air safety standards whatsoever."

Africa

Nigeria rejects British proposal for monitoring

Nigerian Finance Minister Adamu Ciroma has rejected an outrageous proposal made by Britain, to put the Central Bank under International Monetary Fund control. In an interview with the Aug. 3 London *Financial Times,* Ciroma said that his government agreed with several IMF demands, including to improve transparency. "But," the paper reports, "there were differences with the IMF over the pace of some reforms and he [Ciroma] described the suggestion from Nigeria's largest creditor, Britain, that IMF officials monitor the central bank in return for debt relief, as politically unacceptable." Ciroma is quoted saying that there are things the IMF wants Nigeria to do right away, which it plans to do only next year, such as deregulating petroleum product prices.

The *Financial Times* reports on an IMF delegation visit to Nigeria the week before. "They said they were impressed by the commitment with which [President Olusegun Obasanjo] had begun tackling corruption. . . . But Nigerian officials said the IMF team expressed frustration with exchange rate controls, as well as subsidies on fertilizers and fuel, and went away until October without setting a benchmark for a deal."

Corporate

Major consolidation in the aluminum industry

Alcan Aluminum of Canada, currently the world's second-largest producer of aluminum, announced on Aug. 11 that it will buy Pechiney SA of France and the aluminum and packaging units of Switzerland's Alusuisse Lonza Group (Algroup) for $9.2 billion in stock. The combined companies, to be temporarily named Alcan-Pechiney-Algroup (APA) and based in Canada, would become the world's largest aluminum producer, surpassing Alcoa.

Alcoa, in response, made a $5.6 billion bid for Reynolds Metals, a deal which, if successful, would put it back on top. Two days after Alcoa's bid, a counter-bid for Reynolds was made by McCook Metals of Chicago, a firm owned by the money company, Michigan Avenue Partners. Rumors place McCook's offer at $67-72 a share; Alcoa's offer is $65 a share. In 1998, Alcoa bought Alumax, at the time the third- or fourth-largest U.S. aluminum producer, and Spain's state-owned Inespal, and in 1995 it bought the Italian state-owned Alumix, according to Reuters.

Based upon 1998 figures, Alcoa produced 2.5 million metric tons of aluminum, or 11.3% of world production, followed by Alcan with 1.5 million tons, or 6.6%. The companies comprising APA produced 2.6 million tons in 1998, or 11.7% of the world total, while the combined output of Alcoa and Reynolds was 3.5 million tons, or 15.5% of world output. The third-largest producer in 1998 was China's State Bureau of Nonferrous Metals Industry, with 1.0 million tons, or 4.5%.

Briefly

JORDAN leased its main freight rail line for 25 years to an international investment consortium in a deal worth $130 million. The firm involved is Raytheon Infrastructure, a subsidiary of Raytheon Engineers and Constractors and Wisconsin Central Transportation of the United States. The deal is linked to a $500 million fertilizer project being built by Hydro Agri, a division of Norway's Norsk Hydro.

THE TURKISH Parliament, following a deal among the government parties and the Islamic Virtue Party, passed reforms demanded by the International Monetary Fund, including changing Turkey's constitution to allow for privatization and international arbitration in cases involving the government and foreign investors. Other reforms under debate include those to social security, which have triggered trade union protests.

ROMANIA'S Health Ministry on Aug. 5 announced that a meningitis epidemic has broken out in Iasi, Suceava, Botosani, Bacau, and Neamt, Romanian Radio reported. The previous day, Iasi Mayor Constantin Simirad declared the town an "epidemic zone" in order to force the water utility company to restore water supply to homes that have been disconnected because of unpaid bills.

DENMARK'S capital, Copenhagen, and Sweden's city of Malmö now have a direct road link, after a 16 kilometer four-lane road and dual-track rail bridge and tunnel across the Oresund was completed on Aug. 14. Full operation will begin on July 1, 2000, cutting travel time to 10 minutes, from the 45 minutes it takes by ferry.

UNEMPLOYMENT is higher in "Euroland" than in the non-European Monetary Union parts of the European Union. The latest jobless report from Brussels for June shows an average rate of unemployment of 10.3% for the EMU member-states, and when the four non-members are added in, the rate drops to 9.4%.

How Fresnel and Ampère launched a scientific revolution

This presentation by Jonathan Tennenbaum on "The Drama of Cognition," was given to the Schiller Institute's summer seminar in Oberwesel, Germany on July 24.

This presentation was composed on the basis of research by Laurence Hecht in the United States, Jacques Cheminade, Pierre Bonnefoy, and Christine Bierre in France, and Dino de Paoli and Jonathan Tennenbaum in Germany. Original quotes were read by different speakers, heightening the dramatic effect of the presentation. The importance of the Fresnel-Ampère collaboration, which is the immediate subject of the presentation, first came to light thanks to the groundbreaking work of Laurence Hecht,[1] carried out during his long incarceration as a political prisoner in Virginia. In a recent article,[2] Lyndon LaRouche had called attention to the broader significance of the matters addressed here, to the situation of the world today.

I. A French overture

We are in France, after 1815. The ruling powers of Europe, sponsored by London and Venice, have smashed and bled the French armies to death. The monsters of the Revolution have devoured their sons. Following the self-destructive rage of the Jacobins rallied behind the outcry "the Republic does not need scientists," and the murderous Bonapartist revival of the Roman legions, the monarchist Restoration is now falling upon the defeated country. The scene is filled with aristocrats running after their lost privileges and bourgeois financiers seeking to keep their new ones. Legitimists, Orléanists and rallied Bonapartists play the game of the purse and the coat of arms, while the living dead dance at the Congress of Vienna, the hand of vice patting the head of crime.

A romantic lust for pleasure and pain and, worse, the unpleasant habit of talking endlessly about it, have replaced the joy of acting, discovering and creating. Lazare Carnot and Gilbert de Lafayette have lost their battle to create humanist republics over the world, following the example of the American Revolution, and the British system rules over world trade and finances.

Science is being willfully destroyed, because for such oligarchical regimes, the very existence of truth and human reason is a threat. Napoleon had sponsored a "science" without God: when he asked Marquis de Laplace, why Laplace did not mention God in his monumental work, *Méchanique Célèste,* Laplace told him, "Sire, je n'avais pas besoin de cette hypothèse" ("Sir, I didn't need that hypothesis"). But the aristocrats now dreamt of a God without science. It amounts, of course, to the same: no God and no science altogether.

After Napoleon had let the scientific elite from the Ecole Polytechnique be butchered on his battlefields, now the Restoration was organizing a drastic cleansing of what was left at the Ecole, shutting it down temporarily to eliminate all scientists suspected of republicanism, leaving inside only the Newtonians and the Cartesians.

Your "choice" is either to pretend to make no hypotheses at all, like Newton, and be an empiricist in a void and endlessly abstract space-time filled with balls, or to be a Cartesian filling space with inert fluids and pretending that such constructs are obvious truths.

In both cases, so-called "science" is limited to measuring the known within an established system. Therefore you don't need the hypothesis of God or any hypothesis at all, because you limit yourself, under that name of "science," to do what

1. Laurence Hecht, et al., "The Significance of the 1845 Gauss-Weber Correspondence," *21st Century Science & Technology,* Fall 1996; and Hecht, "Optical Theory in the 19th Century, and the Truth about Michelson-Morley-Miller," *21st Century Science & Technology,* Spring 1998.

2. Lyndon H. LaRouche, Jr., "How to Save a Dying U.S.A.," *EIR,* July 16, 1999.



"Ampère, together with Fresnel," says Tennenbaum, "contributed decisively to breaking the authority of the Laplacian neo-Newtonianism and loosening the oligarchical grip on European science sufficiently, to make possible the 19th-century revolution in physical science. To do this, they exploited a key flank: the stupidity the 'standard methods' imposed by Laplace, which made the Laplacians highly vulnerable to attack." Left to right: Augustin Fresnel, André-Marie Ampère, Pierre Simon Laplace.

you are supposed to do: to find only what is consistent with the system, which means discovering nothing. If you want to go beyond and understand the *raison d'être* of your universe, you do need a God; but now it becomes an arbitrary God, like a despot on Earth. So in France, it is the no-God of the Newtonian Laplace put together with the arbitrary God of the Cartesian oligarchs, a marriage of convenience like that of an aristocrat's son and a financier's daughter.

So, the scientists are condemned to be learned donkeys. And indeed, if you listen to the discussions of those then leading the Académie des Sciences, the Institut, or the Ecole in those years—the Laplaces, Biots, Berthollets, Charles, Maurices, or Poissons—you see a degeneration of science into endless calculations, synoptic charts and equations, where nobody has the "bad taste" to question an axiom. These gentlemen are too serious to indulge in such things as poetry or music, and make a point not to do so: They are objective and emotionless, like perfect oligarchical servants, Kantian robots.

This is France after 1815: The rules of the game are set; dualism and British "science" rule, and creativity is killed for good. At least, that is what the world looks like *inside* the system.

Fortunately, human beings cannot all be held in a mental cage for very long; the power of people for receiving and imparting profound and impassioned conceptions respecting man and nature cannot be killed. So in 1815 France, we find a man in his thirties, who has been educated a bit wildly, but outside the system, a genius who sees science and poetry as an inseparable unity. We find another man, in his twenties, writing outrageously to his younger brother: "I like to do research, but studies bore me."

Both are looking for a flank to smash the Newtonian-Cartesian oligarchy. The older one is perhaps more thoughtful, he looks more into his own mental processes, while the younger one is audacious, a dreamer who looks to the stars. It is a good pair. They are ready to plunge joyfully in the unknown. Light and electromagnetism: They meet and work together, with a few others, to make hypotheses and break the rules of the game.

So now the curtain opens.

II. Newton's 'Opticks'

Isaac Newton: "I frame no hypotheses; for whatever is not deduced from the phenomena is to be called a hypothesis, and hypotheses, whether metaphysical or physical, whether occult qualities or mechanical, have no place in experimental philosophy. In this philosophy particular propositions are inferred from the phenomena and afterwards rendered general by induction."

This is the famous dictum of Newton, written in his *Opticks,* published in 1704. In no country, not even England, is the cult of Newton so extreme and so fanatical as in France, thanks to the influence of the evil Voltaire and the Venetian-

run salons, codified in the mathematics of Euler and Lagrange, and now enforced by the pompous Marquis de Laplace, the politically dominant figure in French science since Napoleon's 1799 militarization of the Ecole Polytechnique.

And yet, Newton's claim of laws "deduced from the phenomena" is a fraud. Newton's entire scheme of physics, like that of Descartes, was based on the most simplistic sort of unproven hypothesis concerning the nature of matter and space. Newton assumed as self-evident, that the universe is composed of discrete mass-points or inert, hard particles moving around in an infinite, empty Euclidean three-dimensional space, and assumed the latter to be a perfectly continuous, infinitely divisible entity in which the most elementary forms of existence are the point and straight line. All a hypothesis, completely unproved and by no means "deduced from the phenomena," yet more or less believed by most people even today.

Superficially the Newtonian system seemed opposed to Descartes. While Newton emphasized point-like particles in an otherwise empty space. Descartes considered space as filled with or even constituted by a continuous sort of matter or fluid. But both, in essence, rested upon the same *kind* of fixed, aprioristic assumptions about the nature of matter and space.

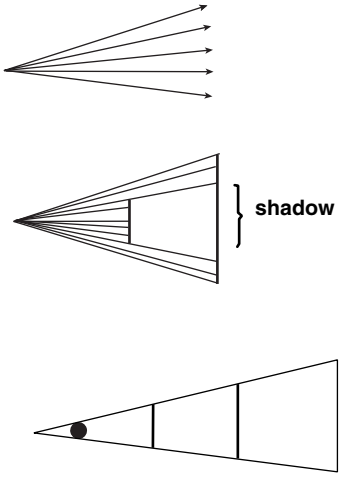
At the turn of the 19th century, Descartes and Newton's ideas were mixed in a very confused way: Many "fluids" were invented, sometimes considered continuous, sometimes considered as composed of particles: a heat fluid (caloric), electric fluids, magnetic fluids; plus electric particles, chemical particles, light particles etc., etc. with various sorts of "forces" acting between them.

Pierre Simon Laplace and Jean-Baptiste Biot, like Louis de Lagrange and Leonhard Euler before them, were not much concerned with whether all or any of these particles, fluids, or forces really existed; the essential thing was the establishment of a "standard procedure" for the elaboration of science based on the mathematical formalism provided by Euler and Lagrange. In fact, the whole manner of presentation in science textbooks today, the whole image of science and of "standard, accepted theory," was established in large part through the influence of Laplace and his gang, including Denis Poisson (Laplace's mathematical lackey, who was made into a baron by Napoleon) and Biot (a notorious plagiarist who acted as Laplace's dirty-tricks agent). We shall meet these two in short order.

But there was resistance to this Laplacian program. After the banishing of Monge and Carnot, one of its key rally-points became the brilliant André-Marie Ampère, who, more than any other contemporary French scientist, aspired to be a universal thinker, contributing to philosophy, physics, chemistry, biology, mathematics, and other fields. He, together with Fresnel, contributed decisively to breaking the authority of the Laplacian neo-Newtonianism and loosening the oligarchical grip on European science sufficiently, to make possible the 19th-century revolution in physical science.

FIGURE 1

Newton's concept of the propagation of light: Straight-line light rays—what could be simpler?



According to Newton, the shadow changes only in size, linearly, with distance.

To do this, they exploited a key flank: the stupidity the "standard methods" imposed by Laplace, which made the Laplacians highly vulnerable to attack.

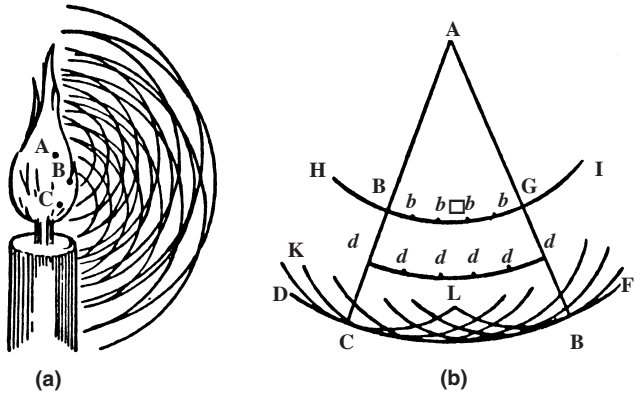
The most exposed flank, in experimental physics, was optics. Voltaire had made Newton's *Opticks* the key to his promotion of Newtonianism as a kind of popular religion in France, as had Algarotti in his famous salon popularization *Newton for Ladies*. Nothing appealed more to banal popular taste. First of all, light propagates in lines called rays—what can be more obvious and self-evident? (See **Figure 1.**) And very plausible, the idea that such rays are streams of tiny particles emitted by the luminous bodies (the sources of light), and travelling very fast in straight lines through space. Newton tried to explain the diffraction, i.e., the fact that light rays are bent in passing between different media—for example between air and water—by ascribing such bending to attractive and repulsive forces acting between the light particles and the particles of the media. This, in essence, is Newton's "emission theory."

Very significantly, Newton developed this scheme *after* a much more advanced theory of light had been elaborated and published by Leibniz's friend and collaborator Christian Huygens, building on the work of Roemer and Bernoulli, and the conceptions of Leonardo da Vinci.

According to Huygens's *Traité de la Lumière* (*Treatise on Light*), written in 1678, light is a form of action which reproduces itself in the act of propagating (**Figure 2**). Huy-

FIGURE 2

Huygens's envelope construction for light



In Huygens's conception, light setting out from any point forms wave fronts which are like expanding concentric spheres. In Figure 2(a), taken from his Treatise on Light, *the wave fronts from points A, B, and C of a candle flame are pictured. In Figure 2(b) he shows how these waves can cooperate to form an "envelope" along the wave front DF, and how, along a radial line such as AC, they could have the appearance of a straight ray.*

gens proposed that the "reproductive cycle"—if I might use that term—takes essentially the following form: At any given stage the action is concentrated on a surface in space, a wave-front. In the immediate next stage, a spherical wavelet (tiny secondary wave) is generated at each point on the wave-front. The *envelope* of those myriad secondary waves, forms the new wave-front. And then this process repeats in a new cycle of wavelet generation and envelope-formation.

Newton's *Opticks* was, from beginning to end, a violent attack on the Leibnizian conception of science and on Huygens's work in particular. Among other things, he put forward experiments and arguments by which he claimed to refute Huygens conception and put forward what appeared to be a much simpler explanation of the phenomena.

Among Newton's objections to Huygens, two were most influential. First, everyone knows that light is composed of rays, and we can form very narrow beams of light moving only straight ahead. So, it doesn't seem at all like a wave which naturally spreads out in all directions. And secondly, more specifically, Newton argued that if Huygens's conception were true, there could be no true shadows; because once a wave-front passes an object, the edges of the wave-front, "cut off" by the objects, would begin to generate spherical wavelets, and the next wave-fronts would propagate more and more into the space behind the object. But everyone knows that it is dark in a shadow!

Although Newton's *Opticks* had numerous glaring errors, the enormous authority given to Newton by the Venetian salons, which made him almost into a god, resulted in virtually burying Huygens's work. In fact, the spread of Newtonianism effectively blocked all progress in optics for one hundred years. Those who raised objections, such as Thomas Young, in England itself, at the beginning of the 19th century, were ruthlessly suppressed. In France, Laplace and Biot, particularly, insisted on Newton against Huygens. Even Ampère, who was inwardly opposed to the fanatical Newtonianism, publicly supported the emission theory.

II. Augustin Fresnel

Augustin Fresnel was born in Broglie in 1788. Fresnel's father was closely allied with the leading anti-British military leader of France [see the contribution of Jacques Cheminade, in this section]. Augustin Fresnel entered the famous Ecole Polytechnique in 1804. His uncle Léonor Mérimée, a well-known painter and teacher of drawing at the Ecole—which featured the study of Leonardo da Vinci's drawings—as well as permanent secretary of the Ecole des Beaux Arts, introduced him to François Arago and Ampère. In 1806 Fresnel entered the civilian engineering corps of the Ecole des Ponts et Chaussées, and then was assigned to manage infrastructure projects in the provinces. But the demands of his profession as an engineer did not dampen Fresnel's passion for scientific research, which he had acquired especially during his studies at the Ecole Polytechnique. In his notebooks of the time, we find on each page, beside calculations and drawings for construction projects, all sorts of objections to the optical theories of Newton, hypotheses and calculations on wave motion, on heat and light, and the molecular constitution of bodies.

In a letter to his brother Léonor on July 5, 1814, Fresnel writes:

"I permit myself certain doubts about the theory of the caloric (heat fluid) and light. . . . According to Newton's system, the molecules of light arrive to us from luminous bodies by being emitted radially. But is it not probable that, in the body which emits light, the light molecules would be emitted with different, greater or lesser speeds, since they are emitted under different circumstances, some with greater force than others? But light rays of a given color all bend in the same way, and it follows from that, that the differences in color come from differences in speed. But from this it would follow, that the first rays which would arrive to us after an eclipse of the Sun, would be the red ones. . . . But we know from experience that this does not happen.

"Try to get yourself out of that one, or extricate me. You are in the society of scientists; if you can't answer by yourself, you can get them to help you smash my objections.

"In the meantime, I must say that I am very tempted to believe that light and heat are transmitted by the vibrations of some fluid. That would explain the uniformity of the speed of light in the same way as that of sound; and in the disturbances of equilibrium of that fluid one may perhaps find the cause of electric phenomena. We will be able to understand easily why a body can lose so much heat without losing weight, and

The author (left), with Lyndon H. LaRouche, Jr. Tennenbaum told his audience at Oberwesel that, through the work of LaRouche, "the revolution launched by Fresnel and Ampère's brilliant flanking operation, leads all the way into this room, to you, dear listeners."

why the Sun can illuminate us for so long without becoming smaller, etc."

Now, although Fresnel speaks about a vibrating fluid, and the analogy of light and sound waves, his thinking is already invigorated by a sense that these phenomena are not so *simple* as naive imagination imagines a water wave, for example, to be. For this reason he is especially fascinated by the phenomenon of "polarization," which had been discovered a few years earlier by Etienne Louis Malus. Writing again to his brother Léonor on July 11, 1814, Fresnel says:

"Please keep me informed about what is known concerning the polarization of light. You cannot imagine how curious I am to know what it is. . . ."

In the winter of 1814, Fresnel wrote down his speculations about the propagation of light in a lengthy memorandum that he called his "reveries" or dreams. He asked his uncle, Léonor Mérimée, to transmit the memorandum to Ampère. For a long time there was no response, and the anxious young scientist wrote to his brother on Nov. 3, 1814:

"My dear friend, tell me now what has become of my uncle. It now more than a month since I sent him a big memorandum with my reveries, and he has still not answered. I begged him to ask Ampère what he had to answer the various questions and objections which I raised. Ampère and my uncle are usually so obliging, that their silence surprises me."

Mérimée wrote back implying that Ampère was in a delicate position, just about to be admitted as a member of the Institut National des Sciences. Also, at that time Ampère himself, at least publicly, adhered to Newton's emission theory.

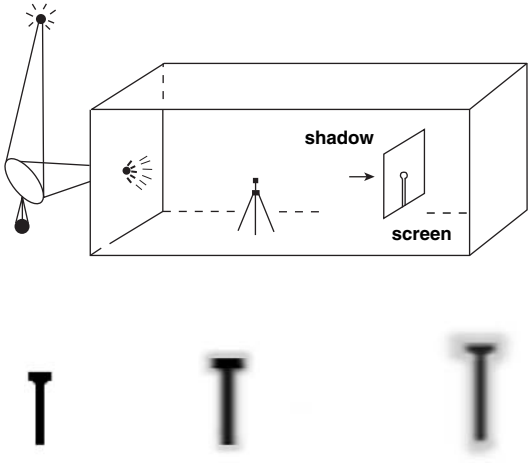
In April 1815, at the time of Napoleon's famous One Hundred Days, Fresnel, whose anti-Napoleon political background was well known, was suspended from his responsibilities in Nyons and placed under police surveillance. He immediately made use of the new, forced leisure to intensify his researches on light, and for the first time he was able to carry out experiments to test the hypotheses he had developed entirely on his own. Now he concentrated all his efforts on developing a decisive experimental refutation of Newton. With some relatively simple instruments which he had had made by the village machinist, he went to work.

Soon he found what he was looking for—a new whole set of anomalies, phenomena which could not happen, if Newton's doctrine of linear emission of light were true. At the same time, Fresnel was developing his own hypothesis, a new physical principle.

Fresnel chose as the subject of his experiments the apparently most simple thing of all, from a Newtonian standpoint—the way light casts *shadows*. Imagine the simplest source of light—a tiny luminous point sending light particles out in straight-line rays. We put an object in front of this source and a white screen behind it. The rays that strike the object, are either absorbed or bounce back, but do not arrive at the screen. The particles which do not hit the object, continue their straight-line motion until they strike the screen, illuminating those areas. So, the object will project a perfectly dark, perfectly sharp shadow on the screen. So says Newton.

Now everyone has noticed that in real life, the shadows cast by objects are not perfectly dark, nor are the boundaries

FIGURE 3
Schematic representation of a Fresnel experiment



completely sharp. This blurring of shadows is mainly caused by the fact that light normally comes from many directions; the source of light is not a simple point, and light is reflected into the shadow by other objects. To eliminate these disturbing factors, Fresnel did his experiments in a well-darkened room and worked with a very tiny, almost point-like source of light (**Figure 3**). His source of light for the experiments was a tiny hole, only about a tenth of a millimeter in radius, through which light from the Sun was admitted into the room. To make the tiny point of light as bright as possible, Fresnel used a mirror and lens to focus the sunlight onto the hole from the outside. Sometimes he used the sunlight directly, but sometimes he put a filter in between, in order to obtain light of a single color. Inside the dark room, at a certain distance from the hole, he set up various objects, and examined the shadows cast by those objects onto a white cardboard screen. He also moved the screen back and forth, closer or farther away from the objects, to see how the shadow changed.

Now, already Grimaldi in 1665 and later Newton had done very similar experiments with shadows cast by sunlight passing through a tiny hole. Grimaldi had noted an anomaly: The outlines of the shadow are not perfectly sharp, but there appear some faint, but otherwise unmistakable light-and-dark bands near the edges of the shadow. Newton, on the other hand, did not seem to notice this phenomenon; instead, he made a big point of emphasizing, that although some rays of light might be bent outward when passing very near the object no light rays go into the shadow. Newton wrote, in fact, in Question 29 of his *Opticks:*

"Are not the rays of light very small bodies emitted from luminous substances? For such bodies will pass through uniform media in straight lines without bending into the shadow, which is the nature of rays of light."

Now let us hear Fresnel describe his early experiments:

"In order to make the phenomenon as simple as possible, I have reduced the size of the luminous point as far as possible; and yet, nevertheless, I have observed that the shadows cast never end sharply, as they should, if light only propagates in its originally given direction. One sees that light spreads into the shadow, and it is difficult to identify a point where it stops. . . . Using a powerful magnifying glass I have seen light as far as in the middle of the shadow of a ruler two centimeters wide."

So, Newton's statement, that light rays never bend into a shadow, is *wrong!* The boundaries of the shadow are not simple lines, but *regions,* which can extend all the way into the middle of the shadow. But there is much more. Examining the shadows of various objects, especially of a piece of thick wire, Fresnel observed *light and dark colored bands*—fringes!—in the shadow as well as outside the shadow. Fresnel remarks, ironically:

"It is hard to conceive how the inflexion of light into the interior of shadows could have escaped notice by such a capable observer as Newton, especially when one remembers that Newton had done experiments with very narrow objects, since he even used strands of hair. One is tempted to believe that his theoretical taboos contributed to a certain extent to close his eyes against these important phenomena, which greatly weaken the main objection upon which he based the superiority of his system.

"According to the emission theory, nothing could be simpler than the phenomenon of shadows cast by objects, above all when the source of light is reduced to a luminous point; and yet, *nothing is so complicated!* Supposing that the surfaces of bodies possess a repulsive force capable of changing the direction of the light rays which passed nearby, one would expect just to see the shadows grow in size and to merge their outlines a bit with the light part. On the contrary, the shadows are surrounded by three very distinct colored fringes, and by an even much larger number of dark and light bands when we use essentially homogeneous (monochromatic) light."

Now, as I mentioned, Fresnel was not the first to discover those bands or fringes around shadows; Grimaldi had described them clearly in 1665, and given the name "diffraction" to this new phenomenon of propagation of light. Newton overlooked or ignored them. A century later, in 1801 the Englishman Thomas Young, who became interested in the question of light while studying sound and the generation of the human voice at Göttigen University, had also observed the fringes in shadows in various experiments, and concluded that Newton's emission theory was wrong. Although Young did not go as far as Fresnel and his wave hypothesis was much less rigorous, he was viciously attacked in England and his work was virtually suppressed.

Now, just empirical evidence by itself never decides sci-

entific disputes. And the neo-Newtonians will answer—as Laplace and Biot actually did, subsequently, with very elaborate mathematical arguments—that the appearance of the bands and the apparent bending of some light into the shadow, are due to deflection of some of the rays passing close to the surface of the object, as a result of attractive and repulsive forces between the particles of light and the atoms of the object. But now Fresnel made a decisive observation, which was one of those very small things, which others would have overlooked, but whose fundamental significance Fresnel immediately seized upon, as reflecting a new physical principle.

Fresnel concentrated his attention on the first band just outside the edge of the shadow, and watched how it changed its width and position as he moved the cardboard screen back away from the object. If the bands were caused by a deflection of some of the rays passing near the object, and if—as the Newtonians insist—the rays continue on in straight lines, then the bands themselves must propagate in straight lines, and the spacing and width of the bands must grow linearly as we move the screen backward. Fresnel writes:

"Having assured myself that the first fringe originally starts from the edges of the wire [the object used to cast the shadow—JBT], and believing that the fringe propagated in a straight line, [I tried to] estimate the angle of diffraction. . . . I noticed that the angle of diffraction, after having progressively diminished up to a certain point, began to grow afterwards. . . . I attributed this [at first] to the imprecision of my observations.

