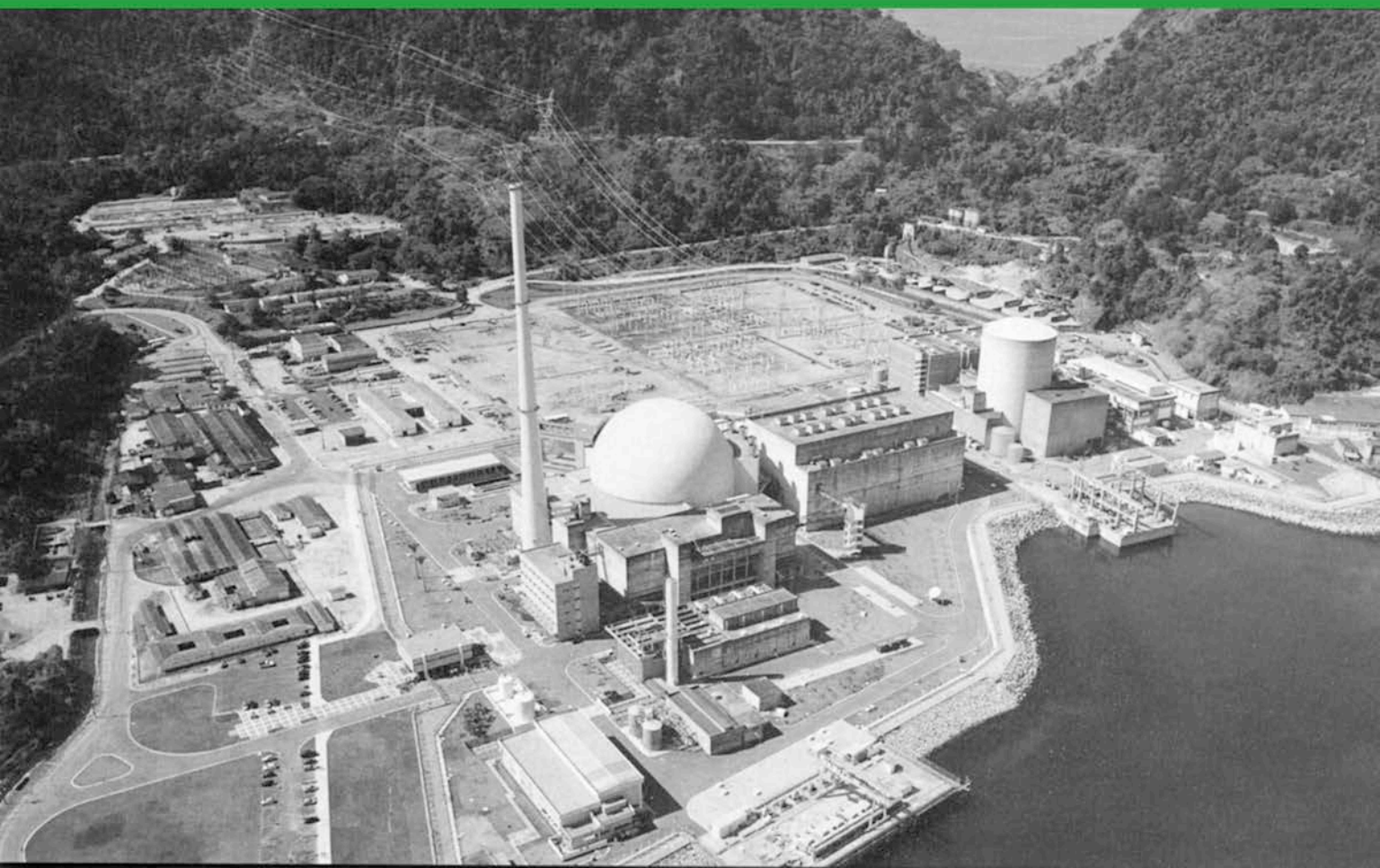
EIR

Executive Intelligence Review

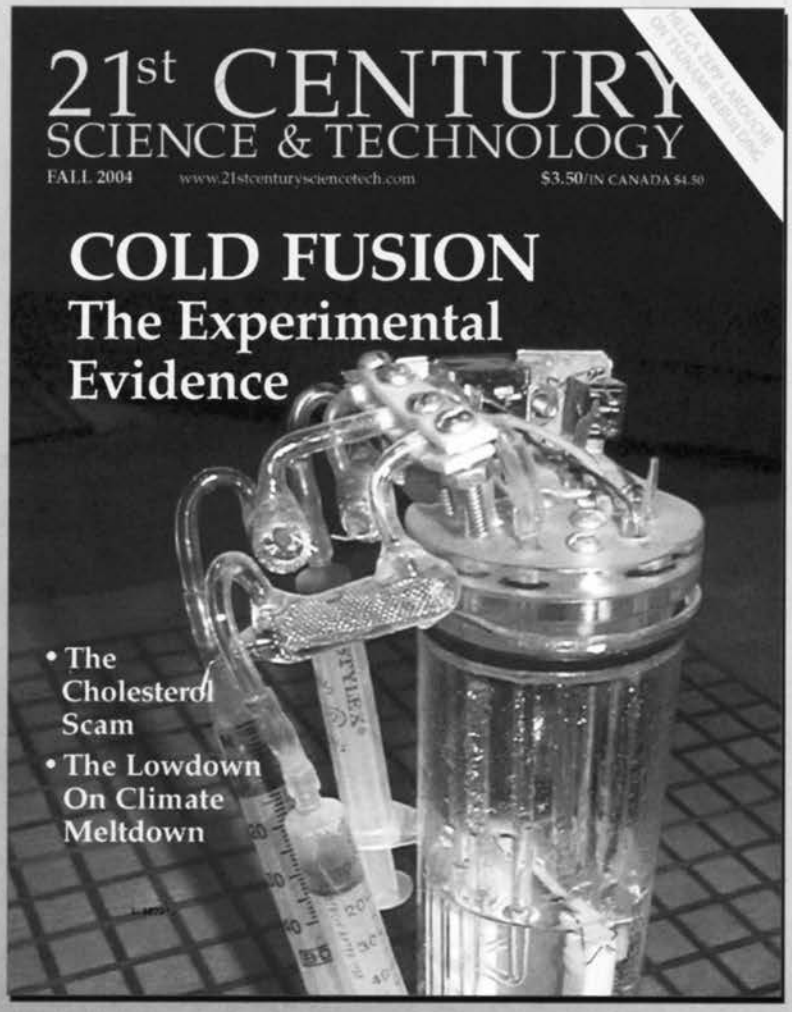
February 18, 2005 Vol. 32 No. 7 www.larouchepub.com $10.00

Democrats Go All-Out To Block Social Security Looting
Germany Needs 10 Million New Productive Jobs!
Bush's Budget Proves That Greenspan Is a Liar

The Vernadsky Principle in Saving the World Economy



KEEP UP WITH 21st CENTURY SCIENCE & TECHNOLOGY



21ST CENTURY
SCIENCE & TECHNOLOGY

Single copies $5 each ($8 foreign)
6 issue subscription $25 ($50 foreign)

Purchase with credit card online at

www.21stcenturysciencetech.com

or with check or money order by mail from

21st Century P.O. Box 16285
Washington, D.C. 20041

Featured in the Winter 2004-2005 issue

SCIENCE AND THE LAROUCHE YOUTH MOVEMENT

Secret of Lost Civilization Discovered in University Basement

by Dan Sturman

COLD FUSION: The Experimental Evidence

by Dr. Edmund Storms

A guide for both general readers and specialists to the thousands of experiments that establish the overwhelming evidence for cold fusion and suggest some crucial directions for future research.

THE CHOLESTEROL SCAM

Challenging the Cholesterol Myth

by Marjorie Mazel Hecht

U.S. physicians and health professionals demand an independent review of statin therapy.

The Role of Cholesterol and Diet in Heart Disease

by Alice Ottoboni, Ph.D. and Fred Ottoboni, M.P.H., Ph.D.

Two public health scientists dissect the myth that high cholesterol *causes* heart disease. But, take heart: they also propose a reasonable course of action for the health conscious.

INTERVIEW WITH JOHN ABRAMSON, M.D.

'Cholesterol Is Not a Health Marker'

A physician and educator explains that the focus on cholesterol is driven by commercial interests, not health; it's where the money is to be made.

INSIGHTS INTO SCIENTIFIC DISCOVERY

Grotefend's Decipherment of Old Persian

by Muriel Mirak-Weissbach

Working in the rich cultural environment of Göttingen University in the early 19th Century, Georg Friedrich Grotefend bet that he could decipher the cuneiform script of Old Persian—and succeeded in record time.

How Radiation Saves Lives

by James Muckerheide

There has never been a time that the beneficial effects of low-dose radiation were not known.

Founder and Contributing Editor:
Lyndon H. LaRouche, Jr.
Editorial Board: *Lyndon H. LaRouche, Jr., Muriel Mirak-Weissbach, Antony Papert, Gerald Rose, Dennis Small, Edward Spannaus, Nancy Spannaus, Jeffrey Steinberg, William Wertz*
Editor: *Nancy Spannaus*
Associate Editors: *Ronald Kokinda, Susan Welsh*
Managing Editor: *John Sigerson*
Science Editor: *Marjorie Mazel Hecht*
Technology Editor: *Marsha Freeman*
Book Editor: *Katherine Notley*
Photo Editor: *Stuart Lewis*
Circulation Manager: *Stanley Ezrol*

INTELLIGENCE DIRECTORS:
Counterintelligence: *Jeffrey Steinberg, Michele Steinberg*
Economics: *Marcia Merry Baker, Lothar Komp*
History: *Anton Chaitkin*
Ibero-America: *Dennis Small*
Law: *Edward Spannaus*
Russia and Eastern Europe: *Rachel Douglas*
United States: *Debra Freeman*

INTERNATIONAL BUREAUS:
Bogotá: *Javier Almario*
Berlin: *Rainer Apel*
Caracas: *David Ramonet*
Copenhagen: *Poul Rasmussen*
Houston: *Harley Schlanger*
Lima: *Sara Madueño*
Melbourne: *Robert Barwick*
Mexico City: *Rubén Cota Meza*
New Delhi: *Ramtanu Maitra*
Paris: *Christine Bierre*
Rome: *Paolo Raimondi*
United Nations, N.Y.C.: *Leni Rubinstein*
Washington, D.C.: *William Jones*
Wiesbaden: *Göran Haglund*

EIR (ISSN 0273-6314) is published weekly (50 issues), by EIR News Service Inc., 217 4th Street, S.E., Washington, DC 20003. (202) 543-8002. (703) 777-9451, or toll-free, 888-EIR-3258.
World Wide Web site: http://www.larouchepub.com
e-mail: eirns@larouchepub.com

European Headquarters: Executive Intelligence Review Nachrichtenagentur GmbH, Postfach 2308, D-65013 Wiesbaden, Bahnstrasse 9-A, D-65205, Wiesbaden, Federal Republic of Germany
Tel: 49-611-73650.

Homepage: http://www.eirna.com
E-mail: eirna@eirna.com

Executive Directors: Anno Hellenbroich, Michael Liebig

In Montreal, Canada: 514-855-1699

In Denmark: EIR, Post Box 2613, 2100 Copenhagen ØE, Tel. 35-43 60 40

In Mexico: EIR, Serapio Rendón No. 70 Int. 28, Col. San Rafael, Del. Cuauhtémoc. México, DF 06470. Tels: 55-66-0963, 55-46-2597, 55-46-0931, 55-46-0933 y 55-46-2400.

Copyright © 2005 EIR News Service. All rights reserved. Reproduction in whole or in part without permission strictly prohibited.

Canada Post Publication Sales Agreement #40683579

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

EIR

From the Associate Editor

If more people had listened to Vladimir I. Vernadsky (1863-1945), the great Russian-Ukrainian scientist and foremost proponent of the concept of the *biosphere,* there would never have been an environmentalist movement. Vernadsky, a collaborator of Pierre and Marie Curie, was one of the first to recognize the importance of radioactivity as a powerful new source of energy. As we document in our *Feature,* his concept of the *noösphere* points the way to mastering technologies such as nuclear power for man's benefit, and for the benefit of the planet on which we live. He saw human creativity as the most potent "geological" force, the means by which man could overcome the apparent depletion of raw materials. Rational management of the biosphere leads to higher levels of the noösphere, and improved living standards for our posterity.

Vernadsky's work is not well known in the West, but Lyndon LaRouche has been promoting it at least since the 1970s, due to the important ways in which it resonates with LaRouche's own outlook. As you will read here, LaRouche has once again called for world leaders to place the "Vernadsky principle" at the center of their deliberations on how to solve the global economic crisis.

Reading LaRouche's April 2001 article "The Vernadsky Strategy" (page 6), it is interesting to see that it is dated, in one particular: LaRouche's scoring of the U.S. Congress as "craven opportunists," lying down before the Bush Administration's demands. (This was even before 9/11.) How things have changed today, in the aftermath of the November 2004 election! As you will read in *National,* the Democrats in the Senate and the House have risen up on their hind legs and are challenging the Bush-Cheney policy of Social Security privatization in an increasingly effective way. LaRouche warned them on Dec. 16, 2004 that they would have to fight on this crucial issue, or they would vanish as a political force, and the country would be headed for fascism. They got the message—even as Bush's demand for looting Social Security on behalf of Wall Street has become more blatant by the day.

These matters will be the subject of discussion at the annual Presidents' Day conference of the Schiller Institute on Feb. 19-20, which we'll report to you in forthcoming issues.

Susan Welsh

EIR Contents

Cover This Week

The Angra 1 nuclear power plant in Brazil.

National

Economics

International

Interviews

Departments

Editorial

Photo and graphic credits: Page 5, EIRNS/Rachel Douglas. Pages 6, 10, 50, EIRNS. Pages 8, 59, EIRNS/John Sigerson. Page 13, arttoday.com. Page 14, NASA. Page 17, Transrapid. Page 35, (Bush), White House photo. Page 35 (youth), EIRNS/Brian McAndrew. Page 48, EIRNS/ Renate Leffek. Page 68, International Progress Organization.

Using the Vernadsky Principle To Save The World Economy

by Nancy Spannaus

To those policymakers and statesmen not deluded by the self-consoling press releases and fraudulent statistical reports put out by economic "experts" in the Bush Administration, and in the main international financial institutions, the current condition of the world financial system has reached the stage of "red alert." Even public statements about the unsustainability of the United States' current account deficit and budget deficit, such as that given by former U.S. Treasury Secretary Robert Rubin at a London banking conference on Feb. 4, are sufficient to push a panic button for the banking community. Under these conditions, discussion of abandoning the floating-exchange-rate system which replaced the Bretton Woods arrangement back in 1971, has begun to surface.

Such recognition of the bankruptcy of the financial system, not to mention the horrendous real conditions of life for a vast majority of the world's population, clearly puts on the table the proposals for global financial reorganization, bankruptcy reorganization, which have been put forward by economist Lyndon LaRouche under the name "A New Bretton Woods." Global fascist alternatives, such as synarchist banker Robert Mundell's proposal for a new global currency, are also getting increased attention.

But, as Lyndon LaRouche pointed out at the Jan. 12-13, 2005 seminar sponsored by *EIR* in Berlin, there is no way in which the programs necessary for reviving the world economy and financial system can be put into effect, unless there is a breakthrough on the question of what he called the Vernadsky principle, which principle forms a crucial component of LaRouche's own approach to saving the world's population from a collapse that will lead into a New Dark Age.

An Economy Based on Ideas

LaRouche's own unique discoveries in the science of physical economy have built upon a succession of scientific breakthroughs by geniuses such as Gottfried Wilhelm Leibniz and Bernhard Riemann, and have been further enriched by his

Lyndon and Helga LaRouche tour the Vernadsky State Geological Museum of the Russian Academy of Sciences in Moscow in December 2001. At the center is a bust of Vernadsky. Left to right: Dr. G.V. Naumov, Lyndon LaRouche, Helga Zepp-LaRouche, Dr. Sergei Cherkasov.

study of the work of biogeochemist Vladimir Vernadsky. Over the last decade, in particular, LaRouche has emphasized the importance of Vernadsky's work, especially as it bears on the questions of man's relationship to nature, and the management/creation of raw materials for human sustenance, and the crucial role which Russian scientists trained in the Vernadsky method have to play in solving problems with raw materials.

One of the key Vernadskyian concepts LaRouche has stressed is that of *noösphere,* which can be roughly defined as the biosphere as improved and developed by human cognition. Vernadsky defines the Earth, in which living processes transform non-living ones, and cognitive processes transform living processes, as an envelope (sphere) dominated by *nous* (mind).

As LaRouche put it in Berlin, "We must take the fact, that we're at a boundary condition: The planet is being strained by a lack of development. We have population growing, but a lack of development. Our friends in Russia, from institutions such as the Academy, the Geological Museum, Vernadsky Museum, represent a repository of people, who have experience with the Asian aspect, and other aspects, of the problem of managing raw materials, mineral raw materials, for the future of this planet. Russia is a key part of the Russia-India-China partnership for Asia. Russia is a partner, with Western Europe, in these enterprises."

Yet, as LaRouche developed the point in discussion later, while Russian scientists have grounding in the Vernadsky method, which is an anti-reductionist method, they have also been subjected to the severely empiricist Communist regime, which often makes them not realize what they know. These scientists have to go back and look at Vernadsky, from the standpoint of LaRouche. To quote LaRouche:

"So, the key thing here, we need a society which is based on ideas. We have to use the challenges, such as China's challenge to the world by its development; the challenge to Russia, of finding the role to play in respect to China and other countries, on this issue, which is a global issue. And realize, that in all these areas, we're talking about a revolution in the physical composition of the planet. We're talking about developing what is possible: systemic transmutation of material; inventing *new kinds* of materials, which are not used now, so that we can guarantee to the entire human race in the future, that whatever they need, *we will be able to provide*."

The Principles To Be Applied

In the following pages, we provide our readers two crucial discussions of the relevance of the Vernadskyian principle to urgently required economic measures. The first is a document written by LaRouche in 2001, which was published in the May 4, 2001 edition of *EIR.* The second is a speech given by Schiller Institute science advisor Jonathan Tennenbaum in Russia in November of 2001, directly on the subject of the relationship between LaRouche's economic proposals, and the Vernadskyian approach.

The Appendix contains two small samples of Vernadsky's work, along with an introduction by Dr. Tennenbaum, which locates them in the context of LaRouche's own contributions. Further material is available in *21st Century Science & Technology* magazine, and the book *The Economics of the Noösphere,* by Lyndon H. LaRouche, Jr. (Washington, D.C.: Executive Intelligence Review, 2001).

Current Strategic Studies

The Vernadsky Strategy

by Lyndon H. LaRouche, Jr.

April 26, 2001

As I have stressed repeatedly, there are only three present cases of national cultures which are capable of conceptualizing the initiation of global solutions for such current global problems as the presently accelerating collapse of the world's present financial system. Once again, these are the U.S.A., Russia, and the British monarchy. Given that Olympian tragedy popularly known as the U.S. Bush Administration, only some combination of cooperating states of Eurasia which includes Russia and western continental Europe, is presently capable of cultivating the kind of initiative urgently needed today.

V.I. Vernadsky

For reasons I shall emphasize here, the figure of biogeochemist V.I. Vernadsky, should serve as a key unifying figure, for the contribution of the science of Russia and Ukraine to the unified development of Eurasia as a whole. This program of Eurasian development, is to be regarded as the central feature of a global economic developmental perspective for both the Americas and Africa. Indeed, under present global conditions, such Eurasian development is indispensable for the survival of not only Africa, but also the nations of the Americas as viable nation-states.

Look at this first from the standpoint of the continuing issue of so-called "geopolitics," and then locate the marvelous implications of the Vernadsky legacy for both science and economy, not only for Eurasia, but for mankind as a whole.

Geopolitics, Still Today!

The strategic issue within which I situate this discussion, is not, by itself, a new issue. Since approximately 1877, the British monarchy had always centered its geopolitical doctrine on ensuring the fostering of mutually devastating conflicts between Germany and Russia, as the central feature of its grand strategy. All important initiatives for the betterment of humanity, since the U.S. Civil War, have centered upon implicit cooperation of the U.S.A. with key nations of continental Eurasia for the kinds of economic development associated with the policies of Benjamin Franklin, Alexander Hamilton, Friedrich List, and Henry C. Carey.

One should recall, that U.S. President Abraham Lincoln's defeat of the British monarchy's asset, the Confederate conspiracy, and the adoption of the U.S. economic model, by Russia, Bismarck's Germany, Japan, and others, in the aftermath the 1876 Philadelphia Centennial Exhibition, had created the conditions for building transcontinental railway systems, modelled on the U.S. precedent, within the Eurasian continent. This, for reasons I have detailed in earlier locations, was the prompting of the combined geopolitical and naval-development programs of the British monarchy over the period leading into Britain's orchestration of France and Russia for launching World War I against Germany, with support of such London assets as those faithful sons of the treasonous Confederacy, U.S. Presidents Theodore Roosevelt and Woodrow Wilson.

Similarly, at the close of World War II, when Britain had been reduced to the relative status of a second-rate power in the world, Britain, using both traditional Venetian methods, and British agents and agents of influence inside the U.S.A., orchestrated the creation of the nuclear conflict between the U.S. and the Soviet Union. Thus London was enabled to exploit the effects of the missiles-crisis, to bring about the post-missiles-crisis self-destruction of both of London's leading strategic rivals, leading to both the present Anglo-American form of world domination, and the present push of the world at large not only into the greatest financial collapse in history, but also the economic brink of a threatened, planetary new dark age.

Throughout 1861-2001, the central issue-in-fact of world policy, takes the present form of the choice: between an efficient commitment to the cooperative economic development among at least most of the peoples of continental Eurasia; or, world domination by a new form of the old imperial maritime power of Venice's financier oligarchy, an Anglo-American "new Roman Empire," ruled by the fist of a U.S. "dumb giant" deployed, like the former and present U.S. Presidents Bush, as a restive, brutish lackey to the British Empire.

The most comparable period in history, was a period closely studied by the great dramatist William Shakespeare. The menacing situation facing the world today, is most nearly comparable to the history of Europe through the long and ruinous royal reign of the Plantagenets, 1154-1485, from Henry II through Richard III.

This House of Anjou, as confederate of the imperial maritime power of Venice, played a leading part in the repeated ruin of Europe during that entire span. This role of the House of Anjou, and its role in "ultramontane" moves to crush out of existence the efforts, as under the Hohenstaufen, especially Frederick II, and Alfonso Sabio of Spain, to establish sover-

eign nation-states, led inevitably into not only the New Dark Age of Fourteenth Century Europe, but also such continuing horrors as the "Hundred Years War" and the "Wars of the Roses" within England itself.

This alliance of Venice with the House of Anjou, is to be compared with a similar affliction which struck Europe, in the form of the Habsburg-centered religious wars during the interval 1511-1648, a period sometimes fairly described by modern historians as "a little new dark age" in European history.

The key strategic fact to be recognized by all persons who do not wish to be rightly considered as either mentally ill, ignorant, or stupid, is that the world as whole, including the internal situation of the U.S.A., itself, is faced immediately with an historical crisis, comparable in its threatened implications, to the legacy of the long, imperial reign of the Plantagenets in sundry parts of Europe, at sundry times, and in England throughout that time. With the help of such creatures as Ariel Sharon and the "Clash of Civilizations" and related "Project Democracy" lunacies of Zbigniew Brzezinski's Samuel P. Huntington, the world teeters precariously at the brink of a general outbreak of religious warfare like that experienced by Europe during the 1511-1648 interval.

It is not possible that the United States could survive a continuation of the present policies of the incumbent Bush Administration. Either those policies, and any like them, are soon scrapped, for a return to something akin to the Franklin Roosevelt economic-recovery policies, or the economic self-destruction of the U.S.A. is soon inevitable. However, under that condition, a continued Anglo-American world domination of the type set into motion by the Thatcher-Bush policies of 1989-1991, would mean the virtually inevitable collapse of the planet as a whole into a new dark age as serious, or worse than that of Europe's mid-Fourteenth Century.

The Available Option

For as long as the U.S. Bush administration continues its present, lunatic policy-trends, only in some circles in the United Kingdom, and in cooperation between President Vladimir Putin's Russia and other states of continental Eurasia, is there any presently active potential for actually initiating the adoption of an effective alternative to the horrible consequences of what a continued Bush drift would mean for the world at large.

In the United Kingdom itself, even among many whose policies are not, shall we say, the best, there is a sense of dread of the implications of the sheer lunacy of the current U.S. administration, and of a U.S. Congress which continues to lie down, like craven opportunists, or even worse, before the Bush Administration's and related demands.

More important is the keystone role of Russia in linking the vital interests of nations of western and central continental Europe to the matching interests of Central, South, Southeast, and East Asia.

To put the point as simply and also as accurately as brevity might desire, the real economy of western and central continental Europe, could not continue to survive without a relatively healthy German economy. Germany's economy, in turn, could not avoid collapse, without substantial renewal of the relative weight of its former role as a technology exporter. None of these and related problems of continental Europe or Eurasia as a whole, could be brought under control, without a new system of credit, based upon the sovereign powers of states, to advance long-term credit for large-scale infrastructure-building and relevant other technological increase of the physical productive powers of labor throughout Eurasia in the large.

The methods for such a revival of the economy of Germany, and of continental Europe at large, are those which Dr. Lautenbach presented for adoption by a 1931 meeting of Germany's Friedrich List Society, a proposal which, had it been implemented, could have prevent Hitler's coming to power, and, thus, World War II as well. These are, essentially, the same principles expressed successfully by U.S. President Franklin Roosevelt. Those same approaches would work today, even under present European and U.S.A. economic and financial conditions, which, combined, are far worse than those underlying the crash of 1929-1931. It would merely require dumping every policy which either the Bush Administration or former Vice-President Al Gore would tolerate, at least, until now.

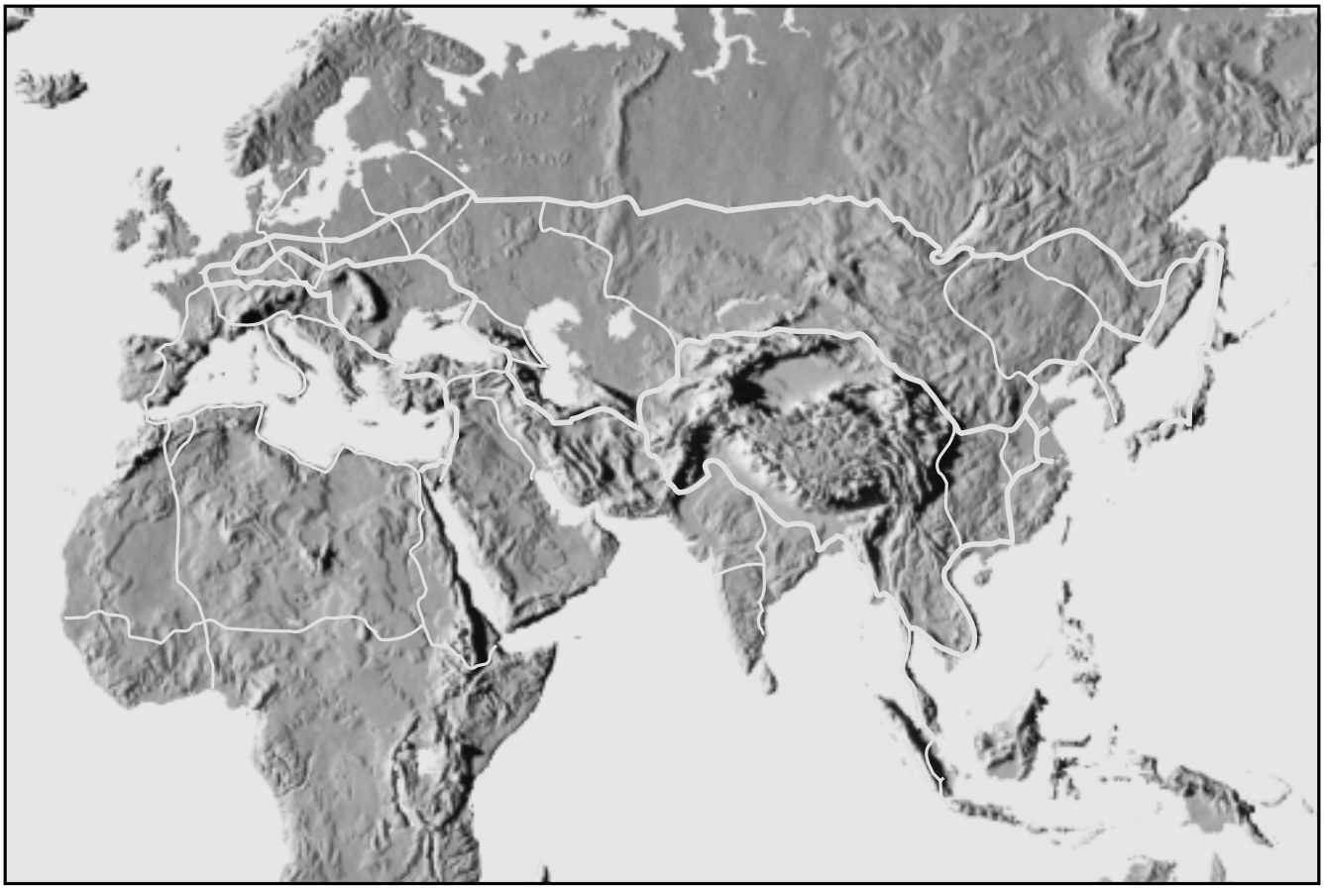
The general framework required to rescue nations such as those of continental Europe, from the otherwise inevitable, presently careening disaster, must be defined in terms of a system of fixed exchange-rates, capital controls, exchange controls, currency controls, and protectionist methods of price and trade agreements among the partner-nations. This means, of course, the abandonment of the recent and ruinous fads of "free trade," "deregulation," and "globalization," for a return to the protectionist, or so-called "Hamiltonian" model of the sovereign nation-state. It means the large-scale reorganization of the aggregately never-payable present mass of world-wide financial obligations, a reorganization conducted under rules corresponding to the Franklin Roosevelt Administration's notion of "Chapter 11" bankruptcy reorganization.

As if by gut-instinct, there is in Germany and other parts of continental Europe, a tendency in that direction, if not yet a willingness to go to the "extremes" which actually introducing a successful such economic-recovery for Europe would require. If Europe wishes to survive, it must go all the way, according to the conclusions which the situation demands of it.

However, as much as France pretends to exert true sovereignty on some selected occasions, the combined result of two world wars, the 1962 missiles crisis, and so on, is that no nation of western or central continental Europe has a present instinct for truly sovereign national-policy initiatives which might be contrary to the English-speaking powers. They think

FIGURE 1

Topographical Map of Eurasia, with Some Main Development Corridors of the Future



The future cooperation of Eurasian nations in building "land-bridges" of modern transport and infrastructure, including across Africa, is the marker of what is called, in Vernadsky's work, the action of the noösphere.

within the self-imposed bounds of what they suspect they are permitted to think by their Anglo-American overlords. Their hearts may be in the right place, but they keep their fists in their pockets.

Enter Russia. The fact that western Europe can not survive the present trends, except through relevant long-term cooperation pivotted upon a willing role by President Putin's Russia, and the fact that Russia, by its deeply embedded national-cultural instinct, is capable of thinking in terms of global solutions, gives to western continental Europe much, if not all of that degree of encouragement it otherwise lacks to proceed in service of its vital sovereign interests in these matters.

Similarly, as for western and central Europe, Russia is also crucial for cooperation among the states of East, Central, and South Asia, most emphatically. A group of nations, brought together through aid of triangular cooperation among Russia, China, and India, and thus bringing in most of the states of Asia, presents us with a reasonable prospect of well-grounded, long-term cooperation, where such cooperation were otherwise virtually impossible to achieve. Under the presently onrushing economic-strategic conditions, in which the Anglo-American financier power largely evaporates, new options are likely to be put on the table, even successfully.

The possibilities of long-term Eurasian continental cooperation (including Japan, of course),[1] thus provide the keystone on which the possibility of a global economic recovery depends. Without that keystone, the situation of already ruined Africa is hopeless beyond description, and the situation of the nations recently assembled at Quebec City, hopeless as well.

I have emphasized, on this subject, in locations published earlier, that the development of the basic economic infrastructure of the territories of central and north Asia, including the tundra regions, is indispensable for the success of the kind of long-term global economic development I have proposed.

1. One, or two railway lines, from Siberia, Korea, or both, linking mainland Eurasia to the islands of Japan, would clarify that point.

As I have also stressed in such locations, to grasp what that development implies for practice, we must look at the required development of basic economic infrastructure through the eyes of the great biogeochemist V.I. Vernadsky.

As I have emphasized in such locations, we must recognize that what we call basic economic infrastructure, is an improvement in the biosphere beyond the capacity of the biosphere to develop and defend itself without human cognitive intervention. We must see the biosphere so improved by man, as representing what Vernadsky termed the "natural products" of human cognition produced as the qualitative improvements of the biosphere needed to develop the biosphere into the still qualitatively higher form, of a noösphere.

We must never think of development of basic economic infrastructure as a destructive intrusion upon the biosphere, but rather as a necessary improvement of the quality of the biosphere as a biosphere, and also a form of improvement which raises the biosphere to the higher level of being an integral part of the noösphere. Indeed, that rule, is not merely a defense of the urgency of developing and maintaining the biosphere through basic economic infrastructure, but, also, represents the rule by which we must govern ourselves in changing the biosphere through infrastructural development.

Although there is a tendency to limit the current proposals for infrastructural development to "A New Silk Road," such a transportation link, by itself, will not meet the requirements for a general and sustainable upsurge in the economic development of Eurasia. What is required, rather than merely a "New Silk Road," is a network of corridors of combined transportation, power generation and distribution, large-scale water management, and related changes, all along pathways of development of up to 100 kilometers width.

In that case, not only does economic growth along the transport route reduce the effective net cost of trans-Eurasian goods transport, to levels far below that of sea-borne transport. By such methods, what are presently thinly populated regions of central and north Asia are made more fruitful, and populous, but even what are presently, functionally desert areas, emerge as zones of economic development. Under those conditions, these regions of Asia become, because of their relationship to other, densely inhabited parts of Asia, the world's greatest, richest frontiers for the immediate future's economic growth of the planet as a whole.

When those opportunities are taken together with the natural resources of the area in which this development of infrastructure is to occur, Eurasian cooperation, pivotted on this perspective, becomes the great opportunity for Eurasia as a whole, and the economic driver needed for the development of Africa and the revitalization of the states of the Americas participating as partners of this venture.

The peculiar nature of the challenges this presents for broadly based development of basic economic infrastructure, brings the figure of Vernadsky to the fore, as a central scientific figure of reference for this Eurasia-centered cooperation as a whole.

Where There Is Life, There Is Hope

At this point, focus attention upon two of the leading points which biogeochemist Vernadsky made on the way in which the Earth as a whole is organized naturally.

He emphasized the anomalous, but unavoidable evidence, that living processes produce measurable physical changes in non-living processes, changes which non-living processes themselves do not produce. He defined this as the biosphere.

He also emphasized, similarly, that the intervention of the human creative-scientific powers into the biosphere, produces measurable forms of physical improvements in the biosphere, which are not generated without such human intervention. He defined our planet, in which living processes transform non-living ones, and cognitive processes transform living processes, as a *noösphere.*

He emphasized the fact, that those experimentally distinguishable effects of living processes, which are not otherwise produced by comparable non-living ones, are *natural products* of living processes' action upon the non-living. Similarly, the effects which only human cognitive action produces as improvements of the biosphere, are experimentally definable as *natural products* of human cognition.

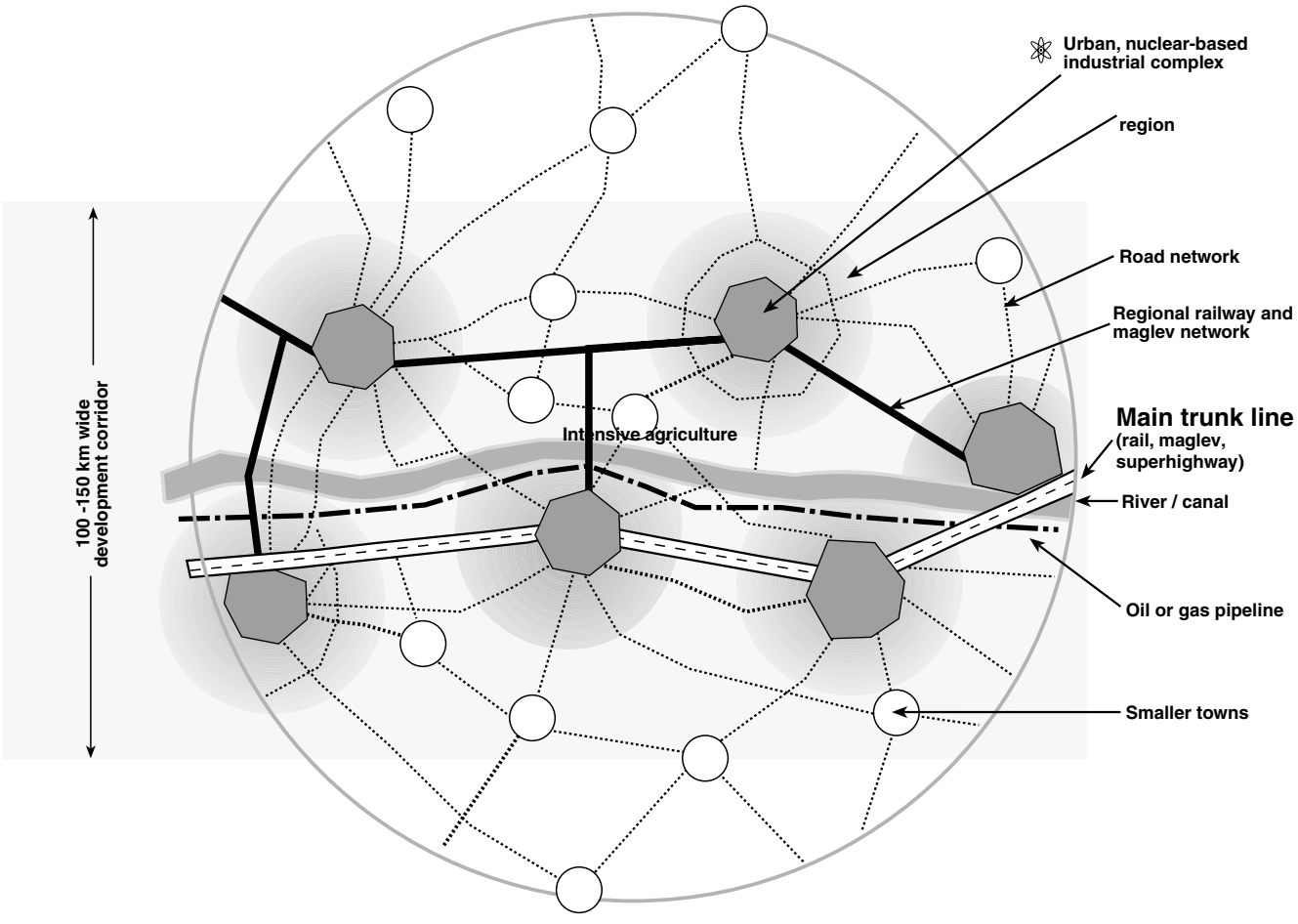
With but one most notable, twofold omission, Vernadsky's organization of his own and others' experimental discoveries of anomalies and principles, into the form of a concept of the noösphere, represented a necessary revolution in the world's way of thinking about scientific knowledge in general. Despite the referenced omission, to which I shall turn in due course here, the following relevance of Vernadsky's work to Eurasian development as a whole, has the following, relatively obvious, expressions.

