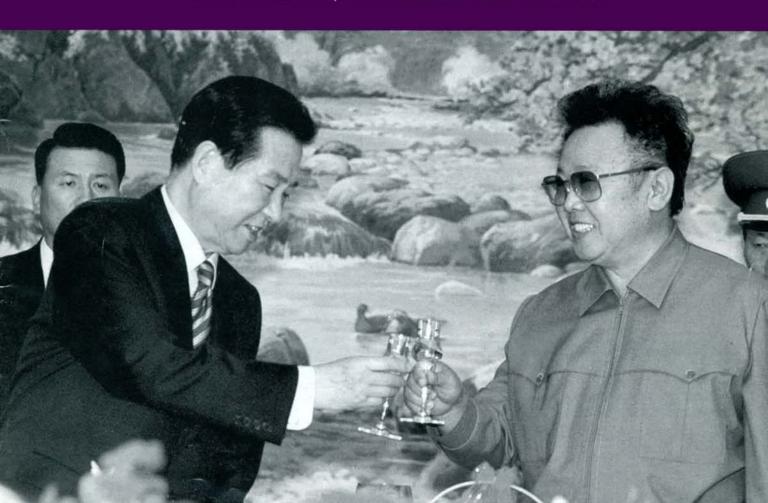


LaRouche Calls on DNC Chairman To Step Down Cognition vs. Information: The Bach Revolution Hurtling into Weimar-Style Hyperinflation

Inter-Korean Summit: 'Open the Roads, Re-Link the Rails!'



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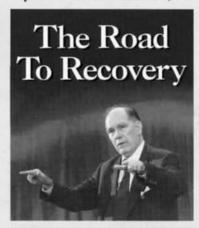
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Lyndon H. LaRouche, Jr.



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

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From the Associate Editor

Lyndon H. LaRouche, Jr. has been talking quite a bit lately, about how we are in a *revolutionary* situation. In a memorandum on April 26, for example, he cited certain relevant events of the period leading up to the Russian Revolution of 1917, and commented, "The situation within the world's present financial and monetary system, and within the U.S. itself, is of a similarly revolutionary character."

Some of our readers, who may be accustomed to thinking in terms of "business as usual," may wonder about that. You look at your brother-in-law, who is working three jobs; or at your neighbor's child, who wears a ring through his nose and spends the whole day playing video-games. Or you look at the two "front-runners" in the U.S. Presidential elections, who are probably the worst choice that has ever been put before the American electorate (and there have been some real doozies in the past). Where, you ask, is the revolution?

The happy events shown on our cover, give a very good idea of the revolutionary potential that is building, as the financial and political crisis deepens. Who would have thought, just six months ago, that the leaders of North and South Korea would be meeting for the first time, and announcing far-reaching plans for the development of economic infrastructure, social ties, and eventual national reunification? The comparison to Germany in 1989 is on everyone's mind—and the Koreans are determined not to make the mistakes that prevented German reunification from realizing its potential, for the general welfare of all the nation's citizens.

As we report (see *International* and the *Editorial*), the changes in Korea would not be occurring, were it not for a growing awareness of how very close the world is to a cataclysmic financial collapse. In Economics, we flesh this out further, with articles on the Bank for International Settlements' warning of such a collapse, and on the onset of Weimar-style hyperinflation.

Our Feature concludes the Proceedings of the Bad Schwalbach conference of the Schiller Institute and International Caucus of Labor Committees. These panels on "Cognition vs. Information" provide wonderful insights into the creative process: the process required for a revolutionary transformation in the world today.

Ausan Welsh

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PRFeature

PROCEEDINGS OF THE HISTORIC BAD SCHWALBACH INTERNATIONAL CONFERENCE

The World on the Brink of the Great Financial Crash

We publish here the fourth and final installment of the *Proceedings* of the conference of the Schiller Institute and International Caucus of Labor Committees (ICLC), held in Bad Schwalbach, Germany on May 26-28. This installment includes the two conference panels on "Cognition vs. Information," with highly original and exciting presentations on the music of science—and the science of music. Thus do we break down the artificial division between these domains of knowledge, which has stultified intellectual life since the Enlightenment.