"However, since I had already noted a similar anomaly in another series of experiments, I suspected that the distance at which I placed the screen had an influence on the angle of diffraction; or in other words that the first fringe does not propagate in a straight line [**Figure 4**]. This is what I later became sure of, on the basis of observations that were so precise, that they left no room for any doubt on this point."

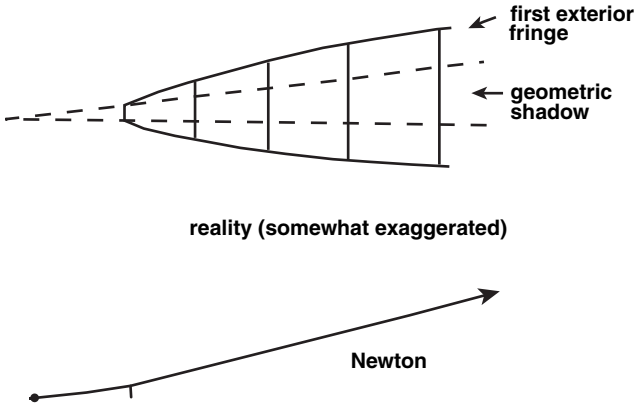
Very strange! If the bands are not caused by bending of the rays, then how are they created? Now Fresnel makes a key step which, as he said, led him to "the true theory of diffraction." Not concealing his excitement and suspense, he writes:

Fresnel: "For a long time I restricted myself to the exterior fringes, which are the easiest to observe, without paying attention to the interior ones. It is these, however, which finally led me to the explanation of the phenomenon.

"Already a few times before, I had pasted a small square of black paper to one side of the iron wire which I used for my experiments, and I always saw the fringes in the interior of the shadow disappear on account of the paper; but at that time, I was only paying attention to the effect on the external fringes, and thereby in a sense deprived myself of the remarkable insight which this phenomenon was leading me toward.

"It only struck me when I turned to the interior fringes, and at that moment I immediately had the following thought: If intercepting the light on *one* side of the wire made the interior fringes disappear, then the combination of rays arriving from both sides of the wire at the same time, must be necessary to the production of those fringes.

FIGURE 4
Propagation of fringes in Fresnel's experiment



Fresnel demonstrated that the exterior fringes propagate in parabolic curves, which is inexplicable from the standpoint of any Newtonian notion that fringes might be due to the bending of light rays at the edges of the object.

"They could not arise from a simple mixture of the rays, since each side of the wire, taken separately, only casts a continuous light into the shadow; it is therefore the encounter, the *intersection* itself of the rays which produces the fringes. This conclusion is completely opposed to the hypothesis of Newton, and confirms the theory of vibrations. We can easily imagine how the vibrations of the two rays, coming together at a small angle, can cancel each other, when the crests of the one coincide with the valleys of the other. . . . A very remarkable consequence of this theory of diffraction is, that a given fringe does not propagate in a straight line, but according to a hyperbola. . . ."

What Fresnel is saying, is that the bands are not caused by bending of rays of light. In fact, he is implying that light does not propagate in rays at all, light rays don't exist, except as a gross effect on the macroscopic scale. On the *microscopic* scale there are no light rays! What happens, is that the fringes are *generated* behind the object, by a complex process of multiply-connected rotational action.

Later, Louis de Broglie, a descendant of the anti-British de Broglie family to which Fresnel's father was closely attached, asserted the same thing for so-called particles. The supposed trajectory of an electron, for example, in the sense Newton pictured such a supposedly elementary particle, does not really exist any more than a ray of light does. All the effects associated with so-called elementary particles are "holo-

graphic," just as Fresnel demonstrated this to be the case for light.

What was Fresnel's theory? Fresnel started with the conception which Christian Huygens had developed, what Fresnel called the Huygens principle, and added an important correction and a new dimension.

Huygens indicated that he conceived of the generation of the spherical wavelets as a kind of shock process, in which a shock, like a little explosion, is communicated by any given location to the surrounding ones.

Fresnel added the following idea:

"We don't conceive of the vibrations of an elastic fluid in the same way as geometers have ordinarily done, namely in considering only a single shock. In nature vibrations are never isolated; they always repeat many times, as one can see in the oscillations of a pendulum or the vibrations of sonorous bodies. . . .

"It follows from the principle of coexistence of tiny motions, that the vibrations produced by many shocks in an arbitrary point of an elastic fluid are the *resultant of all the agitations communicated at the same moment to this point from the various centers of vibration,* no matter how many they are, no matter what the nature and original moment of those various disturbances."

This conception allowed Fresnel to make intelligible, the otherwise very anomalous and paradoxical phenomenon, that the combination of light, coming from different directions can sometimes produce *dark areas*. We just saw this with the shadow of a thin wire or nail: When we block off one side of the nail, the light from the other side casts a continuous, dim light into the shadow. When we remove the paper square blocking the light, we are adding *more light,* so to speak, and yet the result is, that in the shadow both bright and *very dark* bands are produced! So, we have the strange equation: light + light = darkness.

But such a result is easily understandable, if we imagine light as a *rotational* process. If the light waves, coming from different sources to a given point, arrive in such a way that the peaks of the one wave arrive at the same time as the valleys of the other (nowadays, we say they are in opposite phase), then the two actions cancel each other out, and we get darkness. That is the principle of what has become known as "interference" of light.

Figure 5 is Fresnel's own diagram to show how the curved propagation of external and internal fringes is generated as a result of interference. **Figure 6** illustrates more clearly how the "internal" interference fringes are produced in the region behind the object, by the interference of waves originating to the immediate left and right of the object (from regions "A" and "B" in the diagram). In the diagram, the waves from A and B are shown at a certain instant in time, with the "crests" drawn in blue and "valleys" in red. The black lines represent the locus of dark fringes that are generated where the two waves cancel out. That locus includes the points

FIGURE 5
Fresnel's diagram of curved propagation of fringes

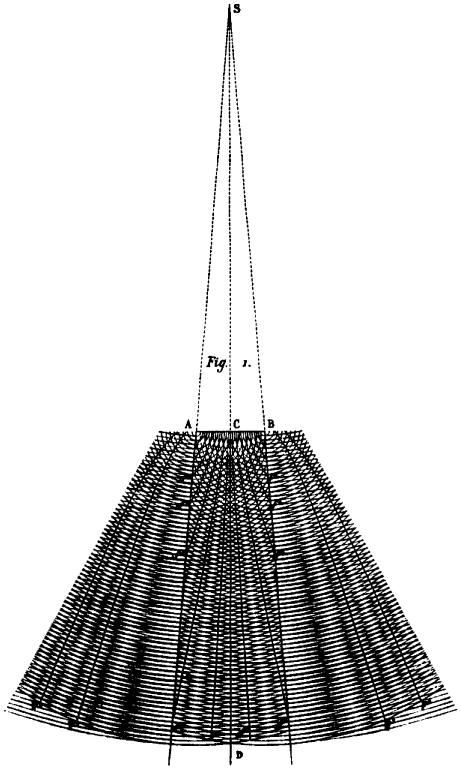
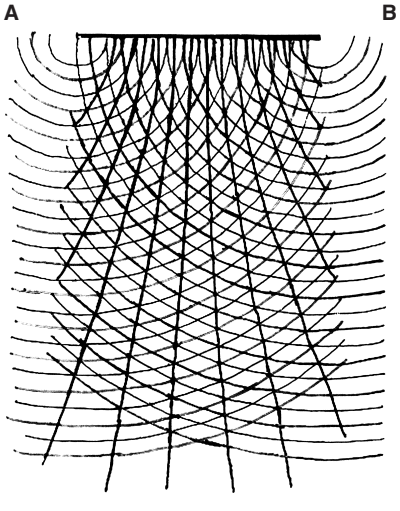


FIGURE 6
Interference fringes in the region behind the object



at which the "crests" of one wave intersect the "valleys" of the other. From the construction, it is clear that the internal fringes will not lie on straight lines, but actually form hyperbolas.

You see, that although the idea is very simple, the phenomena are very complicated. Even this drawing is highly simplified; only the oscillations starting *near* the edges of the object are taken into account; whereas in fact, according to Fresnel's conception, oscillations are coming from the positions farther away, from the *entire region* illuminated by the light source. To determine the actual net result (which is a good deal more complicated than we have indicated here), is a subtle matter, which calls for a distinctly Leibnizian mathematics. Indeed, Fresnel's conception of the propagation of light coheres with Leibniz's principle, that each portion of the universe reflects everything happening at every other point in the universe, and that every macroscopically visible effect is the result of a "sum" or accumulation of vastly many, "infinitesimal" impulses or influences acting at a given location.

What we now heard so far is just Fresnel's idea in its first, original form, not yet elaborated. But it was enough to cause an uproar in the Academy of Sciences. Marquis Laplace himself arose to criticize the young engineer's ideas.

Laplace: "In view of the success of Newton's emission theory, I greatly regret that anyone would presume to substitute for it another, purely hypothetical one, and which, so to speak, can be manipulated at will: that of Huygens's undulations. One must limit oneself to repeating and varying experiments and deducing laws from them, that is, coordinating facts, and avoid any undemonstrated hypothesis."

But Ampère defended Fresnel, noting that although he, Ampère, had always supported the theory of emission, the conclusions of Fresnel's report seemed sound. At the same time, the politically powerful François Arago, who was Alexander von Humboldt's closest collaborator in France, acted as Fresnel's protector as well as his original collaborator in the light experiments. Fresnel's position improved.

In a letter to Léonor on July 19, 1816, Fresnel reported:

"So you see that the vibrations party is becoming stronger every day. I think I have announced to you the conversion of Ampère. A revolution is being made in optics."

Now the brilliant Ampère was fully behind Fresnel, and subsequently they worked closely together to elaborate Fresnel's initial discovery into a universal physical principle. Immediately these efforts focussed on the remarkable anomalies connected with the *polarization of light* (see box).

III. The transverse nature of light

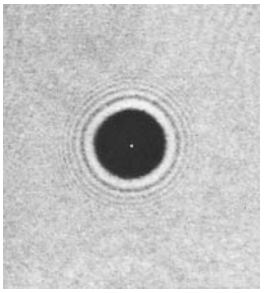
It had been discovered by Malus, that light passing through certain crystals, takes on a new characteristic which was called *polarization*. This polarization, it was found, depends on the angular orientation of the crystal in space. If we let light pass through a polarizing crystal, and then take an identical crystal, but rotated 90° around the axis of the light beam, then the light is stopped! It does not pass through the second crystal. If we rotate the second crystal further, beyond 90°, the light begins to come through and finally becomes fully transparent.

Now long before, Huygens in his famous *Traité d'Optique* (*Treatise on Optics*), had investigated the anomaly of so-called double refraction. These are crystals, such as the so-called Iceland Spar, which actually split light coming in two directions, two beams. It was discovered, that the two beams are polarized in different ways.

Now Fresnel reports an anomaly in a memorandum of August 30, 1816:

"I have tried without success to produce fringes using the two images of a luminous point in front of which I placed a doubly-refracting crystal. . . . I begin to suspect that it could be possible that the two systems of waves, produced by light in the crystals possessing double refraction, do not have any influence upon each other. I have searched in vain for an explanation. For this it would be necessary to know what this singular modification of light really is, which constitutes

The Poisson spot



In 1818, on the occasion of Fresnel's defense of his thesis submitted for the Academy prize, a celebrated showdown occurred between Fresnel and the Laplacians. Poisson got up to raise a seemingly devastating objection to Fresnel's construction: If that construction were valid, a *bright spot* would have to appear in the middle of the shadow cast by a spherical or disk-shaped object, when illuminated by a suitable light source. But such a result is completely absurd and unimaginable. Therefore Fresnel's theory must be wrong!

Soon after the tumultuous meeting, however, one of the judges, François Arago, actually conducted the experiment. And there it was—the "impossible" bright spot in the middle of the shadow! Much to the dismay of Laplace, Biot, and Poisson, Fresnel was awarded the prize in the competition. The subsequent work of Fresnel and Ampère sealed the fate of Laplace's neo-Newtonian program once and for all. The phenomenon confirmed by Arago goes down in history with the name "Poisson's spot," like a curse.—*Bruce Director*

its polarization."

Already in 1816, Ampère suggested to Fresnel the hypothesis, that the action propagated by the light "wave" is not longitudinal, i.e., not along the direction of the propagation itself, as most imagine a sound wave to be, but rather *perpendicular* to it, or *transverse*. Simple polarization amounts to orienting the main axis of that action—whatever it is—in a certain direction in that transverse plane. The circumstance, that waves with different directions of polarization would not cancel each other completely at any given point, made Fresnel's anomaly intelligible. Between 1816 and 1823, Fresnel and Ampère elaborated and demonstrated the transverse hypothesis, and made a new beautiful discovery of *circular and elliptical polarization:* light whose characteristic transverse action is *rotation* around the axis of the light beam.

This work was a starting-point for many further discoveries, including the later work of Louis Pasteur on the optical asymmetry of living material. But at the same time, it raised a powerful new paradox: These experimentally demonstrated characteristics of light, seem to contradict any attempt to interpret light as some sort of vibration within a material fluid or "ether." Indeed, Ampère wrote:

"The experiments of Fresnel have proved that light is produced by the vibrations of a fluid and that these vibrations are transversal, that is, perpendicular to the direction of the light rays; and that, besides this, calculation shows that this sort of vibration would be impossible in a continuous fluid, where the vibrations would become longitudinal, while transverse forces might occur if the fluid were composed of atoms held at a distance from each other by repulsive forces. . . .

"[But,] is matter made up of atoms that only occupy a portion of fixed, infinite space, where they are separated by absolutely empty intervals and in which they move by successively occupying different parts of this space?"

Ampère is raising up the fantasy of Newton, but, watch out! Then Ampère says:

"We must admit an immaterial, motive substance everywhere where there is spontaneous motion. We then discover that it is in this substance that *thought* is to be found, since words obey it. . . . The cause of all causes, the creative and all-powerful substance is, on the contrary, only known to us indirectly, through its works."

In his sequel to my presentation, Jacques Cheminade will give some insight into the origins of this seemingly confused concept which Ampère is trying to communicate, ideas which Ampère and his circle were groping toward.

Meanwhile, the battle with Laplace escalated. Laplace and Biot savagely attacked Fresnel's conception of the propagation of light, on the grounds that it was allegedly "too complicated" mathematically. Indeed, compared to Newton's impoverished mathematics of isolated particles moving through empty space, Fresnel's principle requires a Leibnizian mathematics of multiply-connected action in which all processes, at all points in space, are connected with each other. After a bitter fight in which Laplace and Biot had to back down to Ampère and Arago, the Academy of Sciences awarded its prize to Fresnel's *Mémoire*. In it, Fresnel refutes Laplace's argument about "simplicity," citing the real meaning of Leibniz's principle of least action:

"In the choice of theory, one should only pay attention to the simplicity of the hypotheses; that of the calculations should play no role. . . . Nature is not bothered by difficult calculations; she only avoids the complication of means. She seems to have proposed to herself, to do much with little; this is a principle for which the progress of science incessantly provides new demonstrations. . . ."

Pointing his finger at the disastrous failures of the Newton-Laplace-Biot optics, Fresnel commented:

"Such a hypothesis, which seems very simple as long as one only considers a single class of phenomena, requires adding many more hypotheses as soon as you want to depart from the narrow circle in which it was originally applied. If Nature proposed to produce the *maximum* of effects with the *minimum* of causes, then it is only in the totality of its laws that she has had to solve this great problem.

"Thus, the emission theory is so little suited to explaining the phenomena, that each new phenomenon requires a new hypothesis. You can convince yourself of this all the more in reading the 'Treatise on Experimental and Mathematical Physics' by Monsieur Biot, in which the principal consequences of Newton's theory are developed with a great deal of detail and clarity. One will see there how, in order to take account of the phenomena, it is necessary to load down each particle with a large number of different modifications, often very difficult to reconcile among each other. . . ."

Laplace was not pleased. In a letter to Léonor on Sept. 5, 1818, Fresnel retold with humorous irony an unpleasant encounter with Laplace himself:

"During a recent visit I made, together with Arago, to Monsieur de Laplace at his country home, I suffered an assault. . . .Monsieur Becquey had repeated to Laplace a discussion I had with him on the subject of physical theories, in the course of which I blurted out that *nature does not bother about complications of calculations,* and the difficult calculations of the theory of vibrations are not at all an argument against it. Apparently, Monsieur Becquey changed some of my expressions a bit, because Laplace concluded from his account that I did not believe in the usefulness of mathematical analysis. I responded that, on the contrary, I felt very strongly that analysis is indispensable in order to provide mathematical rigor to physical theories; but that it seemed to me that the complexity of the calculations should not be taken into account in judging between two theories. Laplace told me he did not agree with me on this point, and tried to quarrel with me about the principle of Huygens, which is the basis of my new theory of diffraction, and which, in my opinion, Laplace does not understand in the same way as I. Somewhat irritated by the way the attack had started, and finding myself in a

disadvantageous situation on the defensive, I took the offensive; and, without transition, I presented to him the objection to the emission theory which I had used to hit Biot. Laplace could not answer it, or at least he only made some vague responses. Immediately the discussion changed subject, and Monsieur le Marquis turned his aggressive mood against the good Monsieur Berthollet, who was with us, and tried to blame him for the inconsistencies in chemical terminology. . . . I was thus relieved of this rude adversary, and I began to breathe freely, promising to myself, in a very low voice, never again to speak so much with Monsieur Becquey."

In a later, 1822 memorandum on the phenomenon of double refraction, Fresnel spoke out even more explicitly against the sterility and bankruptcy of Laplace's physics. Implicitly, Fresnel is not merely attacking Laplace, but also (and more importantly) the predecessor of Laplace, Lagrange, whose "analytical mechanics" has been the model and inspiration for Laplace's and other modern attempts to reduce physics to mathematical formalism.

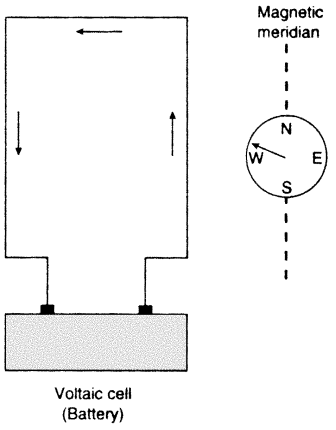
"The theory that we are combatting here . . . has led to not a single discovery. The scholarly calculations of Monsieur Laplace, however remarkable for their elegant application of the principles of mechanics, teach us nothing new about the laws of double refraction. But we do not think that a good theory should be limited to calculating the forces when the laws of the phenomena are known; such a theory would contribute too little to the progress of science. There are some laws so complicated and strange, that they could never be discovered by observation and analogy alone. To unlock such enigmas we need to be guided by theoretical *ideas* based on *a true hypothesis*. The theory of light vibrations presents this character and these precious advantages. . . ."

IV. Ampère's revolution

The real issue is thus not light per se, but the drive to demonstrate a new, universal physical principle, one which requires a radically different, Leibnizian form of mathematics. Having hit the Laplacians on the flank of optics, the battlefield shifted to electricity and magnetism. Soon, Ampère and Fresnel were able to decisively refute the Newtonian-Laplacian "standard theory" which had been elaborated by Charles de Coulomb.

Coulomb treated electricity and magnetism as absolutely separate categories of phenomena. For each one, he developed a separate mathematical theory modelled on Newton's treatment of gravitation. He tried to reduce the phenomena of static electricity to interactions of two types of electric particles (positive and negatively charged), attracting and repelling each other according to the now-famous "Coulomb's law." Likewise, he sought to explain all phenomena of magnetism in terms of the distribution of two types of magnetic particles; we might call them north pole particles and south pole particles. From the Coulomb-Laplace standpoint, electricity and magnetism had no essential connection. Both Fresnel and Ampère were utterly opposed to this, and looked about for a way to refute it.

FIGURE 7
The Oersted experiment



Source: 21st Century Science & Technology, Fall 1996.

In 1819, Hans Christian Oersted discovered a relationship between electricity and magnetism. He found that an electrical current in a wire causes a magnetic compass needle to turn. The wire is aligned in the direction of the Earth's magnetic force. When the current is turned on, the compass needle is deflected toward the perpendincular to the wire.

First, however, an event had to occur which supplied Ampère and Fresnel with the opportunity they were waiting for. In 1820, the Danish physicist Hans Oersted demonstrated that an electric current, flowing through a wire, causes the needle of a magnetic compass to rotate in a direction *transverse* to the current (**Figure 7**).

Oersted himself insisted that this experimental discovery, which in principle could have been made 20 years earlier, was no accident, but that he was guided to it by a notion that both electrical and magnetic phenomena are governed by rotational action:

"Electricity does not flow through conductors like a liquid through a pipe. It is propagated by a kind of continual decomposition and recomposition. . . . One might describe this series of opposing forces which exist in the transmission of electricity by saying that electricity is always propagating in an undulatory manner."

At the same time, Oersted clearly pointed to the *transverse nature* of electromagnetic action:

"It appears, according to the reported facts, that the electrical conflict is not restricted to the conducting wire, but that it has a rather extended sphere of activity around it . . . the nature of the circular action is such that the movements it produces take place in directions precisely contrary to the two extremities of the given diameter. Furthermore it seems that the circular movement . . . should form a mode of action which is exerted in a helix around this wire as an axis."

Creative discovery does not proceed in a smooth and routine manner, but like earthquakes. And often a seemingly

small thing can initiate a chain reaction of developments. Within weeks, working night and day, together with the help of his friend Fresnel, Ampère virtually single-handedly created a new branch of physics: *electrodynamics*. First, Ampère replaced the compass needle in Oersted's experiment with a second loop of wire carrying a current, and demonstrated the action of one current on another. Grasping the complex geometry of that action between currents, Ampère immediately developed a whole new species of designs for all kinds of apparatus and instruments, including the prototype of all electromagnets, the magnetic coil or solenoid, and the first electromotors. Ampère became the Leonardo da Vinci of electricity.

With the artificial barrier between so-called "electric" and so-called "magnetic" categories of phenomena broken down, Ampère threw Coulomb's "magnetic particles" or "magnetic fluids" out the window. Ampère insisted: All magnetism—including that of the Earth itself—is connected with the presence of electric currents, a form of *rotational action*.

Now, in order to demonstrate magnetic effects of currents, Oersted and Ampère had to use batteries to create electric currents in wires. What about a permanent magnet, like the lodestone or the magnetized needle of a compass? Assisted by Fresnel, Ampère developed the hypothesis of so-called *molecular currents*—the existence of natural, constantly sustained electric currents on the microscopic scale. A material becomes magnetic, according to Ampère, when some action causes the microscopic currents to orient coherently. Ampère hypothesized that the microscopic currents were connected with the molecular constitution of matter in the small, creating the hypothesis of "magnetic atoms." Gone are the dead, inert particles of Newtonian physics. Ampère's magnetic atoms are characterized by constant *activity!*

Ampère's basic ideas were brilliantly confirmed by the entire ensuing development of modern physics. But Ampère himself emphasized that the breakthroughs in electrodynamics had been long delayed by Coulomb and Laplace's artificial imposition of neo-Newtonianism on scientific research:

Ampère: "It is indeed unbelievable that for 20 years [up to Oersted's work] the action of the voltaic pile on a magnet had not been tested. I think we can assign a reason for it: It lies in the hypothesis of Coulomb on the nature of magnetic action. This hypothesis had been believed as if it were a fact; it absolutely dismissed any idea of an action between electricity and so-called magnetized wires. The prejudice against this had reached the point that, when Arago spoke of these new phenomena at the institute, they were dismissed just like the stones that fell out of the sky. . . . They had all decided that it was impossible."

Ampère did not mention, however, the really touchy issue, where the prejudice really comes from. Let's look at this more closely.

What was it, that so upset the contemporary professional scientists in the work of Ampère and Fresnel? It was not simply the rather devastating flanking attack against Laplace's neo-Newtonian scheme. What is so threatening to the oligarchical mind, or the mind affected by oligarchical ideology?

Newton says, Descartes agrees, Kant emphatically concurs, that straight-line motion is simple, elementary. It is the "normal," the "natural" form of motion and action, simple and irreducible. Anything which is not straight-line motion, has to be explained by some forces or influences that are "bending" things away from their natural straightness and simplicity.

But, nowhere in the universe do we find straight-line motion! Everywhere we find curvature. As the ancient astronomers already grasped, the universe is organized on the astronomical scale in arrays of *cycles*. And Kepler, following Nicolaus of Cusa, demonstrated that the organization of these cycles is not simply circular curvature, but what we might call (approximately) spherically bounded elliptical curvature. Eratosthenes measured the curvature of a non-flat, spheroid Earth. And now, Fresnel and Ampère demonstrate that the apparent straight-line action of light is an illusion, and that on the microscopic scale, there are no rays of light, but complex, multiply-connected rotational action, reproducing itself at about 600 trillion cycles per second!

So, either we accept, that *the supposed elementarity of straight-line action is just a naive myth, a kind of illusion of the senses,* or, like Newton, Laplace and Biot, we will need to invent a "bending force" each time we see a cycle or a curvature. But the latter, as Fresnel pointed out, leads to the monstrous "bubble" of ad hoc "special hypotheses," not unlike the epicycles of Ptolemy which modern science was supposed to have overcome.

This *reductio ad absurdum* leaves open only one conclusion: that the physical space-time of the real universe is *not* the self-evident simple three-dimensional space of Newton and Descartes. Real space is somehow *curved* in a way we cannot see, and yet which shapes every process in the universe.

But now we can hear the anxious objection, coming even inside our own minds: "If space is not self-evident, how can I ever organize my facts? What do I start with? How can I reason without a premise? How can I measure without a unit?" It looks as though the rug is pulled out from under our feet. Indeed, most of us are accustomed to thinking of human reasoning as essentially deductive in character; that we always have to start with something, a premise "A," and then derive "B" from "A," "C" from "B," "D" from "E" and so forth. This is the essential linearity as it occurs in the mind, for which the supposed elementarity of the straight line is merely a kind of external image. Denying the *a priori* character of space (and other basic notions of physics), would seem to destroy the basic premise upon which our entire scheme of natural science is based.

But looking back on the intervention of Fresnel and Ampère, another possibility might occur to us. The development of concepts of light, confronts us with a *sequence*

of geometries:

1) Rays of light, as we naively conceive them; 2) Huygens's wave-envelope construction; 3) Fresnel's original wave construction; 4) the Ampère-Fresnel concept of a transverse, polarized wave.

Note, that each of these geometries has a higher "order" than the preceding. At each step, we discover a new principle or "dimensionality" of the action underlying light, which did not exist in the previous geometry. We integrate the new principle to get a higher-order geometry. To the extent these principles are true physical principles—which means that they apply to *all* processes without exception—the progression of those geometries, from the lower to the higher, a process of increasing *richness* of the universe. That is our first approximation, our first mental picture of *anti-entropic* action, our first glimpse at the real curvature of the universe itself!

Now look inward. What is the *source* of that action? Human cognition itself, creative substance. The universe is bounded in a certain manner uniquely coherent with the nature of human reason: Human reason, acting through the method of Platonic hypothesis, can transform man's relationship to the universe to the effect of increasing mankind's per-capita potential to exist. So, the higher geometries are ordered by man's increasing *power* over the universe.

Unfortunately, Ampère did not, at least publicly, take up the implications of his and Fresnel's work in this direct form. Worse, in 1827, after having made his main discoveries on electrodynamics, Ampère published a long memorandum in which, in effect, he falsified the history of his own discoveries and tried to present himself as a classical Newtonian! This is Ampère's famous "Introduction to the Theory of Electrodynamic Phenomena, Deduced Uniquely from Experience," which subsequently became the nearly exclusive classical reference for Ampère's electrodynamic research. Although there is some sneakiness behind his "politically correct" formulations, Ampère's text is otherwise clinical in its attempt to completely bury and conceal the traces of the creative process which led himself and Fresnel to their discoveries. Ampère wrote:

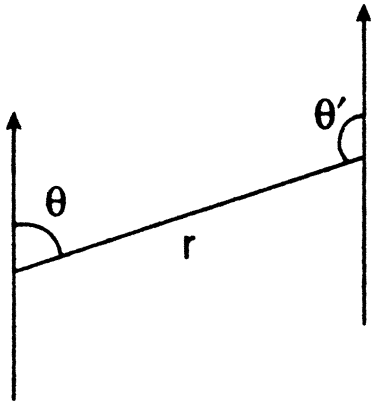
"The epoch marked by the works of Newton . . . is the epoch in which the human spirit opened a new road in the sciences. . . . Until then, people almost always sought for the explanation of phenomena in the motions of an unknown fluid . . . and wherever one saw a rotational motion, one imagined a vortex moving in the same way. Newton taught us that this sort of motion, like all other motions in nature, should be reduced to forces acting between pairs of material particles always along the line which connects them. . . . Newton knew that such a law of motion could not at all be invented on the basis of abstract arguments. He established that laws must be deduced from observed facts, or rather from the empirical laws which, like the laws of Kepler, are nothing but generalizations from a large number of particular observations."