First, for reasons toward which I have pointed already, the depth and scope of the development of basic economic infrastructure and its included development corridors, is a challenge to scientific and well as ordinary economic notions of mastery of the biosphere, as itself part of a noösphere, beyond anything taken previously. Vernadsky's revolutionary conception of the biosphere represents an important change, in depth, in the way policy-makers should think about both the biosphere and basic economic infrastructure as such.

Second, in developing the basic economic infrastructure of central and north Asia on the scale indicated, we are staking much, for the coming quarter-century and longer, on the wisdom of the choices before us. We must place a corresponding emphasis on accelerating fundamental and related scientific development along relevant new lines of investigation, already implicit in Vernadsky's work.

Third, among the most important implications of Vernadsky's work in this realm, is the way in which it forces us to pay attention to known, and previously unknown features of the physical principles which distinguish living processes from non-living ones. It is but one of the subsumed implications of this, that the world is confronted with the explosion of an emerging crisis in the control of infectious and

FIGURE 2
Graphic Representation of a 'Development Corridor'



"Although there is a tendency to limit the current proposals for infrastructural development to 'A New Silk Road,' such a transportation link, by itself, will not meet the requirements for a general and sustainable upsurge in the economic development of Eurasia. What is required, rather than merely a 'New Silk Road,' is a network of corridors of combined transportation, power generation and distribution, large-scale water management, and related changes, all along pathways of development of up to 100 kilometers width."

related diseases of human, animal, and plant life, a challenge which impels us to seek deeper approaches to such matters, in addition to existing methods now threatening to be overwhelmed by the problem.

Those three reasons would be sufficient motive for placing the work of Vernadsky in a place of high honor in the work of Eurasian development. Two considerations must be added to those just identified.

First, perhaps more than any other figure of the past century, Vernadsky confronted the scientific world with the deeper implication of the work of predecessors such as France's Louis Pasteur. Second, this had the included result of fostering related scientific developments within Russia and Ukraine, which have remained, during recent decades, better pursued by specialists there, in some respects, than in the world outside. It is one of the areas in which leading specialists from there still have. despite the ruinous effects of the recent decades' economic problems there, a relatively unique and notable contribution to the scientific practice and progress of the world at large.

For these five and related reasons, the image of the continuing challenge to science and technology represented, most emphatically, and more comprehensively, by the work of Vernadsky, serves us now as perhaps the most appropriate, personalized image of the benefits, for all mankind, of pursuing the core development of the new Eurasia cooperation,

the development of its basic economic infrastructure, as the enduring gift of this cooperation to all future mankind.

Call it, therefore, "The Vernadsky Syndrome."

The Matter of Riemann

The nature of the argument on the noösphere, and referenced evidence, by Vernadsky, is so profound, in its implications for scientific thinking as a whole, that, as in any great scientific breakthrough in past history, a great discoverer, like Johannes Kepler, for example, bequeaths more questions to his successor, than completed answers. Thus, Vernadsky's work requires us today to take into account the relevance of those discoveries by Bernhard Riemann, without which much of the discovery which Vernadsky presented as the fruit of his own and others' work, could not be presented in an adequately integrated form. Similarly, without situating the notion of a noösphere within the context of my field, the science of physical economy, the practical application of the notion of a noösphere to national economy is not feasible.

This, because my own original discoveries in physical economy, led me to discover the importance of Riemann's work as a way of integrating those discoveries, my own reliance upon the work of Vernadsky grew by more or less discrete increments over the course of the recent four decades.

The relevant conceptual problem to be considered, has the following principal features.

Crucial is the notion, that there exists a universal physical principle of life as such, a principle distinct from anything found in non-living processes except through the intervention of living processes. This conception has a long history within the bounds of experimental mathematical physics itself.

The first crucial example is that summarized by Plato in his ***Timaeus*** dialogue, the notion, premised upon the anomalous implications of the discovery of the principle of the five Platonic solids, that there exists a universal, measurable principle of life, not found in non-living processes.

Notably, Luca Pacioli and Leonardo da Vinci, two followers of the Cardinal Nicholas of Cusa, who, among other missions, founded modern experimental physical science, emphasized Plato's evidence; so did avowed follower of Cusa, Pacioli, and Leonardo, Johannes Kepler. Kepler based all his principled discoveries in physical science, including his original discovery of universal gravitation, upon those principles.

However, with the intervention of Paolo Sarpi's launching of empiricism, official modern science has been divided between the Classical science of Plato, Cusa, Pacioli, Leonardo, Gilbert, Kepler, Huyghens, Leibniz, Gauss, Monge, Gauss, Alexander von Humboldt, Riemann, et al., on the one side, and the empiricists and Cartesians on the other. Notably, all of the empiricists, especially those radical empiricists known as the logical positivists, insist that life is, in principle, a product of mechanical principles. The latter, extremist view, is typified by the reductionist ivory-tower doctrines of those who insist that life is merely a product of molecular biology.

Thus, the influence of the empiricist school and its progeny, has held back greatly what would have been accomplished had the radical reductionist method not enjoyed relative hegemony among relatively well-funded branches of scientific practice. Largely on this account, the kind of evidence referenced by Vernadsky, respecting a principle of life as such, lies in scattered heaps on the horizon. We possess a sizeable collection of experimentally validated anomalies, reflecting the fact that life is a distinct universal physical principle separate from non-living processes; but, we lack the sort of well-organized team-work needed, to bring a large assortment of proven, relevant anomalies, into the form needed to approach the condition in which we are, at a later point, able to define a corresponding universal principle of life as such.

Vernadsky was correct, in mentioning the proposal he had received, that the matter of the connections among various types of anomalies should be approached, conceptually, from the standpoint of Riemann's work on the subject of multiply-connected, hypergeometric manifolds. This is precisely the situation which confronts us in my specialty, the science of physical economy, in which a principle of cognition must be adduced from its effective expression in different media, in which the fact that the connection is multiply-connected in the Riemannian sense, is crucial.

The work of specialists in relevant types of anomalous biogeochemical effects, must be fostered, and teams of gifted young students and professionals employed and equipped, so that we might fill up the numerous experimental gaps in our studies of relevant anomalies. Those with backgrounds in this work from Russia and Ukraine, are of notable importance. Properly resituated within the domain of the application of the science of physical economy to the Eurasia infrastructure mission, the rebuilding of scientific capabilities in these implications of biogeochemistry can serve also as an aid in rebuilding the lately depleted general scientific capabilities of both Russia and Ukraine in particular.

Finally, effective forms of fundamental scientific work are highly personalized endeavors. The mental imprint of the leading scientific worker, is an integral part of the competence that leading figure fosters in the development of his students and associates. Science is as cooperative as Archimedes shrieking "Eureka!" to all hearers; but it is, at the same time, highly personal and individual. It is as a student seeks to relive the validated act, made by a predecessor, of an original discovery of universal physical principle, that the student relives in his or her own mind, that moment of discovery in the mind of the predecessor. Thus, the greatest discoverers in history, even when they are presently long deceased, continue to have an indispensable kind of personal impact on the most intimate thinking processes of a student, or leading working scientist of today.

Therefore, let the actual thinking process of the great Vernadsky be replicated in the minds of the professionals and gifted students of today. To bring that desired effect about, one should begin, by remembering his name.

Principles of Physical Economy

Eurasian Infrastructure And the Noösphere

by Jonathan Tennenbaum

The following speech was given by Dr. Tennenbaum, Schiller Institute science advisor, to a conference sponsored by the Vernadsky State Geological Museum and the Schiller Institute in November 2001, in Moscow. The title of the conference was "The Realization of the Concept of the Noösphere in the 21st Century: Russia's Mission in the World Today." Subheads have been added.

In my remarks I shall first concentrate on what may appear to be purely economic questions, and then show their profound connection to the work of Vernadsky and his conception of the *noösphere.*

Since 1988, and particularly since 1992, we have focussed attention on the unique potential for rapid economic development of the Eurasian land-mass in the decades immediately ahead. Based on the principles of physical economy, elaborated by Lyndon LaRouche, we have identified a specific strategy which is both necessary and sufficient to launch a sustained period of economic development in Eurasia over the next 50 years.

The core of this strategy is to create a network of East-West and North-South infrastructure corridors connecting the main regions and great population concentrations of Europe and Asia, and centered on high-speed railroad and magnetic levitation lines, combined with modern power production and distribution systems, pipelines, canals and water systems, and advanced communication systems. The areas within about 50 kilometers on either side of these main Eurasian transport and energy lines, will become areas of highly efficient investment into industry, intensive agriculture, urban construction, and population growth, radiating economic development into the surrounding territories. The creation of such a network of Eurasian infrastructure corridors provides the basis for simultaneously addressing several of the most difficult problems facing the nations of Europe and Asia over the coming period.

First is the complementary relationship between the growing requirements of the developing nations of Eastern and Southern Asia, for modern, high-technology capital goods, on the one side; and the requirements of Europe and Russia, and also Japan, as exporters of technology. The Eurasian infrastructure corridors provide the physical transmission-belt as well as an extended market for such capital goods exports. Although China and India have significant technological capabilities, they cannot possibly meet the requirements of their over 2 billion people, without enormous inputs of modern equipment, technology, and know-how from the outside—including technologies which have not yet been fully developed.

Secondly, infrastructure corridors provide the chief practical method of propagating economic development into the relatively underdeveloped interior regions of Eurasia, including, for example, much of the North and the Far East of Russia, Central Asia, and the Central and Western regions of China.

Third, is the immediate problem of overcoming the effects of the profound economic and financial crisis affecting most nations of Europe and Asia today, providing for a revival of investment into the real economy, for employment, a sustained demand for industrial production, and an increase in the overall physical productivity of the participating nations. This was the core of President Franklin Roosevelt's successful policy for ending the Great Depression in the U.S. in the 1930s, through launching of large-scale infrastructure development and related improvements in the real economy, financed mainly through state credit generation. The present, strong economic growth in China, is to a large extent a result of similar policies of large-scale infrastructure development.

Now, after the collapse of the gigantic financial bubble in Wall Street and in the international financial system generally, threatening the world with a profound economic depression, more and more voices are arguing in the U.S. and elsewhere for a return to the "Franklin Roosevelt" model and the experiences of the post-war reconstruction period from the late 1940s into the 1960s. In that period, the reconstruction and modernization of basic infrastructure, plus high-technology projects such as the peaceful development of nuclear energy, played a crucial role in the so-called "economic miracles" in West Germany, France, Italy, and Japan, for example.

When Lyndon LaRouche and the Schiller Institute started talking about the creation of a Eurasian network of transcontinental infrastructure corridors, this may have seemed like just a dream to some people. But in recently years already major steps have been made in that direction. . . .

From a Higher Standpoint

But now let us take a new look at these economic questions, from a higher standpoint, namely that of the *noösphere* and physical economy.

Vernadsky characterized the *noösphere* as a new stage of development of the Earth, in which man has emerged as the increasingly dominant, "geological force" in the biosphere. That "force" is exerted, not simply by the biological metabolism of the human population—its nutrition, excretion, and muscular effort—but above all, by the much larger flows of matter and energy, which are connected with the physical-economic activity of human society.

Studying physical economy according to the method of

Economic progress depends uniquely on the development of human cognitive mental processes, argue Vernadsky and LaRouche. Here, a scientist in her laboratory.

LaRouche, we first put aside the financial and monetary aspects of economy, and treat the economy of the world, a nation, or region as a single, integrated, self-reproducing physical process—an entity analogous to a living organism. The "metabolism" of the physical economy encompasses the totality of the physical processes, organized by man, by which the human population maintains its continued existence on this planet: the generation and distribution of energy, the vast network of interconnected productive processes of agriculture, mining, industry and construction, transportation, distribution and consumption of goods; plus necessary nonproductive activities such as education, medical care, scientific research, state and cultural activities, etc. It is that physical-economic activity, connected with an increasing scale and intensity of anthropogenic flows of matter and energy in the biosphere, through which man exercises an increasingly dominant influence over the biosphere, drawing in ever larger amounts of living and nonliving matter into the "metabolism" of human physical economy; and eventually even extending the biosphere beyond the limits of the Earth.

The unique character of physical economy, as a special kind of living system, is that it evolves under the influence of human cognitive mental processes. This is most clearly exemplified by the effect of scientific and technological progress: Through the use of individual, creative mental powers, a scientist discovers and experimentally demonstrates a new physical principle; other scientists, engineers, inventors, and workers incorporate the experimental demonstration of the new principle into new families of technologies and technical processes, and introduce them into the network of production. By integrating these new principles and processes, the "metabolism" of the physical economy is transformed, expanded, and intensified. Thus, the "geological force" of mankind develops on the basis of an unending accumulation of creative contributions from a vast number of human individuals working at all levels of the physical economy.

All of this, of course, is well-known; but the implications for the scientific *measurement* of economic processes, and of the *noösphere,* are seldom fully appreciated.

For example, how should *economic growth* be defined and measured? The presently dominant school of Western economics measures economic growth in terms of so-called national income accounting, mainly as increase in the Gross Domestic Product (GDP). But in the calculation of GDP, no essential distinction is made between productive and nonproductive activities; the income from gambling houses and sales of pornography is counted on an equal basis with income from agricultural or industrial production. For these and related reasons, an economic policy which leads to maximum GDP growth is often one which destroys the productive base of a country at the highest rate! An extreme case of this is the "New Economy" in the United States during the second half of the 1990s, when the supposedly spectacular growth of the economy was a complete illusion, based on a huge expansion of the monetary supply by the central bank, which led to the largest speculative financial bubble in modern history, and a gigantic net inflow of goods and capital from abroad. Now that the bubble has popped, it is clear the real economy of the U.S. has actually been continuously collapsing, throughout the 1990s.

A seemingly opposite approach to the GDP method is to measure growth in terms of physical production parameters—

like kilowatt-hours of electricity production, tons of wheat and steel, ton-kilometers of transport volume, and so forth. But although such parameters are closer to reality than mere monetary accounting figures, they miss the most essential feature of physical economy, upon which everything else depends: the cognitive activity of the population. For example, it is entirely possible to have an impressive growth in physical production parameters, while at the same time the realization of scientific and technological progress slows down, essential resources are being exhausted without replacement, the cultural and educational level of the population stagnates or declines, and the overall physical efficiency of the economy drops. There are enough examples of this in the history of the so-called socialist economies.

Reflecting on what I have said earlier, it should be evident, that the development of the human population, and of its cognitive powers especially, must be at the center of any adequate approach to measuring "real economic growth." Furthermore, we must rule out the kinds of unhealthy, short-term growth, which occur at the expense of successful long-term survival. For example, a society may stop investing into fundamental scientific research and education, and invest the corresponding resources in areas that produce a quick profit. The result might be an apparent boost in growth in the short term, but that society has doomed itself to collapse in the long term.

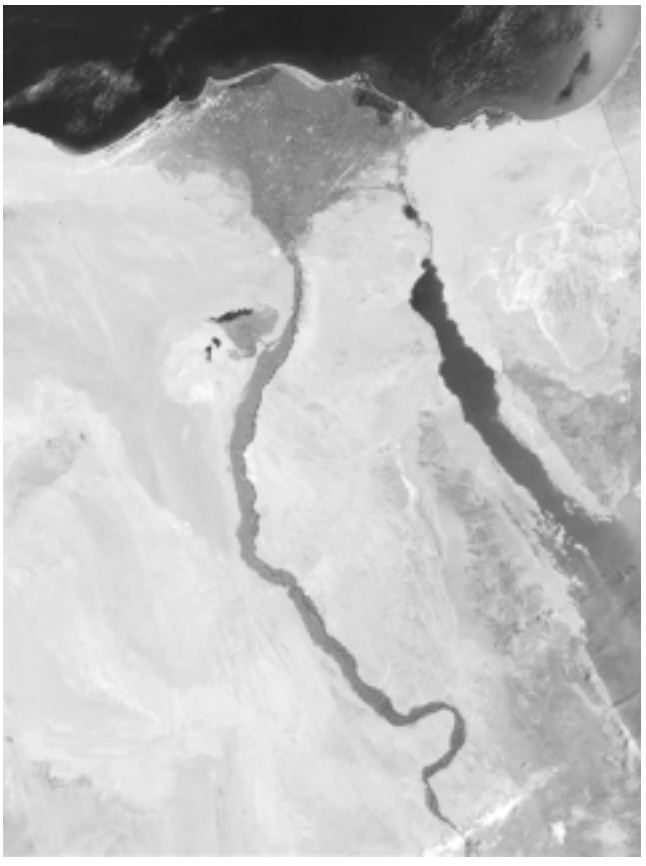
Potential Relative Population Density

Thus, what we have to examine, is not the momentary physical state of the economy and its population, but rather the *potential* of society to maintain itself, at a given level of existence, into the future. From this standpoint, the essential *output* of a physical economy, is not physical goods per se, but *potential.* What we must measure, is the *effect* of current economic activity on the rate of change of that potential, whose essential source is the cognitive powers of the population. The development and exercise of those cognitive powers, however, depend on constant improvements in the material conditions of society, on education, on the realization of scientific and technological progress, and so on.

These and related considerations, which I cannot elaborate more here, lead us to the notion of "rate of change of relative potential population density," introduced by Lyndon LaRouche as the foundation for the science of physical economy. While seemingly very simple, it is one of the most profound conceptions in all of science.

In a very rough first approximation, we define *potential population density* of an economy as the maximum number of human individuals, that potentially can be sustained, per square kilometer of inhabited land, on the basis of the technology and modes of social production, prevailing in that economy.

It is obvious, that the potential population density, defined in that way, will depend upon many natural conditions such as climate and geography. A level of technology, which is entirely adequate for sustaining an average population of 100 persons per square kilometer in the fruitful river deltas of the Nile or Brahmaputra, could hardly sustain 5 persons per square kilometer in northern Siberia. For this reason LaRouche "normalizes" the concept of "potential population density," by defining it as *relative* to a given quality of land, climatic conditions, etc. So we get a notion of "relative potential population density" which permits us to compare the productive power of economies or sub-economies in regions with different natural conditions.



While regions such as the Nile River delta, shown here from a satellite photo, can sustain an average population of 100 persons per square kilometer, other regions, like Siberia, can hardly sustain 5. Thus, potential population density is "relative" to the specific area, and must be compensated for with human intervention.

The fact, that any fixed mode of production tends to gradually exhaust the resources for its future continuation, leads us to the paradoxical result, that even a hypothetically constant value of potential population density can be maintained only through a certain minimal level of scientific and technological progress. If we examine the paleontological and historical record, however, we find that not only the potential population density, but the actual density of human population on the Earth has increased by orders of magnitude in the course of man's development. One can estimate, that on the basis of the so-called "hunting and gathering" mode of existence, the total

human population of the planet could not exceed a few hundreds of millions. Today, if the most advanced presently known technologies were to be fully and optimally utilized throughout the world, a total human population of at least 12 billion, perhaps 20 billion, could be sustained, at living standards and life expectancies far beyond what earlier periods could have dreamed of.

The "rate of increase of relative potential population density," is the primary measure of real economy growth, and of the development of the *noösphere.* Even more fundamental, though, is the rate of change of the ratio of (relative) potential population density, to the actual population density. This parameter is a measure of development of the per-capita power of man over nature, as that power is expressed in terms of the ability to sustain and expand human activity in the universe. It is therefore a crucial parameter of the *noösphere.*

When we define "economic growth" in the indicated way, it is easy to see, that it is very strongly correlated with an increase in the density of the anthropogenic flows of energy and materials, per capita and per square kilometer of the Earth's surface, as well as an increase in the technological quality of those flows. For example, the energy-flux-density (power density) of technical processes, expressed (to a first approximation) in watts per square centimeter of work surface, increases by successive "jumps" in the course of technological development.

Above all, however, potential population density is a function of the state of development of basic economic infrastructure—especially transport, energy, water systems, as well as health and education systems. Looking at the future of Eurasia, we see that infrastructure determines both the potential to maintain the highly populated areas of China and India, and the potential to settle and develop remote areas of Siberia and the Far East.

The Malthusian Complication

Before turning to some final observations concerning Eurasian infrastructure development, however, I want to address a problem which today often leads to a false understanding of the *noösphere* and its relationship with physical economy. This problem is connected with the spread of neo-malthusian ideas in politics, economics, and natural sciences over the last 30 years. The most conspicuous case is the famous book by the Club of Rome on so-called *Limits to Growth.* That book—and the mathematical model of Forrester and Meadows, upon which it was based—essentially ignored the key characteristic of the *noösphere,* which is the impact of scientific and technological progress, and other effects of human cognitive activity. The result was to predict supposed "limits" to the growth of population and living standards, which are entirely a consequence of the arbitrary assumptions of the mathematical model, and do not exist for a real human society in a state of scientific and technological progress. One of the main sources of the "limits," asserted by the Club of Rome, was the claimed finiteness of natural resources available for economic development.

Dams such the Hoover Dam in the United States, shown here, are a product of man's necessary work of improving and expanding the biosphere.

In fact, I always emphasize, that the concept of "natural resources" and "raw materials" is only *relative,* not an absolute concept. The same is true of so-called "limits" of resources, which never exist in an absolute sense, but only relative to a given state of human knowledge and technology. The definition of what constitutes a "natural resource," depends on man's relationship to nature. But that relationship constantly *changes* as a function of scientific and technological progress, as well as factors of a cultural and political nature. A characteristic of scientific and technological progress, is that it constantly *transforms* the array of natural bodies that function as "resources" for human existence. New types of resources are opened up, while at the same time the range of existing types of resources, that can be exploited in an economic way, is constantly extended.

So, for example, for the so-called "Stone Age man," the concept of "iron ore" did not exist. Similarly, prior to the discovery of nuclear fission, the concept of "uranium fuel" did not exist; but today, using nuclear fission reactors, we can extract from 1 kg of uranium the caloric equivalent of 50,000 kg of coal! Similarly, the realization of controlled nuclear fusion will suddenly transform the deuterium isotope content of the world's ocean water into a gigantic fuel resource.

In a less dramatic, but equally important way, we have a constant tendency for growth in the exploitable reserves of mineral resources, as the result of an ongoing accumulation of thousands of small improvements, introduced every year into the techniques of prospecting, mining and processing of materials. So, for example, the exploitable petroleum reserves of the world are today vastly *larger* than they were over 30 years ago, when the Club of Rome's study *Limits to Growth* warned that oil was about to run out. This, paradoxically, is in spite of the fact, that vast quantities of oil were consumed since then.

Contrary to the ideological biases of the environmentalist movement, that the problem is not to protect *the biosphere from man; but rather, it is to insure that the physical economy can meet the costs connected with man's necessary work of* improving *and expanding the biosphere.*

Therefore, to determine whether real, sustained growth is occurring, or only an apparent growth maintained at the expense of looting the potential for future growth, the crucial parameter is the *rate of scientific and technological progress.* We must compare the *rate* of marginal exhaustion of resources, as these resources are defined in terms of the *existing* state of development of science and technology, with the *rate* at which the progress of science and technology is transforming and expanding the effective resource base for maintaining physical-economic growth.

From this we see, that the problem connected with resources is *not* that they are really limited in the absolute sense. Rather, all essential problems are connected with an insufficient rate of scientific and technological progress, as actually applied in the economic process. We can see exactly this problem in the world today.

Measuring Real Economic Performance

This discussion of resources is just a special case of a general principle in the science of physical economy. To measure the real performance of an economy, in physical terms, the following three magnitudes must first be compared:

One (T) is the total *physical output* of the economy, i.e. of the entire agricultural and industrial production process.

The second is the *physical cost* of sustaining the human population and its continued reproduction (V), including the direct and indirect consumption of households which produce the population, necessary physical investments into housing, educational and health services, etc.

The third parameter is the *physical cost* (C) of maintaining what LaRouche calls the *equipotential of man-transformed nature,* which is the basis for sustaining existing levels of production and consumption into the future. "Man-transformed nature" includes the means of production—machinery, infrastructure, the quality of agricultural land, etc.—as well as the natural resource base, and, more broadly, the biosphere itself, insofar as it is increasingly transformed, as a system, by man's activity.

The ratio of total output T, to the sum V+C of the two physical costs just defined, gives us a first-approximation measure of the real physical productivity of an economy. Successful economic practice is characterized by a sustained rate of increase in the ratio T/(V+C), correlating with an increase in the potential population density of human society. The definition and estimation of C and V pose some fundamental questions, closely connected with the work of Vernadsky, and in my view first really clarified by Lyndon LaRouche in his work on the foundations of physical economy.

First is the notion of "equipotential," which enters into the determination of the cost "C." As Vernadsky emphasized, man constantly and irreversibly *transforms* the biosphere; that process of transformation and intensification of the biosphere through man's activity, continuing the process of biosphere evolution in a new mode, is the characteristic of the *noösphere.* Therefore, "maintaining the equipotential" of man-transformed nature does *not* mean restoring the biosphere to some earlier state, nor converging on some sort of asymptotic *equilibrium* of man with nature, as the many so-called environmentalists today believe. On the contrary: Just like the preceding biological evolution of the biosphere, the *noösphere* evolves farther and farther away from equilibrium.

The requirement is, that the *potential* of man-transformed nature, to sustain the existing (or increasing) levels of human population and economic activity, must be maintained (and actually enhanced) in the course of successive cycles of transformation. That involves a *cost,* which expresses itself in many ways. For example, it means the maintenance and eventual replacement of production equipment, preferably by equipment incorporating more advanced technology; in agriculture it includes maintaining or increasing the fertility of the land, by various sorts of improvements, including irrigation systems; in the extraction of raw materials and other natural resources, these costs may involve a combination of recycling and reprocessing of materials, and the implementation of scientific and technological innovations which, in effect, expand the exploitable resource base at a faster rate, than it is being used up. It includes also costs of processing of water, organic and industrial wastes of all kinds, and other rational forms of compensation for negative effects of economic activity on the functioning of the biosphere.

I must once more emphasize, contrary to the ideological biases of the environmentalist movement, that the problem is not to *protect* the biosphere from man; but rather, it is to insure that the physical economy can meet the costs connected with

Eurasian infrastructural development will require new technologies for high-speed ground transport, such as magnetically levitated rail systems. Here is the Chinese pilot project, using the Transrapid system, now in effect between Shanghai and its airport.

man's necessary work of *improving* and expanding the biosphere. This includes, for example, the use of water transfer and (in the future) large-scale desalination for "greening the deserts."

Now, the costs of maintaining the equipotential of man-transformed nature, are constantly increasing in absolute terms. For example, even in the hypothetical case of "zero growth," a physical economy will tend to gradually exhaust the easily-exploitable resources for its existence; as a result, an ever larger physical investment is required to supply the economy with the necessary resources. This gradual increase in costs causes a tendency for decrease in the net productivity of man's physical economy (as I defined it earlier), and finally to a collapse, as a result of the intrinsically "entropic" nature of any fixed technological mode of economic reproduction. ("Sustainable development" at a fixed technological level is just as much an impossibility as the idea of a "perpetual motion machine!")

In successful human practice, however, this "entropic" tendency is overcome by scientific and technological progress, and other improvements derived from the exercise of human cognitive powers. Maintaining scientific and technological progress, of course, involves additional costs; it requires infrastructure development; continual modernization of plant and equipment; and large expenditures for education, cultural activities, and the material consumption of the workforce. The costs V and C are both greatly increased. But, for a sufficiently high rate of scientific and technological progress and a proper development of infrastructure, the overall output of the economy grows much faster than its costs, and the net productivity T/C+V increases. The relative potential population density of the human race increases, both absolutely and relative to the actual population.

This is exactly what we find in successful periods of human development. The powers of human cognition—exemplified by the successful discovery of new physical principles and their integration into social practice—are the unique source of the "anti-entropic" growth of physical economy, upon which the emergence of the *noösphere* is based.

Eurasian Development

From this standpoint let us turn to the deeper significance of Eurasian infrastructural development.

The major problem we are facing, is that the world economy, at present, is operating at a *net loss* in physical terms. The present physical output of the world economy is considerably less than would be required to adequately maintain both the existing population and the equipotential of man-transformed nature. The potential population density of the planet is falling below the actual population. Some see this as an "ecological crisis," others as an "socio-economic crisis," but from the standpoint of the *noösphere* they are really the same thing.

It would be a fundamental error, for example, to suppose that a collapse of the physical economy would benefit the biosphere, by reducing the "disturbance" caused by human activity. On the contrary, the flows of matter and energy, connected with man's physical economy, are an integral part of the present structure of the biosphere, and are actually sustaining that structure to a very significant extent. This includes the intensification of biomass generation, connected with modern agriculture, and indirectly with the functions of industry and infrastructure which support agriculture. Thus, a collapse of man's physical economy inevitably generates shock effects within the biosphere as a whole, triggering a

transition of the biosphere to lower states of organization, and leading (among other things) to mass outbreaks of old and new human, animal, and plant diseases. This phenomenon, which LaRouche warned about in the mid-1970s, can actually be observed today in Africa and other areas of the world which have suffered dramatic economic decline, including in your country. On the level of human society, the effects of physical-economic collapse include, for example, a drastic increase in political instability, the weakening of the institutions of civilization, and the potential for epidemics of ethnic and religious conflicts.

Thus, the creation of a network of infrastructure corridors in Eurasia—and analogous projects in other areas of the world—cannot be seen merely as a commercial undertaking. In combination with certain measures to stimulate scientific and technological progress, these projects provide the most efficient means to reverse the current "entropic" degeneration of most of the world's physical economy, and to restore real growth in agreement with requirements of the *noösphere.*

Of crucial importance is the relationship between increase in the potential population density of a given territory, and improvement of key infrastructural parameters, measured both per capita and per square kilometer of territory. These include: 1) supply of energy, in various forms; 2) capacity and performance of transport systems; 3) supply of fresh water and other water-related infrastructure; 4) access to communication education and health services. The growth of productivity of a physical economy is strongly correlated with an increase in its *power density*—the density of infrastructure (energy, transport, etc.), combined with the density of population and economic activity. In particular, the per-capita cost of supplying essential infrastructural services decreases as the density of infrastructure and population increases. This is one of the main reasons for the high productivity of *cities,* where the per-capita cost of providing energy, transport, water, and essential social services is much less, than for the case of a population spread out over a large area. The concept of an *infrastructure corridor* applies the same principle to development of a relatively dense, band-like region around main transport lines, thereby providing an efficient means to extend development into the interior regions of Eurasia.

The requirements of Eurasian infrastructural development already determine certain priority directions for scientific and technological progress in the coming period. Let me just give some examples:

1. Technologies for high-speed ground transport. Besides conventional high-speed rail technology, development of automated, magnetic levitation systems for passengers and freight. Application of ekranoplanes and other novel forms of air transport, to development of Eurasia. New types of highly efficient mass transit systems for urban development.

2. Development of advanced, "intrinsically safe" forms of nuclear energy, suited to large-scale use within Eurasian infrastructure corridors. Nuclear energy has the highest power density and highest intrinsic efficiency of all known energy sources. Application of nuclear reactors as industrial heat sources, for the production of synthetic fuels, and for large-scale desalination of sea water. Development of controlled fusion and more coherent forms of nuclear energy. Transmutation of nuclear waste.

3. Development of synthetic fuels and electric propulsion for automobiles, trucks, and buses; utilization of fuel cells.

4. Application of revolutionary biophysical methods to the prevention, diagnosis, and treatment of disease, as well as agriculture—including magnetobiology, biophoton methods, and the biological effects of coherent electromagnetic radiation. Applications to the problem of settlement of regions with extreme environmental conditions. These methods which are based on the fundamental space-time distinction between living and nonliving processes (Vernadsky, Gurwitsch) are potentially far more powerful than so-called "genetic engineering."

This short list of examples, underlines the absolutely decisive role of Russia in the future of Eurasia—Russia on the one hand, as the cultural and infrastructural bridge between Europe and Asia, and the greatest single area for development on the Earth; Russia, on the other hand, as a unique treasure-house of advanced scientific, technological, and engineering capabilities, and together with Ukraine, the birthplace of the *noösphere* conception.

Kepler's Revolutionary Discoveries

The most crippling error in mathematics, economics, and physical science today, is the hysterical refusal to acknowledge the work of Johannes Kepler, Pierre Fermat, and Gottfried Leibniz—not Newton!—in developing the calculus. This video, accessible to the layman, uses animated graphics to teach Kepler's principles of planetary motion, without resorting to mathematical formalism.

"The Science of Kepler and Fermat,"

1.5 hours, EIRVI-2001-12

$50 postpaid.

EIR News Service
P.O. Box 17390
Washington, D.C. 20041-0390

To order, call…

1-888-EIR-3258 (toll-free)
We accept Visa and MasterCard.

Appendix

Vernadsky and the Future of Biophysics

by Jonathan Tennenbaum

We here publish an English translation of a little-known article by the great Russian-Ukrainian naturalist and founder of the science of the biosphere, Vladimir Ivanovich Vernadsky (1863-1945), which was printed in *21st Century Science & Technology,* Winter 2001-02. Written in 1938, the article addresses one of the most central issues in natural science, and one of immediate relevance to potentially revolutionary research now going on in biophysics and related areas today.

Since ancient times, those who have sought to comprehend the organization of our universe, have generally distinguished among three main *classes* or *domains* of phenomena: *First,* phenomena occurring in inert or *non-living* matter, outside of the action of living organisms. *Second, living processes,* i.e., the domain of biology. And *third,* processes connected with the cognitive activity of the *human mind.*

This three-fold division of the universe into nonliving processes, living processes, and the processes connected with human reason, has occasioned much confused and often unproductive controversy in the course of history. On the other hand, it is exactly the *paradoxical relationship* of the three domains, when approached from the rigorous standpoint typified by Gottfried Wilhelm Leibniz and by Plato before him, that has been at the center of the most profound revolutions in science over 2,000 years. Let us first look at the relationship between the *first* and *second* domains, which was the main (but not the only) focus of Vernadsky's work.

Molecular Biology Evades the Issue

It ought to be the main task of the life sciences, to investigate precisely those features of living processes, which distinguish them from all non-living processes. Yet, with the triumph of reductionist thinking in natural science, and above all with the vast development of molecular biology since the middle of the 20th Century, the border-line between the living and non-living has become more and more fuzzy, or even non-existent, in the minds of scientists.

Thus, biologists nowadays are generally accustomed to regard a living cell more or less as a "molecular machine," whose workings, however complicated, can be understood in analogy with Alan Turing's generalized conception of a mechanical procedure (Turing machine). But at the same time, the almost mind-boggling wealth of combinatorial detail, which the techniques of molecular biology have amassed concerning the biochemistry of living organisms, serves to distract attention from the really fundamental questions in biology, which have *not* been answered, and which are often *not even being posed.*

We are reminded of the sly student at an oral examination, who, when confronted with an uncomfortable question, proceeds to deliver a long and elaborate answer . . . to a *different* question!

What is life? Wherein lies the *essential difference* between living and nonliving processes? Is it merely one of "complexity"? Are living cells merely special cases of "aperiodic crystals," whose properties can be understood on the basis of modern quantum physics, as Erwin Schrödinger originally suggested in his famous 1944 essay? Do living organisms constitute "self-organizing dissipative structures," analogous to the convection cells formed spontaneously in a heated fluid, and obeying the statistical laws of Ilya Prigogine's "nonequilibrium thermodynamics"?

Apart from the details of these and other modern theories, they all manifest a nearly universal tendency in our age, namely to assume *either* 1) that there is no *really fundamental* distinction between living and nonliving processes, and that living processes can ultimately be reduced to the *same* set of principles of physics and chemistry, which govern nonliving processes; *or* 2) that whatever distinctions *do* exist, can be characterized within the framework of physics and chemistry *as presently understood.*

By contrast, what contemporary science, with few exceptions, refuses to admit, is the presence of a *third* possibility, namely: 3) that there really *does* exist an absolute, fundamental distinction between living and nonliving, but that it involves *a higher principle, not expressible* on the basis of the concepts and principles of physics and chemistry *as presently understood.*

It is exactly this third alternative, for which Vladimir Vernadsky, in the cited article, presents overwhelming, conclusive evidence.

The failure to recognize this third alternative—despite Vernadsky's work and despite the fact, that the essential point involved was familiar long before to Leibniz and even to Plato—reveals an *elementary methodological error,* pervading both modern molecular biology and the attempted approaches of Schrödinger, Prigogine, and others to the physics of living processes.

The Error of Reductionism

The nature of the error was clearly identified, over 500 years ago, by the great Renaissance thinker Nicolaus of Cusa, in his critique of Archimedes' work on the squaring of the circle: In attempting to approximate a circle by a series of inscribed regular polygons of increasing number of sides, we

appear to come closer and closer to the circle, but we can never actually *reach* the circle. Even if the number of sides of the polygon were hypothetically to become *infinite,* it would still not resolve to complete *identity* with the circle, because the circle constitutes a higher *species* of geometrical existence. The circle embodies a *higher principle,* namely that of continuous *rotational action,* which is entirely absent from the linear domain of the polygons. Although the polygons can be constructed from the circle—and in that sense the circle subsumes, as a "higher species," the "lower species" of the polygons—there is no way to arrive at the circle from the polygons.

