

# EIR

Executive Intelligence Review

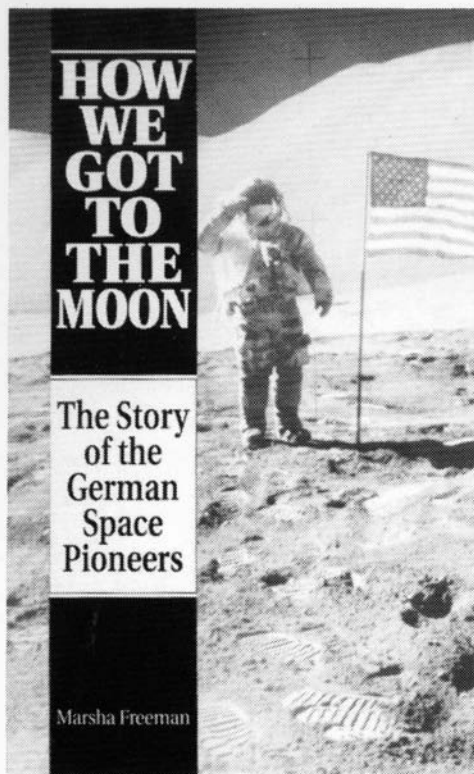
Aug. 4, 1995 • Vol. 22 No. 31

\$10.00

Cantor: There are no limits to growth  
United Nations on the skids in Bosnia  
Battle over Medicare shapes 1996 election

**U.S., Russia can unleash  
a renaissance in science**





Mankind's Greatest Achievement

# HOW WE GOT TO THE MOON:

## The Story of the German Space Pioneers

by Marsha Freeman

\$15, illustrated, 385 pages, with index

### Contents

- Prologue by Peenemünde veteran  
Konrad Dannenberg
- Preface
- Chapter I: Hermann Oberth: The  
Father of Space Travel
- Chapter II: The Battle of the Formulae
- Chapter III: From Theory to  
Experimentation
- Chapter IV: Peenemünde: A Scientific  
Mobilization
- Chapter V: How the A-4 Rocket  
Became the V-2
- Chapter VI: Coming to America:  
Operation Paperclip
- Chapter VII: The Space Age Begins!
- Chapter VIII: Willy Ley Rallies the  
Nation for Space
- Chapter IX: Wernher von Braun: The  
Columbus of Space
- Chapter X: Krafft Ehrlicke: The  
Extraterrestrial Imperative
- Epilogue

ISBN: 0-9628134-1-9

### Special Offer!

Get a 1-year subscription to *21st Century Science & Technology* magazine plus a copy of *How We Got to the Moon*, a \$35 value for \$30.

### Order Now

- \_\_\_ Send me \_\_\_ copies of *How We Got to the Moon* at \$15 each, plus \$3 each for postage and handling.
- \_\_\_ Send me your Special Offer: a 1-year subscription to *21st Century Science & Technology* magazine plus 1 copy of *How We Got to the Moon* for \$30.
- \_\_\_ Send me \_\_\_ (10 or more) copies of the book at \$10 each (plus \$10 postage for each 10 books).

Enclosed is a check or money order for \$ \_\_\_\_\_

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

Send check or money order (U.S. currency only) to:  
21st Century Dept. E P.O. Box 16285 Washington, D.C. 20041

# EIR

Founder and Contributing Editor:

*Lyndon H. LaRouche, Jr.*

Editorial Board: *Melvin Klenetsky, Antony Papert, Gerald Rose, Dennis Small, Edward Spannaus, Nancy Spannaus, Jeffrey Steinberg, Webster Tarpley, Carol White, Christopher White*

Senior Editor: *Nora Hamerman*

Associate Editor: *Susan Welsh*

Managing Editors: *John Sigerson, Ronald Kokinda*

Science and Technology: *Carol White*

Special Projects: *Mark Burdman*

Book Editor: *Katherine Notley*

Advertising Director: *Marsha Freeman*

Circulation Manager: *Stanley Ezrol*

INTELLIGENCE DIRECTORS:

Agriculture: *Marcia Merry*

Asia and Africa: *Linda de Hoyos*

Counterintelligence: *Jeffrey Steinberg, Paul Goldstein*

Economics: *Christopher White*

European Economics: *William Engdahl*

Ibero-America: *Robyn Quijano, Dennis Small*

Law: *Edward Spannaus*

Russia and Eastern Europe:

*Rachel Douglas, Konstantin George*

United States: *Kathleen Klenetsky*

INTERNATIONAL BUREAUS:

Bangkok: *Pakdee Tanapura, Sophie Tanapura*

Bogotá: *José Restrepo*

Bonn: *George Gregory, Rainer Apel*

Buenos Aires: *Gerardo Terán*

Caracas: *David Ramonet*

Copenhagen: *Poul Rasmussen*

Houston: *Harley Schlanger*

Lima: *Sara Madueño*

Mexico City: *Hugo López Ochoa*

Milan: *Leonardo Servadio*

New Delhi: *Susan Maitra*

Paris: *Christine Bierre*

Rio de Janeiro: *Silvia Palacios*

Stockholm: *Michael Ericson*

Washington, D.C.: *William Jones*

Wiesbaden: *Göran Haglund*

*EIR (ISSN 0273-6314) is published weekly (50 issues) except for the second week of July, and the last week of December by EIR News Service Inc., 317 Pennsylvania Ave., S.E., 2nd Floor, Washington, DC 20003. (202) 544-7010. For subscriptions: (703) 777-9451.*

**European Headquarters:** Executive Intelligence Review  
Nachrichtenagentur GmbH, Postfach 2308,  
D-65013 Wiesbaden, Otto von Guericke Ring 3, D-65205  
Wiesbaden, Federal Republic of Germany  
Tel: (6122) 9160. Executive Directors: Anno Hellenbroich,  
Michael Liebig

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

**In Mexico:** EIR, Francisco Díaz Covarrubias 54 A-3  
Colonia San Rafael, Mexico DF. Tel: 705-1295.

**Japan subscription sales:** O.T.O. Research Corporation,  
Takeuchi Bldg., 1-34-12 Takatanobaba, Shinjuku-Ku,  
Tokyo 160. Tel: (03) 3208-7821.

Copyright © 1995 EIR News Service. All rights reserved.  
Reproduction in whole or in part without permission strictly  
prohibited. Second-class postage paid at Washington D.C.,  
and at an additional mailing offices.  
Domestic subscriptions: 3 months—\$125, 6 months—\$225,  
1 year—\$396, Single issue—\$10

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

## From the Associate Editor

The seminar on mathematician Georg Cantor that is the subject of our *Feature* this week, was a unique occasion. Taking place in the German city of Halle, where Cantor spent much of his life, it had a special meaning for Lyndon LaRouche, whose keynote address to the seminar is published here. As LaRouche describes, his own conceptual breakthrough in economic science culminated a six-month struggle with Cantor's work, during the early 1950s.

Yet, just six years ago, LaRouche would not have been able to set foot in Halle, which was then part of communist East Germany. The East German secret service, the Stasi, had been engaged in dirty operations against LaRouche for more than a decade, including a 1986 effort to pin the blame on LaRouche for the assassination of Swedish Prime Minister Olof Palme. Newspapers in East Germany and the Soviet Union routinely denounced LaRouche as a "troglodyte," and referred to his concept of a Strategic Defense Initiative as a "*casus belli*."

Halle was, during the 19th century, one of the centers of German science. It was largely destroyed during World War II, and today Halle is as run-down as most of eastern Germany, the aftermath of communism and International Monetary Fund (IMF) shock therapy. Yet even during the communist years, there was a lively intellectual life in the city, associated in significant part with the legacy of Cantor. As a member of the City Council reported in his greetings to the Schiller Institute seminar, Halle's Georg Cantor Gymnasium always had a high standard, with the goal of maintaining intellectual integrity under communist rule.

The audience at the seminar was not composed of specialists, but people from all walks of life. The speeches are not technical (if you do not know what  $\aleph$  means, keep reading!), but provide a wealth of insight into the greatest scientific issues of our time.

A fitting counterpoint to the Cantor seminar on a new renaissance in science, is our cover story on the docking of the Space Shuttle with the Russian space station Mir.

Let me also draw your attention to several on-the-scene reports from the former communist world: Ukraine, Armenia, and Poland. While the disastrous effect of IMF policies is becoming more apparent by the day, the influence of *EIR* and LaRouche's ideas is also spreading.

*Susan Welsh*

# EIR Contents

## Departments

- 13 Report from Paris**  
New relations with Morocco.
- 59 Andean Report**  
Samper on the take.
- 72 Editorial**  
British fascists out of the closet.

**Photo and graphic credits:** Cover, pages 17, 20, 22, 25, NASA. Pages 10, 12, EIRNS/Anna Kaczor-Wei. Page 28, EIRNS/Stuart Lewis. Page 34, Klaus-Dieter Häge. Page 38 (Planck), AIP Niels Bohr Library. Page 37, EIRNS/Roger Ham. Page 40 (Marx, Mazzini), Library of Congress Prints and Photographs Division. Page 43, EIRNS. Page 47, EIRNS/George Gregory. Page 50, EIRNS/Dean Andromidas.

## Science & Technology



After a flawless docking to bring the Mir space station and the Space Shuttle Atlantis together, the commanders of each (left, Vladimir Dezhurov, and Robert "Hoot" Gibson) opened their hatches and greeted each other.

- 16 U.S. and Russia link manned space programs**  
The docking of the Space Shuttle Atlantis to the Russian Mir space station marked a milestone in scientific, economic, and diplomatic relations between the two space superpowers.

## Economics

- 4 Food cartel set to make a killing off soaring prices**  
Top financial circles, recognizing that the global financial breakup could hit as early as this fall, or next year, are moving, through "smart" investments, to buy up gold and controlling interests in food production, on the estimate that super-profits are coming down the line.
- 6 Shock therapy takes its toll in Ukraine**  
The author, Konstantin George, spent the better part of July in the city of Lviv, with 1 million inhabitants, the main metropolis of western Ukraine.
- 7 Currency Rates**
- 8 Venezuela's Caldera rejects Mexico model**
- 9 Free-market reforms have turned Poland into a maquiladora**  
**Documentation:** "Privatization Threatens Polish Independence": a speech to the Polish Parliament by Wojciech Blasiak, from the Coalition of the Independent Poland.
- 14 Business Briefs**

## Feature

### 24 Georg Cantor's contribution to a new renaissance

Dino De Paoli's speech to a conference of the Schiller Institute in Halle, Germany on May 6, 1995, marking the 100th anniversary of discovery of the "paradox of the Absolute" by one of the greatest mathematicians of the past century.

### 33 No limits to growth: Cantor's concept of infinity in economic science

Keynote address to the Halle conference, by Lyndon H. LaRouche, Jr.

### 46 Cantor and the future of the natural sciences

By Jonathan Tennenbaum. Cantor's chief contribution to future scientific and technological revolutions is not to be sought mainly in "mathematical structures" but in the improved quality of scientific thinking, which a deep acquaintance with Cantor's own process of discovery can bring.

## International

### 52 Under U.S.-French alliance, NATO gives U.N. the boot

The agreement between Clinton and Chirac has begun to reverse the years of appeasement of Serbian war crimes set into motion under Thatcher and Bush, and actively backed by former French President François Mitterrand.

### 54 A 'second Chiapas' brews in Guerrero

### 55 Germany: Euthanasia comes one step closer

### 57 Armenia: A farce is passed off as elections

By Haik Babookhanian, a leader of the Union of Constitutional Rights in Armenia, a member of Yerevan's city council, and a newspaper editor.

### 60 International Intelligence

## National

### 62 Battle over Medicare at center of 1996 election

President Clinton vows an all-out political fight to save the program from the draconian cuts contained in the Republican budget.

### 64 Gingrich touted for police-state role

Sir Peregrine Worsthorpe's July 23 column in a London paper spills the beans on how the British oligarchy intends to replace the welfare state.

### 65 Waco hearings become a partisan standoff

### 67 Whitewater hearings degrade U.S. Senate

### 68 Congressional Closeup

### 70 National News

## Food cartel set to make a killing off soaring prices

by Marcia Merry Baker

Normally, at the time of harvest, when the bins are filling, you expect that grain and other farm commodities prices would fall because of apparent abundance. Nothing of the kind is taking place now; and don't expect it to. Look, for example, at the winter wheat harvest. It is now all but finished in the northern hemisphere, yet wheat market prices are climbing. Meanwhile, the farmer is still being underpaid. Most all other agricultural commodities prices are also rising on the exchanges, and food prices are set to soar.

Harvests and food output worldwide are way below consumption levels needed; and the companies of the world food cartel intend to make a killing off this situation. Wall Street hotshots are telling clients to jump into food and other commodities to "get a piece of the action."

In July, economist Lyndon LaRouche commented that top financial circles, recognizing that the global financial breakup could hit as early as this fall, or next year, are moving, through "smart" investments, to buy up gold and controlling interests in food production, on the estimate that super-profits are coming down the line.

LaRouche said that Brazil and other governments should, under no circumstances, allow food cartels to buy out their food production nationally, because next year, there are going to be world food shortages, and zooming prices. In recent years, an estimated \$5 billion has been pulled out of the Brazilian agricultural sector, through price-gouging of farmers and independent processors by cartel companies.

### Underproduction, and speculation

Worldwide, there is underproduction of every staple food commodity, including grains, meats, dairy, poultry, sugars, fats and oils, and produce, relative to per capita and national security needs. As of spring, the exchange prices of all these

food staples went up. On the Commodity Research Bureau's "key commodity" group indexes, grains, oilseeds, and livestock-meats are all posting rising prices. NatWest Securities' Dave Nelson, typical of the cheerleaders for commodities speculation, said in *Barron's* "Commodities Corner" on May 1, "We're seeing a concerted move in commodities prices that has a lot of structural similarities to the 1970s. We're so much at the beginning of bull market that the end isn't even in sight."

Wall Street wizards are concocting special new financial "products" for food commodities speculation, including custom-made commodity indexes, commodities-linked notes, and swaps. The American Stock Exchange has obtained regulatory approval for listing structured notes with returns linked to the behavior of J.P. Morgan and Co.'s index of 11 commodities. And there are moves to list new food items on the exchanges; for example, to create a fluid milk futures trade on the New York or London Coffee and Cocoa Exchange.

### Tie to London-based finance

Apart from all this mania in the betting parlors, the financial circles that have bought into food processing and production directly are intending to gain mega-profits off world food shortages. The United States provides a sharp profile of how food supplies and processing are dominated by a few self-selected food trust companies—almost all connected to London-based financial circles. Any rise in food prices means automatic windfall profits for these cartel interests. A similar situation exists in many populous, food-producing countries, from Argentina to France.

Look at the United States food chain, from the seed stage to the cereal bowl.

**Seeds.** Among the seed companies that predominate in U.S. crops are Pioneer Hi-Bred International Inc., accounting for over 45% of corn plantings; DeKalb Genetics Corp., with 9% of corn plantings; Cargill Inc.; and the newcomer from London, ICI Seeds. In 1985, Imperial Chemical Industries PLC (ICI) bought Iowa-based Garst Seed Co.—a move into seed grains which several chemical conglomerates made in the 1980s. Now the parent company of ICI Seeds is a related London company, Zeneca Group PLC. Its focus is to profit during the shortages, with seed sales for corn, soybeans, grain sorghum, and alfalfa.

**Grains.** The few, dominant companies brokering and processing U.S. grains are legendary as world food cartels. Even the *Washington Post's* Dan Morgan wrote a book on the subject, *Merchants of Grain*, giving a history of the companies—Cargill, Inc., Continental, Louis Dreyfus, André, and Bunge. Cohort companies include Archer Daniels Midland (ADM), ConAgra, and the famous meat and livestock cartel firms.

**Food processing and distribution.** The preeminent companies are directly or indirectly British. Unilever, the Anglo-Dutch company which is the world's largest in terms of net income (\$2.912 billion for the last reported fiscal year), owns several brand-name companies, including Bird's Eye, Good Humor, Lipton, Ragu, and Boursin. Other famous cartel companies include Nestles, the Switzerland-based cartel, and Grand Metropolitan PLC.

Grand Metropolitan PLC, the London-based food and liquor cartel company, owns in the United States: Pillsbury's; Green Giant; Haagen-Dasz; the wine and spirits companies Jack Daniel's, Wild Turkey, and Christian Brothers; and Burger King. Pillsbury alone expects annual sales in 1997 of at least \$1 billion. This makes it the third-largest division in volume, and second-largest in profitability for Grand Metropolitan, through which it now dominates the "daily bread" of the United States.

Pillsbury owns Country Hearth, the only national bread line besides Wonder Bread. Pillsbury owns 49 other bread brands, and is a leading national supplier of bread concentrates to commercial bakers of all types—from small shops, to supermarkets and restaurants. In 1994, Pillsbury acquired Martha White retail baking mixes, and became number two after General Mills's Betty Crocker in national sales.

A similar pattern of ownership and cartel monopoly exists in poultry, beef, pork, and lamb supplies, and in sweeteners, and oils. In fact, increasing British investments in the U.S. food system are a major reason why Britain has now displaced Japan as the leading foreign holder of investments in the United States. The Commerce Department figures for 1994, released in June, show that British holdings were \$102.4 billion, compared with \$99.2 billion for the Japanese (holdings defined as ownership of 10% or more of a company).

Therefore, as food commodities shortages worsen, the

cartel stranglehold on food supplies, and the British control, tightens. On this basis, they are counting on guaranteed mega-profit flows into the failing global financial system.

## Countermoves

Given that perspective, the recent emergency grains initiatives in the European Union (EU), and the Clinton administration's June anti-trust move on ADM, Cargill, CPC, and the British sugar cartel Tate & Lyle (A.E. Staley subdivision), for price fixing of corn-derived products, have the potential to disrupt the cartel's profit designs.

In late June, the EU Commission proposed to the council of agriculture ministers of member nations that reserve grain stocks be opened up, and grain exports stopped. This is because of low grain supplies and high prices. This proposal occurred in the middle of the European wheat harvest. EU grain stocks are just above 6 million tons, the lowest level since 1983. So far, the EU Commission has proposed only to cut the annual wheat acreage set aside from 12% to 10% of base acreage. But the agriculture ministers will make final decisions.

At the same time, the EU pledged to deliver over a half-million tons of grain to five republics of the former Soviet Union. The EU will supply Armenia, Georgia, Azerbaijan, Tajikistan, and Kyrgyzstan with 656,000 tons of grain by the end of the year.

In Russia, the grain harvest is expected to be the lowest in 20 years, according to Agriculture Minister Aleksandr Zaveriyukha on July 24. He expected it to come in at 75-78 million tons, down 4-8% from last year's already-low 81.3 million tons, and insufficient for Russia's minimum needs. There is no margin with which to supply the Central Asian republics.

In this context, grain prices soared on the commodities exchanges, but they continued to fall for farmers. In mid-July, wheat prices at the Chicago Exchange went up to 460.5¢ per bushel, up from 400¢ two weeks earlier, marking a 10-year high. Feed grains (corn, grain sorghum) prices are likewise rising on the exchanges, but not for farmers. In mid-July, corn prices on the Chicago exchange went up 10%, hitting a level one-third higher than a year ago. During July, grain prices to farmers in Germany dropped 8%.

The Clinton administration's current anti-trust investigation of the corn processors and sugar cartel strikes at the heart of strategic British financial and political interests in North America and worldwide. The specific practices under investigation are how these cartel companies carve up territories and set prices for high fructose corn sweeteners (displacing cane and beet sugars in the United States), lysine (a corn-derived amino acid additive to livestock feeds), and other products. Politically, the companies are interconnected with the Conrad Black propaganda and intelligence empire of the Hollinger Corp., whose board members include Margaret Thatcher, Henry Kissinger, ADM President Dwayne Andreas, and others committed to the subservience of America to Britain.

# Shock therapy takes its toll in Ukraine

by Konstantin George

The author spent the better part of July in the city of Lviv, with 1 million inhabitants the main metropolis of western Ukraine. It is safe to say, on the basis of that visit, that the forecast for Russia put forward in June by Lyndon LaRouche—that within 6 to 18 months, there will be an upheaval ending the failed policies of the past several years—also holds true for Ukraine. There are limits to the population's patience in enduring years of unnecessary hardships.

One of the most acute aspects of the Ukrainian crisis is the crisis of infrastructure. This has resulted from decades of disinvestment during the Soviet occupation, which for western Ukraine began in 1945, and the aggravation of the infrastructure crisis to the extreme under the economic dismantling policies imposed through the International Monetary Fund (IMF) since 1991.

In most districts of Lviv, there is running water in apartments for an hour or two very early in the morning, and then again for about two hours in the evening. This acute water crisis did not begin now, but it is worse than ever before.

The water emergency is much worse in other parts of Ukraine. The entire country is always in a public health crisis, deriving mainly from the water shortage. For example, in mid-July, a water and health emergency was declared in Kharkiv, Ukraine's second largest city. Disease-carrying sludge had entered the city's water system, threatening a mass outbreak of cholera and other diseases. The authorities urged up to 1 million inhabitants to leave the city and ride out the emergency in villages. Even when there is no such emergency, water in Ukrainian cities is unsafe for drinking.

During June and July, there was an outbreak of cholera in the south Ukraine region of Mykolaiv, with four deaths reported as of mid-July. By August or September, for the second year in a row, there could be a nationwide cholera epidemic. Diphtheria and other diseases are also spreading.

## The energy crisis

In addition to the overall problems with water, hot running water has stopped completely—a manifestation of the nation's acute shortage of energy. In Ukraine, industry and households run on natural gas, for cooking and heating water. The government, to ensure at least the minimum necessary

supply for autumn and winter for heating both factories and households, has strictly rationed the household allocation of gas, providing it only for cooking. Together with this, for the first time, the Ukrainian state gas company, Ukgazprom, began, as of June 15, to cut off gas to household customers who did not pay their bills. On July 7, Ukgazprom reported that it had stopped gas supplies to 20,000 households in the Trans-Carpathian, Ternopil, and Ivano-Frankivsk regions of western Ukraine. These measures will be increasing, as Ukrainians, under conditions of shock therapy austerity, find it more and more difficult to meet utility bills.

On July 6, the Ukrainian State Committee for Oil, Gas, and Related Industries resolved to allocate sums to purchase an additional 17 billion cubic meters of natural gas for desperately needed winter reserves. It was also stated that for winter, Ukrainian refineries must produce 4.9 million tons of heavy oil for heating.

The condition of Ukraine's oil refinery sector provides an interesting, singular insight into what has happened to the nation's physical economy under conditions of IMF shock therapy. According to figures released by the above-mentioned State Committee on June 22, the Ukrainian oil-refining sector was producing at 93% of capacity back in 1990. In 1994, it was producing at 30% of capacity. For the period January-May 1995, it operated at only 24% of capacity, producing a mere 5.6 million tons of refined oil products.

The life or death question of natural gas for Ukraine is linked to the question of what will happen with the Russian gas monopoly, Gazprom, which supplies Ukraine with gas. During the first half of 1995, Ukraine had paid Gazprom \$253 million for gas delivered, but still owed \$385 million, as reported on July 9 by Stepan Yalovcha, chairman of the State Committee for Oil, Gas, and Related Products. Gazprom has been demanding that Ukraine's outstanding payments and future debts be "settled" through a "debt for equity" arrangement, according to which debts would be paid by allowing Gazprom a controlling stake in lucrative Ukrainian energy enterprises, ranging from gas and oil pipelines to oil refineries. This, in turn, is an important sub-theme in the battle over the privatization of Gazprom, and opening up the Russian gas giant to western oligarchic financial interests (see *EIR*, July 7, "Sovereignty Is the Crux of Russia's Political Crisis"). Should the privatization of Gazprom occur, it would open the door to western interests' acquiring a stranglehold over the Ukrainian energy sector as well.

Any further cuts in Ukraine's vital energy sector would mean utter ruination for industry, which has already experienced falls in production surpassing those in Russia during the past three years. In part for reasons of drastic energy rationing, this summer, for the second year in a row, most of Ukraine's industrial plants have been shut down for July and August.

Another indicator of the aggravation of the crisis is that this year, Ukraine's elementary schools closed at the end of



May, rather than at the end of June, meaning a summer vacation of three months rather than two. A key indicator of the increasing impoverishment of the average family, which one will not find in any statistics, is the fact that now, as a rule, schoolchildren are sent off in the summer to the villages, for three full months in many cases, to stay with relatives on the land, so that the parents (or parent, as the case may be), don't have to buy food for the child in city shops. The money is better saved and then spent for the critical winter months. This phenomenon is one example of the resourcefulness which will allow families to somehow get through the coming winter.

### 'Hot' autumn

The political side of the crisis will become quite hot, starting in September, when Parliament resumes session. On Sept. 1, the next round of heavy increases in rent, water, and utilities prices will take effect, under the IMF austerity policies. It is expected that food prices will rise, on average, about 20% overnight. This comes on top of a year of incredible inflation. For example, a loaf of bread that costs 9-10,000 karbovantsi back in May-June 1994, now costs 38,000. So, for bread, the basic of basics, a fourfold increase in about a year.

In expectation of the drastically heightened social crisis coming, the Parliament on July 6 passed a resolution mandating that 35% of the 1996 budget go for social programs. It should be noted though that Parliament also agreed that the 1996 budget deficit should not exceed 6% of Gross Domestic Product, in conformity with IMF-dictated "guidelines." Nonetheless, major fights between government and Parliament are shaping up, especially on the question of privatization.

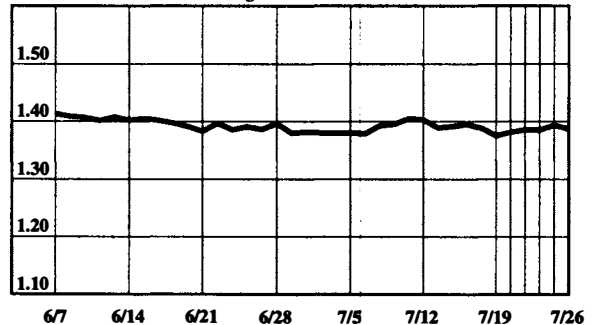
While, under conditions of crisis, changes and reversals in government policies are quite possible in the months ahead, as of now, the regime is committed to an acceleration of privatization. Shortly before Parliament recessed for the summer on July 14, the government's State Property Fund created a commission to begin, for the first time, preparing large industrial plants for privatization. The fund issued a first list of 12 large plants, including mining, coking facilities, machine-building and instrument-making plants, a rolling mill, and a diesel engine plant. Also, just as Parliament was recessing, President Leonid Kuchma issued a decree allowing the private ownership of non-agricultural land, i.e., a private real estate market.

In Ukraine, as in Russia, the matter is not one of government versus Parliament as such. There is a raging intra-institutional policy battle, in all branches of the state. One cannot underestimate the impact to date of the policy ideas put forward by the Schiller Institute, and most strikingly in the June visits of Lyndon LaRouche and Helga Zepp-LaRouche to Moscow, Warsaw, and Kiev. This impact will grow during the critical months ahead.

## Currency Rates

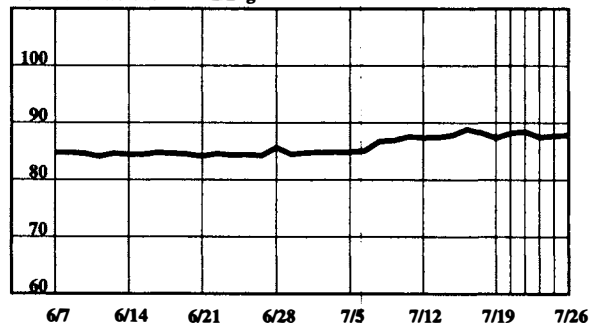
### The dollar in deutschmarks

New York late afternoon fixing



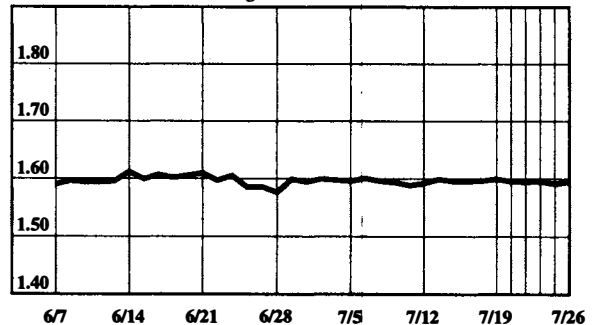
### The dollar in yen

New York late afternoon fixing



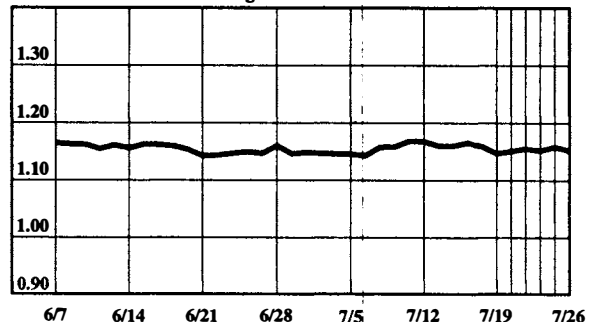
### The British pound in dollars

New York late afternoon fixing



### The dollar in Swiss francs

New York late afternoon fixing



# Venezuela's Caldera rejects Mexico model

by David Ramonet

Despite the propaganda pouring out of the London *Financial Times* and the *Wall Street Journal*, the government of Venezuelan President Rafael Caldera does indeed have a well-defined economic program, one which flatly rejects "neoliberal" (free-trade) shock therapy, and seeks to reactivate national productive capabilities.

President Caldera outlined his program before the annual assembly of Venezuela's business council Fedecamaras on July 19. He reminded those who are nostalgic for the usurious policies of the former government, just how devastating those free-trade policies had been under former President Carlos Andrés Pérez (currently being tried for corruption by the Supreme Court), and under former Mexican President Carlos Salinas de Gortari in Mexico. "Our economic policy, which is the economic plan of Finance Minister [Luis Raúl] Matos Azocar, rejects shock therapy; we do not believe in this therapy," the President said. "We had already experienced the impact in 1989."

When Mexican President Ernesto Zedillo took office on Dec. 1, 1994, everyone attending the ceremonies urged him to follow the example of Salinas, Caldera noted. The Venezuelans who attended "returned saying that, what we should follow here, was the economic policy of President Salinas de Gortari. . . . And what was the legacy which Salinas de Gortari left President Zedillo when he handed him power? . . . There has been much silence in this regard, because now they speak to us of undertaking the policy of other countries of Latin America, but forgotten is the case of Mexico . . . which has passed through the most difficult of situations in its economic life. I am happy not to have listened to those who, every day, insistently, were telling me that what I had to do in Venezuela was apply the policy which President Salinas de Gortari had applied in Mexico."

Caldera instead posed the need for Ibero-American economic integration, toward which he has taken the first steps, together with Brazilian President Fernando Henrique Cardoso. "Venezuela is becoming, in a way, the communication hinge between the Andean Pact and Mercosur," he explained, referring to South America's two regional economic accords. "We are opening in this way, a new path, comprehensive, of immense horizons, which represents the definitive step toward Latin American integration, and which puts us in the position to be able to honorably and conscientiously

negotiate, to the advantage of our States, the hemispheric integration which the President of the United States proposed in the Miami hemispheric summit."

## The 'Matos plan'

The "Matos economic plan" to which Caldera referred, was outlined to Congress by the finance minister on June 28, when he presented the proposed 1996 budget. The plan rejects any devaluation of the currency, maintains full exchange controls, and rejects an increase in the price of gasoline, all measures which the World Bank and the International Monetary Fund had demanded as conditions for unfreezing disbursements for already-established programs, frozen since 1994. Nor is the government basing its budget on privatizations, the other IMF demand. Matos reported that he did not include projected income from any privatizations of state companies in his budget calculations, in order, he explained, "to keep fiscal pressures from leading to hurried negotiations which could damage national interest."

Matos Azocar reminded congressmen that the budget has certain pre-established fixed expenditures, not determined by the government, such as the foreign debt, which "consumes 34% of budget expenditures, and which corresponds to political decisions taken in the past." He emphasized that his government remembers that "the purpose of fiscal expenditures is to return to the citizens in services, what they pay in taxes."

The government's strategy, he explained, attempts "to avoid the leap into the void, which entails going from import substitution to total opening [of trade barriers], something like opening the windows of a house during a hurricane." He outlined a "vision of the productive apparatus as an interconnected economic system of cooperation and competition," which seeks to foster "cooperation between the State and the market, between capital and labor, as the social basis for productivity."

The announcement of the Matos plan hit the most recalcitrant free-trade grouping within the business sector like a bucket of cold water. They had been demanding a shock program as the premise of an anti-inflationary pact, which was to have been signed between labor, business, and government. Caldera and Matos assured them, however, that the government rejected shock therapy, not on ideological grounds, but because "social justice" must be assured. They cited as signs of "good faith" that the government supports a market policy, the decision to privatize the nationalized banks, put the state aluminum and steel industries up for sale, and allow private companies to participate as partners in oil operations with the state oil company.

What will be the international response to Venezuela's sovereign decision to protect its productive capabilities? Matos returned from Washington on July 18, where he met the directors of the IMF, World Bank, and the Inter-American Development Bank. "I cannot say there was applause" for the government's program; he said.

# Free-market reforms have turned Poland into a maquiladora

by Anna Kaczor-Wei

After almost six years of free-market reforms, Poland has come to resemble some Ibero-American countries, such as Mexico, which have gone through almost 13 years of the disastrous prescriptions of the International Monetary Fund. These proposals were introduced into Poland by Harvard quack economist Jeffrey Sachs and other stooges of the IMF.

Poland is slowly being turned into a big *maquiladora*. This term is used to describe foreign enterprises established below the U.S.-Mexican border, which thrive on Mexico's cheap labor force and less stringent safety laws, and produce low-quality consumer goods mainly for the American market (see *EIR Special Report*, "Auschwitz Below the Border," May 1, 1991).

We can see the same tendency in Poland, where little is invested to develop modern infrastructure, science, or technology, and the only sector of the economy still showing some life, along with commerce and banking, is the production of consumer goods, often in enterprises owned partially or entirely by foreign companies like Sony, Daewoo, Fiat, Opel, and Pepsico. The process of production in those companies usually involves them buying out or establishing a few assembly lines, importing parts, such as for television sets or cars, and assembling them in Poland. Most of the products are then shipped abroad.

Sometimes foreign producers employ unskilled labor to bring costs of production even lower. For example, Opel, which bought a part of the Warsaw car factory, employed former farm workers from the dissolved state farms on the auto assembly lines, although it could have hired people who had the proper education and experience for such a job.

Additionally, most companies with foreign capital enjoy long tax holidays, in many cases unjustified, as was demonstrated recently by the Polish Supreme Chamber of Control (NIK), which inspected the work of the Ministry of Finance (one of the strongholds of Polish free-marketeers). The NIK report mentioned that the minister of finance issued decisions from early 1992 to mid-September 1994, providing tax relief to companies with foreign capital which totaled over 15 trillion zloty (approximately \$650 million). Although the law requires that approval of a tax break be secured from an appropriate minister, the minister of finance rarely asked for such approval, often ignoring the law entirely.

The fight against the form of privatization imposed on

the Polish economy since 1989 has always been a hot political issue (see *EIR*, Feb. 17, 1995, p. 7). However, during the last few months, new evidence has been mounting, documenting the disastrous effects of this process, which has put privatization on the top of the agenda. For example, in mid-June, the viewers of the popular television program "A Case for a Reporter," were shocked to learn that since 1990, privatized Polish enterprises, valued at \$150 billion, were sold just for \$500 million!

## Credit policy debate

There is a growing awareness among industrial workers that the present form of privatization is just a rip-off which serves the interests of foreign capital and the Polish *nomenklatura*. In May and June, Solidarity, still the biggest trade union in the country, organized a number of demonstrations in Warsaw, during which representatives of the Ursus tractor factory, together with coal miners and workers from the Silesian heavy industry sector, were demanding, among other things, a halt to privatization.

Trade unionists from Ursus fear that the privatization of their enterprise will boil down to giving away the factory to some foreign company, like Ferguson, which will then substantially lower Ursus production and lay off workers. This is not necessary, say Solidarity leaders, because the need for tractors from Ursus is estimated at 700,000 per year, and only the lack of cheap credits for production and the decreasing purchasing power of Polish farmers prevents Ursus from enjoying this demand. It has been forced to lower production to about 20,000 tractors per year. To do their job, claim the unionists, they do not need foreign capital, but a true Polish national bank serving the interests of the productive powers in the nation.

So far, the free-market faction in the Polish government has ignored demands to stop the sellout of the economy. Despite growing opposition to privatization, the free-marketeers first managed to push through a privatization program based on 15 National Investment Funds covering 413 state-owned enterprises, and controlled by a board of managers not only from Poland but also abroad. Then, a bill, first proposed in 1992, that would induce state firms to choose a form of privatization within six months, was passed and vetoed by the President. Despite an enormous mobilization



*The Polish Sejm (Parliament) on July 21 passed a privatization bill over the President's veto, and despite growing opposition to such policies, such as this rally of Solidarity in front of the Parliament in late May. The opposition is now expected to take to the streets.*

of the opposition (see *Documentation*), on July 21 the Sejm (Parliament) voted to override President Lech Walesa's veto. Now the campaign against it may move to the streets, since Solidarity announced plans to stage a general strike or demonstration in September to oppose the law.

That fight against the sellout of the economy in Poland is especially significant, in view of what is going on in Ukraine and Russia, where opposition leader in the Russian Duma (Parliament) Sergei Glazyev, on June 21, openly attacked the Russian government for implementing the IMF program of privatization, which has led to the destruction of most of Russian industry.

Meanwhile, the Polish press (or Polish-language press, since about 80% of it is now owned by foreign companies) is merrily proclaiming the growth of the economy and, especially, the growth of exports. It has coined a new term, "export along the border," to describe the desperate attempts of inhabitants of border regions to make some money off of impoverished Germans, Czechs, Slovaks, and Ukrainians who come to shop for their own consumption or to resell Polish goods to their fellow countrymen. People from as far away as the Crimea and Vietnam come to Poland to sell some miserable commodities brought in a few bags at the flea markets, or to buy whatever may be in demand in their country in the hopes of making some profit by reselling it. According to the daily *Gazeta Wyborcza* on July 10, it is estimated that during the first eight months of this year, the income from this kind of "export along the border" will reach \$3 billion. Of course, there is also a lot of smuggling going on, usually cigarettes and alcohol from Russia and Ukraine to Poland, or from Poland to Germany. The second most popular commodity smuggled

recently on this route is metals such as copper or nickel, not to mention a growing drug trade.

### **Cutting back on science and technology**

One does not need much technology or energy for these kinds of economic activities, and both the production and consumption of energy have been decreasing during the last few years. In 1993, consumption of energy was only slightly above the level of 1970 (64.6 billion kilowatt-hours), while production fell below the level of 1985 (133 billion kwh). At the same time, the sectors of industry which could have been producing high-technology goods and machine tools, namely, military-related industry, have been in a state of agony for the last five years. From 80 plants employing 200,000 highly skilled workers, there are now only 31 plants with 80,000 people.