This claim, taken from Newton, that Kepler found his laws by mere empiricist "generalization" is complete nonsense, as anyone knows who is familiar with Kepler's work. Kepler's discovery of the elliptical orbits of the planets, for example, was by no means a "deduction from the phenomena," but (like virtually everything Kepler did) flowed from Kepler's masterful use of the method of hypothesis. But Ampère continues:

"To deduce from the laws, thus obtained, independently of any hypothesis on the nature of the forces which produce the phenomena—this is the method which Newton follows. It has, in general, been adopted in France by the scientists to whom physics owes the great progress which it has recently made, and this is the method which has guided me in all my investigations on electromagnetic phenomena."

We shall see in a moment how these statements by Ampère, no doubt written under great political and other pressure, subsequently misled scientists and threw them off the track. But despite the Newtonian camouflage, Ampère had actually left a time-bomb under "standard theory." This was the famous *force-law* which Ampère had developed earlier and presented, in synthetic form, as his "deduction from experience." Following his neo-Newtonian mode of presentation, Ampère analyzed that force acting between two currents as a sum of forces acting between pairs of infinitesimal "current elements" along the two wires respectively. But—and this

FIGURE 8
Ampère current elements



The arrows show two imaginary, very small elements of electrical current passing through two wires. The current elements will have a force of attraction or repulsion, whose strength depends on three angles they make with the line r connecting their midpoints. These are angles theta and theta′ (pictured), and also the angle of rotation of the current elements in a third dimension around the line r.

caused enormous trouble—this "elementary force" between two current elements has a very bizarre, very complicated form. It depends on a combination of no fewer than *three angles,* as shown in **Figure 8.** Depending on the spatial orientation of the directions of the two current elements relative to each other and the line joining them, the elements attract, repel, or exert no force on each other.

This—from a Newtonian or Cartesian standpoint very peculiar, totally inexplicable relationship—has continued to be a *great embarrassment* to standard theory and a source of heated controversy up to this very day. What kind of a universe do we live in, in which such an effect can exist?

Working parallel to and simultaneously against Ampère, Laplace's agents Biot and Félix Savart went to work to "co-opt" the new electromagnetics into the Laplace system, using "standard procedures." To get rid of Ampère's law, they produced an alternative force law, castrated of its most interesting implications. It is that alternative formula which became integrated into "standard theory": Today's textbooks contain the so-called Biot-Savart formular, not Ampère's.

Ampère died in 1836, in isolation. One of his few scientific friends, Fresnel, had already died in 1827 at the age of only 39. But Ampère, together with Fresnel and a few others, had kept science alive in France. Meanwhile, the focal point of scientific progress shifted to Germany. In fact, it was the *reworking* of Fresnel's and Ampère's discoveries by Carl Gauss, Wilhelm Weber, and Berhard Riemann, which triggered the most far-reaching, revolutionary developments in mathematical physics—developments which have still not been fully digested today.

V. Epilogue

In 1831, Wilhelm Weber came to Göttingen, and for seven happy years worked together with Carl Gauss in a very joyful and fruitful scientific friendship. Together they launched the famous Magnetic Union, the world's first global scientific project, with simultaneous magnetic measurements from America to Europe to Russia and as far as Beijing. They built the first electromagnetic telegraph. They revolutionized the technology of physical measurement, creating new sorts of instruments. But above all, Weber and Gauss worked together to develop what Gauss called "absolute" physical measurement. This project was actually closely connected with Gauss's work on what he called "anti-Euclidean" geometry—although Gauss, like Ampère, was afraid to publish his ideas on this openly.

"Absolute measurement" addressed the problem that it is impossible to measure any single physical parameter as if it existed independently of the others. All physical principles interact; and so, what we really measure is always a relationship, an *interrelation* of physical principles. But in the middle of their work on integrating electrodynamic relationships into their absolute system, Weber was suddenly dismissed from his position in Göttingen for his membership in the famous "Göttingen Seven."[3] It was only ten years later, in 1845, that Weber came back to the crucial issue of Ampère's work.

Weber is disturbed by the complicated form of Ampère's angular force and the way Ampère, in his 1827 paper, claims to deduce it from experiments. Weber considered that the experiments reported by Ampère were relatively imprecise and did not by themselves justify the complicated, even bizarre form of the angular force law claimed by Ampère. Couldn't Ampère's formula be simplified? Weber writes to Gauss asking for his advice.

In his answer to Weber on March 19, 1845, Gauss remarks that he had worked extensively on Ampère in the period 1834-36. Then he cautions Weber:

"I would think, to begin with, that, were Ampère still living, he would surely protest [against your proposed modification]. . . . The difference is a vital question, because Ampère's entire theory of the interchangeability of magnetism with galvanic currents depends absolutely on the correctness [of his formula] and is wholly lost, if another is chosen in its place. . . . I do not believe that Ampère, even if he himself were to admit the incompleteness of his experiments, would authorize the adoption of a completely different formula."

At the same time, Gauss remarks that he himself had in-

3. In 1837, Ernst August, the Duke of Cumberland, uncle to England's Queen Victoria, ascended to the throne of the Kingdom of Hanover. One of the new King's first acts was to order all civil servants in Hanover, including the professors at the University of Göttingen, to swear a loyalty oath to the new King. A great protest arose, and seven professors, including Wilhelm Weber, the Grimm brothers and G.H. Ewald, Gauss's son-in-law, officially refused to take the new oath. All seven were summarily fired and ordered to leave the country. The action was a blatant attempt by the British monarchy to crush the scientific revolution going on at Göttingen at that time.

tended to remedy the flaw in Ampère, but:

"I would doubtless have published my investigations long ago, except that at that time the one thing was missing, which I regarded as the key to the whole . . . namely to derive the additional forces, which arise between electric particles when they are in relative motion, from an action which is not instantaneous, but which propagates in time in a similar way to light. . . . At the time, I did not succeed in working this out, but . . . I put aside my efforts with the hope, that I might perhaps later succeed, although—if I remember correctly—with the subjective conviction, that it would first be necessary to create a constructible image of the way in which that propagation takes place."

This is not the place to explore the profound implications of Gauss's latter remarks, which anticipate the whole development of the electromagnetic theory of light. In any case, Weber immediately thanked Gauss for having corrected his misunderstanding, that Ampère's law was simply "deduced from the phenomena." Weber wrote back:

"It has been of great interest for me to learn from what you wrote, that Ampère was guided by other reasons than the ones from immediate empirical experience which he cites at the beginning of his treatise."

Weber proceeded to investigate Ampère's work with a new set of experiments, integrating the technological breakthroughs made together with Gauss, which brought the precision of astronomical measurements to bear upon microphysics. Applying the method of absolute measurements, Weber measured the interrelationship between electromagnetic action and other known principles of action. He made a revolutionary discovery: The experimentally measured interconnection of physical principles implied the necessary existence of a *singularity* on the microscopic scale, a point of reversal in the characteristics of action! In fact, the continuation of these measurements by Weber and Rudolf Kohlrausch actually led to a first estimate of the radius of the electron, long before the existence of an electron as a distinct entity had been experimentally demonstrated. This was the actual beginning of quantum physics, and the first rigorous foray into the atomic and sub-atomic domain.

Ampère's conception of electromagnetic atoms was completely vindicated. Finally, it was Weber's student Bernhard Riemann, not James Clerk Maxwell, who made the last crucial step toward the so-called electromagnetic theory of light.

In 1858, long before Maxwell's supposed breakthrough, Riemann writes a short "Contribution to Electrodynamics" which begins with the words:

"I permit myself to report a remark to the Royal Society [of Göttingen], which brings the theory of electricity and magnetism into a close relationship with the theory of light and radiant heat. I have discovered, that the electrodynamic action of galvanic electrical currents can be explained, if one assumes that the action of one electric mass on the others does not occur instantaneously, but propagates with a constant velocity which (within the margin of experimental error) is equal to the velocity of light."

Behind this discovery of Riemann's was his revolutionary 1854 work, "On the Hypotheses Which Underlie Geometry," a breakthrough which addresses exactly the issue that Ampère and Fresnel were groping for, but failed to adequately address:

"I have posed the task to myself, to construct the concept of a multiply-extended magnitude out of general concepts of magnitude. From this it will follow, that a multiply-extended manifold is capable of different metric relations, and that space is only a special case of a three-fold extended manifold. However it is a necessary consequence of this, that the theorems of geometry cannot be derived from general concepts of magnitude; but, that those properties, which distinguish space from other imaginable three-fold extended manifolds, can only be derived from experience. Thus the task arises, to seek the simplest facts from which the metric relations of space can be determined. These facts are, like all facts, not necessary, but only have an empirical foundation; they are hypotheses.

"In the natural sciences, in order to recognize the causal relationships, one tried to follow the phenomena into the small, as far as the microscope allows. The question of the metric relations of space in the unmeasurably small is thus not without importance. On the other hand, it appears that the empirical concepts, upon which the metric relations of space are based—the concept of a solid body and of a light ray, lose their validity in the unmeasurably small; it is therefore quite conceivable, that the metric relations of space in the unmeasurably small do not agree with the assumptions of geometry. . . . The question of the validity of the assumptions of geometry in the unmeasurably small is connected with the question of the inner basis for the metric relations of space. . . . [But] this leads us over into the domain of another science, the domain of physics, which the nature of the present occasion does not permit us to enter in upon."

In 1952, a young man named Lyndon LaRouche was struggling with the conceptions of Riemann and his follower Georg Cantor. Suddenly, LaRouche grasped something in Cantor which unlocked for him the true significance of Riemann's work on multiply-extended manifolds. In his autobiography, *Power of Reason,* LaRouche wrote: "I saw Riemann in the right way for the first time. I read Riemann's famous 1854 inaugural dissertation, 'On the Hypotheses Which Underlie Geometry," with what can be described only as an empyrial quality of excitement. From that moment on, everything I had sought began to fall into place." Riemann's conception provided a missing key for LaRouche to elaborate the universal implications of his original discoveries in physical economy.

And so, the revolution launched by Fresnel and Ampère's brilliant flanking operation, leads all the way into this room, to you, dear listeners, whom we thank for your attention.

For further reading

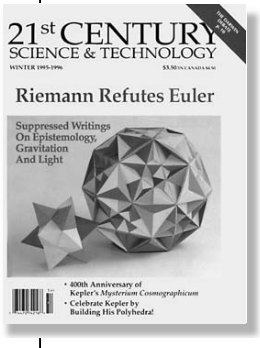
The following is a selection of articles by Lyndon LaRouche and associates on the question of non-linearity in mathematics and physics (in chronological order). See the end of this box for information on how to order. All prices are postpaid.

Ralf Schauerhammer and Jonathan Tennenbaum, "The Scientific Method of Bernhard Riemann. Part 1: Riemann and the Göttingen School," ***21st Century Science & Technology***, Vol. 4, No. 4, Winter 1991; and "Part 2: Riemann the Physicist," Vol. 5, No. 1, Spring 1992. **$5** per issue.

LaRouche, "How Bertrand Russell Became an Evil Man," ***Fidelio***, Vol. 3, No. 3, Fall 1994. Includes an extended discussion of the work of Felix Klein. **$9**

Dino de Paoli, "Georg Cantor's Contribution to a New Renaissance"; Lyndon H. LaRouche, Jr., "No Limits to Growth: Cantor's Concept of Infinity in Economic Science"; Jonathan Tennenbaum, "Cantor and the Future of the Natural Sciences" ***EIR***, Aug. 4, 1995. Speeches to a conference in Halle, Germany on May 6, 1995, marking the 100th anniversary of the discovery of the "paradox of the Absolute" by Cantor. **$12.**

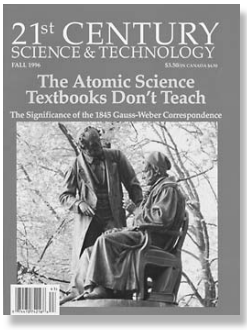
Lyndon H. LaRouche, Jr. takes on the fraud of Isaac Newton in a two-part series: "Why Most Nobel Prize Economists Are Quacks," ***EIR***, Vol. 22, No. 30, July 28, 1995; and "Non-Newtonian Mathematics for Economists," *EIR*, Vol. 22, No. 32, Aug. 11, 1995. **$12** per issue.



Lyndon H. LaRouche, Jr. "Riemann Refutes Euler," ***21st Century Science & Technology***, Winter 1995-1996. **$5.**

Lyndon H. LaRouche, Jr., "Leibniz from Riemann's Standpoint," ***Fidelio,*** Fall 1996. **$9.**

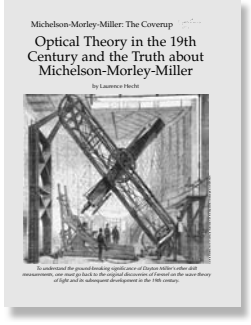
Laurence Hecht, "The Significance of the 1845 Gauss-Weber Correspondence," ***21st Century Science & Technology***, Fall 1996. Includes an English translation of the text of the 1845 Gauss-Weber correspondence. **$5.**



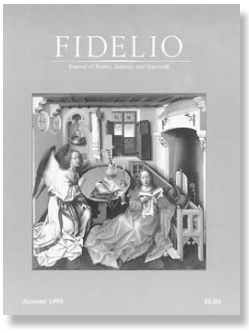
Lyndon H. LaRouche, Jr., "How Cauchy Ruined France," and Pierre Beaudry, "The Bourbon Conspiracy that Wrecked France's Ecole Polytechnique," ***EIR***, Vol. 24, No. 26, June 20, 1997. **$12.**

Dino de Paoli, "Gödel, Cantor, and Leibniz: Mathematics and the Paradoxical in Nature," ***21st Century Science & Technology***, Vol. 10, No. 2, Summer 1997. **$5.**

Lyndon H. LaRouche, Jr., "Intelligence Policy: Truthful, or Merely 'Factual'?" ***EIR***, Vol. 25, No. 2, Jan. 9, 1998. With extensive discussion of Gauss, Kepler, and the issue of non-constant curvature. **$12.**



Laurence Hecht, "Optical Theory in the 19th Century, and the Truth about Michelson-Morley-Miller," ***21st Century Science & Technology***, Spring 1998. Includes a discussion of the work of Augustin Fresnel. **$5.**



Jonathan Tennenbaum and Bruce Director, "How Gauss Determined the Orbit of Ceres," ***Fidelio***, Vol. 7, No. 2, Summer 1998. **$9.**

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The Ampère-Fresnel revolution: 'on behalf of the future'

by Jacques Cheminade

Jacques Cheminade is the head of Solidarité et Progrès in France, co-thinkers of the LaRouche movement.

Our Schiller Institute research in Paris is a work in progress, undertaken as a continuation of the original work of Laurence Hecht, informed by the contributions of Dino de Paoli and Jonathan Tennenbaum, and guided by a challenging hypothesis by Lyndon LaRouche. From his understanding of a whole span of the history of science and ideas, it was clear to LaRouche that Ampère's contribution on electromagnetism—the concept of angular forces—and Fresnel's contribution on the theory of light—the transverse waves—had to come from the same cognitive source and be the product of a close collaboration. This was a "moment" in the revolutionary advancement of human knowledge that we had to explore; to improve our own minds in the course of following the process of discovery in the minds of two great discoverers.

We were running up against all the established knowledge of the 20th century, including of those interested in the ideas of Ampère and Fresnel. For example, the Society of the Friends of Ampère, in Paris, knew nothing about the possibility of an Ampère-Fresnel collaboration, and had never thought about it. Soon, unfortunately, it was clear that nobody, except us, had ever worked on the subject. You have to understand that for somebody buried in the universe of Kantian-Aristotelian categories, "optics" and "electromagnetism" are two different things. For them, the medium (water, air, some other fluid) determines and supersedes the work done; for them, action, transformation in the universe, is only a secondary predicate. Therefore, from their standpoint, the usual story is true: On one side, Ampère worked on electromagnetism; on the other side, Fresnel worked on optics; and, finally, Maxwell made a synthesis and came out with the electromagnetic theory of light!

There we were, in a Paris library, surrounded by busts of the 18th-century replicas of Roman ones, themselves replicas of the Greeks', knowing from our epistemological standpoint that we were faced with an outrageous fraud, and that our mandate was to expose it, going back to what originally had happened, as if we had to find the Greek original bust rather than its replicas. Our task was to show how the Ampère-Fresnel work is a "One," and from where that One comes.

Our starting point was that both could not, absolutely could not, have discovered what they discovered without challenging the wrong axioms of Cartesianism, Newtonianism, and Kantianism; and that, on the contrary, they had to be part of the opposite, Promethean tradition going from Plato to Leibniz. They had to be in the line leading from Plato and Leibniz to Weber, Gauss, Riemann, and Cantor—the torch now being passed into our own hands. This implied, on their part, the understanding of the isochronic principle, the capacity of man to be in simultaneity with eternity, past, present, and future in a single moment of creation. Concerning that, we had before our eyes a quote from Ampère on what he called the "heritage of Augustine," the "understanding that past, present, and future are contemporary from the standpoint of pure intelligence."

The political side to our work showed, moveover, that the Ampère-Fresnel revolution could not be a "French project" as such, but had to be linked to that "beacon of hope," the American Revolution. Such a positive horizon was necessary for such an endeavor.

Fresnel's background

Our first discovery was the name of Augustin Fresnel's uncle, Léonor Mérimée, head of the Ecole des Beaux Arts, the School of Fine Arts, in Paris, who had supported young Augustin in a decisive way. He was a close friend of the renowned François Arago, and he knew Ampère very well. When he introduced his nephew to Arago, in 1815, he gave him a protector without whom he could not have continued his work. From a closer look, it appears that Mérimée was also a Professor of Drawing at the Ecole Polytechnique, where he taught students about Leonardo da Vinci, and, in particular, the works of Leonardo on hydraulics—waves and vortices.

Let's now look at young Fresnel. After his studies at the Ecole Polytechnique (he had joined the Ecole in 1804), he was sent to the French provinces to build roads. He did it well, although he was not very interested in it. He was, in fact, interested in two domains: first, the observation of the stars and the nature of light, and second, hydraulic machines.

Arago, who was a strong character and in a senior position, helped and sponsored young Fresnel. Both had studied the interference of light and knew that Newton's corpuscular theory could not be true. Jonathan Tennenbaum has told you that part of the Ampère-Fresnel story.

Author Jacques Cheminade (right) tours a factory during his 1995 campaign for the French Presidency. The discoveries by Ampère and Fresnel, Cheminade told the Oberwesel conference, constituted "a moment in the revolutionary advancement of human knowledge that we had to explore; to improve our own minds in the course of following the process of discovery in the minds of two great discoverers."

But, let's go back to the Mérimée family. Léonor's sister, Augustine Mérimée, was Fresnel's mother, and her father, Fresnel's grandfather, François Mérimée, was a lawyer in Rouen, and was picked up by the Marshal Duke de Broglie as manager of his chateau at Chambrais, near Caen. Chambrais, de Broglie's estate, was later called Broglie. If we then look into Fresnel's father, Jacques Fresnel, we find that he was an architect, called to the Broglie estate in 1784 to carry out repairs. So, in a word, the Fresnels were, on both sides of the family tree, sponsored by the de Broglies, who helped the three sons of Jacques enter the Ecole Polytechnique—Louis in 1803, Augustin in 1804, and Léonor in 1808.

Why is that important? Well, let me tell you something about the two brothers, Field Marshal Duke Victor-Louis de Broglie, the direct protector of the Fresnels, and Count Charles de Broglie. They were two short men, almost dwarfs, but their mental and political activity compensated for their physical limitations. Unusually close to each other for those times—because they were born ten months apart—they were the leaders of the "American Party" in France. Without Charles de Broglie, in particular, the American Revolution could not have been won.

Charles was one of the founders and a key sponsor of the French King's Secret Services, which was launched in 1746 to bypass the state bureaucracy—something you always have to do in France if you want to achieve anything. The de Broglies' entire life was devoted to one project: the defeat and invasion of England. Their first plan dates back to 1765-66, and was a very detailed and very competent one, including a social mapping of the British population.

To give you an insight into the way they thought, let me give you a quote from their agent Vergennes, later to become French Foreign Minister and a key supporter of the American Revolution. Count Charles de Vergennes, otherwise a very cautious man, writes: "Great Britain is a nation that despises the most sacred rights of all other nations, it is the hereditary enemy of France, we have to destroy it or be destroyed."

Charles de Broglie was the first man in France, as early as 1770-72, to have seen a revolution coming from America. He immediately realized that it provided the best way to defeat Great Britain once and for all, and he decided right away to create an American Party in France. He was its mastermind, while his brother, Victor-Louis, was the military figure in the combination. Their agents, besides Vergennes, included, among others, Pierre Augustin Beaumarchais in London and young Gilbert de Lafayette, whom they helped escape from his family, and sponsored and financed. Charles was also very close to Benjamin Franklin.

For the de Broglies, you have to know that the motto of the family was "Pour l'Avenir" ("On Behalf of the Future"). The timid but very interesting Louis de Broglie, the 20th-century scientist, was their descendant, a great admirer of Fresnel and an organizer of the 1927 celebrations at the Sorbonne for the hundredth anniversary of Fresnel's death. The unfortunate Solvay Conference came from Brussels to pay a tribute of vice to the virtue of Augustin Fresnel.

How do we explain the de Broglie phenomenon? Much more work needs to be done on this, but it is nonetheless clear that the tradition of Leibniz and his French co-thinkers was maintained through military-engineering networks, in con-

nection with the Oratorian teaching order. The cases of Gaspard Monge and Lazare Carnot, and of their mathematics teachers, are evidence of this.

How Ampère thought

Back to Ampère now, a man of the "second generation" of the Polytechnique group. I have had access to his original papers, and, together with my friend Pierre Bonnefoy, we hastily checked through about one-third of them. The key point about Ampère is that in an absolutely aversive period—

The key point about Ampère is that in an absolutely aversive period—of Napoleon and then the Restoration—he maintained a joyful impulse to go "beyond the limits," to explore the unknown in all domains.

of Napoleon and then the Restoration—he maintained a joyful impulse to go "beyond the limits," to explore the unknown in all domains. Conscious of how difficult it was to work in those times, and facing his own personal mental blocks, he looked into his own mind, into his creative processes, to find a method for knowledge.

Like Fresnel, Ampère was absolutely disgusted by Napoleon, and like Fresnel and Lafayette—and also, in a sense, Carnot—he was a constitutional monarchist, not because he liked the monarchs or the monarchy, but by default. He had seen how the Jacobins behaved in his own city of Lyons, in 1793, and how his father was murdered after a travesty of justice. His initial efforts were to sort out what was evil in the brute force of a man like Napoleon, and how it could be that most scientists of his time, despite their nominal commitment to truth, submitted to the dictator. What was their failure of principle? Then, he looked into his own mind and into the minds of the great men of the past that were reflected in him, to compare and understand the difference, and hence the nature of the flaw. With this approach, he tried to master the principle of cognition that leads to true discoveries, and not to tricks invented to gain social positions, as his colleagues were mostly doing.

Let me read you a letter to one of his friends, an unknown friend, where Ampère explains his purpose:

"You wish, dear friend, for me to outline for you the main results of work I carried out during a part of my life, whose aim was to examine our mental faculties, the precise determination of their numerous products, as well as some research on the relationship existing between some of the aspects they present to internal observation and some of the external aspects of their organization."

Then, in a letter to his son, Jean-Jacques Ampère, he includes a poem in Latin explaining, at the end of his life, the meaning of his work on the classification of sciences: "To know the world, you must observe matter and life: first measure and motion, then, the bodies, all types of living beings and how they go about their lives. Then study that which deals with the soul and with nations. Learn the operations of the mind, the art of modifying thoughts, the character and history of peoples and how they are governed."

Interestingly, he starts by observation and measure, the first, deductive level of knowledge, and then mentions "the operations of the mind, the art of modifying thoughts"—change, hypothesis, the higher order of mentation beyond deduction and induction, outside the Newtonian-Cartesian cage. Finally, he points at "the history of peoples and how they are governed," social responsibility. The concept here is what LaRouche developed this morning: the highest notion of the state as a servant of the mental and physical well-being of all the people, not the mere enforcer of "rule." [LaRouche's speech appeared in *EIR,* Aug. 6.]

This was a poem. A poem? Yes, Ampère, like Carnot, greatly enjoyed writing poetry—not of the best quality, but extremely interesting in its inspiration. It is through poetry, he says, that he realized that time and space cannot be *a priori* forms of sense perception, as Immanuel Kant pretended.

His "great project," many times started, but never completed, was to write an epic poem on Columbus, who he saw as a model of stubbornness and will. He saw in Colombus a tragic hero with a magnificent, grand design: "to evangelize the unknown," but betrayed by earthly powers.

A friend of Ampère notes that Ampère himself was, in his scientific work, like a "Columbus or a Kepler": "He was going toward the West, and as Schiller said, the land that he was looking for would have risen from the depth of the waters, even if it had not otherwise existed, because nature is in a perfect affinity with genius."

We have now sailed well beyond Newton, Descartes, and Kant. Ampère's discoveries testify to that, of course, as Tennenbaum showed. But, what about the tradition of Leibniz? The "proof" had not yet appeared, but our research could not miss it. It had to be there, by necessity of composition.

Let's look at young Ampère, at about 12 years old, coming with his father to see Abbott Daburon, a remarkable scientist and professor in his native city of Lyons. Ampère has already, by himself, worked on the "problem of the quadrature of the circle,"[1] and was interested, as a result, in the difference between the domain of circular rotation and the domain of the

1. As Lyndon LaRouche has often emphasized, it was Cardinal Nicolaus of Cusa who, in the 15th century, proved that "quadrature of the circle" is impossible, since circularity and linearity are incommensurable. See article by LaRouche in this issue, including footnote 14 on p. 9.

straight line and the linear polygons. Soon, at age 15, he would refute an error of Euler's on logarithmic calculation, raising the issue of negative logarithms.

Welcoming the young man, Daburon said: Now, you need to study the works of Bernoulli and Huygens, and therefore you have to know Latin, because they are not available in French." Ampère's father immediately answered, "No problem, I will teach him Latin." But then, Daburon added, "But, he has also to learn the calculus." To that his father said, "Just teach him that." Leibniz's calculus, Bernoulli, and Huygens, starting at 12 years old.

Maine de Biran and the 'psychology of cognition'

But, the usual story is that Ampère was a Newtonian in his scientific work, and resorted to Kantian categories in his theory of cognition. Again, we knew this *could not* be true, because of the very nature of Ampère's discoveries. But, we had to find out what had happened.

There are more than a hundred letters between Ampère and his very close friend, Maine de Biran (François Pierre Grontier), between about 1804 and 1819. Maine is supposed to be the founder of the "French introspective psychology" and "spiritualism," or other horrors of same genre. In reality, Maine's and Ampère's ambition was to create a new science, the "psychology of cognition."

Indeed, if you look at some of their correspondence, even if both try hard to understand Leibniz, and Leibniz is many times explicitly mentioned, they are quite confused. I cannot enter here into the details of the long efforts of both, but a few points should be made.

Both reject the materialism—knowledge only as information provided by sensory impressions—of Etienne Bonnot de Condillac and the so-called "ideologues." They oppose the piggish Antoine Destutt de Tracy, later to be sent to the United States to disorganize a weak Thomas Jefferson. Both, also, understand that Descartes and his followers cannot account for the "science of human knowledge," because they build an impenetrable wall between material (*res extensa*) and immaterial (*res cognitans*) substances, putting all things into an unbearable fatality, a passivity absolutely foreign to human cognition. Dualism leads to impotence, and, says Ampère, "Human freedom is, in the universe of Descartes, nothing but an arbitrary gift given by an arbitrary God."