Lyndon H. LaRouche, Jr. characterized this conference as of exceptional historical significance, and also as "a timely promontory on which to view the June-July period leading into the August Democratic Party convention."

In his keynote speech to the conference on May 26 (published in *EIR* on June 2), he underlined that the policies of the dysfunctional three branches of the U.S. government today represent a recipe for global catastrophe. The most ominous feature of this situation, is not merely the onrushing financial crash, but the state of mind of those citizens who have caused it. How might that mind-set be changed for the better? That is the subject of the panels here presented.

"The essential change to be made," LaRouche said, "is the superseding of the relics of oligarchical rule, such as financier oligarchy, by republican self-rule. This means a cultural change, cleansing society of the old syphilis, that Romantic legacy common to most of the institutions and populations of extended European civilization today, to put society again under the cultural domination of the anti-Romantic, Classi-

cal legacy."

Helga Zepp-LaRouche, in the second conference keynote on May 27 (see *EIR*, June 9), developed this clash between the Romantic and the Classical traditions, showing how Romanticism leads to the culture of violence which we see ripping apart our nations today.

In last week's issue, we published the conference panels on the world financial crisis and how it can be solved, looking to the example of President Franklin D. Roosevelt, who battled the British colonialists and brought the United States out of the Great Depression. To apply such a policy today, means to support LaRouche's call for a New Bretton Woods reorganization of the bankrupt financial system worldwide.

The speeches published in the current issue have developed out of years of work by ICLC and other specialists. Many of the speakers made extensive use of musical examples, which we have conveyed here graphically—a poor approximation at best, even for those who are musically trained. *EIR*'s website will soon have audio versions of the presentations available, which will greatly enhance the reader's enjoyment of this work. (On the web at the "EIR Talks" section of www.larouchepub.com.) Also especially useful for expanding one's understanding of the musical discussion, is LaRouche's study "The Substance of Morality," and its appendix, "The Case of Classical Motivic Thorough-Composition." These were published in *EIR* on June 26 and Sept. 4, 1998, respectively, and are also available in *Fidelio* magazine, Winter 1998.

How Ideas Change the Order of Space-Time

by Dino de Paoli

The following is edited from the written text of the May 27 speech by Dino de Paoli to the ICLC/Schiller Institute conference in Bad Schwalbach. Footnotes have been added by the editors.

Sometimes, we become stupid just because we are too greedy!

Let me start by showing you the headlines of this Wednesday's *Die Welt:* "Europe Must Become World Internet Center"; and at the same time: "The Defense Minister Will Eliminate 100,000 People from the Army."

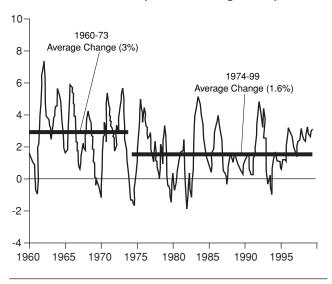
This is just one example, among many, of the crazy utopia running our present world. I can give you another personal example of this paradox: I travel often by train from Hanover to Wiesbaden with a train change in Frankfurt. The greatest innovation of the train company is that I can now reserve my train tickets through the Internet. I save some minutes compared to previous procedures. But, then, once at the station, the train, if it arrives at all, presently has an average delay of 15 minutes, and I must always urgently call my friend in Wiesbaden to pick me up at the station one hour later! The 15-minute delay of my train is enough to make me miss the computer-programmed change in Frankfurt.

This is life in Cyberland!