The reason for this is not only the reduction of the Polish Armed Forces and the decrease in arms exports by 85%, but also the drastic free-market reforms which do not allow cheap credits or state-financed infrastructure projects for highways (hardly existing in Poland right now), or high-speed railroads. On the contrary, railroads are actually being shut down; so far, over 1,000 kilometers, and 6,000 km more in the near future, plus 7% of operations will be stopped, the board of the Polish Railroads announced recently. The reason: Those railroads do not yield a profit—which is not surprising, because, as a result of the stagnation of the economy, freight transportation collapsed from about 500 million tons in 1980 to a little over 200 million tons in 1994.

The Polish Ministry of Transportation is involved in talks with Poland's neighbors and also China concerning the

expansion of railroads. However, none of the ambitious plans have even been started yet because of a supposed lack of money. That is unfortunate, because such plans could fully utilize existing productive potential and help in converting military industry into civilian production.

This attitude unavoidably leads to the shutdown of research and development facilities. From 21,000 research institutes of various types in 1980, there are now about 12,000; the number of employed scientists and researchers dropped from 22,000 to 12,000 during the same period; the number of inventions filed, decreased from 6,000 in 1980 to 2,600 in 1993, while \$500 million invested in R&D by the government constitutes only about 0.05% of national income.

### More budget-balancing insanity

What does Polish Finance Minister Grzegorz Kolodko propose to cover the growing needs? Because he is a close collaborator of the IMF, the answer is predictable: Increase taxes, cut government spending, and borrow more money abroad. That is exactly what the government intends to do. While, under pressure from the public, the government proposes to decrease the value added tax (VAT) on energy carriers from 22% to 12% in 1996, at the same time, it has introduced a new 7% tax on basic inputs for agricultural production, pharmaceuticals, and medical and rehabilitation products.

Kolodko also wants to cut social security subsidies by 4.8%, funds allocated to the Agricultural Social Security Fund by 17%, subsidies to the Labor Fund by 16%, and expenditures on family benefits by 5.6%. Subsidies to economically active individuals and companies will fall by 33%, and housing benefits by 16%. It is not surprising that two months ago, credit-rating companies such as Moody's gave Poland a very strong B, probably also to encourage the Poles to undertake one more suicidal venture, namely, selling Eurobonds, which Kolodko advertised in June during his tour to the United States, Hongkong, Seoul, Tokyo, and Germany. He told Poles that this is just "a good way to borrow money on the international market." All this, despite increasing warnings inside the country against the danger of allowing foreign capital to speculate on government bonds and shares of Polish companies sold on the Warsaw stock exchange, and despite the obvious danger involved in such operations, as was seen in Mexico last December.

Mexico and other Ibero-American nations learned the hard way what the *maquiladora* type of economy leads to. Now, a lot of voices, especially coming from the Catholic Church and labor organizations, are openly calling for a debt moratorium, or even putting the IMF on trial for crimes against humanity. It stands to reason that the idea of a coalition of indebted countries that Lyndon LaRouche proposed already in 1982 in his program "Operation Juárez," should be expanded to other continents in order to reorganize the present collapsing international financial system and open the way to a new just economic order.

---

## Documentation

---

### Privatization threatens Polish independence

*The following is a speech given on July 21 in the Polish Parliament by Deputy Wojciech Blasiak, from the Coalition of the Independent Poland (KPN), before the vote on whether to overturn the Presidential veto of a bill that would speed up the process of privatization in Poland. Subheads have been added.*

Today we are considering a veto of the President of the Polish Republic against a bill which, together with the Constitution, which probably will be passed, is the most important question in this term of the Sejm [Parliament], since it will shape the character of economic policies. This bill will define the direction of ownership restructuring and, in this way, decide the future economic and social structure of our country.

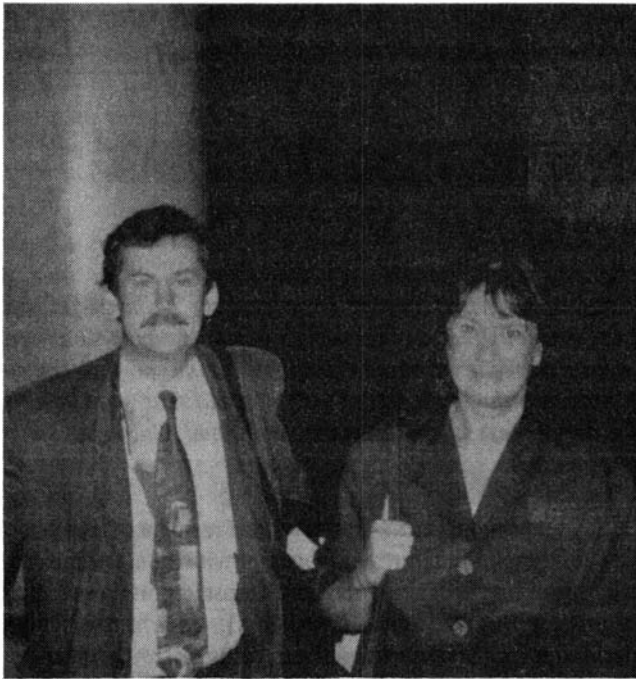
Therefore, the decision concerning this bill will influence not only our fate, but also that of our children, the future of coming generations of Poles. In such a situation, the government of Mr. Jozef Oleksy introduced this bill . . . in the emergency mode. That mode, by its nature, from the beginning presumes fast and superficial possible changes in that government proposition. The question is: Why? Why did the government want to introduce a bill which has a key significance for the future of Poland, quickly and quietly? What is really at stake here?

#### The essence of the privatization bill

As I stressed in my first speech as a representative of our Parliamentary Club, the essence of this bill . . . although it is not original or new for the political group he represents [the SLD, a post-communist party], is to deprive employees of enterprises, their representatives, and management of the right to participate in decision-making concerning the fate of an enterprise going through ownership restructuring. The essence of this bill, the essence which was minimalized, concealed, marginalized, boils down to introducing administrative orders from above in so-called commercialization and privatization of enterprises.

The core of this bill is to reduce workers and management of state enterprises to the role of a passive labor force that can be sold, rented, or given away, under some supervision. Voluntarism in ownership restructuring, although very limited, has been the last social and political barrier against realizing the plan, which was started by the Mieczyslaw Rakowski government and later confirmed by the Round Table deal.

The objection of employees against commercialization,



Polish Deputy Wojciech Blasiak (left) and Helga Zepp-LaRouche, chairman of the Schiller Institute, Germany.

or a particular sort of privatization, has been the last barrier against shaping Polish political and social structures according to the interests of the domestic political-financial elites and foreign capital. This bill is intended to remove this barrier. . . .

We also criticized the bill for the irresponsible and uncontrollable way in which it puts all the power into the hands of state officials, the power over the national wealth valued at trillions. In the absence of institutions such as a state treasury, an Attorney General, or a clear plan of privatization, this bill, in our opinion, may lead to many crimes, i.e., it increases the possibility of prodigality, malversation, and economic crimes on the part of the state bureaucracy, liberated from any responsibility and direct control.

### **Extreme forms of state control**

We also criticized the bill since, in reality, it introduces extreme forms of state control, preserves all negative features of socialist state ownership, but also adds new, shifting social and trade union controls into the hands of the state *nomenklatura*. In our opinion, the discussion is pointless, since the most important thing here are the rapacious economic interests of certain groups, which the SdPR [post-communist coalition] represents here.

This bill will allow a party bias in nominating people to fill lucrative posts in a few thousand commercialized and privatized enterprises. This bill creates legal and political conditions to finish, in 1996 and 1997, the process of ownership restructuring which started under the auspices of the

International Monetary Fund in 1987 under the government of Mr. Mieczyslaw Rakowski. This is the process of politically steered transformation of the political class of totalitarian communist bureaucracy, which was in charge of the national wealth, into a class economically enfranchised . . . at the expense of that wealth.

That was in our opinion the essence of the Round Table talks [in 1989]: We will give you a part of the political power, but you will allow us to get property in enterprises and banks. This process of ownership restructuring has been only a part of the adjustment program of the IMF, a program typical for indebted countries of the Third and Fourth World countries. In the past this program was called the Balcerowicz Plan only in order to conceal its foreign origin.

### **A Third World model**

This program brings Poland closer not to European structures, but to the economic and social structures of Latin America or Third and Fourth World countries. The model of Third World privatization and so-called commercialization is being implemented, and it is creating a new financial and political oligarchy similar to other Third World countries; groups of people who are subjectively and objectively compradors, not able to secure sovereign development and stable economic growth in Poland. Already today, the main aspiration of those new social groups is often limited only to a vassal-type integration with western Europe and giving up our own independent economic development.

Even worse, this is threatening to entangle Poland for many generations in a peripheral, ancillary development typical of Third World countries, or rather, not development, but the backwardness of a country with an unskilled labor force and industry based on low-technology processing. Unfortunately, this is a result of the present process of enfranchising foreign capital at the expense of national wealth, putting foreign management in the National Investment Funds, or generally favoring foreign capital over the Polish labor force and Polish capital, including state-owned, in the privatization process. This is threatening us with a particular economic partition which may occur due to including parts of Polish industry, banking, and commerce into economic boundaries of other economies, although geographically they stay in Poland. This is threatening us with the loss of our economic independence, and, as a consequence, turning Poland into a political vassal. This may happen within the lifespan of one generation.

We ask whether this bill serves the interests and the well-being of the labor force, or perhaps the goal is to strip from it the right to participate in decision-making on privatization. What is at stake is the economic interests of workers, farmers, and fishermen. Or perhaps the goal is to enable the SdPR and the government to finish enfranchising the elites it represents, as well as foreign capital, at the expense of Polish national wealth.

## New relations with Morocco

*Jacques Chirac's first state visit to the North African country bodes well for a proposed Mediterranean stability pact.*

It was not by mistake that French President Jacques Chirac's first state visit to Africa was a trip to Morocco. The tone of the President's speech there, his numerous reminders of the historical cooperation between the France of Gen. Charles de Gaulle and the Morocco of King Mohammed V, all indicated that France expects to make Morocco the keystone of a new policy in the Mediterranean.

Chirac underlined this several times during his presidential campaign: France must renew a Mediterranean policy worthy of the name. And, with Algeria torn apart every day by a bloody civil war, such a strategy necessarily would go through Morocco. This explains why "it is indeed under the heading of urgency that France will place its relations with Morocco."

The praise he heaped on the Islam of tolerance also indicates clearly the desire of the new President to bolster such tendencies in the Islamic world. He thus demonstrated his respect for "hundreds of millions of believers who live their faith in a spirit of tolerance, through a modern Islam and open to the world." He also specified that he was not confusing "Islam, the second religion of our country, with the twisted image and caricature it is given by adherents of integrist Islam."

Concretely, how will this new presidential strategy be translated, and what is France prepared to put forward to support a "grand design" in the region, given that the national coffers are empty and every effort is

being made to cut the budget deficit to conform to the criteria of the Maastricht Treaty? These criteria dictate harsh budget austerity for the members of the European Union.

For the first time, the idea of a "stability pact for the Mediterranean" is appearing, and should be brought up at the next Euro-Mediterranean conference in November in Barcelona, Spain. Chirac characterized it as "an historic exercise which will bring together the leaderships of the Mediterranean coast, so that they may define the membership of a huge partnership." France and Morocco are called upon, at this conference, to take "the initiative for proposing, when the time comes, a stability pact for the Mediterranean, destined to ease tensions and to construct our common future."

At the same time, France is undertaking to act as "the spokesman to the European Union and its current presidency [Spain] to restore Euro-Moroccan cooperation to the prominent place it deserves." France is thereby undertaking to help Morocco obtain the status of association it has been seeking with the European Union since 1984, and which is currently the subject of negotiations with Spain, which opposes it, because of legal issues related to the fishing industry.

Such big ideas were accompanied by a few financial acts: Alain Madelin, France's economics and finance minister, who also went on the trip, has announced the conclusion of four financial protocols for a total of 2.15

billion French francs, FF 1.65 billion of which are earmarked to fight the drought which has severely affected the 1994-95 growing season in Morocco, including the lowest wheat and barley harvests in 10 years. A second protocol of FF 500 million concerns credits to Morocco's national department for drinking water for an urban water supply network (FF 100 million), as well as acquisition by the Moroccan railways of a signal system (FF 60 million). Another protocol, of FF 50 million, will be devoted to emergency operations in rural areas to improve the drinking water supply.

President Chirac is thus going to double the public aid that France has allocated to Morocco over the last five years. Relations between the two had reached their low point under the regime of President François Mitterrand.

Still, the adhesion to the Maastricht Treaty, which he intends to maintain at all costs, will not allow France to conduct a great policy in the region. Whoever talks about a "grand design," is talking about economic cooperation, which necessarily occurs through the extension of large sums of public credit, long term and at low interest, devoted to launching vast infrastructure projects, and permitting the beneficiary countries to sustain an economic takeoff.

But, the Maastricht Treaty forbids central banks from extending credit for public investment—never mind the fact that assigning the highest priority to meeting the Maastricht convergence criteria, prevents generation of the surplus to finance great projects overseas.

Only the return to a Gaullist policy of public credit and a national bank entirely dedicated to the service of the state would allow the conditions to be created to realize a true Mediterranean stabilization pact.

# Business Briefs

## Middle East

### New banks hurting Palestinian economy

Newly established banks are actually harming the Palestinian economy, Muhammad Nashashibi, finance minister of the Palestinian Authority, disclosed at a recent conference on the Palestinian economy. The banks in the Gaza Strip and the West Bank are "sucking deposits out of the country without participating in building infrastructure or encouraging investment," he said.

Palestinian economists cited by the July 18 *Wall Street Journal* say that most of the deposits collected since the signing of the peace accord have been transferred out of the country, primarily to the banks' home offices in Jordan. It is estimated that the total drain of funds comes to at least \$500 million.

"They [the banks] are key players. If they invest here, they give others the confidence to invest. But instead of the money being invested in Palestinian territory, it is being deposited outside the country," said Muhammad Sarsour, vice president of Bir-Zeit University in Ramallah.

In 1994, in the West Bank alone, only about \$100 million was loaned out, against total deposits of almost \$500 million.

## Finance

### Direct investments urged to prop up bubble

Prof. Patrick Minford, one of seven advisers to the British Treasury, said that lowering of interest rates by central banks is no longer enough to stabilize the global financial system, but that direct central bank investments, that is, putting a large amount of liquidity into the economy by buying up assets, including stocks, bonds, and real estate, is now needed, the Swiss daily *Neue Zürcher Zeitung* reported on July 17.

The call for direct investments by central banks in order to prop up the global speculative bubble is an indication of just how desperate

the establishment is to keep the collapsing global financial system from disintegrating, and that they are prepared to go to any lengths to avoid a bankruptcy reorganization of the system.

Various proposals were discussed in the daily on how to save the Japanese financial system. Analysts, as well as the Japanese Finance Ministry and the Bank of Tokyo, are now recognizing that the "self-intensifying process" of decline in Japanese markets urgently needs comprehensive interventions, the daily said. The Japanese government, sooner or later, will have to use "direct measures to increase liquidity," especially to save the Japanese banking system, whether the Japanese population likes it or not.

## Investment

### Fund managers pushed into riskiest ventures

Legal reinterpretation and new legislation concerning fiduciary duties are making it obligatory for investment managers to seek out the hottest, and riskiest, financial games, the July 18 *Financial World* reported.

People who have fiduciary obligations, i.e., who oversee the investment of funds on behalf of other people, including a parent saving money for a child's college education, can no longer choose the safest route of buying bank certificates of deposit, or U.S. government debt securities. If the fiduciary does not "make investments that are consistent with a reasonable view of conditions in the economy and in the investment markets," and especially if their guidance ends up providing returns that are less than average, the fiduciary "can expect to answer for that in court."

In other words, if the investments could have earned more by being put into riskier markets, the fiduciary could be hauled into court for being too preoccupied with safety, and ignoring the risk of sub-par investment performance. The fiduciary could be sued because his or her caution cheated the beneficiary out of the higher return that a riskier investment would have earned.

The State of New York passed such legislation, the Prudent Investor Act of 1994, and about a dozen other states have passed similar legislation. These new laws are being actively promoted by the American Law Institute, and explicitly revoke the "prudent person" test established over 160 years ago in the Massachusetts case *Harvard College v. Amory*. The court in *Amory* ruled that fiduciaries must "observe how men of prudence, discretion, and intelligence manage their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds." Now, if you *don't* speculate with part of the funds in your care, you are not being prudent.

The U.S. Department of Labor has imposed a similar standard on businesses that offer 401(k) savings and investment plans for their employees.

## Trade

### Commercial war poisons U.S.-French relations

There is a commercial war raging between the United States and France, the French economic weekly *L'Expansion* claimed in its July 13 issue, headlined "How the CIA Destabilizes French Companies." While there is some truth to the story, it is undoubtedly being pushed by pro-British interests to poison the emerging cooperative relationship between the two countries.

There has been a massive recycling of U.S. intelligence capabilities into economic warfare, the paper said, and U.S. intelligence networks are heavily involved in spying on French companies and in sabotage operations against possible contracts to be signed by those companies in foreign countries.

The problem, according to the weekly, stems from the George Bush networks acting under the doctrine formulated by then-CIA head William Webster, that former Cold War allies would become trade war adversaries. Cable News Network, for example, the weekly reported, is preparing an exposé on French spying tactics against American companies, which will increase friction.



Not only Kroll Associates—which the weekly accuses of having set up Didier Pineau Valenciennes, the head of the high-technology giant Schneider, for arrest in Belgium on corruption charges—but hundreds of such companies, are specializing in this kind of espionage, such as Futures Group, Kirk Tyson International, Fuld and Company, and SIS International.

Many firms are also audited by “Anglo-Saxon” companies such as Arthur Andersen, also suspected of spying for the United States, according to the weekly. These companies are intervening in the intense war between U.S. and French companies to obtain contracts. One of the means used, is to accuse the intermediaries working for the French of corruption. “The scenario has become classic,” says Pierre Lelouche, an adviser to French President Jacques Chirac. “The CIA has decided to break all our foreign commercial networks by revealing the identity of our mediators.”

## China

### Economy said to be ‘cooling down’

State statistics bureau chief economist Qiu Xiaohua said that the Chinese economy is “cooling down,” *China Daily* reported on July 13. However, other economic spokesmen point to serious economic problems.

Inflation has been dropping, though more slowly than expected, and no new price controls or other special measures will be taken, Qiu announced. Credit has been constricted, with loans falling to the equivalent of \$1.2 billion less than last year. However, the central government must not constrict bank lending too much, or state-owned enterprises will not revive, Qiu said.

“The squeeze on easy loans in the past eight months has thrown a cool blanket over the economy and kept it from overheating,” a Chinese official think-tank spokesman said. “Unlike previous austerity periods, this round does not cut off loans indiscriminately to any sector.” Investment in agriculture, energy, transport, and communications has been guaranteed, he said.

The summer grain harvest is expected to be 1.7 million metric tons larger than last year, which “indicates that the government’s support for agriculture has been enhanced even during an economic readjustment period,” Qiu Xiaohua stated.

However, a People’s Bank of China spokesman said that the underlying causes of inflation remain, especially rising agricultural prices. The problems of lack of investment over the past decade, and outdated irrigation works, have been aggravated by flood and drought damage. Severe floods in central and south China have affected the autumn harvest, mostly rice, and 70% of the national grain crop. In addition, grain prices jumped 50% in the first five months of this year, and meat, vegetable, and egg prices went up by 20 to 33%. Unemployment is also high, with 20 million workers losing their jobs this year due to “experimental reform” of state enterprises.

## Europe

### Kinnock pushes sea route to stop infrastructure

In one of the more bizarre cases of British geopolitical attempts to prevent the development of land transport infrastructure in central and eastern Europe, European Union Transport Commissioner Neil Kinnock advocated the development of a new northern sea route along the coasts of Scandinavia, northern Russia, and Siberia, using Russian Navy icebreakers. The July 6 *Journal of Commerce* reported that Kinnock made the proposal before the Maritime Industries Forum in Bremen, Germany.

Kinnock’s proposal received no support from executives in the maritime industry. “There is no reason to take that northern route,” a spokesman for German ship operator Hapag-Lloyd AG told the *Journal*. “There are no significant ports along the route for cargo transfer.” Moreover, it is very unlikely that the route could be kept free of ice year-round.

Kinnock, however, insisted that “considering the huge reserves of oil, gas, and other minerals in northern Siberia, the development of the northern Russian coastline would naturally be of great interest to the European Union.”

## Briefly

● **MOROCCO** was loaned 1.5 billion French francs for water, electricity, railroad, and other infrastructure projects, in protocols signed on July 19 during French President Jacques Chirac’s state visit. Chirac said that the West should do more to aid development before lecturing African states about democracy and liberty.

● **UNEMPLOYMENT** figures are misleading, Gus Tyler, of the Union of Needle Trades, Industrial and Textile Employees, wrote in a letter to the editor in the July 8 *New York Times*, referring to its headline “Payroll Swelled by 215,000 in June; Jobless Rate Fell.” “If someone loses a full-time job, and tries to hold body and soul together by working three part-time jobs, he or she will appear on two or three payrolls,” he wrote.

● **THE TRADE DEFICIT** of the U.S. hit a new high in May, of \$11.43 billion, according to the Commerce Department, despite supposedly cheaper exports due to a weak dollar.

● **JAPANESE** banks have 100,000 billion yen (about \$1.2 trillion) in bad loans, the July 18 Swiss daily *Neue Zürcher Zeitung* reported. From March 1994 to March 1995, the value of stocks owned by the 21 leading Japanese banks fell by more than 50%, and from March 31 to July 3 the value fell by another 50%, mainly because of sell-offs to cover bad loans.

● **THE BRITISH** replaced the Japanese as the largest direct investors in U.S. companies, and the United States net debtor position worsened by 24.9%, from \$545.3 billion at the end of 1993 to \$680.8 billion in 1994, according to U.S. government figures released on June 28.

● **EARTHQUAKE** prediction may be enhanced by findings of two teams of Japanese scientists that groundwater chemistry changed significantly preceding the Kobe earthquake in Japan on Jan. 17. The findings were published in the July 7 issue of *Science* magazine.

---

## U.S. and Russia link manned space programs

---

*The docking of the Space Shuttle to the Russian Mir space station marked a milestone in scientific, economic, and diplomatic relations between the two space superpowers. Marsha Freeman reports.*

---

On June 29, as Space Shuttle Commander Robert "Hoot" Gibson and his crew maneuvered the orbiter Atlantis toward the Mir station, a page in the history of manned spaceflight was turned. Although there was a link-up between an Apollo spacecraft and a Soviet Soyuz almost exactly 20 years earlier, that singular event never developed into long-lived space collaboration. But it was an important accomplishment in the temporary era of détente between the United States and Soviet Union, and a pathfinder that laid the basis for today's success.

Throughout the 1970s and 1980s Cold War, each manned space program went its separate way. The United States concentrated on reusable space transportation by developing the Shuttle, and the Soviets, on long-duration space flights, deploying a series of Earth-orbiting space stations. The hope that following Apollo/Soyuz, joint docking flights would continue, at least to provide a rescue capability should either nation's astronauts need assistance in space, was dashed with the Soviet invasion of Afghanistan in 1979, and imposition of martial law in Poland in 1981. As a result, however, the unique capabilities developed by each manned space program are complementary to the other, and can now be combined into a more robust international effort.

For the United States, near-term cooperation with Russia on Shuttle/Mir missions will enhance NASA programs by providing access to Russia's long-duration space stations, unique technologies, and 38 years of space experience. For Russia, the infusion of more than \$150 million per year from the United States, which now represents more than a third of the Russian government's funding for the Russian Space Agency, is literally keeping its space programs alive.

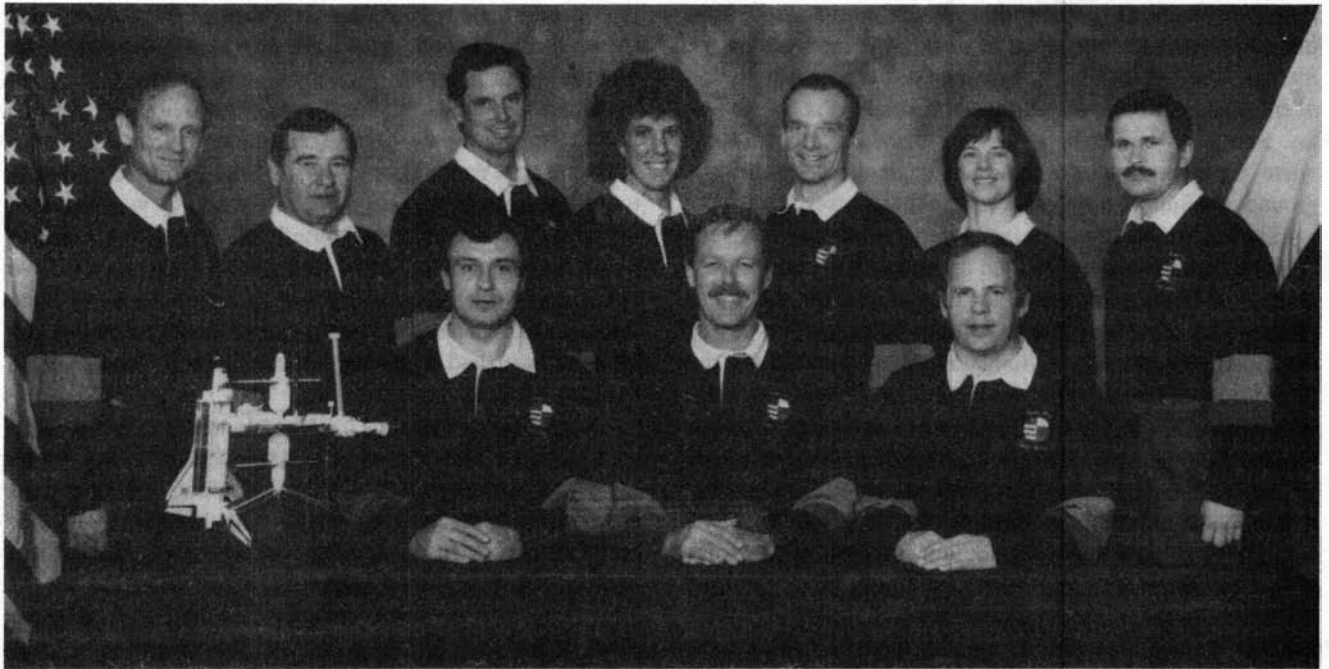
Longer-term cooperation with Russian participation in

the U.S.-led International Space Station Alpha (ISSA) is a *political* commitment to the Russian government by the Clinton administration. While the cooperation does garner some additional U.S. congressional support for the space station, by those who, for foreign policy purposes, see the need to support these capabilities in Russia, this support is not decisive, and certainly has not stopped the budget-slashing Congress from trying to emasculate the space agency's budget.

Only false arguments have been made to justify the cooperative space program by stating that Russian participation will "save" the United States money; international programs never do. The so-called "savings" of buying Russian hardware at a cheaper cost than producing it in the United States are offset by the increased expenditures to NASA for redesigning and building new hardware, including for the Space Shuttle, to make its systems compatible with those of the Russians. But as the U.S. administration, from President Clinton on down, is well aware, without the Russian participation in ISSA, there would be no manned Russian space program once the Mir station reaches the end of its useful life over the next two years.

The recent Shuttle/Mir mission is the first in a series of seven such joint flights, and a rehearsal for the construction of International Space Station Alpha, the first element of which is scheduled to be launched by the Russians in November 1997. The commitment to this endeavor to combine two separate manned space programs is strongly supported at the highest levels in both nations, and withstood its first test of political will when the Clinton administration refused to hold the space agreements hostage to the events in Chechnya.

This in no way implies that there are not substantial risks in this joint manned space program. The risks are both techni-



*The ten astronauts and cosmonauts on the Mir 18, STS-71 Shuttle, and Mir 19 missions. For the first time in history, there were ten astronauts and cosmonauts, from three missions and two countries, in space at the same time. In the front row are the commanders, Vladimir Dezhurov (Mir 18), Robert Gibson (STS-71), and Anatoliy Solovyev (Mir 19). The back row of crew members are Norm Thagard and Gennady Strekalov (Mir 18), Gregory Harbaugh, Ellen Baker, Charles Precourt, and Bonnie Dunbar (STS-71), and Nikolai Budarin (Mir 19).*

cal and political. But the alternative would be to watch the Russian space program continue its rapid decline, greatly diminishing the possibility of ever restoring technology-driven economic growth to that nation.

There are only two nations in the world that have ever put men into space. With the recent Shuttle/Mir mission, for the first time, they did that together.

### **A groundbreaking technological accomplishment**

Bringing together two spacecraft as massive as the Shuttle orbiter and the Mir required the most delicate piloting skills. As soon as the Space Shuttle Atlantis lifted off at 3:32 p.m. on June 27, it started on its approach to the Mir station. While the Mir 18 crew on board the station reported that they were “tidying up” for the visit of the Shuttle, Commander Hoot Gibson was bringing the Atlantis within range of the Mir.

Unlike the chase by the Shuttle to catch up with the Hubble Space Telescope or other satellites with which astronauts have made rendezvous, the Shuttle took advantage of orbital mechanics to slow itself down in order to minimize firing its thrusters in proximity to the station. As a spacecraft’s altitude increases, its speed decreases. At a low-Earth orbit of a couple hundred miles, it takes about 90 minutes to complete an orbit. At the 23,500 mile altitude of geosynchronous orbit, the same trip takes 24 hours. Atlantis approached

the Mir from underneath, in order to avoid thruster firings in the direction of the station, which could have damaged the latter’s delicate solar arrays.

The docking of these two massive vehicles was described by Shuttle pilot Charles Precourt during a pre-flight press conference as an “eight dimensional problem.” The crew had to control the orbiter’s own axes of rotation to keep its attitude steady, in the pitch, roll, and yaw directions. The second set of three dimensions concerned the Shuttle’s position relative to the Mir—up/down, left/right, and forward/aft. In order to “soft dock” the two vehicles, the Space Shuttle had to make the final approach to Mir at a “glacial” speed of between 0.07 and 0.13 feet per second.

And the eighth constraint was time. The Russian Mission Control Center in Kaliningrad had to be able to communicate with the cosmonauts aboard the Mir station during the docking sequence to allow real-time “back-up commands” if needed, and to be able to coordinate the docking with Mission Control in Houston. The Russians can only communicate with their cosmonauts when the Mir is over one of the Russian ground stations, which, for security reasons, had only been built in the Soviet Union.

During the Shuttle/Mir mission, Russian Mission Control was able to communicate with the crew for 40 minutes out of each approximately 90-minute orbit, for the first 9 hours of their day, and hardly at all for the next 9 hours. This translated

into a 2-3 minute envelope within which Commander Gibson had to perform the sequence of docking maneuvers on the Shuttle. The United States, by contrast, uses a constellation of six geosynchronous satellites—the Tracking and Data Relay Satellites—which provide the capability to transmit voice, data, tracking information, and telemetry between the ground and Shuttle for 85% of the Shuttle's orbit.

During the five days that the two spacecraft were docked, engineers on the ground had the opportunity to compare the predictions from their computer models of how the entire stack would behave, to the real thing. After the first day of docked operations, NASA flight controllers reported that the propulsion fuel the Shuttle was expending to hold the entire stack in the attitude needed to point Mir's solar arrays toward the Sun to produce electricity, was 70% higher than projected.

Before the flight, engineers had determined the energy requirements for attitude control using models based on estimates of total mass, mass distribution, stiffness of the structure, and other variables which could only be determined accurately once the spacecraft were docked. Relatively minor adjustments, on both the Shuttle and the Mir, which were coordinated closely between the two Mission Control Centers, reduced the fuel use.

There were many firsts on this joint mission. One of the most beautiful was the sight of three bodies flying separately, but in close proximity, as the undocking sequence unfolded. Commander Gibson had said that during the training for this in the simulator, "the words 'cosmic ballet' came to mind."

Early on July 4, the Mir 19 crew, Commander Anatoly Solov'yev and Flight Engineer Nikolai Budarin, left the Mir station and entered their Soyuz capsule. At 7 a.m. on July 4, the small Soyuz—which brings the cosmonauts up to the Mir, stays attached to it during their mission, and then usually returns them back to Earth—undocked from the top of the Mir. The Shuttle, still attached to the bottom of the Mir at the Kristall module, took photographs as the Soyuz slowly "floated" away from the huge complex.

At a distance of about 300 feet from the Mir, the Soyuz stopped and photographed the Atlantis as it undocked from the station. When Atlantis was about 700 feet away from Mir, it held that position. After the Soyuz had redocked to the Mir, the Shuttle began a 360° fly-around of the station, to provide the Russians with photographic documentation of the overall state of Mir after nine years in orbit.

In important ways, the flawless docking mission followed in the footsteps that had been set by Apollo/Soyuz. Many of the engineers on both sides who worked on the 1975 mission, worked on this one. The docking mechanism that was used for the Shuttle and Mir was modeled upon the one that first joined the U.S. and Soviet space programs two decades ago. And 20 years ago, when the entire Soviet space program was highly classified, Apollo/Soyuz gave American engineers their first-ever glimpse into Soviet space technology. Most important, a lasting trust and friendship developed, especial-

ly between the two commanders, Gen. Tom Stafford and Gen. Alexei Leonov, who have provided guidance to the Shuttle/Mir project.

But while preparing for the Apollo/Soyuz mission, the U.S. astronaut crew—Gen. Tom Stafford, Donald "Deke" Slayton, and Vance Brand—visited the Soviet Union only twice during more than two years. Each crew was launched on its own spacecraft, met briefly in space, and returned home. In comparison, during the Atlantis/Mir mission, two cosmonauts (the Mir 19 crew) and three astronauts were flown up on Atlantis, and two different cosmonauts (the Mir 18 crew), who had been launched on a Soyuz in March, came back on Atlantis.

Norm Thagard became the first American astronaut to fly on a foreign vehicle, when he was launched on a Soyuz with his Mir 18 colleagues in March. Therefore, a total of four cosmonauts and one astronaut (or half the 10-person combined Atlantis, Mir 18, and Mir 19 crews) will have flown on both American and Russian spacecraft when the Mir 19 crew lands in September. This required the closest working relations between the crews, who trained together, for varying amounts of time, in both Star City, Russia, and at the Johnson Space Center, in Houston.

The close working relationships and camaraderie that developed among the 10 space travelers was evident during the mission. Dr. Bonnie Dunbar, who was a Mission Specialist on the Atlantis crew, had trained in Star City for a year as a back-up to Norm Thagard. The affection with which she was greeted by Mir 18 cosmonauts Vladimir Dezhurov and Gennady Strekalov, who had last seen her in Star City before their launch in March, was evident from the television coverage. After the Shuttle Atlantis landed in Florida on July 7, Commander Gibson made clear that he will not consider the mission over until all 10 astronauts and cosmonauts meet when the Mir 19 crew lands in Kazakhstan, on Sept. 9.

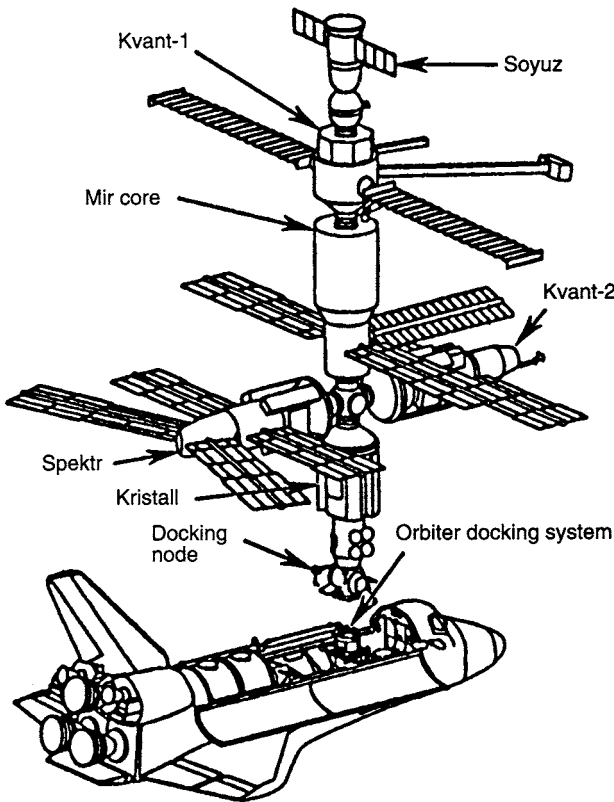
### **It 'runs like a railroad'**

There would be little justifiable reason, considering the added risk and cost to the Shuttle program, to execute seven Shuttle/Mir missions unless such experience could be applied to future projects. The Shuttle/Mir program is only the first in a three-phase U.S./Russian space program, that includes building and operating International Space Station Alpha (ISSA). Although the United States has docked vehicles in space, notably during the Earth-orbit rendezvous of the Apollo missions to the Moon, there is no question that the Russians have become the experts at docking and undocking different kinds of spacecraft in orbit.

It was necessary for the Russians to develop this capability for their manned program because they do not have any vehicle near the size of the Shuttle for transporting crews and supplies to orbit. Therefore, if a crew is to stay on Mir for months at a time, supplies have to be delivered periodically. It is also useful to have an unmanned Progress cargo vehicle

FIGURE 1

**The Space Shuttle Atlantis mated to the Mir space station**



“visit” the Mir during long-duration flights to bring additional scientific equipment, not to mention letters from home and treats for the cosmonauts. The Progress arrives at the station, docks there automatically, and is jettisoned to be burned up in the atmosphere after it has been unloaded.

The Mir itself is currently made up of four major science modules each weighing about 20 tons (see **Figure 1**), plus the Mir core module. A Soyuz crew-return vehicle is always docked there. The confidence which the Russians have developed in their ability to move modules around to reconfigure the station when necessary, was demonstrated in the hectic activity accomplished to prepare for the Atlantis docking, to make sure the orbiter would not damage the Mir.

In the space of six weeks, the Russian cosmonauts of the Mir 18 crew performed five EVAs (Extra-Vehicular Activities, or space walks outside the station), moved the Kvant-1, Kristall, and Spektr laboratory modules to different ports, which required the repositioning of the one docking cone they have each time, moved solar arrays between modules, and tried to make repairs on bulky solar arrays. As Norm Thagard said during a press conference aboard Mir on April 12: “The Progress comes up on time, the Soyuz comes up on

time. It runs like a railroad, and when you look at the budget it’s operated on, that’s pretty impressive.”

A decade ago, when Mir was designed, it was expected to be in operation for about eight years, but economic problems prevented the Soviets from ever building Mir 2 to replace it. Over the past few years, Mir’s condition has seriously deteriorated, and astronaut Norm Thagard, who spent more than 100 days aboard Mir, commented during an in-flight press conference July 3 that it “takes the considerable effort of two folks to keep Mir operating.”

Nonetheless, the Russians are committed to doing just that until 1997, when International Space Station Alpha will begin construction. Just to do repairs and prepare for the next Shuttle docking mission, scheduled for October, the present Mir 19 crew will undertake a dizzying schedule of activity. There will be one EVA to try to release a solar array on the Kvant 2 module that is not properly articulating and therefore not producing its rated electrical power. The cosmonauts will also inspect a leaking side docking port. A few days later, the Kristall module will be moved to the side port. The crew will undertake an EVA to try to free a stuck solar array on the Spektr module, using tools that were fabricated at the Johnson Space Center and in Russia and brought up on the recent Atlantis flight.