More difficult for them is to deal with Kant, and very often they are trapped in his categories of *phenomena* and *noumena:* On one side, the phenomena knowable through one's consciousness; and, on the other side, the things-in-themselves, the realm of "ideas," the noumena beyond and behind the phenomena, that you cannot know through your consciousness. After Descartes, this is Kant's own insurmountable barrier against man's willful power of creation.

What Maine and Ampère—particularly Ampère—try to do, is to say that a relation between two phenomena allows one to understand the relations between two corresponding noumena. The human mind has, therefore, according to them, the power to understand the corresponding realm of noumena indirectly, through a connection of pairs of relations, an active connection based on one's reflection upon one's own activities. There is, according to Ampère, a "human drive" expressed in the unity of cognition and a result of the indivisibility of the soul, that permits us—contrary to what Kant pretends—to obtain a knowledge of the noumena through activity, effort, and willful change. The primary substance of the self being activity, the active absolute reflects itself in the active subject, which is thus capable of knowing. In other words, he tries to turn Kant around through a reinterpretation of Kantian categories, superimposing an approximation of the Leibnizian notion of substance as active force. He sees in it a "reconciliation of the possible and the real," superseding the dual matrix of materialism and spiritualism.

But Maine and Ampère are conscious that they have to go further. Maine writes to Ampère on Oct. 25, 1805, "I am forced to admit the existence of a hyperorganic force, a permanent substance of the soul." But, if the universal self is hyperorganic, how can we grasp it? Not with Kant! Kant prevents us from doing it. Then, on Jan. 20, 1806, Maine mentions Leibniz's monads and the Leibniz-Clarke correspondence.[2]

You have to understand that Maine and Ampère are surrounded by "ideologues" and "spiritualists" of all sorts in and around their Philosophical Society; most of the time they have to fight their own supposed friends, and even though Leibniz is for them the real issue, the debate around Kant and goes on and on, and in Kantian terminology. The problem is: Where does the active substance come from? Their interpretation of Leibniz is a concept of *vis viva* (life force), as self, and as the reality of an absolute form of existence. The real world is the locus of active centers of force—monads—and of the resistance that they encounter. Remember the quote given by Tennenbaum from Ampère, commenting on Fresnel's discovery, in his essay on the Philosophy of Sciences:

"We must admit an immaterial, motive substance everywhere where there is a spontaneous motion. We then discover that it is in this substance that thought is to be found, since words obey it. . . . The cause of all causes, the creative and all powerful substance is, on the contrary, only known to us indirectly, through its works."

In other words, only the Leibnizian concepts can ultimately account for the discovery of a fundamental principle of nature, like Fresnel's transverse waves.

Dumping Kant for Leibniz

At this point, after so many years of debate, you can imagine Maine and Ampère asking each other: Wouldn't we be better off by dumping Kant? The beautiful thing is that a

2. In his correspondence with Newton's front-man, Samuel Clark, Leibniz demolished the Newtonian philosophical system.

decision was taken, not as a neat mechanistic logical development, but through a demanding dialogue between them, as they strove to understand the principles of cognition.

Beyond this philosophical debate, let me read you some unpublished notes from Ampère's manuscripts that will help clarify things:

"Pleasure and pain are sufficient to lead the faculties of beasts to their destination. Stronger faculties demand from us other motivations. . . . That strong, involuntary attention which excites within us the pleasure of perceiving new relations between our ideas. . . . The emotions aroused in the soul of those who conceive them before having executed them, by the representation, at an ulterior moment, of the masterpieces they meditate upon."

You can see that he is against both bestial British empiricist ideology, which equates men with animals, as well as against the Kantian conception of the separation of intellectual creation from the emotion attached to it. For Ampère, the human being is an active force, enjoying his capacity to create beautiful things, the gifts that he is willfully, actively making to future generations.

Next, let me show you, in other notes from his manuscripts, how Ampère rejects apodictic judgments (judgments based on mere deductive processes), and points to Descartes, Locke, Locke's followers, and Kant, as absolutely mistaken. Ampère writes:

"All those errors come from the confusion of the intuitive and of the conceptual, which is the source of the greatest errors in philosophy.

"The foundations of all hitherto admitted apodictic judgments are all false. One can enumerate four systems in these matters: Descartes' comprehension, Locke's conventional or non-conventional, the notion of identity of those metaphysicians who proclaimed themselves his disciples, even though on this point they were in total opposition to him, and finally the laws of the human mind which force one to believe in Reid or in Kant's categories."

Finally, as a result of the interventions by Ampère, Maine de Biran wrote an article on Leibniz in the 1819 *Biographie Universelle de Michaud,* a key reference work for French scholars. Maine attacks Kant on the issue that was stressed by Ampère: If you admit things in themselves and cut all links between emotion and your intellectual self, you necessarily become skeptical, condemned to doubt. Maine de Biran wrote: "How to reconcile fate and freedom, moral application and the dependency of finite beings? Kant thinks he can avoid this snag by only subjecting the phenomenal world to the law of causality (Leibniz's determinism), and freeing the soul from this principle, as a noumenon or thing in itself. He thus considers each action as belonging simultaneously to a double series: to the physical order where it is connected, by the common links of nature, to what goes before and what follows; and to the moral order in which a determination produces an effect, without it being necessary to explain this will and its result, to consider a previous state. In short, Kant's doctrine for reconciling evil and the supreme wisdom is to apply the maxim: 'In doubt, refrain from judging.' Whereas Leibniz takes the standpoint of the absoluteness of the Creator Himself, so that neither the *Theodicy,* nor the *Monadology,* can be understood without following the thread given by the author of this exposition."

Interestingly, Maine attacks Kant because Kant had attacked Leibniz in his bitter critique of all "Theodicies"—an attack aimed against Leibniz's *Theodicy*. Maine launches a devastating polemic against Voltaire's *Candide,* the most famous pamphlet ever written against Leibniz. Maine writes: "This piece is a mocking and superficial philosophy, preaching with ferocity the cult of material lusts, degrading the human species through an exaggerated picture of its miseries."

Let me now read you the concluding words of Maine's article. For him, Leibniz's unique contribution is to have understood that all simple monads have the capacity to conceive the universe in a way congruent with the divine knowledge: every person knowing from the highest standpoint what he is, as a force deliberately acting and operating:

"It is by always tending to take this sublime point of view that Leibniz often grasps, with extraordinary success, the most unexpected relations between the world of ideas and the world of facts in nature: It is by attempting to find out, through calculus, the means that lead the most directly to the end, that best economize matter, space, and time, that he succeeds in solving questions considered inaccessible for the human mind, or in proving truths previously conceived of but never proven. This is the source of the absolute confidence that always characterized this grand master. . . . From the standpoint of the immortal author of the *Monadology,* the science of principles is the same as that of forces; yet the science of forces includes everything that is or can be understood by the human mind, starting from oneself, a force directly given in the primitive act of conscience, up to the absolute force, such as it is, in itself, in the eyes of God; such as it can be in God Himself. The standpoint of the self is not the same as the standpoint of God, even though it leads there through an exact analysis and through the same principle of force that completely eluded Descartes and that Leibniz was the first to grasp in full depth. Like Descartes, it is true that Leibniz did not distinguish between these two standpoints or express the link between them, but Descartes had broken this link, whereas Leibniz provided the only means capable of reestablishing it. It is thus to his doctrine that subsequent progress of the true philosophy of the human mind will be connected."

'Dialogue within one's self'

Despite Maine's and Ampère's flaws—considering that they knew only a small part of Leibniz's works—it is clear that they passed the torch on to future generations, the best

way they could do in the terrible times in which they lived. Even their difficulties, their struggles with the concepts, are interesting and moving. Lyndon LaRouche has often stressed that in research, one should never pick up facts, analogies, or mere connections as such, but identify with the mental processes enriching the human species and going through the difficulties of the discoverers—even their mistakes. Have your own mind awakened, and begin to look inside it. Enjoy the research and don't be so fixated on the solution. The solution is the process, it is the change for the better in your own mind. Let me quote here, LaRouche's recent paper, "Prometheus and Europe" [*EIR,* July 23, 1999], to go further into this concept:

"The process of individual discovery, and refinement of one's own knowledge of universal principles, takes the form of a dialogue within one's self. It is the experience of that self-critical process of change, the which is generated by such internal dialogues, which should lead one to a more refined sense of one's inner self. Such a dialogue on some specific paradox, may be recurring over days, weeks, or longer. On one occasion, it is with others. On another occasion, it is with oneself. Nonetheless, on every occasion, it is always, primarily, with oneself.

"It is one's insight into the process of change, associated with the outcome of repeated efforts to perfect such dialogues, through which one's private self-image is elevated. One may be transformed by such habits, away from the self-conceptions of a fixed thing, into a conception of oneself as a process of changing, a continuing process of becoming a better person. So, in Plato's *The Republic,* the leading figure, Socrates, argues for truthfulness and justice. It is in such experiences, and their outcome, that a truthful conception of the nature of both man and the universe is molded."

Think of the dialogue among Ampère, Fresnel, Maine, and also Arago, leading to the Fresnel-Ampère revolution, and then focus on your own capacity to reenact that revolution.

Now, let's go back to the Maine article on Leibniz. It is from 1819. Well, something else happened with Leibniz on that very year: the publication in France and in French of Leibniz's *Exposition de la Doctrine sur la Religion,* his 1680 *Systema Theologicum*. The original Leibniz manuscript had been stolen by the French occupation forces in Hanover, and then hidden in the Saint Louis des Français Church in Rome. Who dug it out? Well, Prince Antoine de Broglie, a descendant of the two brothers mentioned at the beginning of our story! So, there is, against all odds, a principle of continuity.

On the other side, too, by the way. As a byproduct of our research, we discovered that the first French translation of Newton's *Opticks* was dated from 1787, and was done by one Jean-Paul Marat, the very Jacobin killer later deployed on behalf of Jeremy Bentham, the very Marat that Ampère denounces in a retaliatory poem.

As a follow-up of the Maine work, when the new edition of the Michaud *Biographie Universelle* was undertaken in 1856, one Foucher de Careil was sent to Hanover, where he spent many months checking the Leibniz manuscripts, and then published in 1857 *New Letters and Unpublished Works of Leibniz*. He wrote an article in the *Biographie* replacing the one by Maine, but quoting him quite extensively.

Fresnel died at 39 years of age in 1827. During the last three years of his life he was so ill that he could not continue his research. He kept repeating, "How much I would have still to do." Ampère died in 1836, and when his friend Bredin came to him on his death bed to take care of him, he leaped out of bed, saying, "My health, my health, enough about my health! The only question worth debating between you and me should be that of eternal truths, of things and men who have been good or evil for humanity."

The torch has been passed to each of us. Ampère, Fresnel: Let us be inspired by them, let's know more about them. Our research has only started, and already we can see a great tragedy: what others, at best, have not done, or, at worst, have undone. Let's think about these men: Ampère, Fresnel, and let's think of the work of Laurence Hecht. Let's put them in out hearts and minds, "Pour l'Avenir," for the future, and let us improve our work.

EIR International

War in the Caucasus is raging out of control

by Konstantin George

Since Aug. 7, a full-scale war has been raging in the Russian Caucasus republic of Dagestan. Russian Army and Interior Ministry Troops have been locked in combat with up to 2,000 armed fanatics of the nominally Muslim, Wahhabite sect, drawn from various nationalities, including Chechens, Dagestanis, Arabs, Afghanis, and, according to the latest reports in Russia, Pakistanis, who on Aug. 7 crossed into Dagestan in force from bases in the neighboring and, since Aug. 1996, de facto independent Caucasus republic of Chechnya.

The Wahhabite sect, dating back to the last century, is a product of British intelligence, and during the 1990s, has served as cannon fodder for the interests of the London-centered British-American-Commonwealth (BAC) faction of the financial oligarchy. This BAC faction has the strategic goal of breaking up Russia, and thus, ruining the potential formation of a "Survivors' Club" in Eurasia centered around Russia, China, and India. Toward this end, the BAC has been instigating wars and insurrections, including in the Caucasus, the 1990s "civil war" in Tajikistan in Central Asia, the non-stop war in Afghanistan, and fomenting new crises between India and Pakistan over Kashmir.

The "combat history" of one Hattab, a Wahhabite with Jordanian citizenship who is one of the leaders of the present armed incursion into Dagestan, illustrates this. Hattab fought with the Afghan mujahideen during the 1980s against the Soviets. Then, in the 1990s, he fought successively against Russian forces, first in Tajikistan, then in Chechnya, and now in Dagestan.

As stated by Lyndon LaRouche, the ongoing implementation by this BAC crowd of a vigorous policy aimed at breaking up Russia is pushing Russia into a corner, and this entails incalculably dangerous consequences. Russia will not allow itself to be broken up, regardless of how many assets Western financial interests "own" in the Kremlin or elsewhere. The more successful the BAC drive to break up Russia becomes, the greater the risk of a massive Russian response, possibly including nuclear weapons. Already, a senior British military specialist on the Caucasus told *EIR Strategic Alert* on Aug. 17, "In the back of my mind, the idea has come up, that there is a slight possibility now, that the Russians will use tactical nuclear weapons, to stop the rebels from reaching Makhachkala [Dagestan's capital]. That is one possibility. In theory, it would be relatively easy to stop them by [conventional] air bombardments, but the Russian forces have not been flying enough hours to accomplish this."

Why the Caucasus is vulnerable

This drive has begun in the Caucasus, which, because of its severe economic crisis and historical background as a region filled with numerous ethnic conflicts—child's play for the BAC crowd to manipulate—represents Russia's most vulnerable region. The Caucasus war is doubly dangerous because, by design, it has been timed with the Aug. 9 incipient coup launched by Russian President Boris Yeltsin, through the appointment of Vladimir Putin as Prime Minister. This appointment of the man who had been handpicked by the Yeltsin clan in July 1998 to run Russia's Security Service (FSB), was carried out to save the Yeltsin clan, an important

FIGURE 1
The Caucasus chessboard

asset maintained by the BAC in Russia. One big fear is that the new government will exploit the war in Dagestan to undertake anti-constitutional measures to keep the Yeltsin clan in power, and undercut the parliamentary elections scheduled for December and the Presidential elections set for next summer.

Russia cites British, U.S. role

Russia's Acting Minister of Nationalities, Ramazan Abdulatipov, in a press conference on Aug. 17, stated outright that what has developed in Dagestan is not a crisis, but a war. "Yes, there is a war in the Caucasus. The forces that have invaded Dagestan . . . prepared for this mission for

several years," he said.

In an interview with *Rossiskaya Gazeta* on Aug. 14, Abdulatipov characterized the operation as a "large-scale operation coordinated and agreed at a relatively high international level. It is aimed primarily against Russia, at expelling it from the Caucasus." He went back in history to explain the phenomenon. "The choice of location was no accident," he said. "Back in the 18th century, it was said that whoever controls Avaristan [where heaviest fighting is going on] controls Dagestan, and whoever controls Dagestan controls the Caucasus. Everything has been calculated to remove Russia from control of the resources of the Caspian Sea and of the Caspian Basin in general."

As to who the insurgents are, he said, "We generally refer to them as Wahhabites. However, if we dig deeper, we'll see that they have nothing in common with Wahhabites in terms of their outlook. As a rule, these are people who have failed to find a niche in the new environment, some of these people used to be bandits and some of them have lost their way in this life, and yet some of them represent the opposition from various regions which has concentrated there. But once again, I stress that these people have nothing to do with either Islam or Allah. They call themselves the warriors of Allah, but in reality they have gone against the fundamental tenets of the Holy Koran."

The minister emphasized that Wahhabism has been a tool of foreign imperial interest from the outset. "You may remember Al-Afghani who was supported financially from Britain and America," he said. Al-Afghani was a Persian adventurer in the late 19th century, deployed by the British through Turkey to organize an "Islamic revolutionary movement" against Russia.

The economic dimension

Abdulatipov also identified one of the region's crucial problems, namely, the economic devastation, above all the extremely high youth unemployment in Chechnya and Dagestan, as the key cause enabling the foreign-funded insurrection to operate: "About 80% of the young people in Dagestan's mountainous districts where fighting is going on have been jobless for several years. These people have no hope of getting any job in the republic," he said. "If we want to preserve the integrity of our country, we have to concentrate not on some pinpoint strikes but on the protection and security of citizens." Regarding Dagestan, he said: "It's a very rich republic with a huge potential. However, it is necessary to rebuild its industry and create new jobs. Otherwise, it will be a source of tension."

A well-informed Russian source put the combined unemployment figure for Chechnya and Dagestan (obviously not counting the extensive gray and black economies in the region) at 90%. The source stressed that the major funnel for outside aid, including arms flows, to the insurrection comes from British-allied networks in Turkey, a fact known to the Russian government, but which has not made a public issue of it for political reasons.

War and the spillover danger

When the BAC crowd chose Dagestan as a destabilization target, they hit an extremely sensitive Russian nerve. Dagestan, running north-south along the western shore of the Caspian Sea, connects the rest of Russia to Azerbaijan and, thus, to Caspian Sea oil, and because of this geographical fact, all oil pipelines from Azerbaijan run through Dagestan to the Russian Black Sea coast. Also, the connection to Azerbaijan is by definition Russia's overland connection to Iran, a crucial strategic part of the Eurasian Land-Bridge, and Dagestan is the part of Russia which is the shortest distance, across the Caspian, from the Central Asian republics of Turkmenistan and Uzbekistan. Dagestan also borders the breakaway Russian republic of Chechnya to the west and the independent state of Georgia to the southwest, and is thus the Russian Caucasus republic with the greatest potential for conflict to spill over into both unstable Chechnya and the volatile Transcaucasus republics of Azerbaijan and Georgia.

The spillover danger was clear on Aug. 13, when Russian planes accidentally bombed Georgian territory. During Aug. 13-16, there were two cases of a Russian armored infantry column making incursions onto Chechen territory. In both cases, the troops were called back after only a few hours in Chechnya, and threat of a resumption of the 1994-96 Chechen War (which resulted in 80,000, mostly civilian, deaths) was avoided for the time being.

Another outside (i.e., neither Russian nor Chechen) provocation occurred on Aug. 17. Chechen President Aslan Maskhadov announced that Russian forces had "invaded" Chechnya, and a huge war escalation appeared imminent. As reported by the Russian *Kommersant Daily* on Aug. 18, a few hours later, Khumid Dalayev, head of Chechnya's border and customs services, stated that Maskhadov had been misled by a radio transmission that had been broadcast on the wavelength of the Chechen secret services, but which had emanated from outside the republic. So, a new Chechen war was again narrowly averted. But, this war danger still hangs by a thread, namely, with the survival of Maskhadov. As both London and Moscow are fully aware, if Maskhadov were to be assassinated or toppled in a coup, a new Russia-Chechen war would be unavoidable.

A spillover into Chechnya would be doubly tragic, because President Maskhadov is a moderate who has stressed that the renewed Caucasus war in Dagestan is a plot, the result of collusion between Western interests and what he calls "the party of war" in Moscow, consisting of those Russians who work hand in glove with Western financial interests. Maskhadov has also stressed that he and the Chechen government not only have nothing to do with the insurgents, but are open to

collaborating with Russia against them, as these foreign-run fanatics pose as great a threat to Chechnya as to Russia.

A widening of the crisis into the Transcaucasus is an even worse nightmare, one that could entail a direct crisis with NATO, which both Georgia and Azerbaijan are hoping to join. Azerbaijan, since January of this year, has even gone so far as to request that NATO, U.S., or Turkish military bases be established on its territory. The BAC has selected Turkey as its launching pad for operations into the region. Aid, including arms and recruits, has been channeled into the Caucasus through the territory of NATO member Turkey, involving networks there.

Escalation of the Dagestan insurrection is also unpredictable. Within Dagestan, the Wahhabite insurgents enjoy almost no public support. This phenomenon is in contrast to the 1994-96 Chechen War, where the insurgents enjoyed wide support from the Chechen population because of a number of historical and recent factors which do not apply to the Dagestan situation (for example, under Stalin the Dagestanis never suffered near genocidal repression and mass deaths and mass deportations to Central Asia, as did the Chechens).

However, Dagestan is a smorgasbord of nationalities, and given the extremely bleak economic situation, there is a great latent potential for inter-ethnic clashes. Should the insurrection in Dagestan trigger ethnic conflicts—since Dagestan is both extremely multi-ethnic, whose ethnic pattern overlaps with that of neighboring Azerbaijan—then an insurrection say, of a group like the Lezgins, could erupt, involving both Dagestan and Azerbaijan. This could be the pretext for Azerbaijan to call on NATO for help, creating a potential direct superpower clash in the Caucasus.

Coming back to the point made by Chechen President Maskhadov—that the war is the result of a dangerous collusion between Western interests and the subservient to the West "party of war" faction in Moscow. This can be seen in the timing of events. As President Maskhadov has stressed, the war serves the interests of the Western-allied "party of war" in Russia. On the day of the Yeltsin-Putin coup, the Wahhabite insurgents issued the following proclamation: "We, the Muslims of Dagestan, officially declare the restoration of independence to the Islamic State of Dagestan." The declaration called on "all Muslims" to help Dagestan get rid of Russian "occupants." The insurgents called on a notorious Chechen terrorist, Shamil Basayev, to head up their "state."

Putin, in his first statement on the crisis in Dagestan, announced that he would restore "order and discipline" to Dagestan. "We are facing the emergence of mass terror on Russia's southern border," he said. "The situation in Dagestan will return to normal within a week and a half to two weeks." No serious observer thinks so, because there are up to 2,000 Wahhabites lodged in the remote mountainous areas of Dagestan, and, even if by some miracle, they could all be driven from Dagestan within "two weeks," they would simply fall back to Chechen territory, regroup, and re-enter Dagestan. Since Aug. 9, they have come under heavy, non-stop bombardment by Russian artillery and helicopter gunships.

The policy of the Yeltsin family and Putin is to embark on military escalation to steer the domestic political situation into an extra-constitutional mode. The Aug. 13 Putin statement that Russian planes would bomb inside Chechnya brought the situation to the edge of a second Chechen war as well. As in the case of the Russian troop incursions into Chechnya, only to be followed by their withdrawal, this threat has not been acted on, reflecting—despite, or because of the Yeltsin family problem—the fact that key elements in the Russian military are refusing to go along with an escalation. Confirmation that the Russian military does not want to draw Chechnya, Georgia, and Azerbaijan into the crisis, was provided on Aug. 17 by Gen. Viktor Kazantsev, Commander of the North Caucasus Military District. He reported that a new offensive against the rebels was about to begin, with the aim of killing them where they are (the mountains of Dagestan) and "not chasing them from Dagestan," i.e., there is no plan for "hot pursuit" into Chechnya or elsewhere.

General Kazantsev's statements followed a meeting between Yeltsin and Defense Minister Igor Sergeyev, where it was decided that command of all Dagestan operations would be taken away from the Interior Ministry and given to the Defense Ministry. On Aug. 18, Sergeyev led a team of generals from the General Staff, the Defense Ministry, and the Interior Ministry to the Dagestan capital, Makhachkala, for war-planning sessions with General Kazantsev and Dagestan's State Council and Security Council. On that day, Russian forces captured the strategic mountain pass at Kharami on the Chechen-Dagestan border, thus cutting off the rebels in the Botlikh area of Dagestan from any retreat back into Chechnya. However, if the Russian forces to the south of Botlikh are weak, or inept, or both, then the rebels could escape into Georgia or Azerbaijan. This would present for the first time a rebel force using sanctuaries in either country to stage attacks on Dagestan, i.e., Russian territory. Precisely such a danger was warned about in *Izvestia* on Aug. 18.

The evolution of the military situation to where the main force of rebels were to operate against Russia from the Transcaucasus, the ever-present danger of a new war in Chechnya, and the problem that Yeltsin and Putin remain in power, makes the crisis very dangerous. Even though war has been averted so far, Maskhadov has been forced because of Putin's threats to impose a one-month state of emergency, with a partial mobilization of reservists and veterans of the Chechen War. He again blamed the "party of war" in Moscow for having created "the threat of a new war in the Caucasus." How far and how fast this war will escalate, and how this will affect the situation in Moscow and other key world capitals, are crucial questions.

Political eruptions hit, as Britain prepares for 'post-crash world'

by Mark Burdman

Whenever high-level circles in the British oligarchy plan fundamental changes in the reigning political arrangements in Britain, it is assured that there will be a season of political bloodletting, bloody scandals, and "irregular" eruptions. We are in precisely such a period right now. The United Kingdom is moving toward the imposition of emergency rule at some point in the late summer or early autumn, and the preparatory maneuvers toward such a momentous development are affecting the status of the House of Mountbatten-Windsor ruling family, Prime Minister Tony Blair and his entourage, and others among the leading institutions and political figures in the country.

At first glance, it might seem incredible that a country that presumes to be part of "the West," and to be a "parliamentary democracy," would be contemplating something so drastic as emergency rule in the weeks ahead. But, these are hardly normal times. The highest echelons of the British financial/political establishment are well aware that the world has entered an "end-game" phase in the process of general financial disintegration, and that extraordinary means will have to be used to maintain control in a "post-crash world." Moves toward emergency rule were openly discussed in a "signal" article on the front-page of the July 18 *Sunday Times*. It revealed the existence of something called "Operation Surety," which, drawn up over a period of months, foresees the large-scale deployment of British military forces, including 2,000 brought back from Kosovo, to deal with widespread civil disorder in the coming months (see *EIR,* Aug. 6, p. 44).

As we show here, the potential for large-scale civil disorder in the U.K. over the coming weeks is very real. This is likely to occur simultaneously with the outbreak of various political developments, the importance of which would be missed by those who see Britain as a "normal" country such as Germany, France, or the United States. But, the British species is of a different nature. It is a classical oligarchical, class society, with a political structure modelled on that of the Venice of former times. Events that would appear irrelevant or arcane to an uninformed observer, can take on considerable importance in Britain, in causing or influencing crucial political transformations.

The royals and the riots

Britain has recently experienced an outbreak of civil disorder, the magnitude and intensity of which shocked many observers. On June 18, there were the worst riots in the City of London in more than two centuries, since the notorious "Gordon riots" of the 1780s were orchestrated by the powerful Lord Shelburne and friends. In military style, leading offices of the City of London, such as the London International Financial and Futures Exchange, were stormed by well-supplied bands of self-professed "anti-capitalist anarchists," operating under the banner of an organization called "J18" (signifying June 18, a day of protest against the Group of Eight summit beginning that day in Cologne, Germany).

In mid-August, there were new revelations in the British press, showing that the June 18 riots were extremely well-organized and well-financed, and carried out in a virtual "general staff" mode. For example, the lead article of the Aug. 9 London *Independent* quoted London police Deputy Chief Inspector Kieron Sharp, that "there were people orchestrating the violence from a distance. There were a number of people dressed in suits with mobile phones, but they were not City [of London] workers, they were organizers. There was one person organizing things while standing behind the police lines. . . . There was very severe and savage violence."

The British police have set up something called "Operation Enterprise," for investigating the June 18 events, and *in anticipation of future such eruptions*. Such eruptions, perhaps combined with a full breakdown of the peace process in Northern Ireland and new incidents of sectarian violence and terrorism, would be a perfect pretext for bringing into play the "Operation Surety" emergency measures.

Typically for an oligarchical society like Britain, the riots themselves are being spawned from *within* the oligarchy and circles close to the royal family. The Aug. 10 British press revealed that one of those arrested for participating in, and financing the riots, is Mark Brown. Brown is an heir to the

Vestey family fortune. Until recent years, the Vesteys, whose vast fortune derives from prominent involvement in the international meat trade, were the second-richest family in Britain, after the Mountbatten-Windsors. The current Lord Vestey, Brown's cousin, is very close to Prince Charles. His lordship's wife, Cecey, is the godmother to Prince Harry, while Brown's cousin Tamara is very close to Prince William. Brown himself is an activist with Friends of the Earth, Greenpeace, and various anarchist groups, including an anarchist newsletter called *Corporate Watch,* the activities of which are nurtured by senior figures in the British establishment.

This points to how the British royals are both swept up in, and manipulating the current unrest in Britain. But, this is hardly the only tumult that the royal family is now involved in.