Nevertheless, geometers and others expended untold efforts, down through the centuries, in fruitless attempts to *square the circle,* making the same type of mistake as those who, from the time of Pythagoras on, refused to accept the existence of *incommensurable magnitudes* in geometry. The same error emerged later in the resistance to Leibniz's notion of the infinitesimal calculus, and in the bitter opposition by Kronecker and others to the Georg Cantor's introduction of the transfinite numbers.

So also, natural science today (and biology in particular) is crippled by the failure to take account of the sort of unidirectional, hierarchical distinction and relationship between *lower and higher principles* in the universe, that Nicolaus of Cusa illustrated 500 years ago, using his pedagogical discussion of the circle and polygons.

The attempt of molecular biologists to treat living organisms as "molecular machines" exemplifies the problem perfectly.

There is no doubt that the vast and intricate arrays of biochemical reactions and related processes, identified by modern molecular-biological methods, *do* actually take place in living cells. It *appears* also to be the case, that changes in a living cell, can always be *correlated* in some way with changes in the configurations and motion of molecules. There is thus little doubt, that molecular biology can *approximate* the workings of living processes—perhaps even up to the point of "asymptotic convergence"—in terms of ever more extensive mappings of the purported "molecular machinery" of cells. The latter corresponds, in a methodological sense, to Nicolaus of Cusa's polygons with increasing numbers of sides. Now comes the difficulty: None of the molecular-biological approximations, taken by itself, can account for the functional characteristics of living matter in the biosphere, as demonstrated by Vernadsky. We never get, so to speak, to the "living part," i.e., to the unique characteristic of *action,* which distinguishes living from nonliving processes. That higher characteristic, bears an analogous relation to the domain of "molecular machinery," as rotational action bears to the straight-line action embodied in Nicolaus of Cusa's polygons.

To go beyond this, at first glance purely *negative* observation concerning the limits of reductionist methods, let us go back to the three-fold division of the universe and have a look at the specific contribution of Vernadsky and of his successor in this matter, Lyndon LaRouche.

Living Matter in the Biosphere

A scientific understanding of the three-fold division of the universe begins, when we abandon the naive tendency to interpret the basis for the distinctions between the three domains, in terms of the supposedly inherent properties of *objects per se*—for example, living and nonliving objects. What we are really dealing with, as Leibniz emphasized, is distinct *classes of physical principles,* all acting upon the universe at the *same time,* and which stand in a well-defined hierarchical relationship to each other. That hierarchical relationship is the immediate focus of Vernadsky's life work.

Consider the characteristic *activity* of living matter on the Earth, as exemplified by the case of plants. Living plants grow and maintain themselves by virtue of their ability to absorb water, minerals, and other inorganic materials from the soil, and gaseous molecules from the atmosphere, and to work up this nonliving material into living tissue. Thereby, nonliving matter has been transformed into living matter!

Looking at this on the microscopic level, the question poses itself: What is the nature of the *physical change* which occurs during this transformation? How does an atom of nitrogen, for example, which is now part of the plant's living tissue, differ from its earlier existence in the mineral fertilizer the farmer put into the ground?

Present-day molecular biologists would characterize the change as merely one of a different chemical binding of the nitrogen atom in the living tissue—for example in a protein or other organic molecule—as compared to the inorganic compound it was part of in the fertilizer. They might hasten to add, that same organic binding could also be realized in a laboratory just as well, outside of living tissue. Hence, in their view, there is no change on the atomic or molecular level which could be shown to be unique to living processes only.

Some modern biophysicists, however, would rightly disagree with the simple-minded chemists' conclusions. They will point out, for example, that the physical state of an atom depends upon much more than simple chemical binding; the behavior of atoms and molecules in living tissue is modified by a common quantum-electromagnetic field, which imposes a coupling of processes occurring at distant locations within living tissue. Exactly that feature, is a matter which is an area of ongoing, experimental investigation.

Responding in this way, however, both the chemist and the biophysicist would have failed to point out the most elementary feature of the process at issue, namely: the *active role* played by the living organism itself, in *imposing,* so to speak, a *higher state of organization* upon that nonliving matter. In this way, the organism acts as the *physical cause* of *a*

continuous and highly directed transformation of its environment.

It was Vladimir Vernadsky, who most clearly recognized and demonstrated the nature of that biogenic transformation, by shifting the focus of the investigation from the level of isolated individual organisms, to the aggregate of *all* living matter existing on the Earth at one time, and by studying the *impact* of living matter upon its environment (the biosphere) over the *longest time scale* which is available to precise observation: geological time. Thus, in place of the perilously abstract question "What is life?" Vernadsky substituted a concrete geological question—one concerning the specific role of living matter in the geological history of the Earth.

What Vernadsky had accomplished for the relationship of living to nonliving processes in the biosphere, LaRouche has done for uniqueness of human reason relative to living processes in general.

Vernadsky's main conclusions, based on the analysis of an enormous body of empirical data and elaborated in the said article and other writings, can be summarized as follows:

1. In the course of evolution, the aggregate "free energy" of the living matter in the biosphere—its ability to do work on the environment—has been constantly increasing.

2. As a result of that increase in free energy, living matter has become the *most powerful geological force* in the biosphere—even though the total mass of the living organisms themselves, remains a nearly *infinitesimal fraction* of the total, growing mass of matter directly and indirectly affected by their activity within the biosphere.

3. In the course of evolution, living matter has constantly expanded the "envelope" of the Earth that is populated by living organisms—i.e., the biosphere—extending it upward into the atmosphere, into the depths of the oceans and ever deeper into the Earth's crust. That process of expansion of the biosphere, occurs through the "colonization" of new regions, formerly not inhabited by living organisms, in the course of which ever more of the nonliving matter and energy of the Earth's crust and atmosphere is transformed and caught up into the geobiochemical cycles connected with the metabolic and related activity of living organisms—what Vernadsky called the "biogenic flux of matter and energy in the biosphere." Vernadsky furthermore laid the basis for precise *measurement* of the development and expansion of the biosphere.

4. The capacity for this specific sort of *evolutionary development,* leading to a continual increase in the free energy of living processes in the biosphere, is unique to living organisms and is not found in the nonliving domain. Throughout the geological history of the Earth, the basic processes in the nonliving matter of the biosphere have remained virtually the same over billions of years, except insofar as they have been modified through the influence of living organisms.

Analysis Situs

The above conclusions, based upon the analysis of an enormous accumulation of empirical evidence, demonstrate the existence of an *absolute, unbridgeable division* between nonliving and living matter in the biosphere. Vernadsky repeatedly emphasized that the distinction thus proven, constitutes a *scientific fact.* It is not the product of philosophical speculation nor of any scientific theory, but constitutes a feature of *reality* which any scientific knowledge must take account of.

But Vernadsky adds a crucial additional conception: With the emergence of man and human society, the biosphere has entered a new stage, which Vernadsky called the "noösphere," in which *human creative reason* becomes increasingly the dominant, guiding influence in the further expansion and development of the biosphere; including its eventual extension beyond the Earth, into the Solar System and beyond.

Thanks to Vernadsky's work, we have far clearer *empirical proof* for Leibniz's view of the three-fold division of the universe—and especially the distinction between nonliving and living domains—than was ever possible before.

Life, as embodied concretely in the geological activity of living organisms on the Earth, embodies a *principle* or set of principles, that are distinct from, and demonstrably *superior* to, the principles governing the behavior of nonliving matter. In this way, living processes are able, increasingly, to *command* and transform nonliving processes so as to increase the aggregate *power* of living matter within the biosphere. It is as if, echoing the words of *Genesis,* God had granted life *dominion* over the inorganic domain!

As regards the demonstration of the fourth point, concerning the noösphere and the role of human reason, Vernadsky's work remained incomplete. In this respect the direct continuation and completion of what Vernadsky had begun, lies in the work of the American economist and statesman Lyndon LaRouche. Among other things, LaRouche showed:

1. The absolute distinction between man and all other forms of life in the biosphere, is empirically demonstrated by the fact, that the human species has been able, through deliberate changes and improvements in the mode of individual and social activity vis-à-vis the biosphere, to increase its overall population-potential by over a *thousand-fold* in the course of prehistoric and historical development. No other

living species has demonstrated that ability.

2. The *cause* of that thousand-fold increase, in the course of history, in the size and quality of the human population that can maintain itself on the Earth, is located solely in the *creative powers of individual human reason* to discover, assimilate, and apply *new scientific principles* and analogous discoveries of principle in art and statecraft, with the effect of improving man's power to command the forces of nature (technology).

3. The action of individual creative reason, upon which the capacity of the human species to effect successive increases in its population potential is based, has a specific and completely unique form. It lies in the ability to deliberately seek and discover errors or imperfections in the commonly accepted assumptions underlying the practice of a society, and to correct or supplement those assumptions, through the discovery and validation of a new universe principle, shown to govern the universe—and which was either contradicted, or at least not accounted for, by the previously existing assumptions or axioms of thought.

4. Acts of original *creative discovery* and acts of *creative learning and problem-solving*—of the sort needed to adequately assimilate and apply such discoveries (in the form of new technologies) in the successful practice of society—are generated solely within the "sovereign" mental processes of *individual human beings.* Thus, the process of increase of the population potential of the human species, occurs as a successive integration of specific creative mental acts by individuals, which have the net effect of transforming the overall practice of society. This *unique historical relationship of the individual to the whole* is found *only* in human society and *only* in connection with human reason; it is entirely lacking in both the other two, lower domains of the universe.

What Vernadsky had accomplished for the relationship of *living* to *nonliving processes* in the biosphere, LaRouche has done for uniqueness of *human reason* relative to *living processes in general.* Thereby, LaRouche brought the questions, *What is human reason?* and *What is the absolute distinction between man and all other living species?* into the domain of rigorous *empirical-scientific demonstration* and *measurement*—as opposed to what had been commonly regarded as the merely "subjective" realms of religious belief and philosophical speculation.

Combining LaRouche with Vernadsky, we obtain a most lucid and powerful overview of the three-fold division of the universe.

What we are dealing with, is the differentiation among three, interconnected *classes* or groups of *physical principles* constituting human knowledge of the universe. For convenience let us designate them as follows:

A equals physical principles pertaining to nonliving processes generally; *B* equals physical principles pertaining to the unique characteristics of action of living processes, relative to nonliving processes; *C* equals physical principles pertaining to the unique characteristics of human reason.

Note the following paradoxical, but crucial point: Physical principles, insofar as they are valid principles of human knowledge, must be *universal:* they must, at least implicitly, apply to the universe *as a whole.* The unity and coherence of the universe (and of human knowledge) would thus seem to demand, that (for example) the principles governing nonliving matter (class *A*) must also apply in some way to living processes; and conversely the principles of living processes (class *B*) must also apply to nonliving processes; and similar for class *C.* But doesn't this contradict the *absolute, fundamental distinction* between living and nonliving processes, and between living processes and human reason, demonstrated by Vernadsky and LaRouche, and which was the whole point of our discussion so far?

Recalling Vernadsky's demonstration of the dominion of living processes over nonliving matter in the biosphere, and LaRouche's related proof for human reason, shows the way out of the paradox.

The principles of living processes are principles for the *action* by which living matter "conquers" and transforms nonliving matter, as the increasingly dominant geological force in the biosphere. Similarly, man's demonstrated power to deliberately increase his per-capita power to command the forces of nature, through the exercise of human reason, points to the implicit *universality* of the principles underlying human reason. Insofar as the universe "obeys" human reason, even nonliving matter is implicitly subject to the principles of human reason, albeit in a different way than the human mind itself. Conversely, living matter, including the brain tissue which is an indispensable substrate for human mental activity, is composed of the same atoms and molecules as nonliving matter; and living matter appears subject to the principles of class *A,* while not being completely determined by them.

What we are therefore dealing with, is a *multiply-connected universe* in the sense of Bernhard Riemann: The principles of classes *A, B, C* are all acting on one and the same universe, simultaneously and (implicitly) at every location. But at the same time, the three classes of principles stand in a definite *hierarchical* relationship $A < B < C$ to each other, in terms of *physical power* or what Cantor called *Mächtigkeit,* and as evidenced by the growing dominion of living over nonliving matter, and of reason over the living and nonliving domains within the biosphere. Being of different *Mächtigkeit,* the classes *A, B, C* are strictly differentiated from another; and yet, an overall harmony exists between them, insofar as they jointly define a self-developing, anti-entropic universe.

This sort of relationship of classes of physical principles, which is well-defined and yet cannot be expressed in logical-deductive terms, is the subject of what Leibniz called "*analysis situs.*" Vernadsky's work is a brilliant application of that method, to the empirical domain of the naturalist. . . .

Living and Nonliving Bodies of the Biosphere

by Vladimir Ivanovich Vernadsky

The following is the opening section of a 1938 article by Vernadsky. The full title is "Problems of Biogeochemistry II: On the Fundamental Material-Energetic Distinction Between Living and Nonliving Natural Bodies of The Biosphere." Parts II and III can be found in the Winter 2000-01 issue of 21st Century Science & Technology. *See www.21stcentury sciencetech.com.*

I. Basic Concepts

Living matter, the biosphere as an envelope of the planet. Its new geological state—the noösphere. Natural bodies and the natural phenomena of the biosphere—inert, living, and bio-inert. Their system—the scientific apparatus. Left-handedness and right-handedness in living matter as a manifestation of the state of the space it occupies. The free energy of the biosphere as a manifestation of the biogeochemical energy of the living matter in the biosphere.

1 In my biogeochemical work, which I have pursued systematically and without interruption since the beginning of 1916, I have recently framed conclusions, which point to the deep, unbridgeable distinction—energetic-material in character—between the phenomena of life, and all other processes, occurring in the biosphere; a distinction which, on the one hand, can be expressed with quantitative precision, but which, on the other, calls for new mathematical work in the domain of geometry. Revealed before us, is a new area of the study of life phenomena, which uncovers new facets of the phenomena of life and new possibilities for scientific work. I therefore consider it useful to call attention to these conceptions, rather than waiting for the completion of my reworking of biogeochemistry.

2 The foundations of biogeochemistry are formed from a few basic conceptions, which *do not contain any hypotheses,* but are precise and clear scientific concepts—scientific empirical generalizations of the naturalist's experience and observation. Above all, the very concept *of the living matter of the biosphere* represents such an empirical scientific generalization—one that is as indisputable as a correctly, scientifically established fact. *The living matter of the biosphere is the aggregate of all its living organisms.*

In the following I shall use, instead of the concept *"life,"* the concept *"living matter"* in the indicated sense.

From the standpoint of the biosphere, the individual living organism is usually lost from view; in first place comes the aggregate of organisms—living matter. In biogeochemistry, however—in some strictly defined cases—at times it is necessary to pay attention to the discrete organism, to its individuality. It is indispensable to do this in those cases, where the activity of Man appears as a geological factor, as we see happening now, and the individual personality sometimes becomes vividly apparent and is reflected in large-scale phenomena of a planetary character. The human personality changes, accelerates, and causes geological processes of enormous significance, through its presence in the biosphere.

We are living in a brand new, bright geological epoch. Man, through his labor—and his conscious relationship to life—is transforming the envelope of the Earth—the geological region of life, the *biosphere.* Man is shifting it into a new geological state: Through his labor and his consciousness, the biosphere is in a process of transition to the *noösphere.*[1] Man is creating new biogeochemical processes, which never existed before. The biogeochemical history of the chemical elements—a planetary phenomenon—is drastically changing. Enormous masses of new, free metals and their alloys are being created on Earth, for example, ones which never existed here before, such as aluminum, magnesium, and calcium. Plant and animal life are being changed and disturbed in the most drastic manner. New species and races are being created. The face of the Earth is changing profoundly. The stage of the noösphere is being created. Within the Earth's biosphere, an intense blossoming is in process, the further history of which will be grandiose, it seems to us.

In this geological process—which is fundamentally biogeochemical—a single individual unit of living matter, out of the totality of humanity—a great personality, whether a scientist, an inventor, or a statesman—can be of fundamental, decisive, directing importance, and can manifest himself as a *geological force.* This sort of manifestation of individuality in processes of enormous biogeochemical importance, is a new planetary phenomenon. It emerged, and began to manifest itself ever more sharply and profoundly in the course of time, *during the most recent tens of thousands of years,* on the background of billions of years of the prior history of the biosphere, when this phenomenon did not exist.

In biogeochemical processes—outside the boundaries of these phenomena—the totality of living beings—living matter, continues to play the basic role. It is characterized as the totality of all organisms, mathematically expressed as the

1. Vernadskii, V. *Problemy biogeokhimii. I. Znachenie biogeokhimii dlia poznaniia biosfery. [Problems of Biogeochemistry. I. The importance of biogeochemistry for cognition of the biosphere.]* 2nd ed. (1st ed.—1934). Leningrad, 1935.

totality of *average* living organisms. Biogeochemistry studies, above all, the manifestation of the totality, not of the average indivisible unit. In the majority of the other biological sciences, we chiefly study the average indivisible unit; and, in the sciences of medicine and animal husbandry, the indivisible unit, individuality, or the single personality has been of outstanding significance during the past millennia.

Morphologically, living matter is manifested in biogeochemistry as a species, genus, race, etc. We distinguish *homogeneous living matter—belonging to a genus, species, etc.—and heterogeneous living matter,* such as the forest, the steppe, or a biotic community in general, consisting of homogeneous forms of living matter, in certain proportions.[2] The convenience of this approach to the phenomena of life lies in the fact that we do not stray, in our judgments and conceptions, into the shaky domain of hypotheses and philosophical constructs about life, such as dominate the thinking in biology. We do not depart from the domain of scientific facts and scientific empirical generalizations; we stand on their firm ground.

3 Alongside the concept of living matter, we put forward two other empirical generalizations: the concept of the *medium* of life, as the *biosphere,* and the concept of a *living natural body.* Living matter is found on our planet only in the *biosphere,* which is the domain of life.

This characterization defines the boundaries of the biosphere with absolute precision. According to this definition, the entire *troposphere* of the atmosphere belongs to the biosphere. And now, living organisms—human beings and their inevitable companions: insects, plants, and microorganisms—are penetrating even higher, by themselves or with mechanical assistance, into the *stratosphere.* At the same time, civilized humanity (together with its inevitable living companions) is penetrating several kilometers below the surface of the Earth, deep below the limits of that surface terrain, which is in contact with the troposphere. Today, too, we recognize the planetary significance of the discovery, at the end of last century, that life—chiefly anaerobic, microbial living matter—is to be found in subterranean regions more than three kilometers deep, and probably deeper. The lower boundary of the biosphere thus lies several kilometers below the surface of the geoid.[3] The entire world ocean belongs to the biosphere.

The biosphere constitutes a definite *geological envelope,* sharply differentiated from all other geological envelopes of our planet.[4] This is so, not only because the biosphere is populated by living matter having enormous significance as a geological force, completely reworking the biosphere and transforming its physical, chemical, and mechanical properties. In addition, this is the sole envelope of the planet, penetrated in an appreciable way by cosmic energy, which transforms it even more than living matter does. The main source of this energy is the Sun. The Sun's energy—thermal, light, and chemical [i.e., ultraviolet—trans.] energy—is, together with the energy of the chemical elements, the primary source for the creation of living matter.

Living matter permeates the entire biosphere and to a large extent creates it. Living matter accumulates the energy of the biosphere, mainly the thermal and chemical energy of solar radiation and the chemical energy of the Earth's atoms. It is possible, that radioactive energy plays a certain role in this.[5]

4 Materially and energetically, the matter constituting the biosphere is acutely heterogeneous. From this standpoint, we must distinguish the main bulk of its matter, which does not belong to living matter, and which I shall call *inert*—nonliving matter. The greater part of this, in terms of weight, consists of solid rocks. But the greatest volume belongs to liquid and gaseous bodies—the ocean and the atmosphere. Here is found—here lives—the totality of the planet's living organisms—its living matter.

Between the living and inert matter of the biosphere, there is a single, continuous material and energetic connection, which is continuously maintained during the processes of respiration, feeding, and reproduction of living matter, and is necessary for its survival: *the biogenic migration of atoms* of the chemical elements, from the inert bodies of the biosphere into the living natural bodies and back again. This appears in the form of *motion*—the departure and arrival of specific chemical compounds and elements to and from living organisms in connection with the processes of feeding, respiration, excretion, and reproduction, characteristic of living matter. These processes define the *biogeochemical energy* of living matter, the chief manifestation of which is the multiplication of living matter.

All of these manifestations of biogenic migration and biogeochemical energy are determined by the dimensions, the chemical composition, and the energy of the biosphere. For this reason, not any arbitrary sorts of organism can exist in the biosphere, but only those organisms strictly determined by the structure of the biosphere. *The living organism and*

---

2. Le Roy, E. *L'exigence idéaliste et le fait d'evolution,* Paris, 1927, p. 196.

3. Vernadskii, V. *Biosfera.* Leningrad, 1926. Vernadskii, V., Tr. *Biogeogeokhim. labor. [Works of the Biogeochemical Laboratory].* 1. Leningrad, 1930. Vernadsky, W. *La biosphère.* Paris, 1930. Vernadskii, V. *Biogeokhimicheskie ocherki.* Moscow, 1939 (in the process of publication [Vernadsky's note]).

4. Vernadskii, V. *O predelakh biosfery. Izvestiia AN SSSR. Seriia geol. [Concerning the boundaries of the biosphere. News of the Academy of Sciences of the U.S.S.R. Geology Series],* 1937.

5. Vernadskii, V. *Biosfera.* Leningrad, 1926; *Ocherki geokhimii [Sketches on Geochemistry].* 2nd ed. Leningrad, 1934 (first published in French in 1924, as *La géochimie*); *Problemy biogeokhimii. I. [Problems of Biogeochemistry. I.]* 2nd ed., Leningrad, 1934.

living matter are a lawful function of the biosphere. People usually forget this. And, in an erroneous manner—especially in philosophical discourse, but also in biology—they counterpose the living organism to its environment, as if these were two independent objects. This sort of counterposition is a logical error. It is especially apparent in philosophy, and *undermines at the core a great number of its conclusions.* I shall not pause here to consider this point more fully.

5 No less important, is the concept of a *natural body.* Strangely enough, this basic concept, which in essence pervades all natural science, is usually ignored and not subjected to serious logical analysis. And yet, scientists use the concept, almost unconsciously, at every step of their work.

In my youth, I had a clear and conscious experience of its importance. My teacher V.V. Dokuchayev, in his creative work on soil science, put forward the proposition, that soil is a *special natural body,* distinct from other rocks. As is well known, he proved this thesis, and thus made it possible for his contemporaries to grasp, through a striking example of a successful synthesis, the bases of creative work in natural science.[6]

But such events are rare in the history of science and in current scientific life. Normally, debates do not address the fundamental assumptions of scientific knowledge. People do not talk about these assumptions; they forget about them.

Reflecting on this, it is easy to convince oneself, *that all natural science is based upon the concept of a natural body, or a natural phenomenon.* In our further discussion, we shall deal only with the biosphere, and shall consider phenomena involving living matter.

Scientists study in the biosphere only those objects, which are created in the biosphere by forces occurring within the biosphere, or phenomena, produced in the biosphere by those forces. The objects they deal with, may conveniently be termed the *natural bodies* of the biosphere, and the phenomena—*its natural phenomena.* The task of science is to enumerate, describe, and identify all the natural bodies and all the natural phenomena, which exist or have existed in the biosphere. This is the work of generations of scientists, and there are billions of billions of scientific facts and scientific generalizations—i.e. natural bodies and natural phenomena—to be grasped in a scientific manner, counted, and brought into a system. These form the basis of science; from them, empirical generalizations are constructed, which can be brought back once again to the natural bodies and natural phenomena.

This work results in the creation of the basic content of science, for which, strangely, there is not yet any generally accepted expression. I have had to name it, and, perhaps, it is convenient to call it *the scientific apparatus.*[7] This apparatus began to be created in astronomy already thousands of years B.C., and was understood—it came down to us—in the form of numerical data on the positions of the Sun, the stars, and the planets in the Hellenistic compendia (Hipparchus, Ptolemy). This work was revived in the Middle Ages in Central Asia. Everywhere, it was done in the chronicles in the form of precise records of comets, fireballs, meteorites, etc. Starting in the 16th century, there was a rapid accumulation of data, the evaluation of which was the basis for making the first major generalizations. But even in astronomy, the basic forward motion, which has been continuous and developing rapidly from that time on, began on a large scale only in the 18th century. In that century—the century of *descriptive natural science*—the effort to precisely enumerate, observe, and describe every natural body and to record every natural phenomenon, became a conscious task of exact natural science.

Linnaeus (1707-1778), basing himself on the work of earlier naturalists, introduced the concept of the *system of Nature* and for the first time calculated the number of species of animals and plants—the species of homogeneous forms of living matter, inhabiting the biosphere. In 1758, he knew a total of 4,162 species of animals (by 1768, the number was 5,936), and in 1768—7,788 species of plants. In all, Linnaeus had distinguished 13,724 species of living organisms by 1768, and even fewer rocks and minerals. Today, the number of species of plants is approaching 200,000, and may possibly exceed 300,000. The number of species of animals is approaching 800,000; in reality, it is probably several million and may reach 10 million. In essence, the *"system of Nature,"* understood in a broad sense, corresponds to what I call the scientific apparatus.

The colossal quantity of numerical data, corresponding to chemical and physical properties of matter—growing like a snowball, always increasing over the course of time, obtained mainly by *scientific experiment,* rather than from observation of the biosphere, and first created in the biosphere by scientific work, exceeding by many times the quantity of living natural bodies and living matter, and having no limits—in my opinion, makes it logically unclear, inconvenient, and practically useless to term these data a system of Nature. Therefore, the concept of *the scientific apparatus,* which we can appreciate, only because it has been reduced to a scientific system, is simpler. It includes both the system of Nature and the scientific apparatus of the humanities, which is encompassable by a scientific system, albeit thoroughly permeated by individuality.

6 Every object of natural science is a natural body or natural phenomenon, created by processes of Nature. At the

6. Vernadskii, V. *Ocherki geokhimii [Sketches on Geochemistry].* Leningrad, 1934; *Biogeokhimicheskie ocherki [Biogeochemical Sketches].* Moscow, 1939 (in the process of publication).

7. Vernadskii, V. *Ocherki i Rechi [Sketches and Speeches].* Prague, 1922, p. 77. *Problemy biogeokhimii. I. [Problems of Biogeochemistry. I.]* Leningrad, 1934.

present time many quadrillions, if not more, of natural bodies and phenomena have been scientifically collected, enumerated, and scientifically defined in the system of the scientific apparatus. The number of bodies and phenomena continuously increases, and the system of the scientific apparatus is also continuously being perfected. Thanks to this, we are confronted, ever more acutely, with an infinite quantity of scientific facts to examine. The basic content of science is located in them. Reworked by means of scientific generalization, provisional scientific hypotheses and theories, and embraced by mathematical deduction and analysis, these become *scientific truth,* the precision and profundity of which increases *with each generation.*

This is what distinguishes exact science from philosophy, religion, and art, where *there is no scientific apparatus* and where the scientific truth, sometimes discovered by intuitive creativity, can be recognized as such only when it has been scientifically validated. This creative intuition sometimes comes far in advance of its scientific comprehension, and it is in these domains of human creativity that the scientific truths of the future are hidden, which are unclear to contemporaries. But, we cannot make precise sense of them without science, without grounding them in the scientific apparatus.

7 It is possible to distinguish three types of natural bodies in the biosphere: *living* bodies (for example, a plant, a beetle, etc.), *inert bodies* (for example, rock, quartz, etc.), and *bio-inert* bodies (such as soil, lake water, etc.).

The biosphere consists of sharply bounded domains, formed by living, inert, and bio-inert bodies—waters, living matter, rocks, air, and so forth. A transition from living bodies to inert bodies takes place when they die; when a living body ceases to exist as such, it is transformed into organogenic rock (for example, bioliths) and inert bodies such as gases.[8] Bioliths are often bio-inert bodies. The direct generation of a living organism from inert bodies is never observed: the principle of F. Redi (all life comes from life) [*omne vivum ex vivo*], is never violated.[9]

The concept of inert (dead) and living natural bodies as sharply distinct natural objects, is a commonplace, ancient notion, inculcated over millennia of history—a concept of "common sense." It cannot provoke any doubts, being clear and intelligible to all.

In scientific work, even over centuries, only a few cases can be found, in which there were doubts about whether a specific natural object should be reckoned a living being or an inert body—whether that given natural phenomenon were a manifestation of the living or the nonliving. One such doubtful case—perhaps the most profound one—is the question of viruses.[10]

Other cases may be the questions J.C. Bose has raised in Calcutta, about whether *life* is not manifest in both living and inert matter, but to different degrees. These are, however, philosophical problems, which Bose tried to solve using the scientific method, as G.T. Fechner had posed the matter less precisely, in philosophical terms, earlier in the 19th century in Europe. In this case, the question of biogeochemistry's living matter is not involved, since in biogeochemistry, living matter is the totality of living organisms, whereas Fechner and Bose were trying to delve into the material-energetic substance, which is common to the living and the inert body.

8 The concept of *a bio-inert natural body* is a new concept—defined in exact biogeochemical terms and in distinction from the concepts of inert and living natural bodies. Natural bodies of this sort are clearly expressed in the biosphere and play a big role in how it is organized.[11] *Bio-inert bodies are characteristic of the biosphere.* These are lawful structures, consisting of inert and living bodies simultaneously (for example, soils), all of *the physico-chemical properties* of which have to be adjusted—with sometimes very large corrections—if, in studying them, the activity of the living matter located within them is not taken into account.

The biogenic migration of chemical elements (atoms) plays a big role in their properties—very often the dominant role.

Any soil is a typical bio-inert body. V.V. Dokuchayev had already recognized this clearly.

The overwhelming majority of *terrestrial waters* are bio-inert bodies. There are only isolated instances, in which living matter does not play a fundamental role in them. This is not the case, for example, in hot volcanic waters, which are rich in sulphuric and hydrochloric acid, nor is it the case in strongly saline waters. Nonetheless, even in the Dead Sea there is microbial living matter, although it does not play a decisive role. Rain water is free of living matter in its first moments. All the waters of the oceans and seas, of rivers and lakes, and all of their *bottoms,* are bio-inert bodies. The gas balance, the chemical composition, and the silts of all these waters—their chemistry—is basically determined by living matter.

The role of bio-inert natural bodies is extraordinary, and

---

8. I have to introduce a new word for this old concept, although the enormous significance of the concept it embraces is clear to everyone, as is the exclusive importance of work on the scientific apparatus, in terms of both the time and the labor, spent on it by scientific researchers. This is a consequence of vestiges of the past, of a time when work in philosophy—rightly so, at that time—was considered more fundamental than scientific work.

9. Samoilov, Ia. *Biolity [Bioliths].* Moscow, 1929.

10. On Redi's principle, see Vernadskii, V. *Ocherki geokhimii [Sketches on Geochemistry],* 4th ed., Leningrad, 1934, p. 209.

11. For viruses, it is still unclear whether we are dealing with a new form of organism ("living protein"), or with a protein, which contains the spores of miniscule organisms. It is thought that *the proteins cannot be cleansed of these spores by crystallization.*

12. Vernadskii, V. *Problemy biogeokhimii [Problems of Biogeochemistry].* Leningrad, 1935. Vol. 1., 8 f.

has not yet been properly taken into account in how the biosphere is organized.

The process of *the weathering of rocks* is a bio-inert process—a fact that is usually not considered. This circumstance, I think, explains the backwardness of this area of chemical geology (the weathering of the Earth's crust) relative to the contemporary level of knowledge. The biogeochemical approach should contribute much to the solution of this problem.

9 So far, I have not gone beyond the concepts: living matter, the biosphere, natural bodies, and natural phenomena (inert, living, and bio-inert)—concepts based on the enormous empirical, precise material of experience and observation. These concepts cannot arouse any theoretical doubts whatsoever, nor do they require any new scientific hypotheses or theoretical scientific constructions to be understood. One can calmly proceed with the work, so fruitful for science, of systematizing the accumulated scientific facts and generalizing from them.

But, for an understanding of the matters that now follow, I must necessarily touch upon two new phenomena of great importance, the scientific investigation of which cannot be carried out on the basis of the mere generalization of scientific facts, but requires introducing new concepts and finding a new form of comprehension of the facts. Both of these phenomena are extremely poorly understood from a theoretical standpoint, and their scientific significance has not been appreciated. They are now on the frontier of contemporary scientific knowledge. These are, first, the concept of *right- and left-handedness* and, second, the concept of *biogeochemical energy.*

Right- and left-handedness is an everyday concept, existing since the earliest times, which has hardly been comprehended in a scientific and philosophical way. It was Louis Pasteur, who first drew attention to its paramount importance for understanding the phenomena of life—the living organism, or living matter. Independently of Pasteur, and somewhat earlier, Bechamps had realized this, but Pasteur grasped the question more deeply, and identified within it phenomena, which permit us to penetrate in a precise scientific way into this immense domain of problems, the full significance of which Pasteur himself could not foresee.

The concept of *biogeochemical energy* was introduced by me in 1925, in my report to the Rosenthal Foundation in Paris, which was never published in full. In my book, I deal with this question to the extent possible today. Let us first examine the question of right- and left-handedness in its relation to living matter and to the biosphere.

10 We do not need, here, to deal with the profound naturalist and experimenter A. Bechamps—an older contemporary of Pasteur, his enemy and rival, who outlived Pasteur by many years, but was unable to obtain the conditions needed for systematic work. He started out from exactly the same fact, as did Pasteur—from the discovery, made at the beginning of the 19th century, in a small enterprise in Alsace, of the transformation of racemic acid or its salts into left-tartaric acid during the development of wine mold in it. On this basis, a new way of producing left-tartaric acid was established. Pasteur and Bechamps—both profound chemists—saw in this chemical action of the mold as living matter, a remarkable, exclusive property of life—living matter; something not understood, unusual, unknown and, apparently, impossible in ordinary chemical reactions. To reflect upon this and to take note of it—to see the problem involved—was already a big accomplishment, but it was only the first step. It was necessary to investigate the phenomenon, and express it, in specific scientific facts.

Bechamps's circumstances of life did not permit him to do this. But Pasteur connected the new phenomenon with a very special property of enantiomorphous crystals, characterizing—under the influence of living matter—the racemic acids and salts. As a result of that action, an isomer was produced—only the left- or the right-handed one, but not the other, which had perhaps been consumed by the organism. Pasteur correctly saw in this a drastic violation of the law of crystalline symmetry. This violation appeared in the fact, that the right- and left-handed forms manifest completely different degrees of stability in living matter, exhibiting *far from identical chemical behavior*—something never observed with them in inert natural bodies. Evidently, the latter could not occur.

He called this phenomenon *dissymmetry,* but did not draw attention to, and did not connect this with the normal right- and left-handedness of living matter, in its morphological and physiological structures. He studied the phenomenon as a crystallographer and a chemist, but not as a biologist. Pasteur himself did not provide a more precise definition of dissymmetry and did not consider the changes, which had occurred in crystallography, when he returned to these problems again in the last years of his life.

Much more important, was Pasteur's discovery of *molecular dissymmetry,* completely analogous to the dissymmetry of polyhedral crystals. He thereby initiated a whole new science—stereochemistry. Because of it, chemistry was enriched by the concept of *asymmetry* (i.e. the absence of symmetry in the spatial configuration *in the vicinity* of a carbon atom). This term is used simultaneously in chemistry and physics in completely different senses, generating confusion.

11 The muddle that arose interfered with the work. The molecular dissymmetry, discovered by Pasteur, showed, that the presence of living matter is reflected in the chemical formula, including in solutions, and that *right- and left-handed atomic structures* are found to be non-equivalent in chemical reactions. *They are chemically distinct in living matter, but chemically identical in inert chemical media.* Pasteur did not know, that (as was discovered after his death) this was

essentially the same phenomenon he himself had discovered in crystals. For in crystals, he had a spatial distribution of right- and left-handed spiral arrangements of *atoms,* analogous to the atomic structure in molecules. This conclusion emerged in a precise way from the notion of *crystalline space*—speaking in contemporary language—geometrically constructed by Ye.S. Fyodorov and A. Schoenflies at the end of the last century. In the coincidence of the 230 groups he identified (there are actually 219), with the arrangements of atoms in crystalline space, Ye.S. Fyodorov saw proof of the atomic construction of chemical compounds. Finally, this was experimentally demonstrated in the 20th century by the X-ray analysis of crystals. The contemporaries of Pasteur—Seeber, Ampère, and Godin—had foreseen this, but Pasteur remained outside the influence of their ideas.

After Pasteur, P. Curie generalized the concept of dissymmetry, considering the phenomenon, discovered by Pasteur in living organisms, as a special case, and applying the concept of dissymmetry to physical phenomena in general—electric and magnetic fields, etc.—as a fundamental postulate of physics. But Curie was not able to complete the development of his ideas; his work was interrupted in full swing, by his sudden death. No coherent presentation of the results he had obtained was left in his papers. It should only be noted, that Curie demonstrated the existence of different forms of "dissymmetry," and logically concluded that a phenomenon, connected with any given form of dissymmetry, must have a cause that possesses the same form of dissymmetry. It is convenient to call this conclusion *P. Curie's principle.*

In view of this state of the matter, I think it will be more correct to leave aside the concept and the word "dissymmetry," and instead employ the older, generally familiar idea of the distinction between right- and left-handedness in organisms, which is so starkly manifested in Man. But since there exists a theory (an erroneous one, it seems to me) that right-handedness in Man emerged only in the Neolithic period, the correct way to proceed will be to substitute for right- and left-handedness, the more general concept, which Curie employed before his death, of *distinct states of space.* He did not manage to prepare a formal presentation of this concept before his death, but it essentially corresponds, of course, to the different forms of dissymmetry, one on which Curie and Pasteur were working.

This concept was widely known among naturalists in the domain of descriptive natural science, and is rooted far back in the 18th century. Here the subject was often the variable state of space on our planet, connected with its orbital motion around the Sun; that certain motions and phenomena were different, according to whether they took place on a part of the planet moving in the direction of the Sun, or in the opposite direction. Pasteur recognized the possibility of *different states* of cosmic space, by which he explained his discovery that living matter exhibits dissymmetry. Indeed, we should see in the state of space, the basic *geometrical substrate* for all of its material, temporal, and energetic manifestations.

In the present case, there will be a state of space, in which right- and left-handedness, expressed as right- or left-handed spiral structures of atoms, are chemically identical in inert bodies and distinct in living ones. This, one of the most profound geometrical properties of natural bodies, has been given insufficient attention, in philosophy, mathematics, and natural science. But we are all very familiar with it in daily life. We know it from childhood, since a human being is a living body, in which right- and left-handedness are sharply distinguished from one another (including in chemical terms). For example, one person out of 16,000 [sic] is left-handed. In recent times these phenomena have begun to attract greater, but in my opinion still insufficient, attention in biology.