On July 20, a Progress supply ship was launched and docked on the bottom port (where Kristall had been) two days later. During a third EVA in mid-August, the cosmonauts will mount scientific hardware on the outside of the Spektr and remove radiation monitoring detectors from the outside of Mir. On Sept. 1, a trio of cosmonauts including a European researcher—the Mir 20 crew—will launch, and dock their Soyuz with the Mir on Sept. 3, after the Progress ship has been jettisoned the day before. On Sept. 9 the Mir 19 crew, which traveled to the Mir on the Shuttle in June, will return to Kazakhstan.

Each national space program has its own strengths, and confidence in its own systems and technology. The Russians have accumulated a great deal of experience with orbital structures, which was evident as soon as there was a problem during the mission. At the time that the Shuttle undocked from the Mir, the space station lost attitude control and started to rotate out of position. Mission Control in Kaliningrad ordered the crew in the Soyuz spacecraft back to redock with the empty Mir five minutes earlier than planned, before its misalignment would make redocking the Soyuz a problem. When nervous engineers in Mission Control in Houston expressed their concern, Russian flight controllers assured the Americans that this had happened before on the Mir, and they knew how to fix it (which they did do).

The shoe was on the other foot during the STS-63 Shuttle mission in February, when a leaky thruster on Discovery threatened to ruin a planned close rendezvous between the orbiter and the Mir. NASA analyzed the problem and was convinced that the leak would not damage the Mir, and that



*Like Norm Thagard, who spent more than three months on the Mir, Dr. Bonnie Dunbar (right) trained in Star City with the cosmonauts, as Thagard's back-up. Gennady Strekalov (hugging Dunbar) was the flight engineer on Mir 18 and was making his fifth space flight.*

Commander James Wetherbee could maneuver the Shuttle even if one thruster were shut off. The nervous Russians said they would give the go-ahead for a rendezvous, but only to a distance of 400 feet. Throughout the night, engineers half-way around the world conferred, and on Feb. 6, Wetherbee got the go-ahead and brought Discovery within the planned 37 feet of the space station.

More than technical expertise or diplomatese, this joint manned space program is based on mutual respect and trust based on real accomplishment. It is in that way that the complementary capabilities in the two programs can be combined to produce the best results.

### **The 'meat' of the program is the science**

The purpose of mastering on-orbit rendezvous and docking, EVAs, and space construction is to be able to build a world-class research laboratory, as a stepping-stone to further exploration in space. Here, the United States makes a unique contribution.

Although the Russians have operated manned space stations since the early 1970s—and on the Mir have consistently broken new ground, setting a new record of a 14-month mission earlier this year—the data they have collected on the effects of this microgravity environment on the cosmonauts have been poor, or nonexistent. There are a number of reasons for this, all of which can be eliminated by making use of U.S. capabilities.

The Russians have not developed the kind of highly sophisticated biomedical equipment that is used in the Space Shuttle program. Due to a lack of both the physical space

on the station for more hardware, and of the availability of compact, high-quality equipment, the Russians have done almost no in-flight analysis of physiological changes; just pre- and post-flight analyses.

On this joint mission, the European Spacelab module was housed in the orbiter's payload bay, and outfitted for a full set of life sciences experiments. The Mir 18 crew underwent extensive testing of body functions that are known to change in microgravity, in the cardiovascular system, the skeletal and muscle systems, and the immune system. Spacelab carried, for example, a portable blood analyzer to check the astronauts' blood chemistry while still in orbit, without waiting for samples to be returned to Earth.

Space Shuttle Mission Specialists Ellen Baker (a medical doctor) and Bonnie Dunbar (a biomedical engineer) carried out invasive experiments, such as injecting the crew with pneumococcus to perturb their immune systems and see how they would respond. The long-duration Mir 18 crew members underwent tests to study how much calcium was deposited in their bones using chemical tracers, since one of the earliest and most debilitating effects of microgravity is the loss of bone calcium, which is similar to osteoporosis.

Although the crammed schedule of tests and experiments in Spacelab, especially during the five days during which the Shuttle and Mir were docked, sometimes tested the patience of the astronauts, after the Shuttle landed, mission scientist Tom Sullivan reported that they had accomplished 10% more scientific work than had been planned. A week later NASA life sciences director Dr. Arnauld Nicogossian reported that there did not seem to be any "show stoppers" for long-dura-

tion space flight.

As part of the U.S./Russian space agreements, American equipment and medical technology will be used not only when the Shuttle is visiting the station, but will be provided to upgrade the continuous scientific productivity of the Mir. The United States agreed to provide more than 1,500 pounds of equipment for the Spektr module that the Russians had built, which was scheduled to be attached to the Mir in early May. The medical equipment on Spektr was to be used by Dr. Thagard during his three-month stay on Mir and remain as a permanent addition to the station. Processing problems in readying Spektr for launch in Russia and problems in delivering the U.S. equipment, led to launch delays, which threatened the schedule for the manned flights. The Russians allocated about 30 days to launch, dock, and unload the Spektr and then to reconfigure the Mir for Atlantis. If the Spektr launch had been delayed, either Thagard's Mir 18 launch would have had to be delayed, or they would have launched the crew to Mir first, and Thagard would have had to make do without the medical equipment for most of his stay aboard Mir.

The Mir 18 launch was delayed for two weeks, but Spektr did not arrive until two months later. In the meantime, the United States included hundreds of pounds of medical and other equipment on Progress supply ships sent to Mir before Thagard arrived there on March 16. On May 20, Spektr was finally launched to the Mir, carrying over 1,000 pounds of equipment, and it docked on June 1. One of the most important items that it brought to Mir was a refrigerator to store biological samples to be returned to Earth. The Russians did not draw blood samples in the past, because they did not have refrigerators on board to store them. The Priroda science module, carrying an additional 2,000 pounds of medical equipment, is scheduled to arrive at Mir by the end of this year.

One of the most severe constraints on the Mir/Soyuz system for scientific research is the lack of room to bring back material to Earth. Unlike the Shuttle, which has a maximal 60,000 pound payload capability, the small Soyuz capsule can only bring home a few hundred pounds of payload with two cosmonauts on board. This has severely limited the biological samples—of urine, blood, and saliva, for example—that the crew can transport to Earth for analysis in laboratories. For the joint missions, the Shuttle will carry hardware up to the Mir, and return biological and other materials.

One of the complementary aspects of the two systems, concerns the most important commodity for the health of the crew—water. The Space Shuttle produces water in the process of making electricity in its fuel cells. Usually, this water is simply dumped overboard before the orbiter returns. However, on the Shuttle/Mir mission, over 1,000 pounds of water were transferred to the Mir, along with some oxygen and nitrogen in the atmosphere, which will save the Russians the need to bring it from Earth.

During the five days that the Shuttle and Mir were docked, the astronauts and cosmonauts who were not involved in the medical studies, worked tirelessly to transfer the treasure trove of over 400 pounds of biological samples and recorded data from Mir to Atlantis, which had been collected over the 110-day Mir 18 mission. The Shuttle also carried back Russian station equipment that needed repair or replacement.

Dr. Helen Lane, the principal scientific investigator for metabolic studies, explained at a briefing on July 1 that another advantage that the United States has is that the landing sites for the Shuttle (either California or Florida) are not as remote as the Russian landing site (Kazakhstan), allowing the biological samples to be gotten to laboratories in only a matter of hours.

There are rough edges that still have to be smoothed out, such as integrating the hardware from two very different space programs (the Russians use the metric system, for example, and the Americans do not), as well as integrating the crews. In addition to the most severe problem of coordination—that is, the difference in language—the differences in operational style and approach that result from the differences between long- and short-duration flights caused some irritation for the crews.

Space Shuttle astronauts, who are going to be in space for less than two weeks and have a lot to accomplish in that short time, train intensively for the mission, and practice virtually everything they will have to do. By contrast, when you are going to be aboard a space station, as the Russians have been, for six or more months, not only is it not possible to practice everything ahead of time, you would likely forget half of it before you had to do it.

The cosmonauts on Mir are accustomed to discussing their upcoming schedule with Mission Control in advance, and being briefed on any changes the night before. Mission Control in Houston generally spends the night (when the astronauts are sleeping) evaluating that day's activities, and confers with the crew first thing in the morning. The cosmonauts on the Shuttle found this procedure disorienting. In general, the cosmonauts found the schedule of activities on the Shuttle frenetic, while Thagard found the more leisurely pace of work on Mir frustrating.

These kinds of adjustments will be made throughout the remaining six Shuttle/Mir missions. One lesson learned from Thagard's stay on Mir was that it is emotionally and intellectually difficult to spend three months in close and isolated quarters with two people who do not speak one's native language, if there is not frequent contact with one's family and colleagues back home.

The first of seven Shuttle/Mir missions was a stunning success. For the United States, the purpose was to gain access to a space station five years before the American-led international one will be fully available. These missions, therefore, reduce the risks involved in assembling structures in space,

and exposing human crews to long months in microgravity, by learning more about such problems and solving them. Because the Russians will be full partners in the international station, it is important to develop the procedures, language skills, trust, and compatibility to work together in space.

The joint manned program augments the Shuttle/space station program which the United States has been pursuing with its European, Canadian, and Japanese partners. For the Russians, it has been the lifeline that has kept a portion of their advanced aerospace capabilities intact and can give them a prominent place in the space program of the future.

### Preserving Russian space capabilities

The aerospace/defense sector of the former Soviet Union has been collapsing at a breathtaking speed over the past six years. In November 1991, James Oberg, an American specializing in Soviet/Russian space analysis, reported in *Omni* magazine that this decline began as early as 1987, when President Mikhail Gorbachov started reducing the space budget, cutting it 10% for each of three years. The series of political crises, and fantastic inflation during the transition from the Soviet Union to independent republics accelerated the process, with President Boris Yeltsin pledging to continue the downward trend in the space program when he became President.

The pride of the Soviet space program had been its seemingly effortless ability to launch more than 100 spacecraft per year, at its peak. By 1991, the number of launches had fallen to a 25-year low of 59 launches, compared to 66 missions in 1967. Last year there were 48 launches, and in 1995, only

45 are planned. While it is true that there have been some improvements in technology, allowing unmanned satellites to remain operational for longer periods of time, requiring less frequent replacement, this in no way accounts for a 50% decline.

The withdrawal of government funding for the civilian space program, under the rubric, enforced by the International Monetary Fund, that assets should be "privatized," is mindboggling. *Aviation Week* reported on March 15, 1993 that the budget for that year was expected to be 51 billion rubles. Factoring in inflation, this was equivalent to *half* the amount of the 1980s. In July, according to *Space News*, the 1993 budget still had not been approved by the Parliament. Alexei Krasnov, deputy director of Russian Space Agency's international department, finally stated at that time what no one had wanted to admit in public—that no hardware had been built yet for the Mir 2 space station to replace the one now in orbit, and there was little chance any would be.

By August 1993, Russian Space Agency director Yuri Koptev reported that the space industry had lost 30% of its trained specialists and 34% of its top space scientists. Employment in the Russian space industry stood at 790,000 in 1990 and fell to 560,000 by 1992. In 1993 it was reported to be at 295,000 people.

The Russian Space Agency has had political problems, in addition to its economic ones, in keeping its space program up and running. More than half of the launches of the program since the 1950s, and all of the manned launches, have taken place from the Baikonur Cosmodrome. It is the oldest launch facility in the world, and since 1957 has launched more than



*Astronaut/doctor Ellen Baker (left) and astronaut biomedical engineer Bonnie Dunbar (right) were principally responsible for the experiments and tests on the long-duration Mir 18 crew in the European Spacelab. This was the first time that such extensive measurements on the health of the crew were taken in space.*



900 orbital missions. But it is not in Russia; it is in Kazakhstan. With the dissolution of the Soviet Union and independence of the republics, the government of Kazakhstan tried to assert its claim on the vast facility.

In September 1991, Kazakhstan President Nursultan Nazarbayev declared all enterprises in his republic under his authority and created a Kazakhstan Space Agency. Unfortunately, there was no possibility that his government would be able to run, or take care of, this precious resource. On Feb. 24-25, 1992 about 2,000 military construction troops at Baikonur rioted over inadequate food supplies and the generally poor state of living conditions. Several buildings were burned down, and three soldiers died in a fire. Three weeks earlier, technicians had staged a brief strike over lack of pay.

A few months later, on July 25, Yuri Semenov, director of the major design and manufacturing bureau NPO Energia, told a press conference in the town of Leninsk, which houses the military and civilians who work at the Cosmodrome, that the Russian government had invested 2 billion rubles from the end of 1992 to early 1993, "to keep the Baikonur Cosmodrome from completely falling apart overnight." A Feb. 9 article in the Russian newspaper *Nezavisimaya Gazeta* reported that workers at the Cosmodrome had been stealing equipment from the mothballed Buran launch complex. In June, 500 Kazakh military construction troops took part in riots at Baikonur and caused 100 billion rubles in damage during an arson and looting rampage.

Finally, on Dec. 29, 1993, Yuri Koptev announced that an agreement had been signed with Kazakhstan to rent Baikonur for 20 years for \$115 million/year. But a nervous U.S. congressional delegation from the House Science and Technology Committee that visited Baikonur on Dec. 2, 1993 filed a report concluding that the infrastructure surrounding the launch facilities and in Leninsk is "in need of major upgrade and investment in order to guarantee the ongoing viability of Baikonur, especially if the U.S. chooses to commit to a dependent relationship to the Russian space program." Periodic electricity blackouts, water that is undrinkable, and lack of most other services deeply concerned the congressional delegation.

More recently, on March 2, 1995, there was a meeting of the Russian cabinet specifically to address the crisis in the aerospace industry. At a press conference to report on the meeting, Koptev said that the situation was so critical that a shortage of funds "made it impossible to finance the federal space program in January and February." In addition to its ongoing operating costs, Koptev explained, the Russian Space Agency owes 230 billion rubles to various entities for work done in 1994, because it only received 78% of the budget appropriations last year, and only half of what it had requested. "It is impossible to live on the basis of month-by-month financing. The more so when even this has to be pleaded for. . . . So far, there is no sense that space activities

should be a national priority, and there have been no practical steps to back it up financially," he said.

At the cabinet meeting, the budget for this year, which had been set at 1.5 trillion rubles (at today's exchange rate, less than \$400 million), was increased by 300 billion rubles by the finance minister. Responding to a question from a CNN reporter regarding help from the United States, Koptev defensively replied, "Russia's experience in this area of space exploration is invaluable." "This is not humanitarian assistance to Russia," Koptev asserted, since the United States is simply buying services and hardware from Russia. "This is an objective need."

Maybe so. But Koptev fought long and hard for a long-term commitment by the United States to put dollars into the Russian space program because, while the 1.5 trillion rubles is not in any way really equivalent to \$400 million in terms of what each can buy (a Russian engineer earns about \$170 per month), it is the case that the \$150 million or so per year that NASA is putting into the Russian effort is now close to 40% of the amount of money that the Russian Space Agency receives from the Russian government.

It was clear by the summer of 1993 that the Russians would never build their Mir 2 space station. Without participation in the U.S.-led international station, within two years, Russia, which was the pioneer in space exploration, would be out of the manned space business.

Koptev expressed his recognition of this unfortunate circumstance, stating that his program "can only be realized if this activity is supported by the Russian government with substantial investments much larger than what we are getting from the Americans." The same month, Koptev announced that the Buran, the Russian space shuttle, would never be used.

The inability of the Russian government to adequately support space exploration, or other science and technology programs, is a result of the economic shock therapy policies imposed by institutions such as the International Monetary Fund, the "Conservative Revolution" privateers, and the criminal mafias that reap fortunes from the sell-off of Russia's national technological patrimony. That there may be a recommitment on the part of the Russian government to its space sector is a great source of concern for such vultures.

In a vicious March 13, 1995 commentary in the *Washington Times* on the March 2 cabinet meeting which discussed how to improve the state of the Russian space industry, Hoover Institute fellow Arnold Beichman asked, "What will foreign investors think?" The IMF is deciding on a \$6.3 billion loan. If the Russian government decides to put more money into state industry, "isn't this a pullback from the market economy?"

There is little doubt that only if the Russian government throws out the "market economy" and its fanatics, and the IMF and its loans, will it have the possibility to save its country.

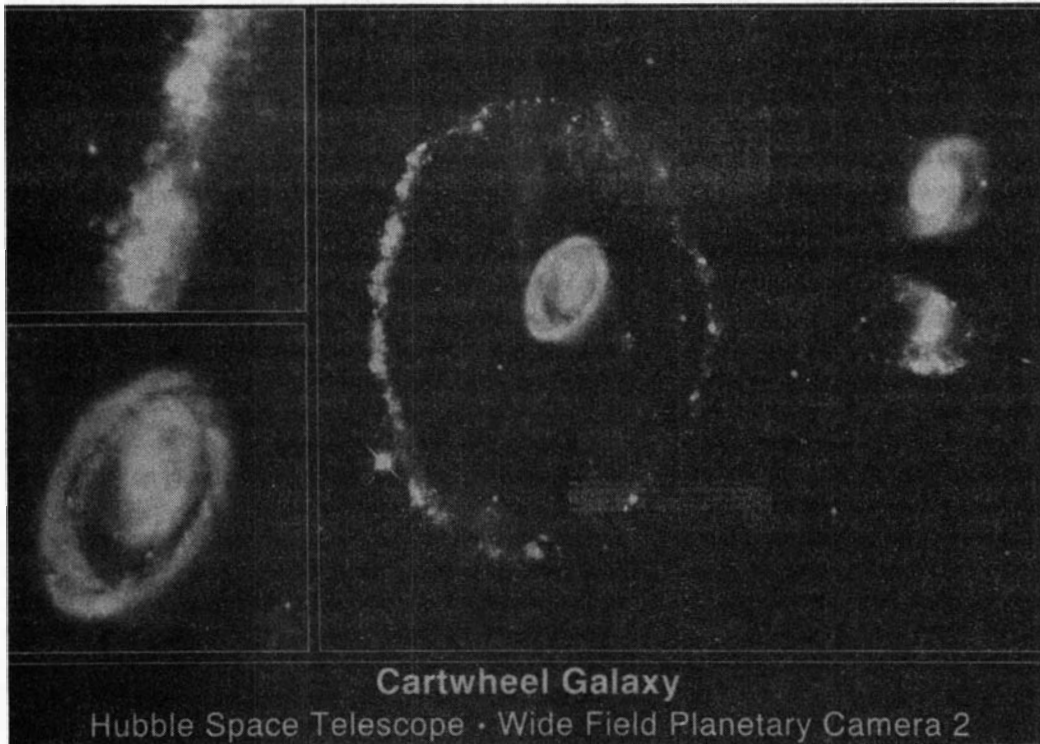
## Georg Cantor's contribution to a new renaissance

by Dino de Paoli

*This speech was delivered at a conference of the Schiller Institute in Halle, Germany on May 6, 1995. George Gregory translated the German quotes from Cantor, Leibniz, and others.*

This year marks the 150th anniversary of Georg Cantor's birth, and the 100th anniversary of his discovery of the "paradox of the Absolute." Cantor is one of the greatest German mathematicians of the nineteenth century, and his discoveries are in a difficult area of mathematics, whose formalism would be irrelevant to this audience. On the other side, modern "Cantorian mathematicians" tend not only to forget the background of Cantor's discoveries, but also to *oppose* the philosophy which led to such breakthroughs. For this reason, we will tell the story of "a mathematician who did not want to be one," the story of a man whose real identity and inspiration were more on the artistic and philosophical side of his personality, the side that he loved the most; we will also show the relation between his outlook and his insights in criticizing a certain cultural trend in Germany.

At the end of the nineteenth century, Europe became increasingly dominated by cultural decadence and pessimism, whose danger became obvious, unfortunately, only much later. Different trends were preparing people to accept totalitarianism as a "scientific" way of life. Naturalism was presented as a new "scientific" religion, whose actual aim was to politically and economically justify the reduction of man to a mere beast. In this sense, it was important to destroy Judeo-Christian religion, which stressed the sacredness and the "image of God" in man. This had to be presented as a reactionary mythology, disproved by the "science" of Darwin and Malthus, science which, in reality, was coherent with "the culture of the empires." This "Conservative Revolution," past and present, always covers evil with a "theory" of some type of Social Darwinism: the survival of the strongest "race," the hatred of whatever "other" is considered to be threatening our "living space." In that culture of the *fin de siècle*, the deep Christian humanism of a



A view from the Hubble Space Telescope of a head-on collision between two galaxies (right). Said Lyndon LaRouche, in his speech to the Schiller Institute's seminar: "Cantor emphasizes that the universe that exists, is the universe of the Becoming, not a fixed, empty space-time with objects floating around in it. And that is, he says, the Transfinite, by which he means, inclusively, what becomes known as the Aleph series. He identifies the Good of Plato as his notion of the Absolute, of God."

Beethoven or a Schiller seemed of another world. Few people, and no mathematicians, saw the evil coming, or reacted, when to degenerate, was named "to progress," and to be pagan, was said to be "modern."

Cantor, in his way, fought against such a "world of the beasts." For these reasons, I would start our discussion of Cantor's life with a Schiller poem which best sums up his free creative life and his work, "Die Worte des Glaubens" ("Words of Faith"—see page 27).

### Cantor's life

G. Cantor was born on March 3, 1845 in St. Petersburg, to Georg Woldemar Cantor and Marie Boehm. Cantor wrote about his father: "My father . . . came to St. Petersburg as a child, and was soon christened into the Lutheran Church there. But he was born in Copenhagen of Israelite parents, who belonged to the Portuguese Jewish community there." (M 380)<sup>1</sup>

For Cantor, clearly his father's family was of Jewish origin, but for some strange reason, there are "experts" today who try to deny this; we shall see, later on, the importance of the issue. In any case, according to Cantor's son, the Nazis requested that "the marble bust of Cantor be removed from the main building at the University of Halle."

His mother came from a very well-known Catholic family. Cantor wrote: "In fact, I belong to a family of violin virtuosos on my mother's side. My grandfather and my grandmother . . . entertained musical circles in Petersburg

as royal violin virtuosos; and my great-uncle Joseph Boehm leads a conservatory in Vienna and is the founder of a famous

## In this section

At a seminar in the German city of Halle on May 6, the Schiller Institute paid tribute to the great German mathematician Georg Cantor, who made Halle his home. We publish here the speeches given there by Dino de Paoli, Lyndon LaRouche, and Jonathan Tenenbaum.

For more information on Cantor, see:

Georg Cantor, "Foundations of a General Theory of Manifolds," first English translation of "*Grundlagen einer Allgemeinen Mannigfaltigkeitslehre*," *The Campaigner*, January-February 1976.

Lyndon H. LaRouche, Jr., *The Science of Christian Economy* (Washington, D.C.: Schiller Institute, 1991).

Lyndon H. LaRouche, Jr., "Georg Cantor: The Next Century," *Fidelio*, Fall 1994.

Dino de Paoli, "Georg Cantor's Contribution to the Study of Human Mind," *21st Century Science & Technology*, Summer 1991.

school for violinists.” (M 4) Joseph was indeed very close to Beethoven; he played many of his works, such as, in 1825, the Quartet in E-flat Major, Op. 127. Marie herself was also a musical talent, as was Georg Cantor’s brother Constantine, who became a very good pianist. Cantor’s sister Sophie was instead very good at drawing. Georg seems to have had qualities in both artistic domains. As a musician, he described himself this way:

“In a profound sense, I have a very facile artistic nature, and I have always regretted, that my father did not allow me to become a ‘violinist,’ for at that, at least, I would have been happy.” (M 4) “I myself began to play the violin when I was only 6 years old, and made quite some progress; it was only the peculiar circumstance which came about when I reached the age of 16, I myself no longer know how, when I made mathematics my profession, that took me away from this happy profession as an artist, and for 30 years now, my violin has been lying forlorn and rotting in a dusty case, only there to awaken in me from time to time the fleeting doubt, whether I might not have been happier, had I remained loyal to it. . . .” (M 416)

As for his drawing, we can judge directly by observing his only extant work, the drawing of a dog (Cantor was 17). Nevertheless, as he said, he followed another career.

The family moved in 1856 to Germany, near Frankfurt am Main. He attended the Gymnasium in Wiesbaden, the Realschule in Darmstadt, in 1862 the University of Zurich,



*Pencil drawing by Cantor, dated 1862. The artistic side of his personality was the side Cantor loved the most.*

and in 1863 the University of Berlin. There, in 1867, he completed his doctoral dissertation, and in 1869 he had his Habilitation in Halle, where he became assistant professor and, in 1872, special professor. He stayed in Halle until his death on Jan. 6, 1918.

In 1874, he became engaged to Vally Guttmann, and married her the same year. “My dear little Vally,” as he called her, was also very musical, studied at a conservatory, and was ranked as one of the best students of piano and voice. With Vally, Cantor’s home became a familiar place for evening music recitals, celebrations, and philosophical discussions. Vally’s professional singing is recorded, for example, in the Program of the Singakademie for March 20, 1889:

1) Sonata (D Major) for two pianos, W. Mozart (Frau Prof. Cantor and Frau Prof. Stumpf)

2) Duet from “Figaro” (Frau Prof. Sucher and Frau Prof. Cantor)

3) Andante and Variations for two pianos, Schumann (Frau Prof. Cantor and Frau Prof. Stumpf).

The Cantors had six children: Else, Gertrud, Erich, Annemarie, Margarethe, and Rudolf (the youngest, born in 1887). Else became a famous “singer and acknowledged music teacher.” Rudolf, his youngest and most beloved son, died at age 12 in 1899. The event sent Cantor into a deep crisis. He wrote:

“The child was indeed tender and frail in his first year . . . but for six years he has developed physically and mentally to the best, and was so loving and lovable, that he became the favorite of the whole family. He was extraordinarily talented musically, so that I succumbed to the hope that he would step into the tradition of the Boehm family on my mother’s side. . . . Thus did the wish emerge in me, that Rudolf should dedicate himself entirely to music, which had made him so happy even in his early youth. And now this hope is gone!”

In 1879, Cantor became a tenured professor in Halle, and until 1882-83 he achieved the most important mathematical discoveries, which culminated with the publication of his *Grundlagen einer allgemeinen Mannigfaltigkeitslehre* (*Foundations of a General Theory of Manifolds*).

Soon after the publication of this highly philosophical type of mathematics, in which he elaborated the invention of the “transfinite” numbers, Cantor was subjected to brutal hostility from “the Berliners,” led in particular by Leopold Kronecker. Precisely in the same year, Cantor had the first symptoms of a nervous breakdown, whose origins are unclear, although it was reinforced by disappointments, pressures, and hostility. That summer, the attack was very short, but later it became progressively more intense and recurrent, especially after 1900. Only during such periods of sickness was he involved in his strange research to prove that Francis Bacon was the real Shakespeare.

In 1885, Cantor started to support the fundamentals of his discoveries by intense study of philosophy and theology. In November 1884, he had started close contacts with J.B.

## Die Worte des Glaubens

Friedrich Schiller

Drei Worte nenn ich euch, inhaltschwer,  
Sie gehen von Munde zu Munde,  
Doch stammen sie nicht von außen her,  
Das Herz nur gibt davon Kunde.  
Dem Menschen ist aller Wert geraubt,  
Wenn er nicht mehr an die drei Worte glaubt.

Der Mensch ist frei geschaffen, ist frei,  
Und würd er in Ketten geboren,  
Laßt euch nicht irren des Pöbels Geschrei,  
Nicht den Mißbrauch rasender Toren.  
Vor dem Sklaven, wenn er die Kette bricht,  
Vor dem freien Menschen erzittert nicht.

Und die Tugend, sie ist kein leerer Schall,  
Der Mensch kann sie üben im Leben,  
Und sollt er auch straucheln überall,  
Er kann nach der göttlichen streben,  
Und was kein Verstand der Verständigen sieht,  
Das übet in Einfalt ein kindlich Gemüt.

Und ein Gott ist, ein heiliger Wille lebt,  
Wie auch der menschliche wanke,  
Hoch über der Zeit und dem Raume webt  
Lebendig der höchste Gedanke,  
Und ob alles in ewigem Wechsel kreist,  
Es beharret im Wechsel ein ruhiger Geist.

Die drei Worte bewahret euch, inhaltschwer,  
Sie pflanzt von Munde zu Munde,  
Und stammen sie gleich nicht von außen her,  
Euer Innres gibt davon Kunde,  
Dem Menschen ist nimmer sein Wert geraubt,  
Solang er noch an die drei Worte glaubt.

## Words of Faith

I'll name you three content-laden words;  
From mouth to mouth they are chasing,  
But not from outside of us do they emerge—  
'Tis words from the heart we are facing.  
Mankind is of all his value bereft  
If in these three words no faith is left.

Man was created free—*is* free  
E'en though he were born in shackles.  
Do not be deceived by the rabble's bray  
Or idiots' abusive cackles.  
Before the slave, from his chains uncaught,  
Before man set free, O tremble not!

And virtue—this is no meaningless sound—  
Can be practiced each day if we trouble;  
And much as we tend to go stumbling around,  
Toward paradise, too, can we struggle.  
And what no logician's logic can see  
The child-like mind sees obviously.

And one God there is, a Will divine,  
However man's own will may waver;  
Supremely above all space and all time  
The living Idea moves forever.  
And though all's e'er-changing in form and in scene,  
Within that change rests a spirit serene.

Keep these three content-laden words;  
From mouth to mouth implant them.  
And if from without they do not emerge,  
Then your innermost soul must grant them.  
Mankind is never of value bereft  
As long as his faith in these three words is left.

—Translated by John Sigerson

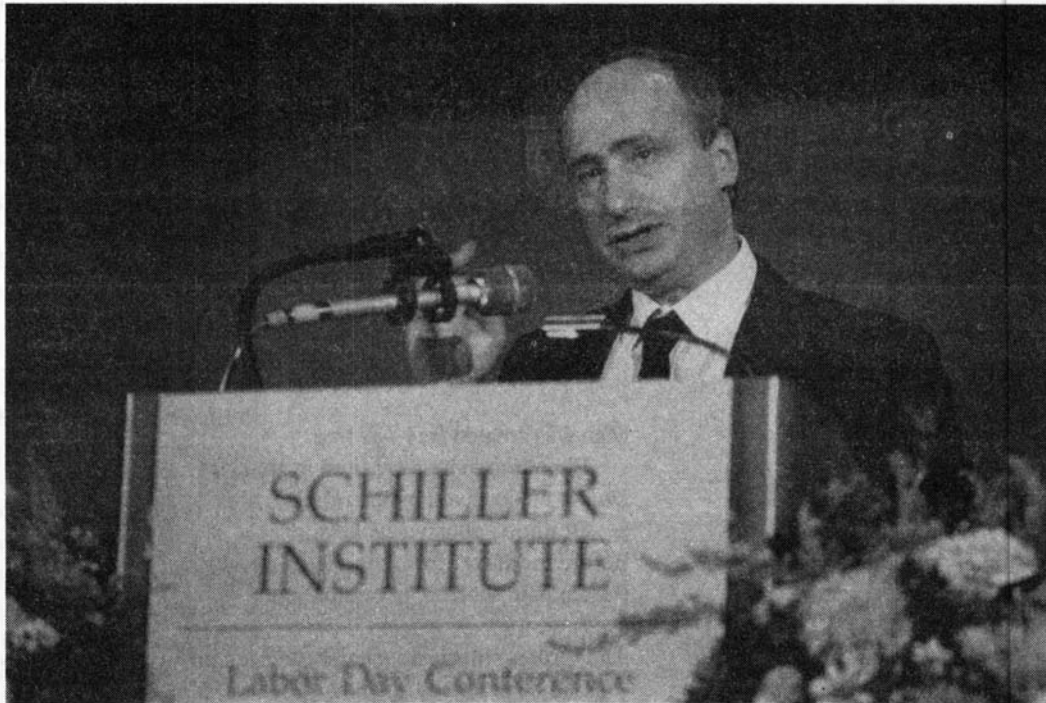
Published in the Schiller Institute's *Friedrich Schiller: Poet of Freedom*, Vol. I (New York: New Benjamin Franklin House, 1985).

Cardinal Franzelin in Rome, and with other, mainly Catholic, theologians.<sup>2</sup> This philosophical period culminated with the 1887 *Mitteilungen zur Lehre vom Transfiniten* (*Communications on the Theory of the Transfinite*).

Before looking more in depth at this work, it is important to see how Cantor was reacting to the cultural and political evolution around him. We will use some of his correspondence to exemplify it.

## The cultural milieu

Cantor wrote to and about a certain Julius Langbehn, at the time the famous author of the book *Rembrandt als Erzieher des deutschen Volkes* (*Rembrandt as Educator of the German People*). Langbehn represented the growing Romantic reaction to the perceived danger of industrialization and mechanization. In his case, this was dangerously coupled with Nietzscheanism and pan-Germanism. Everything “bad”



Dino de Paoli at a conference in 1993. "Cantorian mathematicians tend not only to forget the background of Cantor's discoveries, but also to oppose the philosophy which led to such breakthroughs."

was "un-German," coming either from "outside"—specifically, France—or from "internal enemies," who soon will be called the "Semites" and the "Papists." In this fake opposition to mechanization, German culture is reduced to the status of "defender of nature."

Langbehn, for example, writes: "Zola wants to replace organicism with mechanics; that is French, and that is un-German." And worse: "The German thus already dominates Europe, as an aristocrat; and, as a democrat, he also dominates America; it will probably not take long until he dominates the world, as Man."

Cantor, although at the beginning attracted by Langbehn, was not fooled, and his reaction shows some interesting political insight. He wrote to a Jesuit, Father Baumgartner, on May 20, 1891:

"What was your impression of *Rembrandt as Educator of the German People*? I see it as nothing but one of many attempts to turn all Germans into Bismarcks behind their backs. For Rembrandt here is nothing but a mask for Bismarck."

Baumgartner himself later wrote an article attacking Langbehn's book, and to this Cantor commented on May 25, 1891:

"I entirely agree with your review of Langbehn's book. . . . I do not think it impossible, that Langbehn will want to speak with you, perhaps already this summer; then let us keep it to ourselves, that we have corresponded about this queer fellow."

Cantor explained how he met Langbehn, and added:

"He no longer has relatives, and he is unmarried. I asked

him about writers to whom he felt closest, he named Hölderlin, Novalis (fragments from the posthumous writings), Rahel (a book of memoirs), De Lagarde (German writings),<sup>3</sup> Grabbe, and particularly Nietzsche. He visited the latter in the psychiatric sanatorium one year ago, lived with him there for eight days." (P 200)

On May 26, 1891 Cantor wrote to Langbehn:

"To me, in any case, you seem to be more competent in matters of art, than in other areas. I cannot close my eyes, for example, to the mistakes in the book demonstrated in politics by the course of developments in Germany [the fall of Bismarck], nor does his 'strange' political tendency appeal to me as a practical Hohenzollern. Furthermore, since you expressly ask me for the truth, I am obliged to tell you, that I, as a positive Christian, cannot condone the view of Christianity you present, and that I deem various passages to be outright blasphemous." (P 99)

Cantor also perceived and fought the growing anti-Semitism. On Aug. 26, 1891, he wrote about "Bismarck-allied, anti-Semitic, so-called German National Students." And more specifically:

"This is a sad, crude, empty-phraseology group of heroes with only big mouths, which I know quite well from here in Halle, where they have a branch of a club called 'Association of German Students'. . . . In the most recent history of these people . . . I am libeled as an 'advocate of battle for the Jews,' because I have politely but emphatically and honestly rejected this anti-Semitism of children and Protestant clerics, which is of no benefit, but only damage to the German people. I was attacked a great deal in anti-Semitic newspapers

nine years ago.” (P 100)

Or, on Feb. 4, 1896, in a letter to F. Heiner concerning the refusal to employ philosopher Edmund Husserl in Freiburg:

“If he has no other and no better reason to be reserved with respect to Mr. Husserl, than that he . . . revealed, that he [Husserl] came from Judaism and became a Christian, then here once more I see the sad case, one which unfortunately happens frequently in Germany, of a Catholic Christian who most flagrantly renounces the most sacred tradition of the church! Shall I recall that, apart from the most sacred person of our Savior, his 12 apostles were all Jews? Does the most esteemed colleague not know, that the church had always commanded, that the Jewish question be seen only as a religious issue? Does he perhaps believe, that the poison of racial anti-Semitism appearing among so many German Catholics, has ever been sanctioned by the church? Or does he perhaps think that, at this moment, under the most glorious papacy of Leo XIII, racial anti-Semitism will perhaps be tolerated in Rome? Has he perhaps not been informed about Archbishop Kohn, residing in Austria, who is the son of an Israelite bourgeois? Has he never heard the name of the honorable priest from Alsace, Ratisbonne? Has he still not received the henotic encyclicals of the great Leo of June 20, 1894 and April 14, 1905? Does he perhaps believe, that he will be able to support the great work of unification, which His Holiness has embarked upon in the last years of his life, by promoting such hate-filled anti-Christian racism? It is not impossible that I will have the opportunity over the Easter holidays in Rome, to put the material into the proper hands, which I have collected for years on this issue of Judaism, which has been provided me, however, in only the rarest cases by Catholic clerics.” (M 379)

Cantor’s morality, religiosity, and epistemology led to the scientific breakthrough which gave him the key to grasp the similarities and consequences of the apparently opposite views of Nietzsche and naturalism on the one side, and the logic of Bertrand Russell and Gottlob Frege on the other, although his reaction seems stronger against the first.

On Feb. 24, 1900, he wrote to F. Loofs:

“Dear colleague, many thanks for your ‘Anti-Haeckel,’ I think it is very valuable, that the presumptuous veil of science be torn off, for the benefit of broader circles, from Haeckel’s shameless assaults against Christianity. The great diffidence in engaging in forthright polemics (so prevalent in our circles!) must be given up in the face of such good-for-nothings. Hopefully co-combatants will join you, so that it will not be necessary for you to take up the matter again personally! By the way, I recently had the opportunity to acquire a better picture of so-called Nietzschean philosophy (an appendage of Haeckel’s monist philosophy of development). Among us, on account of the stylistic charm, you will find uncritical *recognition*, which, in view of the perverse content and herostratic-anti-Christian motivation, appears to

me *most alarming*. The need for novelty and the plethora of the philosophical structure makes our philosophers morally blind and rashly willing to include anyone in their historical studies, who turns up claiming he has a new system. Thus does the ambitious innovator always achieve his goal; he becomes a famous philosopher, and the youth is corrupted in grand style.” (m appendix)

Cantor’s reaction against Ernst Haeckel (1834-1919) is very relevant. Haeckel, the main German Darwinist, was also the founder of a so-called scientific “religion” which is nothing but a pagan cult of Mother Earth. He tries to give himself a cheap cover as a progressive by adopting “anti-Papist” rhetoric; for example, he is sometimes presented as a “modern defender of women,” while in reality defending the “female” as a symbol of the natural religion, against the “male” of Judeo-Christianity. His “Monistenbund” propagated the thesis that evolution proves scientifically the equality between inorganic and organic, life and conscience. Given this *simple continuous evolution*, human beings are nothing special; on the contrary, certain people and “races” are even inferior to certain animals. This is brutally expressed also by one of Haeckel’s references, to E. Renan, who, in his 1863 *Life of Jesus*, has a long tirade against the Semitic “races,” and declares that Darwinian selection should allow the creation of a superior race. Haeckel’s “religion” was obviously very much appreciated by the Nazis: In January 1939, the E. Haeckel House was given the title of “Institute for the History of Zoology, in Particular the Theory of Development,” with the approval of the Reich Minister for Science, Education, and Public Schools. The chairman of the E. Haeckel Society in Jena, Prof. Dr. V. Franz, published, with the obvious authorizations in 1943, a biography of Haeckel which ended with a quotation from Hitler.