'Thermonuclear device' aimed at Blair

In this situation, the Blair government clearly has strong authoritarian impulses. For instance, the Home Ministry is now working on legislation, for preemptive detention of psychologically disturbed individuals who are classified as "dangerous to society." An article in the Aug. 6 London *Times* aptly characterized Blair as a close ideological and political follower of "Il Duce, Mussolini."

While that *Times* piece neglected to remind readers about Mussolini's eventual fate, the paradox of the current British situation, is that the seemingly powerful Blair is being set up for a fall. The fascist authoritarianism being prepared at the highest echelons of the British establishment, is one in which Blair could find himself decidedly expendable.

While Blair was on a government-funded vacation in Tuscany, Italy in mid-August, he was hit by a barrage of troubling news. It has been leaked, in a number of articles, that Blair was the recipient, in 1996, of £250,000, from Labour Party moneybags Geoffrey Robinson. Robinson built up his fortune, in significant part, through dealings with the late and disreputable British magnate Robert Maxwell. In late December 1998, when it was revealed that British Trade and Industry Minister Peter Mandelson, a Blair mentor and intimate, had failed to disclose that he had received a £373,000 home loan from Robinson, he was forced to resign. Robinson had to resign from his post as Paymaster-General.

The next to resign because of the fall-out from Robinson's affairs, could be Blair himself. According to reports from London, Robinson is preparing a "revenge" autobiography for later in the year, one feature of which will be to detail the previously unreported loan to Blair. Robinson is allied with Chancellor of the Exchequer Gordon Brown, a longtime rival of Blair's. According to the Aug. 15 London *Sunday Telegraph,* "Mr. Brown's allies have often said they are equipped with a 'thermonuclear device' which could harm Blair. No. 10 [Downing Street, the Prime Minister's office] fears that Mr. Robinson's book could be the launching pad."

Simultaneously, the Conservative Party, the main opposition party, still reeling from its disastrous results in the May 1, 1997 general elections, is going through a process of institutional decomposition. The bumbling party chief, William Hague, has suffered badly from allegations in the British press that the party's Treasurer and chief moneybags, Michael Ashcroft, has murky involvements with international money-laundering and, possibly, drug-trafficking networks. The party is rent with feuds over policy toward Europe, and it is anticipated that devout followers of Margaret Thatcher will ambush next month's party conference on this issue, even though Hague is Thatcher's hand-picked protégé. Meanwhile, Thatcher is the subject of nasty attacks in the new memoirs of her successor as Prime Minister, John Major.

The monarchy, LaRouche, and the case of Princess Diana

Another paradox of the ongoing process, is that while the monarchical establishment is, in broad terms, behind the push for "Operation Surety" emergency measures, the monarchy itself is being swept up in the tumultuous situation now facing Britain.

Not surprisingly, a sign of the times in Britain, is the overlap of scandals affecting circles of the monarchy, and a focus, in the British media, on Democratic Party pre-candidate and *EIR* founder Lyndon LaRouche, a key international opponent of the monarchy and its tentacles. Earlier this month, as we have reported, circles linked to the monarchy and/or the British secret services, planted a nasty death threat against LaRouche, in a disreputable tabloid magazine, *Take a Break*. This article was a tip-off, of the degree of desperation felt by certain high-level British circles, at this historical-political conjuncture (see *EIR,* Aug. 13 cover story).

On Aug. 18, London *Guardian* weekly columnist Francis Wheen (who also writes for the satirical intelligence *Private Eye* magazine) published a commentary on the emerging national debate on drug policy in Britain, in the wake of the Aug. 15 call by new Liberal Democratic Party leader Charles Kennedy for the legalization of cannabis. Suddenly, at the end of his commentary, Wheen added a curious "Postscript," in which he detailed how prominent establishment figure Lord William Rees-Mogg has revealed himself to be one of the leading British experts on the availability of illicit drugs in Britain. Wheen, who has frequently attacked LaRouche in the past, wrote: "The American conspiracy theorist Lyndon LaRouche has often claimed that the global narcotics trade is run by Lord Rees-Mogg and the Queen. Until now I have been inclined to give his lordship the benefit of the doubt, but this suspiciously well-informed article makes me wonder. Can it be, as LaRouche insists, that this 71-year-old bibliophile is indeed the Mr. Big behind the Colombian drug

barons, the Triads, and the Yardies?"

Lord Rees-Mogg, who writes for the London *Times,* is one of the leading British press mouthpieces for the monarchy and the British Foreign Office.

Meanwhile, LaRouche's chief adversary in the royal family, Royal Consort Prince Philip, continues to have a "time of troubles." Around the time that LaRouche was being attacked in *Take a Break,* Philip was being accused by magnate Mohamed Al Fayed, of having ordered the murder of Al Fayed's son Dodi Fayed and Princess Diana, on the night of Aug. 30-31, 1997. Soon thereafter, a national outcry erupted in Britain, when Philip made a racist anti-Indian statement, while visiting an Edinburgh factory.

On Aug. 15, the Sunday British press was filled with stories on the Royal Consort. One, in the *Sunday Times,* speculated on the grounds for Philip's apparent mental-psychological disorientation, discounting the idea that it came from a special gene prominent in royal family circles, and leaving open the question of what the cause might be. A front-page piece in the same day's *Sunday Telegraph* featured the fact that the Royal Consort is feeling increasingly persecuted, and is being made into a caricature by the British press.

The Aug. 12 *Guardian,* in a commentary next to a violently polemical cartoon depicting Philip together with leading political figures in Britain, labelled him "the old goat," and speculated that he might be, in some manner, forced to leave Buckingham Palace at some early date.

Such nastiness is characteristic of the brutal realities of Britain at this point. But, it may only be a prelude for other surprises. Aug. 31 is the second anniversary of the death of Princess Diana. The royal family is still smarting from accusations that either it was involved in her wrongful death, or at least acted with extreme emotional callousness after her death. Now, a new element has been introduced.

According to the Aug. 16 *Guardian,* former U.S. Sen. George Mitchell, who has been President Clinton's special emissary for the Northern Ireland peace effort, has agreed to mediate between the Pentagon and Al Fayed, to determine whether the Department of Defense has any intelligence files that might shed light on the events in Paris on the night of Aug. 30-31. Mitchell has proposed that Robert Tyrer, an official in the office of Secretary of Defense William Cohen, conduct a thorough, *de novo* review of the Pentagon's files, and report his findings to Mitchell. According to the *Guardian,* "The aim would be to end suspicions that have surrounded Diana's death, including allegations from Mr. Fayed that there had been a cover-up over the crash, which killed her, Mr. Fayed's son Dodi and their driver."

U.S. Defense Intelligence Agency and other U.S. intelligence files are believed to contain important leads on the latter days of the life of the Princess, and, until now, access to these files has been systematically withheld.

An unstable Germany means an unstable Europe

by Rainer Apel

What if the big financial crash occurs, and the government is not prepared? This is a critical question that must be posed in Germany, where the government, and the elites standing behind or tolerating this coalition of the Social Democrats and the Greens, apparently is not at all prepared. The "red-green" government's energies are absorbed by the exhausting struggle to achieve a balanced budget, and by the need to carry on a massive propaganda campaign to keep up the pretense that it has not lost control of economic and financial events and the capability to govern.

After 10 months in power, this government has lost the confidence of most Germans. An opinion poll published by the FORSA Institute at the beginning of August, showed that, of those Germans who voted for the Social Democrats and their Chancellor candidate, Gerhard Schröder, last September, 41% would not vote for them again if national elections were held now. This translates into a loss of 10 million votes. Another opinion poll, published by the Allensbach Institute in mid-August, showed that 54% of Germans in the western states, and 57% of those in the eastern states, are convinced that time has run out for the red-green government.

No such poll has been done yet among the labor movement, but the percentage of unionists who oppose the government is certain to be even higher. The frustration with the government's policy among union members has taken on such dimensions, particularly in the eastern states of Germany, that the labor bureaucracy is beginning to reflect that ferment. And, it takes the form of regional protests that even openly disregard the overall pro-government line of the national labor federation (DGB). So far, the DGB's national executive has voiced protests against the government, but managed to do so in such a way that it has not been threatening. But, this is going to change—it simply has to, if the country and its labor movement are to remain governable.

Labor leaders attack the banks

An indicative development occurred on Aug. 4, when the chairmen of the regional DGB sections of the eastern states of Saxony and Saxe-Anhalt, Hanjo Lucassen and Jürgen Weissbach, respectively, took the unprecedented step of hold-

ing a joint press conference in Magdeburg, the state capital of Saxe-Anhalt. There, they issued a joint call for the government to finally show a commitment to "social justice," and to stop proposing plans for new cuts in the labor, welfare, and pension budgets, while the banks get off scot-free. The joint statement is worth quoting, because it breaks the long-respected taboo in the German policy debate against making the role of the banks a political issue.

"The rich and the banks, who are making big profits off the state debt, must make their contribution" to the economy, they said. "The banks should drop their claim, for a period of two years, to one pfennig of each mark of interest cashed in from the public sector. This would yield about 10 billion marks per year, and it would hardly burden the balance-sheets of the banks. It could help to reduce public-sector debt, and funds could flow into infrastructure and venture capital."

This 1% debt relief would be "only peanuts" for the banks, "but could provide substantial support for the public-sector budgets," the labor leaders said. Their relatively modest "1%" proposal was so hot, that the national DGB executive instantly distanced itself from the initiative in a release sent to the wire services. But what the two labor leaders had said in Magdeburg, is what a broad majority of citizens and of union members think. And, the broad majority also think that Germany would be better off if the red-green coalition were replaced by a Grand Coalition of the Social Democrats and Christian Democrats. The national executive of the DGB will be forced to change its views.

A first indication of the pressure to change could be seen in an interview with DGB national chairman Dieter Schulte on Aug. 18, who called on the government to invite the Christian Democrats to a special summit on the pension issue. He said that problems like the security of pensions require the broadest possible alliance of social and political forces. A year ago, Schulte was among those who preferred the red-green option over the Grand Coalition. The situation has visibly changed, although the institutions, including the labor bureaucracy, are moving at only a snail's pace.

Scandals create more instability

Changes have to occur quickly, however, because the instability of the country and its economy is increasing by the day. The monetarist powerbrokers around the City of London oppose those changes leading toward greater stability, and their co-thinkers in Germany are at work to make the situation even more unstable. For the last several weeks, especially since the end of July, a scandal-mongering campaign has been being waged in Germany, one that, interestingly enough, is almost exclusively focussing on cases of corruption or financial mismanagement in some of the leading institutions of the southern state of Bavaria. Among other institutions, this involves the Bavarian State Bank, the state-owned construction cooperative LWS, and the Munich-based HypoVereinsbank: There are DM 1.3 billion in losses of the Bavarian State Bank stemming from the Asian money markets during 1997-98; there is the HypoVereinsbank's non-performance on several billion marks worth of allegedly "guaranteed real estate certificates," which were fraudulently sold to 7,000 clients; and several hundred million marks of losses are reported from LWS real estate operations in eastern Germany.

The LWS case, in particular, is being used by the scandalmongers against Bavarian Gov. Edmund Stoiber (Christian Democrat), who was the state cabinet's Interior Minister and, therefore, the ultimate political supervisor of LWS in the early 1990s, when it expanded from traditional housing deals to real estate operations in the eastern states of the reunified Germany. No doubt, these are among bigger scandals, but none of them is bigger than similar scandals reported from other German states. Therefore, why this focus on Bavaria, right now?

The Stoiber option

The only viable alternative to the present German red-green coalition government, is a new Grand Coalition among the Social Democrats (SPD) and the Christian Democrats (CDU), with the latter party likely to become the major partner in such a combination, because of its present edge, of up to 10% of the voters, over the SPD. Inside the Christian Democrats, the only leading politician with enough backing to win the nomination for Chancellor, at present, is Stoiber.

Stoiber has disagreements with key aspects of British-American-Commonwealth (BAC) geopolitical policies, documented by his spectacular trip to Moscow in early May at the peak of the NATO air war against Serbia, and by his outspoken opposition to ground war options in the Balkans. Such disagreements certainly are not forgotten among the BAC cabal. Stoiber is a leading representative of a section of the German elite that is as much pro-American, as it is open for cooperation with Russia and China, and is also in favor of developing the high-technology sectors of industry, including nuclear power (which is exactly what the red-green coalition wants to abolish).

Destabilizing Stoiber would probably give the ailing government a slight chance of muddling through for a couple of more weeks or months, and would prevent that section of the German elite from taking control if the present government falls. But these are crucial weeks and months, and if Germany is kept ungovernable, the rest of Europe is affected, as well, simply because of the weight of the German economy. Moreover, Germany is the main partner of the United States in continental Europe: It does matter to the White House, if that partner is becoming more and more unstable. Should President Clinton want to act during a financial crash, and intervene to put an end to monetarist incompetence in global financial policies, he would need the Germans to help rally continental Europe behind such a policy.

Only Clinton's intervention can get the Mideast peace process moving

by Dean Andromidas

Despite the elimination of Benjamin Netanyahu from the Israeli political scene, it seems to be the case that only through the personal intervention of U.S. President William Clinton will real progess be made toward peace in the Middle East. The impasse on both the Syrian and the Palestinian tracks has earned Israeli Prime Minister Ehud Barak the name "Barakanyahu," while many Palestinians, Syrians, and Israeli peace activists are beginning to wonder whether the situation has really changed since the election of Barak.

The Palestinians first became unnerved after Barak announced that he did not want to implement the Wye Agreement. Signed by the Netanyahu government last year only after personal mediation by President Clinton, the agreement was nonetheless shelved by Netanyahu almost before the ink had dried. Barak's logic was to immediately begin the final status talks so as to complete the entire process, including the establishment of a Palestinian state, within 15 months. This proposal was a focus of discussion during his marathon talks in Washington with President Clinton in July. Nonetheless, Clinton's backing was conditional on agreement with Palestinian National Authority President Yasser Arafat. This condition has been taken quite seriously by Clinton, who has held more than one discussion with the Palestinian leader since his summit with Barak. It was not only an indication that Clinton was not about to abandon the Palestinian leader, but confirmed that the relatively strong relationship the President had developed with Arafat during the Netanyahu years still held.

As soon as it became clear that Arafat was not prepared to forgo implementation of the Wye accords, the talks bogged down over how to proceed, including the time frame for the first and second redeployment of Israeli troops out of Palestinian territory. As of this writing, Clinton has sent personal letters to both Barak and Arafat. Although the contents have not been revealed, and the appropriate diplomatic statements have been made denying that Clinton was "pressuring" Barak, it is important to note that shortly after the letter's arrival, Barak retreated from some of his demands. It is now expected that implementation of the Wye accords could begin on Sept. 1, the day that U.S. Secretary of State Madeleine Albright is due to arrive in the region.

Similarly, the Syrian track seems bogged down. The Aug. 18 *Jerusalem Post* quoted the Syrian *Al-Baath* daily making the point that U.S. intervention is necessary. "The U.S. role is urgently demanded due to the Israeli premier's circumventions and maneuvers that contradict the series of obligations and promises he launched at the beginning of his election campaign and that [made within] the first weeks of his winning," the daily commented.

The search for a face-saving formula

While negotiations seem inevitable, a source close to both the Syrian and Israeli sides pointed to the need to come up with a "face-saving" formula that will bring them to the table. Furthermore, the Syrian demand that negotiations resume where they had left off when Prime Minister Yitzhak Rabin was slain, must be taken seriously.

The source said that the Syrian demand for a withdrawal to the so-called "June 4 lines," i.e., before the 1967 war, is one of the stumbling blocks to the talks. Israel does not recognize these as the international border. It views the border as that established in 1923, which defined the Palestine Mandate. This border included the entire shoreline of Lake Tiberius, including a 10-meter-wide strip on the Golan Heights (Syrian) side of the lake. Between the 1948 and the 1967 wars, this was never the actual border, because both sides were always technically at war. The Syrians and Israelis only recognized "cease-fire lines," and these lines kept changing over that 20-year period. Prior to the 1967 war, Syria controlled the territory on the other side of Lake Tiberius, while Israel controlled parts of Syrian terrority in other sectors of the 1923 border. The difference in territory is only 20 square kilometers, but the big issue is access to Lake Tiberius, which is Israel's major source of water and the region's largest body of fresh water.

Our source commented, "In the context of war, this 20 square kilometers would constitute a great problem, but not in the context of peace." The source underscored the necessity of vigorous involvement by President Clinton.

Economic development . . .

The failure to make economic development and cooperation an integral part of the negotiations, is the most alarming development since the Israeli elections. The much-touted "land for peace" formula rings hollow without concrete proposals for the development of regional infrastructure projects

and expansion of water resources. In fact, the reduction of the issue to division of real estate, will doom the peace process before it even gets restarted. Even if the Palestinians were to achieve control of 92% of the West Bank, without massive economic aid, its land area could not support the current population, let alone the hundreds of thousands of Palestinian refugees living in camps in Lebanon, Jordan, and Syria who want to return. Furthermore, a peace agreement, in itself, will not prevent the collapse of the current regimes surrounding Israel if their economic conditions do not improve. These conditions are in fact worsening.

Mohammed Shtayyeh, head of the Palestinian Economic Council for Development and Reconstruction, confirmed a report in the Israeli daily *Ha'aretz* on Aug. 18 that the Palestinian National Authority has received only $65 million of the *$800 million* promised for 1999. The Palestinian budget of $1.3 billion needs $700 million of outside financing. He also said that only $210 million of the $480 million pledged for 1998 ever materialized.

The need for economic aid was underscored by President Clinton on Aug. 16, in a speech to a Veterans of Foreign Wars convention in Kansas City, Missouri. Clinton assailed those Republicans who have blocked allocation of funds for war-torn areas, and made the point that the most expensive peace agreement were far cheaper than the least expensive war. After reviewing the situation in Russia and the Balkans, Clinton turned to the Middle East:

"Another challenge is to create a durable and comprehensive peace in the region that every President since Richard Nixon has considered among the most dangerous in the world, the Middle East. Today we have a real opportunity to do that. The new Israeli Prime Minister, Ehud Barak, formerly the commander of all Israel's military forces, has set forth an ambitious agenda to reach agreement within the next 15 months and to move the process beyond the setbacks of recent years.

"Both Israelis and Palestinians now are determined to move forward, but the enemies of peace stand ready to strike, to undercut this path. That is why last fall, when the two sides made a commitment to peace at the Wye River talks, we made a commitment to them as well. As the United States has done ever since the Camp David accords in the late 1970s, we told the Israelis that we would help them minimize the risks of peace and lift the lives of the Palestinian people. We told the Jordanians that we would help promote their safety and their well-being.

"Now I know that's a long way away, but you know if there's a full-scale war in the Middle East, it will affect our interests and our values. The Middle East is home to all three of the world's great religions that hold we are created by one God. We have a chance to see it become a place of peace. If it becomes again a place of war, it will cost us far more than investing in a common, shared peaceful future.

"The conflict has gone on for too long. We have a historic opportunity to end it. If the Israelis, the Palestinians, the Jordanians—ultimately, the Syrians and the Lebanese—if they all are willing to do their part, we must do ours. And we ought to begin by keeping our word to fund the Wye River peace process."

President Clinton cuts the ribbon opening the Gaza International Airport, December 1998. With him is Palestinian President Arafat. The chance for Mideast peace now hangs on what Clinton does—or doesn't do.

. . . or terrorism

The deployment of terrorism to sabotage the process has already begun. So far in August alone, several incidents have occurred, including two pipe-bomb explosions at a bus station in a suburb of Tel Aviv, while three more pipe bombs were seized by Israeli and Palestinian authorities outside the West Bank city of Ramallah. There was also the shooting of an Israeli settler in Hebron, and an accidental explosion at what is described as a Hamas bomb factory in the same city.

Meanwhile, radical Jewish settlers continue to expand their settlements, and are attempting to start new ones. It was revealed in mid-August that, during the Netanyahu government, the Israel Defense Forces deployment underwent a dangerous transformation. Since 1996, entire IDF units deployed in the West Bank are comprised exclusively of soldiers who come from the West Bank settlements. Given the fact that these soldiers all share the same right-wing views, their deployment has called into question whether they would implement government policy.

Colombia's Bedoya proposes South American alliance vs. narco-terrorism

by Gerardo Terán Canal

The nations of Ibero-America were shaken by the warnings issued by Colombian Gen. Harold Bedoya Pizarro (ret.), during his Aug. 9-14 tour of Argentina and Uruguay. A former commander of the Colombian Armed Forces, 1998 Colombian Presidential candidate, and leader of the "Fuerza Colombia" political movement, Bedoya declared that the tragedy unfolding in Colombia is the result of aggression by "international drug mafias," in complicity with the corrupt political system in his country, and that this tragedy threatens to spread throughout Ibero-America.

Despite the desperate efforts of the U.S. State Department, headed by Secretary of State Madeleine Albright, to prevent press coverage of the Bedoya tour, despite the efforts of the Colombian government to block Bedoya's appearance at official functions, and despite the efforts of the Anglophile Inter-American Dialogue to cancel a meeting between Bedoya and Argentine congressmen, concern over the strategic implications of Colombia's crisis outweighed these efforts, and opened doors to General Bedoya, within the media and also among official institutions, both military and civilian.

Bedoya's visit to Argentina was organized by Argentina's Movement of National Unity, in coordination with independent retired military officers, and with the Buenos Aires office of *EIR*. Both in Argentina and in Uruguay, Bedoya received treatment worthy of a high-level official. As he himself declared the day before leaving Buenos Aires, "During this tour, I was able to do much more than during my own Presidential campaign" in Colombia.

In less than three days, Bedoya spoke with nearly 700 important individuals. In ground-breaking conferences, at the naval centers of both Buenos Aires and in La Plata, capital of the province of Buenos Aires, Bedoya was able to speak with retired and active duty military personnel, with federal and national judges, congressmen and advisers, university professors and students. At the Buenos Aires Naval Center, 300 people attended Bedoya's presentation, and the response was such that the general was inundated with more than 100 written questions. In La Plata, where 150 people heard Bedoya speak, the response was similar.

On Aug. 10, Bedoya was invited to speak at the Argentine Council on Foreign Relations, an institute through whose portals every foreign personality who visits Argentina passes. Several former Presidents and ministers of Colombia have spoken there. Nearly 150 people—among them former ministers of state, career ambassadors, and public officials—heard Bedoya's presentation. The way in which Bedoya was presented (see his speech, below) emphasizes the importance that was attached to his visit.

In the Uruguayan capital of Montevideo, Bedoya was invited by the Military Circle, and spoke before 140 people, nearly half of whom were active-duty military personnel, including 40 cadets of the Military School.

International aggression

In his presentations as well as in his interviews with the press, Bedoya unveiled what is truly behind the tragedy ongoing in Colombia. The conflict there, he explained, is a result of "international aggression by the drug-trafficking mafias," and Colombia is but one "theater of operations in an international war" declared against the entire world. In this war, the "United States is the great consumer of drugs, along with Europe. . . . Holland and Germany export the chemical precursors through the Netherlands Antilles. . . . Spain is the port of entry to Europe and the major money launderer. . . . Russia, that is the Russian mafia, is who sells the weapons to narco-terrorists and is responsible for selling the drugs in Europe. . . . Mexico is the corridor through which the majority of narcotics enters the United States, and Peru and Bolivia are the major producers of cocaine paste."

Colombia, he insisted, has been assigned the role of processor. It is in this context that the current situation in Colombia must be understood. The Andrés Pastrana government—which, according to Bedoya, has a 20% favorable rating among the Colombian population—has handed over to the drug traffickers of the Revolutionary Armed Forces of Colombia (FARC), 42,000 square kilometers of territory in the southern zone of Caguán (Caquetá department). This area—the size of Switzerland—is comprised of five townships, is home to 200,000 people, and has 500,000 head of cattle, the largest extension of coca plantations in the country, and the greatest capacity for drug processing and air smuggling.

In one of his most shocking statements, Bedoya insisted that, according to Colombian Army intelligence reports, the narco-terrorists already have four war planes, eight modern helicopters, two field hospitals, 5,000 ultra-modern Russian light rifles, and a group of advisers and trainers made up

Gen. Harold Bedoya, during his campaign for the Colombian Presidency in 1998.

of Iranians, Uruguayans, Argentines, Paraguayans, and other nationalities. The existence of this advisory group, Bedoya insisted, proves that these mafias have a continental strategy.

By delivering a portion of the nation's sovereignty over to the narco-terrorists, Bedoya charged, the Pastrana government has in effect protected the FARC's kidnapping and blackmail operations. This has alarmed all of Colombia's neighbors, who see it as a direct threat to their own territories. Both the Peruvian and Brazilian governments have protested over border incidents caused by the Colombian terrorists. Bedoya expressed particular concern over the position taken by the Hugo Chávez government in Venezuela, which seeks to openly intervene—without the authorization of the Colombian government—in the "dialogue" with narco-terrorism, with the assertion that it "should negotiate with whoever has the real power in Colombia," i.e., the FARC. Given the historic conflicts between Colombia and Venezuela over border issues, it is not at all impossible that Chávez's public stance could provoke yet another regional convulsion.

Let Wall Street reveal its deals with 'Tirofijo'

In every forum, Bedoya denounced the recent visit of executives of the New York Stock Exchange to the headquarters of the FARC commanders. "Nobody knows why they came, nor what they agreed to," Bedoya said. "It would be very good if the government of the United States were to interrogate those gentlemen, who landed on the same airstrips from which the drugs which so concern U.S. authorities, are exported." Bedoya noted that the congressmen and other U.S. personalities who have visited FARC chieftain "Tirofijo," have landed on those same airstrips.

One current of concern that underlay the retired general's entire tour was the possibility of a military intervention into Colombia by the United States or by some inter-American military force, as has already been proposed by Argentine President Carlos Menem. Bedoya made it clear that:

1. The solution to Colombia's problems is in a decisive military response to FARC-ELN narco-terrorism, but that such an effort is the sovereign responsibility of the Colombian Army.

2. Colombia's army needs international aid, both from the United States and from all the countries of the region, including equipment, weapons, money, and training. He referred to the professional assistance rendered the Colombian Armed Forces by the Argentine Army during the 1970s, to help defeat urban guerrillas like the M-19.

3. Regarding a possible U.S. intervention, Bedoya said that he saw this as very difficult to contemplate, given that the terrain of war, which is the Colombian southeast, is five times larger than Vietnam, and with a geography and climate that not even the most modern technology has yet been able to dominate.

Bedoya also called for Ibero-American solidarity with Colombia, insisting that this was not a Colombian problem but a threat to the entire region. "The voice of Argentina is heard in Colombia. And if the Argentine and other governments want to help resolve the Colombia problem, it should abandon support for this 'peace policy' of the current government, and instead demand that Pastrana take up the challenge of a military confrontation with narco-terrorism," he said. He proposed creating an Ibero-American anti-drug commmission composed of countries of the region, which would name an "anti-drug czar" and which could certify or decertify countries on whether they collaborate with the growth of the drug trade.

International news

In all of his interventions, Bedoya presented himself as the ambassador from the 90% of Colombians who want an end to narco-terrorism, and as the only Colombian, given his experience and knowledge of the problem, to deal with the current situation in Colombia. The way in which the international media reported on his interventions (see *Documentation*) reflects the political importance Bedoya is given today.

On Aug. 9, at a reception organized by the Movement of National Unity at Argentina's Aeronautic Center, Bedoya held an interchange for more than two hours with several important press organs from Buenos Aires. One of the Argentine agencies of international scope, *Noticias Argentinas,* issued a wire report whose headline picked up on Bedoya's charge that there are Argentines and other foreigners involved in Colombian narco-terrorism. This news was run on Aug. 11

by Spanish-language CNN, on its nightly news.

Logically, the news also reached Colombia, where Radio Caracol-FM called Buenos Aires to interview Bedoya. The Peruvian daily *La República,* a mouthpiece for leftist forces sympathetic to narco-terrorism, also reported on Bedoya's visit. From Holland, Radio Netherlands interviewed Bedoya. The second most important news show in Argentina, "América Noticias," of channel "América TV," which reaches several countries in the region, also conducted a ten-minute interview with Bedoya.