Mathematicians—especially geometers—can no longer ignore this, but need to elaborate this fundamental *geometrical phenomenon.*

I shall return to the question of the state of space, in general, and in connection with its particular manifestation in the non-equivalence of right- and left-handedness, in my next study on the problems of biogeochemistry. Here I cannot go into it further. It seems to me that it is convenient to speak, in this context, about physical space, as Helmholtz proposed.

12 It is necessary to discuss yet another phenomenon, which has hardly been comprehended by scientific generalizations—*the active energy of living matter in the biosphere.* R. Mayer, almost 100 years ago, took this manifestation of living matter under consideration. He showed that in organogenic minerals—in coal deposits—we have an accumulator of free energy, captured in this form by the living matter of the Carboniferous period, and we use the fossilized solar rays of that time. But the idea in general form—the creation and accumulation of *free energy in the biosphere by living matter* and by the natural processes associated with living matter—arose in the minds of many in the middle of the 19th century, when the concept of energy itself was developed.

Now I want to address this more concretely: not as the basic question of the energetics of the planet, but as a biogeochemical problem. In 1925, I designated the free energy exhibited by living matter in the biosphere, which essentially amounts to the work, associated with the motion of atoms, and is manifested in the movements of living matter, as *biogeochemical energy* (See Section 15, V). Since biogeochemical energy sharply distinguishes living matter from inert matter, it is indispensable to mention its basic features here.

13 The biogeochemical energy of living matter is closely linked with three fundamental characteristics of living matter in the biosphere: first, with *the unity of all living matter in the biosphere;* second, with the continuous generation, by living matter in the biosphere, of *free energy, capable of performing work;* and third, with *the colonization of the biosphere by living matter.*

In all three of these cases, the manifestation of biogeochemical energy is different; *taken as a whole, biogeochemical energy is inhomogeneous.* In the final analysis, it is connected with the movement of living matter in the biosphere, with passive or active displacements (relative to living matter), associated with the mobility of masses of living matter in the biosphere, and ultimately reducible to the motion of atoms or chemical elements.

From what I have said, it is clear that biogeochemical energy is not some special form of energy pertaining to life; it is not the *vital energy* that W. Ostwald was looking for—analogous to thermal, chemical, light, electrical energy, etc. It does not affect the law of conservation of energy, but appears in that context as *already known forms of energy.*

We can now trace the real sources of biogeochemical energy with precision. They are, ultimately, the radiant energy of the Sun (light, heat, chemical, and the energy of the chemical elements, from which bodies of living matter are constituted (chemical and thermal energy). There is probably a contribution from radioactive elements.

An exact quantitative calculation of the caloric effect in life processes, I believe, establishes beyond any doubt that such is its origin. It is, essentially, a result of *the organization of the biosphere and the organization of the living matter* that inhabits the biosphere.

I cannot go into this matter further here. I shall only mention the main forms of manifestation of that organization. The most important is *the biogeochemical energy, connected with the colonization of the planet.* I attempted to calculate it in the form of a definite, for each species of living matter, maximum *velocity of that species' transmission of life*—the perhaps unsuccessful definition I gave it earlier; that is, *the velocity of colonization of the entire planet by a given organism.* This is energy, connected with the *reproduction of living organisms.* Each form of living matter can in this way spread throughout the planet and, within a certain period of time, which is different for each form of living matter, theoretically colonize the entire planet. In the most rapid cases, for bacteria, this process of colonization can occur within one to one-and-a-half days; while for the elephant—one of the slowest-reproducing of all organisms—it would take 1,000 to 1,100 years. At full colonization, the living matter would cover the entire surface of the planet, i.e., it would fill all of its actually existing lines and areas. One of these curved lines, the line of the Earth's equator, i.e. the precisely defined terrestrial line (curve) of maximum length, may be taken as a single parameter for comparison, common to all forms of living matter.

When I speak here about the colonization of the planet, I assume that this process of colonization were to occur under such conditions, as would permit it to proceed normally into the future, if it were not hindered by lack of space—of surface area for colonization. The velocity of colonization, expressed as a magnitude *V,* may fluctuate within limits ranging from close to the speed of sound in air, more than 33,000 centimeters per second (for some bacteria), to hundredths of a centimeter per second (for the elephant).

In other words, we are talking about the long-term, durable colonization of the planet by an organism under its normal conditions of life, in which it can exist over generations; and not about *explosions* of life, in which the excess of organisms born, dies out due to insufficient food or living space.

These conceptions have not yet entered into the consciousness of science. I am convinced that their employment is a matter for the future. It should be noted, that the velocity of sound corresponds to the real condition, wherein the normal composition of the atmospheric medium, in which the organism lives—even in the case of aquatic organisms (natural waters have their own underwater atmosphere)—, is not destroyed. This shows that biogeochemical energy, so expressed, has nearly reached its physical limits. The velocities obtained in this way may be quantitatively compared with one another; it can be asserted, for example, that the velocity of colonization for the elephant is 10^7 times less than for bacteria.

But the biogeochemical energy of colonization does not subsume all the manifestations of that energy. I shall mention two more of its forms here.

First, the creation of *a mass of a living matter* and *its maintenance,* by the metabolic process, *at a constant value* during the period of the organism's existence.

And, second, the enormous new form of biogeochemical energy, constituted in the biosphere by the technical *work process of the human race,* which is directed in a complex manner by human thought—consciousness. It is remarkable, that the growth of machines within the structure of human society, also proceeds in a geometrical progression over the course of time, just as does the proliferation of any living matter, including human beings.

These manifestations of biogeochemical energy have not been scientifically investigated at all.

It is imperative to direct scientific work into these areas of biogeochemistry, not only because of their great theoretical significance, but also, it seems to me, with a view towards their certain importance for the tasks of the state. In biogeochemistry, it is necessary to make a deliberate approach to the spontaneous process of the biosphere's transformation into the noösphere, which is now taking place.

For this, the paramount task is to assemble facts and study the problems connected with biogeochemical energy. I have no doubt that this will be done sooner or later. I hope to come back to it in my book.

The basic, distinctive feature of biogeochemical energy is clearly and forcefully demonstrated in the increase of *the free energy of the biosphere* over the course of geological time, and is evident in an especially drastic manner in the transition from the biosphere to the noösphere, which is now apparent.

The Biosphere and The Noösphere

by Vladimir I. Vernadsky

The following is excerpted from an article written in December 1943, and published in English in the American Scientist*, January 1945. It is reprinted here by permission from the publisher. The article was translated from the Russian in the main by Dr. George Vernadsky of Yale University, with interpolations provided here by Rachel Douglas of* EIR*, translated from the Russian edition contained in Vernadsky's book* Biosfera *(Moscow: Mysl Publishing House, 1967). Footnotes have been omitted.*

The Noösphere

We are approaching the climax in the Second World War. In Europe war was resumed in 1939 after an intermission of twenty-one years; it has lasted five years in Western Europe, and is in its third year in our parts, in Eastern Europe. As for the Far East, the war was resumed there, much earlier, in 1931, and is already in its twelfth year. A war of such power, duration and strength is a phenomenon unparalleled in the history of mankind and of the biosphere at large. Moreover, it was preceded by the First World War which, although of lesser power, has a causal connection with the present war.

In our country that First World War resulted in a new, historically unprecedented, form of statehood, not only in the realm of economics, but likewise in that of the aspirations of nationalities. From the point of view of the naturalist (and, I think, likewise from that of the historian) an historical phenomenon of such power may and should be examined as a part of a single great terrestrial *geological* process, and not merely as a *historical* process.

In my own scientific work the First World War was reflected in a most decisive way. It radically changed my *geological conception of the world.* It is in the atmosphere of that war that I have approached a conception of nature, at that time forgotten and thus new for myself and for others, a geochemical and biogeochemical conception embracing both nonliving and living nature from the same point of view. I spent the years of the First World War in my uninterrupted scientific creative work, which I have so far continued steadily in the same direction.

Twenty-eight years ago, in 1915, a "Commission for the Study of the Productive Forces" of our country, the so-called KEPS, was formed at the Academy of Sciences. That commission, of which I was elected president, played a noticeable role in the critical period of the Frist World War. Entirely unexpectedly, in the midst of the war, it became clear to the Academy of Sciences that in Tsarist Russia there were no precise data concerning the now so-called strategic raw materials, and we had to collect and digest dispersed data rapidly to make up for the lacunae in our knowledge. Unfortunately by the time of the beginning of the Second World War, only the most bureaucratic part of that commission, the so-called Council of the Productive Forces, was preserved, and it became necessary to restore its other parts in a hurry.

By approaching the study of geological phenomena from a geochemical and biogeochemical point of view, we may comprehend the whole of the circumambient nature in the same atomic aspect. Unconsciously such an approach coincides for me with what characterizes the science of the twentieth century and distinguishes it from that of past centuries. *The twentieth century is the century of scientific atomism.*

At that time, in 1917-1918, I happened to be, entirely by chance, in the Ukraine, and was unable to return to Petrograd until 1921. During all those years, wherever I resided, my thoughts were directed toward the geochemical and biogeochemical manifestations in the circumambient nature, the biosphere. While observing them, I simultaneously directed both my reading and my reflection toward this subject in an intensive and systematic way. I expounded the conclusions arrived at gradually, as they were formed, through lectures and reports delivered in whatever city I happened to stay, in Yalta, Poltava, Kiev, Simferopol, Novorossiysk, Rostov, and so on. Besides, in almost every city I stayed, I used to read everything available in regard to the problem in its broadest sense. I left aside as much as I could all philosophical aspirations and tried to rest only on firmly established scientific and empiric facts and generalizations, occasionally allowing myself to resort to working scientific hypotheses. Instead of the concept of "life," I introduced that of "living matter," which now seems to be firmly established in science. "Living matter" is the totality of living organisms. It is but a scientific empirical generalization of empirically indisputable facts known to all, observable easily and with precision. The concept of "life" always steps outside the boundaries of the concept of "living matter"; it enters the realm of philosophy, folklore, religion, and the arts. All that is left outside the notion of "living matter."

In the thick of life today, intense and complex as it is, a person practically forgets that he, and all of mankind, from which he is inseparable, are inseparably connected with the biosphere—with that specific part of the planet, where they live. It is customary to talk about man as an individual who moves freely about our planet, and freely constructs his own history. Hitherto neither historians, scientists in the humanities, nor, to a certain extent, even biologists have consciously taken into account the laws of the nature of the biosphere—the envelope of Earth, which is the only place where life can exist. Man is elementally indivisible from the biosphere. And

this inseparability is only now beginning to become precisely clear to us. In reality, no living organism exists in a free state on Earth. All of these organisms are inseparably and continuously connected—first and foremost by feeding and breathing—with their material-energetic environment.

The outstanding Petersburg academician Caspar Wolf (1733-1794), who dedicated his whole life to Russia, expressed this brilliantly in his book, published in German in St. Petersburg in 1789, the year of the French Revolution: *On the Peculiar and Efficient Force, Characteristic of Plant and Animal Substance.* Unlike the majority of biologists of his day, he relied upon Newton, rather than Descartes.

Mankind, as living matter, is inseparably connected with the material-energetic processes of a specific geological envelope of the Earth—its *biosphere.* Mankind cannot be physically independent of the biosphere for a single minute.

The concept of the "biosphere," i.e., "the domain of life," was introduced in biology by Lamarck (1744-1829) in Paris at the beginning of the nineteenth century, and in geology by Edward Suess (1831-1914) in Vienna at the end of that century. In our century there is an absolutely new understanding of the biosphere. It is emerging as a *planetary* phenomenon that is *cosmic in nature.* In biogeochemistry we have to consider that life (living organisms) really exists not on our planet alone, not only in the Earth's biosphere. It seems to me that this has been established beyond a doubt, so far, for all the so-called terrestrial planets, i.e., for Venus, Earth and Mars. At the Biogeochemical Laboratory of the Academy of Sciences in Moscow, which has been renamed the Geochemical Problems Laboratory, in collaboration with the Microbiology Institute of the Academy of Sciences (director—Corresponding Academician B.L. Isachenko), we identified *cosmic* life as a matter for current scientific study already in 1940. This work was halted due to the war, and will be resumed at the earliest opportunity.

The idea of life as a cosmic phenomenon has been found in the scientific archives, including our own, for a long time. Centuries ago, in the late seventeenth century, the Dutch scientist Christian Huyghens (1629-1695) in his last work, *Cosmotheoros,* which was published posthumously, formulated this scientific question. The book was published in Russian twice in the first quarter of the eighteenth century, on the initiative of Peter I. In this book Huyghens established the scientific generalization that "life is a cosmic phenomenon, in some way sharply distinct from nonliving matter." I recently named this generalization "the Huyghens principle."

By weight, living matter comprises a minute part of the planet. This has evidently been the case throughout all geological time, i.e., it is geologically eternal. Living matter is concentrated in a thin, more or less continuous layer in the troposphere on dry land—in fields and forests—and permeates the entire ocean. In quantity, it measures no greater than tenths of a percent of the biosphere by weight, on the order of close to 0.25%. On dry land, its continuous mass reaches to a depth of probably less than 3 km on average. It does not exist outside the biosphere.

In the course of geological time living matter morphologically changes according to the laws of nature. The history of living matter expresses itself as a slow modification of the forms of living organisms which genetically are uninterruptedly connected among themselves from generation to generation. This idea had been rising in scientific research through the ages, until, in 1859, it received a solid foundation in the great achievements of Charles Darwin (1809-1882) and Wallace (1822-1913). It was cast in the doctrine of the evolution of species of plants and animals, including man. The evolutionary process is a characteristic only of living matter. There are no manifestations of it in the nonliving matter of our planet. In the cryptozoic era the same minerals and rocks were being formed which are being formed now. The only exceptions are the bio-inert natural bodies connected in one way or another with living matter.

The change in the morphological structure of living matter observed in the process of evolution unavoidably leads to a change in its chemical composition. This question now requires experimental verification. In collaboration with the Paleontology Institute of the Academy of Sciences, we included this problem in our planned work in 1944.

While the quantity of living matter is negligible in relation to the nonliving and bio-inert mass of the biosphere, the biogenic rocks constitute a large part of its mass, and go far beyond the boundaries of the biosphere. Subject to the phenomena of metamorphism, they are converted, losing all traces of life, into the granitic envelope, and are no longer part of the biosphere. The granitic envelope of the earth is the area of former biospheres. In Lamarck's book, *Hydrogeologie* (1802), containing many remarkable ideas, living matter, as I understand it, was revealed as the creator of the main rocks of our planet. Lamarck never accepted Lavoisier's (1743-1794) discovery. But that other great chemist, J.B. Dumas (1800-1884), Lamarck's younger contemporary, who did accept Lavoisier's discovery, and who intensively studied the chemistry of living matter, likewise adhered for a long time to the notion of the quantitative importance of living matter in the structure of the rocks of the biosphere.

The younger contemporaries of Darwin, J.D. Dana (1813-1895) and J. Le Conte (1823-1901), both great Americans geologists (and Dana, a mineralogist and biologist as well) expounded, even prior to 1859, the empirical generalization that *the evolution of living matter is proceeding in a definite direction.* This phenomenon was called by Dana "cephalization," and by Le Conte the "psychozoic era." Dana, like Darwin, adopted this idea at the time of his journey around the world, which he started in 1838, two years after Darwin's return to London, and which lasted until 1842.

It should be noted here that the expedition during which Dana reached his conclusions about cephalization, coral reefs, etc., was historically associated with the researches on

the Pacific Ocean, done on ocean voyages by Russian sailors, notably Kruzenshtern (1770-1846). Published in German, they inspired the American lawyer John Reynolds to organize the first such American scientific sea voyage. He began to work towards this in 1827, when an account of Kruzenshtern's expedition came out in German. Only in 1838, eleven years later, did his persistent efforts result in this expedition taking place. This was the Wilkes expedition, which conclusively proved the existence of Antarctica.

Empiric notions of a definite direction of the evolutionary process, without, however, any attempt theoretically to ground them, go deeper into the eighteenth century. Buffon (1707-1788) spoke of the "realm of man," because of the geological importance of man. The idea of evolution was alien to him. It was likewise alien to Agassiz (1807-1873), who introduced the idea of the glacial period into science. Agassiz lived in a period of an impetuous blossoming of geology. He admitted that geologically the realm of man had come, but, because of his theological tenets, opposed the theory of evolution. Le Conte points out that Dana, formerly having a point of view close to that of Agassiz, in the last years of his life accepted the idea of evolution in its then usual Darwinian interpretation. The difference between Le Conte's "Psychozoic era" and Dana's "cephalization" thus disappeared. It is to be regretted that, especially in our country, this important empirical generalization still remains outside the horizon of our biologists.

The soundness of Dana's principle, which happens to be outside the horizon of our palaeontologists, may easily be verified by anyone willing to do so on the basis of any modern treatise on palaeontology. The principle not only embraces the whole animal kingdom, but likewise reveals itself clearly in individual types of animals. Dana pointed out that in the course of geological time, at least two billion years and probably much more, there occurs an irregular process of growth and perfection of the central nervous system, beginning with the crustacea (whose study Dana used to establish his principle), the mollus (cephalopoda), and ending with man. It is this phenomenon he called cephalization. The brain, which has once achieved a certain level in the process of evolution, is not subject to retrogression, but only can progress further.

Proceeding from the notion of the geological role of man, the geologist A.P. Pavlov (1854-1929) in the last years of his life used to speak of the *anthropogenic era* in which we now live. While he did not take into the account the possibility of the destruction of spiritual and material values we now witness in the barbaric invasion of the Germans and their allies, slightly more than ten years after his death, he rightfully emphasized that man, under our very eyes, is becoming a mighty and ever-growing geological force. This geological force was formed quite imperceptibly over a long period of time. A change in man's position on our planet (his material position first of all) coincided with it. In the twentieth century, man, for the first time in the history of the Earth, knew and embraced the whole biosphere, completed the geographic map of the planet Earth, and colonized its whole surface. *Mankind became a single totality in the life of the earth.* There is no spot on earth where man can not live if he so desires. Our people's sojourn on the floating ice of the North Pole in 1937-1938 has proved this clearly. At the same time, owing to the mighty techniques and successes of scientific thought, radio and television, man is able to speak instantly to anyone he wishes at any point on our planet. Transportation by air has reached a speed of several hundred kilometers per hour, and has not reached its maximum. All this is the result of "cephalization," the growth of man's brain and the work directed by his brain.

The economist, L. Brentano, illuminated the planetary significance of this phenomenon with the following striking computation: if a square meter was assigned to each man, and if all men were put close to one another, they would not occupy the area of even the small Lake of Constance between the borders of Bavaria and Switzerland. The remainder of the Earth's surface would remain empty of man. Thus the whole of mankind put together represents an insignificant mass of the planet's matter. Its strength is derived not from its matter, but from its brain. If man understands this, and does not use his brain and his work for self-destruction, an immense future is open before him in the geological history of the biosphere.

The geological evolutionary process shows the biological unity and equality of all men, *Homo sapiens* and his ancestors, *Sinanthropus* and others; their progeny in the mixed white, red, yellow, and black races evolves ceaselessly in innumerable generations. This is a *law of nature.* All the races are able to interbreed and produce fertile offspring. In a historical contest, as for instance in a war of such magnitude as the present one, he finally wins who follows that law. One cannot oppose with impunity the principle of the unity of all men as a law of nature. I use here the phrase "law of nature" as this terms is used more and more in the physical and chemical sciences, in the sense of an empirical generalization established with precision.

The historical process is being radically changed under our very eyes. For the first time in the history of mankind the interests of the masses on the one hand, and the free thought of individuals on the other, determine the course of life of mankind and provide standards for mere ideas of justice. Mankind taken as a whole is becoming a mighty geological force. There arises the problem of the *reconstruction of the biosphere in the interests of freely thinking humanity as a single totality.* This new state of the biosphere, which we approach without our noticing, is the *nöosphere.*

In my lecture at the Sorbonne in Paris in 1922-23, I accepted *biogeochemical phenomena* as the basis of the biosphere. The contents of part of these lectures were published in my book, *Studies in Geochemistry,* which appeared first in French, in 1924, and then in a Russian translation, in 1927. The French mathematician Le Roy, a Bergsonian philosopher, accepted the biogeochemical foundation of the bio-

sphere as a starting point, and in his lectures at the Collège de France in Paris, introduced in 1927 the concept of the noösphere as the stage through which the biosphere is now passing geologically. He emphasized that he arrived at such a notion in collaboration with his friend Teilhard de Chardin, a great geologist and palaeontologist, now working in China.

The noösphere is a new geological phenomenon on our planet. In it for the first time man becomes a *large-scale geological force.* He can and must rebuild the province of his life by his work and thought, rebuild it radically in comparison with the past. Wider and wider creative possibilities open before him. It may be that the generation of our grandchildren will approach their blossoming.

Here a new riddle has arisen before us. *Thought is not a form of energy.* How then can it change material processes? That question has not as yet been solved. As far as I know, it was first posed by an American scientist born in Lvov, the mathematician and biophysicist Alfred Lotka. But he was unable to solve it. As Goethe (1740-1832), not only a great poet but a great scientist as well, once rightly remarked, in science we only can know *how* something occurred, but we cannot know *why* it occurred.

As for the coming of the noösphere, we see around us at every step the empirical results of that "incomprehensible" process. That mineralogical rarity, native iron, is now being produced by the billions of tons. Native aluminum, which never before existed on our planet, is now produced in any quantity. The same is true with regard to the countless number of artificial chemical combinations (biogenic "cultural" minerals) newly created on our planet. The number of such artificial minerals is constantly increasing. All of the *strategic raw materials* belong here. Chemically, the face of our planet, the biosphere, is being sharply changed by man, consciously, and even more so, unconsciously. The aerial envelope of the land as well as all its natural waters are changed both physically and chemically by man. In the twentieth century, as a result of the growth of human civilization, the seas and the parts of the oceans closest to shore become changed more and more markedly. Man now must take more and more measures to preserve for future generations the wealth of the seas which so far have belonged to nobody. Besides this, new species and races of animals and plants are being created by man. Fairy tale dreams appear possible in the future; man is striving to emerge beyond the boundaries of his planet into cosmic space. And he probably will do so.

At present we cannot afford not to realize that, in the great historical tragedy through which we live, we have elementally chosen the right path leading into the noösphere. I say elementally, as the whole history of mankind is proceeding in this direction. The historians and political leaders only begin to approach a comprehension of the phenomena of nature from this point of view. The approach of Winston Churchill (1932) to the problem, from the angle of a historian and political leader, is very interesting.

The noösphere is the last of many stages in the evolution of the biosphere in geological history. The course of this evolution only begins to become clear to us through a study of some of the aspects of the biosphere's geological past. Let me cite a few examples. Five hundred million years ago, in the Cambrian geological era, skeletal formations of animals, rich in calcium, appeared for the first time in the biosphere; those of plants appeared over two billion years ago. That calcium function of living matter, now powerfully developed, was one of the most important evolutionary factors in the geological change of the biosphere. A no less important change in the biosphere occurred from seventy to one hundred and ten million years ago, at the time of the Cretaceous system, and especially during the Tertiary. It was in that epoch that our green forests, which we cherish so much, were formed for the first time. This is another great evolutionary stadium, analogous to the noösphere. It was probably in these forests that man appeared around fifteen or twenty million years ago.

Now we live in the period of a new geological evolutionary change in the biosphere. We are entering the noösphere. This new elemental geological process is taking place at a stormy time, in the epoch of a destructive world war. But the important fact is that our democratic ideals are in tune with the elemental geological processes, with the law of nature, and with the noösphere. Therefore we may face the future with confidence. It is in our hands. We will not let it go.

Now, Are You Ready To Learn Economics?

The economy is crashing, as LaRouche warned. What should you do now?

Read this book and find out.

$10

Shipping and handling: $4.00 for first book, $ .50 each additional book. Virginia residents add 4.5% sales tax.

We accept MasterCard, Visa, Discover, American Express.

ORDER NOW FROM

Ben Franklin Booksellers
P.O. Box 1707 Leesburg, VA 20177
1-800-453-4108 toll free
or 1-703-777-3661
www.benfranklinbooks.com
e-mail: benfranklinbooks@mediasoft.net

Wall Street May Lose Bet On Bush To Loot Social Security

by Paul Gallagher

In an unprecedented mobilization of the kind which did not occur during the 2004 Presidential election, virtually all Democratic Senators and Representatives are holding town meetings in their districts during February, against President George W. Bush's scheme to loot Social Security. In Michigan, 15 town meetings are being held by Representatives Sander Levin, Debbie Stabenow, John Dingell, Carolyn Kilpatrick, and state constituency groups; five Ohio Representatives are holding another dozen. One said, "I think we're going to beat Bush on this; we've gotten 2,700 letters against it, and one phone call for it."

The unified mission of all these Democrats is clear—defeat Bush's Social Security theft, the top-priority mission Lyndon LaRouche laid out for the Democrats last Dec. 16. Their town meetings' open-debate character contrasts with the careful pre-screening of audiences for Bush's Social Security privatization meetings. Congressman Jim Moran's Feb. 7 public meeting in Alexandria, Virginia, for example, was attended by nearly 400, including some who supported Bush's privatization scheme, while most backed Moran's strong opposition. When Moran raised the key question—"Why is Bush trying to dismantle Social Security?"—LaRouche Political Action Committee activists were able to answer it: Because in a dollar crash, Wall Street is demanding that markets be propped up by the world's largest cash flow.

The Democrats' united mobilization has been overcoming the President's. Bush's first barnstorm tour, right after his State of the Union speech, tried to target "vulnerable" Democrats to support him. But those Democrats, backed by their own constituency meetings, like Sen. Max Baucus's Feb. 5 Montana town meeting of 350, did not bend. In the second week of February, the White House found itself targetting dissenting Republicans instead! When the Wall Street-funded Club for Growth began its $10-15-million TV ad campaign for privatization on Feb. 9, the first Congressional districts targetted by the ads were those of Republicans—Sherwood Boehlert of New York, Joseph Schwartz of Michigan, and Lincoln Chafee of Rhode Island. Bush himself, by Feb. 10, was hitting Pennsylvania to try to get cooperation from Senate Republican leader Arlen Spector. Republican Rep. Ginny Brown-Waite of Florida, after hosting the President for a meeting in her district, publicly refused to support his looting scheme.

Hanging over the Republicans is Vice President Cheney's Feb. 6 Fox TV statement ("it will cost trillions"); OMB Director Joshua Bolton's admission to the House Ways and Means Committee on Feb. 8 that Bush's scheme would cut Social Security revenues below required benefit payouts "within the next decade"; the Bush 2001 Commission's plan for benefit cuts of 20-45% over coming decades; and the public's clear fear of Wall Street "Enron-omics." As of Congress's first full week ending Feb. 11, the Bush drive for privatization was stalled because Republicans were pleading for "more specifics" from the White House, which could not, and said it would not, give them. Senate Finance Committee chairman Charles Grassley of Iowa told Treasury Secretary John Snow on Feb. 9 in the Senate, "We are not in a position to force through the President's agenda."

LaRouche Strategy Working

Lyndon LaRouche's powerful call on Columbus, Ohio radio on Dec. 16—for national action to pull together "the Democratic Party of President Franklin Roosevelt" to stop George W. Bush from stealing the Social Security of the American people—has been extraordinarily effective.

President Bush's privatization road show had all the fanfare in early February (a carefully pre-selected group joins Bush in Omaha on Feb. 4, left); but the Democrats' far more open town meetings, and the moralizing interventions of the LaRouche Youth Movement (right, at a Washington, D.C. labor rally on Feb. 7) were beating the President's impact.

LaRouche's forecast that Bush, pressured by looming financial collapse, would go on an immediate mad-bull charge to "steal Social Security for Wall Street"—was put forward as a chance to bring Bush down. Refuse to "negotiate" Social Security with that mad bull; adopt a united mission to defeat Bush on it; and sane Republicans will have to deal with the consequences, LaRouche advised.

From Christmas to Feb. 10, LaRouche caused circulation of 600,000 of the first edition of an anti-privatization LaRouche PAC pamphlet across the United States. The Democrats have been able to re-emerge in a unified resistance which is threatening to defeat Bush and make him an instant lame duck, as LaRouche emphasized. He has made the issue of George Shultz's "Chile model of fascism" so central, that when the *New York Times* of Jan. 27 ran a front-page exposé of what a disaster Chile's Social Security privatization has been, ABC News immediately noted that the *Times* was "borrowing a page from Lyndon LaRouche." Democratic Rep. Xavier Becerra of California attached that *Times* article to a "dear colleague" letter to the entire House of Representatives (see *Documentation*). Bush's use of Chile as a supposedly successful model, has been destroyed.

Democrats in Congress show extraordinary unity and have picked up the banner of Franklin Delano Roosevelt—deliberately stashed away by party bureaucrats in recent years—to fight to defeat Bush on Social Security. A key turning point came when Senate Minority Leader Harry Reid of Nevada, after announcing on Feb. 1 that "no Democrat" would support Bush's attempt to steal Social Security, answered the President's Feb. 2 State of the Union with a Rooseveltian proposal for a "Marshall Plan for America, to rebuild America's economic infrastructure." Reid is preparing "Marshall Plan" legislation.

On Feb. 3, "standing outside the Franklin Delano Roosevelt Memorial, Senators Reid, Schumer, and members of the Senate Democratic Caucus presented a united front to fight against the President's plans to send the national debt skyrocketing by privatizing Social Security. . . . The Senators today invoked the image of President Franklin Delano Roosevelt who pioneered Social Security."

When Administration representatives presented the Fiscal 2006 budget to Congress Feb. 8-9, Democrats led by Charles Rangel (N.Y.) and John Spratt (S.C.) remained completely focussed on defending Social Security. Rangel declared Bush's scheme "dead," and challenged Treasury Secretary John Snow on how he could say Social Security—which has a large surplus—is bankrupt, while insisting that the Federal budget—more than $500 billion in deficit—is not (see *Documentation*). The effect of the Democrats' unified focus was such, that it was a number of Congressional Republicans who came out against Bush's budget cuts.

The Cheney-Bush White House—still hell-bent to force through the Congress *this year* the diversion of Social Security to Wall Street—is being compelled toward a strategy of doing so by enforcing a strict party-line Republican vote in both Houses.

That is just what Congressional Republicans do *not* want. If citizens are mobilized nationwide by this pamphlet of

LaRouche and by their own state and national elected representatives, Congressional Republicans voting for a fascist economic takedown of Social Security would face wholesale election defeat in 2006.

On Feb. 10, House Democratic leader Nancy Pelosi of California said, "I don't think [Bush is] making that much progress, but that doesn't mean we won't continue to be relentless, on the floor of the House, on the road, on the Internet, and any opportunities we have."

Wall Street's Right Wing Is Chafing

Wall Street-funded think-tankers were criticizing Bush on Feb. 8-9 at the Cato Institute's two-day conference on Social Security in Washington, for not being willing to take the public lead on *cutting Social Security benefits.* Wall Street and the Boston "Vault" bankers are running the White House scheme from the inside, confirmed John Shipman of State Street Bank, Cato Institute, and Carriage Partners Ltd. The Wall Street forces not only want the Social Security money; they want big benefit cuts. "We have to say, Your future is lower benefits, greater leverage," said Kent Smetters of the Wharton School of Business.

Cato spokesman Michael Tanner raved, "Social Security is a lie. . . . There is no legal right to benefits. If people take away only this, from this conference, we will have succeeded."

"The interest [on the Treasury Bonds held by the Social Security Trust Fund] is a fiction," said Thomas Saving of the Cato-linked National Center for Policy Analysis. "535 people could decide at any time" to lower or abolish that Treasury obligation and gouge Social Security, said Saving—who, incredibly, is now a Trustee of the Social Security Administration!

The Wall Street/Cato crowd is lurking in Congress with its own "extreme privatization" schemes. After Bush exhausts himself scaring Americans about the "coming collapse of Social Security," these schemes would turn the entire payroll tax over to Wall Street, reduce benefits for remaining retirees and pay them by huge new Federal borrowing—on Wall Street.

The American people, at town meetings and in debates across the country, are hearing fundamental issues of FDR's "General Welfare" legacy, vs. fascist economic looting and "every man for himself" economics, raised by LaRouche Youth Movement leaders, and sometimes by elected officials and by ordinary citizens, for the first time in years. Despite being hit by an incredible barrage of scare-propaganda from the White House and Wall Street committees—often repeated as "facts" by news media, Americans in national polls continue to oppose privatization of Social Security.

The LaRouche Youth Movement is participating in scores of Congressional town meetings nationwide, and the LaRouche movement's conferences in Washington, D.C. and Los Angeles on Presidents' Day weekend were to be major events in defeating the "foot in the door to fascism."

Documentation:

Black Caucus: Bush Plan Hurts African Americans

The Congressional Black Caucus Foundation (CBCF)'s Center for Policy Analysis and Research, headed by Dr. Maya Rockeymoore, issued a report on Jan. 19, "The Social Security Privatization Crisis—Assessing the Impact on African American Families." This report directly counters the absurd attacks on Social Security by Alan Keyes' Black America's Political Action Committee (BAMPAC) and others, which have run expensive print and video ad campaigns targetting the black population. One BAMPAC ad incredibly claimed that a black college graduate would pay an astronomical $700,000 in lifetime payroll taxes to Social Security, then receive only $40,000 in benefits.

The CBCF report cites "A 2003 report by the General Accounting Office [which] found that overall, African Americans receive a *higher rate of return*—receiving more in benefits relative to what is is paid out in payroll taxes—than whites, due to their heavier reliance on the full range of benefits offered by Social Security."

- Disability: 27% of black Social Security recipients are on disability, compared to only 13% of white Social Security recipients. 18% of disability recipients are black. 21% of children getting benefits because their parents are disabled, are black. "Private accounts" could do nothing for these beneficiaries, and Bush's recent promise to leave disability completely unchanged while privatizing retirement, is clearly not possible while cutting the Trust Fund as a whole.
- Survivor Benefits: 19% of black beneficiaries are spouse or minor survivors, compared to 14% of white beneficiaries. 23% of all children (under 18) receiving survivor benefits are black. 21% of all minor children receiving benefits because their parent(s) have retired, are black. Obviously, these children would not accumulate any "investment accounts."
- Black Americans' average wages are nearly one-third lower than those of whites. Hispanic Americans' average wages are lower still. Social Security benefits are highly progressive, taking the 35 highest years of earnings and then adjusting so that lower-income workers can get nearly 75% of their average wages replaced by their retirement benefits, whereas middle income workers get about 45%, and higher-income workers about 25%. Private accounts schemes obviously offer none of this.
- Social Security also progressively adjusts upward the benefits of those workers who work fewer years. Thus black Americans who die earlier in working years leave their children a survivor benefit; with Wall Street accounts instead, they'd leave relatively little.

• Under privatization plans, including that of Bush, individuals retiring would be required to use their accumulated funds to purchase an annuity with a life-insurance feature to be paid out to their survivors. These insurance policies are expensive.

• The white/black difference in years of life expectancy at age 65 is only 16.5/14.5; at age 62, it is only 18/16.

'Dear Colleague' Letter Nails the Chile Model

"Is Social Security Privatization Working in Chile?" headlined this "Dear Colleague" letter sent by Rep. Xavier Becerra (D-Calif.) to all members of the House on Jan. 31. He attached the Jan. 27 New York Times *article which exposed the disastrous human and social cost of Chile's privatized Social Security system—President Bush's cited model.*

Dear Colleague:

President Bush and advocates of his plan to partially privatize the Social Security system often laud Chile's private pension program as a successful example. I hope you will take a few moments to read the attached article on Chile's experience with private investment accounts, which displaced the prior pension system in 1980.

I specifically would like to draw your attention to the fact that despite privatization, the Chilean government still is directing billions of dollars to a social insurance safety net for those whose contributions to the private accounts were not large enough to ensure even a minimum pension; that only half of workers are covered by the system; and that retirees with private accounts receive a much lower benefit than those who have been allowed to stay in the old system. The *New York Times* article provides an example of one typically unfortunate pensioner:

"Dagoberto Sáez, for example, is a 66-year-old laboratory technician here who plans, because of a recent heart attack, to retire in March. He earns just under $950 a month; his pension fund has told him that his nearly 24 years of contributions will finance a 20-year annuity paying only $315 a month.

" 'Colleagues and friends with the same pay grade who stayed in the old system, people who work right alongside me,' he said, 'are retiring with pensions of almost $700 a month—good until they die. I have a salary that allows me to live with dignity, and all of a sudden I am going to be plunged into poverty, all because I made the mistake of believing the promises they made to us back in 1981.' "

Moreover, consider a recent analysis by Stephen J. Kay, an economist at the Federal Reserve Bank of Atlanta, about Chile's experience. Mr. Kay finds that:

"Investment accounts of retirees are much smaller than originally predicted—so low that 41% of those eligible to collect pensions continue to work. When commission charges are taken into consideration in Chile, the total average return on worker contributions between 1982 and 1999 was 5.1%—not 11% as calculated by the superintendency of pension funds. The average worker would have done better simply by placing their pension fund contributions in a passbook savings account."

—Statement by Stephen J. Kay, Testimony before the House Committee on Ways and Means, Feb. 11, 1999.

I hope you will consider these facts when privatization advocates tout the Chilean experience as a model for their proposals.

Democrat Rangel: What Is Bankrupt?

Representatives Charles Rangel (D-N.Y.) and Pete Stark (D-Calif.) led the aggressive questioning of Treasury Secretary John Snow at the House Ways and Means Committee Feb. 8 hearing, where Snow presented the Administration's Fiscal 2006 budget. Here is one excerpt.

Rangel: Now, the President said in his State of the Union, by the year 2042 the entire Social Security system will be exhausted and bankrupt. You being a trustee and following these things, do you agree with the President?

Snow: Yes, I agree that the system goes bankrupt.

Rangel: Now why do you think the system, the Social Security system would go bankrupt in 2042?

Snow: Well, for the same reason that a company that becomes insolvent files for Chapter 11: The inflow of revenues isn't adequate to meet the obligations. That's the definition of bankruptcy.

Rangel: Okay, then, would you say that the incoming revenues that we receive in the United States of America does not meet the amount of money that we're spending today?

Snow: Do we have a deficit, are you saying?