Although less well known, on the other side of the opposition to Cantor we find the “logical determinism” of B. Russell and G. Frege. They are also “monists,” although instead of “nature,” they use logic to deny the existence of anything special in man. This is expressed with the attempt to completely formalize human thinking so as to reduce it to a simple mechanism. Also this “absolute science,” like that of Nietzsche and Haeckel, needed as its premise a vicious attack against Christianity. Russell’s outbursts are very well known; less well known is that in Germany, Frege, then professor at Jena, accompanied his rhetorical outbursts against the “ultramontanists” with an endorsement of Hitler, and even with anticipating some of Hitler’s measures. This is clearly expressed in Frege’s 1924 *Tagebuch*, of which I choose only one passage:

“One can recognize that there are quite respectable Jews, and still think it a misfortune that there are so many Jews in Germany, and that they have full political equality with citizens of Aryan descent; but how little has the wish been fulfilled, that Jews in Germany lose their political rights, or better yet, disappear from Germany . . . but how can one

reliably distinguish Jews from non-Jews? That might have been relatively easy 60 years ago. To me, it seems difficult today.”<sup>4</sup> In 1935, ten years later, Hitler will find the way to solve Frege’s logical dilemma.

### Cantor’s contribution

Cantor’s name is associated with the discovery of a method to give a number to infinite processes, a number which he called “transfinite.” This was not deduced from known mathematical axioms; instead, it required the introduction of new concepts and hypotheses. Although it was new in its use in mathematics, “transfiniteness” had previously more or less implicitly shaped the debates in theology, philosophy, and art, under the name of “actual infinity.” It is in this broader sense, that we will briefly present it here.

To assign a “number,” that is, a constant, to an infinite process, means, as one can see, to use two terms in apparent contradiction. The same type of paradoxical expressions are to be found in all recorded forms of culture, although under many different metaphors. For example, under the relations: unity-multiplicity, being-becoming, limited-unlimited, subject-infinite predicates, etc. This universality of use indicates indeed the ontological, existential importance, but also the difficulty of verbal expression, of our active form of knowing, of our creative powers.

What is relevant for us here, is the kind of answer which has been given to this “paradox,” and what kind of cultural milieu has been shaped around it. Let us see two illustrations directly linked to Cantor.

1) Plato realized that the apparent paradox resulted only from the privilege which had been given to sense-perception in our process of knowledge and change of an environment which *includes* ourself. Sense-perception cannot “see” the mental power which determines our and others’ actions; it can see only its results or “predicates.” This is the general mistake of simple monism, which de facto reduces the human being to a mere object of the observed “nature,” eliminating any free will or creative power in the individual. Plato asserted, against the monists, the *higher power*, first, of the “ideas” over the ordered changes of predicates, and then of the Subject over the ordered changes of ideas. In so doing, he solved the paradox without eliminating one of the terms, without calling the unity, the subject, or the action of change, “a simple illusion.” The further step of Plato, whose importance will become clearer when linked with the so-called “Cantor antinomies” or the “paradox of the Absolute,” was its formulation against the sophists: “Man cannot be the complete measure of everything, but God is so.”

Nearer to Cantor’s period, we see the contrary approach:

2a) Haeckel’s manifesto in his *Principles of Theophysics*: “1) God is nature itself, eternal and indestructible. 2) God himself is unaware of the laws of nature, immutable: *Universum perpetuum mobile*. 3) God has no free will and no whim. . . . 6) God as blind fate (*fatum*) is the universal.”

2b) Russell, more formal, and similar to Frege:

“It was assumed as axiomatic that the class as one is to be found wherever there is a class as many . . . this need not to be universally admitted, and appears to have been the source of the contradiction. By denying it, therefore, the whole difficulty will be overcome.” (In other words, in the face of the paradox of the One and the Many, we will eliminate the “One.”) This philosophical difference reflects, in reality, two different ways of considering the role of man in society. For Plato, man has something “higher” and sacred; for Haeckel and company, man is, and can be used as, a mere beast. Cantor, in the foundation of his transfinite, goes explicitly back to Plato. The following is, for example, his formulation:

“By ‘manifold’ or ‘aggregate,’ I generally understand every multiplicity which can be thought of as one, i.e., any totality [*Inbegriff*] of definite elements which by means of a law can be bound up into a whole, and I believe that in this I am defining something which is related to the Platonic *eidōs* or *idea*, as well as to that which Plato calls *mixton* in his dialogue ‘Philebus, or the Highest Good.’ ” (W 204)

The unity of an infinite Many is the Transfinite or “bounded infinity.” The specific necessity to use infinite processes, forced itself through human history against all attempts to avoid it. It appears mainly when we are relating elements or modes or processes whose evolution, or whose power, is of a different order. That is, it expresses incompleteness in the type of measurement we use, or what is called incommensurability. For example, the famous impossibility to completely measure a circle with a line. To put oneself, in a sense, “above” infinity, to “bound” it, one has to grasp that:

1) Certain processes of evolution present a fundamental discontinuity between levels or modes or types, making it impossible to relate them with the simple concept of “equality.” Man is not equal to a beast. Different moments of human history and life are incommensurably different if *divided* by a creative thought and action.

2) Gaps seem to separate such moments or elements, gaps which are infinite if one measures one element with the other. Nevertheless, we know there is some “reason” for the gap. A creative *idea* has shaped such incommensurable changes. The key of Platonic philosophy is precisely to make clear the ontological and primary role of such “ideas” over the apparently infinite “more or less” of measures and definitions. Creative ideas *reflect* the higher power of the author or subject, and so they can have the function of “bounding” and of giving “harmony” to the otherwise mysterious infinite gaps.

This is usually clearly expressed in art. But it shaped also the evolution of mathematics, and I will here indicate few examples:

1) In projective geometry (perspective), it appears around the notion of point at infinity or focal point, the point which bounds and defines the harmony of the plane.



2) In the concept of "limit" and "irrational number," for example, here is how Leibniz introduces it:

"If we consider the totality of a series of numbers, then we are able to comprehend it as a totality, even if it is infinite, insofar as it is determined in its progression by some law. Its totality, of course, is not expressible by a simple number."

Leibniz here considers only ordered processes which seem to "converge" toward some "limit." Limit, like the previous "point at infinity," has a different and higher order of "existence" than the ordered process. One can grasp this concept better in Leibniz's *Monadology*. Cantor will generalize this to any type of ordered change, including what appears as "divergent," that is, when the "limit" seems completely hidden and invisible. For example, our normal way of "counting" seems to be a "limitless" process:

1, 2, 3, 4, . . .

If we indicate this process with *I*, then Cantor says it is possible also here "to think a *new* number, which is to be the expression for the [fact] that the whole *Inbegriff* (*I*) is given in its natural succession according to the law."

The bounding idea of this type of general process is called by Cantor "transfinite number," and what we are actually doing, is to find causality or "*reason*," or continuity, where it is not immediately visible. But we establish continuity without *negating* the discontinuity, the change, ordered through a "creative idea."

Let us see how this is expressed again by Leibniz:

"The principle of Continuity means that no sudden vanishing happens without us being able to determine the *reason* for it in the form of point of inflections, singularities, etc." (Letter to Varignon, 1702)

"In a geometric line, there are special points of singularity, and as there are lines which have an *infinite* number of such points, we must in like manner conceive in the person's life, periods of extraordinary changes which are not outside general law." (Letter to De Montmort, 1715)

Or by Bernhard Riemann (a great mathematician who here is using Herbart's philosophy):

"Once the concept of self-subsisting things has been formed, upon reflection on the fact that things change, which *contradicts* the concept of self-subsisting things, the task arises to maintain this already proven conception as far as possible. Out of this there emerge at the same time the concept of continuous change and the concept of causality. What is observed is only the transition of a thing from one condition into another, or to speak more generally, from a certain manner of determination into another, without a leap being perceived."

In the case of Cantor, I want to show this also in a specific, applied form. He used this concept against Newtonian mechanics, where causality is reduced to simple determinism by limiting the possibility of changes or motions to continuous simple space. Cantor instead proves that:

"The *hypothesis of the continuity of space* is thus nothing

but a per se arbitrary assumption of complete, one-to-one correspondence between the three-dimensional purely arithmetic continuum ( $x, y, z$ ), and the space underlying the world of phenomena. But our thinking can with equal ease abstract quite well from single space-points, even if they are everywhere dense, and it can form the concept of a *discontinuous* three-dimensional space (T) of the previously characterized Type. The question which then poses itself, whether also in such *discontinuous* spaces (T) *continuous movement* can be thought, must, according to what has been said previously, be unconditionally *affirmed*. . . . The attempt thus suggests itself, to undertake a modified valid mechanics for spaces of the constitution (T)." (W 156)

In a letter of Oct. 19, 1886, he then split the notion of motion from the one of speed. That is, we can have changes which nevertheless are not measurable linearly:

"To state my opinion more clearly, I note: 'direction' and 'velocity' are, in my estimation, only accidents of movement, i.e., they *may* also be lacking, they are not fundamental for a general concept of movement. I think that it is *impossible* to prove, that every movement must necessarily be attended by 'velocity' and 'direction.' Movement with those accidents is, upon precise observation, just as invisible and, if you will, just as dark, as movement without them." (P 110)

Without entering into difficult details, it should be noted that this is a clear anticipation of the type of "mechanics of the transitions" which had its first partial realization with the concepts of atomic "quantum of action" and "Brownian movements."

### 1895: the Aleph series and the antinomies

Cantor's breakthrough was based not simply on the generalization of a concept such as "bounded infinity," but also, and especially, on finding a new method of measuring such infinities. In this way, he could find common properties and differences not otherwise visible with the simple use of the "greater than or less than." He derived this new approach explicitly from projective geometry, and he called the common property of ordered infinities "*Mächtigkeit*" [power], or "cardinal transfinite," or later, "Aleph" ( $\aleph$ ). To his astonishment, he found out that not all the ordinal transfinites could be measured by the same *Mächtigkeit*; some were "not denumerable" or, again, incommensurable. For the simple field of "arithmetic," already he needed at least 2 Alephs, and there was no apparent reason to stop at 2. This necessary passage from one to the other through incommensurability, this generation of an "Aleph series," is nothing but a higher form of what we called before a discontinuous continuity. Or, using Leibniz's language, one seems to need different orders and different types of orders of the notion of "continuity" or "reason." Plato himself had clearly said in "The Republic" that "ideas" themselves change, bounded by *higher* ones. Real discoveries, says Plato, are not derived by deductions from given axioms, but by realizing that axioms are

“hypothesis,” and discoveries result in being able to change them in theorems of “higher hypothesis.”

It is an impossible thought, for most people to live with the subjective experience of the “lacking of something.” Most of us want a final proof, want to avoid the Socratic “I know that I do not know.” We can live in our world as individuals only by new theories, new ideas of transformations, new discovery of laws. Couldn’t we also have a measurable “idea” of the world in its complete totality and unity? Cantor, especially as a former admirer of Spinoza, also had to face this problem again and again, until he abandoned Spinoza for Leibniz and Plato. So he asked himself the obvious question: We have now an ordered generation of Alephs, which represents a world of creative changes; is there, then, a possible last or maximum Aleph? Maximum here means the final unity of all the preceding ones:

[ $\aleph_1, \aleph_2, \aleph_3, \dots$  etc.]

Or in other words: 1) Is there a final theory of the “universe,” where creative individuals can still live? 2) Is there a complete knowledge of ourselves, which could be reproduced in a machine? 3) Is there an absolute unchangeable something in physical nature?

Cantor’s negative answer came out loudly and clearly:

“The totality of all Alephs is such, as cannot be comprehended as a determinate well-defined *finished* manifold. Were this the case, a determinate Aleph would follow upon this totality according to its magnitude, which would thus both belong to this totality (as an element), and also not belong to it, which would be a *contradiction* . . . totalities which we cannot comprehend as manifolds (one example of which is the totality of all Alephs, as proven above), are what I called ‘*absolute infinite*’ totalities years ago, and distinguished them strictly from transfinite manifolds.”

In brief: The world in which we live cannot become our Idea; we did not create it.

The discovery of this paradox completely upset the “imperial monism” of G. Frege and B. Russell. Their attempt to reduce human thinking to a mechanized process was proved to be impossible, first by Cantor and later more precisely by Kurt Gödel. Russell tried to escape the problem, as we saw before, by rejoining Nietzsche. There is no “unity,” no “universal,” no certitude or truth or morality or Absolute at all. In other words, as Nietzsche said, “God is dead.”

If Haeckel had spent more time thinking, he also would have realized the impossible paradox of his “monism”: unchanging nature. His god was as dead as that of Nietzsche, and what was left was the evil justification of the “natural” predetermined superiority of the right of the strongest. Cantor, as we have seen, clearly realized the Nietzsche-Haeckel similitude.

Naturally, a political, dictatorial system can always solve the paradox: Simply eliminate the inner reference and effects of the power of human creativity: the lawful changing of nature. Physicists pretend they are immune to this paradox,

because they consider this to be “subjective,” while they are handling the “objective” world. They do not see that the paradox appears precisely in the *assumptions* of their “theory” of the world.

Let us take the example of Newton, another self-defined “unitarian.” He introduced something “unchangeable” and “objective” in the world, but pretended he had found it there: absolute space and time. It was Leibniz who first reacted and attacked this: “The *concept* of space is *relative*, it is a concept of the order of co-existences, while time is a *concept* of the order of succession.”

And Cantor: “Time, in my view, is nothing but an auxiliary and relational concept, by which the relations between different movements which occur in nature and are observed by us, are ascertained. Such a thing as *objective* or *absolute time* occurs nowhere in nature.” (W 191) The same is true for space, adds Cantor. Plato had expressed it more poetically in the “Timaeus”: Time and space are created by God.

In the “imperial” monism, the law of nature becomes reduced to “*vita mea mors tua*” (“my life is your death”). If that is “nature,” then we know that we are able to transcend nature. We do it by *increasing* the carrying “power” of nature through science and technology, and so eliminating the justification for the competition for the need of more “living space.” Nature herself becomes less brutal in that way.

Cantor’s “paradox” of the “absolute infinite,” was for him a discovery of a characteristic of our human world. For Plato, as for Nicolaus of Cusa, Leibniz, and Cantor, this paradox, this realization of the existence of the ordered transcending power which guarantees the existence of a free and not arbitrary will, was the “*reflection*” of the Absolute. The world is not our idea, but it is an Idea.

“For now we see through a glass, darkly; but then face to face. . . . And now abideth faith, hope, charity, these three; but the greatest of these is charity.” (1 Cor. 13:12-13)

## Notes

1. Sources of quotations from Cantor’s works and letters are designated by the following abbreviations:

M plus page number refers to H. Męnschkowski and Winfried Nilson (ed.), *Georg Cantor Briefe* (Berlin: Springer-Verlag, 1991).

m plus page number refers to H. Męnschkowski, *Werk und Leben G. Cantors* (Braunschweig: Vieweg, 1967).

P plus page number refers to W. Purkert and H.J. Ilgands, *G. Cantor 1848-1918* (Birkhäuser Verlag, 1987).

W plus page number refers to *Cantor’s Werke*.

2. For an English translation of the correspondence between Cantor and Cardinal Franzelin, see “On the Theory of the Transfinite,” *Fidelio*, Fall 1994.

3. Paul Anton de Lagarde (1827-91) was one among many “Orientalists.” He is presented thus in the German Brockhaus encyclopedia: “The German nations can only be united by a national Christianity. Lagarde combined this demand with a fierce critique of Christianity and the church of his time, of Judaism, especially St. Paul. . . . under National Socialism, Lagarde stood in high esteem (A. Rosenberg).”

4. See G. Frege, “Tagebuch,” in *Deutsche Zeitschrift für Philosophie*, Berlin 42 (1994), 5, pp. 1067-1098.

# No limits to growth: Cantor's concept of infinity in economic science

by Lyndon H. LaRouche, Jr.

*This speech was given as the keynote address to the Schiller Institute's seminar in Halle on May 6, 1995. The audiotape of the speech includes a few brief, inaudible passages, which are indicated in the transcript by ellipses or bracketed notes from the editor.*

In 1854, at the conclusion of his habilitation dissertation, Bernhard Riemann, a protégé of Carl Friedrich Gauss and of Lejeune Dirichlet, made the following statement, which, together with the dissertation as a whole, represented, for those who were willing to understand, an absolute revolution in mathematics and mathematical physics. The statement is simple. Having made his remarks on mathematics, he said, "This path leads out into the domain of another science, into the realm of physics, into which the nature of this present occasion"—referring to the habilitation on mathematics—"does not permit us to enter."

This same observation was made, as I shall indicate, about 2,300 years earlier than that meeting in Göttingen (just over the hill, so to speak), by Plato. The particular work in Plato (and there are many which are relevant to this point), which is most relevant to the content of Cantor's work, is the famous "Parmenides" paradox, or the ontological paradox in "Parmenides," which is what Cantor is addressing.

Then, of course, about 30 years after that habilitation dissertation by Riemann, we had the *Grundlagen*<sup>1</sup> and some other writings and letters by Cantor, which also attacked the same problem, but from a completely different method. The method of Riemann was the method of geometry; and, although Cantor makes reference to geometry, his method is not that of Riemann, but rather of one of his teachers, Karl Weierstrass. So there's a difference in method between the two approaches, though they converge on the same conclusion.

Also notable is that, during the middle of the 1880s, as in the *Mitteilungen*<sup>2</sup> and in later writings, the statements of Cantor on the subject of Plato are *very significant* for a better understanding of both Cantor and Riemann. That is, Cantor emphasizes that the universe that exists, is the universe of the *Becoming*, not a fixed, empty space-time with objects floating around in it. And that is, he says, the *Transfinite*, by which he means, inclusively, what becomes known as the Aleph series. He identifies the *Good* of Plato as his notion of

the *Absolute*, of God.

Less than 100 years after Riemann presented his habilitation dissertation, I was in the midst of a major work, probably the most important, in terms of practical results, in my life, in refuting what I knew to be the immoral and absurd doctrines of two twentieth-century gentlemen: one, Norbert Wiener, of the so-called information theory, and what goes with it; and the other, John Von Neumann, a man whom I've described often enough as virtually an *idiot savant*, a man whose head could juggle mathematical symbols at a great rate, and great numbers, but could *never* actually master a scientific concept.

In the course of this, I developed a solution to this problem, of how to refute these two gentlemen, based on the work I'd done earlier in refuting Kant, in defense of Leibniz. But the question was: Having made this discovery, how could it be made representable? How could we apply the discovery which I had elaborated in terms of economics, to *measure*, as we must, in making economic or related policy, or in measuring certain kinds of results?

In that context, I came across Cantor's work, especially the *Beiträge*,<sup>3</sup> which I spent about six months struggling through, before getting some comprehension of what the work was. Then, on the basis of having read Cantor, including the *Beiträge*, particularly the important notion of the *power series*, the power set, I returned to read Riemann again, and this time with proper understanding.

## Riemann's discovery

To situate this matter, let me first indicate what Riemann's discovery is, why it is so fundamental, and why it leads to a notion of physical science which is directly contrary to that which is generally accepted still today, in the university classroom. The conception of mathematics and physical science as defined by Riemann's successful discovery as a young professor, is *still* not understood today, and *refused absolutely* in what is generally accepted as the notion of scientific method, both in mathematics as such and in physics in general, in the university classroom of today, and is also rejected, absolutely, by the *Brotgelehrten* ["bread scholars"—ed.] who are called today's economists, who know nothing, but who have much authority to speak about it at great length.



Lyndon LaRouche speaks in Halle, Germany, where Cantor spent much of his life.

Riemann's discovery is a simple one, which, in principle, was known before him. It was known first by Plato, in a formal, rigorous way, and then it was addressed by others, including Leibniz. But, as Riemann says, the problem of geometry had not been effectively attacked up to his time, from a formal standpoint. He had a discovery in this connection, and had spent from about March of 1853 through June of 1854 on a special research permission on the university campus at Göttingen, to do research into every possible source, to determine if there were any indications in previous writings in mathematics and physics, which might pertain to his insight about the problem of geometry. He said he found only a couple of references, and emphasized the notions of general curvature of curved surfaces by Gauss, as being the only method by which you could attack, practically, the problem of geometry as he understood it.

Let me state the problem in my own terms, because those are more relevant to what I shall treat from this standpoint later in my presentation.

In Euclidean geometry, or any similar geometry, we use two methods. One is the method of construction, the other is the method of so-called deductive or inductive proof. In that case, given a proposition, we submit the proposition to the principles of existing geometry. And we reject, as a proposition, at least as a theorem of that geometry, any proposition which is *inconsistent* with the existing body of so-called proven theorems.

Now, this implies, especially from a Socratic standpoint (and this, of course, is famously reflected in Euclid in part—not adequately, but in part), that what makes it possible to combine all theorems into a set of mutually consistent propositions, defines certain common or underlying assumptions in that geometry. These assumptions are called, classically, *axioms and postulates*. A *theorem-lattice* so defined is, in a formal sense, viewed as a collection of interdependent, that is, not inconsistent, axioms and postulates, none of which must be contradicted by any proposition which is accepted as a theorem. . . . To think about a geometry, we think not about a collection of theorems, we think of a theorem-lattice as a whole set of all possible propositions which might be consistent or not inconsistent with the underlying set of axioms and postulates.

So, in order to understand a geometry, instead of looking at the theorems one by one, we now look at the *common principle* which is referenced, by comparing that set of axioms and postulates with the set of axioms and postulates of any different kind of geometry. So we go up two higher steps in thinking from the level of theorems and propositions, first of all, to understand all possible theorems as a whole, as a kind of transfinite collection, in terms of thinking about the set of axioms and postulates. In order to understand axioms and postulates, to criticize them, we must make axioms and postulates, as a set, an *object of thought*, a subject of thought.

Thus we must think about *all possible* theorems and postulates, a still higher step, and look down, as it were, upon any particular set of axioms and postulates as merely one element of a large series.

These ideas of *hypothesis*, or rather, of axioms and postulates, have a very specific form in Plato. In a formal theorem-lattice, any given set of axioms and postulates is what Plato calls an *hypothesis*. Thus, all Euclidean geometry constitutes, really, *one hypothesis*. The introduction of non-Euclidean geometry in various ways, or corrections in Euclidean geometry—which become obvious partly with Nicolaus of Cusa, which develop in the work of Leonardo da Vinci, which appear prominently in Leibniz and so forth, and then emerge as the non-Euclidean geometries of the nineteenth century—is the standpoint from which we look today, as did Riemann, at Euclidean geometry, or similar geometries.

So therefore, we have to think about a *generality of geometries*, in terms of different sets of axioms and postulates, which sets of axioms and postulates are, shall we say, genetic in quality, so that you might say that a Euclidean geometry is a marsupial mammal, and a non-Euclidean geometry is a placental mammal, a higher form of life.

Riemann's work is one of the most important developments in non-Euclidean geometry, *the* most important, because it attacked explicitly something which Gauss in part knew, but in Gauss's letters to János and Farkas Bolyai, Gauss admits that he had *political fears* which prevented him from ever, in his lifetime, presenting his own discoveries in non-Euclidean geometry—*political fears* within the bounds

of official, institutionalized science itself.

Riemann was the first to openly challenge the assumptions of a formal geometry.

### **The fallacy of ‘classroom mathematics’**

What’s the fallacy, looking from a higher standpoint? The fallacy is the idea that I call “the geometry of the naive imagination.”

What is considered a naive geometry, is a commonplace geometry of any ignorant man in the street who says that in space there are three directions: forward/backward, up/down, and sideways, side to side; that in time there is only backwards and forwards. And thus we have the typical notion of space-time. In addition to that, this notion of space-time, in the naive imagination, is associated with infinite or unlimited extension, backward and forward. Up to 1963, we went forward, since 1964, we’ve gone backward, as in economy. So you can see how we go backward and forward in time.

It also was assumed that the extension of unlimited extension in space and time, is “infinitely divisible.” There’s a famous case of this in 1761, when a man who was a great mathematical talent but a personally immoral person, Leonhard Euler, wrote a series of papers, in his “Letters to a Princess,” denouncing the *Monadology* of Leibniz. The argument he used was a very simple, crude, and immoral construction of infinite divisions. These are natural assumptions of a simple, Euclidean-style space-time.

This is the foundation of the mathematical theory, for example, of one of the most evil men of modern history, Paolo Sarpi of Venice, the man who did more to shape current history, perhaps, than any other single individual—at least, of all the bad ones—and his student, who was also a totally immoral person, but who followed totally his master’s theory: Galileo Galilei. And also Thomas Hobbes, who was a student of Galileo, as well as a lover of Francis Bacon, who was also a Sarpi protégé; and then, of course, Descartes. Through the efforts of Sarpi’s follower, another Venetian gentleman by the name of Antonio Conti, they took an obscure and rather eccentric, superstitious, Black Magic practitioner from Cambridge University, who happened to be an official of the London Royal Society, Isaac Newton, and they apotheosized him from the gutter of science to become the famous Newton, and used this image of Newton to destroy science throughout much of Europe up until the fall of France in 1814. After the destruction of the major resistance to superstition, the Ecole Polytechnique under Monge and Lazare Carnot, then the superstitious fellows, such as LaPlace and Cauchy, took over the Ecole Polytechnique, destroyed its curriculum, destroyed its pupils, and began to produce the forms of Black Magic which emanated from France around the world, called “political science,” “sociology,” “ethnology,” “anthropology,” and “modern psychology”—all of these pseudosciences.

This same tradition dominates the classroom. The appearance of Paolo Sarpi divided all of prominent European

science into two currents. One current leads through people like Kepler, Desargues, Leibniz, and so forth, through people like Gauss and Riemann. The other current of science, the counter-current, is the current of Sarpi; his student Galileo; his student Thomas Hobbes, who’s a mathematics student who developed sociology from Galilean mathematics; Newton; Euler, who, even though he’s a clever mathematician, is a complete prostitute morally in science; and then we have Clausius, Helmholtz, and so forth, in the nineteenth century.

---

*As Riemann says, to make an advance in mathematics, you must step outside of mathematics, into the realm of physics. If you enlarge that, as I do, you will say, “Yes, this is true; but let’s go one step further, into the physical economy, the process of reproduction of the society, which must become more suitable to the individual made in the image of God. . . .”*

---

The last great scientist who can be said to belong to the tradition of Leonardo and so forth, is probably Max Planck. And the terrible things that were done, almost a Ku Klux Klan lynch mob attack on Max Planck, during the period of the First World War in Germany, are an example of how science was essentially destroyed.

There are many people today who are, I would say, good scientists, in the sense of being good engineers, and occasionally you’ll find some eccentric person who’s actually a scientist, who will challenge the assumptions of the generally accepted classroom mathematics; but there are very few of them who, trying that, survive. Usually, when the scientific community finds somebody who violates that principle, they will either teach him mathematics until he goes insane, or they will destroy him by other means. You might say that insanity among scientists is mathematics continued by other means.

Now, what Riemann did in reference to physics, simply, was this, and the solution was obvious to me from the standpoint of economics. Let me take another train of thought on this, and bring the two together, to indicate this.

### **What the Renaissance achieved**

As I’ve said often, until the fifteenth century in Europe, over 95% of all mankind lived in a condition, in greater or lesser degree, comparable to that of human cattle. They lived

close to the soil, usually in rural or other occupations of that sort, had very short life expectancy, high infant mortality, long, hard hours of work. They were ground down, and they died often and early; and they were treated like human cattle by the top layer of society, which was less than 5% of the total population of every society prior to the fifteenth century in Europe.

At the top of society, was a group of families who fancied themselves like the gods of Olympus in the pagan writings of Hesiod and others of that time, people who played with ordinary human beings, even with their lackeys, at whim: "Kill him." "Kill him," "Kill him," "Beat him," "Destroy him," "Destroy that people," "Destroy that village." The idea of *natural law* and the natural right of human beings, for these oligarchs, did not exist. They were like the gods of Olympus, as described by Aeschylus in the *Prometheus Trilogogy*, at least the first part which has survived.

In the period around the Council of Florence, and with the development of modern France by Louis XI in 1461, through the 20-odd years of his reign, there came a new form of society, the modern nation-state, committed to scientific and technological and other progress, in the conditions of life of the people within it. The characteristic feature of this was education, as begun earlier by Augustinian groups, teaching groups, by the Brotherhood of the Common Life, and so forth, which reached out and picked up boys who came from, generally, poor families, including orphans, and pulled them into a secondary education of the type we would call today a *Classical humanist model of education*.

These young boys did not have textbooks, which was one of their great advantages. They couldn't be so easily brainwashed. You couldn't look in the back of the book for the answer. You couldn't ask the teacher, would that question come up on the examination? and study accordingly, or not study.

These children had the great advantage, in the process of having to copy manuscripts to get their own texts, of being required to understand what they were copying. And by having them copy from manuscripts those things which represented the greatest discoveries, original discoveries in geometry and other subjects, by known people, the child was induced, at the secondary level, to re-experience the act of an original, fundamental discovery in science or art, or statecraft, or theology.

Now, when that happens, you are actually touching, in the child, in education, that which sets man apart from and above the animals: the power of creativity which makes the individual, that potential, in the image of God. Only in the tradition of Moses, and especially of Christianity, does this notion of God exist, and does this notion of man exist. In no other form of society—even though there are inklings of it in ancient Confucian teachings, and even though the idea, from a philosophical standpoint, is developed by Plato—nowhere except in modern European civilization, did there emerge the

practical application of the concept of God as a personality of creative intellect, and *man made in the image of God* by this quality, and nowhere else was this ever applied to define the natural rights of mankind, or to apply this as the *governing constitutional principle of society*. And this occurred, essentially, during the fifteenth century.

This idea of the modern nation-state was developed by *geniuses*, geniuses who were produced by this kind of secondary educational method.

In France, of course, the most important feature of Louis XI's reign, apart from the fact that he doubled the per-capita income of France during his reign, was the emphasis upon the assistance of the Brotherhood of the Common Life in creating teaching institutions which reached out to young, pre-adolescent orphans and boys of poor families, to turn these children into, in many cases, geniuses.

As a result of this educational process, there emerged, within the bowels of what had been feudal society, a growing number of persons capable of generating and assimilating and using new ideas, what we call generically scientific and technological progress, but not limited to that. As a result of that, the per-capita income of Europe, and then, through evangelization, of the other parts of the world, began to increase.

### **No limits to growth**

By the time of the fifteenth-century Renaissance, the human population had risen from a potential which is about that of the baboon (several million individuals globally), to about 300 million people, something like that, plus or minus. Today, we have *five and a half billion people*, approximately, on this planet. With the existing technology, fully used, we could easily sustain 25 billion, approximately. We have not yet reached the limit, by any means, of scientific progress. I predict that we can, within 100 years, increase the energy-density beyond that of fusion energy by three orders of magnitude, with matter/anti-matter-related types of controlled reactions. We could do that, if we're determined to do it.

So, there's no limit to man's improvement and growth. What is as significant as the increase in the *number* of people, is the increase in the demographic characteristics of populations.

For example, if we wish to fully educate a young person to the potentials of modern scientific and related knowledge, we have to send them to school for the first years of their life, up to the age of 22 to 25, some more, in certain professions. Maybe we could make it more efficient by a more Classical humanist approach; but nonetheless, this proposition, that we have to keep people in school until they reach the age of 22 or 25, or whatever, is a characteristic of modern technology.

Now, could you sustain a population of students in school to the age of 22 to 25, if the average life-expectancy of the human species were 40 years of age? It would be economically unfeasible. You would have children coming out of school



*A Schiller Institute geometry workshop in Boston, June 1995. In the Classical humanist mode of education, students reproduce the greatest discoveries of geometry and other subjects; re-experiencing those creative discoveries fosters in the child that creative power which sets man apart from and above the beasts.*

orphans, society unable to pay for it. So therefore, the increase in longevity, the increase in the conditions of health of the population, conquering and eliminating disease through sanitation as well as medical science, are an *essential part* of a decent life, as we understand a decent life for people today.

*That did not exist, prior to the Renaissance.* So society increased not only in numbers of people, but also in the quality of life for people, in their cognitive qualities, their development as human beings; not only to educate them as human beings, to cultivate the quality of creativity, but, that when they go through school into society, they find professions and employment in a mode which is suitable to an individual who has been developed as one in the image of the living God. That's a new idea.

### **The development of political economy**

The characteristic feature of this, from an economic standpoint, is the rise of political economy. These changes were brought about not by private enterprise; they were brought about by the state. And the change came largely in the changing of the character of monarchy to a true constitutional monarchy, which the British monarchy, for example, to this day, is not. The British constitution is the power of the royal families and all the laws pertaining to the powers of the royal family. That's the constitution.

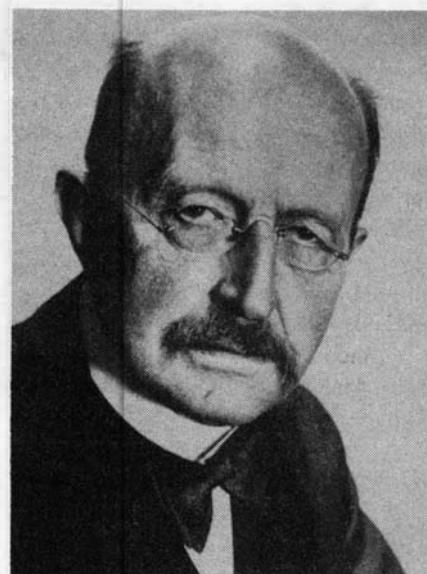
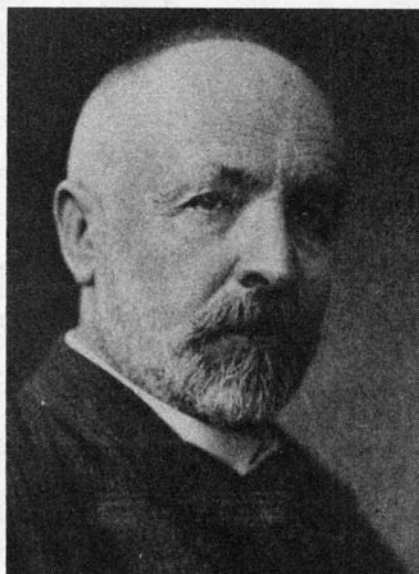
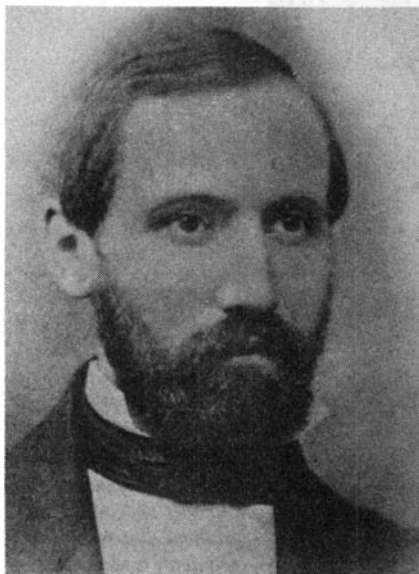
But Louis XI had a different conception. He had the conception of a state which would foster education, a state which would build roads, a state which would build canals,

a state which would foster trade, a state which would foster improvement in agriculture, a state that would foster science and technology, a state that would foster investment in key industries, a state that would mobilize credit to build infrastructure, to provide credit to new industries.

This was the characteristic of the evolution of society, in its good part, European society, until modern times, until about 1963. They killed Kennedy, they got Adenauer out of power, and they eventually got rid of de Gaulle when he was President. We've been going downhill ever since, with the counterculture.

This produced the higher productivity, the improved standard of living, the fostering of the means of infrastructure to make this possible. It produced a quality which is called *profit*, or if you use the term "macroeconomics," *macroeconomic profit*. This means, essentially, that to maintain this population at that level of existence, to maintain the infrastructure, to maintain the education, to maintain the science, to maintain the sanitation, to maintain that level of technology, requires a certain consumption not only by the population, by the households; a certain consumption by infrastructure; a certain consumption by various kinds of production; consumption by various forms of institutions of physical distribution of goods; and we even have to allow a certain amount to keep the state going, and some services which are quite marginal, which is the equivalent of an overhead expense. It's not productive, but you have to have it.

But this is the input. As we would say in simple, crude



Leaders of the anti-Aristotelian faction in German mathematics and physics, left to right: Bernhard Riemann (1826-66), Georg Cantor (1845-1918), and Max Planck (1858-1947). LaRouche's work on Riemann and Cantor contributed to his breakthrough in economic science; as for Planck, he is probably "the last great scientist who can be said to belong to the tradition of Leonardo."

thermodynamics, this is the energy of the system at that moment, the energy of the system required to keep society from going backwards, from devolving.

Now, what we find is that, over and above the input required to maintain a modern nation-state economy, in healthy conditions of the state, there is a very significant profit. The nation produces more than it consumes of the things which it needs to consume. This is a profit.

Out of this emergence of profit and the emergence of the nation-state, came what was called *political economy*.

We know of four basic kinds of political economy which have appeared in the past 550 years, and we know of one new one which has been invented, which will not last very long, which I'll just identify.

### Leibniz and the 'cameralist' tradition

The first notion of economy is that which is typified by Louis XI, by the amanuensis, in a sense, of Louis XI, Jean Bodin, with his *Six Books of the Commonwealth*. Contributions were made in England by certain people. . . .

But then, in the course of the sixteenth century, there emerged an expression of this new idea of statecraft, called cameralism. From about 1671 until the time of his death, Leibniz made a revolution in cameralism, that is, introduced new qualities which had never before existed, going beyond simple cameralism, which is how to increase the profit of society, how to raise the standard of living, these arts and how you look at these, how you measure them.

Leibniz introduced the idea of *power*, that there's a question of *power* in economic progress. There are two kinds of

*power* which he dealt with. One was obviously power in the sense of *energy*; and Leibniz was the first to recognize, actually to define, what became known as the Industrial Revolution: that if you burn or use some other source of heat to generate power, you can increase the productive powers of labor in any form of production, by, implicitly, a hundred-fold, simply by the application of sufficient power, per capita, to make this possible.

But also, this is a case in which the power is not necessarily increasing, but in which a new technology added—as to make a knife sharper, for example—a new technology added to the structure of production, or something related to that, also increases the productive power of labor, always meaning, that from the standpoint of the society as a whole, the energy of the system exists, but, relative to that energy of the system, *the rate of free energy to energy of the system increases*.

That is, the energy of the system increases, according to Leibniz, as the society develops, as it achieves higher productivity. But if it is done properly, the ratio of the free energy to the energy of the system, also increases.

It was Leibniz's theory of economy which did the most to shape the policies of a new nation in the latter part of the eighteenth century: the United States as a federal republic. What became known as the American System of political economy, as in all parts of the world it was known, as with Friedrich List in Germany, was a product of the influence of Leibniz on the thinking of the Americans who made the federal Constitution. The success of the United States was always based on this principle.