A Speech by General Bedoya

Colombia's crisis is the world's crisis

Former Argentine Ambassador to Colombia Hernán Massini Ezcurra introduced Gen. Harold Bedoya (ret.), when he addressed the Argentine Council on Foreign Relations (CARI), on Aug. 10, 1999.

Gen. Harold Bedoya is a distinguished Colombian personality. As a military officer, during various phases of his military career, he served at the highest levels of the Colombian Army. I could refer to his most important posts: In 1990, he commanded the IV Brigade in Medellín, which fought that most difficult of battles against the best known and most dangerous drug trafficker, Pablo Escobar Gaviria. This fight, carried out jointly by the military and police forces, led to the capture of the drug trafficker, who was jailed for a while.

General Bedoya also commanded the II Division, headquartered in Bucaramanga, and his battles with the various guerrilla movements, the ELN, EPL, FARC, are well known.

Later, in 1994, he was named representative to the Inter-American Defense Board in Washington, and served as Defense Attaché at the embassy of his country in the United States. This opportunity permitted General Bedoya to establish important relations with the high commands of the militaries of the United States and Latin America.

He returned to Colombia in 1995, to be named Commander of the Army, its highest post. He was then promoted to the position of Commander of the Military Forces of Colombia, the post held by the highest-ranking officer, who leads the entire Armed Forces of Colombia.

He also held the post of Acting Defense Minister of Colombia.

In 1997, he retired, and within a few months, launched a campaign for the Presidency, through the political movement "Fuerza Colombia," in the elections which were held in July 1998.

General Bedoya's candidacy was well received by the Colombian public. I was there in those years, and I remember the polls which gave General Bedoya a leading place in the interests of the Colombian population.

Within the military forces of Colombia, General Bedoya is known as an exemplary man of arms, a man of few words, with much support within the Army, clear and categorical in his views. I have had the opportunity to know him, to be with him on different occasions, and I have the best of memories of all those times that we were together in Bogotá.

I wish to mention especially how, in 1997, when the head of our Army, Gen. Martín Balza, made a second visit to Colombia, General Bedoya was extremely warm and attentive toward the Chief of Staff of our army.

I remember, that when President Samper Pizano, in one of his efforts at making peace with the Colombian insurgents, sought to demilitarize an area in the south of Colombia (similar to what President Pastrana did last year), General Bedoya categorically opposed this at the time.

Lastly, General, you have seen the interest with which the Argentine press has been following the Colombian situation in recent days: the opinions expressed by different persons, particularly from the United States, the declarations of support from our President for the position of President Pastrana on the pacification of Colombia, and the interest of the countries of Latin America, particularly Colombia's neighbors, in the problems which are being posed by the fight against drug trafficking and against the guerrillas.

Lastly, I wish to remind the audience of some of your theses about the guerrillas, the FARC, which you consider to be the third drug cartel, in order to point out the coexistence in Colombia among the groups of drug traffickers and the guerrilla groups, which has created the violence which lamentably exists in this country.

As you can appreciate, there is much interest at the CARI in hearing what you have to say, and we are sure you will give us an exact and profound evaluation of the Colombian situation.

Thank you.

Excerpts from General Bedoya's speech:

Thank you very much, Ambassador.

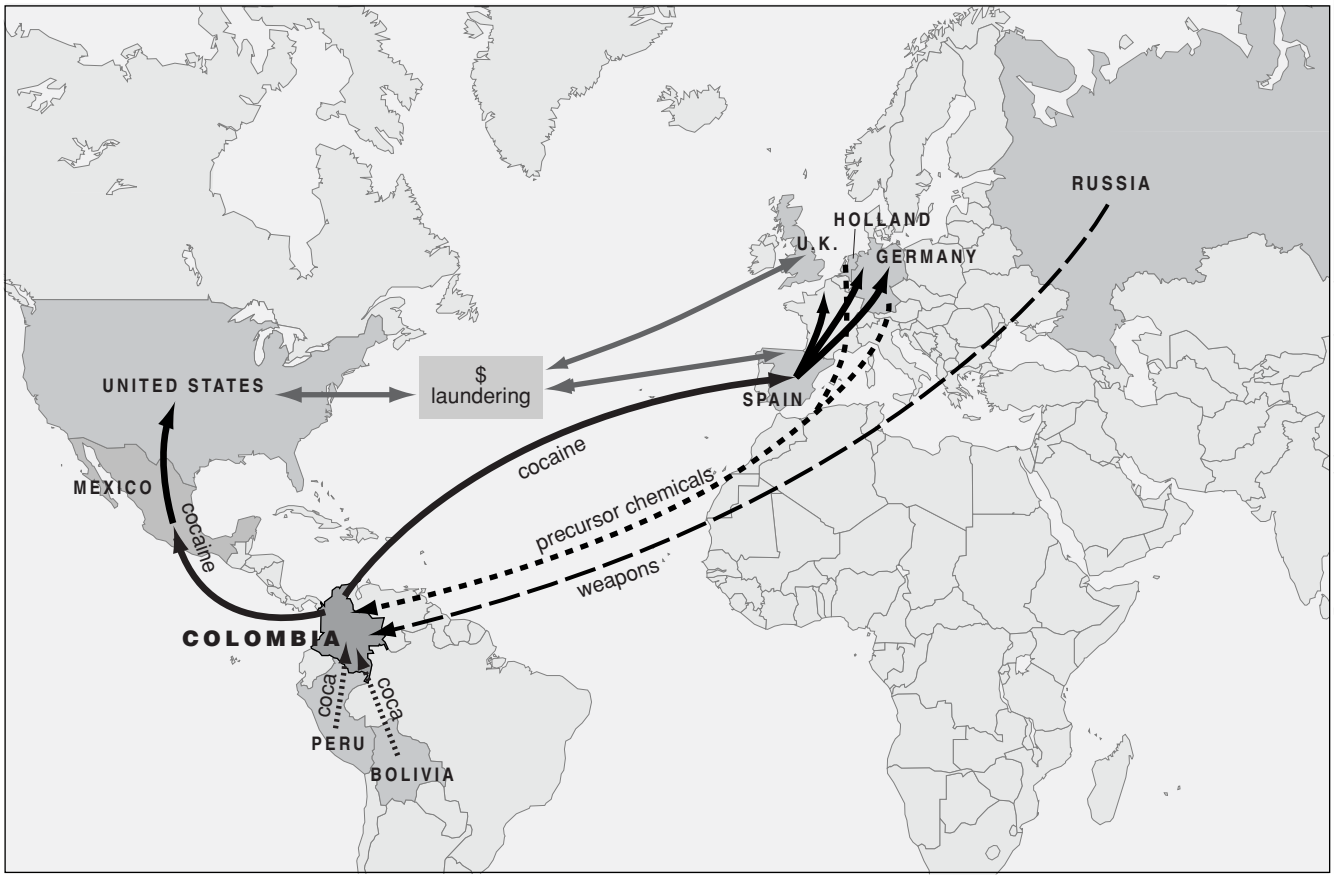
Ambassador Carlos Muniz, president of the CARI.

Ambassadors, friends.

I first wish to thank you for giving me this opportunity to be with you this afternoon, and to report to you about what is really happening in my country. . . .

The reality is that Colombia is under attack, suffering from international aggression by the drug mafias and an aggression by terrorism, also international. These attacks are taking the country to the point of a structural crisis, in my

FIGURE 1
Schematic of the global drug-trafficking apparatus



view, because these organizations have been given so many guarantees by the Colombian state, ever since the current President committed himself during his campaign to making peace with these organizations, without realizing that these organizations were not interested in anything other than improving their income through the drug trade.

It has been a year now since the President handed over a part of the territory, which for me is vital for the country, but which is also fundamental for these organizations, because that is the region where the drug cultivation is located, where the laboratories are, where the clandestine airstrips are, and where the most important cocaine processing centers in the country are. This is also the area where these organizations have traditionally been building up their strength over the years. Because, in fact, what is being permitted there, is their subsistence, their enrichment, and all the equipment and armaments which they have at their disposal today. . . .

So, these territories were put, in effect, at the disposal of these organizations, because the public forces were pulled out, the Army was withdrawn, the police were withdrawn, the legitimate judicial authorities left, and the only ones remaining were the mayors. The mayors are people who are manipulated. These organizations have forced some to resign, and have put in mayors whom they favor, and this territory has become a sanctuary for criminals. It is known that, at this moment, there are veterans there—and this is very important to Argentina—there are seasoned Argentines, Uruguayans, Paraguayans, Vietnamese, and Iranians, who are giving instruction in terrorism to this organization, the FARC.

Armaments shipments have entered the area: 5,500 Russian rifles of the latest technology. The presence of eight airplanes, three helicopters, Russian missiles, American missiles have been detected, and there are two field hospitals which have been brought into this region of the Macarena.

In addition, it is known that the soldiers who have been kidnapped—the 500 soldiers and policemen who are now kidnapped—have been brought there.

In Colombia, there are 1,350 people kidnapped and being held capitive. These are horrifying statistics, but we are told that they are there, also in that region.

From the day that these territories were handed over until to today, coca production has increased 30%. . . .

The last meeting which the government had with this organization was on July 20. The previous week, an attack was carried out on the majority of the towns which are near this area, among them, the towns of Puerto Rico, Puerto de Piedra . . . and Gutiérrez, which is 50 kilometers outside of the nation's capital. This caused, as far as is known at this time, 1,000 casualties among soldiers, policemen, civilians: that is, a terrifying massacre. Once these attacks were carried out, they would return [to their area], and take refuge. The Army cannot enter this territory, cannot pursue those who carried out the aggression. And, logically, these organizations return, they organize, they carry off their dead, treat their wounded, and they prepare for the next attack, against the nation's capital.

The reality is, that faced with the gravity of the situation, the United States has thought that it is time to review its policy of support for the peace process. To see what is happening, because this simply ended up being an independent "republic," if you can call it that. . . .

International ramifications

We have already faced situations with the international community which have been delicate. [Peruvian] President [Alberto] Fujimori a few months ago protested this situation, and mobilized his military forces, the Army, to the border, because they felt threatened by these organizations. And we know that they have entered into Peruvian territory; they have set up coca laboratories.

Similarly, there was a problem with the Republic of Brazil last November. These organizations mobilized in that area [near the Brazilian border], and practically destroyed Mitú, the capital of the department of Vaupez. They later crossed the border [into Brazil], and the Colombian Army had to seek authorization from the Brazilian government in order to mobilize the Colombian Army and enter to pursue these organizations.

Venezuelan President [Hugo] Chávez has declared that he is "neutral" on the Colombian problem, because he believes that the [Colombian] government has given these organizations belligerency status, and, he believes, that the best thing to do at this time, is to stay neutral in the face of this problem. . . .

Until recently, the United States considered these organizations to be guerrillas, until the anti-drug czar, Gen. Barry McCaffrey (ret.), who was just in Colombia, stated clearly that these organizations are *drug traffickers,* and that they have to treated as drug traffickers. This has a special connotation for the United States, and that is, that if they are narcos, they can help fight them with U.S. economic resources. The Colombian government requested aid, military assistance, from the United States. A billion dollars for the purchase of equipment and arms has been talked about, in order to confront these organizations, a proposal which has found some support within the U.S. government. We do not know when these resources are going to be authorized, so that the Colombian Army can confront this situation. . . .

Between 93 and 97% of the Colombian public is calling for military action against these organizations: that they be pursued, that they not be pardoned, that those who have kidnapped foreigners and are being sought by the United States and other countries, be extradited. And, in general, that the current policy of handing over territory be ended, and that once again these organizations, which are interested in everything *but* peace for the Colombian people, be taken on. . . .

All of this has produced an exodus of people from the rural areas, who are moving to the cities in search of refuge, in search of work, in search of employment. The exodus is already estimated at 1.5 million Colombians crammed into the provincial capitals, into all the important cities—dying of hunger, of disease, without work, because there is nothing for a peasant to do in a city.

If things continue this way, where, at present, every four days a town is destroyed, within two to three years they will have destroyed 500 towns, that is, half of the rural areas which exist in Colombia. It is important to remember that in Colombia, 25% of the population at this time are peasants. A country of 40 million people would thus have 10 million peasants. And with this exodus and with all the violence, there are not going to be a million and a half Colombians coming to the cities, but 4 or 5, 6, or 10 million Colombians coming into the provincial capitals, creating belts of misery and of poverty. . . .

It is very important that the world understand what is going on inside Colombia. We have a problem of international mafias who are assaulting Colombia, and who are leaving behind violence, death, drug trafficking, economic bankruptcy. . . .

Let us ally against the drug trade

Where is the money from the drug trade? Somewhere in the world, because there is nothing left in Colombia. A few days ago—and the world should know this—the International Monetary Fund demanded that Colombia investigate and count the drug money inside the Colombian economy, and finish the Central Bank reports which say that, in fact, $700 million enters the Colombian economy from the drug trade.

It is absurd that people speak of money which nobody knows the origin of, nor to whom it belongs. The president of the New York Stock Exchange [Richard Grasso], once this report came out, showed up at Colombia's (cocaine) laboratories and plantations, to talk with these terrorist organizations, these drug-trafficking organizations, and remained there for 24 hours. We don't know what he talked about with them, but we can guess that they were talking about dollars (I doubt they were talking about drugs), and he returned to New York.

A few years ago, this would have seemed impossible, but this is happening in Colombia. Every two years, the United States has designated the FARC and ELN as international terrorist organizations, placing them on the terrorist

lists just as if they were the ETA or the IRA. And recently, they have dubbed them drug-trafficking organizations, drug-trafficking mafias.

The mafias are not actually in Colombia, but are outside of Colombia. The major consumption of drugs is in the United States. . . . The chemical precursors come from Europe, especially from Holland, Germany. . . . The weapons that are entering Colombia through the black market, come from Russia, the Russian mafias: the most modern AK weapons, the rocket-launchers, and so on. Spain is the port of entry for all these drugs into Europe. . . .

What I have always thought, is that the problem of drugs is not solely Colombia's problem. We Colombians find ourselves within the theater of the drug war, the cocaine war. We find ourselves in the theater of operations, of production, that is, laboratories, cultivation, and export of the drug. But not the precursors, the contraband, the money laundering, the money that is being handled from abroad, which is causing damage to economies abroad, the famous flight capital which flits from here to there, causing damage in every country. . . .

Ever since I got here, I have said—and I reaffirm it to you now—that we Latin Americans must unite against this problem, we must not think that it is merely a Colombian problem: It is the world's problem, it is a problem of all of the Americas. Let us forge an alliance to do battle against the drug trade.

Let us not leave only the United States to confront this problem. The United States has an anti-drug czar, and they are interested in waging this battle. But we have the problem here, in South America.

Each country has a responsibility

If we ally, we unite, organizing to deal with this problem. Each country has a responsibility. It is not a question of sending troops, soldiers, to Colombia, to confront these terrorist organizations. Because that is a problem that Colombia has to resolve. The country has armed forces and a professional army capable of dealing with this, but under current circumstances, no army in the world can win a war in which the enemy is given every advantage, to attack, to destroy, to kidnap, to run drugs.

I accept everyone who wants to help us. Argentina, for example. I was reminding our Argentine friends that in the era of the 1970s, when we faced the aggression of the international terrorists, of those terrorist groups from the Southern Cone, Argentina gave us great help, including military help. We received a lot of intelligence, technology, communications, reports, instructors, which enabled us to take on the organizations of the time, such as . . . the M-19. They are organizations born of that era, and we finally succeeded in putting an end to that problem.

That knowledge, that experience, we can use. Argentina could help us, as it has helped other countries, like Brazil, while preparing itself for a battle that is also going to reach you here. This problem is going to reach every country in the world.

I guarantee you, that those narco-terrorist trainers there—Argentines, or Uruguayans, or Paraguayans, or Iranians—are not there solely to hurt Colombia. They are carrying out an international assignment. . . . This problem has already become internationalized. There are people who are interested in what is going on in Colombia because of the drug trade, and they are going there to see how they can hurt the Colombian people. . . .

If we help Colombia in this battle, I am certain that we will very quickly be able to resolve the problem. Today, the Colombian Army is an army which has seen its budget cut, which lacks the indispensable legal instruments to take on these organizations. It is an army with inadequate transportation, which lacks helicopters, other means. If it is given help, it will be able to deal with this problem, because they are the only ones who can confront the problem of terrorism and drug trafficking. The armies are united. The police do not have the ability to confront these organizations. Only the armies can do so.

Where there is security, there is development. In a state submerged in bloodshed, violence, and collective kidnapping, one cannot think about having the capacity to develop economically.

Thank you very much.

Argentine press features Bedoya

The major Argentine dailies covered the visit by General Bedoya to that country. Here are excerpts of their coverage.

From *Clarín* of Buenos Aires, by Alejandra Pataro, Aug. 11, "Conflict Will Affect the Entire Region":

Colombian Gen. Harold Bedoya Pizarro arrived in Buenos Aires with a warning: If there is no solidarity with his country's army, the conflict in Colombia "will affect the entire region, including Argentina." He told *Clarín* this during an interview in Buenos Aires, at the same time that a U.S. government delegation was arriving in Bogotá to check out the crisis.

This former defense minister and former Army chief, who left the uniformed ranks to conduct politics from his movement, Fuerza Colombia, explained that the statements given by Colombian President Andrés Pastrana to *Clarín* [on July 29], to the effect that the guerrillas are not drug traffickers, triggered a commotion in Washington. And he said with assurance that "the U.S. will tell my government that it must take an offensive approach" in the conflict with the guerrillas.

According to Bedoya, Colombia "is under assault by international mafias, by drugs and terrorism." He considers it "an act of treason" by President Pastrana, to have demilitarized 42,000 square kilometers, as demanded by the guerrillas to initiate a peace dialogue.

Bedoya: These territories that the government has ceded to the mafias could affect the security and economy of the whole region.

Clarín: Could this justify a Latin American military intervention in Colombia?

Bedoya: There is talk of intervention without understanding the problem. Colombia is not an Asian country like Vietnam, nor an island like Haiti. This is a problem which the Colombian Army must handle, very professionally, to resolve this problem, to confront and destroy these mafias.

Clarín: But it could not in 40 years . . .

Bedoya: That is not true. . . . The Army could do so, if the state gave it backing, and made the decision to confront these criminal and drug-trafficking forces.

Clarín: So, your proposal is: No to the peace dialogue, and yes to support for the Army?

Bedoya: What they are proposing is a lying, false peace. What is being done in Colombia, is handing over sovereignty.

Clarín: Should there be negotiations, yes or no?

Bedoya: No, no. There is nothing to negotiate.

Clarín: Then?

Bedoya: We must recover the country. That is what armies are for, to defend unity, the territory, combat terrorism, combat the mafias.

Clarín: What are the perspectives for the conflict?

Bedoya: The problem is that every minute, every day that passes, the situation is getting worse, and logically, the effort that will have to be made tomorrow, will be much greater than that which should have been done today. All of us are going to be affected. I guarantee to you, that from the Argentines to the Asians, everyone is going to be affected, because Colombia is under assault by an international mafia.

Clarín: To what do you attribute Washington's renewed interest in the Colombian situation?

Bedoya: It is the same interest that you have, that every country in the world has, in seeing that something is going on in Colombia: a war which affects everyone.

Clarín: But Washington has just sent a high-level delegation to Bogotá.

Bedoya: Everything started recently, with *Clarín*'s interview with President Pastrana (published on July 29), which coincided with the visit of anti-drug czar Barry McCaffrey to Colombia. The President told the newspaper that the FARC were not drug traffickers. McCaffrey said they were. And the U.S. government backed him. General McCaffrey said that concessions and territories cannot be given to these mafias.

Clarín: What do you think will be Washington's mes-

sage to Pastrana?

Bedoya: Surely—and it is going to do so—to say that the government is mistaken, and has to take an offensive approach.

***Clarín* published the following small note accompanying its interview with Gen. Bedoya on Aug. 11, titled "War Legislation":**

The Colombian Armed Forces have called on the government of President Andrés Pastrana to create special war legislation that will enable them to battle the leftist guerrillas with greater effectiveness.

The commanders of the Army, the Navy, and the Air Force demanded special norms that would give them advantages against the rebel groups. One official who attended the private meeting, who was consulted by *Clarín,* said: "We are simply asking that the Congress legislate in our favor, to defend the Constitution and the law, as occurred in countries such as Peru, to finish off the subversive concentrations. Emergency legislation for an emergency situation."

They asked that crimes such as rebellion, kidnapping, terrorism, and drug trafficking be investigated and tried in military, not civilian, courts, as currently occurs. That is, that military judges try the guerrillas.

They further ask that civilian controls [over the military] be limited, such as investigations by the Prosecutor General and Attorney General, entities under which the military feels "persecuted and hamstrung at the moment of battle with the guerrillas."

***La Nación* of Buenos Aires, by Enrique Comellas, Aug. 10, titled "The Army Is Not Capable of Defeating the Guerrillas":**

Former Colombian Defense Minister, former military leader, and former Presidential candidate of the Fuerza Colombia party in last year's election, Gen. Harold Bedoya, stated that his country "runs the risk of dissolution in the face of the combined forces of the guerrillas and of the drug trafficking mafias," and that the armed conflict "could lead to civil war or to a foreign military intervention."

Bedoya indicated that the infiltration of drug money is so extensive in Colombia, "that it has corrupted 80% of the political class," and that his country's Armed Forces "do not have the operational capability to propose" an open war against the insurgent organizations. He also maintained that the government of President Andrés Pastrana "handed the entire south of the country over to the rebels."

The former military leader is currently in Argentina, where he will stay through Aug. 13, to give a series of presentations on the situation in Colombia, invited by the Movement of National Unity (MUN), an organization without political goals, made up of retired military and civilian personnel. In an interview with *La Nación* at the Association of Air Force Officers, he indicated that "the Pastrana government's worst error was to give the FARC 49,000 square kilometers in the south of the country, which, under current circumstances, are unrecoverable.". . .

Drawing a profile of Colombia's south, where the FARC is in control, Bedoya said, "This is not a question of populations and towns lost in the jungle, which don't merit the protection of the state. This entire region is one of geopolitical, strategic, and economic importance, united through a network of rivers, and interconnected by the connecting links of the drug trade, which extend from the eastern mountains to the borders with Ecuador, Peru, Brazil, and Venezuela."

Bedoya is in favor of forming a "patriotic front" in the countryside and in the cities, "to prevent this tragedy from being indefinitely prolonged, with us ending up a kidnapped, destroyed, and displaced people." He also demanded that the Pastrana government call up the reservists, to increase the combat power of the Armed Forces.

The former military chief, speaking slowly and apparently without getting emotional, did not spare any criticism of the peace policy initiated by Pastrana. He also said that "Panama could become the next military target of the FARC. Without an army, it is highly vulnerable; it would only take one attack to interrupt inter-oceanic traffic. Those who say that under current conditions, Colombian narco-terrorism constitutes a regional threat, are correct."

***La Crónica* of Buenos Aires, Aug. 12, 1999, titled "Argentines Training Colombian Guerrillas":**

In Buenos Aires, the former commander of the Colombian Armed Forces, Gen. Harold Bedoya Pizarro (ret.), issued stunning statements that there are "Argentines" who are training guerrilla groups in his country, and that there are intelligence reports which prove their participation. . . .

Bedoya Pizarro, 1998 Presidential candidate and founder of the political movement Fuerza Colombia, said that "there are terrorist trainers and advisers from Iran, Vietnam, Argentina, Uruguay, and Paraguay" in that region.

He also explained that "there is an advisory and training process" ongoing, and he feels that this situation "gives an international dimension" to the Colombian conflict, in which the FARC possess a liberated area of 42,000 square kilometers.

The Colombian military officer denied any knowledge of whether the Argentine terrorist advisers are military, but confirmed knowing that "they are Argentine."

"There was a case a few months ago of one who was from the ELN, who was discovered in Cali, in the mountains; this is absolutely proven," he explained.

Bedoya Pizarro further stated that "intelligence reports" exist, and said that "it is absolutely proven, that there are people from Argentina who are involved in the terrorist mafia, and which at any time could become terrorist organizations and could affect any country in South America."

The military man, who was head of the Army, and later of the Colombian Armed Forces, founded Fuerza Colombia, and ran a political campaign. His vote was decisive for the

victory of the current President Andrés Pastrana, who was seen as "the road to peace in Colombia." Now, Bedoya Pizarro is calling on Pastrana to "abandon" power, and accuses him of having favored the guerrilla factions.

"The state is practically protecting the terrorists, so they are not pursued by Colombian security," he insisted.

***La Nueva Provincia* of Bahí Blanca, Aug. 10, titled "Interview with a Colombian Officer: 'Pastrana Should Resign.' Ninety Percent of the Politicians Are Paid by the Drug Trade":**

Q: What is the reality in Colombia?

Bedoya: There are 1,350 people kidnapped by the guerrillas; it is estimated that 1.5 million Colombians have already emigrated, and the reality is that not what the government says, because this situation has been caused and mismanaged by Pastrana himself, who should resign.

Q: You blame Colombian politicians. . . .

Bedoya: The fact is that 90% of the politicians in my country are paid by the drug trade. We come out of a previous government which was practically elected by the drug traffickers.

Q: And the current one?

Bedoya: If it was not elected by the drug traffickers, at least it is manipulated by them.

Q: Your party is a third option between the Liberals and the Conservatives. . . .

Bedoya: I lead a political movement which calls itself Fuerza Colombia, which was founded against all the political machines—Liberal and Conservative—which have practically usurped power for many years, without providing any solutions.

Q: Why do you believe that President Pastrana is being manipulated by drug traffickers?

Bedoya: Because he had scarcely taken office when he surrendered to the drug traffickers and to the terrorists, and committed acts more outrageous than anything known in Colombian history.

Q: What acts?

Bedoya: Violating the National Constitution, which gives the President the responsibility of guaranteeing national unity, the integrity of its territory, and existence of a rule of law. He abandoned governing over five townships in the south of the country, which theoretically represent 45,000 square kilometers, the entire border area with Brazil, Peru, and Ecuador, and the territories of the east, which border Venezuela. The government eliminated the rule of law, withdrew legitimate authorities, and allowed a terrorist state to be born, led by drug trafficking and terrorist organizations.

Q: Pastrana bases this policy on a goal of peace with the guerrillas.

Bedoya: During the electoral campaign, Pastrana met with the drug traffickers and terrorists, who asked him to hand over those territories, but those agreements have in practice led to the disintegration of the national territory and unity. He has turned those areas into centers of terrorism and the drug trade, and into holding pens for kidnap victims. Approximately half a million peasants live in that area, where their properties and goods have in effect been confiscated by an organization which runs drugs worldwide, which is the FARC cartel.

Q: How much power do the guerrillas have in the region?

Bedoya: There's information that international terrorist instructors, from Vietnam, Iran, Argentina, Uruguay, and Paraguay have recently entered there.

Q: How many Argentines are there?

Bedoya: The information I have is that there are Argentines providing instruction, and that the Russian mafia is also involved, handling the whole drug issue, and surely supplying Europe and perhaps part of the U.S. as well. It has also been proven that there are eight airplanes, four helicopters, and that they have bought two field hospitals, for the sum of $4 million. Some 5,350 Russian rifles have gone in there, and they also have Russian and U.S. missiles, satellite communications—that is, everything the Colombian Army lacks.

Q: How do you evaluate the meeting of the head of the New York Stock Exchange with the FARC guerrilla chief?

Bedoya: It demonstrated the lack of consistency of U.S. policy toward drugs. It is a very dangerous message, because the gentleman from the New York Stock Exchange entered the laboratory where drugs are processed, to speak with the owner of the laboratory, undoubtedly to ask him what is his annual production, how much money the drugs yield, and where he is going to place it. It is not only an affront to dignity, but to the world economy, because drug money does not produce growth or economic development, neither for industry nor for employment, but precisely the reverse. It would be good for these people from the Stock Exchange to explain to the world just what secret agreements they made, and how many millions of dollars Wall Street will give to [FARC chieftain] Tirofijo.

Q: How would you view a foreign military intervention in Colombia?

Bedoya: The Colombian situation is very serious, because the country is a prisoner of the international drug mafias and of terrorism. What must be done, is to support Colombia, just as Argentina was supported in the seventies.

Q: In what way?