Rangel: No! I'm asking the same thing that you said, about why we'd be bankrupt: Are we spending more than we're taking in now in the United States of America? And the next question would be . . . is the United States of America, and leader of the free world and the most exciting economy that you can discover—are we bankrupt?

Snow: Far from it. We're the strongest economy in the world, and it's because we can meet our obligations. We are able to meet our obligations.

Rangel: Just tell me the difference, for purposes of education, the difference between the bonds that we have in the Social Security Trust Fund, and the bonds that you're so confident are going to get us through this deficit that we're going through. What's the difference? Why is the Social Security trust fund bankrupt and the United States is not bankrupt?

Bush Budget Proves Greenspan Is a Liar

by Carl Osgood

Just days before the Bush Administration released its Fiscal 2006 budget, Federal Reserve Chairman Alan Greenspan, from London Feb. 6, told the world's financial markets that the United States has found the definitive solution to its twin deficits—trade and the Federal budget. He hailed the supposed effect of the declining dollar on U.S. exports, and intoned that "market pressures appear poised to stabilize, and over the longer run possibly to decrease the U.S. current account deficit." That, with the new fiscal restraint which has supposedly emerged in the Bush Administration, made the budget deficit as good as under control, spoke Sir Alan.

Speaking to the same Advantage Enterprise 2005 conference in London, however, was former Clinton-era Treasury Secretary Robert Rubin. Rubin, in plain English, warned the conference that "The U.S. imbalances can have bond market effects, and raise complex questions about our currency. There is a fairly good chance that the dollar could decline." He called on President Bush to rein in the deficit and warned, "It will not be fixed by tinkering around the edges. The U.S. is at a critical juncture."

While the currency markets apparently took Greenspan's orders (the dollar rallied against the euro), the FY 2006 budget that the Bush Administration released proved that it's Rubin who's right. That proof lies just as much in what's in the budget, as what's not in it.

Not included in the $2.5 trillion spending plan are the costs of the continuing wars in Iraq and Afghanistan; the costs of privatizing Social Security; and those of reforming the Alternative Minimum Tax and extending the tax cuts which otherwise begin expiring in 2009. While most of the Social Security and tax costs would not begin until after FY 2006, it was once customary that a budget plan project the effects of such proposals out to at least five years, and at times, ten. No more.

Though they are out of the budget plan, nobody is denying that those costs are there. Vice President Dick Cheney, during a Feb. 6 appearance on "Fox News Sunday" with Chris Wallace, jauntily allowed that the privatization of Social Security, as presently being put forward by President Bush, will cost $758 billion over the next ten years, "and trillions more after that." Any day now, the White House will be sending up a supplemental request of $75 billion for Fiscal 2005, for the wars in Iraq and Afghanistan. Add that to $25 billion that Congress voted up late last Summer, and the FY 2005 cost of the wars is $100 billion. It's no secret that sometime early in 2006, the Administration will send up another supplemental request for $50 billion or more. And as for the tax cuts, Rep. John Spratt (D-S.C.), the ranking Democrat on the House Budget Committee, estimates that those will cost $1.6-1.8 trillion over ten years; to "fix" the Alternative Minimum Tax could add another $642 billion.

Democrats Pounce on Budget Plan

All of that makes a mockery of the Bush Administration claim to cut the deficit in half over the next five years, and Congressional Democrats have jumped all over that fact. Spratt noted that five years ago, the budget was in surplus by $236 billion. "Every year since then," he said, "the bottom line of the budget has gotten worse under President Bush, declining to the point where this administration has set three dubious records in a row" in terms of the budget deficit. Fiscal Year 2004 ended $412 billion in the red, FY 2005 is projected to end at minus $427 billion, and the administration is projecting a deficit of $390 billion for FY 2006. "This budget will not put us on a path to halving the deficit in five years," Spratt said. "It will put us on a path to endless deficits and mountainous debt."

Rep. Charles Rangel (D-N.Y.), the ranking Democrat on the House Ways and Means Committee, took a more humorous approach during a Feb. 8 committee hearing. He told Treasury Secretary John Snow that because the costs of Social Security privatization weren't included in the budget, he would simply issue a press release declaring that privatization is "dead. . . . If you were serious about it, certainly it would be included in the budget." He then added that "maybe we might get into the fact that the war is over, since that's not in the budget. And I may get a chance to say: And don't put any faith with those bonds that are in the Social Security trust fund, because the President says that's not money either."

It is not just Democrats who are angry about the funding cuts and other proposals contained in the budget document. Senate Budget Committee chairman Judd Gregg (R-N.H.) said, "This is a budget which is going to create some significant angst amongst my colleagues" because "everybody's ox gets gored," although Gregg considers this character of the budget praiseworthy. House Budget Committee chairman Jim Nussle (R-Iowa) and Senate Appropriations Committee chairman Thad Cochran (R-Miss.) have both expressed concern about cuts in agricultural subsidies; Sen. Olympia Snowe (R-Me.), when asked if she had any problems with the budget, simply said "How long do you have?"

Senators Pete Domenici (R-N.M.) and Gordon Smith (R-Ore.) have both pledged to block a proposal in the budget to sell electricity generated by the four Federal Power Marketing Authorities at the nationally-determined "market price," which would raise electricity rates by 20% in the Pacific

Northwest, and gouge $12 billion from consumers over 10 years.

Harsh Austerity

The budget, in order to meet its claim of cutting the deficit in half by 2009, imposes cuts across all of discretionary spending, except for defense and homeland security. The problem is, of course, that the total amount of non-defense, non-discretionary spending is only slightly higher than the claimed deficit, that total being $464 billion in 2006, only rising to $497 billion in 2009. Of course, the Administration is not ignoring mandatory spending programs, including Medicare and Medicaid, and is proposing legislative changes that would reduce those spending categories by $137 billion over ten years. Nearly every department of the government, except for the Pentagon, the State and Homeland Security Departments, and a few other agencies, get cuts of 1% to 11.5% from the levels appropriated for Fiscal 2005. Many of the cuts are imposed on programs that impact the general welfare, and constituency groups are reacting.

A coalition of the U.S. Conference of Mayors, the National League of Cities, and the National Association of Counties lit into plans to reorganize and substantially reduce the Community Development Block Grant (CDBG) program. The CDBG, which was funded at a level of $4.7 billion in Fiscal 2005, is to be combined with 17 other grant programs and funded at a total of only $3.7 billion in Fiscal 2006. The president of the U.S. Conference of Mayors, Akron, Ohio Mayor Don Plusquelic, charged, "This new proposal is totally unacceptable and we are extremely disappointed that this tactic is being used as an excuse to eliminate CDBG and cut much-needed local resources to local communities." According to its supporters, the CDBG created or retained 90,637 jobs in 2004, and assisted 168,938 households with their housing needs.

Military veterans are another constituency group which will be hit hard by the budget plan. It calls for $70.2 billion in total funding for the Department of Veterans Affairs, $33.4 billion of which would go to discretionary programs. However, the plan holds the increase for healthcare to less than the rate of inflation, demands an unspecified $590 million in management "efficiencies," and proposes fees that would, by the VA's own estimate, drive 213,000 veterans out of the VA's medical system in 2006.

The largest part of the VA's discretionary budget, medical services, promises to be a major point of contention this year, as it was last. For FY 2005, Congress funded the VA's medical services at a level of $19.5 billion, which was $1.7 billion more than the Bush Administration requested. This year's request is for $19.8 billion, an increase of about 1.5%, although the Bush Administration claims credit for a 47% increase in veterans healthcare funding since 2001. Rep. Lane Evans (D-Ill.), the ranking Democrat on the House Veterans Affairs Committee, blasted the proposed health care budget as making a "cruel mockery" of President Bush's rhetoric during his State of the Union speech, praising the sacrifice of American troops in Iraq. Evans noted that the small increase in medical programs is "far from the 13-14% VA has testified it needs annually, to even maintain the current level of services." As for the management efficiencies, Evans said they "seem to be coming at the expense of access to care."

The Meat Ax

Other programs getting hit include:

- The Low Income Home Energy Assistance Program, which helps low-income families with their energy and air conditioning bills, gets cut from $2.2 billion to $2 billion. In contrast, a bipartisan coalition of members of the Senate, led by Sen. Jack Reed (D-R.I.), is calling for funding the program at $3.4 billion in 2006, because of increased need caused by the economic collapse and skyrocketing energy prices.
- The Community-Oriented Policing Services program, or COPS, takes an 80% cut, and the Justice Assistance Program, which received $1.3 billion in Fiscal 2005, is eliminated altogether in 2006. "This administration talks about homeland security, but then guts funding for the very programs that help secure our homeland," said Joseph Estey, the president of the prestigious International Association of Chiefs of Police and chief of police of Hartford, Vermont. He warned that these cuts will force many police departments "to continue using antiquated and inefficient communications equipment and others to lay off officers."
- Amtrak, the only cross-country passenger rail service available in the United States, is zeroed out for Fiscal 2006 by the White House, pending passage of the Bush Administration's proposed "Passenger Rail Investment Reform Act." The proposal would both dismantle the Northeast Corridor, and turn Amtrak's long-distance train operations over to state compacts and private corporations, effectively ending cross-country passenger rail service. The budget document frankly admits coercion: "with no Federal subsidy, Amtrak will be confronted with the need to take steps to implement structural reform."

While the Pentagon is seeing an increase of 4.8% to $419 billion, the Department of Defense budget reflects the price the Army is paying for the Iraq war—even though war costs continue to be funded outside the budget.

The Pentagon budget plan calls for adding $35 billion to the Army's baseline budget over the next five years, but is paying for that by retiring one of the Navy's aircraft carriers and cutting production of the Air Force's F/A-22 fighter, from about 250 aircraft, to 180. Furthermore, the Navy will only get four ships in Fiscal 2006, a sharp drop from the nine that were requested in 2005, and the six originally planned for 2006. The cuts in the shipbuilding program are also expected to be challenged in the Congress.

Dems Demand: Give Veterans Healthcare; Cancel Bush's Cuts

by Marcia Merry Baker and Judy DeMarco

In May 2004, the Bush Administration, through the Office of the Secretary of Veterans' Affairs (VA), released plans for *downsizing* the already over-loaded national Veterans Affairs medical system, despite the dramatic need for just the opposite—its major expansion. In particular, as of 2004, the VA was bearing the triple burden of the war-wounded from Iraq and Afghanistan, the growing number of untreated and uninsured veterans from Vietnam- and Gulf War-era service, and the growing ranks of homeless vets as the economy worsens.

All told, there are about 23,067,000 veterans today in the United States. Of the sub-group who are under 65 years old—which numbers about 17.1 million—an estimated 12% have no healthcare coverage at all (not VA, not Medicaid, not private). These are the ranks who served in the Vietnam era and since. During the Bush Administration, from 2000-2003, the number of medically uninsured veterans rose by over 235,000!

Apart from medical treatment questions, an estimated 500,000 veterans are homeless nationwide; the returnees from Iraq and Afghanistan are adding to these numbers. Yet the VA maintains only a very few homeless accommodations. In Illinois, for example, there are some 900,000 veterans resident, with an estimated 20,000 homeless, but the VA funds only 200 homeless beds in the whole state. This is typical across the nation.

Thus, the newly announced Bush budget for FY 2006, in which an increase of merely $25 million was proposed for the VA medical budget, dramatically spotlights both the record and intent of the Bush-Cheney Administration: Damn the services and the veterans.

In opposition, bills have been introduced in the 109th Congress in both houses, to fund and expand health care for veterans. On Feb. 2, Rep. Lane Evans (D-Ill.) the ranking Democratic member of the House Veterans' Affairs Committee, introduced legislation—since co-sponsored by 19 others—called the "Assured Funding for Veterans Healthcare Act of 2005" (H.R. 515), which, he said, will "place veterans' healthcare on par with all major Federal healthcare programs by determining resources based on programmatic need rather than politics and budgetary gimmicks." On Jan. 24, a new bill was introduced into the Senate, S. 13, titled, "Fulfilling Our Duty to America's Veterans Act." It is summarized below (see *Documentation*).

The import of H.R. 515, is that "need-based" medical treatment for veterans must be met, as Evans stated Feb. 2, by requiring "the Treasury Secretary to annually provide funding for the VA healthcare system based on the number of enrollees in the system and the consumer price index for hospital and related services."

Hill-Burton Principle: Meet Needs

On the "need-basis" criterion, an expansion, modernization, and upgrading of the network of VA medical and residential facilities of all kinds is urgently required. The map in *Figure 1* shows the core network of the nationwide system to provide healthcare: the main 148 Veterans Affairs Medical Centers (VAMC) as of 2004. These hospitals are institutions in the community, employing local staff, served by local vendors, etc. In the past (before cuts made in the VA system), many were allied with world-class teaching centers. The VAMC facilities in turn anchor a web of ancillary outpatient clinics, long-term care facilities and other treatment centers.

But there is no category of VA care at present—from psychiatric, to advanced-tech orthopaedic, to geriatric domiciliary, etc.—that is adequate to meet the needs of the veterans and their families right now. The issue is not at all a "quality" question—over the past decades, the VA system has been in the forefront of many aspects of medical treatment; for example, spinal injuries, and also, in medical education. Funding and resources must be mobilized for the VA to be put back on a footing to accomplish its assigned mission.

Lyndon LaRouche, through his LaRouche PAC policy assignments, has commissioned a work-up of what is required to expand the VA national medical system, both to serve veterans properly, *and as the model and key component for upgrading the entire U.S. medical care and public health infrastructure system.*

The Veterans Affairs medical network, from the start,

was "need-based," providing the model and principle for the revolutionary 1946 civilian hospital system law—Hospital Survey and Construction Act, known as the "Hill-Burton Law." In just one generation, from the 1950s to the 1970s, under Federal, state and local collaboration, each of some 3,000 counties in the nation came to have a hospital, with the number of beds determined as a ratio with the area's population. For example, about 4 beds per 1,000 persons in cities; and 5.5 beds per 1,000 in rural areas. These ratios of beds were determined, based on the expected load and range of local treatment needs for infectious diseases, cancers, accidents, births, etc.

On top of this Hill-Burton baseline of beds-per-thousand, specialty staff and services were figured in, according the varying regional demographics. For example, some localities were demographically "young," as in California after World War II, and needed more natal and pediatric services. Other areas had large retirement populations, and needed geriatric services, as in Florida.

This principle—assay what is needed, and mobilize to provide the care—is what is posed right now, by how the VA system should be upgraded to care properly for the 23,067,000 U.S. veterans.

Yet the Bush Administration is pursuing drastic cuts. In May 2004, it proposed shutting 11 of the VAMCs completely, and downsizing 33 more! The excuse? A ruse called Capital Asset Realignment for Enhanced Services (CARES), which offered all kinds of rationalizations, including recourse to more "e-medicine." The Administration has even called in property appraisers on several of the older VA medical center campuses in beautiful settings, like St, Petersburg, Florida, with intent to sell off the sites for sweetheart real estate deals. The rationalization? The facility is old, so give up the site.[1]

Veterans' Needs Today

Here are some of the obvious categories of need, among the veterans today, that must be met by an expanded VA medical, and U.S. healthcare infrastructure system. The first rule can be stated: Shut nothing down! Keep all the VA infrastructure at present, even if any facility—as many do—dates to the Civil War era, until actual replacements and improvements are under way, measured as part of the overall U.S. healthcare infrastructure.

The figures used here, and cited above, are from a 2004 report, *America's Neglected Veterans: 1.7 Million Who Served Have No Health Coverage.*[2] By the term "coverage," the report, and the figures cited, refer to enrollment in either the VA system, Medicaid, Medicare, or some commercial insurer. Therefore, some of people lacking coverage, may, indeed, be getting medical treatment of some type in some ad hoc way, but this is a small fraction.

- Geriatric. There are an estimated 3,900,316 World War II veterans, of whom 6,039 lack healthcare coverage. The Korean War veterans number an estimated 3,044,749, of whom, 6,921 lack coverage. In addition to specialty treatment, many of these people simply need domiciliary care, for which the VA space is insufficient at present.
- Under-65s with no coverage. There are an estimated 7,851,118 Vietnam-era veterans, with a large cohort still under 65 years old (not eligible for Medicare), among whom, 681,800 are estimated to be without any healthcare coverage at all at present.

Other service-era veterans since the Vietnam War, including the Gulf War and other military duties, now number some 8,270,505. Among this group, it is estimated that over 12%, or 999,548, have no medical coverage.

- 15,000-plus veterans from Iraq, Afghanistan, with severe physical and psychological wounds. This roster has need for the most advanced treatment of all kinds—psychiatric, surgical, orthopaedic, neurological, and rehabilitation. While the on-the-ground MASH units may have been equipped with remarkable technologies, the VA system stateside is now faced with trade-offs in caring for these newly wounded, at the expense of providing treatment for millions of other veterans.
- Post Traumatic Stress Syndrome. An estimated 15%, at least, of military personnel having served in Iraq, are experiencing PTSD, with effects extending to their families and communities.

1. *Capital Asset Realignment for Enhanced Services (CARES) Decision,* Department of Veterans Affairs, Office of the Secretary, May 2004.

2. Report of the Harvard/Campbridge Hospital Study Group, Cambridge, Mass.

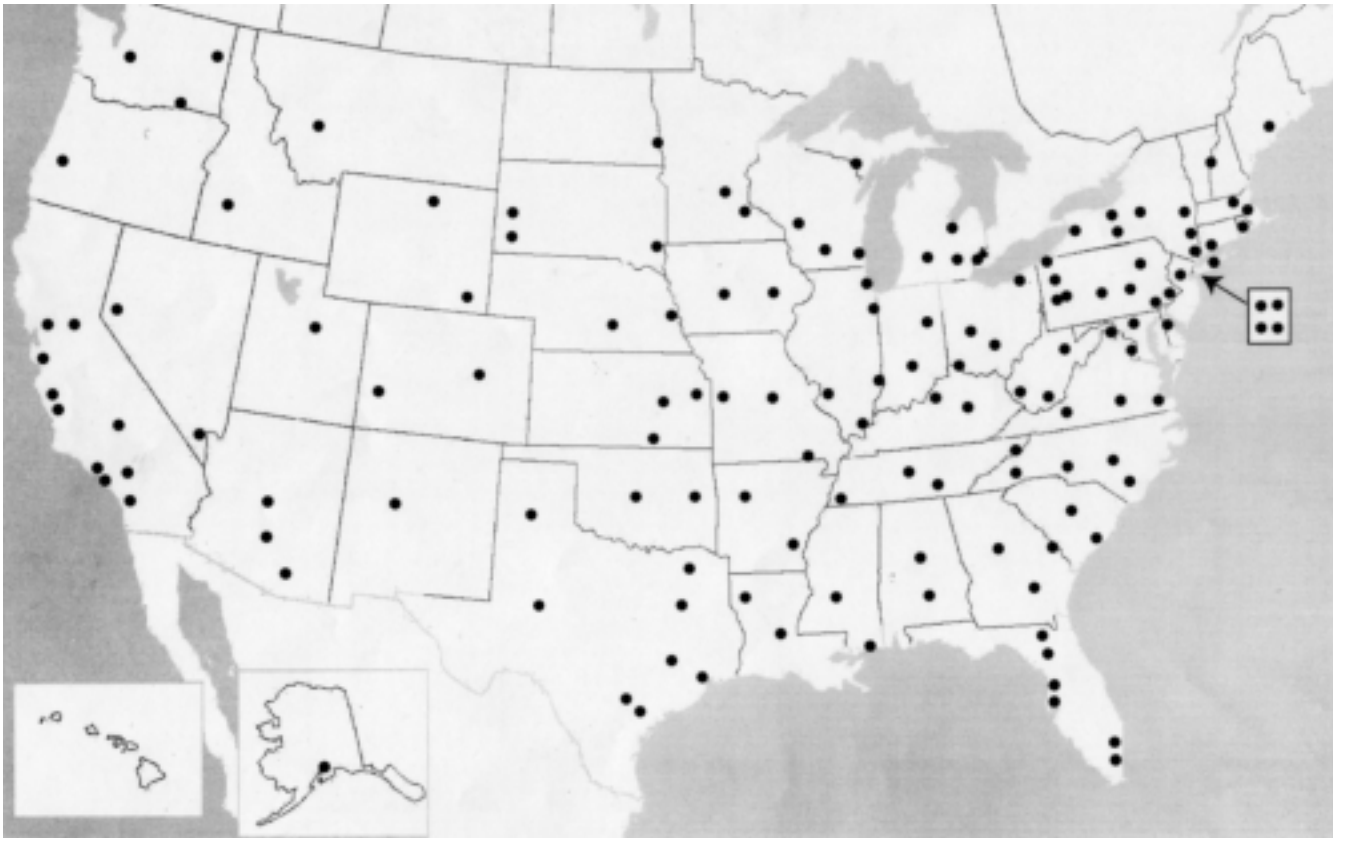
Documentation

'Fulfilling Our Duty To America's Veterans'

On Jan. 24, S. 13 was introduced in the Senate, with the full title, "Fulfilling Our Duty to America's Veterans Act of 2005." The principal sponsor is Daniel K. Akaka (D-Hawaii), joined by 19 other Democrats, including Harry Reid (D-Nev.), the Senate Democratic Minority Leader. In brief, this is, "A bill to amend titles 10 and 38, United States Code, to expand and enhance healthcare, mental health, transition, and disability benefits for veterans, for for other purposes."

The bill has four main sections: Title I Healthcare Matters; Title II Concurrent Receipt of Retired Pay and Service-Connected Disability Compensation; Title III Seamless Transition from Military Service to Veterans Status; Title IV Increased Commitment to Veterans; Education. Here are excerpts from subsections of Titles I, II and III.

Veterans Affairs Medical Centers, 2004



Source: Department of Veterans Affairs, CARES Decision, May 2004, Office of the Secretary; www.va.gov.

Title I, Healthcare Matters; Section 100, Findings

(1) The three largest veterans advocacy groups, the Disabled American Veterans, the American Legion, and the Veterans of Foreign Wars, have called upon Congress to change veterans funding to a mandatory process, stating, "We believe it is time to guarantee healthcare funding for all veterans. We believe healthcare rationing must end. We believe it is time the promise is kept."

(2) The May 2003 report of The President's Task Force To Improve Healthcare Delivery for Our Nation's Veterans found that "there is a significant mismatch in VA between demand and available funding—an imbalance that . . . if unresolved, will delay veterans' access to care and could threaten the quality of VA healthcare."

(3) Under the current funding process, the VA has experienced billion-dollar shortfalls every year for the past several years, resulting in waiting lists several months long for appointments with physicians, a substantial disability claims backlog, and policies designed to prevent veterans from obtaining the health care they were promised.

Subtitle B, Mental Health Matters; Section III, Findings

(1) A study published in the New England Journal of Medicine reported that about one in six soldiers of the Iraq war displays symptoms of Post-Traumatic Stress Disorder.

(2) Clinical experts are anticipating an increase in the number of post-traumatic stress disorder cases in light of the increasing duration of military deployment.

(3) 86 of 163 Department of Veterans Affairs Medical Centers have Post-Traumatic Stress Disorder treatment programs.

(4) United States Code requires that the Department of Veterans Affairs maintain its capacity to provide for the specialized treatment and rehabilitative needs of disabled veterans within distinct programs or facilities of the Department.

Section 112, PTSD Treatment for Veterans of Service in Afghanistan and Iraq and the War on Terror

(a) Enhanced Capacity for Department of Veterans Affairs— . . . the Secretary shall employ at least one psychiatrist and a complementary clinical team at each medical center.

(b) Outreach at the Community Level

(1) Program—The Secretary . . . shall carry out a program to provide outreach at the community level to veterans who participated in Operation Iraqi Freedom or Operation Enduring Freedom who are or may be suffering from Post-Traumatic Stress Disorder.

(2) Program sites—The program shall be carried out on a nationwide basis through facilities of the Department of Veterans Affairs.

(3) Program content—The program shall provide for individualized case management to be conducted on a one-on-one basis, counseling, education, and group therapy to help participants cope with Post-Traumatic Stress Disorder.

Section 113, Armed Forces Review of Mental Health Programs

(a) Review of Mental Health Programs—The Secretary of each military department shall conduct a comprehensive review of the mental healthcare programs of the Armed Forces under the jurisdiction of that Secretary in order to determine ways to improve the efficacy of such care, including a review of joint Department of Defense and Department of Veterans Affairs clinical guidelines to ensure a seamless delivery of care during transitions from active duty or reserve status to civilian life.

(b) Report to Congress—The Secretary of Defense shall submit to Congress a report setting forth the results of such review, not later than 90 days after the date of the enactment of this Act.

Section 121, Authority of VA Pharmacies To Dispense Medications; Findings

(1) Under longstanding regulations of the Department of Veterans Affairs, most veterans who receive prescriptions for medication from private doctors are forced to complete physicals conducted by Department of Veterans Affairs physicians before the veterans can have their prescriptions filled by a pharmacy. This bureaucratic red tape can prevent veterans from quickly receiving the medical treatment they need.

(2) In December 2000, the Inspector General of the Department of Veterans Affairs reported that eliminating this unnecessary red tape would save the underfunded Department of Veterans Affairs over $1,000,000,000 per year.

(3) In 2004, the Department of Justice, in a reversal of an earlier legal opinion, stated that the Secretary of Veterans Affairs has the authority to eliminate this rule without further legislative action. The Secretary has failed to take such a step, thus necessitating action by Congress.

Title II, Retired Pay Restoration Act of 2005; Section 202, Findings

(1) The United States Government has an essential obligation to provide support and care for men and women who have completed honorable military service in defense of the Nation. In no instance is this obligation more critical than for veterans who were injured or disabled during their military service.

(2) Disability compensation and military retired pay are benefits earned for two distinct reasons. Disability compensation is provided to veterans for disabilities resulting from their military service to the Nation, as an expression of the Nation's gratitude and as recompense for their sacrifice. Military retired pay is earned by members of the Armed Forces for the devotion of 20 or more years of their lives to the military service of the Nation.

(3) Until 2002, Federal law prohibited disabled veterans from concurrently receiving both disability compensation and retirement pay. The prohibition against concurrent receipt was a gross violation of the Government's commitment to veterans.

(4) Despite recent legislative advances, over 1,500,000 disabled veterans continue to be prohibited from receiving both military retirement and disability payments concurrently.

(Section 203) Full payment of both retired pay and compensation to disabled military refugees.

Title III, Seamless Transition from Military Service to Veterans Status; Section 301, Findings

(1) In its final report, the President's Task Force To Improve Healthcare Delivery For Our Nation's Veterans found that "increased collaboration between the Departments [of Defense and Veterans Affairs] for the transfer of personnel and health information is needed.

Within VA, broader sharing of the information received from the DOD and individual veterans is required so that veterans are not met at every turn with the question, "Who are you and what do you want?" A "seamless transition" from military service to veteran status is especially critical in the context of healthcare, where readily available, accurate, and current medical information must be accessible to healthcare providers.

(2) The Task Force put forward a series of seven recommendations designed to create a seamless transition from military service to veteran status. Nearly two years after the submittal of its final report, few of the recommendations have been adopted.

(3) Leading nonpartisan veterans' advocates, including the American Legion, Veterans of Foreign Wars, Disabled American Veterans, and the Military Officers Association of America, support the adoption of the recommendations made by the Task Force to create a seamless transition from military service to veteran status.

As Torture Accounts Proliferate, Senators Seek Independent Commission

by Edward Spannaus

A group of twelve Democratic Senators has introduced legislation which would require the United States to adhere to the minimal standards of treatment defined in the Geneva Conventions, for all persons detained in the war on terrorism. The bill would also create an Independent Commission to investigate how the Administration's policies on treatment and interrogation of detainees were developed.

This bill stands in sharp contrast to another bill soon to be introduced by Rep. Jane Harman, the senior Democrat on the House Intelligence Committee, which would legalize "coercive interrogations" of prisoners under certain exceptional circumstances. (*EIR* will have more to say about the Harman bill in future issues.)

These legislative initiatives come as new revelations continue to emerge, almost daily, regarding abuse and torture of U.S. prisoners at known locations such as Guantanamo and Iraq, and at undisclosed locations and in other countries to which the United States regularly transfers prisoners for what has been called "torture by proxy."

'Extraordinary Rendition'

Long overdue attention is beginning to be focussed on the practice of "extraordinary rendition," in which individuals are forcibly taken to countries such as Egypt, Syria, Morocco, Saudi Arabia, Yemen, or Jordan, where they are brutally tortured, including with electrical shocks, on behalf of U.S. agencies which remain in the background. (All those countries named have been criticized in U.S. State Department human rights reports for using torture in prisoner interrogations.)

The current issue of the *New Yorker* magazine, contains a detailed account, entitled "Oursourcing Torture," of such practices and their background, written by veteran reporter Jane Mayer. International law expert Scott Horton, who participated in the preparation of a comprehensive report on renditions issued last Fall by the New York City Bar Association and New York University School of Law, is cited as estimating that there have been 150 cases of extraordinary rendition since 2001. The New York Bar Association report concluded that "Extraordinary Rendition is an illegal practice under both domestic and international law," and that the U.S. government is duty bound to cease the practice, to investigate those that have already taken place, "and to prosecute and punish those found to have engaged in acts that amount to crimes in connection with Extraordinary Rendition."

The practice of rendition was justified by policy memoranda produced in the U.S. Department of Justice, which claimed that the President of the United States could suspend adherence to the Geneva Conventions, and declare that there are categories of prisoners excluded from the protections of those Conventions.

The State Department, on the contrary, had presented extensive arguments and documentation in early 2002, showing that the policies and practices being urged by the Justice Department and the White House, constituted "grave violations" of the Geneva Conventions, and that U.S. officials could thus be prosecuted for war crimes.

One of those who argued in favor of scuttling the Geneva Conventions was, of course, then-White House Counsel Alberto Gonzales, who has been rewarded for his services by being promoted to the position of U.S. Attorney General—from which position he intends to ensure that no Administration official is ever prosecuted for war crimes committed in the "war on terrorism."

Religious and Sexual Humiliation

Continuing disclosures regarding Guantanamo, coming from a variety of sources, show that the abuse of prisoners there was much more planned and systematic than the headline-grabbing events at Abu Ghraib. As background to these recent revelations, it is significant that, for the past two years, stories have been filtering out of Guantanamo, according to which U.S. interrogators were using prostitutes to attempt to break down prisoners. Now, it turns out that the "prostitutes" were themselves U.S. interrogators, who were using sexual taunts and degradation to try and break the prisoners.

Now, as more prisoners are being released from Guantanamo in the wake of last Summer's U.S. Supreme Court decisions, their accounts are pouring out, especially in the British and Australian news media, showing that prisoners were systematically beaten, attacked by dogs, forcibly injected with drugs, and subjected to religious and sexual humiliation.

Such allegations have been routinely denied by Pentagon officials, who continue to claim that the making of such claims is something that al-Qaeda operatives are trained to do. How-

ever, it has recently been disclosed that these allegations are the subject of an official Defense Department investigation of U.S. detention and interrogation tactics, which is being conducted by Vice Adm. Albert Church.

Associated Press reported on Jan. 29, that it had obtained part of a draft manuscript for a book, entitled *Inside the Wire,* being written by Army Sgt. Erik R. Saar. Sergeant Saar, who is not himself Arab or Muslim, worked as an Arabic translator at Guantanamo from December 2002 to June 2003, during which time the prison was under the command of Maj. Gen. Geoffrey Miller.

The manuscript obtained by AP is classified Secret, pending a Pentagon review, and parts of it have been censored. "I have really struggled with this because the detainees, their families and much of the world will think this is a religious war based on some of the techniques used, even though it is not the case," Saar told AP. He describes how one female civilian contractor used a special outfit that included a miniskirt, thong underwear, and a bra during late-night interrogations with prisoners, mostly Muslim men who consider it taboo to have close contact with women who aren't their wives. Saar describes one case in which a female military interrogator was questioning an uncooperative 21-year-old Saudi detainee.

"His female interrogator decided that she needed to turn up the heat," Saar writes, and she told the detainee he could "cooperate" or "have no hope whatsoever of ever leaving this place or talking to a lawyer." The man closed his eyes and began to pray. She then partially undressed and began touching and taunting the prisoner, at which point he looked up and spat in her face. The interrogator left the room to ask a Muslim linguist how she could break the prisoner's reliance on God. The linguist told her to tell the detainee that she was menstruating, touch him, then make sure to turn off the water in his cell so he couldn't wash. The prisoner, therefore being unclean, could not pray to God. This is what was then done.

On Feb. 10, the *Washington Post* reported in a front-page story that the military investigation headed by Vice Admiral Church has found that such tactics were used repeatedly at Guantanamo, especially during 2003. According to an unnamed Pentagon official, one investigation found that "interrogators used sexually-oriented tactics and harassment to shock or offend Muslim prisoners." Lawyers for detainees have likened these tactics to Nazis shaving the beards of orthodox Jews. "They're exploiting religious beliefs to break them down, to destroy them," says Michael Ratner of the Center for Constitutional Rights.

FBI agents have also criticized the sexual tactics used by female interrogators at Guantanamo, and have flatly labelled the methods used at Guantanamo as "torture." FBI memos sent from Guantanamo to FBI headquarters made it clear that the top military officers at Guantanamo justified their actions by saying they were acting on orders from top Defense Department officials—in one case, referring directly to Deputy Secretary of Defense Paul Wolfowitz.

Sergeant Saar says that "interrogators were given a lot of latitude under Miller." In the Fall of 2003, Miller went from Guantanamo to Iraq, to "Gitmo-ize" U.S.-run prisons there. Miller is a close associate of the Muslim-hating Christian Zionist fanatic Gen. William "Jerry" Boykin, the top deputy to Undersecretary of Defense for Intelligence Stephen Cambone. While Boykin was the commander of the JFK School of Special Warfare at Fort Bragg, N.C., the crackpot book *The Arab Mind*—which emphasized alleged sexual phobias of Arab males—was used for training U.S. special operations troops.

Independent Commission

The Senate bill, S. 12, introduced by Senators Joseph Biden, Richard Durbin, and others on Jan. 24, would bring an end to such practices, as well as authorizing an independent investigation of how the underlying policies were developed. It would establish (re-establish, actually), that "No detainee shall be subject to torture or cruel, inhumane, or degrading treatment or punishment that is prohibited by the Constitution, laws, or treaties of the United States." It would also establish strict and regular reporting requirements, of any investigation of a violation of this prohibition by any U.S. government personnel, or by a private contractor.

It would also require individualized hearings for all detainees to determine whether or not they are entitled to prisoner-of-war status; such hearings are required under U.S. military regulations, and have been conducted in all prior conflicts, including the first Gulf War.

Another feature of the S. 12 bill, is that it would established an independent "National Commission To Review Policy Regarding the Treatment of Detainees," modelled on the 9/11 Commssion.

The creation of such an independent commission was called for in a statement issued by eight retired generals and admirals in September 2004. At a press conference, a spokesman for the group, retired Adm. John Hutson, formerly the Judge Advocate General of the Navy, said that the ongoing Defense Department investigations had been "reverse-engineered" in order to reach the pre-determined conclusion that the prisoner abuses were just the work of a few low-level "bad apples."

In contrast to the current official investigations, the probe contemplated in S. 12 would focus on the development of the *policy* regarding detainees in Afghanistan and Iraq, and the Commission would be charged with determining whether this policy "has adversely affected the security of members of the Armed Forces of the United States," or "the standing of the United States in the world." It would also examine how the policies established by the Administration in the war on terrorism differ from traditional established policies of the U.S. military.

LaRouche Youth Campaign To Reindustrialize Germany

The dynamic political force which led to the restarting of "Monday Demonstrations" against economic tyranny in Germany in the Fall of 2004, has gone into action again. When Helga Zepp-LaRouche and the LaRouche Youth Movement started up weekly demonstrations in July 2004, the point of mobilization was the government's pending program for drastic cuts in unemployment insurance, called Hartz IV. The failure of the Social Democrats to take up Zepp-LaRouche's call for creating 8 million new jobs, and restarting the economy with government credit, resulted in the Hartz IV plan going ahead in January 2005.

The nationwide mobilization which the Civil Rights Movement Solidarity (BüSo), the political party headed by Zepp-LaRouche, had kicked off, particularly with the election campaign in the state of Saxony, has had lasting effects on German political life. This is evident not only in the fact that Monday Demonstrations immediately began to emerge after Hartz IV was put into effect, but, more significantly, in the deepening discussion throughout the German political parties about the fact that only *job creation* in areas of high-technology production can turn around the deepening depression.

Zepp-LaRouche had already warned her fellow citizens last Fall that Germany's economic collapse was far worse than the public figures showed, and that the equivalent of an Franklin Delano Roosevelt "New Deal" would have to be adopted in Germany. She also pointed out that further austerity measures would only make the government's fiscal situation a lot worse, leading down the "slippery slope" toward the anti-FDR solution which Hitler's backers chose in the early 1930s: fascist austerity. Her warnings have now been totally vindicated, as German unemployment has continued to climb, hitting over the historically significant 5 million figure (what it was in 1933) officially, and most likely, according to *EIR*'s calculations, at least double that amount.

After the Saxony campaign, which ended at the end of September 2004, Zepp-LaRouche called for a new electoral mobilization, this time in what has been the industrial heartland of Germany, the Ruhr region. State elections are scheduled for May 22, and the LaRouche movement, spearheaded by the youth, are now campaigning heavily in the area, with the goal of recruiting candidates in as many districts as possible, and mobilizing the population around the solution to the economic debacle it faces.

The Ruhr district lies in the state of North Rhine-Westphalia, the westernmost state in Germany, which borders on both the Netherlands and Belgium. This state has the largest population of any state in Germany, and the Ruhr region, which lies in the heart of it, is well known as the most productive and industrialized region of all Europe. This district has also been a solid base for the Social Democratic Party and its trade union supporters.

Deindustrialization of the Ruhr Region

Yet, over the last decades, a region well known for its coal, then steel, and now auto production, has become increasingly deindustrialized, in a way similar to "rust belt" of the U.S. Midwest. Industry has been shut down, the unemployment rate has gone up 30%, and, rather than attempt to save the industry, the powers-that-be have promoted the region as a center of the "fun society," a center for light shows, discos, amusement parks, and the like.

Just during the Fall of 2004, the Ruhr region was hit with the shock of mass layoffs announced at GM's Opel plants, an event which led to the first strikes in the area in 30 years. Mass demonstrations occurred in October, as the union workers garnered the support of much of the local population. Yet, ultimately, nothing substantive was won, due to lack of local, and especially *national,* leadership.