The principles are: development of education, state fostering of infrastructure, the state's creation of money and control and protection of the money, the state's function to protect the farms and industries of its people, to make sure they're able to operate at a profit, not forced to dump their goods on the world market at a loss, and thus to develop the productive powers of labor, in order to create the means wherewith to attack the problems of society. And, despite every up and down, that was the policy of the United States from the time it was adopted in 1789-90, until 1963, when Kennedy was assassinated.

Since that time, the world has introduced the idea of *post*-industrial society, or information theory, and it's gone down. But we'll come to that in a moment.

### **Oligarchical economics: the Physiocrats**

The second model was introduced by an enemy of Colbert. Colbert was a cameralist, and, for a period of time, he was a co-sponsor of the career of Leibniz. In France, there was a group of people who didn't like modern society, who hated Louis XI. These were the people who killed Henri IV, the king of France, and thus made possible the Thirty Years' War in central Europe. They were called in France the *Fronde*; I call them the lunatic *Fronde*.

They were always treasonous to France, they were always Anglophiles, from the seventeenth century on. In the early eighteenth century, they developed a theory called the Physiocratic theory, from which the kind of economic policy you know in governments today, including the communist governments, is generally derived. That is, communism and capitalism have the same mother, exactly the same mother, and she walks the streets at night to support the same family.

The Physiocrats argued that all of these theories deal with the so-called theory of profit: Where does the profit come from which we have in modern society, as it did not exist prior to modern society?

According to the Physiocrats, especially Quesnay, who was a Venetian . . . it is not the farmers, or the miners, who produce the bounty of nature. They are no more than cattle. They are like animals, like cows, from which you extract milk; sheep, from which you extract meat and wool. You are obliged to feed them, as many as you need; you kill the others. You are obliged to allow them housing, so they don't freeze to death, *if you need them*. A page from Gogol's *Dead Souls*, in short.

But they didn't produce the wealth. They are only human cattle. This is what the "neo-conservative movement" says today: "They're only cattle."

Well, to whom does the bounty of nature then belong? "Nature created it," and since France was nominally a Catholic country at that time, they would say, "God." But who gets the bounty? Who has a right to the bounty? Oh, the feudal landlord. Why? Because the feudal landlord has his estate as a gift from God. God has chosen him to become the feudal

landlord, chosen his family. Therefore, the bounty of nature belongs to the feudal landlord. So in anticipating Marx, you could say, "The Physiocrats believed in a 'dictatorship of the feudal class,' and attributed all profit to the beneficence of the feudal class, in allowing peasants to work."

Isn't that nice, to become a serf or a slave, get permission from this kind gentleman to work on that estate?

In this connection, politically, [Quesnay] argued (and this was copied directly by Adam Smith), *laissez-faire*. *Laissez-faire* means that the state and urban society must not interfere with the pleasure of the rural landlord, must not regulate rural relationships, must not tax the rural landlord, etc. The king may come and beg for support from the feudal landlord as a gift, but the king may *not* impose, as a king, a tax on feudal wealth.

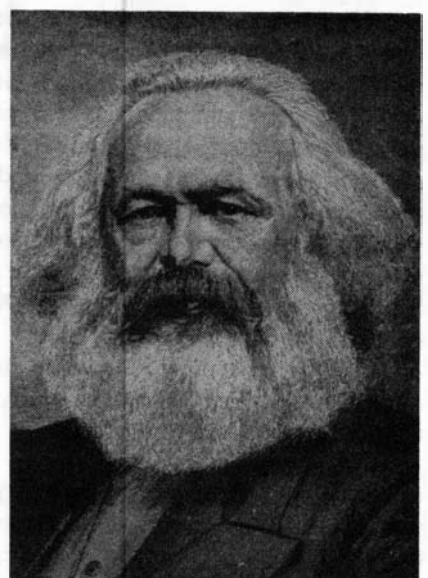
### **The Venetian financier nobility**

So, along came the eighteenth century, and there came along in Britain a group of people who were not feudal landlords; they were Venetian financier nobility. They had moved up, like body snatchers. They're like people from outer space who come and suck the blood out of the people and take over the people, in the British Isles and the Netherlands. And they believed in financial power; the big families of Venice were known as the financier nobility, not a feudal aristocracy. In England, they assimilated the feudal aristocracy into the ranks of the financial nobility.

One of the most evil leaders of this, was a fellow called the Second Earl of Shelburne, William Fitzmaurice Petty, whose grandfather had founded the Bank of England. Petty had an agent, a lackey, by the name of Adam Smith. Adam Smith was noted for his immorality. And I'll just pause on this to make the point, because it's relevant to the question we're dealing with, with Cantor and Riemann.

In the early eighteenth century, the theories of Galileo and his student Hobbes, were expressed by a fellow, Bernard Mandeville, who wrote a book called *The Fable of the Bees*. The doctrine of this book is that you must not impose morality on people; and the argument he made was that people are naturally immoral, and therefore you cannot make them moral. You must accept and legalize, in effect, their immoralities, because, in the manner that Hobbes describes in his *Leviathan* and so forth, the interaction of conflicting immoralities becomes the Good. This is John Locke's notion of the Good, the "social contract" idea. And [Mandeville's] slogan was, "Private vices, public virtues": Out of the practice of vice among the people, interacting with each other, the conflict produces, asymptotically, the public good.

Now, Adam Smith is famous for this. In his 1759 *Theory of the Moral Sentiments*, he states explicitly: People must act according to their instincts, their sense of pleasure and pain, and must not inquire whether or not these actions they take, under the influence of instinct, pleasure, and pain, work for the good, or for the bad. God is responsible for the outcome



Agents of British intelligence, left to right: Giuseppe Mazzini (1805-72), Friedrich Engels (1820-95), and Karl Marx (1818-83). Marxian economics is one variant of oligarchical ideology, according to which the proletariat secretes profit as an epiphenomenon. Engels was even more absurd, insisting that scientific and technological progress come from “the horny thumb of labor,” the opposable thumb.

of evil. That’s their argument.

That’s also the argument implicit in *laissez-faire*, and in free trade.

Smith went to France, under assignment from his masters in London, France, and the parts of Switzerland where French-speaking evil dwells; from there he developed a parody, in the sense of plagiarism, of the work of, especially, Quesnay, the author of the Physiocratic doctrine. What he did, was to change one axiom in the Physiocratic dogmas. Instead of the “bounty of nature,” he introduced the notion of the “bounty of trade”; and thus he created the notion of the dictatorship of the London financier nobility and its merchant class. The nobility are like the queen ants, who send the other ants out to milk the milk-cows and gather the grain. They’re called merchants.

### The Marxian variant of British economics

The next step in this, also with a very slight change, was Karl Marx. Now Karl Marx didn’t know it, but he was a British agent. He didn’t wish to know it. He was recruited, initially in Bonn and then in Berlin, to the British intelligence organization created by Lord Palmerston, under the leadership of Giuseppe Mazzini. This was called “Young Germany.” And when Marx got into trouble, he went to London, where he was under the patronage of . . . [Mazzini], who was there most of the time he was there, who directly created the so-called First International, and put Marx in charge of it. And Marx remained a protégé of the British intelligence service until 1868, when they decided they’d had enough of him, and they began to dump him, in favor of Bakunin. They

finally got Bakunin to eliminate Marx’s influence at that point. He continued to write, but he did not have any influence in the world, until he was revived, again by the British intelligence service, through a British agent by the name of Friedrich Engels, in the 1890s, when they decided to unleash Marxism on the world, for geopolitical reasons.

Now Marx, in London, under the direction of David Urquhart—the British Foreign Ministry intelligence official who controlled Marx in London for Lord Palmerston—wrote and developed, by various stages of approximation, a so-called theory of political economy. Marx made two changes in Smith’s and Ricardo’s theory; otherwise it’s the same.

The first change, which is a good one, is that he introduces, in place of individual interaction, social reproduction. In that sense, among those in this series, Marx is the only one among the Physiocrats, among the British economists generally, who actually accepts the idea of macroeconomics. . . . There’s a principle of *social reproduction of the society as a whole* which is involved as the determining factor in society. That’s the only good part about Marx.

What he did otherwise, was to change, from the bounty of nature and the bounty of trade, to something else. Marx says that all wealth and profit come from the labor of the proletariat. Engels is most explicit on this, later on, as well. Engels insists that scientific and technological progress come from the “horny thumb of labor,” the opposable thumb. Engels was not a very good scientist, he didn’t know about apes, he only knew about girls, whom he chased a lot. But nonetheless, he believed that man had a uniquely opposable thumb, and he believed that the qualities of the hand, with its oppos-

able thumb, made man capable of using tools, and that man, by random innovation, using the opposable thumb (not for hitchhiking, but for making tools), actually created technology. And you will find that Marxist theory generally, especially among the radical Marxists, especially the anarcho-syndicalists, to this day, will insist upon that form: It is labor, organically, at the point of production, that produces.

### What is profit?

So thus, in none of these three types of oligarchical theory—whether the Physiocrats, the landed aristocrats; or the Venetian nobility types, the financier class; or in the case of Marx—is there a *rational*, intelligible explanation of the source of profit. In each case, they resort to a metaphysical argument. They say, in the case of the Physiocrats, that it is the land title given to the nobility by God, which secretes the bounty of nature as an epiphenomenon. They insist, in the case of Smith, that it is free trade, which is nothing but his version of *laissez-faire*, of the production of good from evil; business must be evil, and from that comes good, which is free trade; that's their argument. And from this, is secreted as an epiphenomenon, profit. Marx says no; even though the workers are ignorant, *they* secrete profit and technology as an epiphenomenon. So nowhere is there a rational explanation of profit.

Now you have another variety, which is called "information theory." According to the cybernetic information theory version, which is called the "Third Wave" in the United States, a number of people sitting around, manipulating information, bits of information, like particles in a mechanistic gas theory, somehow "secrete" profitability for the future, as an epiphenomenon.

*None of them* has any explanation for profit. This is quite similar to exactly the problem that was addressed by Riemann, and, by my stating what I say so far, you begin to see how I came upon this, and [why I have] here expressed, today, my great debt to Georg Cantor.

### Economics is key to 'subjective science'

The progress of man, from the most primitive conditions . . . involves a series of discoveries, some of which we know. Language itself is a discovery. The development of language is a discovery. The development of principles in art is a discovery. The development of mathematics is a discovery. Now, in each of these cases, if we know the history, we will attribute each discovery to the name of a person, or a group of persons, because it involves an act of creativity which occurs only within the mind of the individual. Other people can have the same idea, but they have to *re-experience* the idea, the discovery of the idea.

What we call "culture" and "education," particularly when you look at education from the standpoint of the Humboldt educational principles for secondary education—the proper education is to re-experience, in the mind of the child,

in succession, the most important original discoveries in art and science of all previous history. Thus children do two things: They acquire knowledge, not just as textbook formulas that they've memorized, but they have *re-experienced the discovery* of the knowledge; and thus, this knowledge is their own. But at the same time, by re-living in the same way an infant relives the discoveries of many generations before . . . the child is also experiencing the *power* of that creative potential which distinguishes man from the animals, that aspect of man which is distinctly in the likeness of God, made in the image of God.

Thus you have an individual who comes out of this, not merely with information, but with *knowledge*, knowledge being not only being able to regurgitate descriptions of what people did in the past, not mere contemplations, but knowledge as a development of the *power* to stand, so to speak, on the shoulders of one's predecessors, and make a new step forward.

It is also the *power* to be able to understand and to utilize what some discoverer gives to us, so we can use it. You cannot take a bunch of people who were aborigines in training, and give them modern machine tools and modern technology. It won't work. You must develop their children. You must give their children the access to all of the best knowledge we have of our culture, and theirs before us. Then they have the power, both to *assimilate* knowledge, and to *generate* it.

Thus, if we look at this matter that Riemann attacked in geometry from that standpoint, we shift our attention away from what is generally taught today: Instead of talking about "objective science," we talk about *subjective science*; and economics is the key to subjective science.

The question is: People can imagine all kinds of things which are contrary to what is generally accepted now. Well, some of these are wrong, and some of these are right. The ability to tell the difference, we call *science*. Any original change in the behavior of the individual in society, which is made on the basis of the imagination; that's your set. Now within that, some of the changes are bad, some are good. What's the difference? The difference is called "science."

The question is whether this discovery of principle can be shown to increase the power and inclination of mankind to improve the condition of mankind, to improve mankind by the standard that man is made in the image of God, and to provide greater power to enable the society to receive each new individual in a way which is consistent with a creature made in the image of God, a society which is not based on hate, but a society which is based on the kind of love which is expressed by seeing behind the eyes of another person, an individual made in the image of God.

Thus we find that certain principles of discovery lead to good results, and certain principles of discovery lead to bad results. Thus we find that geometry is somehow *bounded*, not by imaginary fences in outer space, or strange "warps"

in the space-time manifold; but space is bounded in a different way.

## The curvature of space-time

Go back and look briefly at what Riemann was attacking, and what Riemann means by the curvature of physical space-time. He doesn't mean "warp space." "Warp space" is an idea that belongs to warped scientists, it does not belong to healthy ones.

What is the space of the imagination? First of all, the space of the imagination is not true. The universe is not simply extended in a continuous manner, as various people, including Kepler and, later, Max Planck demonstrated. Space is quantified, it's a quantum field. . . . It is not simply extended, nor is it extended with perfect continuity in the very large and in the very small; as Riemann argued, it is no longer necessarily continuous, it is interrupted by discontinuities and singularities.

What do we mean by "singularity"? Well, it's a true singularity in knowledge. We'll get the matter *subjectively*, rather than just objectively. A singularity in knowledge comes how, in respect to geometry? Talk about geometries which are based on different hypotheses, all understood from the standpoint of a *higher hypothesis*, a notion of geometrizing. In a formal system, if you change one of the axioms, you have a new system which cannot be reconciled or derived from the old system. Even though the theorems may pertain to the same subject matter, the two are not consistent.

The difference between the two systems, as in the case of an Aleph series of Cantor's, is an *absolute discontinuity*. There is no way, by chaos or any other way, or various kinds of these figures, of getting across that gap, no matter how small it is. It's not the size of the gap that's important; it's the existence of that gap that's important, that you could never achieve perfect continuity, which is what Leibniz argues in his *Monadology*, which Euler argues against. Euler is absurd; Riemann settles the question.

Therefore, what we're looking at in physics, is our ability to master the physical universe, in terms of a succession of axiomatic changes in the theoretical way we look at the universe and govern our practice. What we're looking for, is a principle which we can use to guide us in making judgments about new products of the creative imagination.

How are we going to know whether a line of work, a line of investigation, is going to lead to a bad result or a good result? We don't know what the good result will be, necessarily, and what the bad result; but we know it will be good or bad. Dino de Paoli has already touched upon this question of *power*.

What methods of higher hypothesis increase the power of mankind as a whole, per capita, over the universe? A measurement of man's ability to survive and improve the condition of humanity, both moral condition, imminently, and the physical condition and demographic condition?

Now, look at the absurdity of simple space-time from this vantage-point, as Riemann would. In simple space-time, you have extension, up, down, backward, forward, sideways, and then, in time, backwards and forwards. But what do you do? It's empty. How can you construct a theory of empty space? Well, you have to put something in it. So you have a sense-perception. You take the sense-perception and you say, "Well, let's put the sense-perception in a point in space and time, where I think this thing occurred. Now, it's not infinitesimal, so it has some sides. Now I have to deal with the *displacement* of space-time by the object. Now I can make simple linear measurements among these objects in motion, and I can make calculations"—all absurd. All absurd. Because space-time is not organized that way.

So what Riemann says, is when we're looking at the relations in physical space-time, we find that we've gone through a succession of discoveries, which leads to the equivalent of a different *curvature* of space-time. It's not that we see a curvature of space-time.

## An example: the curvature of the Earth

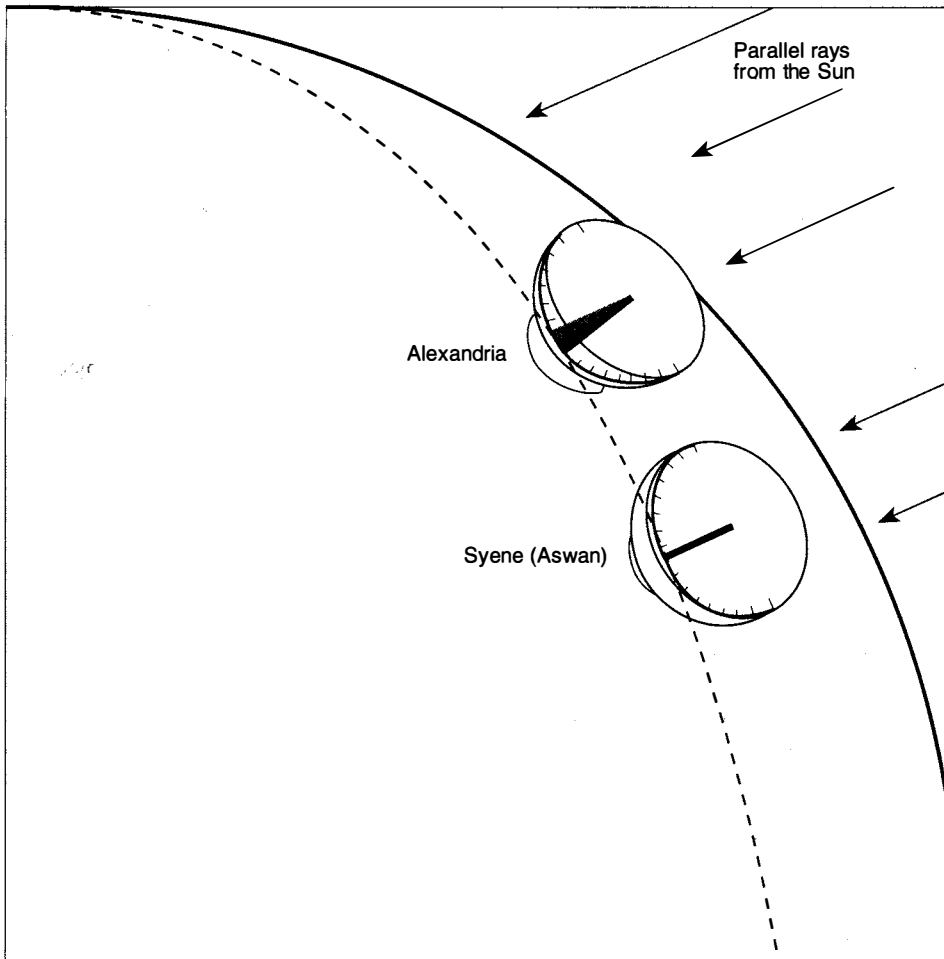
Go back in the history of mathematics, to one case that I often use pedagogically, the case of Eratosthenes, who was very important in terms of some of the work of Cantor, with his sieve construction. But it is also significant for a much simpler discovery, which is estimating the size of the meridian of the Earth [see **Figure 1**]. This is well-known in most decently ordered classrooms; but the significance of this is often overlooked, especially the significance of what I'm discussing here today.

How do you do this? We're doing it again, we're going to have it for children, because I've insisted that these kinds of things from the past, must be organized in a way that children can use them, at the earliest possible [age], as soon as the child is capable of understanding something, to have something ready for them, which is a channel for the development of their mental powers.

Construct, as we are doing. Take a hemispherical shell. Put, along the diameter of the hemisphere, inside, a stick, or a piece of metal. Now, on the other side of it, you can hang a plumb-bob, or some other device, for situating it so that it is aiming at what you think is the center of the Earth: up, down.

Now, take this at two points, A and B, along the meridian. one directly north, or more or less directly north of the other. Now, wait until noontime, which you define by the time the Sun gets into its relatively highest position. The shadow will be cast accordingly. Now, measure the angle which the shadow of the Sun projected by the stick casts upon the interior surface of that hemisphere. A comparison of the two angles, at Point A and Point B, by similar angles, will define the angle of the arc of a circle.

Now if you measure the actual distance from Point A to Point B, you have essentially approximated the measurement



**FIGURE 1**  
**Eratosthenes' method for measuring the size of the Earth**

*In the Third Century B.C., Eratosthenes measured the circumference of the Earth with an accuracy of about 50 miles, even though nobody would see the curvature of the Earth until 2,200 years later. In this illustration of his method, two hemispherical sundials are placed on approximately a meridian circle, in Alexandria and Syene (Aswan), at noon on the day of the summer solstice. The gnomon in the center of each sundial is constructed to be the same length as the radius of the hemisphere; it points straight to the center of the Earth. Eratosthenes found that the gnomon made no shadow in Syene, but a shadow of 7.2° in Alexandria. He also knew the distance between the two cities to be about 490 miles. This allowed him to calculate that the Earth's circumference is about 24,500 miles.*

of the perimeter of the circle along that arc; and therefore, by simple construction, ancient people, using the method of Eudoxus, which was used by Eratosthenes, can approximate the size of the Earth.

Eratosthenes was off by 50 miles, in estimating the diameter of the Earth from pole to pole, which, considering the crudity of the methods available to him, *is not bad*.

Now, suppose someone says, "Okay, that's empirical, objective science." No, it is *not* "objective science." It is *subjective science*.

First, ask a question. Okay, the child is being asked to measure the size of the Earth. Has that child ever seen the curvature of the Earth? Did Eratosthenes or anybody who lived before him or in his time see the curvature of the Earth? Of course not. They couldn't.

So therefore, the idea of the curvature of the Earth did not exist as a sensory sense-perception. Therefore, it existed only as an *idea!* And from this idea, a notion occurred.

The same thing in Aristarchus, who said that the Earth orbited the Sun. All the other important discoveries which were made in ancient society, had that character. They involved *ideas*; they involved the use of ideas to influence the

development of new ideas.

What we wish to do, is to educate children to understand these *ideas*, in the sense that Plato defines ideas, and defines the relationship between *species*, of types of actions, and ideas as such, Platonic ideas. And that is exactly what Riemann is doing. He is dealing with Platonic ideas.

This was not new to him at that point. Years earlier, before [Johann Friedrich] Herbart died, Riemann, before going to Berlin and then coming back to Göttingen, had attended some lectures at Göttingen which were given by Herbart, who was very much influenced, actually, by [Friedrich] Schiller, when he was studying at Jena earlier, and then had gone on to the No Man's Land where Kant had been to teach, and then was brought back by Wilhelm von Humboldt, for these lectures he gave. . . .

But in the posthumously published works of Riemann, these notes that he made on ideas, metaphysics, and so forth, are included. Riemann refers to these Platonic ideas as *Geistmassen*, objects which exist only in the mind as ideas, which do not exist as sense-perceptions.

In the latter three types or four types of political economy I discussed, you would have the case of the Physiocrats, the

case of Adam Smith, and then the rest of the British School, or the British School of Karl Marx, or the modern information theory; they allow only the existence of sense-perceptions, and anything else is defined as "attributed epiphenomenon," or attribute, epiphenomenal attribute, of a sense-perception. . . .

Only in this view of science [of Riemann, et al.], are ideas treated as ideas. For the formalist, ideas do not exist, only metaphysical attributions based on sense-perceptions. Every fundamental scientific discovery creates a singularity, and creates it *outside* the domain of sense-perceptions, so that man now has proven knowledge which enables him to *increase* his power over the world of sense-perception, as measured in terms of the development of the number and quality of existence and productivity, of individuals.

### How do you measure progress?

The question, then, is: How do you measure these things?

Scientific discoveries and related discoveries in art all have the form of metaphor; the generic form is metaphor. Every important singularity in the theory of knowledge, whether in physical science, in mathematics, or in Classical art, occurs as *metaphor*. The fallacy of information theory, is that you could never put an idea in information theory. Impossible! Because all ideas are metaphors. How could you measure the *power* of an idea according to its statistical characteristics, in terms of an inversion of Boltzmann's H-theorem? You can't do it, it's irrelevant. It has nothing to do with it.

It is not the number of bits of information that counts. Bits of information pertain to communications networks of inanimate objects, of non-living objects, and do not refer to living behavior of *creating ideas*, or communicating ideas. How do we communicate ideas? With metaphor.

What you do, when you communicate with someone, is to demonstrate the existence of a *paradox*, especially an ontological paradox. You identify the paradox by metaphor, as I've used the Goethe "Mailed" as an early form, which, despite the simplicity of the form and its almost trivial content, exemplifies this. It contains the essential thing, which is a metaphor.

Therefore, by communicating *metaphorically*, using the subjunctive and so forth with a language, we can precisely define a singularity, an irony, a metaphor; and, by communicating a metaphor, whether in the science or mathematics classroom, or in the question of tragedy or Classical poetry or music, you thus prompt the mind of the hearer to go through the process of testing the generation of metaphor.

So, how do you measure progress? How do you measure what we must measure, in an economy? What we must measure, is *progress*. You cannot measure progress in terms of some simple Aristotelian-deductive mathematics; how do you measure it? You can't measure it in deductive terms simply, because every time you have scientific progress, you introduce a *discontinuity* into your theory. So therefore, the

subject of economic science is not linear algebra, applications of statistics. The subject of economic science, is the *ordering of discontinuities*.

What Cantor indicates as *power*, is exactly appropriate as the word to use, in respect to economic power. The progress of mankind, is what? The progress of mankind is the accumulation of original, fundamental discoveries in what we call science, in what we call Classical art. This is the heritage which each generation passes to the next.

What is this heritage? This heritage is a mass of discontinuities, a mass of discoveries, original, axiomatic quality of discoveries, whether in language, the use of language, or in anything else. What we pass on, is not measurable knowledge, in the ordinary sense; we pass on *discontinuities*. We call this an education, putting a child through original discoveries, re-experiencing them.

So therefore, in economics, the same thing. What defines economic progress? What defines scientific progress? The development of discontinuities. How is this measured? As the *increase in the density of discontinuities in terms of any measurable unit of action in the economy as a whole*.

So therefore, what is the significance of the Aleph series in Cantor? Its application is as an approach to the understanding of the measurement of discontinuities. Now, those who understand Cantor somewhat better, even if imperfectly, will always emphasize that, the fact that there's the implicit denumerability of a finite number of discontinuities within any arbitrarily chosen interval of action. And that's what we're doing.

Now, how do you run society on that basis? Mathematically? Not exactly. What you do, is what I've learned to do. You say, what is it that we commonly believe today, say in physical science, which is wrong? How do we define that? Let's take astronomy. You go talk to the astronomers, and find out what stellar objects or events in the astronomical domain, are anomalous, things which defy interpretation according to existing generally accepted notions of astronomy. And therefore, you say, "Well, it is important that the state consider how we're going to bring about a study of these anomalies, because we know, that by mastering these anomalies, we will correct our existing knowledge, and therefore we will increase the power of productivity of man over nature."

Take it in microphysics. It's simple, you just keep going down the scale, smaller and smaller. Every time you find an anomaly, *that's* what you must concentrate on. How do you know what the benefit is going to be? You don't have to know. Because the question of *policy*, the fundamental question of science, is not whether you can measure something in advance. Some things you can, some things you can't. The important thing to know is: What is the next step you must take? It's like walking through a swamp full of quicksand. You don't have to know how much quicksand there is, how big the stones are, how many stones there are; all you have

to know is: Can you find a stone on which to walk, which will allow you, step by step, to get safely out of that swamp?

And therefore, what we need, is an understanding of this subjective aspect of science, in terms of the notion of discontinuities. A good mathematics is one which is not exaggerated in its importance. Mathematics is an engineering tool which must be constantly improved; but it's always wrong, because the next anomaly is going to overturn it.

So therefore, the important thing to do is to put mathematics in its place, as a little fellow here, who's carrying the bags for the big fellow, science. And science consists in the principles of discovery, and knowing how to make these discoveries, not in being able to pre-measure. Because you won't know how to measure them, until you make them. Then you will find out how to measure them.

So therefore, the question is, the relative power of mankind achieved by what? By . . . anomalies.

What is an anomaly? If there are hungry people in the world who should not be hungry, that's an anomaly. That may not involve a great, new discovery, but that means the *existing policy of practice of the relevant institutions, is wrong*. If the death rate increases, and we can attribute the death rate to some cause, like cutting of pensions, for example, or cutting the health care provisions under existing law, that's wrong, that's murder. If you cause a change in public policies or insurance policy which you should have known

would have increased the sickness rate or the death rate, then you personally are responsible for every person that becomes sick or dies as a result of your innovation, contrary to Adam Smith. Evil produces evil, and evil is accountable for evil; and negligence, in that sense, is evil.

So we have to change the focus to the subject, and the important thing is that, as Riemann says, to make an advance in mathematics, you must step outside of mathematics, into the realm of physics. If you enlarge that, as I do, you will say, "Yes, this is true; but let's go one step further, into the physical economy, the process of reproduction of the society, which must become more suitable to the individual made in the image of God, both in his education, his knowledge, his responsiveness, and his accountability for the results."

#### Notes

1. Georg Cantor, *Grundlagen einer Allgemeinen Mannigfaltigkeitslehre*; first English translation by Uwe Parpart, "Foundations of a General Theory of Manifolds, A Mathematical-Philosophical Study in the Theory of the Infinite," *The Campaigner*, January-February 1976.

2. "Mitteilungen zur Lehre vom Transfiniten," in Ernest Zermelo (ed.), *Georg Cantor: Gesammelte Abhandlungen mathematischen und philosophischen Inhalts* (Berlin: Springer-Verlag, 1990). The title can be translated as "Communications on the Theory of the Transfinite"; there is no published English translation.

3. *Beiträge zur Begründung der transfiniten Mengenlehre*; English translation by Philip E.B. Jourdain, *Contribution to the Founding of the Theory of Transfinite Numbers* (New York: Dover Publications, 1955).

## EIR Special Reports

**Comprehensive, book-length documentation assembled by EIR's intelligence and research staffs.**

**Narco-Terrorism Explodes in Chiapas, Mexico.** Order #94-001. \$100.

**Russia's Future: Dictatorship, Chaos, or Reconstruction?** Order #94-004. \$250.

**Stop the New World Order—Hitler in Blue Helmets.** Order #94-005. 250.

**October Surprise.** The true story of Iran-Contra. Order #92-001. \$100.

**Depression of the '90s: America's Crisis.** Order #92-003. \$150.

**Bush's Surrender to Dope, Inc.** Narco-terrorism in Colombia. Order #91-001. \$100.

**Can Europe Stop the World Depression?** Lyndon LaRouche's proposal for the European Productive Triangle of infrastructure, the engine for global recovery. Order #91-004. \$100.

**Satanism: Crime Wave of the '90s?** Order #90-001. \$100.

**The Libertarian Conspiracy to Destroy America's Schools.** Precursors of the New Age education reforms of the 1990s. Order #86-004. \$250.

\* First two digits of the order number refer to year of publication.

Order from:

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

Please include order number. Postage and handling

# Cantor and the future of the natural sciences

by Jonathan Tennenbaum

*This speech was given at the Schiller Institute conference in Halle on May 6, and was translated from the German by Edward Carl. Dr. Tennenbaum is the director of the Fusion Energy Forum in Germany.*

Max Planck once described, in a reminiscence, the spirit of the true natural scientist: "It is not logic, but the creative imagination, which enkindles a new discovery in the mind of the researcher moving forward in the dark . . . and without the imagination, fruitful new ideas cannot arise. For, if there is one thought that invigorates and uplifts us—amidst often painstaking, detailed work for the mind and body—that thought is, that in physics, we do not work for the present, for momentary success, but rather, so to speak, for Eternity."

We find that Planck's precise metaphor applies to Georg Cantor, since he worked "for Eternity" in the highest degree. In his discoveries, Cantor saw the first glow of a distant renaissance, which would be centered, in his words, on an "organic explanation of nature," in Leibniz's sense, which would replace the increasingly one-sided and inadequate, mechanistic natural science of his (and our own) day. Let us here vow to set into motion, on the threshold of the approaching century, this greatly desired renaissance!

As in the renaissance movements of the past, this means, first of all, to free the human mind from the chains of Aristotelianism—this time, we should hope, for good. And to this end, Georg Cantor placed a powerful weapon in our hand. With his discovery of the concept of transfinite orderings, he revived and vindicated the method of Plato, Nicolaus of Cusa, Kepler, and Leibniz at a crucial point—and indeed on the exact issue that has continued to be the subject of the most raving attacks of Aristotle and his followers for millennia.

What enraged Aristotle the most was Socrates' and Plato's assertion that beyond the objects of sense perception there are *real* existences, which Plato named Ideas, and which are the *causes* for the sense phenomena as well as of everything else; and that these Ideas are *not* merely characteristics or epiphenomena emitted out of the sense objects, but rather that an idea can only stem out of a higher Idea, and that the Ideas have their origin and continued existence in God. Aristotle objected violently to Plato's insistence, that Ideas must be understood as *separated* from their predicates.

This separation, this singularity, is exactly the region of human creativity, of the axiomatic changes whose existence Aristotle denied. Compared to this, Aristotle only knows abstractions, only formal generalizations of individual cases, but not true universals.<sup>1</sup>

Cantor's development of the transfinite was a kind of "*experimentum crucis*." Already in its second term, Aleph 1, the series of transfinite "Aleph" magnitudes—which, as it seems, proceeds from the simplest concept of a lawful ordering, that is a precondition for comprehending the world—already transcends the bounds of everything which can be represented or communicated in terms of sense perception or imagination. The Aristotelians have long since jumped out of the windows, shrieking. For them, that which is not definable or describable through the categories of sense perception, is indeterminate, and completely incomprehensible to the human understanding, which, according to Aristotle, is limited to the finite.

Contrary to this, Cantor showed that the terms of the Aleph series, including in particular Aleph 1 ( $\aleph_1$ ), are each specific, completely determined "thought-objects," each distinguishable from the other. At the same time, one ought not to imagine the Aleph transfinities as some sort of static, unchangeable objects of the Type of the objects of sense perception, but rather as reflections of the inner relationships of a self-developing negentropic universe. Aleph 1, for ex-

---

1. The metaphysics of Aristotle, like nearly everything else that stems from Aristotle, is a long-winded, obsessive attempt to annihilate Platonic ideas. One could even say further, that Aristotle wanted to *assassinate* the Ideas; for in his metaphysics, he aimed his most venomous attack on exactly that place within Plato's "Phaedo" dialogue, during Socrates' last conversation with his pupils before his execution, wherein he is talking about the soul's immortality. In so doing, Aristotle exposes his spiritual affinity with the same people who organized Socrates' trial and execution. This spiritually hostile state of affairs, directly opposed to Socrates and Plato, reminds us all the more of Judas's later betrayal, because of the fact that Aristotle belonged to the inner circle of Plato's Academy in Athens for so many years. (There is a further interesting aspect, which is that Galileo's mathematics teacher, the priest, Paolo Sarpi, as a pretended anti-Aristotelian, directed his main work against the doctrine of the immortality of the soul. As an agent of the Venetian oligarchy, Sarpi introduced the attempt to infiltrate the newly flowering Platonic natural sciences of the Renaissance and to bring them under their control.)



ample, in comparison to Aleph 0, represents an entirely different conceptual quality. Aleph 1 corresponds to the external bounding principle of all lawful orderings of simple mathematical functions, i.e., the *principle* of that which is comprehensible and lawful in the ordinary mathematical sense. Precisely for this reason, Aleph 1 doesn't belong to mathematics in the ordinary sense at all—here, again, loud shrieks are arising—for, mathematics is not able to give a comprehensive, final definition of what a “law”—i.e., what a mathematical function—really is.

Thus, from the domain of ordinary mathematics, which is of the thought-quality of “Aleph 0,” Aleph 1 cannot be reached at all. The concept of “lawfulness” and of lawful orderings, must, just as Riemann said in his habilitation dissertation, arise from *outside* mathematics, and, indeed, from that which many people today would call metaphysics, which, however, is actually nothing other than the entire core of physics.

With his Aleph series and developments linked to it, Cantor showed how an entire class of conceptions—which, until then, only a few great minds had mastered, and which were otherwise either anticipated in a vague, intuitive manner, or, in the case of the Aristotelians, rejected as “non-existent”—could be firmly established and integrated into the store of scientific and cultural knowledge. Therefore, the path is opened, as Cantor himself saw, to overcome the awful impoverishment of man's conceptual world, associated with the dominance of empiricism, positivism, and formalism. Only then does it become possible to successfully carry out the development of an “organic explanation of nature.”

Cantor's work concerning transfinite orderings leads to an *analysis situs* of the process of scientific hypothesis-formation. And, according to his own report, the study of Cantor, together with Riemann's habilitation paper, “On the Hypotheses Which Underlie Geometry,” gave Lyndon LaRouche the key to solving the central formal problems of physical economy—the elaboration of an intelligible representation of the “negentropic” growth of a growing human economy.

On the other hand, only LaRouche's approach to physical economy was wanting, in order to place the universal contributions of Cantor onto an unshakeable ontological foundation. With this, that creative process of formation of fruitful hypotheses—of which Max Planck spoke, and which the Aristotelians would rather banish from the world—that creative process becomes the direct, *measurable* subject of scientific thought.

### Cantor's principal contribution

From what has been said, it should be clear that Cantor's chief contribution to future scientific and technological revolutions is not to be sought mainly in applications of the formal working-out of his theories—what one nowadays calls “mathematical structures”—to specific problems of physics.



*Jonathan Tennenbaum (right) at a Schiller Institute meeting in Gdansk, Poland. Says Tennenbaum: “Cantor's most far-reaching contribution lies in the improved quality of scientific thinking, which a deep acquaintance with Cantor's own process of discovery can bring to this and future generations of scientists.”*

The most far-reaching contribution lies in the improved quality of scientific thinking, which a deep acquaintance with Cantor's own process of discovery can bring to this and future generations of scientists.

Indeed, the importance of the formal elaboration of scientific theories tends nowadays to be greatly exaggerated. It quite certainly was a driving idea of Cantor's to reach away from the mechanistic to an “organic explanation of nature,” wherein the formal, combinatorial, or structural aspects (which, for example, in microbiology, are considered to be the only things deemed “scientific”) are completely subordinate to the conceptual development. In other words: The ordering, the form of the reciprocal interrelations of higher ideas, is *not* a formal-logical one, but rather unfolds only out of their own intelligible inner essence. Accordingly, it is decisive for the future of the natural sciences in Cantor's sense, to allow the creative processes to speak *their own language*. The greatest enemies of creativity are formalism and its ugly sister, the Romantic movement.

I also believe that the greatest positive influence of Cantor's work upon the future of the natural sciences will not come from his mathematics, in the narrow sense, but rather, through his decisive contribution toward clarifying and widening the general concepts upon which the whole development of the natural sciences will be based. I would like to illustrate this point from a special viewpoint.