Bedoya: In that period, there were Montonero and Tupamaro terrorists, who organized groups to kidnap, build "people's jails," make car bombs; and then Argentine help came, with military men who came to teach us the techniques for combatting them. That facilitated the capture and disintegration of those organizations. The United States can help us with resources and with technology, but under no circumstances with armed military personnel, because this is a national problem, and the sovereignty of states is to be defended by its own citizens.

Australia Dossier by Allen Douglas

The great preamble scam

The proposed new preamble to the constitution is based on nothing but politically correct lies.

On Nov. 6, Australians will go to the polls to vote on two momentous questions: whether to sever their formal links with the British Crown, to thus create a republic, at least in name, and whether to adopt a recently drafted new preamble to the constitution.

Both questions are designed to cheat Australians out of the possibility of establishing the sort of *true* republic of which many generations have dreamed, since the First Fleet unloaded its cargo of political prisoners on the shores of a nearly empty continent in 1788.

On the first question, as *EIR* demonstrated in an exposé ("Australian Battle Royal over Phony 'Republic,' " Feb. 5, 1999), the drive for a "republic" is being run by Australia's financial oligarchy, most of whom are intimately tied to the British Crown. The Australian Republican Movement, for instance, is headed by international merchant banker Malcolm Turnbull, while the key behind-the-scenes orchestrator of the "republican" drive is multi-billionaire Kerry Packer, a frequent guest of the Queen at the Ascot races. All polls show that the population overwhelmingly favors a directly elected head of state to replace the Queen. Packer, Turnbull, et al. hysterically oppose this, and propose, instead, that the President be appointed by a two-thirds majority of Parliament, and that he can be sacked by the prime minister at any time. The source of their hysteria shone forth in a recent outburst by former High Court chief justice Sir Gerard Brennan, that the direct election of a President would pose "grave political problems," and (horror of horrors) "could even lead to Australia adopting the United States system of an all-powerful President and a less-important Parliament."

The preamble question, while seemingly a mere symbolic matter, contains much evil as well, as the purpose of a preamble is to help interpret the constitution itself, as the famous anti-oligarchical "General Welfare" clause in the Preamble of the American Constitution has been used by Presidents such as Abraham Lincoln and Franklin Delano Roosevelt in periods of great crisis, "to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and to our Posterity."

In contrast to this eloquent statement of natural law, the proposed Australian preamble glorifies "multiculturalism" and "the rule of law," the latter a synonym for British oligarchical law, as *EIR* Law Editor Edward Spannaus demonstrated, in his speech to a Schiller Institute conference in Washington on Feb. 13, 1998.

In addition to these two obscenities, the preamble also lauds Aborigines and Torres Strait Islanders, "the nation's first people, for their deep kinship with their lands and for their ancient and continuing cultures." The phrase "deep kinship with their lands" was added by Prime Minister John Howard to his original draft, after much howling by the Aboriginal "land rights" movement.

Lyndon LaRouche's associates in the Citizens Electoral Council have exposed "land rights" for the Crown-sponsored fraud that it is, in the CEC's landmark 1997 pamphlet, "Aboriginal 'Land Rights': Prince Philip's Racist Plot to Splinter Australia." Now, in the latest issue of their paper, the *New Citizen* (August-October 1999), the CEC demolishes the "land rights" hoax forever, by showing its main cultural/historical premise—that Aborigines were the "first Australians" and have inhabited the continent in an unbroken continuity for the last 50,000 years—to be utterly fraudulent. A special, full-color report on the ancient rock art of the northwest corner of Australia, "The Bradshaw Rock Art of the Kimberleys: The Cognitive History of Man," proves that Aborigines have only been in Australia for perhaps 4,000 years, and that there were at least three other, distinct cultures before them, extending back 40,000 years, or more.

The Aborigines themselves acknowledge that the graceful, Egyptian-looking "Bradshaw" paintings (named after the explorer who first discovered them in 1895) are "before our time." Indeed: the Bradshaw paintings, hundreds of thousands of which grace the Kimberley region, have been dated to at least 20,000 years ago, and contain pictures of ancient ocean-going ships—the oldest depiction of maritime activity in the world.

Given Prince Philip's sponsorship of Aboriginal "land rights," it is no surprise that two of the key figures in trying to suppress the Bradshaw art and its significance, have been Lord Renfrew of Kaimsthorn, Master of Jesus College, Cambridge and mentor to Prince Edward, and the late Sir Laurens Van den Post, who controlled the field of African rock art (some of which bears remarkable resemblances to the Kimberley art), and who was the main tutor of the fruity Prince Charles.

International Intelligence

UN chief prepares for after East Timor vote

UN Secretary General Kofi Annan proposed a beefed-up police presence in East Timor after it holds its autonomy vote on Aug. 30, in his latest report on East Timor submitted to the UN Security Council on Aug. 10. He is seeking a three-month extension of the UN Assessment Mission in East Timor (UNAMET), along with a larger deployment of the police contingent of UNAMET, so that the UN will have a presence in all 13 regencies of East Timor. The current 280-man police force would be increased to 410, whose function is strictly to advise Indonesian police. An additional 50-man police task force would be deployed for purposes of recruitment and training of a new East Timorese police force.

The current 50-man UN foreign military advisers task force would be increased to 300. Their function is to serve as a liaison to the Indonesian Armed Forces, the pro-integration militia, and the armed force of the pro-independence movement, Falintil. Specifically, this group would observe the disarmament of the militia and Falintil, and the withdrawal of Indonesian military forces. The current UN political deployment would be transformed into a civil affairs unit to monitor events affecting political stability, and to serve as a human rights watchdog. Indonesian authorities continue to have exclusive responsibility for maintaining law and order.

Brits clear Italian neo-fascist fugitive

The British Charity authority has cleared Roberto Fiore, the Italian leader of an international neo-fascist network, who was convicted in the 1980 Bologna train station bombing, to resume his trusteeship of a British charity. The fact that deliberations surrounding the early-August decision will not be disclosed, strengthens suspicions that Fiore, whose extradition has repeatedly been requested by Italian authorities, is an MI6 agent.

In 1988, Fiore was one of 13 terrorists, including two Italian secret service agents belonging to the P-2 Freemasonic Lodge and P-2 Grand Master Licio Gelli, who were convicted in the bombing. Fiore and Massimo Morsello fled to London, where they have been running an international neo-fascist network under the cover of the "Meeting Point" travel agency, and two "charities," the St. George Educational Trust and the Trust of St. Michael the Archangel. In 1998, British and Italian media exposed how Fiore's organizations were running training camps for mercenaries, who would then deploy in Bosnia. The camps were disguised as summer schools under the patronage of the St. Michael Trust.

Italy renewed its requests for Fiore's extradition after the Blair government came to power. However, as the London *Guardian* wrote on Aug. 4, 1998, "Again it appears, promises were made months ago, according to reports in the Italian press during Blair's visit there. But, as in the '80s, nothing has happened."

London-based terrorist threatens Yemen again

Egyptian-born British citizen Abu Hamza al-Masri told the Arabic-language daily *Al-Hayat* on Aug. 6 that he could not rule out "the start of a new series of reprisals" against Yemen, which handed down death sentences on Aug. 4 for the head of the Islamic Army of Aden-Abyan, Abul Hassan, and an accomplice, for the kidnapping of 16 Western tourists in Yemen in December 1998; four of the kidnap victims were murdered.

The day the death sentence was issued, seven men were arrested after a grenade and automatic weapon fire killed six people in a crowded market in the capital, Sanaa. On Aug. 9, an Aden court handed down fairly mild sentences of up to seven years against eight British nationals of Pakistani origin, and two Algerians, for "forming an armed gang intending to carry out murderous acts of sabotage and terrorism."

Back in January, shortly after the kidnappings and murders, Yemeni President Ali Abdullah Saleh sent an official letter to British Prime Minister Tony Blair demanding that Abu Hamza be extradited for masterminding the group's activities, but the Blair government rejected the request.

Dominicans condemn U.K. for threat vs. LaRouche

Several labor unions of the Dominican Republic have issued a public letter warning that they will hold "the British oligarchy and government responsible" if any harm were to come to U.S. Democratic Presidential pre-candidate Lyndon LaRouche. The warning comes in the aftermath of the death threat, "Shut This Man's Mouth," issued against LaRouche in the Aug. 5 issue of the British women's tabloid, *Take a Break*.

The unions made their warning in an open letter to LaRouche's campaign spokesman, Debra Hanania-Freeman. "Lyndon LaRouche's declarations are worthy of respect, because they are positions of principle," and his "sin," they write, is that he exposes the "bloodsucker or vampire of the British oligarchy."

"Our trade unions and all our social organizations condemn the threatening attitude of the British magazine, *Take a Break,* when they wrote: 'It is time to shut this man's mouth,' " the letter states.

"We hold the British oligarchy and the British government responsible for anything which could happen to our leader-candidate, Lyndon LaRouche, and [advise] that we international forces who organize our lives around the establishment of independent sovereign states, will not remain with our arms crossed; nor are we cowards, and our principles are sacred."

Among the signers are the United Workers Confederation (CUT), the National Federation of Construction Workers, the National Trade Union of Electrical Technicians, and the Family Education and Communitarian Action Movement.

In its Aug. 12 issue, *El Nuevo Diario* reported on the letter, under the headline "Demand Protection for Lyndon LaRouche":

"Various social organizations of the

Dominican Republic demanded the U.S. government protect the life of Democratic Party Presidential pre-candidate Lyndon H. LaRouche, after he was given a death threat by a British magazine.

"In offering their support to the well-known U.S. politician and economist . . . [they] believe that LaRouche has a great moral importance for the underdeveloped countries, while being one of the few U.S. politicians who has always opposed the 'libertinism' of London and the looting of the poor countries."

In continuing protests against the *Take a Break* death threat, on Aug. 17, José Pichardo, head of the Authentic Nationalist Revolutionary Party (PRAN), delivered a letter to the British Ambassador to Santo Domingo, expressing his concerns. His party, he writes, "respectfully" requests that the British Ambassador have his government repudiate the *Take a Break* story, and make clear that it has nothing to do with *Take a Break*'s threats against LaRouche, because the PRAN would hate to think that the British Crown is returning to the days of the pirates Drake and Cromwell.

Malaysia's Dr. Mahathir visits Russia, China

Malaysian Prime Minister Dr. Mahathir bin Mohamad spent three days in Khabarovsk, an autonomous region in East Russia, on Aug. 15-17, where he was to visit the Russian aircraft manufacturing plant at Komsomolsk and the shipbuilding and timber center at Na Amur, according to an Aug. 13 preview of his trip from Bernama state wire service. His schedule was to take him to Beijing on Aug. 18-20, and then to Ulan Ude, capital of Buryatia, a state in Siberia that got its independence from Russia. There he will visit the aircraft and helicopter building facility.

Malaysia's Bernama draws parallels between this visit of Dr. Mahathir's, which marks the 25th anniversary of the establishment of diplomatic relations with China, to the 1974 visit of Malaysia's second Prime Minister Tun Abdul Razak Hussein, who established those relations. Shortly after his six-day visit, Tun Razak dissolved Parliament and called elections, which the ruling Barisan Nasional coalition won in a landslide, aided overwhelmingly by Chinese Malay support in four states that the Barisan Nasional had lost in the previous 1969 elections. Bernama points out, of course, that Dr. Mahathir has made five trips to China in his 18 years in office.

China favors 'frank' talks on Kashmir

Chinese Ambassador to India Zhou Gang said on Aug. 15 that the Kashmir issue can only be resolved between India and Pakistan through peaceful means. "The Kashmir dispute is a complicated issue left over by history, which must be and can only be resolved through peaceful means," Zhou Gang said in an interview with the Press Trust of India. "We sincerely hope India and Pakistan will, proceeding from the overall interests of safeguarding peace and stability in the South Asian region, peacefully resolve some of their disputes through patient and frank talks, in accordance with the spirit of the Lahore Declaration."

He maintained that the prerequisite for development of Sino-Indian relations "must be that neither side regards the other as a threat, and the foundation for development must be the five principles of peaceful coexistence initiated by the Chinese and Indian leaders of the older generation. . . .

"It is our belief that the mechanism of security dialogue between China and India will disperse suspicion, build confidence, further the development of bilateral relations, and promote cooperation between the two countries in regional and international affairs," he said. Beijing and New Delhi had agreed in principle during the visit of the External Affairs Minister, Jaswant Singh, to China in June this year, to begin a security dialogue at an early date.

Asked if there were any proposal for Chinese Premier Zhu Rongji to visit India in the near future, he said that Singh had conveyed the invitation of Prime Minister Atal Behari Vajpayee to the Chinese leader, who had expressed his gratitude.

Briefly

THE INDIAN SPACE Research Organization (ISRO) has the capability of sending men to the Moon, space scientist U.R. Rao said, according to a report from Press Trust of India on Aug. 12. With the indigenously developed Geostationary Launch Vehicle (GSLV) technology, making a launch vehicle suitable for the lunar journey would not be a problem for ISRO, said Rao.

YUGOSLAVIA'S newly named vice premier, Tomislav Nikolic, appointed as part of a government reshuffle meant to strengthen President Slobodan Milosevic, called for Milosevic's resignation on Aug. 14 in Belgrade. The Serbian radical nationalist was quoted in the German weekly *Der Spiegel* as saying that Milosevic should resign "not because the West demands it, but rather because he capitulated in Kosovo." Five other members of Nikolic's Radical Party were also named ministers.

TWO SUSPECTS in the bombing of the U.S. embassies in Kenya and Tanzania last year, were remanded in Britain, following an extradition request by the United States. Ibrahim Eidarous and Adel Abdel al Bary appeared in a British court, but their case will not be heard until Sept. 9.

THE NETHERLANDS is considering a new bill to allow children as young as 12 to "request" euthanasia for so-called incurable diseases. According to the Aug. 11 London *Times,* euthanasia officially accounts for 3% of the deaths in the Netherlands, but the real figure is believed to be twice that number.

NEW ZEALAND'S Foreign Affairs Minister Don McKinnon is the front-runner to become the next Commonwealth Secretary General at the Commonwealth Heads of Government Meeting (CHOGM) in November. If successful, this will mean New Zealanders will occupy the top posts at both the World Trade Organization, where former Prime Minister Mike Moore is set to become Director General, and the Commonwealth.

LaRouche files for matching funds, shakes up establishment

by Michele Steinberg

Politics in Washington departed from "business as usual" on Aug. 18, when Democratic Presidential candidate Lyndon LaRouche's Committee for a New Bretton Woods held a news conference at the National Press Club in Washington, D.C., announcing that the campaign had raised more than $1 million, and had filed for Federal matching funds at around 11:30 a.m. that morning.

"There is little question that Mr. LaRouche has the largest and most active volunteer force," estimated at about 7,000 people, of any candidate in the Year 2000 Presidential race in either party, stated Debra Hanania-Freeman, spokeswoman for LaRouche's campaign, in her opening remarks at the Zenger Room of the National Press Club, where reporters from Agence France Presse, Associated Press (AP), Cable News Network (CNN), and other media attended.

Freeman spoke just a couple of hours after the LaRouche campaign had delivered campaign fund documentation to the Federal Election Commission, and filed for Federal matching funds with an initial submission far over the threshold of the FEC's requirements of certification. The total amount of the LaRouche campaign's initial submission amounted to $387,709. Some $7,000 was raised in contributions of $250 or less from individuals in 25 states—an amount far exceeding the FEC's minimum qualifying requirement, which is $5,000 raised in each of 20 states, in amounts of $250 or less.

In a written statement issued before the news conference, Freeman said that LaRouche's Committee has "raised more than $1 million in small contributions from ordinary citizens, filed a submission today documenting well over $7,000 in such contributions from 25 states. Given that we are so far over the minimum threshold that the FEC requires, qualification for Federal matching funds is a certainty."

LaRouche's filing is a major event for the U.S. political landscape, where only five other candidates have been certified by the Federal Election Commission for matching funds: Democrat Bill Bradley; and Republicans Elizabeth Dole, former Vice President Dan Quayle, Gary Bauer, and John McCain.

Three other "major" candidates, millionaires George "Dubya" Bush, Steve Forbes, and Democrat Al Gore, Jr., have forgone FEC matching funds for a variety of reasons—the most-reported reason being that they would be constrained from "buying elections" with FEC state-by-state spending limits. In the Iowa "straw poll" run by the Iowa state Republican Party the previous week, the highest number of votes came in for Bush and Forbes, both of whom spent an enormous amount of money: It was reported that Bush had purchased 10,000 tickets at $25 each (a quarter of a million dollars in free tickets!) to get himself into first place. But even with 31% of the straw poll, Bush scored lower than his father did in the same straw poll in 1979 (the elder George Bush eventually lost the GOP nomination to Ronald Reagan), and pundits are happy to report that no one who ever won that particular state GOP straw poll, ever went on to receive the Republican Party's Presidential nomination.

In many states, certification for FEC matching funds is the major requirement (in some cases the only one) for being placed on the ballot. "For some time, the FEC has conceded that Lyndon LaRouche is the third major candidate for the Democratic Party," said Freeman. "So, in a sense, today's submission is only a formality."

International heat

News of LaRouche's candidacy spread throughout the United States in the wake of the FEC filing and news conference. A brief report on the event was aired internationally on

CNN's "Inside Edition." An AP wire service story circulated in print, on television, and on Internet coverage worldwide. Newspaper coverage has appeared in the *Toledo Blade, Baltimore Sun, Los Angeles Times, Arkansas Democrat-Gazette, Minneapolis Star Tribune,* and many others (see *Documentation*).

But no sooner did LaRouche's campaign make the filing, than the dirty tricks began in earnest, with a quote from an FEC official, erroneously claiming that "35 states will not put convicted felons on the ballot." His remarks are ostensibly in reference to the illegal frameup and railroading of Lyndon LaRouche into prison in 1989 by the George Bush White House and U.S. establishment faction around Henry Kissinger. In response, LaRouche's Committee for a New Bretton Woods issued a press release titled "FEC Official Caught in Lie," and shot off a letter to the FEC, warning them to either correct the record and discipline the offending official by Aug. 25, or face litigation.

LaRouche's candidacy is centered around his unique role as a strategic thinker, as an expert in the field of physical economy, especially at this time of great crisis, explained Freeman. She said that LaRouche's strategic understanding is renowned, especially in the international arena, but also widely in the United States, where nearly 100 current and former elected officials—many of them prominent Democrats—"have chosen to endorse Mr. LaRouche for President."

One of the main themes of the press conference, and of the subsequent press coverage—most notably in Agence France Presse (AFP)—is the strategic battle that LaRouche is leading against the forces centered within the British monarchy and Her Majesty's Tony Blair government, who are orchestrating a crisis which could result in a world war.

In an Aug. 18 wire report, AFP reported on LaRouche's intervention into the current strategic showdown: "On Wednesday, right-wing extremist Lyndon LaRouche threw himself into the Democratic Party nomination race for the November 2000 Presidential elections, warning the world that British 'adventurism' will lead to a Third World War.

" 'The race toward nuclear war comes from the British monarchy,' warned Mr. LaRouche.

"Mr. LaRouche, who is presently convalescing in Germany where he is recuperating from the aftermath of a heart operation, estimated that recent NATO bombings against Yugoslavia were the proof that Great Britain wants to force the U.S. into a war against Russia.

"Lyndon LaRouche is in 'perfect health' and fully able to assume the Presidency, were he to be elected, stated his spokesman, Debra Hanania-Freeman."

Well-informed French sources noted that the press agency had very "carefully" detailed LaRouche's attack on the British oligarchy.

At the press conference, questions were also fired at the LaRouche campaign spokeswoman about the recent slander in the British pulp magazine *Take a Break,* which featured a front-page story that Queen Elizabeth II was demanding, "Shut This Man's Mouth," referring to LaRouche's criticism of the British monarchy (see *EIR,* Aug. 13, 1999).

Debra Hanania-Freeman, spokeswoman for LaRouche's Committee for a New Bretton Woods, announces the Presidential campaign's submission for Federal matching funds at a press conference in Washington, D.C. on Aug. 18.

One reporter asked whether the White House had responded to the *Take a Break* slander, which was interpreted as a threat against Presidential candidate LaRouche, and possibly against President Bill Clinton as well. "The White House, as you can imagine, takes very seriously anything which can be considered a threat to the President's life," replied Mrs. Freeman. "We gave them everything we had available. . . . They took it very seriously." Freeman said, "There was some follow-up," but said she could not elaborate further.

In a follow-up question about how the British monarchy had responded to the charge that the article was a threat to LaRouche, Freeman said that a "spokesman for the Royal Household *admitted* that they are very unhappy with the role that Mr. LaRouche has played," and that as a consequence, they have had to conduct a campaign to "rehabilitate the Queen's image." She added, however, that the Royal Household has denied that there was any physical threat to LaRouche implied.

LaRouche opens the American debate

Like LaRouche himself, Freeman doesn't pull her political punches, and her perspective is that the Presidential campaign is wide open. With "the rapidly escalating crisis," especially with the increasingly admitted financial crisis, said

Freeman, "more and more people would simply turn to LaRouche."

She said that when this campaign started, George "Dubya" Bush's success was based entirely on his running against Al Gore, who is now "in big trouble." But, "everyone seems to realize that Mr. Gore's campaign is over—except Mr. Gore," said Freeman. "Bill Bradley's support is increasing, as Al Gore's support wanes." But even more importantly, she explained, if "you knock out Al Gore, you knock out the strong-arm tactics . . . it throws everything open." Then, you can see a "policy debate which is appropriate to the crisis."

"Mr. LaRouche will be hosting several live press conferences over the next period," Freeman said, and a "panel of state legislators will gather on the Friday of the Labor Day weekend" for a dialogue, in which Mr. LaRouche will participate. Between now and Labor Day, LaRouche will intensify his policy input into the Presidential campaign process, and already the third national tour by leading campaign representatives is under way.

Freeman revealed that Al Gore's strategy of stifling the primaries before they even happen, has angered a lot of Democrats, and that LaRouche is taking a personal role in breaking open that situation, with a 7,000-person campaign volunteers force, an Internet campaign website that is gaining popularity, and a fight to open up the Democratic Party to real political freedom.

In a dramatic discussion of how the railroading of LaRouche into prison had occurred, Freeman told the press conference about the lawsuit that LaRouche is fighting from the 1996 Presidential election campaign, when the Democratic National Committee, under the chairmanship of Don Fowler, *refused to seat the delegates* that LaRouche had won fair and square, in elections that had garnered him more than 600,000 votes in 28 states.

She said that there is still a "nasty court fight" going on around the 1996 LaRouche delegates, but that to her "surprise, the attorneys for the Democratic Party thought it was time to declare the Voting Rights Act . . . unconstitutional!" Freeman termed the DNC's behavior a "frightening reach back to the failure of the Democratic Party to seat the delegation from the Mississippi Freedom Democrats at the height of the civil rights movement." It was that act of racial discrimination, among others, that was corrected by the Voting Rights Act that was signed into law by President Lyndon Johnson in 1965. Freeman predicted that the DNC's efforts this time against this movement today, would be "as unsuccessful as their failure to stop the march of the civil rights movement."

Freeman was asked repeated questions about LaRouche's 7,000-strong camapign volunteer force: Where are they from, who are they, what do they do? In response, Freeman also talked about the waning weeks of Gore's "frontrunner" status. She said that many people were skeptical about how LaRouche could, with only $1 million in campaign funds, compete against Al Gore. First of all, she said, the LaRouche campaign is going to escalate all its activities, and the truth is, "on a close reading" of Mr. Gore's filing, he *spent* $18 million to *raise* his $21 million, and Gore has a "very highly paid staff."

In contrast, with the LaRouche organization having at least 7,000 volunteers with whom the campaign is in direct contact, the funds are going a much longer way than Gore's. Additionally, the LaRouche committee has distributed millions of pieces of campaign literature, including the program book, *The Road to Recovery,* and a pamphlet detailing the needed reconstruction of the Balkans, which had also been "provided to President Clinton." These are "not just palm cards," Freeman said, but a battle to open up the American political system of elections.

Documentation

'We need policies,' LaRouche backer says

Alabama State Rep. Thomas E. Jackson is one of the elected officials endorsing LaRouche's campaign. Excerpts of his letter to the campaign:

I call upon people in leadership positions and people of influence to help get this message out across the nation, in order to maintain sanity and to save humanity from self-destruction. . . .

We have sown to the wind and reaped the whirlwind; and sown to the flesh and reaped corruption and death—death of innocent men, women, and children throughout the nation and world.

Mr. LaRouche is the only Presidential candidate who has policies to help save the nation from itself, to bring a moral and spiritual order to America, to restore our economic system . . . while reaching out to help save Third World nations from economic chaos.

We do not need more smart bombs killing people around this world; nor do we want any more Jonesboros [sic], Littletons, or Atlanta's senseless killing. We need policies to restore our moral conscience back to our nation and sanity back to our people. . . .

I call upon men and women of purpose, courage, and vision to join with me in supporting the policies of the Schiller Institute and Mr. LaRouche.

FEC official caught in lie

Excerpts of an Aug. 18 press release from LaRouche's Committee for a New Bretton Woods, his Presidential campaign committee:

Democratic Presidential candidate Lyndon LaRouche's national spokeswoman [Debra Hanania-Freeman] has

charged that an official of the Federal Election Commission [Ian Stirton] made statements to the press concerning LaRouche's candidacy that he knew were lies. . . .

An Associated Press wire story issued shortly after the LaRouche press conference [where Mrs. Freeman spoke] quotes FEC spokesman Ian Stirton stating that although the Commission will process the LaRouche campaign's request in a timely fashion, "35 states will not put the names of convicted felons on the ballot," referring to the fact that LaRouche served five years in Federal prison following a politically motivated judicial frame-up that drew harsh criticism from legal experts and civil and human rights figures across the nation and the globe. Stirton added, "LaRouche has even lost the right to vote for himself."

"It is obvious to anyone with even a cursory grasp of the Constitution, that Mr. Stirton's statement is false," Freeman said. "While some states retain the right to exclude convicted felons from seeking state office, there is nothing in the U.S. Constitution that would exclude . . . seeking the office of President due to a felony conviction. And, whether it pleases Mr. Stirton or not, the U.S. Constitution is the last word on this issue. . . .

"This question was definitively settled in 1992, and again in 1996. Mr. LaRouche's attorney, Odin Anderson . . . has submitted memoranda on this that are included in Mr. LaRouche's 1992 and 1996 filings. . . . For a public servant, whose specific duty is to serve as a spokesman for a Federal agency, to knowingly disseminate disinformation, is both morally and professionally reprehensible."

LaRouche's campaign demands correction

In a letter signed by Campaign Treasurer Kathy Magraw, and sent to FEC chairman Scott E. Thomas on Aug. 19, LaRouche's Committee for a New Bretton Woods said:

On August 18, 1999, Ian Stirton, a Federal Election Commission employee, acting in his official capacity and as a spokesman for the Commission, made an egregious anti-LaRouche statement to the media, that received widespread coverage. The statement was egregious, not only because it was a violation of the FEC's required neutrality and represented an expression of political opposition to Lyndon H. LaRouche, Jr., but because it was palpably false. The assertion that Mr. LaRouche was prohibited from appearing on the ballot in 35 states (or in any state for that matter) is a complete fallacy and apparently intentionally so. It is difficult if not impossible, to imagine that a spokesman for a government agency could be so mistaken, as to the law applying to its function, unless it was intentional.

On behalf of Lyndon H. LaRouche, Jr., the Committee for a New Bretton Woods demands that the Commission immediately correct the public record, take appropriate disciplinary action against Mr. Stirton, and issue a formal and public apology for the malfeasance and any negative effect it may have on Mr. LaRouche's campaign.

In the event that acceptable action by the Commission has not been taken by August 25, 1999, appropriate legal action will be commenced.

This cartoon appeared on the web-site of Lyndon LaRouche's Presidential campaign. With Gore's campaign collapsing, George W. Bush's win in the Iowa straw poll will likely continue the trend—that no one who ever won that poll ever went on to receive the GOP Presidential nomination.

Press coverage around the nation

The first widespread coverage of Presidential candidate Lyndon LaRouche appeared following his filing for matching funds on Aug. 18. Articles appeared in the *Baltimore Sun, Toledo Blade, Boston Globe, Minneapolis Star Tribune, Arkansas Democrat-Gazette, Philadelphia Inquirer,* and *Richmond Times-Dispatch,* to name a few.