The LaRouche Youth Movement and the BüSo intervened in the Opel strikes, putting before the citizens the need for a fundamental change in economic policy. From October forward, North Rhine-Westphalia has become a center of

LaRouche organizing activity, from the universities, to the factories, to the public streets. BüSo Chairwoman Helga Zepp-LaRouche has visited the area, holding a round-table discussion with local citizen, and meeting with the youth. The political tempo is now heating up, as the BüSo recruits candidates for the April 4 deadline.

We reprint here Zepp-LaRouche's first Open Letter to the Voters of North Rhine-Westphalia, which was issued in early February.

Open Letter to Voters

Germany Needs 10 Million New Productive Jobs!

by Helga Zepp-LaRouche

Mrs. Zepp-LaRouche is chairman of the Civil Rights Movement Solidarity (Bürgerrechtsbewegung Solidarität, or BüSo). This statement has been translated from German. Its full title is "In North Rhine-Westphalia: Good-Bye, Austerity! Chickens Back Into the Pot! Germany Needs 10 Million New Productive Jobs!"

Dear Voters:

By now, everybody in Germany knows that things simply can't keep going the way they're going right now: *Officially,* we have 5 million unemployed, but already last Fall, the Econometric Institute in Halle was talking about 8.6 million unemployed, if you include all the categories of hidden unemployment, such as early retirees, those undergoing "job retraining," those who have simply given up looking for work, and so forth. And that was *before* the major layoffs at Karstadt, Opel, Walter Bau, and many more!

And then we have Economics Minister Clement, announcing that it would be a mistake to fall into a kind of paralyzed state of shock. Well, then, Herr Clement, what did you expect? Your Hartz IV policy was guaranteed to plunge millions of long-term unemployed into poverty. And now, Hans-Werner UnSinn[1] from the Munich IFO Institute is demanding a "Hartz V," whereby recipients of unemployment benefits are to be lent out by community slave-labor centers to private industry, at a ridiculously miniscule pay. Hartz IV, Hartz V, Hartz VI—if it goes on like this, our economy will soon be in *rigor mortis,* and it will simply cease to exist, all because of this utterly incompetent austerity policy.

1. A pun on the the name Sinn (= sense), turning it into Unsinn (= nonsense).

The Schröder government—albeit under pressure from international financial markets—is conducting the greatest assault against our population's living standards since the 1930s. And the Red-Green Coalition[2] believes that the only reason why they will not get whipped in the next elections, is because the opposition is pushing an even more brutal austerity policy on behalf of the banks—even for North Rhine-Westphalia.

But it can't go on like this forever! What formerly was considered unthinkable, is now coming to pass, blow by blow. Those who wanted to hold onto their jobs, have been forced to work at wages reduced by 30% (!), on top of a 42-hour work week—and even then, the prospect of further layoffs is "not to be excluded." Rapacious managers are sweeping away all existing wage agreements; obstreperous factory council members are being voted out as a result of threats from the management, after which they are fired. And so, the trade unions are now finally having to pay the piper for having obediently "kept the lid on things" for so many decades. "The Moor has done his work; the Moor can go."

Enough is enough! I say. People don't deserve to be treated this way. Sixty years ago, when we set out to rebuild Germany out of the rubble, it was the workers of the Rhine and Ruhr who played a key role in turning the Ruhr into the world's most productive economic region, and into the main engine of the German economy. Through their labor, they helped establish prosperity in Germany, and they grounded their pride and personal identity in the quality of the products which they were directly or indirectly involved in manufacturing. And they were pulling on the same cart alongside the productive *Mittelstand* entrepreneurs: Together they succeeded in transforming the phrase "Made in Germany" from a worldwide butt of jokes, into a mark of unparalleled quality. And the name of that cart they were pulling was: the General Welfare of all.

But then, some people who thought that speculation was more profitable than production, succeeded in putting Germany through a "structural transformation." First to be shut down were the mines—and today's coking-coal crisis shows how smart a move *that* was. Next to go were the nuclear power plants. Dortmund, for example, was transformed from an industrial city into a casino hub; the doors of many, many productive enterprises were closed forever; and the only investment to be had, was in the services sector.

After it had already become evident that this structural transformation away from industrial society into a post-industrial service, media, and information society, was an utter failure, the next hammer came crashing down: the Maastricht Treaty's Stability Pact, which had a devastating effect on municipalities' investment into the public sector. And now, when everything is bursting apart, they want to take the simple

2. Germany's Federal governing coalition of the Social Democratic Party and the Green party.

The Civil Rights Movement Solidarity (BüSo) campaigns at a factory in North Rhine-Westphalia, against the government's Hartz IV program, and for expansion of industry and jobs.

people, the people who have worked hard all their lives and have built Germany with their own hands, and relieve their pockets of their last groschen—pardon me! I mean their last euro.

There Is an Alternative

There's another way. Germany's states and municipalities are constitutionally obligated to ensure that certain requirements for the General Welfare are met. Over the past years, Germany has built up a huge "backlog" of unimplemented investment into infrastructure, on the order of approximately 1 trillion euros. According to a report issued by Dekra Akademie GmbH in October 2004, on the condition of Germany's bridges, there are 20,000 highway bridges in need of extensive repairs, and 14,000 of them are so ramshackle that they are dangerous to drive on, and really ought to be blocked off completely. And so, if municipalities, such as in the Ruhr region, invested in the revitalization of their infrastructure, that alone could create at least half a million new jobs, and could become an economic stimulus for the public and private sector.

Ask any of the frustrated drivers who have to sit through North Rhine-Westphalia's terrible traffic jams every day, whether they would agree that something must be done urgently to relieve traffic congestion on the main arteries. It's precisely here in the densely populated Rhine-Ruhr, where Prof. Dietrich Stein of Bochum University has proposed that we build the CargoCap Project, which envisions setting up an underground network of pipes for the fully-automated transport of materials, with the aid of freight-forwarding drones. Each of these drones would have the same capacity as two full Euro-Palettes. This system could remove most heavy trucks from our highways. At the same time, our infrastructure would be made viable once again, so that it could support a growing flow of exports into Germany's natural export markets in Asia. And the CargoCap project is merely one of many examples of how our economy could be revived.

Development Perspective: Eurasian Land-Bridge

For many years now, the BüSo has been proposing that Europe's industrial centers—which, of course, includes the Ruhr region—be connected up with Asia's populous nations via the Eurasian Land-Bridge. Now that the Berlin Wall has been taken down, nothing remains to prevent us from integrating all of Eurasia infrastructurally and economically, thereby completing the task that was begun in the 19th Century with the building of the Transsiberian Railway. If we conclude long-term—i.e., 25-50-year—production and trade agreements with such nations as Russia, China, and India, then we in Germany will have no trouble getting back to full, productive employment.

Concretely, that means investment sufficient to create *10 million new productive jobs* in Germany, with about 2 million of these in North Rhine-Westphalia.

It is likewise necessary that we abandon the obsolete stability pact, and instead reactivate our 1967 Stability Law, which was originally passed because the unemployment level at the time, 400,000, was considered to be intolerable, and so the state was empowered with not only the possibility, but also

the legal obligation, to overcome the crisis by the issuance of government credit.

And that's exactly what we need today: We need a "New Deal," similar to the one put into effect by U.S. President Franklin D. Roosevelt. Concretely, we need an annual average of 200 billion euros additional government credit earmarked for investment into the creation of productive jobs.

The assumption that "we have to cut back," is flat-out false. When you're in an economic depression—and that's what we're in right now—making cutbacks is an extremely expensive proposition. Every year, the government is already spending almost 90 billion euros for unemployment benefits, and the economy is losing an additional 230 billion euros of value which the unemployed would have produced had they been employed. Government-issued credit for future production would remedy this problem, and it wouldn't be inflationary, because genuine capital value would be created in the process. High unemployment, on the other hand, is inflationary, because the money spent produces no corresponding value. And so: Good-bye, austerity, and in with production!

At a recent international seminar in Berlin with representatives of about 30 countries, my husband, the American economist Lyndon LaRouche, proposed a new strategic policy: The hopelessly bankrupt "free" market system must be replaced by a system of such long-term international trade agreements. In parallel, agreements on the order of 25-50 years must also be made for development of, and access to, strategic raw materials for all the world's nations. Because, on the one hand, only in this way can we prevent future warfare, and possibly even a global war, over the control of raw materials. And on the other hand, this is our only way to ensure that countries with little or no domestic raw materials, such as Germany, can have long-term economic security.

This visionary proposal for how we can shape the 21st Century as a century of peace, has been welcomed by many governments and political forces around the world.

Resistance Against Bush

Everyone in Germany also knows, that our future depends quite directly on whether there will be a positive political change in the United States itself. Under Lyndon LaRouche's leadership, the Democratic Party has now taken up the cudgels against the Bush Administration. Not only have they questioned the legitimacy of the election results in the state of Ohio, and have forced Congressional hearings to be held on this, but now they are also determined to kill Bush's proposed "privatization" of the Social Security system.

Because the real issue with this "privatization," is a scheme to divert employees' $275.5 billion in contributions to the Social Security fund, into private investment funds, in an effort to salvage the bankrupt U.S. dollar. It's well known that in order to keep afloat, Wall Street currently requires a financial influx of $2.5 billion *per day.* But this influx is dwindling, and they are looking toward the huge flow of regular Social Security payments into their private investment funds—a real bonanza, estimated in the range of $3.5 trillion over the coming ten years.

Bush's model for his plan, is identical to what the Chilean dictator Pinochet implemented with similar methods. But now the U.S. Democratic Party is fighting back, and during Bush's recent State of the Union address, they booed him—something quite extraordinary for this kind of event.

Indeed, a revolution is currently under way in the United States against Bush's policies, and if the Democrats succeed in killing Bush's privatization plan, and in getting back to policies oriented to the General Welfare in the Franklin D. Roosevelt tradition—and that can happen very soon—then economic prospects for Europe will also undergo a change. Because then, we in Europe will be able to return to our customary social-welfare government policies, while the monstrous ideas of Hartz I through IV can be relegated to the trash-bin of history.

A New Deal With the BüSo!

Perhaps even before elections take place in North Rhine-Westphalia on May 22, the international financial system will be rocked by huge storms. Because today's so-called "free"-market global financial system is just as bankrupt as the German Democratic Republic system was toward the end of October 1989. During this interval, the Maastricht Treaty's stability pact must be abandoned, and Europe's governments must make available lines of long-term credit at low interest rates, for the creation of productive jobs. In Germany, we need 10 million new productive jobs—approximately nine million for those who are currently unemployed, and about 1 million for all those who are "employed" in ridiculous "mini-jobs."

As I said: Everyone in Germany already knows that things can't go on the way they are now. We need a real change in policy, and that can only—and must—happen at the election box.

I'm counting on you, dear North Rhine-Westphalia voters, not to lapse into passivity in the face of these terrible attacks on our standard of living and our social security, but instead to help us, the BüSo, to make the elections in North Rhine-Westphalia into a turning-point in German political history. The Ruhr must once again become the motor for the entire German economy. And the BüSo has the program for doing it.

If, over the coming three-and-a-half months, as many of you as possible were to become engaged in an active dialogue with us on the future of the Ruhr region and of Germany in the 21st Century, then this would make me very happy. Write to me, and also actively support our campaign to save Germany. Germany must once again become the land of poets, thinkers, and inventors—that's our identity—and then we'll get the job done!

The Pension System Must Be Tied to the Productive Economy

Nino Galloni is a well-known Italian economist, who served as a high-ranking official in several government ministries, dealing with economics and labor issues. He is currently the auditor of INPDAP, the main institute coordinating pension funds for public-sector retirees in Italy. Mr. Galloni took part in EIR*'s Jan. 12-13 seminar in Berlin. He was interviewed in Rome by Paolo Raimondi, and the discussion has been translated from Italian. Galloni began with some introductory remarks.*

Galloni: Here in Italy, the pension system based on the so-called principle of capitalization[1] was proposed and created on the premise that the aging of the population and reduction of the ratio of working people to retirees, were tendencies which made the old "pay as you go" system financially dangerous.

However, the forecasts the experts made regarding these trends in the 1970s and '80s were not at all correct, because although some industrial jobs were lost, we saw an increase in employment in other sectors. From this standpoint, one can conclude that we should have maintained support for public pension systems during the passage from a situation where industrial employees were the majority of workers in the '70s and '80s, to the situation where new, less-standardized professional roles linked to service sectors emerged. This is what happened from the 1980s to today, and if we had stayed with the old system, we would have a more balanced situation today, both from a social and financial standpoint. The second cause of the mistakes in the experts' evaluations was the underestimation of the growth of jobs for women, which has been significant in offsetting the risk of a reduction of total employment.

The crucial aspect of the problem then, was that the growth in employment took place, in large part, in the so-called black economy and in the areas of precarious jobs, which at the beginning were not covered by the pension system. Later, as a consequence of the reforms, they became part of the system, but in a bad way.

In reality, what we should have done was to enact a reform of the labor market which took into consideration the demands and changes in the companies asking for more flexibility—which we were already implementing, in any case—but at the same time, [we should have] also introduced some careful regulations. The market was moving towards flexibility and the public institutions should have regulated this process in order to make it compatible with the systems we have in place. We have systems that, without any public intervention, are completely schizophrenic. That is, at the level of the single company, labor is considered a cost to be minimized; while at the macroeconomic level, of the economy as a whole, labor is considered a value to be maximized.

This contradiction exists in all capitalist systems, and governments must always deal with it and keep it under control. If a government completely adopts the position of the companies, in favor of flexibility and the reduction of labor, we would have a paradoxical result: The market would only be supported up to the point that the companies themselves are damaged, for example, because of excessive worker turnover, which is a cost, and because they would no longer have highly professional and qualified employees. It is a "throwaway" system for workers which is incompatible with a good educational and training system. The result of this process is that we have a large mass of employed, but these workers have no job stability.

In such a situation, you don't need to be as wise as King Solomon to realize that if you want to move towards labor flexibility, it's also necessary to defend the public and mandatory social welfare system, with some incentives and changes. What we have now though, is a reform which strongly links the personal payments of an employee to the size of that employee's future pension.

The truth is that behind all these maneuvers there are private, speculative interests, which want to have a large private pension system; because the public system pays pensions that are not considered sufficient, the workers are encouraged to increase their savings in order to create an additional pension.

These would make sense only if the labor market were able to guarantee a certain amount of stability for workers, which is not the case, or if the demand for flexibility were compensated with higher wages. What has happened though, is that more flexibility has been offered in order to have more employment, but based on very low wages and precarious

1. In Italy's "capitalization" system, the money which each worker pays into the system is treated as a personal account built up for his/her pension.

jobs. Introducing a capitalization-based pension system in this situation, has surely favored financial speculation, and at the same time has exacerbated differences and tensions in the labor market.

In the long run, this system is hardly compatible with social balance because people's incomes are determined by the ups and downs of financial speculation.

For example, if we have 5 years of high interest rates or high stock exchange profits, the situation will be good for future pensions. But if there is a collapse of the bubble in the coming years, we will have not only low yields, but also losses on the capital. If the state were involved in managing the system, then there could be some compensation for the losses, even though it would be very risky for the state to take part in such activities.

But what we have is that during times of plenty, financial profits will be distributed, let us say, half and half, between the workers and the banks. But in a period of crisis, there is no risk for the private banks, because they say: "There has been no profit so you do not get anything, but there has been a capital loss and you have to absorb it." In this period, the banks do not gain, but they don't lose either; the workers lose a lot, though. This will tend to create a negative overall situation for the workers. The banks do not gain but they do not lose a building or any other capital values. In the long run, there may be a generation which will retire with good pensions, but be followed by another generation that will get low and unsatisfactory pensions.

In Italy, for example, we have calculated that 25-30 years from now, the workers with precarious jobs, about 2.5 million people, will get pensions equivalent to the 250-280 euros per month—a level completely insufficient for survival. At that point, somebody—the state, families—will have to come in and take on the extra costs needed to reach at least the level of the minimum social pension, which is now 516 euros per month.

In addition, these vulnerable workers are paying about 12% (soon to be 19%) of their income into the public pension system, thus covering the payment of current pensions. And this creates what many, erroneously, call the generational conflict; that is, the younger workers are using up their future pensions to pay for the pensioners of today.

This is partly a consequence of the wrong system we spoke about, and partly a distortion and mystification of the real economic situation. In reality, a society where people can live longer, with good pensions, is a society which requires high-quality goods and services, because a retired person, if he has an income to spend, wants to have quality goods and services. Consequently the younger worker can find stable and well-paying jobs producing them. If we condemn the pensioners to low pensions, we also automatically condemn the youth to working on low-quality goods and services, and to working in precarious jobs that must complete with very low-paying jobs on the international markets.

EIR: You have seen that in the U.S. the Bush-Cheney Administration is totally committed to the privatization of the social welfare system and the pension system. They use the same argument: Soon the contributions paid into Social Security will not be enough to pay for future pensions. This push for privatization is intended to transfer workers' payments to Wall Street and to private banks and financial holdings. While private financial holdings will get the money, the state will have to take on a massive amount of debt to compensate for the losses that build up until this new miraculous system begins to function. This is going to be the biggest fraud in history, because we are visibly in a situation of financial crash, and the money collected for future pensions will be used up by the financial system immediately. The pension funds will not be there to pay the pensions at the time when the today's younger workers demand their pensions.

Galloni: I agree with this analysis, because fundamentally, speculative finance always operates according to the scheme of the so-called "chain letter" or multi-level scheme ["St. Anthony's chain" in Italian—ed.] I do not like this expression because in reality St. Anthony fought against usury. But it functions in the following way: You give me some capital and I commit myself to paying a relatively high rate of interest for a number of years. With the rest of your capital I will pay 20, 30, or more other fellows who agree to give me their capital. The news is out that I pay high interest rates and many more come to me with their capital.

But I cannot pay a high interest rate forever. At a certain point, I stop the process, I keep the money, and I disappear. The first ones who came to me got a good yield, but it was not the result of a sound investment in real and productive sectors of the economy. Speculative finance requires continuous and growing capital flows to sustain the promised rates of profit, which at a certain point can no longer be paid. And at this point, they close down the shop and the last people to join the system—that is, the large masses of members—end up holding the bill.

What should actually happen, is the opposite, The pension system must be directly connected to the productive economy, and we must promote a policy of economic growth with good jobs and development in order to create real income, which is also at the base of maintaining pension levels. Pensions will increase only when employment grows and the economy develops. This is the only model that works because it is connected to the real economy. Relying exclusively on finance is very dangerous.

EIR: The Bush privatization project means the total destruction of the Social Security System created by President F.D. Roosevelt in the 1930s that was one of the cornerstones of his project to get out of the Great Depression. At the same time, the Bush Administration is publicly advocating the Chilean model of pension privatization, which was the result of the intervention of George Shultz and the Chicago School of

Milton Friedman. Now this scheme is coming back to the U.S.

Galloni: This model is the same as that recommended by the IMF and the World Bank, and it has also been suggested to Russia. It makes the differences in the labor market extreme. In a state-controlled social welfare and pension system, even if you have large differences between salary levels, the gap is reduced when you calculate the pensions. The difference remains, and it wouldn't be ethical to eliminate the difference completely, but it is reduced, because there is a minimal common component for everyone, which is the public component, while another component is left to the decisions and activities of the private individual.

The IMF and Chile models completely link pension levels to the amount of payments made during work. Even if we were able to eliminate the danger of the current speculative bubbles—which is actually impossible at this time—and thus create a situation where the Chilean system would function perfectly and guarantee pensions directly proportional to payments made, we would see growing tensions in the labor market. The poor people with low incomes would be thrown into poverty, with nothing to live on, and those with high incomes would enjoy high pensions.

We know that society cannot be governed in this way, where a rich minority receives all the privileges, and the rest, the poor, live miserably. If we study this type of society, we see that the majority of elderly people would become poor and not be able to survive, and this would imply that the society as a whole had become poorer and the new youth would not find any jobs, and thus not have any pensions later on. This system would go through a number of shocks, including a crisis in the real economy, in the financial markets, and also an explosive social crisis. The financial market can be kept alive only as long as there are new capital flows. When these are no longer available, then the crisis, caused also by problems such as the foreign debt, will also destroy the middle class.

EIR: In other words, it is an attempt to create a new financial bubble, after the New Economy, the real estate bubble, the derivatives bubble, etc., to prolong the agony of a bankrupt financial system. You were recently at the seminar with Lyndon LaRouche in Berlin, where these issues were debated intensely. . . .

Galloni: In Berlin, I mentioned the subjects we have addressed here, emphasizing in particular the necessity of promoting the development of the real economy and the necessity of not treating labor as just another category of "merchandise." I said that if we develop new technologies, we can reduce the amount of energy needed to produce goods; that is a gain for the system. But if we reduce the amount of labor required to produce something, we only gain something if this increase in productivity is redistributed to the labor force in the form of higher incomes; otherwise we lose the driver effect of a more or less Keynesian type of economy.

I saw that the interventions of the American and Russian speakers emphasized the perverse role of speculative finance which is suffocating the real, physical economy and destroying the creation of the very resources which are also indispensable for the survival of finance itself, thus preparing its own crisis. The interventions of the Chinese and Indian participants paid particular attention to the initiatives required to balance the functions of international trade, both in relation to the growth of the world's real economy and the containment of the imperial attitude of the U.S., which hampers the true development of the planet.

I must conclude by saying that I agree with the analysis and proposals of Lyndon LaRouche for a dialogue between the U.S. and the countries of Eurasia over the use and development of raw materials and technologies, and on the necessity to convene a New Bretton Woods conference in order to deal with the crisis of the entire financial and economic system.

Mexican Trade Unionists Support LaRouche Effort

On the final stop of his three-city tour of Mexico, EIR*'s Will Wertz addressed a breakfast meeting in Queretaro, Feb. 2, organized by the LaRouche movement in Mexico, which included about 35 trade unionists and other state leaders. At the conclusion of the meeting, many of the trade unionists and others signed the following open letter, addressed to the LaRouche Political Action Committee:*

We, the undersigned, representatives of labor organizations and citizens of the state of Queretaro, Mexico, gathered at the conference "Fascism and the Privatization of Social Security, the Cases of the United States and Chile," hereby make public our support for the fight and proposals of Lyndon LaRouche to avoid the privatization of Social Security, which they are trying to implement in the U.S., Mexico, and many other nations.

That privatization, as well as the so-called "structural reforms," should be overwhelmingly rejected for being inspired by the economic policies of dictatorial and fascist regimes, such as that of Pinochet.

What we need today is to rescue the dignity of individuals and of the peoples of the world, which has been violated by criminal austerity policies, and instead, achieve the implementation of the policies of a New Bretton Woods, for the benefit of the nations of the world, as Mr. LaRouche has proposed.

Australia Dossier by Robert Barwick

Australia Ravages Timor-Leste

In stealing oil and gas revenues, Australia commits genocide against the world's poorest nation.

The Australia-based energy company Woodside Petroleum, 34% owned by Royal Dutch Shell, announced on Jan. 13 that it had stopped work on the Greater Sunrise natural gas project in the Timor Sea, citing "legal and fiscal uncertainty." This followed the refusal of the Government of Timor-Leste (East Timor) to ratify a 2003 agreement with Australia, signed under duress, which divided revenue from Great Sunrise, 80 to 20 in Australia's favor. By international law, the field lies entirely in Timor-Leste's territory. (See *EIR,* Jan. 14, 2005.)

The stakes are huge: Greater Sunrise has reserves of 300 million barrels of condensate (light oil), and 7.8 trillion cubic feet of gas, estimated to be worth $22-25 billion over 30 years. It is the largest of a number of oil and gas fields, which lie on Timor-Leste's side of the halfway point between it and Australia's coastline (Greater Sunrise is 80 km from Timor-Leste, but 450 km from Australia.) If Timor Leste's rightful claims are recognized, it stands to collect U.S.$12 billion in taxes and royalties over the next three decades, which will give the country actual independence, after its juridical independence in 1999.

Right now, however, it is getting only a pittance in oil and gas revenues, and Australia is using Timor-Leste's extreme poverty to try to force it to cede its rightful claims in return for a tiny bit of cash in hand.

As the world's newest, but poorest nation, Timor-Leste desperately needs the money. Its per capita Gross Domestic Product (GDP) is $478, the lowest in the world, and 41% of Timorese live below the nation's poverty line. Timor-Leste has an annual budget of just $74 million for its approximately one million population—about $74 per person. Aside from some oil and gas revenues, it is almost entirely dependent on foreign aid, which accounts for 56% of GDP.

This extreme poverty is devastating the population. The life expectancy is just 57 years; at birth, there is a 33% probability of not surviving to age 40. Infant mortality is 89 per 1,000 births, and more than one in ten Timorese children born today will die before the age of five; 43% of children under five are underweight, and 47% have stunted growth.

The case of 12-year-old Julmira Babo captures the extreme plight of Timor-Leste. She was playing outside in her village, when she collapsed. In a country with just 16 doctors, Julmira's family had few options, except to carry her to their hut, and administer traditional medicines, to no avail—and within a few days she died. An autopsy performed by a United Nations pathologist was shocking: Inside her little body were hundreds of large worms, which had travelled from her stomach up her esophagus and into her mouth, blocking her windpipe and literally choking her.

"In my entire career as a pathologist in the Third World, I have never seen anything like it," Timor-Leste's sole pathologist, Dr. Nural Ismal, told London's *Independent* in May 2004. Although worm tablets are just a few cents per head, Timor-Leste cannot afford a national de-worming program in schools, and so thousands of children like Julmira suffer malnutrition, stunted growth, and anemia, from worms.

Timor-Leste's President Xanana Gusmao is pinning his country's future on its oil and gas claims. "Our people fought for so many years, not to have a flag or a President, but because they believed independence would bring them a better life," he told the *Independent.* "We have had four and a half years of begging from foreign governments, but we still have to import rice, we still have schools without roofs and desks. The [oil and gas] money could produce a miracle here. We are a small country and we could eradicate poverty, illiteracy, disease."

Australia has other ideas. It plans to steal many billions of dollars of oil and gas revenues which should flow to Timor-Leste. In fact, it has already started: since 1999, Australia has been grabbing $1 million per day in oil and gas revenues which are rightfully Timor-Leste's. Australia insists that its continental shelf should be the boundary between the two countries, instead of the halfway point. Under Australia's policy, Timor-Leste won't realize any significant revenue unless it caves in, because energy companies like Woodside demand "political certainty" for their long-term contracts. Worse, Australia insists on negotiating once every six months, which threatens to drag out the negotiations for years.

So far Timor-Leste, and President Gusmao, have refused to bow to Australia's tactics. "What we are claiming is not in the Gulf of Carpenteria [off Australia's Northern Territory]," Gusmao insists, "It is very, very near us. We are not doves; we are a proud people with dignity. We only claim what is ours." How long their resolve can last is unclear.

Sharm el-Sheikh Summit: The Calm Before a New War?

by Dean Andromidas

If the conference of Middle Eastern leaders held at Sharm el-Sheikh on the Egyptian Sinai Peninsula on Feb. 7 does not herald the dawning of a new era of peace, it could be the calm before a new war. Statements by Israeli Prime Minister Ariel Sharon and Palestinian President Abu Mazen (Mahmoud Abbas) vowing an end to violence, do not make for a peace conference.

Sharon was clearly the big winner. First, his plan for disengagement from Gaza was fully endorsed by those present. Sharon initially had proposed his plan—which called for a unilateral withdrawal from the Gaza Strip and the dismantling of four small settlements on the West Bank—more than a year ago, in a effort to counter growing international demands to stop the bloodshed and get Israel to the negotiating table.

The diplomatic correspondent of the Israeli daily *Ha'aretz,* Aluf Benn, wrote of the summit: "The main show is Israel's disengagement from Gaza. . . . Israel and the Palestinian Authority are resuming negotiations, but about relatively minor issues like the release of a few more prisoners and the timetable to hand over the West Bank cities. This is important, makes headlines, but does not touch the core issues of the conflict: Jerusalem, refugees, settlements, borders. . . ."

Until now, Egypt, Jordan, and the Palestinians were critical of Sharon's plan because it was a unilateral move outside of the "Road Map" for a Middle East peace, which had the backing of the United States, the European Union, Russia, and the United Nations—none of which were invited to the Sharm el-Sheikh summit.

At the summit, Sharon was less than decisive on the question. In his speech he said: "Now, *if* new change does emerge on the Palestinian side, the disengagement can . . . become a new starting point for a coordinated, successful process . . . [which] can pave the way to implementation of the Road Map" (emphasis added).

The second plus for Sharon is the return of the Egyptian and Jordanian Ambassadors to Israel. They were withdrawn three years ago in reaction to Sharon's brutal policies against the Palestinians.

Third, Sharon's promise to implement confidence-building measures doesn't deal with a return to the status quo in the occupied territories that existed before Sharon came to power.

Otherwise, at the summit: Abu Mazen called for ending all violence against Israel, and Sharon promised to "cease all its military activity against all Palestinians anywhere." Nonetheless, according to *Ha'aretz,* the Israeli army has not been given new orders. It is still operating on orders given two weeks ago, which called for a reduction of military operations by 80%, including targetted assassinations. But if "intelligence" warning of an attack is given, the Israeli military will act to arrest or kill the Palestinians in question.

Israel will withdraw from several major cities and remove certain road blocks, but will not completely leave "area A," the area under the Oslo accords which had been entirely under Palestinian control, until Sharon reoccupied it.

The release of prisoners was not resolved to the liking of the Palestinians, in that Israel will release only a few hundred of the 10,000 prisoners, only those whose terms of imprisonment end in a few months. Fatah leader Marwan Barghouti certainly will not be released.

Rice Endorses Sharon's Policy

This summit could prove to be the calm before another war—one against Iran, or Syria, or both. The appearance of great progress between Israel and Palestinians towards peace is seen as a requirement in order to try to sell the world a new

war. This was all but confirmed by the trip to the region by U.S. Secretary of State Condoleezza Rice just one day before the summit, when she met with both Sharon and Abu Mazen. Rice fully endorsed Sharon's phony disengagement plan; after all, it gives the appearance of peace-making while preparations are being made for a new war.

As for her meeting with Abu Mazen, Fadoura Koures, a Palestinian cabinet minister, said that Rice was just conducting "public relations," because she failed to address the most important Palestinian issues, including the apartheid wall, settlement expansion, and the shutdown of illegal settlements.

More important, Rice met Israeli Defense Minister Shaul Mofaz, in a talk where Iran was at the top of the agenda. Mofaz said: "I think we see eye to eye [with the U.S.] that the diplomatic path is the correct one at this time. We did not speak of other options." In an interview with Army radio, Mofaz repeated that a strike on Iran "was not on the agenda at *this* moment" (emphasis added).

Meanwhile, Sharon continues to lay land mines that could blow up the entire region at any moment.

Well-informed Middle East intelligence sources went one step further, telling *EIR* that Sharon has been saying that his disengagement plan is a new version of his old "Jordan is Palestine" policy, now called "three countries for two peoples." The three countries include the Gaza Strip and Jordan, which will become the two Palestinian states, and Israel, with control of at least 60% of the West Bank and all of Jerusalem. Thus Sharon's disengagement plan will be Gaza first and Gaza only.

Two days after the summit, Israeli commentator Sefi Rachlevsky, wrote in *Ha'aretz,* "At most there is exploitation of the Israeli-American dominance to achieve some short-term quiet. Quiet not as a prologue or introduction, but as a replacement for a real arrangement."

The Land-Grab Land-Mine

The most dangerous of Sharon's land-mines was the government's decision to grab hundreds of millions of dollars of Palestinian property in East Jerusalem, as reported in *EIR* (Feb.4, 2005, "Will Sharon Heed God's Warning to Jezebel?") The scheme involved implementation of Israel's Absentee Property Law of 1950, whereby Israel would confiscate, without compensation, all property in East Jerusalem owned by Palestinians living in the West Bank. This involves hundreds of millions, if not billions, of dollars of property. Israel's leading daily, *Ha'aretz,* created a major scandal when it exposed the fact that the law would lead to the confiscation of "half of East Jerusalem," and would mark the beginning of emptying East Jersualem of its 250,000 Palestinians.

Shortly after the *Ha'aretz* exposé of Sharon's land grab, the Association for Civil Rights in Israel made an official request to the Israeli Attorney General, Menachem Mazuz, demanding that he immediately rescind the decision. On Jan. 31, the Mazuz told the group that he had never been informed about the decision, and on Feb. 1, he issued a ruling rescinding the decision, and rebuking the government.

In a letter he sent to Finance Minister Benjamin Netanyahu, whose ministry has been responsible for implementing the decision for the last six months, Mazuz declared, "This decision cannot stand," citing "many legal difficulties," including "Israel's obligations according to the rules of customary and international law." Referencing the international denunciation of Sharon's "Berlin Wall" on the West Bank, Mazuz said that the decision "could also have grave diplomatic repercussions on the separation fence, which has drawn strong criticism from the International Court of Justice at the Hague. This is an issue where clearly Israel's interest would be to avoid opening new fronts in the world and in international law."

Mazuz particularly criticized Likud Minister of Jersualem Affairs Natan Sharansky who, as a member of the Jerusalem Ministerial Committee, had initiated the decision.

'Like Thieves in the Night'

In an editorial titled "Like Thieves in the Night," *Ha'aretz* welcomed the decision by Mazuz, but asked the question of whether this is a case of corruption whose proportions are beyond anything yet seen in Israel. The editorial stated: "The possibility cannot be ruled out that the decision to expropriate thousands of dunams [4 dunams equal on acre] without compensation to their rightful owners, as the absentee property law allows, was the result of an economic plot by people on the political right who regarded those properties as a tempting real estate treasure."

After criticizing the role of Sharansky, *Ha'aretz* also referred to another committee member, Israeli Finance Minister Benjamin Netanyahu. Although Netanyahu claims he was not in the committee meeting that made the decision, he fully supported it.

The role of Sharansky exposes the duplicity of the neocons in the Bush Administration, especially Vice President Dick Cheney. Sharansky is close to National Security Council staffer Elliot Abrams, Deputy Secretary of Defense Paul Wolfowitz, the notorious Richard Perle, and other neo-cons, for which he is sort of an icon from the days when he was a Soviet dissident. But his most important relationship is with Cheney himself. Every time Sharansky travels to the U.S., which is often, he meets Cheney, who finds the time for hours-long meetings. It was Sharansky, for example, who convinced both Cheney and Bush to cut off any contact with the late Palestinian President Yasser Arafat.

Sharansky, who is even more hard-line than Sharon, and openly opposes Sharon's disengagement plan, has been touted as the spiritual author of President Bush's psycho-babble about a "new vision for U.S. foreign policy" in his Jan. 23 inaugural address. Bush was reportedly inspired by reading Sharansky's latest book, *The Case for Democracy: The Power of Freedom to Overcome Tyranny and Terror.*

Iran Is Not, Must Not, Be Another Iraq

by Muriel Mirak-Weissbach

If the Bush-Cheney Administration wants to target Iran as the next "outpost of tyranny" to be "liberated," as President Bush reiterated in his State of the Union address, it will have to fly in the face of the opposition of the rest of the world (with the exception of Israel).

The mission of Secretary of State Condoleezza Rice, on her rushed trip to Europe, was clearly this: to dictate to the Europeans, albeit in softened terms, that they must wield the stick as well as the carrot, in their talks with Iran on the issue of its nuclear energy program. The Europeans had made clear, prior to Rice's arrival, that they, the "EU-3" (Great Britain, Germany, and France), would continue to pursue their dialogue with Iran, and they urged the U.S. to support their diplomatic approach. French Foreign Minister Michel Barnier was quoted in the press as saying: "I cannot explain American policy to you. That would be French arrogance and I am not somone who is arrogant. But I think that the Americans must get used to the fact that Europe is going to act. And in this case, without the United States, we run the risk of failure."

German Chancellor Gerhard Schröder has spoken out almost every day, against the military assault threatened by Washington's neo-cons. At the World Economic Forum in Davos, he said: "This is a hotbed region, the last thing we need is a military conflict in that region. I'm very explicit and outspoken about this because I want everybody to know where Germany stands."

Rice exploited every available opportunity, during talks with German Foreign Minister Joschka Fischer, his French counterpart Barnier, and others, to issue warnings to Tehran. She summed up her message in a Feb. 9 interview on Fox News: "The Iranians need to hear that if they are unwilling to live with verification measures . . . then the Security Council referral looms," she said. "I don't know that anyone has said that as clearly as they should to the Iranians. The international community has got to be certain to speak with one very tough voice to the Iranians that it is not going to be acceptable for Iran to build a nuclear weapon under cover of civilian nuclear power."

Repeating that the U.S. would like to refer the issue to the UN Security Council, Rice added: "But they need to hear that the discussions that they're in with the Europeans are not going to be a kind of way-station where they are allowed to continue their activities, that there's going to be an end to this, and that they're going to end up in the Security Council."

Barnier's response was unequivocal. In order for the international pressure to yield results, he said, "we need Russia, we need China, and we also need the support of the United States in this delicate phase." Tony Blair was the only one who kowtowed to Rice, echoing the refrain that Iran supported terrorists, and "that they cannot breach the rule of the atomic energy authority and cannot develop nuclear weapons capability."

Adding to Rice's menacing words, President Bush then issued a statement Feb. 9: "The Iranians just need to know," he said, "that the free world is working together to send a very clear message: Don't develop a nuclear weapon. And the reason we're sending that message is because Iran with a nuclear weapon would be a very destabilizing force in the world."

Not coincidentally, International Atomic Energy Agency head Mohammad ElBaradei, whose fine-tuned negotiating powers have been instrumental in reaching the agreement between Europe and Iran, was put under fire. Wire reports circulated about U.S. plans to dump ElBaradei. Unnamed "diplomats" in Vienna said, that at the Feb. 28 meeting of the IAEA, Washington would seek to shoot down ElBaradei's bid for a third term, because he is considered "too soft" on Iran. U.S. Undersecretary of State John Bolton and other senior State Department officials were reportedly "still lobbying the capitals" against ElBaradei.

New Line-Up at the United Nations

If the U.S. were to proceed along the lines established in the Iraq war, it would take the Iranian nuclear case to the UN Security Council, call for sanctions, and then, arguing noncompliance, move towards military options. So much has been indicated by Bolton, Rice, and President Bush himself. But this time around, the chairs on the Security Council have been rearranged. The Russian government has explicitly endorsed the EU-3 approach (see *EIR,* Feb. 4, 2005).