Providing human civilization does not go to ruin in a holocaust of barbarism, we can be sure that colonization of the Moon and the planets will be begun in the first decades

of the coming century. In that case, there will commence, within the physical economy of humankind, a new condition, for which no adequate historical parallel exists. The coming development will be of such a form, as can only be organized and understood on the basis of Cantorian ideas, of the type which constitute the kernel of LaRouche's physical economy. We are speaking of a coming period in which the growth of productive activity, in scale and intensity per capita and per arbitrary quantum of space-time, has no other goal and content than the perfection of the human spirit. The cycles of

---

*This direct connection between Weimar Classicism and the subsequent explosion of the natural sciences contains the key to that new renaissance, envisioned by Cantor, which we now want to realize.*

---

investment, of production and of consumption, will come to be seen exclusively from the standpoint of a *noetic thought process*, in which the entire population—as an aggregate of creative individuals—*acts*, through those cycles, upon itself and upon the Universe as a whole. In other words, the *value* of material production lies in the propagation and development of *ideas*, ideas of the quality of the increasing mastery of humankind over nature.

What steps into the foreground of the spiritual, cultural life of the participating population, in this process, is no longer the result of an individual scientific revolution, but rather a *series* of such revolutions, following one after the other, expressing the power or relative perfection of a higher hypothesis. The aggregate of human activity in space and time, all of human history, will then become a single laboratory by which to measure the relative truthfulness of our momentary level of culture, or in other words, to discover and stepwise to overcome the limits of our own thought processes.

Since this goal of the perfection of the Image of God embraces every single human being, as well as human civilization as a whole, the necessity arises, not only to develop the creative potential of every single human being to the fullest measure, but simultaneously to ensure that the creative contributions of *all* human beings—and not merely the contributions of a handful of isolated geniuses, but, in the future, of *billions* of creative personalities—shall be integrated into the practice and culture of the society, and transmitted, as a single, *intelligible idea*, to the individuals of further generations. How could it be possible that a single, communicable idea could enfold within itself billions of creative personali-

ties, as living singularities? The work of Georg Cantor gives us one crucial key to this.

### **Toward a new renaissance**

Now, the form of economic development that we presently project for the epoch of the colonization of the Solar System is, of course, nothing other than the original design that Leibniz put forward in his essay "Society and Economy,"<sup>2</sup> as the fundamental principle of modern industrial society. Only the continued power of the oligarchy has hindered humanity up until now from realizing, to its full extent, the Leibnizian form of physical economy.

Precisely this idea inspired the pioneer-champions of the so-called American System of Political Economy, men such as Alexander Hamilton, Friedrich List, and Henry Carey. The same idea inspired the minds of the creators of Weimar Classicism, which, not accidentally, preceded the spectacular development of science and technology in Germany in the nineteenth and early twentieth centuries.

This direct connection between Weimar Classicism and the subsequent explosion of the natural sciences contains the key to that new renaissance, envisioned by Cantor, which we now want to realize.

I have already referred to the *noetic substance* of every physical economy, which in the epoch of Mars colonization will come to the fore more than ever. The development of an economy is determined by the *cultural ability* and *inclination* of the population for generating, propagating, and assimilating increasingly higher (i.e., more truthful) qualities of *ideas*. This means a shift in the spiritual center of gravity, away from an Aristotelian obsession with external objects of sense perception, and over to the realization, that truth is not to be found in an imaginary agreement between discrete mental images and the constellation of sense objects, but rather, within the moral perfection of the thinking subject. This perfection lies in the knowledge of the ordering of the higher ideas, which derives from the relation of our soul to God.

This, of course, is exactly the goal not only of Friedrich Schiller, with his program for the aesthetical education of Man, but also of a far-reaching network around Schiller and the Humboldt brothers, a goal certainly shared by Carl Gauss, as well as the young Beethoven. This was the goal of the Humboldt education reforms, with their accent upon classical philology; the revitalization of the German language, theater, and the art of poetry by Schiller and his circle; and the adoption and further development of the geometrical method of the Ecole Polytechnique in France.

All of these measures are linked together with a special comprehension of the function of language (in the broadest sense), which plays a crucial role in the later work of Rie-

---

2. For an English translation, see *Fidelio*, Fall 1992, p. 54.

mann and Cantor. As Wilhelm von Humboldt emphasized, the essence of a human language—in contradistinction to communication among animals or computers—lies within the *process* of generation of new concepts which are made *nameable* and *communicable* by the method of metaphor. Georg Cantor did exactly this with his Aleph series.

Underlying every language, there exists a universal metaphorical thought-principle, which Wilhelm von Humboldt saw in close connection with the *musicality* of the language. From this arises the question: What is the relationship between the various stages of development of a language, and between different languages, with regard to their ability for truthful hypothesis formation? Here we have a typical example of Cantor's conception of "power" or "cardinality" of an order-Type.

For example, if the use of the hypothesizing subjunctive mood is restricted, or the formation of metaphors is made more difficult, the Cantorian "power" of a language is diminished. On the other hand, Schiller and his allies strove for a powerful enhancement of the latter, as a decisive path toward a new renaissance.

I would like to shed light on these thoughts with a few examples.

### **The method of hypothesis**

We take, first of all, an example that Lyndon LaRouche has frequently employed in the recent period: the determination of the meridian or the approximate circumference of the Earth by the Greek Eratosthenes. LaRouche stresses that Eratosthenes was able to measure the curvature of the Earth with his construction, without anyone having seen this curvature with their eyes. In fact, one could say that astronauts were the first ones in a position to directly see this curvature, 2,000 years later. LaRouche underscores that an Aristotelian would never be able to do what Eratosthenes did; for, to an Aristotelian, it would appear to be absolutely nonsensical and impossible to measure something which nobody has seen!

It is worthwhile to reflect upon one additional aspect of this. As one immediately recognizes, Eratosthenes' construction already presupposes the hypothesis of a spherical-shaped Earth and the geometry of the circle. Whence comes this hypothesis? Whoever considers the matter only superficially, might quickly answer: The hypothesis came from seeing that the Earth casts a circular shadow during eclipses.

Nevertheless, what did one see? Sense-impressions in and of themselves are nothing but a chaos; only the operation of *ideas* creates nameable forms out of sense-impressions—ideas, thus, which could never arise by themselves out of the pure chaos of sense impulses. (In contradiction to the opinion of the chaos theoreticians! Already after a few weeks, a normal baby has surpassed the stage of development of a chaos theoretician!)

As Herbart and Riemann after him emphasized, the most elementary concepts of science and of daily life in the course

of history themselves undergo a far-reaching evolution. For example, we are able to imagine a primitive stage of development of a human society—a tribe of anthropologists, for example—where the sight of a circle only awakens notions like "round thing" or "smoothly bordered thing" or "pretty object without corners." A donkey, on the other hand, sees in the Moon probably an apple stolen and eaten away by some celestial donkey! And so forth.

What I want to indicate by that, is the following: Only under the influence of the *higher idea* of a general ordering principle—that is, in a certain sense, an idea of Natural Law—can one arrive at the notion of the circle and sphere and, in particular, to the hypothesis of Eratosthenes, that a yet-unseen sphere defines the ordering principle for various measurements made on the Earth—measurements, that from the standpoint of a flat Earth, would constitute irreconcilable anomalies.

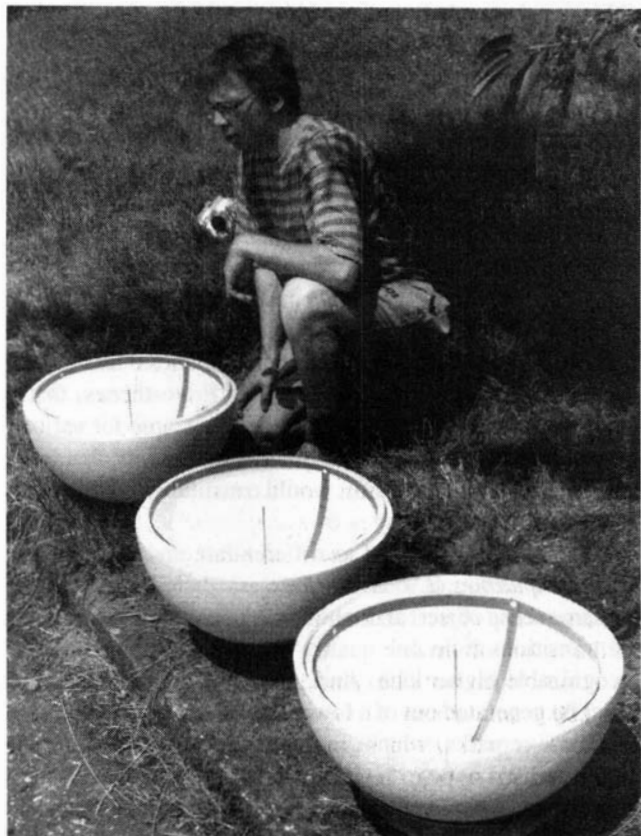
Cantor thus taught us to differentiate and to order the different *qualities* of ideas, that are associated with one and the same sense object, and, above all, to correctly understand the transitions from one quality to the next one owing to a recognizable higher idea. And, also, that a higher idea can never be generated out of a lower one.

These remarks, which, in the example of Eratosthenes, might perhaps appear trivial, turn out to have the greatest importance, when we consider the challenges faced by science today. The various, explosive anomalies of astrophysics, for example, point to a characteristic curvature of physical space-time, which we, of course, can neither see nor grasp with the currently existing representations and concepts of natural science.

### **Defeat the Aristotelian inquisition**

A majority of the evils that we find in the natural sciences today lend themselves, with the help of Cantor's ideas, to being easily exposed, and their causes identified in an externally imposed Aristotelianism.

For example: the significance of the Periodic System of Dmitri Mendeleev. Our disastrous educational practice routinely communicates to students the impression, that the Periodic System were merely a formal scheme that Mendeleev had derived, by Aristotelian induction, out of the data concerning the chemical elements. What Mendeleev had actually done, as opposed to that, is to completely redefine the entire field of chemistry and physics, insofar as he introduced and proved something which no chemist had ever seen or experimentally shown in a test tube. After Mendeleev, the central subject of chemistry moved beyond the chemical elements as such, and, instead, shifted to the idea of a higher harmonic ordering-principle which determines, "from above," the characteristics of the individual elements and their mutual relationships. Thereby, Mendeleev confirmed and extended the central thesis of Johannes Kepler, which Kepler had first developed in his hypotheses concerning the



*Replicating Eratosthenes' demonstration of the curvature of the Earth: A Schiller Institute researcher in Germany tests the spherical sundials that will be used to measure the Sun's angle from the zenith (see diagram, p. 43). The demonstration was performed successfully in Frankfurt and Milan on July 25 and in Copenhagen and Munich on July 26.*

solar system. In my book about the "atomic women,"<sup>3</sup> I have shown how the entire development of radioactivity and nuclear physics emerged out of this original idea of Kepler, mediated through Mendeleyev. Unfortunately, one must deplore the circumstance, that the practice of passing on such generative ideas to the younger generation has been virtually banished from our science education system.

The Aristotelian inquisition in the natural sciences is nowhere more blatant than in biology. There, the underlying prejudice makes itself ever more strongly felt, that the concept of "life" itself has no precise meaning, and, in the final analysis, must be considered to be "unscientific." For, who has seen "life"? As Aristotle would say, there are these and those concrete animals or plants which he had regarded as "living" because they eat, grow, or move; but "life" as an idea or principle does not exist in the real world. The molecular biologists of the present day confirm this: They have found

nothing among their molecules that corresponds to "life." However, when they attempt to derive the characteristics of living organisms from interactions of atoms and molecules—ideas of the quality of the Aristotelian sense perception—then they run into paradoxes and insurmountable difficulties.

Now, from a Cantorian standpoint, it is easy to understand this situation. Of course, there *is* a principle of life, whereby living organisms absolutely distinguish themselves from non-living matter! This principle had already been identified by Leonardo da Vinci and Luca Pacioli or even earlier, and connected with the characteristic harmonic ordering principle of the Golden Section. The problem consists in this: that this principle of life stands exactly in the same relation to the mechanistic notions of the molecular biologists, as Cantor's Aleph 1 is to the orderings of the power Aleph 0. (Or, of the circle to the inscribed polygons.) This means that any, however complicated, combination of mechanistic interpretations is still infinitely far away from being able to explain or even to characterize the "life" of a living organism. Thus, it appears to the molecular biologists, as if life either does not exist or is a mystery, only because they refuse to admit the corresponding higher idea into their minds!

It is similarly the case with the so-called "wave-particle paradox" of modern quantum theory. In his famous argument with Erwin Schrödinger, Niels Bohr overtly forbade the process of Platonic concept-generation. Bohr—who later converted to Taoism—publicly declared that physics should not be allowed to utilize any concepts that go beyond the categories of sense perception or related imagination. Whereas Man has known for more than 2,000 years—and, actually, since the beginning of civilization—that reality cannot be understood on the basis of such primitive types of ideas.

These examples show precisely the nature of the present-day dark age: The entire class of higher ideas, for example of the type of Cantor's transfinite, has been "forbidden." This was precisely the goal of the brutal persecution of Cantor by Kronecker and the friends of Helmholtz. Through the suppression of these ideas, the process of hypothesis formation has virtually come to a standstill, and scientists have become donkeys. This process of stupefying (or "dumbing down," as it is expressed in America nowadays) aims to destroy exactly that which Schiller and his fellow combatants wanted to achieve.

### **The process of lawful transformation**

However, beyond this useful, and quite necessary, *negative* attack, we are able to do something even more interesting. We assume these two Types, Aleph 0 and Aleph 1, and the transition from Aleph 0 to Aleph 1, to be a characteristic type of singularity. Now we look at the entirety of anomalies of the various fields of knowledge, in order to see how they might be related eventually to this type of singularity. I do not mean this in the sense of statistical correlation, but rather in this way: that by means of a coherent hypothesis, they

3. Jonathan Tennenbaum, *Kernenergie: Die weibliche Technik* (Wiesbaden, Germany: Dr. Böttinger Verlag GmbH, 1994), reviewed in *EIR*, May 26, 1995.

might be brought into a relation of conceptual congruence or equivalence.

Take something quite fundamental: the concept of *change* itself. In present-day natural science, change is practically always thought of merely in a kinematic sense: to wit, the process of change of any system is supposed to be reducible to changes of position or other continuously variable parameters of the parts of the system. This kinematic bias leads people to think, that no other form of change could exist as a lawful process. As a result, the so-called quantum jumps and similar things present sheer, unsolvable paradoxes, which Bohr et al. indeed characterized as unintelligible *in principle*. Precisely this fixation on the banal-kinematic form of change constituted the great weakness of Einstein, the catastrophic error of his entire physics.

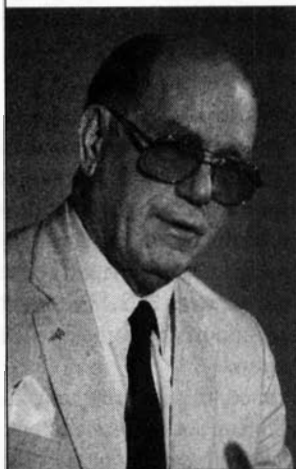
On the other hand, in an 1879 treatise "Über unendliche lineare Punktmannigfaltigkeiten" ("On Infinite Linear Point-Manifolds"), Cantor himself addressed himself to this problem. With clear reference to Riemann's dissertation on the hypotheses of geometry, Cantor remarks, that the assumption of a simple continuous space-time "has no intrinsically compelling reason; it must be seen as the result of a free act of our mental-constructive activity. The hypothesis of the continuity of space is therefore nothing other than the arbitrary assumption of a complete, one-to-one correspondence between the three-dimensional, purely arithmetical continu-

um (x, y, z) and the space which underlies the world of appearance."

Now Cantor's work shows us, and indeed proves, the existence of an entirely different form of lawful transformation, than the simple, banal-kinematic: namely, the Type of the transition from Aleph 0 to Aleph 1. The crucial thing is that, by virtue of the transfinite generating-principle itself, no intermediate link or continuous transition of the kinematic sort exists, but rather Aleph 1 is the necessary successor of Aleph 0, Aleph 0 the necessary predecessor to Aleph 1. This then draws our attention to the substance of our own mind, which signifies a change of the characteristics of action of a whole system, which is associated with an increase of the density of singularities in every interval of action. Precisely this is the characteristic form of change of a physical economy under the influence of scientific revolutions, and we believe that many anomalies of astrophysics and other fields will be able to be tackled anew, in a more fruitful manner, from this standpoint. This may open the path to a better understanding of the reality sometimes referred to by the idea of the "quantum field."

Thus, much work lies ahead of us. In 50 years will come the 200th anniversary of Georg Cantor's birthday, which some of us will perhaps also celebrate here in Halle. By that time, we hope to have harvested the first fruits of the renaissance foreseen by Cantor.

# LISTEN TO LAROUCHE ON RADIO



*Frequent Interviews with  
Lyndon LaRouche on the  
Weekly Broadcast "EIR Talks"*

**ON SATELLITE**  
Thursdays, 1800 Hours (6  
p.m.) ET  
C-1, 137 Degrees West  
Reverse Polarity  
Audio Mono, Narrow Band  
7.56 MHz Audio  
Transponder 15

**SHORTWAVE RADIO**  
Sundays, 1700 Hrs  
(5 p.m. ET)  
WWCR 12.160 MHz

**Cassettes Available to  
Radio Stations**

**Transcripts Available to  
Print Media**

## Local Times for "EIR Talks" Sunday Shortwave Broadcast on WWCR 12.160 MHz

Adis Ababa . . . . . 0100*	Little Rock . . . . . 1600
Amsterdam . . . . . 2300	London . . . . . 2200
Anchorage . . . . . 1300	Los Angeles . . . . . 1400
Athens . . . . . 2400	Madrid . . . . . 2300
Atlanta . . . . . 1700	Manila . . . . . 0600*
Auckland . . . . . 1000*	Mecca . . . . . 0100*
Baghdad . . . . . 0100*	Melbourne . . . . . 0600*
Baltimore . . . . . 1700	Mexico City . . . . . 1600
Bangkok . . . . . 0500*	Milan . . . . . 2300
Beijing . . . . . 0600*	Minneapolis . . . . . 1600
Belfast . . . . . 2200	Montreal . . . . . 1700
Berlin . . . . . 2300	Moscow . . . . . 0100*
Bohemian Grove . . . . . 1400	New Delhi . . . . . 0330*
Bogota . . . . . 1700	New York . . . . . 1700
Bonn . . . . . 2300	Nogales . . . . . 1500
Bombay . . . . . 0330*	Norfolk . . . . . 1700
Boston . . . . . 1700	Oso . . . . . 2300
Bretton Woods . . . . . 1700	Paris . . . . . 2300
Bucharest . . . . . 2400	Philadelphia . . . . . 1700
Buenos Aires . . . . . 1900	Pittsburgh . . . . . 1700
Buffalo . . . . . 1700	Prague . . . . . 2300
Cairo . . . . . 2400	Rangoon . . . . . 0430*
Calcutta . . . . . 0330*	Richmond . . . . . 1700
Caracas . . . . . 1800	Rio de Janeiro . . . . . 1900
Casablanca . . . . . 2200	Rome . . . . . 2300
Chattanooga . . . . . 1700	St. Louis . . . . . 1600
Chicago . . . . . 1600	St. Petersburg . . . . . 0100*
Copenhagen . . . . . 2300	San Francisco . . . . . 1400
Denver . . . . . 1500	Santiago . . . . . 1800
Detroit . . . . . 1700	Sarajevo . . . . . 2300
Dublin . . . . . 2200	Seattle . . . . . 1400
Gdansk . . . . . 2300	Seoul . . . . . 0700*
Guadalajara . . . . . 1600	Shanghai . . . . . 0600*
Havana . . . . . 1700	Singapore . . . . . 0530*
Helsinki . . . . . 2400	Stockholm . . . . . 2300
Ho Chi Minh City . . . . . 0600*	Sydney . . . . . 0800*
Honolulu . . . . . 1200	Teheran . . . . . 0130*
Hong Kong . . . . . 0600*	Tel Aviv . . . . . 2400
Houston . . . . . 1600	Tokyo . . . . . 0700*
Istanbul . . . . . 2400	Toronto . . . . . 1700
Jakarta . . . . . 0500*	Vancouver . . . . . 1400
Jerusalem . . . . . 2400	Vladivostok . . . . . 0800*
Johannesburg . . . . . 2400	Venice . . . . . 2300
Karachi . . . . . 0300*	Warsaw . . . . . 2300
Kennebunkport . . . . . 1700	Washington . . . . . 1700
Kiev . . . . . 2400	Wellington . . . . . 1000*
Khartoum . . . . . 2400	Wiesbaden . . . . . 2300
Lagos . . . . . 2300	Winnipeg . . . . . 1700
Lima . . . . . 1700	Yokohama . . . . . 0700*
Lincoln . . . . . 1600	Yorktown . . . . . 1700
Lisbon . . . . . 2300	

\* Mondays

## Under U.S.-French alliance, NATO gives U.N. the boot

by Edward Spannaus and Mark Burdman

In the days following the July 21 London conference on Bosnia, a number of major developments took place which indicate a new determination and commitment to take decisive action against the Serbian perpetrators of genocide in Bosnia. Among the most significant developments were:

1) The United States Senate passed a bill to lift the arms embargo which has illegally denied the Republic of Bosnia and Hercegovina its right to self-defense since 1991. This followed the action of the Islamic Conference on July 21, which declared the arms embargo against Bosnia to be illegal and invalid, and which called upon U.N. member-states to provide the means of self-defense to that country.

2) NATO and U.S. leaders compelled United Nations Secretary General Boutros Boutros-Ghali to back down and to relinquish his veto over the use of air strikes in Bosnia, and forced Boutros-Ghali to accept the NATO decision to use massive and decisive air power against the Bosnian Serbs, should they continue to threaten Gorazde or other U.N.-designated "safe havens" in Bosnia.

3) The special War Crimes Tribunal dealing with the former Yugoslavia issued indictments and arrest warrants for the top leadership of the Bosnian Serbs, including Radovan Karadzic, Gen. Ratko Mladic, and 22 others. They were charged with a variety of war crimes, from murder and rape, to genocide.

### **The London 'Agreement'**

Although the London Conference arrived at an official understanding that any Serb attack on Gorazde would be met with a "substantial and decisive response" involving the use of air power, the divisions within the meeting were immediately apparent. Most revealing was the fact that the British and the United States held separate press conferences to announce the

results. British Foreign Secretary Malcolm Rifkind gave the official statement from the conference, in which he stated that there had been strong support for the use of air power, but also "great concern" expressed over it, and he stressed a number of times that "no one wishes to use air power."

A second press conference was given by U.S. Secretary of State Warren Christopher, Defense Secretary William Perry, and Joint Chiefs of Staff Chairman Gen. John Shalikashvili. In contrast to Rifkind, Christopher explained that any attack on Gorazde would be met with "substantial and decisive air power," that any air campaign would involve "significant attacks on significant targets," and that there will be "no more pin-prick air strikes." General Shalikashvili noted that an air campaign would involve "a wide range of targets throughout a broad zone of operations."

Christopher also stressed that existing command-and-control arrangements for NATO air strikes "will be significantly adjusted." He further stressed that the taking of hostages by Serbs "will no longer be allowed to prevent the implementation of our policies."

### **The Clinton-Chirac 'Entente'**

What made all this possible was the agreement between President William Clinton and French President Jacques Chirac. This new combination began to immediately reverse the years of toleration and appeasement of Serbian war crimes which was set into motion under former British Prime Minister Margaret Thatcher and former U.S. President George Bush, along with active support from the French government under François Mitterrand.

With the new leadership in France, this has all changed. And, as U.S. statesman Lyndon LaRouche has pointed out, the implications of the Clinton-Chirac agreement against the

British potentially go far beyond Bosnia, and raise the possibility of concerted action toward a reorganization of the world monetary system as well.

In the days leading up to the July 21 London conference, the two leaders were in regular telephone contact, even while Chirac was touring Africa on July 19-23. According to various reports, during one of these communications on July 20, Chirac agreed to the American strategy of massive air strikes against Serbian positions.

On July 25, the French daily *Le Figaro* headlined an article "Chirac-Clinton: Entente Cordiale." The article featured a photograph of the two Presidents, obviously enjoying a discussion together, with the caption: "It is through the Bosnian drama, that the Americans have perceived the first indications of what will be the presidential style of Jacques Chirac." The article stressed that American officials' view of Chirac was, on the whole, favorable, and that "between Jacques Chirac and Bill Clinton, the current has passed"—the latter phrase being more comfortably rendered in American English, "they have hit it off." Chirac's general approach toward policy matters, and "Americanophile" views, are regarded among leading figures in Washington as "a breath of fresh air"; unlike the traditional behavior of most European leaders, he "says exactly what he thinks, with force and firmness."

According to the daily, Chirac and Clinton have achieved the basis of a working relationship, with Clinton promising to combat whatever tendencies there may be toward "isolationism" and abandonment of Europe within the U.S. Congress, and to use his presidential veto against any congressional attempt to slash the U.S. foreign aid bill to pieces. As for Bosnia specifically, the reported American reactions to Chirac's policy are overwhelmingly positive—how "firm" he was when he called the Serbs "terrorists" after they took hostages, how he dressed down Serbian dictator Slobodan Milosevic on the telephone.

British observers have not failed to notice the new trends in Franco-American relations. In an article entitled "U.S. Clarity Eclipses Britain's Caution," London *Independent* diplomatic editor Michael Sheridan wrote on July 22 that "the United States took a clear lead at yesterday's international conference on Bosnia, by putting forward a set of proposals remarkable for their clarity and even-handed in their effect. By contrast, the speech by [British Prime Minister] John Major opening the proceedings, was notable mainly for its generalities. . . . Rarely have the contrasts between detailed American aspirations and adaptable British pragmatism been laid quite so bare as in yesterday's negotiating positions."

Sheridan added that the proposals by Christopher, for firm and decisive action against the Serbs "came close in tone to statements by France. Mr. Christopher's spokesman, Nicholas Burns, went out of his way to voice 'great admiration' for the ideas and leadership provided, he said, by the French government. Suitably impressed, French ministers decided not to insist on their plan to airlift reinforcements

into Gorazde."

Sheridan's reading, based on the London meeting, was confirmed by an informed Russian strategist, who usually has a reliable reading on the thinking among British elites. He said, "The British didn't expect that the Americans and French could unite in the way they did."

## NATO takes control

While officially professing agreement with the United States and France, the British embarked on an immediate campaign to sabotage the London agreement. This was most evident in the behavior of London's stooge, U.N. Secretary General Boutros-Ghali, who, along with his flunkey, U.N. Special Envoy Yasushi Akashi, adamantly insisted after the London meeting that they would not give up their "dual key" authority to veto air strikes. U.S. spokesmen were equally insistent that the London meeting had agreed that the "dual key" arrangement must be changed, so that only the U.N. military commanders on the ground—not the civilians—would be involved in the decision-making over air strikes.

This decision was reaffirmed in the NATO planning meetings which followed the London conference. In a remarkable briefing on July 26 at the U.S. State Department, Assistant Secretary of State Richard Holbrooke reported that Christopher and NATO Secretary General Willy Claes had both spoken to Boutros-Ghali a number of times earlier that day, and that Christopher wanted "to make sure that he [Boutros-Ghali] understands the severity and importance of these decisions, and their absolute irreversibility from the point of view of the United States and our NATO allies."

Holbrooke was asked if this were a *fait accompli* by NATO on the command-and-control arrangements, or whether the United States was asking for Boutros-Ghali's agreement. "We're informing him of the NATO decision," Holbrooke said bluntly. When reporters pressed Holbrooke for clarification, and whether NATO would go ahead with the air-strike plan regardless of what Boutros-Ghali has to say, Holbrooke responded that "it's inconceivable to me that this decision can be misunderstood, and let's wait for Boutros-Ghali to make his formal announcement. He understands what the decision was."

Holbrooke made it clear that the U.N. structure was being shunted aside. "This is the NATO decision," he declared. "The United States and its NATO allies have made this decision; this is the rules of engagement under which we believe we must operate, and that is how it's going to be."

Suggestive of the new arrangement was the air strike which France reportedly conducted against Bosnian Serb headquarters in Pale on July 23. French officials denied it, but their defense minister said that such a raid "would have been an appropriate response to the logic of war chosen by the Serbs." An unnamed senior U.S. official was quoted saying: "Officially, we're appalled that they didn't coordinate it. . . . Unofficially, we think it's wonderful."

# A 'second Chiapas' brews in Guerrero

by Carlos Méndez

The opening of a second terrorist front on the part of the "Zapatista" apparatus appears to be in the cards, this time in the state of Guerrero, where drug trafficking, armed gangs, and indigenist-separatist organizations have been endemic since the end of the insurgency of Lucio Cabañas at the end of the 1960s and beginning of the 1970s. The reactivation of a terrorist front in Guerrero, where the Acapulco resort town is located, would also have the strategic impact of causing a huge drop in revenues from the tourist trade, the second largest source of hard currency for Mexico, after oil.

Ever since the showdown on June 28 in this state between police and members of the "Peasant Organization of the Southern Sierra" (OCSS), when 17 people died, Cuauhtémoc Cárdenas, the leader of the opposition PRD party, has personally taken charge of the campaign of demonstrations and protests to force the resignation of the governor of Guerrero, Rubén Figueroa. Cárdenas is a formal ally of the Zapatista National Liberation Army (EZLN) which staged the January 1994 armed insurrection in Chiapas, and Figueroa is a member of the PRI, the ruling Revolutionary Institutional Party of Mexico, which the insurgents have failed to unseat at the polls and are determined to overthrow by violence. Two federal congressmen from the PRD are staging a hunger strike in Mexico City to force Figueroa to step down. On July 11, the leader and co-founder of OCSS, Benigno Guzmán Martínez, who had been in hiding, suddenly turned up at the PRD offices in Mexico City, where he gave a press conference attacking the governor of Guerrero.

## International backup

Just as occurred with the EZLN, the joint PRD-OCSS actions have drawn immediate international attention and support. On July 14, the press reported that the political affairs secretary of the U.S. Embassy in Mexico, Joseph Manso, had gone to Guerrero to "independently" investigate events. After interviewing the two chairmen of the PRD in Guerrero, the diplomat said that the information gathered by the embassy will be sent to the State Department and could be used "for a report on Human Rights which my government publishes."

Manso told journalists that he was not interested in meet-

ing with the elected governor of Guerrero.

Two days later, on July 16, the *Washington Post* published an article quoting one of the OCSS leaders, José Ascencio, who told the reporter that "we are happy that the [Chiapas] folks are defending themselves. . . . If they keep on massacring our activists, it could force the peasants to defend themselves in other ways." The daily reported that another member of the OCSS stated that "a man is formed by the events of his environment. Lucio [Cabañas] did not choose the path of violence. He did it because of what [the government] did to its population."

It should not be forgotten that on June 17, in the London *Sunday Telegraph*, British intelligence spokesman Ambrose Evans-Pritchard published an article attacking Mexican President Ernesto Zedillo and "predicting" a new wave of destabilization.

One of the main bases which the narco-terrorist Shining Path of Peru has in Mexico is Chilpancingo, capital of Guerrero state. The Peruvian Camilo Valqui, identified as the chief of operations for Shining Path in Mexico, has been based at the University of Guerrero in Chilpancingo for some years. The university has long been a haven for the "former" Communist Party of Mexico, in which OCSS boss Benigno Guzmán used to be an activist; later it renamed itself Unified Socialist Party of Mexico, and now it is integrated into Cárdenas's PRD. Many of the current EZLN defenders used to publicly support Shining Path—for example, the Route 100 trade union and its controller group, the Independent Proletarian Movement.

## The OCSS and PRD

The pro-Zapatista magazine *Proceso* recounted the history of the OCSS in its July 10 issue. On Feb. 14, 1994, a group of peasant leaders met to set up the OCSS, which was officially founded on March 19-20, 1994—less than three months after the Chiapas uprising. They invoked the late guerrilla chieftain Lucio Cabañas as one of their ideologues.

*Proceso* described the OCSS's maximum leader: "Formerly an activist in the left, from the Mexican Communist Party, Benigno Guzmán Martínez and other leaders left the PRD, due to the lack of support for their demands. . . . Since its inception, the organization has used methods of struggle described as radical by the PRDers themselves. . . . Some of their militants are relatives of the people who disappeared during the Lucio Cabañas guerrilla years."

## Time bomb in Guerrero

On July 20, the president of the National Defense Committee in the lower house of Mexico's Congress, Gen. Luis Garfias Magaña (ret.), warned that in Guerrero "it is necessary to investigate the possession of weapons, to prevent guerrilla surprises from breaking out like the one in Chiapas, because there is the risk that a new armed group may erupt



which could be more dangerous than the one in Chiapas.” He pointed out that the state borders other states where the violence could spread, such as Oaxaca and Michoacán.

Already a year ago, on June 1, 1994, the daily *El Financiero* reported that Memorandum 6454 from the defense secretary to the interior secretary, Jorge Carpizo, dated Feb. 8, 1994, communicated that information had been received that a “near-term shipment of 2,000 AK-47 rifles” would be dispatched from the United States “with the state of Guerrero as its destination,” where “some facts have been manifested which allow us to presume the possibility that drug trafficking and general criminal activities may get mixed up with a subversion in the making.”

On July 20, Marcelino Díaz de Jesús, one of the leaders of the Guerrero 500 Years of Indigenous Resistance Council, said, according to *La Jornada* on July 21, that “if institutionalized violence in Guerrero is not restrained and the state of law reestablished, many peasants and indigenous may go underground, the guerrilla groups may come back to life and a new armed uprising begin. The government of Rubén Figueroa is bringing us to the brink of this. He has to straighten himself out. . . . We are one step away from widespread violence breaking out and groups going underground.”

Governor Figueroa says, according to *Proceso*, that there are “many indications” that OCSS is tied to the Underground Revolutionary Party Union of the People-Party of the Poor, which goes by the unwieldy acronym Procup-PDLP. On July 20, this clandestine front averred that if “the aggression against the people of Guerrero” continues, they will respond militarily. Interviewed by *El Financiero* on July 21, Procup-PDLP leader David Cabañas Barrientos declared that the political and police climate in Guerrero is “more acute than when Lucio Cabañas”—his brother—“rose up in arms.” He bragged that there are in Guerrero “thousands of activists in our parties ready to respond to Figueroa’s aggression, to the assassination of peasants.” Another Procup spokesman, Felipe Canseco Ruiz, reiterated that the social and political conditions in the state “are more favorable today for an armed outbreak than when Lucio Cabañas went up into the mountains.”

Both denied that Procup-PLDP had kidnapped the businessman Jorge Sekiguchi and the prominent banker Alfredo Harp Helz in 1994. But an *El Financiero* journalist, Miguel Badillo, had written on July 17 that “reports from National Security itself, obtained exclusively by *El Financiero*,” indicate that the authorities had located the kidnappers, which they identified as Procup-PDLP, in June 1994, but that then-President Carlos Salinas de Gortari “did not allow the capture of the kidnappers, nor the recovery of the ransom of \$17 million paid for freeing Harp Helz . . . because it was politically inconvenient to make noise about the existence of guerrilla warfare two months before the presidential election.”

---

## Germany

---

# Euthanasia comes one step closer

by Jutta Dinkermann

*The author is a member of the federal executive committee of the Club of Life of the Federal Republic of Germany. Her commentary on a recent far-reaching legal victory for the death lobby was published in May in the newspaper Neue Solidarität, and was translated from German by Nora Hamerman.*

The recent acquittal in the so-called Kempten “death help” trial corresponds totally to a ruling of the German Supreme Court, which laid out the basis for a complete legalization of euthanasia in Germany in a groundbreaking decision handed down in September 1994.

The following is the background to the verdict. In March 1994, the son of a Mrs. Schwarza, who was in a hospital in Kempten, Germany, and the doctor who was treating her, were convicted of attempted homicide in a courtroom of the state court in Kempten, and were sentenced to pay a fine, because they had attempted to interrupt the artificial feeding of Mrs. Schwarza, who was in a coma. Nursing home personnel had prevented this, and reported the men; the woman died, months later, of pneumonia.

The German high court quashed the verdict, and sent the case back to the state court for a new hearing. Until now, in Germany, it was usually at least considered, that the immediate onset of death must have begun before a sick person’s life-support measures could be turned off. This assumption no longer has to be taken into account in the wake of the Supreme Court decision. What is decisive now, is the “presumed intention” of the patient.

But in the aforementioned case, no adequate evidence of the “presumed intention” of the patient was submitted, and so the Supreme Court went so far as to admonish the state court that it would have to examine whether “there had been present, over and above the presently known, insufficient conditions—at least from the standpoint of the accused—further decisive facts for a presumed consent by Mrs. Schwarza.”

Whereas the son, in the first trial, had only indicated a single alleged expression in this respect by his mother in the middle of the 1980s (she had commented on a film about a difficult medical case, that she did not want to end “that way”), in the second trial he suddenly came up with numer-

ous friends and acquaintances, all of whom testified that the mother had also voiced such sentiments to them.

### **'Life worth living'**

The reason why the state court tolerated this transparent maneuver can be traced right back to the wording of the federal court's ruling. The written opinion explicitly illustrated what to do when the "presumed intention" of a patient cannot be ascertained:

"If, even with the required careful investigation, concrete particulars for the establishment of the individual's presumed intention cannot be found, then criteria can and must be referred back to, which correspond to general conceptions of value. . . . The less the recovery of what is generally conceived to be a life humanly worth living is expected . . . the more an interruption of treatment appears to be defensible."

The invoking of this monstrous argument, "general conceptions of value," about a "life humanly worth living" as the deciding criterion for life and death, was also used in the plea argued by Klaus Ulsenheimer, a professor of criminal law at the University of Munich and the lawyer for the doctor at the Kempten trial. For a long time, Ulsenheimer said, it has been the "reigning dogma" in Germany, that the interruption of treatment would be possible in the case of "irreversible unconsciousness."

This juridical "reigning dogma," however, ignores the fact that precisely in the case of coma patients, the evidence of "irreversible unconsciousness" is highly prolematic and, for the most part, false.

Already today, coma patients and brain-damaged patients are the German patient group which suffers from the most prejudice. Every year in Germany, thousands of people with serious head injuries become coma patients. For the most part, so far, immediately after being released from intensive care units, they are hospitalized in nursing homes and hospitals, psychiatric units, or, in some cases, are lodged with completely overburdened relatives.

### **Coma patients targets of opportunity**

With only 250 hospital beds allocated in 1993 for the further direct treatment of coma patients in Germany, it is easy to prove that countless such patients—exactly like Mrs. Schwarza—are denied the slightest chance of rehabilitation. To label such people from here on out as "irreversibly unconscious" and incurable, is not only inhuman, but simply not up to date with the latest scientific knowledge. Only after the end of an intensive treatment therapy, which may last many weeks, months, or even years, can it be surmised whether a patient will remain in that situation. Nevertheless, up to one-fourth of the patients with suitable treatment can be reincorporated back into their former jobs, and a further one-third can be restored to their families after what is, often, enormous improvement.

It is no accident that coma patients, in every country where the practice of euthanasia is on the forward march, should be the first victims. It is not only the high costs of treatment, but the absolute "worthlessness" (in financial terms) of the victims, the length of the treatment, and the uncertain outcome of the illness that make them so "attractive" for this purpose. It can be easily suggested to the population, moreover, that this is just a matter of "human shells in a permanently vegetative state" or whatever other nonsense is asserted. Once the killing of coma patients is accepted as "human," then, step by step, the other, less seriously ill patient groups will be targeted.