Many articles mixed disinformation from the FEC that LaRouche would be excluded from the ballot on 35 states, a falsehood challenged by LaRouche's campaign.

Giving a more neutral report, the *Toledo Blade* said:

"Democratic candidate Lyndon LaRouche filed papers with the Federal Election Commission Wednesday asking for federal matching funds for the Presidential election.

"The LaRouche campaign says it raised more than $7,000 in contributions of $250 or less, beating the $5,000 requirement [sic] to receive matching funds. National spokeswoman Debra Hanania-Freeman expects the FEC to respond to the request withing 24 hours."

National News

Edelman: Welfare reform just made poor poorer

Who is worrying about the children? asks an Aug. 11 letter to the *Washington Post* by former Assistant Secretary of Health and Human Services Peter Edelman, who resigned when Clinton signed the welfare bill in August 1996. Edelman, now a professor at Georgetown University Law Center, points to the fact that 40% of welfare recipients thrown off the rolls nationwide—2.5 million people—have not found jobs, and says that the "triumph" of welfare reform trumpeted by the *Post* is "hardly a triumph." "The real news is deeply troubling. The poor are barely better off in this phenomenal prosperity, and the extremely poor . . . are worse off," Edelman says, citing the recent Urban Institute study on people leaving welfare.

On the same day, an article on graft and corruption in the Washington, D.C. welfare program noted that the majority of 13,000 recipients—mostly single mothers—still on welfare in D.C. have no skills. Some "cannot read even basic signs," and more than two-thirds read below a sixth-grade level.

Los Alamos spy case was 'built on thin air'

Breaking a long public silence, Robert S. Vrooman, the former counterintelligence chief at Los Alamos National Laboratory, charged in an interview with the Aug. 18 *Washington Post,* that Federal investigators targetted physicist Wen Ho Lee as an espionage suspect because he is a Chinese-American. Federal authorities still do not have a "shred of evidence" that Lee leaked nuclear secrets to China, he said. The stolen data, such as the information on the miniaturized W-88, the object of the alleged theft, had been distributed to 548 different addresses at the Defense Department, Energy Department, defense firms, branches of the armed services, and even the National Guard, he said.

Vrooman and two other former Los Alamos officials have been recommended for disciplinary actions by Energy Secretary Bill Richardson, who is under pressure from Congressional Republicans. Vrooman, a former CIA operations officer, said, "I'm not going to go down in history as the guy who screwed up this case, because I wasn't. This case was screwed up because there was nothing there—it was built on thin air."

Also on Aug. 18, the *New York Times* quoted Vrooman as saying that there were 83 people who went to China from Los Alamos during the same period as Wen Ho Lee, but these, "a lot of Caucasians," were not investigated. Vrooman said that the Energy Department's Office of Counterintelligence had identified Lee as "the prime suspect based on, at best, cursory investigation at only two facilities," i.e., Los Alamos and Lawrence Livermore. "The investigation lacked intellectual rigor," Vrooman said.

'Compassionate' Bush is a vengeful killer

MSNBC anchorman Charles Grodin laid to rest any illusions about George W. Bush's pretense at "compassionate conservatism," during his evening broadcast on Aug. 8, demonstrating that, as Texas Governor, Bush made vindictive use of the death penalty. Grodin cited Bush's interview with the September 1999 issue of *Talk,* in which he made fun of his denial of a 30-day stay of the execution of Karla Faye Tucker, who was killed by lethal injection in February 1998. Grodin showed the footage of Tucker calmly asking for the stay. But when *Talk* asked why Tucker had requested the stay for herself and others, he mimicked a whimpering voice, "Please don't kill me." Grodin, while claiming the death penalty issue was "difficult," noted that in Houston alone, three times as many death-row inmates have been executed as in any other state, and that Bush had never granted anyone a stay.

Meanwhile, Pope John Paul II appealed to Bush to spare the life of Larry Keith Robison, scheduled to die on Aug. 17. Robison is a paranoid schizophrenic. Apostolic Nuncio Archbishop Gabriel Montalvo wrote, "Killing people to show that killing people is wrong is a striking contradiction, even more so when mental illness seems to be involved, as in this case. His Holiness appeals to your Constitutional power to spare the life of Mr. Robison by commuting his sentence through a gesture of pardon that would hopefully contribute to the promotion of non-violence in today's society."

A Texas court has issued a stay for one month, sparing Bush the ignominy of killing again.

'Debate' launched on preemptive detentions

"In a liberal society it may prove too much to jail people for their personalities alone, but the debate is worth having," wrote Holman W. Jenkins, Jr., in a commentary in the *Wall Street Journal* on Aug. 11. Taking off from the rampage of daytrader Mark Barton, Jenkins cites a proposal by British Home Secretary Jack Straw in which "the state could confine people suffering from 'severe personality disorder' for indefinite periods on the advice of psychiatrists. A new network of Ashworth-like facilities would be designated to hold them." He described Britain's Ashworth as "a hospital for convicted criminals with dangerous personality disorders."

The plan has raised an uproar in Britain, Jenkins says, "but the uproar itself is useful and will have a good effect as we get wind of it over here." Because "psychologists have begun to develop reliable tools for judging who is capable of violence, and equally important, the circumstances that elicit it," he says, it has become harder for them not to take pre-emptive action against dangerous individuals.

"In a liberal society it may prove too much to jail people for their personalities alone," Jenkins concludes. "But the debate is worth having."

A similarly ominous proposal was made in the Aug. 15 *Washington Post,* by former New York Federal prosecutor Ruth Wedgwood, who demands that the FBI revive its Counter Intelligence Program—the notorious Cointelpro—against so-called hate

groups. "Now that the FBI has had 20 years to rebuild its reputation for respecting civil liberties, we can seek a restored balance," she says.

Wedgwood goes so far as to propose legitimizing the application of "the principle of conspiracy laws to a lone plotter"—a "principle" that should be familiar to those who followed the LaRouche railroad prosecutions.

W.D. Muhammed addresses Mid-Atlantic Muslims

Hon. Wallace D. Muhammed keynoted the Mid-Atlantic regional conference of the Society of Muslim Americans, which he heads, on Aug. 15, under the title, "Muslims Planning Their Future in America." The first speaker at the conference of 1,000 was Cardinal William Keeler, Archbishop of Baltimore, where the meeting took place.

Cardinal Keeler said that he had met Wallace D. Muhammed in 1995, and they have since worked together on common goals, citing especially the fight against child pornography. He pointed out that Maryland was the first colony, in 1630, to have religious freedom, which was overturned during the "Glorious Revolution" of 1688, and only reestablished by the Declaration of Independence and the Bill of Rights. He said that all countries should have religious tolerance, and took a strong stand in favor of ecumenical cooperation.

Wallace D. Muhammed's keynote struck much the same themes, stressing his own commitment to ecumenical dialogue. He pointed to the complementary ideas, that the Christians believe that man is created in the image of God, and that the Koran teaches that God makes every man with His spirit blown into him. The Imam said that Cardinal Keeler had accompanied him to the Vatican and had introduced him to Pope John Paul II.

America is a wonderful place, he continued, because it has the Constitution and the Bill of Rights—not that America is perfect, but this is the land of freedom. He stressed, this freedom is the freedom to take responsibility for looking after the earth. We African-Americans, he said, should turn down the volume on our complaints about oppression, and instead we should turn our attention to the cries of others around the world, whose suffering is even greater than our own.

Picking up a theme from the Koran, he compared the condition of African-Americans to a race, in which at first you are leading, but then become overtaken by someone else. You should applaud them for having done something better—something to provide progress for humanity, he said. Learn about the contributions that other cultures make to civilization. He also said that he has travelled to Mecca, and met there with some of the top Islamic scholars. He said that they are looking at me as a true leader in America, and that "goodness is on the rise."

Sen. Wellstone meets with embattled farmers

Minnesota Sen. Paul Wellstone (D) began a barnstorming tour of the Midwest farm states in northwest Minnesota on Aug. 16, where he and the president of the state's Farmers Union appeared before 200 farmers, in an effort to save America's remaining 1 million farmers from free-market cartelization. Battling entrenched Republicans who passed the "Freedom to Farm" Act, Rep. Collin Peterson (D-Minn.) said that Congress will have to "pump $10-15 billion every year into farmers' pockets until we come up with a real solution. We don't have the votes and it will take two or three years."

Wellstone told the hundreds of citizens who gathered on a farm near East Grand Forks, which had been hard hit by the Red River floods in 1997: "Time is not neutral and time is not on the side of the farmers here. . . . I don't think that it can be turned around tomorrow. But a year ago, there was no financial assistance for farmers. I can travel and I can organize."

Wellstone promised to take the rallies into Iowa, Michigan, Indiana, and other states. He was scheduled to appear in Slayton, Marshall, Montevideo, and Willmar, culminating his tour at a statewide rally at the fair grounds in Waconia on Aug. 21, billed as "Rural Crisis Accountability Day."

Briefly

MARYLAND has been declared a Federal disaster area as a result of the mid-Atlantic drought. Maryland farmers face losses of 35-90% of their crops. Some 12,000 farmers and 350,000 who work in the state's agriculture industry are being affected by the combined blows of the drought and impossibly low farm prices.

BLACK LAWYERS in the National Bar Association sent U.S. Supreme Court Chief Justice William Rehnquist a resolution on Aug. 10 expressing "outrage" at him for leading a sing-along of "Dixie Land" at the Fourth Circuit judicial conference in June. The resolution said that the song "became and remains a symbol of oppression."

PENTAGON spokesman Ken Bacon denied assertions being circulated by Senate Majority Leader Trent Lott (R-Miss.) and an aide for Rep. Dana "China-basher" Rohrabacher (R-Calif.), that a Chinese company contracted to operate port facilities at both ends of the Panama Canal represents a national security threat to the United States.

ALL-NIGHT 'RAVES,' the techno-music and drug bacchanales involving hundreds, "have gone mainstream," writes the *Washington Times* on Aug. 13. The Sun Myung Moon-owned paper quotes rave organizer Rev. Andrew Jones: "It has more in common with mystical strains of Christianity, dispensing with priests and saying you can have contact with God directly, experiencing ecstasy and spiritual rapture."

OLIVER NORTH "lost it" during his talk show on Aug. 12, while taking his own Presidential straw poll. When an Alabaman called in to support Lyndon LaRouche, North tried to bait him, asking, "Does LaRouche still say the Queen of England pushes drugs, hah, hah, hah?" The caller replied: "Why, the way I hear it, Ollie, you were helping her out on that drug running. I also hear LaRouche is the reason you lost your Senate race." North slammed down the phone.

Editorial

Malaysia's anniversary

September 1 will mark the first anniversary of the declaration of selective currency and capital controls by the Malaysian government of Dr. Mahathir bin Mohamad, and quite a celebration it will be. For Malaysia's action, taken "in the face" of the disapproving International Monetary Fund and international bankers, who vehemently insist upon what they call the "free movement" of capital, has been a near-universally recognized success. This is most evident when comparing the state of the currency and industrial production in Malaysia, with that in the IMF-dominated nations of Indonesia and Thailand.

But, as Dr. Mahathir himself has consistently pointed out, the *defensive* measures which Malaysia was forced to take in order to defend its national sovereignty do not represent the long-term solution for that country, the region, or the world. The global speculative bubble, combined with the depressing effect it is having on world production and trade, remains a threat to the well-being of all the world's nations. Speculators could still wash fragile prosperity away.

The only real security that can be provided for the world's nations is the re-adoption of the basic regulatory measures of the old Bretton Woods system—currency controls, fixed parities, and the like—in combination with the reassertion of national banking and debt reorganization of the sort that paves the way for the issuance of massive low-interest credits for huge development projects. This program is what has been presented by LaRouche's proposal for a New Bretton Woods global financial system.

So far, most national governments have preferred to demur on LaRouche's proposals, even as they put them under scrutiny. One international conference after another has refused to take up the necessary measures. Most worrying to smaller nations, of course, is the failure of the United States administration to openly drop its support for the destructive IMF measures, and give serious public consideration to such global financial reorganization.

All the more interesting then, is the report of the recent visit of Prime Minister Mahathir to China. Keynoting the Third Malaysia-China Forum in Beijing on Aug. 19, Dr. Mahathir reiterated his call of 1997 for an East Asia Economic Caucus and an Asian Monetary Fund. Had these institutions been in place, he said, Thailand, Indonesia, and South Korea might have been saved from turning to the IMF. He stressed that Japan has revived the idea, and that China's support was essential to establishing an Asian Monetary Fund, which proposal had been "shot down by the United States and the IMF" in 1997.

It would be more precise to say that the AMF was shot down by Lawrence Summers, who was then an Undersecretary in the Treasury under Secretary Robert Rubin, but is now Treasury Secretary. Rubin himself had declined to attack the AMF at the time, and Summers effectively stabbed him (and the Asian nations) in the back.

The grouping of nations that Dr. Mahathir is attempting to recruit into the AMF could play a decisive role in shifting the global debate on the world financial breakdown, when that reality once again breaks violently over the heads of the world's nations.

Do not doubt that such a dramatic financial crisis will come about. As each day goes by, the bankers make more and more admissions about how close the system came to disintegration back in the fall of 1998—not to mention the winter of 1997. None of the causes of those blowouts have been dealt with; in fact, the financial authorities have played the part of the Sorcerer's Apprentice, more and more rapidly printing out dollars, yen, and what-have-you in order to try to paper over the abyss.

Under those circumstances, it would be worthwhile to recall another significant financial anniversary, that of Nixon's removing the dollar from gold on Aug. 15, 1971. Nixon's break from the remnants of President Franklin Roosevelt's measures put the world on a pathway to Hell from which it has yet to depart. What is required to save the world economy is a total reversal of those Nixon measures, in the reassertion of the principle of national sovereignty and the pursuit of scientific and technological progress.

Malaysia took a first step in that direction a year ago. But, there's not much time left for other major nations to do their part for a new just world economic order.

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- CONCORD—Ch. 25 Thursdays—9:30 p.m.
- COSTA MESA—Ch. 61 Mon.—6 pm; Wed—3 pm Thursdays—2 p.m.
- CULVER CITY* MediaOne Ch. 43
- E.LOS ANGELES BuenaVision—Ch. 6 Fridays—12 Noon
- HOLLYWOOD* MediaOne Ch. 43
- LANCASTER/PALMDALE Jones Ch. 16 Sundays—9 p.m.
- MARINA DEL REY Century Cable Ch. 3* MediaOne Ch. 43*
- MID-WILSHIRE* MediaOne Ch. 43
- MODESTO—Access Ch. 8 Mondays—2:30 p.m.
- SAN DIEGO—T/W Ch. 16 Saturdays—10 p.m.
- SAN FRANCISCO—Ch. 53 2nd & 4th Tue.—5 p.m.
- SANTA ANA—Ch. 53 Tuesdays—6:30 p.m.
- SANTA CLARITA MediaOne/T-W Ch. 20 Fridays—3 p.m.
- SANTA MONICA* Century Cable Ch. 77
- TUJUNGA—Ch. 19 Fridays—5 p.m.
- VENICE* MediaOne Ch. 43
- WEST HOLLYWOOD* Century Cable Ch. 3

COLORADO
- DENVER—DCTV Ch. 57 Sat.-1 p.m.; Tue.-7 p.m.

CONNECTICUT
- BRANFORD—TCI Ch. 21 Thursdays—9 p.m. Fridays—10 a.m.
- GROTON—Comcast Ch. 23 Mondays—10 p.m.
- NEW HAVEN Comcast Ch. 28 Sundays—10 p.m.
- NEWTOWN/NEW MILFORD Charter Ch. 21 Thursdays—9:30 p.m.

DIST. OF COLUMBIA
- WASHINGTON—DCTV Ch. 25 Sundays—3:30 p.m.

ILLINOIS
- CHICAGO—CAN Ch. 21*
- SPRINGFIELD—Ch. 4 Wednesdays—5:30 p.m.

IOWA
- DES MOINES—TCI Ch. 15 1st Wednesdays—8:30 p.m. Following Sat.—3 p.m.
- WATERLOO—TCI Ch. 15 Tuesdays—5 p.m.

KANSAS
- SALINA—CATV Ch. 6*

KENTUCKY
- LATONIA Intermedia Ch. 21 Mon.-8 p.m.; Sat.-6 p.m.
- LOUISVILLE—Ch. 70/18 Fridays—2 p.m.

LOUISIANA
- ORLEANS—Cox Ch. 6 Mon. & Fri.—12 Midnite

MARYLAND
- ANNE ARUNDEL—Ch. 20 Fri. & Sat.—11 p.m.
- BALTIMORE—BCAC Ch. 5 Wednesdays—4 p.m. & 8 p.m.
- MONTGOMERY—MCTV Ch. 49 Fridays—7 p.m.
- PRINCE GEORGES—Ch. 15 Mondays—10:30 p.m.
- W. HOWARD COUNTY—Ch. 6 Monday thru Sunday—1:30 a.m., 11:30 a.m., 4 p.m., 8:30 p.m.

MASSACHUSETTS
- AMHERST—ACTV Ch. 10*
- BOSTON—BNN Ch. 3 Saturdays—12 Noon
- WORCESTER—WCCA Ch. 13 Wednesdays—6 p.m.

MICHIGAN
- CANTON TOWNSHIP MediaOne Ch. 18: Thu.—6 p.m.
- DEARBORN HEIGHTS MediaOne Ch. 18: Thu.—6 p.m.
- GRAND RAPIDS—GRTV Ch. 25 Fridays—1:30 p.m.
- PLYMOUTH MediaOne Ch. 18: Thu.—6 p.m.

MINNESOTA
- ANOKA—QCTV Ch. 15 Thu.—11 a.m., 5 p.m., 12 Midnight
- COLUMBIA HEIGHTS Community TV—Ch. 15 Wednesdays—8 p.m.
- DULUTH—PACT Ch. 24 Thu.—10 p.m.; Sat.—12 Noon
- MINNEAPOLIS—MTN Ch. 32 Wednesdays—8:30 p.m.
- NEW ULM—Paragon Ch. 12 Fridays—7 p.m.
- PROCTOR/HERMAN.—Ch. 12 Tue.: between 5 pm & 1 am
- ST. LOUIS PARK—Ch. 33 Friday through Monday 3 p.m., 11 p.m., 7 a.m.
- ST. PAUL—Ch. 33 Sundays—10 p.m.
- ST. PAUL (NE burbs)* Suburban Community Ch. 15

MISSOURI
- ST. LOUIS—Ch. 22 Wed.—5 p.m.; Thu.—Noon

MONTANA
- MISSOULA—TCI Ch. 13/8 Sun.—9 pm; Tue.—4:30 pm

NEVADA
- CARSON CITY—Ch. 10 Sun.—2:30 pm; Wed.—7 pm Saturdays—3 p.m.

NEW JERSEY
- MONTVALE/MAHWAH—Ch. 27 Wednesdays—5:30 p.m.

NEW YORK
- AMSTERDAM—TCI Ch. 16 Fridays—7 p.m.
- BROOKHAVEN (E. Suffolk) Cablevision Ch. 1/99 Wednesdays—9:30 p.m.
- BROOKLYN—BCAT Time/Warner Ch. 35 Cablevision Ch. 68 Sundays—9 a.m.
- BUFFALO Adelphia Ch. 18 Saturdays—2 p.m.
- CORTLANDT/PEEKSKILL MediaOne Ch. 32/6 Wednesdays—3 p.m.
- HORSEHEADS—T/W Ch. 1 Mon. & Fri.—4:30 p.m.
- HUDSON VALLEY—Ch. 6 2nd & 3rd Sun.—1:30 p.m.
- ILION—T/W Ch. 10 Saturdays— 12:30 p.m.
- IRONDEQUOIT—Ch. 15 Mon. & Thurs.—7 p.m.
- ITHACA—Pegasys Ch. 78 Mon.—8 pm; Thu.—9:30 pm Saturdays—4 p.m.
- JOHNSTOWN—Ch. 7 Tuesdays—4 p.m.
- MANHATTAN—MNN T/W Ch. 34; RCN Ch. 109 Sun., Sep. 5, 19: 9 a.m.
- N. CHAUTAUQUA COUNTY Gateway Access Ch. 12 Fridays—7:30 p.m.
- ONEIDA—PAC Ch. 10 Thursdays—10 p.m.
- OSSINING—Ch. 19/16 Wednesdays—3 p.m.
- PENFIELD—Ch. 12 Penfield Community TV*
- POUGHKEEPSIE—Ch. 28 1st & 2nd Fridays—4 p.m.
- QUEENSBURY Harron Cable Ch. 71 Thursdays—7 p.m.
- RIVERHEAD—Peconic Ch. 27 Thursdays—12 Midnight
- ROCHESTER—GRC Ch. 15 Fri.—11 p.m.; Sun.—11 a.m.
- ROCKLAND—T/W Ch. 27 Wednesdays—5:30 p.m.
- SCHENECTADY—SACC Ch. 16 Tuesdays—10 p.m.
- STATEN ISL.—CTV Ch. 57 Wed.—11 p.m.; Sat.—7 a.m.
- SUFFOLK, L.I.—Ch. 25 2nd & 4th Mondays—10 p.m.
- SYRACUSE—T/W City: Ch. 3; Burbs: Ch. 13 Fridays—8 p.m.
- UTICA—Harron Ch. 3 Thursdays—6 p.m.
- WATERTOWN—T/W Ch. 2 Tue: between Noon & 5 p.m.
- WEBSTER—WCA-TV Ch. 12 Wednesdays—8:30 p.m.
- WESTFIELD—Ch. 21 Mondays—12 Noon Wed. & Sat.—10 a.m. Sundays—11 a.m.
- WEST SENECA—Ch. 68 Thursdays—10:30 p.m.
- YONKERS—Ch. 37 Saturdays—3:30 p.m.
- YORKTOWN—Ch. 34 Thursdays—3 p.m.

NORTH DAKOTA
- BISMARK—Ch. 12 Thursdays—6 p.m.

OHIO
- COLUMBUS—Ch. 21*
- OBERLIN—Ch. 9 Tuesdays—7 p.m.

OREGON
- CORVALLIS/ALBANY Public Access Ch. 99 Tuesdays—1 p.m.
- PORTLAND—Access Tuesdays—6 p.m. (Ch. 27) Thursdays—3 p.m. (Ch. 33)

RHODE ISLAND
- E. PROVIDENCE—Cox Ch.18 Sundays—12 Noon

TEXAS
- AUSTIN—ACT Ch. 10/16 Fri., 8.27: 4-6 pm (10) Fri., 8.27: 10-11 pm (10)
- EL PASO—Paragon Ch. 15 Wednesdays—5 p.m.
- HOUSTON—Access Houston (No shows until Sep. 8)

UTAH
- GLENWOOD, Etc.—SCAT-TV Channels 26, 29, 37, 38, 98 Sundays—about 9 p.m.

VIRGINIA
- ALEXANDRIA—Jones Ch. 10*
- ARLINGTON—ACT Ch. 33 Sun.—1 pm; Mon.—6:30 pm Wednesdays—12 Noon
- CHESTERFIELD—Ch. 6 Tuesdays—5 p.m.
- FAIRFAX—FCAC Ch. 10 Tuesdays—12 Noon Thu.—7 p.m.; Sat.—10 a.m.
- LOUDOUN—Cablevision Ch. 59 Thu.—7:30 p.m. & 10 p.m.
- P.W. COUNTY—Jones Ch. 3 Mondays—6 p.m.
- ROANOKE COUNTY—Cox Ch. 9 Thursdays—2 p.m.
- SALEM—Adelphia Ch. 13 Thursdays—2 p.m.

WASHINGTON
- KING COUNTY—Ch. 29 Mondays—11:30 a.m.
- SPOKANE—Cox Ch. 25 Wednesdays—6 p.m.
- TRI-CITIES—TCI Ch. 13 Mondays—12 Noon Wednesdays—6 p.m. Thursdays—8:30 p.m.
- WHATCOM COUNTY TCI Ch. 10 Wednesdays—11 p.m.

WISCONSIN
- KENOSHA—T/W Ch. 21 Mondays—1:30 p.m.
- MADISON—WYOU Ch. 4 Tue.—2 pm; Wed.—8 am
- OSHKOSH—Ch. 10 Fridays—11:00 p.m.
- WAUSAU—Marcus Ch. 10 Fri.—10 p.m.; Sat.—5:30 p.m.

WYOMING
- GILLETTE—Ch. 36 Thursdays—5 p.m.

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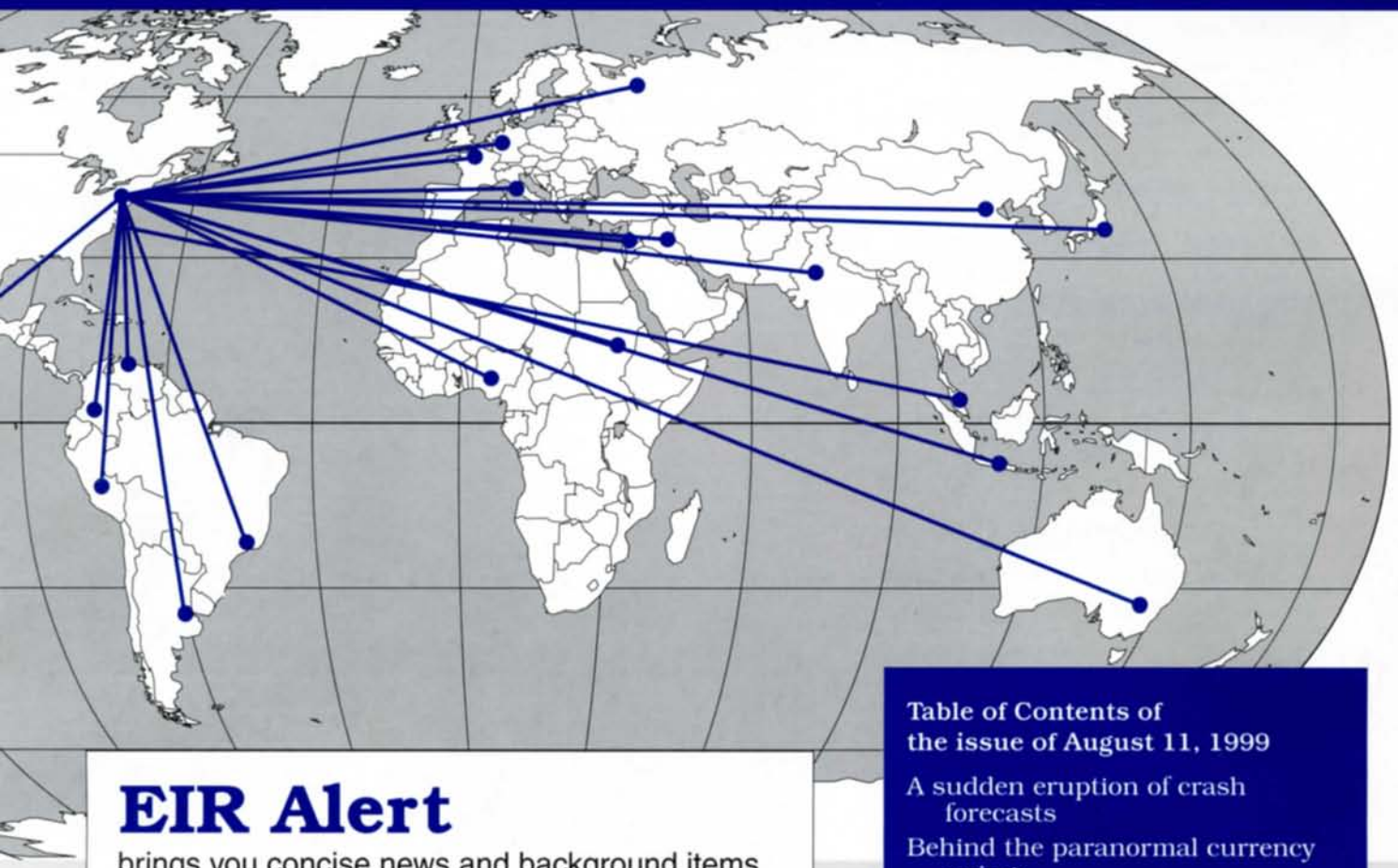

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