In late January, a high-level Russian delegation visited Iran, for "strategic talks," to be followed by the arrival of Russian Atomic Energy Agency Director Alexander Rumyantsev, on Feb. 25. Rumyantsev is to finalize plans for opening the Bushehr nuclear power plant, and discuss the construction operations required to build the plant's second of seven more planned units. The two sides are to sign the contract on returning the plant's spent nuclear fuel to Russia. The 100-megawatt plant will be launched in late 2005 and reach full capacity in 2006.

In addition to the Russians' unwavering commitment to assisting Iran's nuclear energy program, the Chinese have made clear that they will not sit back while another Iraq war is being staged. Speaking in New Delhi, Chinese Vice Foreign Minister Wu Dawer told Indian Foreign Secretary Shyam

Saran, that China was talking to Russia, France, and Germany, in order to take steps against any U.S. hostile action against Iran. Wu said China would urge Pakistan not to allow its airspace to be used for a U.S. strike against Iran, and urged India to follow suit.

Any neo-con fanatic might respond: To hell with the UN Security Council; unilateralism is a reality and, if need be, Bush-Cheney will go to war alone. Preparations for military and/or political action are well under way. As Richard Sale documented in a Jan. 26 UPI story, the U.S. Air Force is conducting overflights in Iranian air space, in an attempt to provoke the Iranians to lock on their radar, thus identifying the locations of their air defenses. This is what the U.S. did for years prior to the last Iraq war, when it flew regularly over the "no fly zones" to detect anti-aircraft capabilities, which were then bombed. Iran, which is not on its knees as Iraq was, could respond to espionage overflights by firing on the aircraft.

The MKO Option

The other operations Sale exposed were related to intelligence-gathering by Israeli-trained Kurds in northern Iraq, and the MKO-MEK (Mujahedeen e-Khalq), the Iraqi-based anti-Iranian terrorist organization.

At this point: enter Maryam Rajavi, leader of the so-called National Council of Resistance, the political front organization of the MKO. Rajavi authored an op-ed in the Jan. 28 *International Herald Tribune,* pleading with the U.S. State Department for "removal of the terrorist tag that has been put" on the MKO, to allow it to play its role as "the pivotal force in the largest Iranian opposition coalition," that is, her National Council of Resistance, "which has revealed Tehran's nuclear, missile, and terrorist plans." (In fact, the MKO is the entity which has supplied the U.S. with "intelligence" on Iran's alleged weapons of mass destruction, just as Ahmed Chalabi had fed it lies on Iraq.)

Rajavi argued that the Iranian people were ripe for "democracy," adding that "The Iranian resistance is committed to holding free and fair elections within six months of *regime change,* to electing a constituent assembly, and handing over affairs to the people's elected representatives." Days later, the *Frankfuerter Rundschau* sported a half-page ad, announcing a mass demonstration to be held in Berlin on Feb. 10, in support of Rajavi's operation.

As Rajavi boasted, there are U.S. Congressmen lobbying to remove the MKO from the State Department's terorist list. In fact, on Feb. 4, Sen. Rick Santorum (R-Pa.) announced that he was redrafting a bill to authorize U.S. funding for opposition groups in Iran. "The bill also notes the futility of working with the Iranian government," Santorum told Fox News. In addition, the House of Representatives has a bill, backed by Reps. Ileana Ros-Lehtinen (R-Fla.), Dana Rohrabacher (R-Calif.), and 48 others, known as the "Iran Freedom Support Act," which calls for the MKO to be taken off the terrorist list, so that it can be unleashed against the Iran regime. Finally, none other than Paul Wolfowitz has been an active participant in NCR/MKO public events in Washington.

Thus the MKO option is not idle chatter. The organization has a hard core of some thousands of ideologically brainwashed, militarily trained terrorists, who, over the last years, have successfully deployed into Iran to set off bombs and assassinate dozens of leading political figures.

That the United States is using the MKO, is the best proof of the fraud of Bush-Cheney's rhetoric about the "war against terrorism." Although kept under wraps, it is a hard fact that beginning in 2003, it was made known in Washington, that the Iranians had a significant number of top al-Qaeda terrorists in their custody, and a prisoner exchange—al-Qaeda for MKO—could have been arranged. A first step would have been the exchange of information, that is, the names of those al-Qaeda and MKO leaders in custody. The second step would have been the exchange of prisoners. Were Bush, Rumsfeld, Wolfowitz, et al. truly interested in defeating al-Qaeda, they would have jumped at the chance. That they did exactly the opposite—refusing any such proposition—confirms the fraud, as well as the intention to deploy such terrorists against Iran, perhaps as the maiden voyage for Rumsfeld's new fleet of Salvador-style death squads.

Iran Wants Nuclear Energy, Not War

No one in Iran wants war. But it is folly to imagine that the government would capitulate under military assault, or that throngs of Iranians would take to the streets, waving American flags, while moving to the Presidential palace to overthrow the regime. Under attack, Iranians will close ranks in defense of their sovereignty and independence, and precisely those conservative clerical leaders, whom Bush and Co. say must go, will be immensely strengthened.

This was made clear in the official reactions to Washington's saber-rattling. Hassan Rowhani, head of the Supreme National Security Council, and a negotiator on the nuclear issue, stated on Feb. 6 that Iran's nuclear centers "cannot be destroyed. Our nuclear technology," he explained, "comes from our scientists and we can transfer our nuclear workshops under mountains and carry out enrichment where no bomb or missile can be effective." A day later, President Mohammad Khatami pledged that Iran would not develop nuclear weapons, "But we will not give up peaceful nuclear technology" including the enrichment capability. He made known that Iran would not bend under pressure, even if it came from a Rice-whipped European Union.

"I stress very clearly that all our patience, if we felt others are not meeting their promises, under no circumstances would we be committed to continue fulfilling ours," Khatami said. This referred to the EU-3's promise of technology and en-

hanced trade relations, in return for Iran's suspension of its uranium enrichment program. Khatami concluded with a threat: "And we will adopt a new policy, the consequences of which are massive and would be the responsibility of those who broke their commitments."

Even forces inside Iran who are critical of the current government, spoke out against any military aggression. Nobel prize winner Shirin Ebadi, an Iranian human rights activist, penned an op-ed that appeared in the *International Herald Tribune* on Feb. 9, entitled "Why an Attack Would Be Folly." She argued that "the threat of foreign military intervention will provide a powerful excuse for authoritarian elements to uproot these [human rights] groups and put an end to their growth." Any attack would destroy lives and infrastructure, she said. "[G]etting the Iranian government to abide by . . . international standards is the human rights movement's highest goal; foreign military intervention is the surest way to harm us and keep that goal out of reach."

While holding firm to its nuclear program, and vowing to adopt harsh methods if put under undue pressure, leading Iranian politicians also hinted at the possibility of normalizing relations with the U.S., if Washington were to abandon its threats. On Feb. 1, Supreme National Security Council head Hassan Rowhani, extended a hand in the direction of the U.S., saying relations could and should improve between Tehran and Washington, if the latter were to come to reason. Just days later, former President Hashemi Rafsanjani (who is also mooted as a candidate again) gave an explosive interview to *USA Today.*

In his first interview with an American reporter since 1997, Rafsanjani proposed that the U.S. take the first step to open a dialogue with Iran, suggesting "the best positive sign" would be to unfreeze Iran's assets (about $8 billion) that have been frozen since the 1979 Tehran hostage crisis. He called "Miss Rice . . . a bit emotional" about Iran, and said an entire editorial could be written about President George Bush's frequent "slips of the tongue," which are not "correct or appropriate for someone in that high position as the President of the United States. . . . The U.S. is a big country, but unfortunately, it seems it has the brain of a little bird not befitting the greatness of the country," Rafsanjani commented.

Rafsanjani's son, Mehdi Hashemi, explained to *USA Today* that his father "wants to solve the American problem. Because if he solves the American problem, he solves all Iranian problems."

These interventions should be read as a response not so much to the threats, but to the growing opposition internationally—and inside the U.S.—to another Desert Storm. Just as European politicians have been fortified in their stance, by the emergence of a strong opposition to Bush inside the U.S., so the Iranians have seen that the American political landscape is not painted in black and white, but is multi-colored and nuanced.

China and India Aim To Extend Cooperation

by Ramtanu Maitra

The first-ever strategic talks between India and China, which took place in New Delhi on Jan. 24-25, were the outcome of years of efforts by these two largest Asian nations "to take bilateral engagements into a long-term and strategic relationship." Chinese Vice-Minister of Foreign Affairs Wu Dawei, who is also involved in the six-party talks on North Korea's nuclear program, and Indian Foreign Secretary Shyam Saran raised hopes that the two would begin to position their bilateral relations in the context of broader regional and global perspectives.

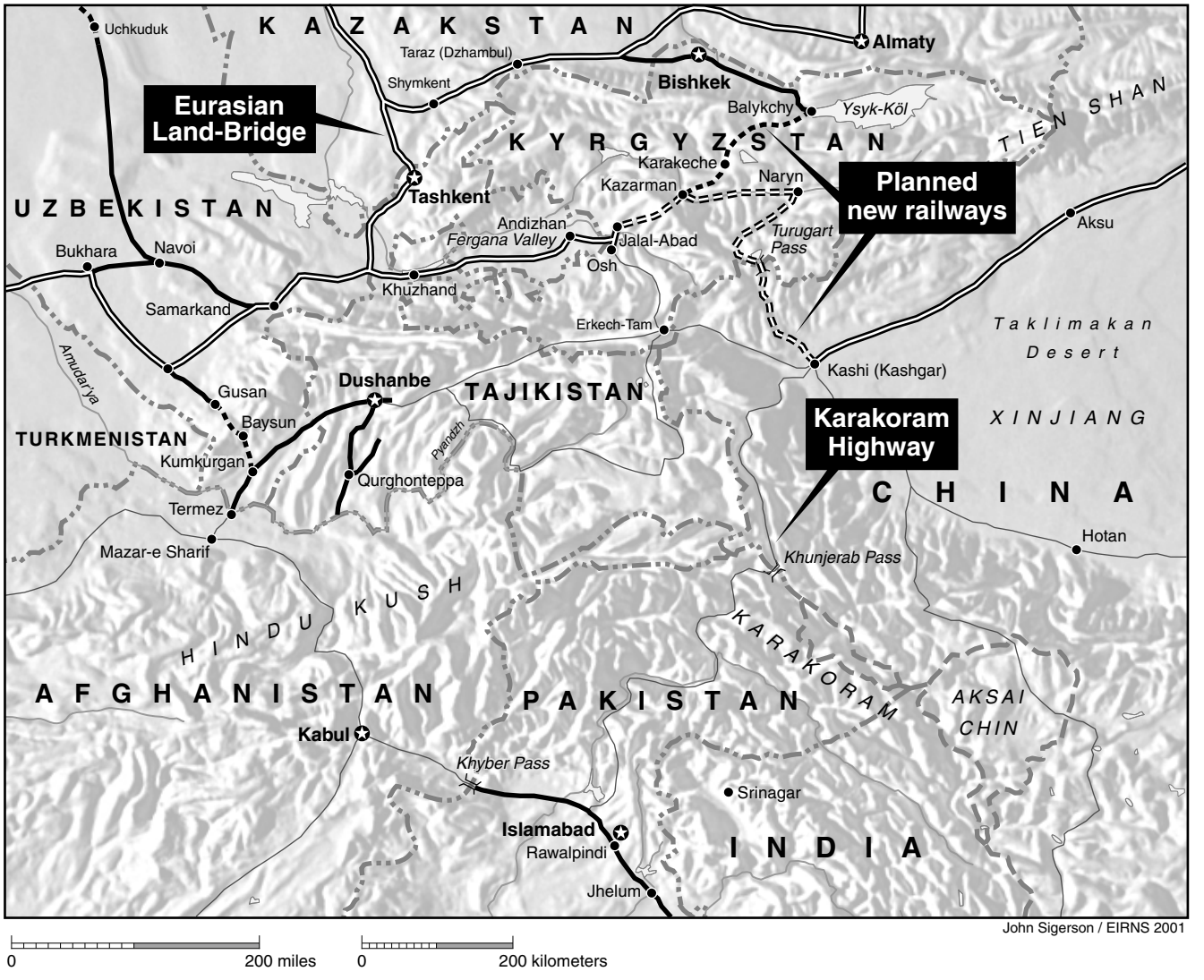
One of the most important outcomes which emerged from the dialogue is the expressed concern of China about deteriorating U.S.-Iranian relations, triggered by U.S. insistence that Iran's nuclear fuel enrichment program is a cover for developing weapons of mass destruction. Wu Dawei made clear that Beijing is pressing Moscow, Paris, and Berlin to take steps to prevent any U.S. hostility against Iran, saying that China is willing to mediate with the United States and the West about Iran's nuclear program. New Delhi urged the Chinese Vice-Minister to impress upon Pakistan not to open its air space to the U.S. Air Force, in case Washington plans air strikes on Iran.

Regional Cooperation

In early December, to prepare the grounds for the strategic talks, a seminar was held at the Institute for Peace and Conflict Studies (IPCS) in New Delhi. Zhang Guihong, the deputy director of the Institute of International Studies, at Zhejiang University in Hangzhou, pointed out that China and India could play a major role in regional affairs. He grouped China and India with Pakistan (nuclear), Japan (economic), Russia (multipolar), and United States (strategic) to form respective triangles, to basically affirm the two countries' important place in the world. He also grouped the two with the Association of Southeast Asian Nations (ASEAN) and Central Asia, to discuss the benefits of a triangular relationship.

On Jan. 28, India's Commerce and Industry Minister, Kamal Nath, told the World Economic Forum at Davos, Switzerland that the complementarities between the two nations' economies are in the process of being harnessed, and when that happens, it would result in achieving rapid expansion of bilateral trade and economic ties.

Central Asia: A Focus of Regional Development



"The India-China two-way trade is now US$1 billion a month, compared to US$1 billion a year a decade ago. This twelve-fold increase in the last decade only goes to prove that though we are competitors in many respects, we are also complementary and supplementary to each other," an official statement said, quoting Kamal Nath. He also pointed out that if one takes ASEAN, China, Japan, Korea, and India together, the size of such an integrated market is that of the European Union in terms of income, and bigger than the North American Free Trade Agreement (NAFTA) in terms of trade.

While the credit for identifying India as a potential economic partner should go to former Chinese Prime Minister Zhu Rongji, it is India which recognized China's value as a possible ally in espousing some developmental issues in the World Trade Organization (WTO). The current volume of China-India trade ($12 billion) is of modest proportions by world standards, but the fervor of the new dialogue cannot be missed. A studied Chinese viewpoint is that any "Free Trade Arrangement between China and India in the Information Technology sector will be hard to achieve in the short term," because "competition between the two countries" is considered "inevitable," despite the fact that India's software sector is much superior to China's at this stage.

But beyond the direct trade, definite moves have been made by both—China, in particular-for regional economic development. According to analyst D.S. Rajan, since June 2004, China's Xinjiang Autonomous Region has been pro-

moting a nationwide campaign, aimed at achieving economic integration of Kashgar (Kashi), a town known for its historic role in China's trade along the ancient Silk Road, and eight countries in Central and South Asia: the bordering countries of India, Pakistan, Afghanistan, Tajikistan, and Kyrgystan, and the other Central Asian republics of Uzbekistan, Turkmenistan, and Kazakstan.

Speaking at a seminar in Kashgar on June 29, 2004, the town's deputy party secretary Zong Jian had alleged that the U.S. entry into Central and South Asia following 9/11 under the pretext of fighting terrorism, and the subsequent growth of the influence of forces representing Western powers, posed a serious threat to the security of China's thinly populated Xinjiang province. Arguing that economic factors play a stabilizing role in such situations, Zong pointed out that because of the threats posed by Western encroachment, Xinjiang wants to forge close and mutually beneficial economic relations with the Central, South, and West Asian countries.

On the proposed economic integration of Kashgar with the emerging Central and South Asia economic grouping, no specific policy announcement from Beijing has emerged. One of the reasons perhaps is Kashgar's weak infrastructural facilities. Xinjiang officials have demanded road and air links between Kashgar and neighboring countries, and establishment of entry/exit permit-issuing agencies, as well as visa offices of Central and South Asian countries in that city, to facilitate border trade and attract foreign investment. In addition, they asked for setting up a Central-South-West Asia University in Kashgar, which could train personnel capable of meeting the region's economic development requirements. Some even visualized conversion of Kashgar into a western "Shenzhen," in the long run.

Shenzhen, an island in the south, was the booming export-processing-zone set up by China in the late-1980s. Diplomats in China representing Tajikistan, Afghanistan, Pakistan, India, and Kazakstan endorsed the proposal, while taking part in the Kashgar seminars.

Rajan points out that in the South Asian context, the proposal for Kashgar's economic integration with the outside world may be of particular interest to India, which, until the early 1950s, maintained a trade mission in that town. Proposals for an India-Xinjiang land link; a Delhi-Kashgar air route; laying a natural gas pipeline from Xinjiang to India through Ladakh, located in the Indian part of the state of Jammu and Kashmir; and bilateral cooperation in agriculture and food processing, traditional medicine and herbs, energy and oil production, and tourism, were put forward by the Chinese hosts. It is interesting to note that Indian External Affairs Minister Natwar Singh has been invited to visit Xinjiang.

Defense Cooperation

While economic cooperation between the two nations had begun in earnest in the year 2000, the most encouraging recent development is in defense cooperation. In December 2004, India's then-Army chief, Gen. N.C. Vij, during his week-long visit to China, was given a warm welcome. Chinese state media reported that during his visit, China and India agreed to deepen defense cooperation: a sign of warming relations between the giant neighbors and former foes. Vij capped his visit to China, the first by an Indian Army chief in a decade, with talks with his counterpart, Liang Guanglie, and Defense Minister Cao Gangchuan. Cao told the Indian general that "China would like to step up its cooperation with India in the defense and security sector and advance the bilateral military ties to a higher level," Xinhua reported. China and India held their first-ever joint military exercises in March, and Vij said India may invite Chinese officers to observe its military drills.

The Indian general's trip to China was the outcome of a high-profile visit to India by Defense Minister Cao Gangchuan from March 26-30, 2004, and the first meeting of the newly formed Sino-Indian Joint Study Group (JSG) on Trade and Economic Cooperation in Beijing on March 22-23.

In a broader sense, the latest phase of growing trust in China-India relations can be traced to the success of the visit to China by Prime Minister Atal Behari Vajpayee in June 2003. The dialogue on the boundary dispute, at the level of Special Representatives, and the JSG process can be directly linked to the results of Vajpayee's talks with Hu Jintao, Wen Jiabao, and Jiang Zemin, former Chinese President and chairman of the Central Military Commission of the Chinese Communist Party and the government.

While the Chinese Defense Minister's visit to India, the first in nearly a decade, can also be seen in the same light, Cao Gangchuan's agenda had much to do with the process initiated during Indian Defense Minister George Fernandes's visit to Beijing in April 2003. Fernandes had on that occasion proposed joint naval exercises, in an effort to allay some of China's suspicions about India's intentions in its neighborhood. The first such exercise, a confidence-building measure (CBM), has already taken place. For the Chinese Navy, the exercise involving India in late 2003 was only the second CBM with any country (the first was with Pakistan).

It was Defense Ministers Cao and Fernandes who agreed in New Delhi, on March 29, 2004, that the two countries would grant each other the status of an observer during their respective military exercises involving other powers. That is considered a very definite step forward in establishing mutual trust.

Continuing Irritants

There is little doubt that China and India have come a long way in restoring their tattered relationship in the wake of the May 1998 Indian nuclear tests (Pokhran II). India's testing of nuclear weapons then caused a frosty chill on the bilateral front, mainly on account of the manner in which the Indian

leaders had portrayed China as the critical factor in New Delhi's decision to become a "nuclear power." Beijing's interpretation of India's justifications of its nuclear tests was no less a contributing factor. Soon after Pokhran II, Beijing made no secret of its view that India was seeking to emerge as a "regional hegemon," bent upon pursuing a policy of "containment" of China.

Despite the remarkable improvements in bilateral relations, serious obstacles remain. These include the unresolved boundary issue, Tibet, and the Sino-Pakistan nexus. The boundary issue involves more than 125,000 square kilometers in disputed territories. According to observers, for some time, the discussions on the boundary issue have been put on the back burner. This could well have been the right approach to build an atmosphere conducive for dealing with this contentious issue. But at the same time, both sides seem to realize that the issue remains a festering sore, liable to erupt at the slightest provocation. On the other hand, the Tibet issue is becoming less of an irritant, since the former Indian Prime Minister Atal Behari Vajpayee, during his 2003 China visit, made clear that Tibet is a part of China. Still, India's hosting of the Dalai Lama, his entourage, and 120,000 Tibetan refugees, including the titular heads of two major Tibetan-Buddhist sects, is eyed by some in China with considerable suspicion. At the same time, there are some tentative signs of improvement in Beijing's relations vis-à-vis the exiled Tibetans abroad, following the recent initiation of dialogue between the Dalai Lama's emissaries and Beijing.

Perhaps the most explosive issue in bilateral relations is China's strategic relationship with Pakistan. India continues to fret about China's alleged nuclear and missile assistance to Pakistan. According to Western diplomatic sources, Beijing had conveyed to Washington years ago that Pakistan's strategic value to China in the South Asian context was comparable to Israel's critical relevance to the United States in the West Asian context.

The China-Pakistan relationship predates Beijing's contact with India's other neighbors, and goes back to the early 1960s. About 80% of Pakistan's Armed Forces are armed with Chinese equipment, as are 60% of its military aircraft. This long-standing relationship continues, and the changed Sino-Indian relations are unlikely to change it in the near future.

There are indications, however, that Beijing, having joined the Nuclear Suppliers Group (NSG), is in the process of diminishing its nuclear relationship with Islamabad. Answering a question from the floor at the IPCS seminar in New Delhi, Zhang Guihong pointed out that China's relationship with Pakistan in the future would be limited to economic and military matters. In addition, while China maintains its military contacts with Pakistan, it has begun to distance itself politically from Pakistan; it no longer gives Pakistan unconditional support in Pakistan's dispute with India over Kashmir, but urges discussion and moderation.

Outflank the Push for Colombia-Venezuela War

by Maximiliano Londoño Penilla

This statement was issued by the president of the Lyndon LaRouche Association in Colombia.

The recent conflict between Colombia and Venezuela, is a typical example of a border conflict manipulated from abroad, which could set off an absurd and fratricidal war. This conflict was triggered by the capture of Rodrigo Granda, a high-level member of the anti-government and pro-drug-production guerrilla group, Colombian Revolutionary Armed Forces (FARC), who reportedly was handed over to Colombian authorities by Venezuelans who pocketed a bounty that had been offered by the Colombian government. The Venezuelans, on the other hand, charged that he was kidnapped by Colombians operating inside Venezuela, wth the collaboration of bribed Venezuelan national guardsmen.

After 15 days, during which diplomatic and commercial relations between the two nations were paralyzed, a communiqué was released on Jan. 28 by the Colombian presidential palace, the Casa de Nariño, announcing that the conflict had been resolved, and that on Feb. 3 Colombian President Uribe would go to visit Venezuelan President Chávez, to hear what he had to say, and offer his own observations.

The communiqué indicated that the Colombian government was fully prepared "to review the facts that are of public knowledge, and that if, in the view of the Bolivarian Republic of Venezuela, they are deemed inappropriate, they will not be repeated. All this in harmony with a combined political goal, that will allow Colombia and Venezuela to advance a binational strategy against terrorism, drug trafficking, contraband, kidnapping and other crimes. This strategy will be developed through the application of current mechanisms or with others defined by the governments, always with the strictest regard for legality and in particular for the sovereignty of both nations."

Uribe's communiqué, which had been drafted in consultation with the Venezuelan government, has, at least for the moment, satisfied Hugo Chávez, who had demanded at least some gesture from Colombia toward recognizing that it had violated Venezuelan sovereignty. Nonetheless, Chávez indicated that the matter would only be resolved once he meets with Uribe, and the respective explanations are given.

The governments of Brazil, Cuba, and Peru, in particular, had acted to help find a diplomatic solution acceptable to both sides, one which would reduce the possibility of U.S.

involvement that could have aggravated the conflict. However, the most effective diplomacy turned out to be based on the close physical-economic links between the two nations. Residents of the border zones and the business communities of both nations mobilized to demand a fraternal solution appropriate to the neighboring nations.

Regional War Scenarios Planned Years Ago

More than two decades ago, the Rand Corporation, among similar such institutions, had prepared scenarios for an eventual war between the United States and Venezuela, assuming the eventuality that a hostile Venezuelan government would threaten to suspend oil shipments to the United States. According to these scenarios, it would be a proxy war—that is, Colombia would be used as the spearhead against Venezuela. Given the announcements of George Bush that he will continue his so-called crusade to free the world of tyrants, and the recent statements of Condoleeza Rice, warning that Hugo Chávez is a "negative force in the region," it comes as no surprise that the Jan. 21 edition of the *Wall Street Journal* demanded that Bush help President Uribe against the Venezuelan tyrant, since Bush has made it clear that any government that gives refuge to terrorists is an enemy of the United States.

In his second inaugural address, Bush promised that he would give the Iraq treatment to other countries. Will Venezuela be the next Iraq? In fact, Chávez and the FARC, with their provocations, are doing everything possible to give the United States a pretext for militarily invading the region, in the guise of fighting terrorism.

The FARC, Chávez, Evo Morales's coca-farmers in Bolivia, and similar political forces hope to turn Central and South America into a scene of confrontation with the United States, reviving Che Guevara's old idea of creating "one, two, many Vietnams." At the same time, Bush, Cheney, and Rumsfeld, under the pretext of fighting renegade regimes and conquering ungovernable areas, also want to create chaos, thus creating preconditions for razing nations and eliminating national sovereignty. The Wall Street and City of London bankers are desperate, as they see their IMF-based world monetary and financial system collapsing in a systemic and global crisis, because debt service is growing more rapidly than the capacity of nations to pay. Just as in the 1930s, when the Anglo-American bankers put Hitler in power, today these same financial interests hope to impose a world fascist dictatorship by establishing a new version of the Roman Empire, this time the empire of Wall Street's and London's usury.

As U.S. statesman Lyndon H. LaRouche has explained to those who are trying to find some rational explanation for the U.S. invasion of Iraq, the truth is that the goal of the Bush Administration has been effectively achieved—namely, to cause destruction, genocide, hunger, chaos, religious warfare, territorial fragmentation, and so on, and to extend this process to other areas of the world. Why? Because this provides a justification for imposing a world dictatorship, shattering all lawful order, to try to salvage and recycle the dying financial cartel which controls the nations of the world today.

There Is an Alternative: Regional Economic Development

To be able to comprehend such events as the Granda case, it is necessary first to comprehend the strategic framework in which they occur. There are two mistaken axiomatic assumptions involved if one takes sides in the Colombia-Venezuela conflicts: 1) to believe that this is a local, Colombian-Venezuelan problem, and that for patriotic reasons, we [Colombians] must unconditionally support and institutionally align ourselves with the national government; and 2) to consider that all options have been exhausted, and that there is no other way than to capture Granda, or any other terrorist, however and wherever we can, because Chávez will never cooperate.

As is clear, the apparent validity of these axioms has been crushed by reality. In the first place, the IMF-based world economic system is in flames, and a band of fascists controls the White House. IMF adjustment programs have destabilized every nation on the planet. Argentina has experienced repeated changes in government, and President Kirchner is facing the fury of the creditors, who insist on collecting their pound of flesh. President Mesa of Bolivia is on the verge of falling before the combined forces of Evo Morales's *coca-leros* and the Santa Cruz oligarchy, which is now promoting separatism.

In Peru, President Alejandro Toledo is not even loved by his own daughter, despite having been placed in the Presidency thanks to the good offices of the United States, which mobilized to oust his predecessor, Alberto Fujijmori, who was America's firmest ally in the fight against narco-terrorism. Now, you have the so-called "ethnocacerist" Humala movement (based on ethnicity), the Shining Path insurgency, and all other kinds of indigenist uprisings occuring in a Peru victimized by the IMF. Ecuador is a pressure cooker on the verge of exploding once again. And in Colombia, we are in total war against the narco-terrorists of all stripes, both left and right. To aggravate the Colombo-Venezuelan conflict could serve as the new detonator in a region that is already an economic, political, and social volcano in full eruption.

In the second place, it is obvious that there are options, other than paying members of the security service of a neighboring nation, to capture Granda. Brazil President Luiz Inácio Lula Da Silva's efforts to seek a negotiated solution to this conflict are important. What Uribe had achieved last year in his relations with Chávez is the path to follow: Implement important economic agreements to bring about joint regional infrastructure projects. The construction of the binational gas pipeline that would connect Colombia's Guajira region with Venezuela's Maracaibo must not be suspended. While it is true that Venezuela is eighth in the world in terms of natural gas reserves, those reserves are not located in the border areas with Colombia; thus the Venezuelan border states of Zulia

and Táchira could be supplied with Colombian natural gas. The future expansion of this project would then allow Venezuelan gas, in turn, to be delivered to Central America and to the Colombian Pacific coast.

In fact, there already is some electricity integration between Colombia and Venezuela, which is the first step toward the kind of broader energy integration that could be achieved. Despite the stupid comment of Colombian Vice President Francisco Santos, to the effect that Colombian-Venezuelan trade—which reached $2.5 billion last year—is not important, the truth is that Colombia and Venezuela are indissolubly integrated, both physically and historically. For example, the Colombian plains are more interconnected with Venezuela in terms of supply routes, than to the rest of our own country, for lack of adequate transportation infrastructure inside Colombia. In general, 1,200 kilometers of common border have made for fluid, but still very limited, economic interchange, due to restrictions imposed by the IMF, which under the pretext of fighting the fiscal deficit, will not allow any investment in public works.

At the present time, Colombia exports approximately $1.3 billion worth of merchandise to Venezuela annually, which is a big improvement from the crisis period of 2003, when annual exports fell to only $693 million. The year before, they had been $1.742 billion. Colombian exports to Venezuela currently represent approximately 10% of total sales abroad. At one point, some 30% of Colombian exports went to Venezuela. In the textile sector alone, Colombia exports $154 million a year to Venezuela. Under current conditions, our textile manufacturers cannot compete with those of Asia, and in particular with Turkey. So Venezuela is our natural market. Chemical products constitute 20% of Colombia's exports to Venezuela, while food and drink account for 16%.

With the recent retaliatory measures taken by Chávez, all economic and infrastructure projects were suspended, and binational trade and highway transport were reduced to the minimum. For example, 1,800 tons of crude and coking coal from Colombia, being transported through Venezuela and destined for export to the United States and Central America, were frozen at the ports of Ceiba and Maracaibo. Last year, coal worth $45 million, from Colombia's Norte del Santander province, was exported. Now, all supplies of cheap Venezuelan gasoline to Colombia's border cities has also been suspended. Eighty percent of everything consumed in Colombia's Arauca province, along the Venezuelan border, is transported by Venezuelan highways, because ours would take ten hours longer to get there.

Brazil's mediation in this conflict is important because it will lead to closer ties between Colombia and Brazil. In the meeting held on Jan. 19 between Lula and Uribe, not only was the Colombian-Venezuelan conflict addressed, but a bilateral agenda, heretofore minimal, began to be expanded upon. For now, binational projects between Colombia and Brazil are at the embryonic stage, but this could rapidly grow, if there is a break with IMF policy that has vetoed this great potential. At that meeting, agreements were signed for the mutual provision of health services between Leticia (on the Colombian side) and Tabatinga (on the Brazilian side), and possibilities for expanding trade were explored as well.

Brazil, which is eagerly seeking outlets to the Pacific, is interested in building a highway between the cities of Pasto and Mocoa, but financing for the project must first be arranged. Construction of the Meta-Orinoco waterway must begin immediately, as well as the intermodal Tumaco-Puerto Asís-Belem do Pará corridor, projects with which both Brazil and Colombia are in accord.

In sum, as LaRouche has insisted, the only way to sow peace between nations is through the joint development of great economic and infrastructure projects. The issue is the physical economy between Colombia and Venezuela, in the context of developing great development and infrastructure corridors that can connect our region with the rest of the planet. The agenda of Bush, Cheney, and Rumsfeld is to sow chaos and destruction in the region, through every kind of ethnic and resource war imaginable. Colombia must insist instead on an agenda of great economic projects, and must abandon the illusion that by trying to imitate the hunter-killer squads that Cheney and Rumsfeld have created to capture enemies, that the problem of narco-terrorism can be solved. What is needed is cooperation among nations, with respect for the sovereignty of each, to eliminate any logistical, economic, or political advantage for the narco-terrorists.

Chávez should be taken at his word, when he insists that he does not support the FARC narco-terrorists. Concrete mechanisms must be established to supervise this process, and guarantee that this policy is carried out. The military forces of both countries can play a key role, in a coordinated process of mutual support (each in its own national territory, without foreign intervention nor hot pursuit), to eliminate the presence of narco-terrorists who exploit the long border to create trafficking corridors. Many of the mechanisms that currently exist for resolving border conflicts between the two nations must be activated, along with the deployment of the respective foreign ministries, and of mediating friendly nations. President Uribe and all public officials should abstain from trying to compete with Chávez in his war of the microphone. But no merely political or diplomatic solution will ultimately hold, unless the physical-economic links between the two sister countries are strengthened.

To reach us on the Web:

www.larouchepub.com

Russian Diplomat On FDR Post-War Design

by Mary Burdman

The Feb. 11, 1945 Yalta summit among President Franklin Delano Roosevelt, Soviet leader Joseph Stalin, and British Prime Minister Winston Churchill "could have become a new chance for the world," Russian Professor of History Valentin Falin said, in an interview with *RIA Novosti* on the 60th anniversary of the summit. Speaking with *Novosti* military commentator Viktor Litovkin, Falin emphasized Roosevelt's commitment to work with Stalin and the Soviet Union, which was closer than his commitment to Winston Churchill. Falin's conclusions are based, he said, on the memoirs of FDR's Secretary of State, Edward Stettinius, Jr., an influential industrialist, who was at Yalta.

Falin was Soviet Ambassador to West Germany in the 1970s, during a period of economics-centered cooperation negotiated by Chancellor Helmut Schmidt and Soviet leader Leonid Brezhnev. He subsequently became a top Soviet information official, heading *Novosti* and then the International Information Department of the Communist Party of the Soviet Union Central Committee.

A long-time student of World War II, in the 1980s Falin organized regular Soviet-German seminars on history called the Falin Roundtable. He has been involved in uncovering new archival material, and organizing discussions of some of the most sensitive phases of 20th Century history, such as the Ribbentrop-Molotov ("Hitler-Stalin Pact") agreements of 1939. In his *Novosti* interview, Falin proposed to look at Yalta more substantially than as a geopolitical map-drawing session for the post-war world.

One "major detail" of the Yalta talks, which no one writes about, Falin said, was that President Roosevelt promised Stalin a loan of $4.5 billion (a huge sum at the time) for post-war reconstruction. Roosevelt, Falin noted, "knew that Stalin offered the Americans a vast number of concessions and exceptionally good investment conditions, and was pondering the idea of creating a market economy in the Soviet Union. The dream did not become reality only because Roosevelt was succeeded by Truman, a man who ordered Eisenhower on the way from the Potsdam Conference to draft a plan of a nuclear war against the Soviet Union, called Totality."

The Yalta agreements were highly controversial already in 1945, and more so during the Cold War, Falin said. Stettinius considered Yalta "the summit of U.S. cooperation with the Soviet Union and partly with Britain." Most decisions there were based on U.S. proposals, not Soviet ones, Falin said. FDR wanted to end arms races after the war, because he considered a healthy world economy incompatible with an arms race.

Roosevelt's View of Stalin

As for Roosevelt's evaluation of Stalin, Falin considers it sophisticated, as against the widespread notion that the Stalin bamboozled him: "Next, Roosevelt understood Stalin very well; he saw that Stalin, while outwardly acting according to Marxist-Leninist principles, was in fact a die-hard pragmatist. For Stalin, ideology was a cover, a camouflage, if you want. And there is documentary proof, in particular in the documents of Churchill, Roosevelt, and even Hitler, that the U.S. did not view Stalin as a communist. The issue of ideology as such was important for the public, but was always of secondary significance for taking fundamental historical decisions."

Roosevelt had objected to the Stalin's purges of the Soviet military and other show trials in the 1930s, and to the Soviet attack on Finland in 1939, Falin added, but in some ways FDR was more critical of the British than of the Russians.

FDR "was a sober and far-sighted politician who thought that America's economic might, even in the absence of strike forces, would ensure his country the leading role in the world." At the same time, he realized that the Soviet military saved the U.S. from catastrophe in 1942, when it held on in Stalingrad. Said Falin, "Secretary of State Stettinius wrote that the U.S. was within a hairbreadth of catastrophe in 1942. If the Russians had lost faith at Stalingrad, if the battle on the Volga proceeded according to Hitler's plans, Germany would have conquered Britain, established full control of Africa and the oil-rich Middle East, and seized Latin America. This would have had extremely negative consequences for the United States. This is what the Americans thought during the war, and so the alliance between Stalin and Roosevelt was no accident."

In early 1945, U.S. troops were embattled in the Ardennes, but the Red Army attacked (again, as it had for over two years!) ahead of schedule, saving the Allies on the Western Front.

Falin pointed out that FDR also rejected Churchill's idea to conquer Germany and use Germans to hold the Russians back at the Oder River, which never would have worked: "He saw through Churchill's promises about putting Germany in the Anglo-Saxon pocket and leaving Russians in the cold, stopping them at the Vistula or the Oder, at the most. It was not a practical policy but fantasy; it was better for America not to sever relations with Russia but to continue cooperation with it, so that the post-war world would be foreseeable and predictable, without the threats America was facing at the time. Roosevelt wanted a post-war world that would correspond to at least some of his views of democracy and human and social justice." Roosevelt wrote at the time, "We shall have to take the responsibility for world collaboration, or we shall have to bear the responsibility for another world conflict."

Berlin Seminar Debates UN Role in 'Westphalian' Community of Nations

by EIR Staff

In Berlin on Jan. 12-13, some forty participants from Eurasia, the United States, and Africa met at an *EIR*-sponsored seminar, on the theme "Dialogue of Civilizations: Earth's Next Fifty Years." The meeting was keynoted by Lyndon H. LaRouche, Jr., who called for a revived "Peace of Westphalia"—a dialogue of civilizations that would place a perspective for 50 years of Eurasian economic development at the center of efforts for world peace. Like the 1648 Treaty of Westphalia which ended Europe's Thirty Years' War, the approach today to ethnic, religious, and regional strife must be based on the principle of each party enhancing "the advantage of the other": wiping the slate clean of the cycles of revenge and counter-revenge that plague the Israel-Palestinian conflict, the wars in Africa and the Balkans, and many other locations.