It is also no accident that in its verdict, the German Supreme Court widened the patient groups threatened by euthanasia to all those who do not match up to the "general conception of values" regarding a "life humanly worth living." For there is a whole series of grave, and often incurable, diseases which do not lead straight to death, and which require a lengthy, intensive, and expensive treatment.

### **The Club of Life warning**

The Club of Life already warned some years ago, in an appeal endorsed by leading figures inside and outside Germany, that in reality, behind the euthanasia campaign there is not truly any respect for the will of the afflicted, but rather brutal concern for costs. In the light of the economic crisis and the stark austerity measures being taken in health care, today—as once before in Germany—old and sick people are supposed to be shunted aside as "useless eaters."

But something else must be added. Euthanasia should, normally, run up against a determined resistance in the population, if a sharp diminishing of all respect for human life had not all too frequently been allowed to set in. And only too often, the challenge of genuine compassion at the sickbed is experienced as an unreasonable demand and threat against one's own superficiality and interests. Today, even from the organized medical profession no decisive opposition can be expected, because professional medical ethics themselves have not been spared the effects of the "spirit of the times."

One does not need to be a clairvoyant to be able to foresee that in a few years in Germany the same conditions will rule as in neighboring Netherlands, where thousands of people are killed against their will every year and even mentally ill patients have been granted the presumed "right to die." Thousands of Netherlanders, beset by anxiety over this fate, carry a declaration around with them in order to expressly announce that they reject being killed by euthanasia.

The times in which the euthanasia abominations of the Nazis in Germany still acted as a deterrent are past. Whoever still attempts to deny this, after the acquittal in the state court in Kempten, is either a fool or an ignorant person, who is trying to avoid responsibility.

# A farce is passed off as elections

by Haik Babookhanian

*Mr. Babookhanian is a leader of the Union of Constitutional Rights in Armenia, a member of Yerevan's city council, and a newspaper editor. Subheads have been added.*

The fact that elections in Armenia will not reflect the will and desires of the people, became clear already on Dec. 28 of last year, when as a New Year's present, the President appeared on television, and ominously announced that the most popular party in Armenia, the Armenian Revolutionary Federation-Dashnaktsyutyun, was involved with terrorism, drug trafficking, and espionage. On that day, by illegal presidential ukase, Dashnak was shut down. The 105-year-old organization's headquarters was turned upside-down, the most popular newspapers and magazines were closed, as was its printing house. Then came arrests and interrogations. Within a month, the central headquarters of another opposition party, the Union for Constitutional Rights, and the editorial offices of its newspaper, *Iravunk*, were shut down. A heavy atmosphere of repression hung over society. The official press and state radio and television (there is, essentially, no other radio and television) smeared the opposition, while the latter had effectively no access to the mass media.

The wave of repression was growing. In April, deputies of the Supreme Soviet from the opposition party were beaten, and although the attackers were well known, they absolutely were not held responsible. With the same ease, the organizers and participants in robbery attacks against the lawyers of four arrested members of Dashnak have survived with impunity.

In May, unidentified persons broke up a sit-in demonstration of relatives of the arrested Dashnaks, who were protesting against their being tortured in prison, from which, evidently, one of those detained had died.

Simultaneously, the Supreme Soviet adopted a new election law in which, under pressure from the quasi-mafia industrial-management elite, the unprofessional character of the future Parliament was predetermined, as well as the mechanisms for selecting the Central Electoral Commission, in which 17 of its 23 members turned out to be representatives of the ruling clique. Amendments to the Law on Refer-

endums were also adopted, changing the required quorum from 50% to 33%.

With such legislation and such an atmosphere in society, Armenia approached the start of the election campaign, in the course of which the excesses of the authorities and hysteria of the mass media reached its apogee.

## Parties' registration rejected

There were several dozen unregistered opposition political activists, while three political parties were barred from the elections, along with the most influential electoral bloc of four parties—the “National Union-Federation,” headed by the nationally popular political activist in the country, Hrant Khachatryan (chairman of the Union for Constitutional Rights).

The Central Electoral Commission refusal to register was motivated by the supposed submission of forged signatures; however, documented proof of these accusations could not be presented. Regardless of the fact that the electoral bloc “National Union” is a political foe of the ruling clique, there is evidence that a special session of the Security Council of Armenia was devoted to this question. The unregistered bloc appealed to the courts, which by law had to review the complaint within three days; however, the first session of the court took place—almost a month after the elections, and there still has been no decision. According to the testimony of members of the CEC in court, they decided on the validity of the signatures by just looking at them!

Thus, with the ARF-Dashnak, the “Constitutional Union” bloc, and three opposition parties not taking part in the elections, the people were deprived of a real choice.

There was another, deeper reason for the refusal to register Hrant Khachatryan's bloc. By law, the bloc had four representatives in each electoral commission. Then, all the opposition parties together would have had 12 representatives on the commissions, against 9 pro-government ones, opponents, who would have guaranteed honest elections. After the registration refusal, the correlation shifted, so as to practically guarantee a victory for the ruling circles.

## State terrorism against opposition

The closer July 5 drew, the stronger became the illegal and crude pressure on the opposition. Members of electoral commissions were openly beaten up, as were proxies, and things went as far as disappearances. Dismissal from work was the lightest form of pressure. In worse cases, candidates, their surrogates, or their relatives were attacked at the police station or the prosecutor's offices, where they faced demands to drop the candidacy, or expect unpleasant consequences.

Finally, state terrorism finished with an armed attack against a peaceful opposition demonstration on June 11. On that day, in the very center of Yerevan, nearly 300 drunken young toughs—some of whom were members of the police,

Army, or KGB, disguised as civilians, and others of whom were representatives of illegal armed detachments of the ruling clique, under the leadership of well-known mafiosi, who occupy important state offices—attacked the demonstrators. The attackers were armed with nightsticks, rocks, and—as was later established—pistols and automatic weapons, with which they opened fire on the demonstrators. Several opposition Supreme Soviet deputies were severely beaten, and a newspaper editor and several people wound up in the hospital. According to eyewitness accounts, the “operation” was led by the deputy minister of defense. All this not only had no consequences for the attackers, but even led to a criminal case against the opposition leaders.

The show of crude force and the creation of oppressive circumstances of terror in society were accompanied by mass media brainwashing of the electorate. Radio and television literally nagged people to death with praise for the ruling party and its draft constitution. The official Supreme Soviet newspaper ecstatically published secret state documents in order to “expose” an opposition leader. Better- or lesser-known figures of culture and science who know as much about the constitution and politics as they do about rocket construction, were recruited to the cause of demonstrating “universal approval” of the ruling party.

It was left to the President to dot the last “i”; in accordance with recent tradition, his statement was rebroadcast on the day before the elections.

The head of state, blaming the opposition for all sins, depicted the terrible nightmare which has awaited the people in the event of an opposition victory. If the current forces remained in power and, even better, their draft constitution were adopted, Armenia in several months would become a flourishing island of contentment and carefree life.

### **Vote-buying is widespread**

The ruling circle has also used the old method of buying votes. Hungry and exhausted voters had bribes bestowed on them by generous candidates, beginning with \$10 for one vote, all the way to constructing water mains and paving streets. The showering of voters with money from the half-state, half-criminal horn of plenty continued on election day, when all day long, cars ferried “their” voters to the polls, picking them up and dropping them off under close control.

On July 5 the happy partying began, which at night turned into a bacchanalia. Drunken crowds of a criminal nature roamed through the city, gathering near the centers of election districts and celebrating their victory even before the votes were counted. The whole motley crowd was busy with destruction: They beat up the surrogates of other candidates, as well as passersby they didn’t like, and ransacked shops. As always, the crowd was led by state employees, and the police stayed away from the epicenters of events.

Of course, there were some electoral districts free of

violations, but this was a rare exception. The enumeration of all the violations would require writing a multi-volume whodunit.

### **Results of the ‘elections’**

Naturally, after all the aforesaid, the results of the “elections” look as follows: In the party slate part of the elections, 40 places in Parliament were distributed to 5 parties. The ruling bloc took 20 seats. Eight places went to the women’s party, which had been created several days before the election and consisted of wives of government ministers, their secretaries, restaurant singers, and so forth. The communists received 6 seats, while 8 seats went to the National Self-Determination Union and the National Democratic Union.

In the single seat part of the elections, out of 150 mandates, 124 have already been determined; in the remaining districts, there will be runoff elections. Out of those already elected, on the order of 90% are representatives of the ruling bloc. On the whole, these are party functionaries, leaders of local governments, enterprise directors, state bureaucrats, workers on the President’s staff, government ministers.

As for the results of the referendum on the constitution, they were published in the government newspaper even before the votes were finished being counted from electoral precincts. Under a law adopted immediately before the referendum, it could be affirmed, though it received, even according to official data, only 37.8% of the votes of the electorate.

Immediately after the elections, the representatives of 10 opposition parties held a press conference. The elections were called a farce, and they spoke about the establishment in the country of brute state-force, which controls all processes. The constitution itself has already established an authoritarian regime. In the opinion of the opposition, the people voted against the new constitution, and thus against the ruling regime.

Even according to official data, in the capital only 6% voted for the constitution. The problem was that the constitution *had* to pass, otherwise the President had announced he would resign. In order to push the referendum through, in violation of the law, the time for voting was extended. The number of voters who had registered before the elections suddenly decreased to 4% when the results were tallied. In the opinion of the opposition, the number of votes “for” the constitution was doubled.

The opposition has sued the Central Electoral Commission in court, for falsifying the results of the constitutional referendum and the elections.

Thus for Armenia, after the post-communist flash of democracy, everything is returning to the customary totalitarianism, with the only difference being that in the communist Parliament, there were no deputies with thieves’ nicknames, and in the new one there are several.

## Samper on the take

*It's confirmed that the Cali Cartel did finance Samper Pizano's 1994 presidential campaign.*

**S**antiago Medina, an antique dealer who in 1994 served as treasurer to the electoral campaign that made Ernesto Samper Pizano the President of Colombia, was unable to explain to the Prosecutor General's office why he accepted a \$47,000 check to the campaign which was never registered in the official accounting books of the presidential campaign. Medina's sudden lapse occurred while testifying before the Prosecutor General's office on July 17, as part of an investigation into the multimillion-dollar donations made by the Cali narcotics cartel to a variety of prominent personalities.

The check was drawn on the account of the company La Estrella Ltda., which turns out to have been a front for the Cali Cartel created on Jan. 12, 1994 and dissolved on Aug. 9, 1994, two days after Samper's inauguration. On Jan. 12, 1994, the cartel also created two other companies, La Loma and El Diamante. The three companies, combined, paid out some \$18.5 million, according to accounts that fell into the hands of the Prosecutor's office, to scores of prominent individuals, including eight congressmen who have already been accused before the Colombian Supreme Court of "illicit enrichment," Comptroller General David Turbay Turbay, and Attorney General Orlando Vásquez Velázquez. The latter officials were immediately responsible for overseeing the legality of all actions, or omissions, by public officials, and all related state expenditures.

When the check was shown to Medina, he stammered the "explanation"

that the check had been collected and deposited in Cali by the campaign committee of that city, and that is why it never showed up in the campaign's books. This, despite the fact that the check was made out to Medina personally, and not to the Samper campaign! Nor was Medina able to explain why the check did not pass through the Samper campaign's ethics committee, which was supposedly set up to protect against the infiltration of drug money into the campaign. "This is the first legal evidence of double accounting by the campaign, and of effective infiltration of mafia money," wrote the newspaper *El Tiempo*.

Prosecutor Alfonso Valdivieso Sarmiento, who from the beginning of his appointment has tried to fight the drug trade and political corruption without besmirching the Presidency itself, was upset over the leak to the press of Medina's interrogation. The fact is, that Valdivieso is sitting atop a mountain of evidence, which, if fully revealed, could cause a revolution in Colombia. At any moment, that mountain could become an active volcano.

For example, it has just been revealed that during a raid on one of the apartments belonging to fugitive cartel leader Miguel Rodríguez Orejuela, two accounting books were discovered containing the names of 2,800 individuals who had received the sum of \$16 million from the Cali Cartel between January and May 1994. Although the majority of these beneficiaries are identified by code, it is clear that the bribes went to journal-

ists, politicians, bankers, and even employees of the Attorney General's and Prosecutor's offices.

A book was also found containing all the intelligence-gathering efforts of the Rodríguez brothers, including detailed reports of raids that were to be carried out by the special joint army-police "Search Squad," and confidential memorandums that the U.S. and Colombian Prosecutors' offices had issued on cartel investigations.

According to the daily *El Tiempo*, the book was analyzed by the CIA, which concluded that the cartel's intelligence network was comparable "to the early days of the postwar Soviet KGB."

Former Prosecutor Gustavo de Greiff, currently Colombian ambassador to Mexico and an ardent defender of drug legalization, had hurriedly absolved President Samper in July 1994, after the press published transcripts of scandalous cassette tapes in which the Rodríguez brothers negotiated the best means of providing multimillion-dollar donations to the Samper campaign.

After learning of the \$47,000 narco-check, former Justice Minister Enrique Parejo González, who himself barely survived a 1987 assassination attempt by the drug mafia, demanded the reopening of the "narcocassette" investigation. In a letter to Valdivieso dated July 24, Parejo warned that "if the prosecutor doesn't reopen the investigation, he will not only be breaking his word, but will be engaging in corruption."

Perhaps most ironic, is the fact that, due to enormous national and international pressure, it has fallen to President Samper to deliver what could prove to be fatal blows to his old allies. And yet with all these anti-drug "successes" to tuck under his belt, Samper has been unable to erase the fact of his own relationship with Dope, Inc.

# International Intelligence

---

## *Farmers end protest in Brasilia*

Thousands of Brazilian farmers who participated in the "We Can't Plant" march in Brasilia left the Brazilian capital with their trucks and tractors on July 24. They decided to end the protest peacefully after they had made their point, and before it could be subject to provocations orchestrated by the "Landless" peasant movement, controlled by the pro-Cuban Brazilian Workers Party of Luis Inacio ("Lula") da Silva.

According to press accounts, Lula's "Landless" group arrived as soon as the farmers left, with a list of 1,277 names of farmers who are in arrears with the Banco do Brasil, demanding that their farms be foreclosed and their lands distributed to "landless" peasants. This program coincides perfectly with that of the bankers. The "Landless" movement has been staging illegal land-occupations all over Brazil for some time now.

---

## *Prince Philip in Russia to push backwardness*

In Moscow on July 19, Britain's Prince Philip gave a press conference together with Russian Environment Minister Viktor Danilov-Danilyan to detail plans for Russia for the World Wide Fund for Nature (WWF). The contents were extensively reported by Mexico's *Siempre* magazine on July 21.

Harping, as usual, on his theme of opposing economic development and population growth in the name of so-called "ecology," the fabulously rich Prince Philip lamented that only some "\$12 billion are probably being spent worldwide on conservation," complaining that "that compares with something like \$50 or \$60 billion that are going into development. So, it's still a very small proportion." This situation is changing, however, he said: "We are now getting a great deal of support from international agencies, from governments, from

development agencies."

The royal consort pointed out that the WWF agenda is based on a study they commissioned in 1993 titled "Conserving Russia's Biological Diversity: An Analytical Framework and Initial Investment Portfolio." This study led to the creation of 14 WWF projects in Russia and, according to Prince Philip, its "first priority is to help Russia enlarge and develop its existing network of reserves and protected areas and to identify further sensitive areas that need protection." This is a tall order since, according to Russian Environment Minister Danilov-Danilyan, Russia already has 8 million square kilometers as protected areas (more than any other country in the world).

---

## *Haitian vote tainted, Carter spokesman admits*

The Carter Center in Atlanta, Georgia issued a report authored by Robert Pastor, saying that the recent parliamentary and municipal elections in Haiti were riddled with fraud, and warns the Clinton administration not to back a series of reruns and runoffs that most of Haiti's political parties are threatening to boycott. According to the *New York Times* on July 21, Pastor's report charges that the government of Jean-Bertrand Aristide failed to seal ballot boxes and that the election commission "stiff-armed" parties that complained about the vote. Aristide's Lavalas party claimed an overwhelming victory in the elections. Pastor says: "Of the 13 elections that I have observed, the June 25 Haitian elections were the most disastrous technically with the most insecure count." He adds: "I personally witnessed the tainting of about one-third of all ballots in Port-au-Prince."

Pastor is urging that the election commission be revamped and differences resolved between Lavalas and the opposition. He warns that it would be disastrous for Aristide to move ahead with runoffs and reruns when most of the 28 parties that participated in the first round are already so disgruntled, that they will boycott any new

vote. He says that if the complaints aren't addressed, then "Haiti's whole experiment in democracy is not going forward."

This could disrupt the British gameplan for Aristide to extend his presidential mandate past the expiration of his term next February. Lawrence Pezzullo, who was special adviser to the Clinton administration on Haiti while Aristide was exiled in Washington, wrote a commentary for the July 20 *Washington Post*, warning that the fraudulent elections will further divide Haiti and send it back "into its tradition of a one-party state."

---

## *Peruvian columnist rips U.N. for Bosnia crimes*

Influential Peruvian columnist Patricio Ricketts Rey de Castro denounced the United Nations' betrayal of Bosnia, in the July 19 issue of the daily *Expreso*. "While its bureaucracy celebrated half a century of golden inactivity, the United Nations just perpetrated another vile act against martyred Bosnia. Two years ago, on May 8, 1993, the blue helmets disarmed the Bosnian fighters who were committed to defending the people and the territory of Srebrenica, and promised, in exchange, that the U.N.'s 'peacekeeping' troops would protect those people," wrote Ricketts. "What has happened? After a week of attacks, Srebrenica has fallen into the hands of the Serbs. Some 60,000 Bosnians will suffer the same fate of the previous 250,000 victims of the new genocide: mass murder and organized savagery, in plain sight of the international community, which remains cynically indifferent." He said: "That's the 'new world order' of [U.N. Secretary General Boutros] Boutros-Ghali and his hardened bureaucracy, who have been charged with being accomplices of the genocide by Bosnia's ambassador to the U.S., Nedzib Sacirbey."

Ricketts added: "The ambassador fell short. Unlike the Czechs [in 1938], the Bosnians were not only handed over, they were shackled, fooled, and exchanged: Innocent civilians for little toy soldiers! In the old

## Briefly

● **EVERY SIXTH** family in Russia is affected by addiction to illegal drugs, *Ekho Moskvy* reported on July 16. Experts from the Institute for Social and Political Research of the Academy of Sciences said the highest concentrations of addicts are found in port cities and regions where illegal drugs are grown.

● **SRI LANKA'S** police on July 21 detained a U.S. citizen, Kenneth Mulder, who was trying to cross into an area controlled by Tamil Tiger separatists, according to an AP wire. They also questioned an Anglican bishop. Investigations have linked the Tamil Tigers to the murder of Indian Prime Minister Rajiv Gandhi.

● **'ETHNIC CLEANSING'** was the term used by Israeli Communications, Science and Technology Minister Shulamit Aloni to describe what some Jewish settlers are doing against Palestinians. She spoke on Israeli television on July 23.

● **RYOICHI SASAKAWA**, one of the most notorious war criminals in Japan, died at 96 on July 19. He was the patron of "peace" foundations bearing his name in several countries. His career included selling defective goods to the Japanese Army and looting occupied Manchuria during World War II. He called himself the "world's wealthiest fascist."

● **THE MEXICAN** magazine *Siempre* interviewed Congressmen Walter León Montoya and Ali Cancino Herrera of Chiapas about their recent tour of Europe. The article reports on the terrorist attack on the Paris offices of the Schiller Institute by more than 20 hooded people, during their conference there.

● **INDIA AND CHINA** are talking about fighting financial crimes jointly. Indian Home Minister S.B. Chavan was in China for one week in July, then signed a draft memorandum of understanding on bilateral cooperation in tackling fiscal offenses, money laundering, narcotics, and other crimes which endanger security.

days . . . at least complicit cowardice had the pretext of the lesser of two evils. Today, it is a pure and nasty disregard for life and man, while the pharisees sing the praises of peace and human rights."

The columnist—a former minister of education of Peru, who has signed a letter appealing to President Clinton to exonerate Lyndon LaRouche—cites the pope's condemnation of the Bosnian genocide and Prof. Francis Boyle's dismissal of the U.N. as a useless institution. Under the U.N., genocide has been committed not only in Bosnia, but in Rwanda and elsewhere in Africa. "No one gives a damn. You don't hear the loud voices which decades ago condemned totalitarianism. As for Boutros-Ghali, one cannot distract him: his entire being is committed to the promotion of abortion and one-worldism."

### **Lordy! Same Brit turns up all over Eurasia**

Lord Avebury, the chairman of the British Parliamentary Human Rights Committee, is the top British official proposing the creation of an independent Kashmir carved out of Pakistan and India. The Kashmiri independence movement justifies this independence on Islamic religious grounds; many of their leaders were trained as terrorists by western agencies in Pakistan, during the Afghan civil war.

In a March issue of the British-based flagship publication of the Kashmiri independence movement, *Kashmir Report*, Lord Avebury also called for self-determination for Chechnya. "We have to move forward, recognizing that in 1995, people cannot be governed without their consent, whether in Namibia, Eritrea, Poland, Bahrain, or Chechnya." An independent Chechnya had been supported by the British since even before the Crimean War (1853). The overseer of the revolt then was David Urquhart, later the controller of Karl Marx. These British networks are the basis for the revolt today. In the same article, he compares Indian policy in Kashmir to what

would have occurred if "Britain had been invaded in 1940" by the Nazis and successfully occupied.

Noteworthy in this regard: Chechen field commander Shamil Basayev, who led the terrorist raid on the southern Russian town of Budyonnovsk, was trained in Pakistan, according to a spokesman for the prosecutor's office in the Stavropol region. The story appeared in *The Hindu* (New Delhi) on July 19, with a Moscow dateline.

### **Christian Democratic Union founded in Italy**

Leading former members of the Italian PPI party have founded a Christian Democratic Union, with the aim of achieving hegemony on the country's political scene.

The new CDU party is heir to one of the two factions into which the PPI (formerly the Christian Democratic Party) split last spring. Rocco Buttiglione, the former PPI secretary general, will become secretary general of the CDU.

The name CDU has been chosen to stress the alliance with the German CDU; this was also indicated by a support telegram sent by Chancellor Helmut Kohl to the Italian CDU congress. The other major sponsor of Buttiglione's CDU is the Vatican secretary of state.

In his speech to the congress, Buttiglione indicated that the CDU will follow in the footsteps of Alcide De Gasperi, founder of the Italian Christian Democratic Party and prime minister during the post-World War II reconstruction years.

In a guest editorial published by the daily *La Repubblica*, another CDU leader, Roberto Formigoni, explained that the new party is looking toward winning over the large mass of voters who moved from the old Christian Democracy to Silvio Berlusconi's Forza Italia party in 1994.

Recently, Buttiglione has promoted a pro-growth economic policy for job creation in high-technology, large infrastructural projects, and has criticized the present Dini government for its tight-budget policy.

# Battle over Medicare at center of 1996 election

by Nancy Spannaus

Taking advantage of the fact that July 30 marks the 30th anniversary of the introduction of Medicare, the health safety net for senior citizens, President William Clinton and the Democratic leadership of both houses have declared an all-out political fight to save the program, from the more than \$250 billion in cuts contained in the Republican budget. In ceremonies held on Capitol Hill on July 25, and to be amplified in Independence, Missouri on July 30, Democratic congressmen and administration officials cited the federal commitment to Medicare as the crucial dividing line between the Democratic and Republican party agendas.

In this case, it's not just rhetoric. The issue of a federal government commitment to provide health care for the elderly through the Medicare and Medicaid programs, is a fundamental fault line dividing the adherents of House Speaker Newt Gingrich (R-Ga.) and Sen. Phil Gramm's (R-Tex.) Conservative Revolution team, who want to dismantle government for the benefit of greedy private interests, from those Democrats and Republicans who understand the constitutional responsibility of government to care for the population.

Thus, Medicare is likely to be *the* crucial domestic issue of the 1996 federal election campaign. It has already become clear to many senior citizens, who like the general idea of reducing government, that the "reforms" of Medicare and Medicaid being proposed in the Republican budget plan, are going to vastly reduce their medical care. This will be either through forcing hospitals into bankruptcy, through lowered payments, or through increased payments required from the elderly themselves. Given that the elderly are well-organized into national groups like the American Association of Retired Persons, they are likely to mobilize energetically.

It is useful to recall that it was the last-minute mobilization by senior citizens against Oliver North, who had mooted the possibility of privatizing Social Security, that ensured

that Conservative Revolution demagogue's defeat in the 1994 Virginia race for U.S. Senate. Clearly, some in the Democratic camp are hoping for the same effect in the elections to come.

## Medicare's reality

Why is Medicare an issue in the budget fight? Mostly because, as in the case of Social Security, it represents a large portion of the federal budget which some private enterprises (to put it politely) want to get their hands on.

Medicare expenses have grown dramatically, since the inception of the health insurance program in 1965. Due to the growth of the elderly population, and overall inflation of health care costs, Medicare costs have grown from approximately \$7.6 billion in 1970, to \$122.8 billion in 1990, and continue to rise. Taxes on workers' incomes have been increased to pay for the rise, but the rate of growth is increasing. This year the trust fund's trustees said it could go bankrupt in seven years.

There are two fundamentally different ways of approaching this problem. The first, which is unfortunately shared by many Democrats as well as Republicans, although their proposals are not as radical, is to cut costs. This means reducing and cheapening health care services, limiting eligibility, squeezing doctors, and so forth. The second approach is that taken uniquely by the LaRouche wing of the Democratic Party: increasing the productivity of the economy as a whole, and expanding health care facilities, so that the economy can afford to carry out its moral obligations to the older population.

There is no question but that the first approach will result in triage, i.e., the prioritization of who will be treated, in such a way that many of those needing care are eliminated. Already, the cutbacks in the fee schedules Medicare will pay



for various medical procedures, have put the squeeze on hospitals and doctors. Hundreds of hospitals which service primarily indigent patients, have been forced to close. If senior citizens are forced to pay more on their own for services, they will undeniably be forced to forego care. The end result in both cases is that more lives will be lost. Health cuts kill.

### **Gingrich's gobbledygook**

The Republican Contract with America approaches the problem of health care for the elderly by claiming that it wants to give them more "freedom." The long-term plan, outlined by numerous Conservative Revolution think-tanks, is to "eliminate the need for Medicare," by replacing it with private savings programs.

In the short term, however, the Contract's commitment to budget-cutting means that Medicare (and Medicaid, the health program for the indigent, which also serves a good many elderly) gets slashed. The cuts in federal payments are allegedly geared to creating "efficiencies," like directing the elderly in managed care situations with health maintenance organizations. The problem for the patients, is that HMO care is primarily a tool for cost-cutting, not medical treatment.

When confronted with this reality, Gingrich comes up with a lot of doubletalk. In response to the Medicare 30th Anniversary celebrations, for example, Gingrich said of President Clinton: "He knows better. He knows his numbers are false. He knows his analysis is false. I think trying to scare senior citizens as a re-election technique is frankly a very despicable strategy."

But Gingrich, and his Republican allies, cannot deny the fact that their proposed cuts in Medicare and Medicaid—amounting to \$270 billion—do indeed essentially balance off against the \$245 billion tax cut which they want to give to what they call the "middle class," basically households which have the money to make investments, instead of those, the majority of households, which are struggling to make ends meet.

### **The Medicare record**

The speeches given at the National Council of Senior Citizens ceremony to mark Medicare's 30th anniversary were feisty, and to the point. If the Democrats don't compromise with this approach, there is no question but that the Contract budget can be defeated. That is the first step to developing a competent solution.

First to speak was House Minority leader Richard Gephardt (D-Mo.), who accurately reported: "Back in the 1950s, less than half of all seniors in this country had health care at all, even had the ability to go see a doctor. Today that number is more than 97%.

"So when our Republican friends say they want to save Medicare, by forcing seniors to give up their choice of doctors or plan; strengthen Medicare by making seniors pay nearly \$1,000 more to keep it, money that most seniors do

not have . . . we have every right to be skeptical.

"When [House Majority Leader] Dick Armey [R-Tex.] says he resents Medicare as an imposition on his life, that's not a slip of the tongue. It's a Republican policy that stretches back over 40 years."

Senate Minority leader Tom Daschle (D-S.D.) cited the legacy of President Lyndon Johnson, who fought to implement Medicare, as he did the Voting Right Act. He said, "In 1965, President Johnson went before Congress to urge support for this program, and he put the case very plainly. He said, and I quote, 'I'm proposing that every person over the age of 65 be spared the darkness of sickness without hope.' Medicare is still the best hope for older Americans to avoid the darkness."

Many speakers cited the outrageous opposition which the Republican Party of the 1960s mounted to the government insurance program—how they tarred it as "socialism," and other drivel. Instead, Rep. John Dingell (D-Mich.) noted, it's been a great success. "Before Medicare, one of three Americans who were senior citizens lived in poverty. Today it's one in ten," he said.

Health and Human Service Secretary Donna Shalala was commended for going out on the hustings to defend this government program.

### **A commitment**

President Clinton and Vice President Al Gore concluded the speeches. The vice president, whose father was a leading Democratic senator in the 1960s, recalled the fights from that period. He noted the tremendous benefit Medicare has been for poor seniors, as it has given 83% of its benefits to those with incomes of less than \$25,000 a year.

The President excoriated the Republicans. "The congressional majority appears to be choosing for the first time ever to use the benefits we provide under Medicare, paid for by a dedicated payroll tax, as a piggy bank to fund huge tax cuts for people who don't really need them. . . . They . . . would cut \$270 billion from Medicare, and raise Medicare premiums and out-of-pocket costs an average of \$5,600 per couple over seven years, even for people who don't have enough money to get by as it is. They want to use this to pay for \$245 billion tax cut."

"Those who want to gamble with Medicare are asking Americans to bet their lives. . . .

"My fellow Americans, this is a big fight, but it is not just for the seniors in this audience and in this country, it's for all their children. Most senior citizens have children that are working harder for the same or lower pay than they were making five or ten years ago. They have their own insecurities and their own problems. They need their jobs and their incomes and their children's education and their own health care stabilized. . . .

"The worst thing we could do is to tear down Medicare. That would increase insecurity, not just for the elderly, for all Americans. It would cloud the future of this country."

# Gingrich touted for police-state role

by Scott Thompson

Newt Gingrich (R-Ga.) has once again won the ringing praise of one of Great Britain's most controversial writers, but this latest stroke may even be too much for the Speaker of the House to deal with.

Sir Peregrine Worsthorpe, who is the adopted son of Montagu Norman, the late head of the Bank of England who did much to finance Hitler's rise to power, wrote a column in the July 23 issue of the Hollinger Corp.'s *Sunday Telegraph*, praising Gingrich as the man who can transform today's welfare state into a police state! His typically provocative column was titled "A Police State Beats a Welfare State."

The crux of Worsthorpe's argument was contained in one paragraph: "Welfarism is an idea whose time has passed. This does not mean that there will be no welfare, simply that such welfare as there is will in general be enjoyed only by those who have the gumption and ruthlessness to forge it for themselves. It will be individual, not collective, welfare. This won't be a matter of ideology but of necessity. Given that the state won't be able to afford security for 'our people' from the cradle to the grave, all but a small minority of hopeless cases will have no choice but to fend for themselves. This is how it is going to be. Life for many of 'our people' in the late 20th and 21st century is going to be nasty, brutish and even short."

## 'Authoritarian' solutions

This is by no means the first time that Worsthorpe has peddled the idea that fascism is an idea whose time has come. In a May 21 *Sunday Telegraph* column, he wrote of the need for "authoritarian" solutions, like those advanced by Lord William Rees-Mogg, to bring about the rapid and bloody end to the welfare state. Both Worsthorpe and Rees-Mogg speak for the highest levels of the Club of the Isles, the European oligarchy's most powerful body, headed by the British royal family, particularly Queen Elizabeth II and her consort Prince Philip, Duke of Edinburgh.

What's new in Worsthorpe's latest ravings is his explicit identification of Newt Gingrich as the man to do the job:

"Newt Gingrich's approach strikes me as much more honest than [British Labour Party head] Tony Blair's; brutally honest. No nonsense about how the state can guarantee security in a revolutionary age. He simply takes for granted

that it can do nothing much except one most important negative thing. It can promise not to get in the way of those who have a mind to fight for their own survival. . . . The only responsible thing the state can do is to remove obstacles to the individual's own search for security. . . .

"I am not suggesting that we are going to have to move straight from the welfare state to the police state, but such a suggestion is far nearer the mark than all the alternative systems of welfare churned out by such gurus as Frank Field, on the side of New Labour, and David Willetts, on the side of New Civic Conservatism. . . . In revolutionary times the only form of security for property and the bourgeoisie comes, not from think-tanks, but from tanks proper. Gingrich, like Richard Nixon, wields a mailed fist much disguised in an ideological glove but clear enough for any but the blind to see. That is the real strength of the new politics in America."

## The great reckoning

Once again Worsthorpe has bluntly put forward the ideas presented by former London *Times* editor Lord Rees-Mogg, appearing in such sites as Rees-Mogg's latest book, *The Great Reckoning: How the World Will Change in the Depression of the 1990s*, as well as his previous book *Blood in the Streets*. In the former, Rees-Mogg argued that the 500-year cycle of history that commenced with the Renaissance is coming to an end in a cataclysmic depression, and, that after a period of "blood in the streets," a "dictatorship" will be installed to oversee the new Information Age.

In Rees-Mogg's post-industrial information society, only 5% of the population will be fully employed, while 95% of the people in this post-modernist feudal system will be thrown off welfare onto the junkheap—unless they are bio-engineered to enjoy collecting garbage.

These views are very close to those shared by Gingrich's "Third Wave" gurus, the former leftists, turned fascists, Alvin and Heidi Toffler. At a January 1995 conference of Gingrich's own think-tank, the Progress and Freedom Foundation, the Tofflers railed against the industrial era and the U.S. Constitution. But the most open advocacy of the Worsthorpe and Rees-Mogg brand of fascism was reserved for another one of Newt's intellectual gurus, Progress and Freedom Foundation senior researcher Michael Vlahos, who laid out a plan for a future America that he dubbed "Byte City," in which 5% of the population, "the Brain Lords," control all the power and wealth, while the majority are simply referred to as "the Lost."

Newt Gingrich is far too cagey a politician to publicly toss about such loaded terms as "police state" and "authoritarian solutions." But the moment is rapidly approaching when he is going to have to either jump at the Club of the Isles' bait, or start speaking like an American, with appropriate furor at this latest British effort to unleash the jackbooters.

# Waco hearings become a partisan standoff

by Leo F. Scanlon

With eight days of testimony completed, the House of Representatives hearings into the February 28, 1993 tragedy in Waco, Texas have bogged down in a political standoff which appears as intractable as the original confrontation between the Branch Davidian religious group and the Justice and Treasury agents who besieged their compound. Just as *EIR* predicted, the hearings have been fatally flawed by the fact that the Republican leadership (which organized the proceeding) has stuck to its stated goal of pinning the massacre on the Clinton administration. As a result, the inquiry has been diverted from investigating any lead which would shed light on the machinations of Bush administration officials, DOJ bureaucrats, and a corrupt network of "consultants" who shaped the confrontation and its antecedents.

Democrats Charles Schumer (N.Y.) and John Conyers (Mich.) have deftly exploited this weakness with *ad hominem* attacks on witnesses and Republican committee members alike, whom they portray as "anti-law enforcement" fanatics. Schumer slyly accused the Republicans of engaging in the practice of using isolated facts or incidents to concoct negative portrayals of law enforcement officials—a practice which, he noted, is the stock-in-trade of "my side of the aisle." John Conyers pressed the attack by confessing himself to be a past-master of that very art, and proceeded to generate sound-bites and headlines by conducting an all-out defense of each and every action of the FBI and ATF agents questioned by the committee. The administration will have little choice but to hew to this line—at least in public—as it defends itself before the committee.

## It didn't begin in Waco

The endemic corruption within the top ranks of the "permanent bureaucracy" of the federal law-enforcement agencies involved in the incident casts a long shadow over the hearing. Yet, the Congressional probers have so far failed to dig into that matter. Instead, GOP majority leaders have tried to steer the hearings into another front in their election-cycle Whitewater scandal mongering. Their hope is that Clinton administration officials, FBI chief Webster Hubbell, Attorney General Janet Reno, and perhaps some unnamed White House officials, can be held culpable for the decision to authorize the final assault, and might be implicated in

the alleged destruction of evidence which occurred during the official investigation of the incident.

The problem with the theory is that it is nonsense, concocted by the networks associated with Gun Owners of America head Larry Pratt, British oligarchical mouthpiece Ambrose Evans-Pritchard, and the clique of "conservative revolutionaries" who are trying to prop up their increasingly unpopular congressional agenda dazzling the public with scandals and rumors of scandals.

Evans-Pritchard has complained bitterly that the first round of this scheme blew up in the faces of the Republican committee. Writing in the July 23 London *Sunday Telegraph*, he proclaimed that "The Waco and Whitewater hearings in Congress have failed to inflict any serious damage on the Clinton presidency. Quite the opposite. The Republicans are the ones in trouble, struggling to counter criticism that they are engaged in a cheap attack on the White House. If they carry on the same way next week they will have a major fiasco on their hands. . . . Good riddance to Whitewater, But the collapse of the Waco hearings in the House of Representatives is another matter."

Evans-Pritchard went on to denounce the committee for allowing Kiri Jewell, a child whose parents were part of the Branch Davidian sect, to testify to the committee that she had been the victim of sexual abuse by David Koresh. Evans-Pritchard fumed that her allegations, sensational though they may be, have been disputed by her grandmother and mother (who she says facilitated the crime), and are being used in a mercenary fashion by the father who abandoned her as an infant, and is now making the lucrative rounds of the tabloid talk show circuit.

"But how could the Republicans fail to anticipate that this would happen?" he asked. "Why did they let her testify in front of the TV cameras knowing that it would be impossible to conduct a cross-examination of the poor girl in such an atmosphere? And why didn't they do their homework on the Jewell story?"

## CANned allegations

How clever of Mr. Pritchard to ask questions which he would never answer! The fact that the allegations blew up in the face of the Republicans, begs the question of where they came from in the first place. Jewell's allegations, and similar sensational stories of child abuse and other horrors, were retailed throughout the ATF and the Department of Justice (DOJ), and according to Attorney General Reno, were essential in convincing her to authorize the FBI to end the standoff with Koresh by assaulting the compound. The allegations were developed by the Cult Awareness Network (CAN), and were circulated by DOJ officials who were under the direction of Mark Richard and the recently demoted Larry Potts—career bureaucrats who have represented the continuity of control and oversight of the operation which began under the direction of Bush administration

appointees, and which came to its conclusion under the Clinton administration transition team.

The relationship between these corrupt informants and the architects of the indictment and raid of the Koresh compound, is paradigmatic of the environment which shaped federal law enforcement during the Bush administration. The keystone of the era was the Executive Order 12333, drafted in 1981, with which the Bush team authorized all manner of collaboration with criminal syndicates in order to further the political agenda of his faction of the banking and intelligence community. Under this umbrella, the "Thornburgh Doctrine" announced an aggressive assault on all the mechanisms which would check and inhibit unconstitutional or illegal actions by politically motivated prosecutors—at home and abroad. The message, communicated down the line to the agents in the field, was underscored by an incessant attack on the Bill of Rights which emanated from the Justice Department (and is continued by the very Republicans who profess outrage at the actions of the ATF and FBI in Waco).

The result of the Bush-era policies was a creeping, systemic corruption of law enforcement practices. Increasingly, the use of "secret informants" was substituted for honest investigations and old-fashioned police work. Legions of embittered federal and local investigators have reported that as a result, too many law enforcement investigations are literally "driven by the informants." In this environment, the Anti-Defamation League of B'nai B'rith and its stable of McCarthyite, guttersnipe informants became a political power within the highest ranks of the Federal law enforcement apparatus.

The ATF investigations of the Koresh sect were polluted by this apparatus from the start, and Evans-Pritchard, as well as everyone else involved, knows this very well. The *Washington Post* ran an article calling attention to this on July 2, as the hearings were being prepared. One of the first witnesses before the committee pleaded for an investigation of the role of CAN and the informants and "cult experts" who advised the ATF. The committee has steadfastly refused this line of inquiry.

Another point which has blown up in the face of the Republicans, is the effort to blame the final decisions which led to the incineration of dozens of innocent people on Clinton administration officials who allegedly authorized the FBI assault. As testimony from FBI officials Jeffrey Jamar and Byron Sage has made clear, the Clinton administration was misled on two crucial points which formed the basis of that decision, and the persons responsible for that misbriefing of Webster Hubbell, Janet Reno, and the White House, were Larry Potts and Mark Richard.

These officials reported to the administration that the FBI had run out of patience, was on the verge of a morale crisis over the standoff, and had concluded that all negotiations with Koresh were at a dead end. They threw in gratu-

itous (CAN-generated) allegations that Koresh was beating and abusing children, and that the abuse would be fatal if there were not an immediate intervention. On the basis of these assertions, the administration gave the go-ahead to the plans worked out by Jamar and others who wholeheartedly and uncritically accepted the authority of the "experts" who were evaluating events for the FBI.

In fact, Richard DeGuerin, the attorney for Koresh, was at that very moment conducting fruitful negotiations with his client, based on a collaboration with several religion scholars who understood Koresh's religious beliefs and were working with him on a plan which would allow him to surrender without coming into conflict with those beliefs. This fact, according to Jamar and others, was not communicated to the administration.

What was communicated, was the evaluation of a group of behavioral scientists, some based in at the FBI training base in Quantico, Virginia, and others who operate as consultants to the FBI, who had insisted from the beginning that Koresh was nothing other than a garden-variety anti-social personality and con man, who should be handled with aggressive psychological warfare techniques. This outlook clearly shaped the actions of Jamar and Sage, who planned and conducted the final assault. Even FBI negotiators on the scene were uncomfortable with this evaluation: One of them told the committee that it reminded him of "the Noriega situation," in which such techniques were used on a grand scale. The "Noriega" reference was to the first and most violent "testing" of the Thornburgh Doctrine, which gave the U.S. super-sovereign rights to invade foreign countries to prosecute U.S. criminal cases.

The committee failed to question even one of these behavioral scientists, "psycholinguistics" experts, and other spooky characters, and hasn't even asked in public for a list of who these "experts" are. Park Elliott Deitz, a guru to this crowd, and a key link to the CAN apparatus, was scheduled to testify, but for some unexplained reason, never did.

### **Legacy of Abscam**

The committee failed to note the irony of the fact that the expert witness called to sanctify the use of CS gas against infants and children (actually one of the minor barbarities in the story), was a British official who justified the use of the chemical (which is banned from international warfare) against Irish opponents of the British occupation.

This is but one of many footnotes to the deeper scandal which this hearing symptomizes. The U.S. Congress is shown to be a complete failure at investigating corruption and malfeasance within the federal law enforcement bureaucracy. The roots of this are more than a decade old, when the Congress went along with Abscam, the FBI sting operation that targeted a pre-selected group of Congressmen and Senators for bribery frameup.

# Whitewater hearings degrade U.S. Senate

by Edward Spannaus

While the world financial system careens toward collapse, the Committee on Banking of the United States Senate seems to have nothing better to do with its time than to occupy its members with the most trivial and irrelevant minutiae related to the so-called Whitewater scandal. As of this writing, the Senate Special Whitewater Committee (consisting of the Banking Committee and the two ranking members of the Judiciary Committee) is in its seventh day of hearings—or, one might better say, in their seventh day of disgracing the United States Senate.

The ostensible purpose of the hearings is to investigate what happened to Whitewater-related documents in the office of White House aide Vincent Foster after Foster was found dead on July 21, 1993. However, Senate Banking Committee Chairman Alfonse D'Amato (R-N.Y.) and his cronies have made it clear from the beginning that their real purpose is to try and show that President Clinton and especially First Lady Hillary Clinton were trying to hide evidence about Whitewater. In his opening statement on July 18, Sen. Rod Grams (R-Minn.) predicted that the hearings over the next three weeks "will unmask a side of government we don't like to see: arrogance, abuse of power, obstruction of justice, lack of accountability to the people."

Sen. John Kerry (D-Mass.) noted at the outset that the first round of hearings, conducted a year ago, had determined that Foster's death was indeed a suicide. "Now, after millions of dollars, thousands of hours of special prosecutor interrogation and thousands of hours of FBI inquiries and hundreds of FBI agents, hundreds of news stories and investigations, we are about to examine the second phase of events, the handling of documents," Kerry continued. "Clearly the first round of hearings titillated and provided opportunity for the political joke and rumor mill, conspiratorialists were served up a full plate of fare for every paranoid theory imaginable to take flight," and, he added, "I have no doubt that the next days will serve as more grist for the mill."

The focus of the hearings is whether White House officials prevented investigators from obtaining access to documents in Foster's office. The U.S. Park Police, who had jurisdiction over the case because Foster's body was found in Fort Marcy Park near Washington, were not looking for Whitewater documents. All the Park Police were interested in, was whether or not a suicide note could be found.

But, with the way Sen. Lauch Faircloth (R-N.C.) and

some of the Republicans are conducting themselves in the hearings, one would think that the U.S. Park Police had marched into Foster's office with a court order demanding every document concerning Whitewater (which, at last report, is not located in a U.S. National Park), and that White House officials had suddenly all turned into Ollie Norths, frantically hiding and shredding documents.

## Evans-Pritchard complains

A useful indication of the direction of the hearings came from Ambrose Evans-Pritchard, one of the chief promoters of Whitewater allegations against President Clinton, in the London *Sunday Telegraph* on July 23.

"The Waco and Whitewater hearings in Congress have failed to inflict any serious damage on the Clinton presidency," Pritchard complained. He warned that if things were to continue this way during the coming week's sessions, the Republicans "will have a major fiasco on their hands. And it serves them right."

Among his complaints is that the Republicans are focusing on the wrong issues. Pritchard, who has devoted countless articles to Whitewater, insists that the GOP is on a wild-goose chase, by focusing on the link between Foster and Whitewater, rather than showing that Foster was the victim of murder, not suicide. "Whitewater is not important (repeat after me a thousand times)," shouts Pritchard. "It is a decoy, a distraction, nonsense."

One explanation for the bizarre behavior of D'Amato and his cronies might be found in a *Wall Street Journal* story from last Feb. 22, entitled "Capital Secret: There May Be Less To Whitewater Case Than Meets the Eye." The article warned that "many of the biggest Whitewater headlines appear to be heading toward the cutting-room floor," and reported that some of the juiciest Whitewater allegations, such as Hillary's commodities profits or the shredding of mysterious documents, "have been all but discarded by criminal investigators."

In fact, the article reviewed nine different areas of investigation, including Whitewater-Madison, campaign loans, the Foster case, and document shredding, and showed that in every single area, there was either no evidence of criminal wrongdoing, or if there were any possible evidence, that the statute of limitations had already expired. Lesser figures might go to jail on white-collar charges, but there was almost no one who believed any longer that Whitewater would ensnare the Clintons in criminal charges.

The only route that investigators could take, suggested the *Journal*, would be to try and come up with a "coverup case" charging obstruction of justice. It asserted that Whitewater special prosecutor Kenneth Starr was trying to figure out if he could cook up something around the removal of documents from Foster's office after his death. D'Amato and gang seem to have taken the *Wall Street Journal's* proposal quite seriously.

## GOPers suffer setback on regulatory reform

Senate Republicans conceded defeat on July 21 on a sweeping regulatory reform bill that compromised one of the key points of House Speaker Newt Gingrich's (R-Ga.) Contract with America. On July 20, for the third time, they were unable to mobilize enough votes to override a Democratic filibuster. It was the fourth major setback in the attempt to pass the Contract program. A considerably tougher bill had been approved by the House earlier this year.

The bill would have curbed federal regulatory agencies and made it easier for businesses to challenge regulations. It would have required regulatory agencies to meet cost-benefit and risk-assessment tests before issuing new rules that put a significant burden on small businesses or cost larger businesses more than \$100 million a year.

## House scores China for rights violations

The House voted 416-10 on July 20 for a proposal that would rebuke China for human rights violations and would launch Radio Free Asia broadcasts into that country. The legislation requires the President to report every six months on diplomatic initiatives to improve China's record on human rights.

The move comes at a time of worsening relations between the United States and China. China had postponed a number of high-level meetings with U.S. officials following the private visit of President of Taiwan Lee Teng-hui to the United States in June. The administration agreed to issue President Lee a visa after conservative Republicans, led by Senate Foreign Relations Committee Chairman

Jesse Helms (R-N.C.), began pressuring the administration to allow him to attend a class reunion at his alma mater, Cornell University. The administration stated repeatedly that the visit was only "of a private nature" and did not represent any change in U.S. policy, which recognizes only "one China."

Chinese authorities then arrested Chinese-American human rights activist Harry Wu, while he was on a visit to China. Wu, a protégé of Helms, has authored numerous exposés about the Chinese use of prison labor.

Some members called for even harsher measures against China. One resolution, which would have overridden President Clinton's granting of Most Favored Nation trade status to China, was defeated by a vote of 321-107. Other legislators, conscious of the importance of relations with China, cautioned against overreacting. The measure will now go to the Senate.

House Republicans have also introduced legislation that would bar federal funding for a U.S. delegation to the September U.N. women's conference in Beijing.

## Senate passes modified rescissions bill

The Senate passed on July 21, by a vote of 90-7, a bill that cuts spending in 1995 by \$16.5 billion. The bill was first offered in February but was vetoed by President Clinton (the only veto of his administration) on June 7, because the Senate had eliminated \$772 million for education, safe drinking water, and other programs deemed important by the President. The new legislation restored many of those cuts and is expected to be signed into law.

Other measures under consideration, however, would impose even harsher cuts on some of the President's programs. The House Appropriations Committee has approved a bill eliminating funding for President Clinton's Goals 2000 education reforms, the AmeriCorps national volunteer service, and the Community Development Financial Institutions program, which channels bank loans to low-income areas.

In a speech to Boys' Nation on July 24, the President stressed his concern over any cuts in education assistance, Medicare, or environmental protection. "I invite senators and members of Congress from both parties to join me in balancing the budget while protecting our common ground," he said. "I will work hard to get their support, but if they refuse, I must continue to act, alone if necessary, to protect the common ground that brought every single one of you into this White House today."

Boys' Nation was formed in 1946 by the American Legion, to create opportunities for young boys from low-income families. Clinton met President Kennedy while he was a member of a Boys' Nation delegation to Washington in the 1960s.

## Mexico aid package hurt in House

In a direct affront to the Clinton administration, the House voted 245-183 on July 19 to halt U.S. support for the peso effective Oct. 1, the beginning of fiscal year 1996. The action would not affect the money that has already been disbursed.

The amendment halting the support for the peso was added to a FY 1996 spending bill for the Treasury, Postal Service, and other agen-

cies that the House approved by a vote of 216-211. The measure was sponsored by Bernard Sanders (Vt.), an independent and the only Socialist in Congress, who said that Congress should be allowed to vote on such a huge expenditure. More than 150 Republicans joined 88 Democrats in support of the amendment, which would forbid the administration from tapping the Treasury Department currency-stabilization fund that has been used for \$12.5 billion in loans, loan guarantees, and currency swaps to bolster the Mexican currency. President Clinton had been forced to utilize the fund when faced with a refusal by the Republican-dominated Congress to appropriate any funds for a Mexican rescue package.

The measure must now go to the Senate, where it is expected to face more difficulties; Senate Banking Committee Chairman Al D'Amato (R-N.Y.) has threatened to block the funds there.

## **D**emocrats rally behind Medicare, Social Security

House Democrats rallied on Capitol Hill on the 30th anniversary of the signing of the legislation for Medicare, in support of maintaining the hard-won social legislation, now threatened by the Republican Congress.

John Dingell (D-Mich.) carried with him the same gavel he had used when he presided over the passage of the Medicare legislation 30 years ago. Dingell warned that the Republicans were intent on turning back the clock on these landmarks of social legislation. "I'm charging you today to make sure the Republicans face this issue," he told his Democratic compatriots. "Don't let them tell you that they're

not going to cut Medicare, because they are. And they're going to do it to give a tax cut to the rich."

Sen. Edward Kennedy (D-Mass.) said that the last election should not encourage the Republicans to dismantle the Medicare system. "There was nothing about the last election that said to the Congress of the United States, cut back on the Medicare so you can have major tax cuts for the wealthiest corporations and individuals in this country. There was nothing in the last election that said, raise the deductibles, raise the co-payments, raise the premiums for our senior citizens. There was nothing there and we are not going to let them do it to us," he said.

President Clinton said, "Two-thirds of the Medicaid budget goes for older Americans and disabled citizens. Without Medicaid, middle-class families struggling to pay their own bills and raise and educate their children could face nursing home bills for their parents averaging \$38,000 a year." Addressing the large group of seniors attending the rally, Clinton said, "I remember what those nursing homes looked like before Medicaid. Some of you do, too."

## **D**raconian welfare reform proposal crafted

Conservative Senate Republicans on July 20 presented details of a new welfare reform plan they intend to introduce soon in preparation for the pending floor debate on the issue. The new bill would create nine block-grant funding programs for such welfare benefits as cash, food stamps, job training, and housing. It would channel funds to states directly from the Treasury, bypassing federal agencies.

Although there is one welfare reform bill, introduced by Bob Pack-

wood (R-Ore.), already under consideration in the Senate, conservative Republicans don't believe the legislation is draconian enough. The new bill would also require 75% of all able-bodied welfare recipients to work, and would cut off benefits to children born to families already receiving welfare, to teenage mothers, and to mothers who fail to establish their children's paternity. It would also provide block grants for the school-lunch program and child-welfare services.

Conservative Revolution honcho Rick Santorum (R-Pa.) called the bill "incredibly progressive." The bill is sponsored by Sen. Phil Gramm (R-Tex.), who is anxious to bolster his conservative credentials for his rapidly fading Presidential bid.

## **W**irth calls Biodiversity Treaty 'top priority'

Undersecretary of State for Global Affairs Tim Wirth, speaking at a forum at Stanford University in California, called the controversial Biodiversity Treaty a "top priority among all treaties." Wirth underscored that ratification of this environmentalist monstrosity was essential to the implementation of the environmentalists' global strategy.

However, Wirth seems to be fighting a losing battle. The treaty is expected to go nowhere in the U.S. Senate, where it awaits confirmation, and the administration, not as prone to environmentalist "radicalism" as Wirth may wish, has eliminated some of the more onerous restrictions the Environmental Protection Agency had previously imposed.

*EIR* exposés of the treaty last year contributed to a popular groundswell that prompted more than 35 senators to request that the treaty not be brought to a vote.

# National News

## L.A. County starts its budget-cutting plunge

Los Angeles County, accelerating its slide into bankruptcy, sent out 1,848 layoff notices to county employees on July 17. This was the first wave of layoffs, dictated by an austerity plan which calls for eliminating at least 10,000 jobs from the county's workforce of 86,000. Of those laid off, 1,782 were with the Department of Public Social Services, which oversees many programs providing assistance to the poor.

The county government also decided to close Olive View Medical Center, the only county hospital in the densely populated San Fernando Valley, in order to chop another \$300 million from the budget. Olive View currently handles 81,000 emergency room visits a year. More cuts in health care are expected, to balance a \$665 million deficit in the county Health Department's budget.

## Clinton urges economic strategy for equality

During his July 19 speech at the National Archives in Washington, President Clinton suggested that civil rights could not be safeguarded simply by legislation, especially without an economic strategy to lift people out of poverty.

Addressing the issue of affirmative action legislation, which some in Congress wish to do away with entirely, the President declared that it "does not mean—and I don't favor—the unjustified preference of the unqualified over the qualified of any race or gender. It doesn't mean—and I don't favor—numerical quotas. It doesn't mean—and I don't favor—rejection or selection of any employee or student solely on the basis of race or gender without regard to merit."

The legal tool called "affirmative action," Clinton said, emerged as a "middle ground" between "two unacceptable paths. One was to say, simply, that we declared discrimination illegal, and that's enough. We saw that that way still relegated blacks

with college degrees to jobs as railroad porters, and kept women with degrees under a glass ceiling, with a lower paycheck. The other path was simply to try to impose change by leveling draconian penalties on employers who didn't meet certain imposed, ultimately arbitrary, and sometimes unachievable quotas. That, too, was rejected out of a sense of fairness."

What is needed, Clinton said, is an economic strategy "that reverses the decline in wages and the growth of poverty among working people. Without that, women, minorities, and white males will all be in trouble in the future." He added that it is "wrong to use the anxieties of the middle class to divert the American people from the real causes of their economic stress, the sweeping, historic changes taking all the globe in its path, and the specific policies, or lack of them, in our own country which have aggravated those challenges."

## Farrakhan calls for march in Washington

At a press conference in Washington, D.C. on July 19, Nation of Islam Minister Louis Farrakhan and the Rev. Ben Chavis, former chairman of the National Association for the Advancement of Colored People (NAACP), announced plans for a "Million Man March for Atonement," to take place in the nation's capital on Oct. 16. The march leaders also met to discuss preparations with Mayor Marion Barry and other city officials.

Although the *Washington Post* and other media sought to portray the march as a "black only" affair, Minister Farrakhan made it clear, at an evening meeting of over 300 organizers for the event, that it was open to all. "I'm not going to stop anyone from attending this march," Farrakhan said. "I just want to be sure that there are a million black men there, no matter *who* else shows up."

Elaborating on the theme of atonement, Farrakhan declared, "Black men are in trouble. There was a time when no black man would be allowed to have a gun. Now, they flood the communities, so much so that our own leaders call for the National Guard to

come in and slaughter their own people, to bring order. . . . We have become estranged from God, and therefore, estranged from ourselves. We must atone, that we may, then, atone with God, atone with one another. This is to bring men from all over the world together, at a time when the world has seen us in the image of 'Boyz in the Hood,' 'Menace 2 Society,' 'New Jack City,' and other popular films."

Farrakhan emphasized that all the men in the march "should register to vote. I hope that they will register 'Independent.' There are 8 million blacks that are not registered. . . . We intend to work out an agenda for our people. Never again should any politician be able to take us for granted." Of the need to exert a moral force in political affairs, Farrakhan said, "African-Americans are in the most powerful position of any minority in the world. . . . We could say to our government, 'No more will we be the articulators of a foreign policy that we do not formulate.' Thus, we can ease the burden on the people of Africa, the Mideast, and South America."

Among the clergy supporting Farrakhan's initiative is the Rev. James Bevel—formerly director of direct action for Dr. Martin Luther King; 1992 candidate for vice president on the independent ticket headed by Lyndon LaRouche; and chairman of the Declaration of Independence Co-Signers' Convention. Bevel, who co-formulated the idea of the March for Atonement with Minister Farrakhan, attended the evening organizing meeting on July 19.

## Clinton hears Catholic critics of welfare bill

President Clinton met with officials of Catholic Charities and two U.S. Roman Catholic Bishops on July 12 to discuss their objections to some of the so-called welfare reforms currently proposed in Congress. According to a Catholic News Service wire on July 20, Clinton told the group he would veto the final bill if it resembles the legislation already passed by the House.

The House bill, H.R. 4, contains several of the provisions Catholic Charities most



strongly opposes, including plans to turn funding for federal programs, such as food stamps and family assistance, into block grants to the states, and to penalize welfare mothers who have additional children.

The report noted that the New Jersey Department of Human Services has found that the state's 18-month-old "family cap" program, which eliminates subsidies for newborn children of women on welfare, has not reduced out-of-wedlock births. The department also found that the rate of abortions had increased among women on welfare, while it declined during the same period among other segments of the population.

Bishop Joseph M. Sullivan of Brooklyn, New York, the National Conference of Catholic Bishops' liaison to Catholic Charities, declared after meeting with Clinton, "It is possible to 'end welfare as we know it' without destroying the basic income support the federal government provides for America's neediest families and children. . . . The question is whether we are a national community caring for its least members, or a nation of individuals isolated from one another's needs."

## Murdoch set to launch new magazine in D.C.

Australian media mogul Rupert Murdoch, whose myriad outlets frequently spread British propaganda and disinformation, has invested \$3 million to underwrite a new Washington magazine called *The Standard*. The *New York Times* reported on July 23 that the magazine will hit the stands shortly after Labor Day. It will be edited by William Kristol, who was former Vice President Dan Quayle's chief of staff, and whose father Irving is often called (among other things) the inventor of neo-conservatism.

Murdoch is scheduled to appear before the House ethics committee on Aug. 8, to answer questions about his company's lucrative book deal with House Speaker Newt Gingrich (R-Ga.). The same week, Republican lawmakers will be trying to push through a telecommunications bill, which includes provisions which would let the media baron buy still more TV stations and newspapers in the United States. The *Times*

reported that Murdoch contributed \$100,000 as one of nine honorary chairmen of a fund-raising dinner held in June for House GOPers.

Murdoch will also sponsor a dinner in August for Senate Commerce Committee Chairman Larry Pressler (R-S.D.), the leading backer of proposals to ease restrictions on foreign ownership of U.S. media. Murdoch already has 20-25% ownership stakes in a string of U.S. television stations, which reach roughly 35% of the population.

## New wave of threats from eco-terrorists reported

A pattern of threats of violence by environmentalists against loggers and government officials has recently been reported in Idaho—and the pawprints of Britain's Prince Philip are all over it.

Idaho's *Lewiston Morning Tribune* reported on July 19 that several area offices of the U.S. Forest Service, as well as the Idaho County Sheriff's Department, received threatening letters the previous week, demanding a ban on logging in the Cove-Mallard timber sale region of the Nez Perce National Forest. The letters also warned that trees there had been implanted with ceramic spikes—an eco-terrorist tactic designed to shatter chainsaws on contact, and maim the loggers using them.

On July 11, eco-terrorist Ric Valois was arrested for blocking a logging road by chaining himself to a gate. According to the July 12 *Idaho Free Press*, he told the federal judge during his arraignment in Boise that "some people were going to get hurt, others were going to die, and that the ballistic vests worn by law enforcement officers were not going to be sufficient because they will or could be shot in the head."

Valois is a close associate of Jake Krelick, a leader of the self-professed terrorist group Earth First! and co-founder and present head of the Native Forest Network. Among the founders of NFN in 1990 were Earth First!, the Rainforest Action Network, and the Australian Conservation Foundation. ACF was founded in 1963 by Prince Philip, who also served as its chairman from 1971-76.

## Briefly

● **ALAN GREENSPAN** must be reappointed as Federal Reserve chairman, the *Baltimore Sun* decreed in a July 20 editorial. Echoing Greenspan's own lunatic defense of the financial system currently plunging the world toward catastrophe, the *Sun* praised his "upbeat assessment of the economy" as "a prescription for an ideal 'soft landing.'" The *Sun* warned President Clinton not to dump Greenspan, whose term as chairman expires next year.

● **LOW-INCOME HOUSING** in the United States is in critically short supply, the Center on Budget and Policy Priorities reported on July 24. An unprecedented lack of affordable housing is forcing many poor families to spend at least half their incomes on rent. Based on the 1993 Census, the study found there were only 6.5 million low-rent units available, for more than 11.2 million low-income renters—the widest gap on record.

● **THE UNABOMBER** "is surely alone, burning with resentment, one man against the world," the *Washington Post* declared on July 20, while denouncing the FBI for investigating possible links of eco-terrorist or anarchist groups to the bombings. Such groups are non-violent and merely "oppose the economic machine that is devouring the planet," the *Post* ranted.

● **RUPERT MURDOCH'S** *New York Post* on July 20 printed Margaret Thatcher's lying letter supporting an end to the Bosnian arms embargo. Alleging her "horror" over Serb atrocities, Thatcher omitted her own government's role in initiating them, and British obstruction of U.S. and NATO efforts to end them.

● **WASHINGTON** Mayor Marion Barry rejected on July 25 demands by the D.C. financial control board that he eliminate 5,600 municipal jobs. The proposal, he said, "is not scientific." The *Washington Post* called Barry's response a "mockery," "an insult," and "pompous."

## Editorial

### *British fascists out of the closet*

On July 23, the London *Sunday Telegraph* ran an article by Sir Peregrine Worsthorne entitled "A Police State Beats a Welfare State." No, he was not calling for a third alternative to fascism or socialism. His article is a bald-faced endorsement of the same kind of fascism which was supported by his stepfather, Montagu Norman, the man who helped finance Adolf Hitler's rise to power in Germany.

Worsthorne enthusiastically supports Newt Gingrich for his attacks on medical and welfare benefits, unemployment insurance, and the protection of pensions. Worsthorne writes that we should "welcome the unbridled pursuit of wealth." However, he admits that such steps cannot be implemented under a republican form of government; therefore, he states, it will be necessary to use force. A police state is needed, he writes, because "in revolutionary times, the only form of security for property and the bourgeoisie comes, not from think tanks, but from tanks proper."

Worsthorne counterposes what he perceives to be the necessity for fascism to a statement by British Labour Party leader Tony Blair: "The key question facing 20th- and 21st-century politicians, is how to provide our people with security during an era of quite revolutionary economic, technological, and social change." To this Worsthorne answers, "Since the state will be unable to provide 'our people' with security in a revolutionary age, should politicians go around pretending that it can? To my question, there most certainly is an answer: a resounding negative. My question and my answer really would be 'new politics'—i.e., honest politics." He complains that "most people" do not "make a connection between a willingness to use force and the continued enjoyment of our relatively lavish social services."

"Welfarism is an idea whose time has passed," he writes. "This does not mean that there will be no welfare; simply that such welfare as there is, will in general be enjoyed only by those who have the gumption and ruthlessness to forge it for themselves. It will be individual, not collective, welfare.

"This won't be a matter of ideology but of necessi-

ty. . . . All but a small minority of hopeless cases will have no choice but to fend for themselves. This is how it is going to be. Life for many of 'our people' in the late 20th and 21st century is going to be nasty, brutish, and even short." He praises those who attempt, by all available means, to accumulate personal wealth. "This is not so much greedy as responsible. . . . Today's unbridled amassing of wealth does make sense. . . . We should be welcoming it as an increase in realism."

This is not the first time that Worsthorne has been so blunt. On May 21, in the *Sunday Telegraph*, for which he is a senior commentator, he called for a "form of authoritarian politics" which would allow for "cruel belt-tightening [and] bitter medicines to be forced down the throats of the body politics."

It is instructive that he has Gingrich in mind as a candidate to play the role of a modern-day Adolf Hitler. What Great Britain needs, he says, is its own Newt Gingrich.

Worsthorne is a leading member of the British group which includes the *Sunday Telegraph's* Washington correspondent, Ambrose Evans-Pritchard, and Lord William Rees-Mogg. This is the Rees-Mogg who, in his U.S. newsletter *Strategic Investment*, advocated that local militias prepare for civil war against the U.S. government. Like Rees-Mogg and Evans-Pritchard, Worsthorne has played a key role in efforts directed specifically against President Clinton, and against the institution of the Presidency itself.

In suggesting that Gingrich can successfully play the role of an American Führer, and that the British need someone like Gingrich to play that role in their own country, Worsthorne is following the lead of his stepfather, Montagu Collet Norman, who, as head of the Bank of England, was himself the virtual dictator of world finance in 1931. His agent in Germany was Economics Minister Hjalmar Schacht, who set the stage for Hitler to come to power through his imposition of the same kind of vicious austerity measures now being advocated for Britain and the United States by his stepson.

It is long overdue that this fascist gang be smashed.

# SEE LAROUCHE ON CABLE TV

All programs are *The LaRouche Connection* unless otherwise noted.

## ALASKA

- ANCHORAGE—ACTV Ch. 40  
Wednesdays—9 p.m.

## ARIZONA

- PHOENIX—Dimension Ch. 22  
Wednesdays—1 p.m.

## CALIFORNIA

- DOWNEY—Conti. Ch. 51  
Thursdays—9:30 p.m.
- E. SAN FERNANDO—Ch. 25  
Saturdays—10 a.m.
- LANC./PALMDALE—Ch. 3  
Sundays—1:30 p.m.
- MARIN COUNTY—Ch. 31  
Tuesdays—5 p.m.
- MODESTO—Access Ch. 5  
Fridays—3 p.m.
- ORANGE COUNTY—Ch. 3  
Fridays—evening
- PASADENA—Ch. 56  
Tuesdays—2 & 6 p.m.
- SACRAMENTO—Ch. 18  
2nd & 4th Weds.—10 p.m.
- SAN DIEGO—  
Cox Cable Ch. 24  
Saturdays—12 Noon
- SAN FRANCISCO—Ch. 53  
Fridays—6:30 p.m.
- SANTA ANA—Ch. 53  
Tuesdays—6:30 p.m.
- STA. CLARITA/TUJUNGA  
King VideoCable—Ch. 20  
Wednesdays—7:30 p.m.
- W. SAN FERNANDO—Ch. 27  
Wednesdays—6:30 p.m.

## COLORADO

- DENVER—DCTV Ch. 57  
Wednesdays—10 p.m.

## CONNECTICUT

- BETHEL/DANBURY/RIDGEFIELD  
Comcast—Ch. 23  
Wednesdays—10 p.m.
- NEWTOWN/NEW MILFORD  
Charter—Ch. 21  
Thursdays—9:30 p.m.
- WATERBURY—WCAT Ch. 13  
Fridays—11 p.m.

## DISTRICT OF COLUMBIA

- WASHINGTON—DCTV Ch. 25  
Sundays—12 Noon

## IDAHO

- MOSCOW—Ch. 37  
(Check Readerboard)

## ILLINOIS

- CHICAGO—CATN Ch. 21  
*Schiller Hotline-21*  
Fridays—6 p.m.  
*The LaRouche Connection*  
Fri., Aug. 11—10 p.m.  
Mon., Aug. 21—10 p.m.  
Tues., Aug. 29—10 p.m.

## INDIANA

- SOUTH BEND—Ch. 31  
Thursdays—10 p.m.

## IOWA

- WATERLOO—TCI Ch. 2  
Mon.—11 a.m.; Thurs—4 p.m.

## MARYLAND

- BALTIMORE—BCAC Ch. 42  
Mondays—9 p.m.
- MONTGOMERY—MCTV Ch. 49  
Wed.—1 pm, Fri.—8:30 pm
- PRINCE GEORGES COUNTY—  
PGCTV Ch. 15  
Thursdays—9:30 p.m.
- WEST HOWARD COUNTY—  
Comcast Cablevision—Ch. 6  
Monday through Sunday  
12:30 p.m. and 5 p.m.

## MASSACHUSETTS

- BOSTON—BNN Ch. 3  
Saturdays—12 Noon

## MICHIGAN

- CENTERLINE—Ch. 34  
Tuesdays—7:30 p.m.
- TRENTON—TCI Ch. 44  
Wednesdays—2:30 p.m.

## MINNESOTA

- EDEN PRAIRIE—Ch. 33<sup>+</sup>  
Wed.—5:30 pm, Sun.—3:30 pm
- MINNEAPOLIS—MTN Ch. 32  
Fridays—7:30 p.m.
- MINNEAPOLIS (NW Suburbs)  
Northwest Comm. TV—Ch. 33  
Mon.—7 pm; Tue.—7 am & 2 pm
- ST. LOUIS PARK—Ch. 33  
Friday through Monday  
3 p.m., 11 p.m., 7 a.m.
- ST. PAUL—Ch. 33  
Mondays—8 p.m.

## MISSOURI

- ST. LOUIS—Ch. 22  
Wednesdays—5 p.m.

## NEW JERSEY

- STATEWIDE—CTN  
Saturdays—5 a.m.

## NEW YORK

- BRONX—BronxNet Ch. 70  
Saturdays—6 p.m.
- BROOKHAVEN—(E. Suffolk)  
TCI 1 Flash or Ch. 99  
Wednesdays—5 p.m.
- BROOKLYN  
Cablevision (BCAT)—Ch. 67  
Time-Warner B/Q—Ch. 34  
(call station for times)
- BUFFALO—BCAM Ch. 18  
Tuesdays—11 p.m.
- HUDSON VALLEY—Ch. 6  
2nd Sunday monthly—2 p.m.
- ITHACA—Pegasys  
Tuesdays—8:15 Ch. 57  
Thursdays—7 p.m. Ch. 13  
Saturdays—4:45 p.m. Ch. 57
- MANHATTAN—MNN Ch. 34  
Sun., Aug. 6 & 20—9 a.m.  
Sun., Sept. 3 & 17—9 a.m.
- MONTVALE/MAHWAH—Ch. 14  
Wednesdays—5:30 p.m.
- NASSAU—Ch. 25  
Last Fri., monthly—4:30 p.m.
- OSSINING—Continental  
Southern Westchester Ch. 19  
Rockland County Ch. 26  
1st & 3rd Sundays—4 p.m.
- POUGHKEEPSIE—Ch. 3  
1st & 2nd Fridays—4 p.m.
- QUEENS—OPTV Ch. 56  
Fridays—1 p.m.
- RIVERHEAD  
Peconic Bay TV—Ch. 27  
Thursdays—12 Midnight  
1st & 2nd Fridays—4 p.m.
- ROCHESTER—GRC Ch. 15  
Fri.—11 p.m.; Sun.—11 a.m.
- ROCKLAND—P.A. Ch. 27  
Wednesdays—5:30 p.m.
- STATEN ISL.—CTV Ch. 24  
Wed.—11 p.m., Sat.—8 a.m.
- SUFFOLK, L.I.—Ch. 25  
2nd & 4th Mondays—10 p.m.
- SYRACUSE—Adelphia Ch. 3  
Fridays—4 p.m.
- SYRACUSE (Suburbs)  
Time-Warner Cable—Ch. 13  
1st & 2nd Sat. monthly—3 p.m.
- UTICA—Harron Ch. 3  
Thursdays—6:30 p.m.
- WEBSTER—GRC Ch. 12  
Wednesdays—9:30 p.m.
- YONKERS—Ch. 37; Fri.—4 p.m.
- YORKTOWN—Ch. 34  
Thursdays—3 p.m.

## OREGON

- PORTLAND—Access  
Tuesdays—6 p.m. (Ch. 27)  
Thursdays—3 p.m. (Ch. 33)

## PENNSYLVANIA

- PITTSBURGH—PCTV Ch. 21  
Mondays—7 p.m.

## TEXAS

- AUSTIN—ACTV Ch. 10 & 16  
(call station for times)
- DALLAS—Access Ch. 23-B  
Sun.—8 p.m.; Thurs.—9 p.m.
- EL PASO—Paragon Ch. 15  
Thursdays—10:30 p.m.
- HOUSTON—PAC  
Mon.—10 p.m.; Fri.—12 Noon

## VIRGINIA

- ARLINGTON—ACT Ch. 33  
Sun.—1 pm, Mon.—6:30 pm  
Tuesdays—12 Midnight  
Wednesdays—12 Noon
- CHESTERFIELD COUNTY—  
Comcast—Ch. 6  
Tuesdays—2 p.m.
- FAIRFAX—FCAC Ch. 10  
Tuesdays—12 Noon  
Thurs.—7 pm, Sat.—10 am
- LOUDOUN COUNTY—Ch. 3  
Thursdays—8 p.m.
- MANASSAS—Ch. 64  
Saturdays—12 Noon
- NEWPORT NEWS—  
Cablevision Ch. 96  
(with box: Ch. 58 or 01)  
Tuesdays—4 p.m.
- RICHMOND—Conti Ch. 38  
(call station for times)
- ROANOKE—Cox Ch. 9  
Weds.—2 pm (thru Aug. 9)
- YORKTOWN—Conti Ch. 38  
Mondays—4 p.m.

## WASHINGTON

- SEATTLE—Access Ch. 29  
Fridays—8:00 a.m.
- SNOHOMISH COUNTY  
Viacom Cable—Ch. 29  
(call station for times)
- SPOKANE—Cox Ch. 25  
Tuesdays—6 p.m.
- TRI-CITIES—TCI Ch. 13  
Mondays—11:30 a.m.  
Tue.—6:30 pm; Thu.—8:30 pm

## WISCONSIN

- WAUSAU—Ch. 10  
Sat., Aug. 5—12:00 p.m.

If you are interested in getting these programs on your local cable TV station, please call Charles Notley at (703) 777-9451, Ext. 322.

## Executive Intelligence Review

U.S., Canada and Mexico only

1 year . . . . .	\$396
6 months . . . . .	\$225
3 months . . . . .	\$125

### Foreign Rates

1 year . . . . .	\$490
6 months . . . . .	\$265
3 months . . . . .	\$145

I would like to subscribe to  
*Executive Intelligence Review* for

1 year  6 months  3 months

I enclose \$\_\_\_\_\_ check or money order

Please charge my  MasterCard  Visa

Card No. \_\_\_\_\_ Exp. date \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Company \_\_\_\_\_

Phone ( ) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Make checks payable to EIR News Service Inc.,  
P.O. Box 17390, Washington, D.C. 20041-0390.

# COLD FUSION

## Challenge to U.S. Science Policy

The ground-breaking discovery announced by Martin Fleischman and Stanley Pons on March 23, 1989 has been received, not with scientific debate, but with a crude political witch-hunt. Compare what the anti-science mob is saying, with what Lyndon LaRouche writes in a 173-page science policy memorandum issued by the Schiller Institute.

### Lyndon LaRouche



*"These cold fusion experiments, taken together with other experiments exhibiting related kinds of anomalous results, should become featured elements of a special research project—a 'mini-crash program' of fundamental research—enjoying the moral and material support of appropriate public and private institutions of the United States and other nations."*



### Paul Ehrlich

*Given society's record in managing technology, the prospect of cheap, inexhaustible power from fusion is "like giving a machine gun to an idiot child."*

### Jeremy Rifkin

*"It's the worst thing that could happen to our planet."*

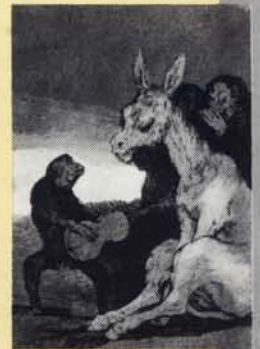


### Nature magazine

*"The Utah phenomenon is literally unsupported by the evidence, could be an artifact, and given its improbability, is most likely to be one."*

### The New York Times

*"Given the present state of evidence for cold fusion, the government would do better to put the money on a horse."*



LaRouche's memorandum is available for \$25 postpaid from

**The Schiller Institute, Inc.** P.O. Box 20244, Washington, D.C. 20041-0244