The discussion focussed around LaRouche's unique contribution to the science of physical economy: that only by fostering high-technology industrial and infrastructural development, can the basis for a lasting peace be achieved. This requires a conceptual breakthrough to a higher level of scientific understanding of how economic progress actually works, which LaRouche characterized as the "Vernadsky principle" (see *Feature* in this issue). The primary discussion documents for the seminar were LaRouche's two recent articles, "Toward a Second Treaty of Westphalia: The Coming Eurasian World" (*EIR,* Dec. 17, 2004) and "The Dialogue of Eurasian Civilizations: Earth's Next Fifty Years" (*EIR,* Jan. 7, 2005).

In this issue, we continue our coverage of this historic symposium, with presentations that address the nature of a new, just world economic order, and the problems that stand in the way of that. Specifically, several participants raised questions about the role of the United Nations, especially in the aftermath of the U.S.-led war against Iraq.

Other speeches appeared in *EIR,* Jan. 28 and Feb. 11. In future issues, we will include presentations that focus on various national perspectives on the current systemic economic crisis.

Dr. Mahander Kumar Saini

What Kind of New, Just, Economic Order?

Dr. Saini is the General Secretary of the Union for Social Justice in New Delhi, and a professor in the Department of Political Science at the University of New Delhi. Following moderator Michael Liebig's opening greetings to the Berlin seminar, he asked Dr. Saini to say a few words in remembrance of the victims of the Dec. 26, 2004 tsunami tragedy, to which Dr. Saini also referred in his speech, which we publish here. He spoke during the second panel of the seminar, on Jan. 12, 2005. Subheads have been added.

I must thank Mr. LaRouche for inviting me to this seminar. . . .

The problems in our part of the world are quite different. So far, I've been hearing, that if there is a kind of combination of Euro-Asia, the problems of the world will be solved. Of course, Mr. LaRouche has given a new kind of interpretation to the historical facts. . . . This is the first time I'm hearing the way he has interpreted it, and he has shown how the financial oligarchy can continue to dominate the world system, where there are the countries that develop technology—technologically, financially; and on the other hand, there are countries which are very poor, and which face poverty because of many things.

Colonialism in Another Guise

We in India became independent from the European colonial system, as many other Third World countries also became independent, after 1950. We started looking, from the point

of development. And for development, we need finances, technology, manpower, and management—all these things were missing.

The liberators, the fighters, became overnight nation-builders. They did not have any experience in building nations. They did not have any experience how to build a modern nation. Therefore, we started looking for help outside. And whatever help came, we accepted. That means, we developed in a way which was imposed on us, or, which was given to us. It was of course voluntary: Whenever it was coming from anywhere, we accepted it.

So, our countries developed, particularly inter-developed in a certain direction, where the colonial masters gave all kinds of aid to see that they would continue exploiting the country—the raw material, and the people—the way they did it during the imperial period.

Our country became independent. But we were dependent for most things from outside. Even after 50 years, you will be surprised to know, that from A to Z, we are dependent on transnational corporations. We get up in the morning: First thing, we need a cup of tea: Lipton is there to serve us a cup of tea. Second, we need a toothbrush: Colgate is there to serve us. Then we go on to the table: the bread and the butter—now we have started doing it ourselves—but earlier it was Polson Butter and Britannia Bread (even today, Britannia Bread is still there). Next thing, we need clothes: In most of the synthetic clothes, the material comes from outside, which is manufactured by them.

Later on, we needed a motor car to reach the office. It is there to serve us: Either a Model T or a Suzuki, or some other car. Of course, we manufactured it, but everything is given by them. And we go to the office, we need a cup of coffee; it is, again, given by them. And during the day, whatever you want, we are totally dependent on them. We have computers, but we don't have the technology to manufacture computers. The computers come from outside. They're cheapest there. So, we have only their mechanics to pull things together, so that we have a computer.

At night, we retire. If we need a pill, that is also manufactured right there.

So, after 50 years, that is where these developed countries and the developing countries stand. We are more developed, and still we are dependent on them. Our life is so controlled by transnational corporations, that it is difficult for us to come out of it.

And if we are to develop an independent polity, we have to have a kind of system, where we can control these transnational corporations. These transnational corporations come to our country, they tell us, "Look, you permit us to operate in your country." Then, they do not come alone. They come with the influence and the ideology of their country. That ideology is also backed by the respective government of their countries, by international institutions, the IMF and World Bank: They are the ones who guide us in which direction we have to develop.

Once we've accepted, they give us conditions. With those conditions, we have to follow a certain path of development, which is not good for us, which is not self-reliant, which is not for the betterment of our people.

We have motor cars; we have now, underground railways, metro railways; we have modern infrastructure. But, for whom? Only for a limited elite. That elite uses it. Other people do not have anything. They suffer the same way they suffered during the colonial period, and this colonial period is still continuing in a different way.

Strengthen the United Nations

We must go for a certain kind of system, because Mr. LaRouche has introduced certain things, and he's said what should be done, what should be the remedies. And the remedy which I thought would be appropriate, is to strengthen the United Nations system. The sovereignties of these countries after the Iraq War, have been threatened. Not that they were free from influences earlier. But now, it is totally threatened, and we have to strengthen the sovereignties of these countries, if we have to adjust as modern independent nations, which can decide things about themselves, which can do things the way we want to do it. If we want to remain an independent member in the international community, then sovereignty has to be defended. And one of the methods of defending the sovereignty, is, strengthening the United Nations.

At the time of the League of Nations, at the time of the Second World War, and after that, the United Nations had been bypassed by the vested interests, who imposed their will on these countries. So, how do we strengthen the sovereignty of these countries? As long as sovereignty is not defended, we will be perpetually dependent, as we were during the colonial era.

The Non-Aligned Movement and Regional Systems

Second, in my opinion, the Non-Aligned system, which India, Indonesia, and Egypt started, to defend the newly emerged countries, because we wanted to remain independent in terms of our thinking, in terms of our actions—. It was a power-bloc; it was a Cold War period; we wanted to remain independent, so that we could develop on an independent line. It was an assertion of sovereignty; it was an assertion of independence; it was an assertion to take independent decisions, [and so] this Non-Aligned Movement was started.

And the Non-Aligned Movement, even today, is relevant. We were condemned by both superpowers, in the beginning, but later on, they realized, "No. Non-alignment has a place in the world, because these people have a right to think independently, remain independent." Both the superpowers understood. And today, also, the Non-Aligned Movement has the potential to contribute to development and strengthening of sovereignty of these countries.

Third, in my opinion, they need to strengthen the regional associations. Regional associations must come up in these regions. And it has come, because, trade will increase, self-reliance and collective self-reliance will also increase, if the neighbors can come together and contribute to each other the kinds of things which are required. For example, India and Pakistan come together: Our needs and their needs are similar. But, we are developed. We can give them much more, which they cannot get today, or for which they have to pay a high price. Therefore, regional associations must be strengthened.

Next, what we passed in the United Nations, the Fifth Special Session and the Sixth Special Session, in what Mr. LaRouche has said in one of the write-ups in the latest issue of *EIR,* that we have to have a new kind of international system, a new kind of economic system, to solve the problems which have come after this tragedy [referring to the Dec. 26, 2004 tsunami]. Because it is a failure of President Bush, in two terms, that he did not inform the world that such a kind of tragedy was likely to take place. They had the information. Why did they keep it to themselves? I do not know. I have no answer. But, it appeared that there was some vested interest in doing it. "Let these people die—it doesn't matter at all. Some of the population will be reduced in the world. And then we will go in. We will be one who will be the builder. We will be the one who will finance. And we will be the one, who will again control them," as . . . we have heard, "like animals." So, they want to revive the same old system, by different methods.

A Community of 'Self-Aligned' Nations

Next, the new economic order must be strengthened. And how to do it? We have to put, and we have to apply our collective mind to this, because it cannot be done by one nation. It has to be done when all nations, and powerful nations must come on the same platform, and think in terms of improvement of the poor. And, as a matter of fact, a country like India needs a program which President Roosevelt initiated. We are all aware, if we do not invest in development in the country, the financial markets, which are speculative markets, can lead the country to ruin any day.

Today, India's reserves are believed to be in the billions of dollars. From where is the money coming? It is coming from foreign financial institutions. They are investing in India, because the rate of interest in India is higher than the rate of interest in their own country. And the day they decide to take this money back, what will happen? Our economy will come back. Speculation is going on, share prices go up and come down; several times there have been crashes in the share market. So, they can play with countries.

We have to have a program which can bring people to a [higher] level. And India needs, not globalization, because globalization is nothing but only a new name of colonialism, where you control nations through remote control. Nations which became independent—they have their parliament, they have their sovereignty, they have their decision-making processes. But, ultimately, remote control is what controls their decisions. That has to be stopped, if these nations have to develop. And India really needs a new kind of program for development, something based on President Roosevelt's thinking. Our Prime Minister aims to do some of these things in his program, like creating employment, like giving employment to everyone, in certain areas. And one of the newspapers in India did say that Prime Minister Manmohan Singh has gone on the path shown by President Roosevelt.

Last, not least: The method of development has to be self-aligned. We cannot depend for all time to come, on outside help. Outside help comes only to a point. Some help comes with certain constraints, certain conditionalities, that you have to develop only this part. Most of the development, *we* must, at least Third World countries, should do, and the Gandhian way is one way of doing it. Why can't the village be self-aligned, in terms of its needs? Gandhi showed a new way: You can make clothes your own way; you can have an election your own way. But, this can be self-aligned. And ultimately, it can be a nation self-aligned.

Thank you very much.

Dr. Hans Köchler

International Rule Of Law and the UN

Dr. Hans Köchler of Austria is president of the International Progress Organization. He presented this paper to the Berlin seminar on Jan. 12. Subheads have been added.

I would like to highlight some aspects which are within the field of my research interests, namely the theory of international law and in particular the relationship between power and law in international relations, and I shall illustrate the problems by reference to the international conflict over Iraq.

The Collapse of the Bipolar System

As a result of the events that have followed the collapse of the bipolar (post-World War II) system, the international order, as a system of mutually accepted norms governing the relations between states on the basis of sovereign equality, is not just being eroded at the present time, but more or less disappearing. The developments following the collapse of the Soviet bloc have brought about a situation in which the United Nations Organization is rapidly losing ground, and is definitely not able any more to act as guarantor of what the UN

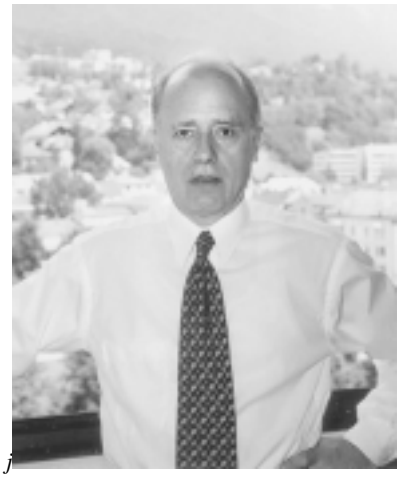
itself used to call "the international rule of law."[1]

The system of collective security, as it has been incorporated in the United Nations Charter and was practiced (albeit with problems and shortcomings) in the era of bipolarity until 1989-90, has now been effectively ended. That system was based on a kind of directorate of five powers which was tantamount to the establishment of the rule of the victors of the Second World War over the rest of the world, within the framework of the United Nations Organization. Undoubtedly, granting the veto privilege to only five countries (the "permanent members") was neither a just nor balanced measure in terms of power relations. In a certain sense, however, it stabilized international relations and guaranteed the viability of the post-war system of collective security, in a way that no country had authority to use force against another country, except in the case of self-defense (according to Article 51 of the UN Charter), or in the case of a collective use of force—after the Security Council has determined that there exists a threat to the peace or a violation of the peace.

As far as the great powers' actions were concerned, this system has only worked in an imperfect, and often contradictory, manner. Furthermore, the ban on the use of force, enshrined in the UN Charter, could only be upheld—or "enforced"—as long as there existed a bipolar power structure. As soon as one of the two major players of the Cold War era had disintegrated, and a unipolar structure had replaced the bipolar order, the checks and balances which were built into the United Nations Charter did not, or could not, work any more. The most drastic example of this new state of affairs, which is, in fact, the absence of an international power balance, was the assertion by the United States of America of a right of "preventive self-defense."[2] Thus, the U.S. has "taken the law into its own hands," and, by using force against and eventually invading Iraq, without authorization by the United Nations Security Council, has set a dangerous precedent, a *fait accompli* from which the international system may not recover for a long time.

The Case of Iraq

There is one particularly regrettable fact, which I would like to mention in this context of (super)power politics: Although the use of force against Iraq occurred by the U.S. and the "Coalition of the Willing" alone, and was not in any way endorsed by the UN Security Council, this very Council reconvened a few months after the war had been launched, and, by "recognizing" the responsibilities of the occupying powers (the so-called Coalition Provisional Authority), more or less endorsed the actual state of affairs on the territory of Iraq.



Hans Köchler: The U.S. invasion of Iraq, without UN authorization, has set a dangerous precedent, from which the international system may not recover for a long time.

Without going into any further details, the United States, having created new "facts on the ground," having invaded Iraq and established an albeit "imperfect" occupation regime, finally had succeeded in imposing its will on the world organization, thus obtaining international "legitimacy," if not for the invasion itself, then for the subsequent occupation (in fact, re-colonization) of Iraq.[3]

Let me again draw your attention to the basic facts, as far as issues of constitutional legality and international legitimacy are concerned: A single member state of the United Nations, the most powerful one for that matter, in collusion with a group of "willing" allies, has committed an act of aggression for which there is no effective remedy in the present international system. One of the most fundamental principles of the Charter of the United Nations, namely the ban on the use of force (Art. 2 [4]) has been violated—and the aggressor state, a founding member and one of the original sponsors of the Charter, "got away with it."

The resolutions which have subsequently been adopted by the Security Council, acknowledging the occupying powers as the "Authority" (Coalition Provisional Authority), have been described by the occupying powers as the international "legal" basis for a series of administrative measures aiming, *inter alia,* at the preparation of so-called "parliamentary elections" in Iraq. However, in my analysis, those resolutions (in particular resolution 1483 of 22 May 2003) have not given legitimacy to the war of aggression against Iraq.[4] As far as I see it, the presence of foreign troops on the territory of Iraq

1. For details see Hans Köchler, *Democracy and the New World Order* (Vienna: International Progress Organization, 1993).

2. See *The National Security Strategy of the United States of America,* September 2002 (Washington, D.C.: The White House, 2002), and *National Strategy to Combat Weapons of Mass Destruction,* December 2002 (Washington, D.C.: The White House, 2002).

3. For details see "Memorandum by the President of the International Progress Organization . . . on the legal implications of the 2003 war against and subsequent occupation of Iraq and requirements for the establishment of a legitimate constitutional system in Iraq, including measures of criminal justice," in: Hans Köchler, ed., *The Iraq Crisis and the United Nations. Power Politics vs. the International Rule of Law* (Vienna: International Progress Organization, 2004), pp. 65-71.

4. For a complete documentation of Security Council resolutions on Iraq, see the documentation of the IPO: *The Iraq Crisis and the United Nations,* pp. 79ff.

has by no means been made legal by *ex post facto* resolutions of the UN, concerning *administrative matters* of occupation, which is in and of itself an illegal act. *Ex injuria jus non oritur.*

The basic problem faced by the "international community" in Iraq lies in the United Nations Organization having been side-lined, even "subjugated" for the purposes of a unilateral agenda that is in no way compatible with the organization's multilateral mission. In that regard, the principal cause of the organization's predicament is related to the fact that even the veto power of the other four permanent members of the Security Council is not any more an adequate guarantee that the most powerful player does not violate the rules.[5] If one country alone possesses such power that it can afford to ignore the decisions, or attitudes and interests, of the permanent members of the Security Council (not to speak of all the other member states) without fear of repercussions, we have a situation of international anarchy. In the absence of a balance of power, "anything goes" as far as the global hegemon is concerned.

Impact on the Arab World

Regrettably, the Arab world has been one of the first victims of this new global constellation. Shortly after the Second Gulf War,[6] in the Spring of 1991, I diagnosed that the project of re-colonization of the Arab world had been set in motion.[7] In the post-colonial period, and particularly in the course of the '70s—since the events following the "October War" of '73—the Arab countries had obtained some leverage in international affairs; as far as the issues of Palestine and Jerusalem were concerned, they have been able, to a certain extent, to assert their interests, and to mobilize support of United Nations member states, particularly from the ranks of the Non-Aligned Movement. Iraq, at the time, was one of the major players in the Arab region; there was some sense of belonging to one "Arab nation," an attachment to national identity that was nurtured and consistently emphasized by the leadership of Iraq and other Arab states (such as Syria, Yemen, Libya, originally, in the time of the United Arab Republic, also Egypt) in their pan-Arab discourse. (For those Arabs who were conscious of their regional as well as international role in the post-colonial period, the American terminology, speaking about "Arab nations" in plural form, did not make sense. For them, there existed only *one* Arab nation in the form of more than 20 different states.) All of this awareness and commitment to a common Arab destiny has been lost in the course of events that culminated in the invasion and occupation of Iraq in 2003.

In the framework of a bipolar world order, or more precisely, as long as there existed "a Soviet Union," the Arabs had weight in international affairs, in so far as they were able to maneuver between the two power blocs. Arab politics lost its relative strength and independence as suddenly as the Communist bloc had disintegrated and the Soviet Union had collapsed. In the absence of a balance of power, the international role of the Arabs simply vanished; and this development towards marginalization has now even been accelerated.

I agree with Mr. LaRouche in that the main motivation for the United States to undertake the invasion of Iraq was to effectively ruin the political order of that country. The U.S. strategy has been to "neutralize" Iraq as a factor of Arab politics, and take the Arab world out of the regional and international power equation—so as to facilitate the implementation of an essentially non-Arab and non-Muslim agenda for the greater Middle East.

Apart from the legal facts and the realities of power politics I have referred to above, and in addition to the state of international anarchy resulting from the system of self-help now having been re-established in international relations, I would like to emphasize one more aspect as far as the future, particularly of our European continent, is concerned: We have been dragged into a confrontation, which we, as Europeans, feel is not *our* conflict. This confrontation between the West and the Arab and Muslim world has rapidly acquired the dimension of the long-feared "clash of civilizations."[8] Whether we like it or not, the conflict in and around Iraq has gained a global dimension: the violent occupation and ongoing war on the territory of Iraq have increasingly alienated the West not only from the Arabs, but from the wider Muslim world. This development has nurtured hostile emotions on both sides which it will be difficult to contain, and it has reinforced age-old enemy stereotypes.[9] In spite of all the lofty declarations about dialogue and a "new era" in the Middle East, there will be no easy way out of this confrontation.

As far as the "facts on the ground" in Iraq are concerned, I do not see how the occupying power, in cooperation with the United Kingdom and a few "lesser" and less motivated allies, will be able to restore order and security on the territory of Iraq. I do not envisage how they will be able to guarantee elections under orderly conditions—so that they might be qualified as "free and fair." In view of this incapacity of restoring order, political stability and the rule of law in occupied Iraq, it may be almost impossible for the United States of America to find a face-saving way out of the self-inflicted quagmire. The illegal use of force against Iraq has destroyed the political stability of the country, and resulted in a state of

5. See Hans Köchler, *The Voting Procedure in the United Nations Security Council* (Vienna: International Progress Organization, 1991).

6. According to my account, the Iran-Iraq war of the '80s was the First Gulf War.

7. "Die Chancen einer liberal konzipierten Neuordnung der arabischen Welt." Lecture delivered at the Liberal Club, Vienna, 10 April 1991. See " 'Rekolonisierung' der arabischen Welt?" *Die Presse,* Vienna, April 12, 1991.

8. See Hans Köchler and Gudrun Grabher, eds., *Civilizations: Conflict or Dialogue?* (Vienna: International Progress Organization, 1999).

9. For a historical overview and analysis see the author's essay: *Muslim-Christian Ties in Europe. Past, Present & Future* (Penang/Malaysia: Citizens International, 2004).

anarchy from which the invading country may not easily be able to distance itself—neither morally nor legally or politically, not to speak of the heavy burden on the occupier's economy. Unfortunately, the entire world has now been drawn into that confrontation, and the United Nations Organization is being used as a tool of legitimization.

As explained earlier, because of the course of events on the global level, the Arabs have become victims—and to a certain extent, this is a predicament of their own making—of an imperial policy of *divide et impera.* According to my rather pessimistic assessment, it may take a rather long time until they will be able to overcome the state of re-colonization under which they now have to exist.

Another Victim: Europe

But there is another, unexpected victim of that policy of *divide and rule,* and that is Europe: As far as the war against Iraq is concerned, we Europeans—and that relates to the member states of the European Union—were not able to speak with a unified voice. Some of the major members of the European Union have sided with the United States of America and have joined the "Coalition of the Willing," undermining all efforts towards a joint European foreign and defense policy. For that reason, I am personally not very optimistic about the prospects of a cohesive foreign policy of the enlarged European Union, which is now being envisaged within the framework of the very ambitious project of the European Constitution. It may take a rather long time until we here in Europe will recover from that set-back.

Irrespective of this rather bleak assessment of international relations at the present stage, I do share the values which have been pronounced in this meeting, in regard to peaceful co-existence between states on the basis of sovereign equality and mutual respect among all nations. The International Progress Organization, which I represent here, has rather similarly spoken of the idea of progress in its founding declaration of October 1972. We understand progress not merely in the sense of material advancement, but as being based on enlightenment through the broadening of one's intellectual and spiritual horizon, which will in turn pave the ground for genuine open-mindedness towards other civilizations, cultures and religions.[10] We have understood this kind of intellectual advancement, in terms of an awareness of common human values, as the basis of progress also in the fields of economy and politics.

I thank you for your attention.

10. Cf. the definition of "progress" the Founding Declaration of the IPO (Innsbruck, Oct. 30, 1972): "Progress means striving to perfect human nature in such a manner that man would be enabled: a) to attain the greatest possible insight (reflexion); b) to meet his fellowmen with tolerance in the realms of the theoretical (ideology) as well as the practical (politics). This tolerance would have to be born out of the theoretical knowledge and perception that should be achieved to the greatest possible degree; c) on the basis of this knowledge man should be enabled to form his physical surrounding in such a manner that the biological assets may be safeguarded not only for the survival of mankind but would be equally apt to form our world in such a way that would give happiness to the individual as well."

Dialogue With LaRouche

Anglo-Dutch Liberalism Is the Real Problem

During the afternoon panel of Jan. 12, the discussion included the following remarks by Lyndon LaRouche, on the role of the United Nations. The panel was moderated by Michael Liebig.

Michael Liebig: There have been two questions from German representatives here, who ask, "On the role of the United Nations, how to improve it, how to redefine it, and what your thoughts are?"

Lyndon LaRouche: Well, let's take the UN first, because it's rather simple. The definition of the UN was originally prescribed by President Franklin Roosevelt—before the thing was actually convened. Now, the intention of Roosevelt, was to extend the Westphalia principle to really what I would call today, a "second Westphalia principle." Which means, that the world's peoples, each represented by their own nation-state, independent nation-state, should undergo a period of cooperative development to the benefit of the world as a whole; that each nation should commit itself to that development. And there should be an institutional framework for coordination among independent nations. Not a world government, as Russell and others proposed.

But, a concert of nations, a forum—the weakness in that, in my experience, is the typical case, as my indirect role in the Colombo, Sri Lanka [Non-Aligned Movement] conference in 1976, in which something for which we'd been campaigning for two years, happened. And in the closing part of the resolution, on economics, there was a resolution passed by the great majority of the members as the Colombo conference. By the time the subsequent UN meeting occurred in the Autumn, Fred Wills, then the Foreign Minister of Guyana, was the only person who spoke in defense and support of a Non-Aligned nations resolution which the great majority of the members had previously voted for, enthusiastically.

The weakness of the UN, is that, with the Security Council system, it became a failure. Now, you do need, in a sense, a security agency like the Security Council. It should, however, be more representative, and not like what it was there—what it has been up to now.

But the problem is, that the weaker nations, the smaller nations, are inefficiently represented in respect to their own

interests, in the proceedings of the UN as a whole. It is not really the body of independent people it should be.

The problem here, is not a problem with the UN. The UN conception, I think, was an excellent one in the beginning. It was frustrated by the shift to the Cold War by Truman and company. This is what ruined it.

But the other part of the thing, is that, today, since 1971-72, the world has lived under an Anglo-Dutch Liberal tyranny. I mean, this is the elephant in the middle of the bedroom, right? In the middle of the bed. There *is* no independent government on this planet! None. The governments are controlled by independent central banking systems, which in turn are controlled by an IMF system. They run the world. You have the case of the European Union, the European Central Bank: You don't have independent governments under the European Union today, because governments are not able to exert their sovereign powers.

Take the governments of continental Europe: A simple creation of credit, of the type that was used in the immediate post-war period with the help of the Kreditanstalt für Wiederaufbau in Germany—that type of credit today, could save Germany from the disaster which it faces! It would have eliminated the Hartz IV problem. Wouldn't have existed. You have similar things throughout Europe. Europe has plenty of major projects which have long-term value, which are viable projects, but you need a postponement of payment on capital account. Therefore, you have to create capital credit for large-scale infrastructure projects, which will immediately increase employment, expand production, raise the tax-revenue base—and you don't have a problem!

Germany, in its relationship with China, is a success. Germany is increasing its exports into Asia. But, it is not making enough money, at home, to sustain the economy at home. Why not? Because it's not allowed to. By whom? By the central bankers, as represented by the crazy Maastricht agreement.

So, you have a *supranational* power, an *empire:* What you are looking at, in Europe today, and the world as a whole, is like the Middle Ages! We have a *medieval system,* under which a Venetian financier-oligarchy, with military forces like the Norman chivalry, are terrorizing the world, and destroying all forms of representative government.

There's where the problem lies on this UN thing. What we need to do, is destroy that! And this system is crashing: Either the world has the *guts* to put the IMF into receivership *as bankrupt,* and have the nation-states take over, in a cooperative way, by treaty-agreement, to manage the IMF and other central banks in receivership. Under those conditions, to freeze things, to ensure that the economies go: to launch large-scale infrastructure projects which are useful, they're not make-work projects.

Look, the United States, for example. The typical life-span, physical life-span, of basic economic infrastructure is 40 to 50 years. Water systems: Now, Germany, for example, where we are, has a lot of water systems. Those things have a life-span; they're valuable; they're essential to Europe. This thing which Charlemagne started, is essential—but it has to be renewed. Large-scale mass-transportation systems, like efficient rail, which is much better than jamming up the highways with trucks. It's cheaper; it's better; it's cleaner; it's more efficient. But, it's a 40- to 50-year investment. Power stations: power stations, a 40- to 50-year investment. These things are all useful. They change the environment. They make it possible to increase employment; the employment is not wasteful. You get an income flow into the economy from it. And you get an asset which increases the productive powers of the people in the economy. You can easily pay for that, over a 25- to 50-year period, in capital cycle.

So, governments are denied, what would be, in a rational system of sovereign nation-states, the ability to get out of this crisis. But, they're denied that, by whom? The government doesn't *dare* overthrow the tyrant, the so-called independent central banking system. Hmm?

So therefore, we're dealing with an international system, which is centered in the IMF; it is a group of private financier-oligarchs, who, in concert, control the IMF today; who commit most of the assassinations that are committed against important people in the world, using their thugs. This is the problem.

So, you talk about the problems between nation-states—the problem is not between nation-states: There's something *above* nation-states, to which nation-states are submitting in their relations. So, we need to re-establish the sovereign nation-state. And on that basis, re-establish a kind of community, like a new Treaty of Westphalia kind of agreement among nation-states. Then define, put on the table commonly, the list of projects which are needed; get nations to agree that they share agreement on these projects. Create the long-term international capital through a national basis, for these projects which are 40-50 years, largely—those are the leading projects. Hmm? And then, we can move!

Now then, you take that kind of program. You put *that* into the United Nations. Make the United Nations General Assembly *efficient,* as a mechanism in which small nations can be heard, and in which there are mechanisms for dealing with them. At present, the United Nations is a vehicle for *suppressing* the revolt of the smaller nations! Or the weaker nations. They say, "Don't put it through. Don't do it! Don't do it!" "Look, Brother, kill your project. We know you need it, but kill it. We want to have unanimity here. We want to get this regulation through, we want to get this agreement through."

And, as I say, I go back to 1976 to this experience, where the Non-Aligned nations group, in majority on the initiative of India, actually, adopted a resolution on a just new world economic order. *Nothing was done about it!* It was *suppressed* on the floor of the UN in the following September. And *that's* what's wrong with the UN.

Editorial

No Break from 'Clean Break'

Despite the announced departure of leading neo-con Douglas Feith from his top Pentagon post, there are no signs that the Bush Administration has, in any substantive way, broken from its policy of perpetual war in Southwest Asia and other raw-materials-rich parts of the planet.

Indeed, while Secretary of State Condoleezza Rice's tour of Southwest Asia and Western Europe drew some praise for rhetorical fence-mending, the content of her pronouncements was another version of the "Clean Break" policy that brought you the Iraq mess. While preaching trans-Atlantic collaboration, Rice made clear this "collaboration" is to be on Washington's terms, and includes political/military destabilizations and regime change in Iran and Syria.

This targetting of Iran and Syria comes right out of the pages of the July 1996 "A Clean Break" blueprint, delivered to Israel's then-Prime Minister Benjamin Netanyahu by a team of American neo-cons, led by Feith, Richard Perle, and David Wurmser (now in the Office of Vice President Dick Cheney). In that document, Netanyahu was told that the Oslo Accords could be ripped up, by denouncing Yasser Arafat as a terrorist and launching hot-pursuit raids into Palestinian Authority zones, until the Palestinian governing institutions had been gutted. "Clean Break" also spelled out a sequencing of regime changes in the Arab/Muslim world, beginning with Iraq, and moving on to Iran, Syria, and, eventually, Egypt and Saudi Arabia. This perspective was clearly visible in President Bush's State of the Union speech.

A number of American and British military specialists with decades of experience in Southwest Asia confirm that the Bush Administration is hell-bent on military action—either American or Israeli—against Iran, perhaps as early as Summer 2005. According to one senior retired American military intelligence official, the U.S. Air Force is set for bombing missions against a dozen Iranian sites, purportedly secret nuclear weapons facilities.

On Feb. 10, *Washington Post* columnist Jim Hoagland reminded readers taht the real power in the Administration lies with Vice President Dick Cheney, with his round-the-clock access to President Bush, and vise-like control over the White House national security team. Cheney has given two high-profile TV interviews since Inauguration Day, in which he targetted Iran for military action by either the United States or Israel.

Hoagland also pointed out that the new National Security Advisor, Stephen Hadley, is an old Cheney Pentagon protégé, and Hadley's newly appointed deputy, J.D. Crouch, also comes from the Cheney stable. Indeed, White House senior staff meetings, according to leading Republican strategist and newsletter publisher Richard Whalen, are chaired, not by Hadley, but by Cheney's own chief of staff, neo-con Lewis "Scooter" Libby.

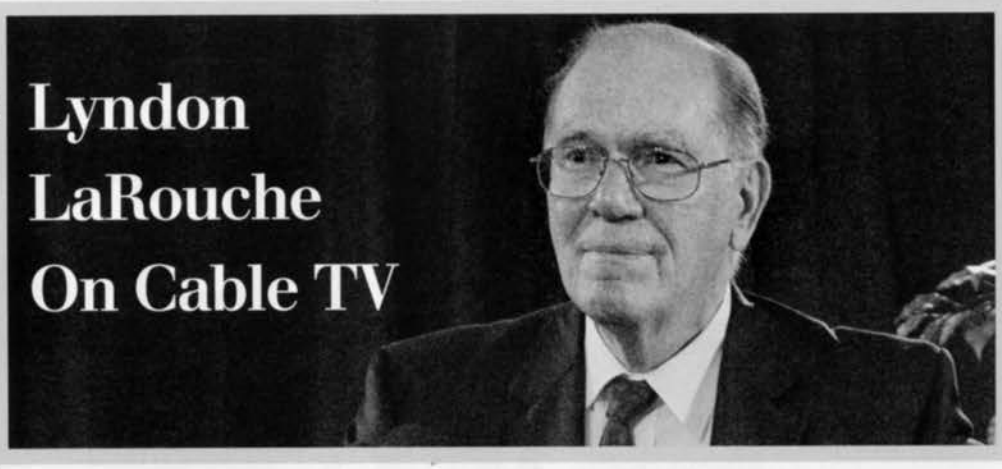
Part of Cheney's policy appears to have been let out of the bag on Feb. 3. Before the Senate Armed Services Committee, Deputy Defense Secretary Paul Wolfowitz admitted that he favors a 50-year American military presence in Iraq. Wolfowitz drew the parallel between Iraq and Korea, where 37,000 U.S. troops have been stationed since the end of the 1950s Korean War.

The next day, the Association of Muslim Scholars, the leading Sunni clerical group in Iraq, met with the United Nations envoy, and offered a cessation of the insurgency, in return for a definite date for withdrawal of all foreign occupation forces from Iraq. But that would mean that the United States would have to abandon the neo-con schemes for permanent military bases in the heart of Iraq, at the center of the Persian Gulf oil patch.

The Sunni offer to end the insurrection, in return for an assured end of foreign military occupation, even if over several years, is clearly worth pursuing. But the silence from the Bush-Cheney Administration on this dramatic offer convinces many that the U.S. plan is for permanent bases in the Iraqi desert—regardless of how many American and Iraqi lives have to be sacrificed.

To get out of disaster, we're going to have to break the Bush Administration, and fast.

See Lyndon LaRouche On Cable TV



Watch *The LaRouche Connection*, the one-hour weekly television program produced by EIR News Service. This is *the* place to see and hear Lyndon LaRouche, the world's foremost economic forecaster, who has inspired a worldwide political movement to reverse the depression collapse and bring about a new renaissance.

Distributed to over 150 cable systems, the program can be seen in over 14 million homes from coast to coast.

For a complete list of stations and schedule of showing times, visit **www.larouchepub.com/tv**

Not in your area? Be a local sponsor.

If you find that *The LaRouche Connection* is not already showing on your local cable system, please contact your local cable provider, and ask for the manager of the Public Access channel to find out their requirements for cablecasting. Then contact our distribution manager, Charles Notley, to get tapes to the station. Call 703-777-9451, ext. 322, or e-mail at charlesnotley@larouchepub.com

I would like to subscribe to

Executive Intelligence Review

U.S.A. and Canada:

- ☐ **$396** for one year
- ☐ **$225** for six months
- ☐ **$125** for three months

SPECIAL OFFER

- ☐ **$446** for one year
  EIR Print plus EIR Online*

Outside U.S.A. and Canada:

- ☐ **$490** for one year
- ☐ **$265** for six months
- ☐ **$145** for three months

SPECIAL OFFER

- ☐ **$540** for one year
  EIR Print plus EIR Online*

I would like to subscribe to

EIR Online*

- ☐ **$360** for one year
- ☐ **$60** for two months

EIR Online can be reached at:
www.larouchepub.com/eiw Call **1-888-347-3258** (toll-free)

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

Country _____

Phone (_____) _____

E-mail address* _____

*** E-mail address required for EIR Online subscriptions**

I enclose $ _____ check or money order

Make checks payable to

EIR News Service Inc.

P.O. Box 17390, Washington, D.C. 20041-0390

Please charge my ☐ MasterCard ☐ Visa

Card Number

Signature

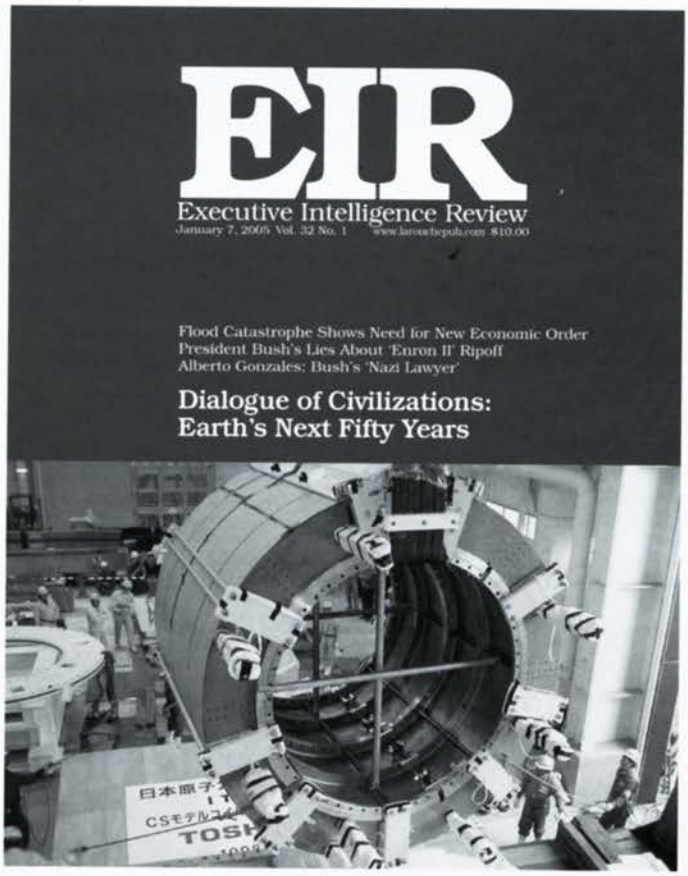
Expiration Date _____

EIR Online

Executive Intelligence Review

online almanac

EIR Online gives subscribers online one of the most valued publications for policymakers—the weekly journal that has established Lyndon LaRouche as the most authoritative economic forecaster in the world today.



Issued every Monday, **EIR Online** includes:

- Lyndon LaRouche's economic and strategic analyses
- Charting of the world economic crisis
- Critical developments internationally—the ones ignored by the "mainstream" media

SAMPLE ONLINE: **www.larouchepub.com**
click on EIR, then on EIR Online

I would like to subscribe to **EIR** Online for 1 year **$360**

Special student rate also available; call for information:

1-888-347-3258

Please charge my

☐ MasterCard ☐ Visa

Card Number _____

Expiration Date _____

Signature _____

Name _____

Company _____

E-mail address _____

Address _____

City _____ State _____ Zip _____

Make checks payable to

EIR News Service Inc.

P.O. Box 17390, Washington, D.C. 20041-0390