More seriously, the issue is that the so-called investments in "electronic consumer service" are not an *added* service for the consumers, but in reality only an *alternative* to the needed investment in the physical aspect of that same service, with its obvious catastrophic consequences. Such a state of affairs is in large part the result of the ideology which, in its recent form, started to be fully applied in 1970 under the name of Malthusian de-industrialized society. Some of the worst consequences of such policy are today visible in Africa, but here I want to show only how this affected the U.S.A. itself, precisely starting from the 1970s (**Figures 1-4**).

These are official American government figures; our own would be much more dramatic. Moreover, let's keep in mind, that in the U.S.A., the effects of the deindustrialization were attenuated by the fact that America tried to preserve its role as superpower. Europe has nothing to help attenuate the fall: Once in the full swing of the Internet utopia, it will be only a

Percentage Change of U.S. Labor Productivity, from Previous Year (1974 Turning Point)



Source: Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2001-2010.*

quick road to disaster.

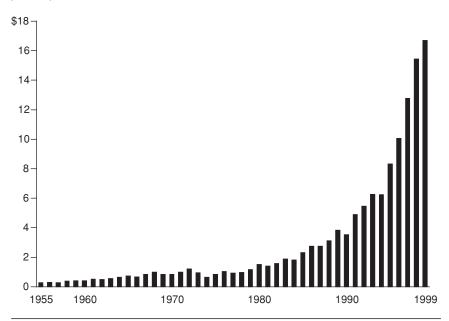
But, how can we say so? How can we speak of disaster, while a lot of people think they are making easy money as never before? How can so many happy people, be wrong in their expectation? To answer this, we need to get at the core of the information or post-industrial society.

The political projects for a "stable" deindustrialized global village, implemented as we saw from the '70s, had been elaborated already during and soon after the Second World War in England and the U.S.A., under the exotic name of cybernetics. We have written extensively on the history of this project, so I do not want here to enter into any detail. If one wants to grasp immediately, the evil social dimension of cybernetics, it is enough to read one of the books of its main

FIGURE 2

Capitalization value of all stocks traded on U.S. stock market, 1955-99

(trillions \$)

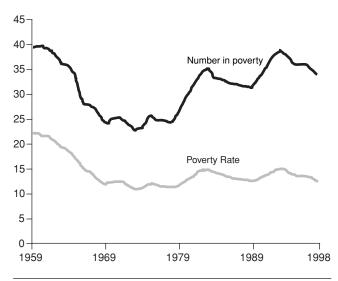


Source: Federal Reserve Board of Governors, "Flow of Funds Accounts."

FIGURE 3

Number of Poor and Poverty Rate in U.S.A. (1974 Point of Increase)

(numbers in millions, rates in percent)



Source: U.S. Census Bureau, Poverty in the United States 1998.

spokesmen: Norbert Wiener's *The Human Use of Human Beings*. My colleague Ralf Schauerhammer has covered it in recent *EIR* reports.¹ How cybernetics developed the idea of "mass psychology" for the "shaping of opinions," has also been documented in some recent issues of *EIR*.²

What Cybernetics Leaves Out of Account

This said, many people, especially in the academic world, have difficulty seeing that Wiener's immorality is also much greater than his stupidity. Stupidity, which, in combination with immorality, led them to make a fundamental mistake regarding the issue of natural law. It is only the discovery of this mistake, that can allow us to speak with competence about the doom for any society that adopts cybernetic zerogrowth policies for long enough periods, no matter how happy the people sharing such an adventure seem to be. To get at this "mistake," it will be necessary, to struggle a bit with the core of the axiomatic structure of cybernetics

and of the post-industrial utopia; which means also essentially to struggle with the work of Lyndon LaRouche, who first, and already in the 1950s, specified it and elaborated a crucial insight for the solution. Cybernetics' mistaken assumptions can be reduced to two axioms:

- 1. The concept of "progress through discovery" would be only a sophist's nominal definition, without any corresponding "objective" reality in the universe. This first is what I call the Adam Smith/Darwin Axiom.
- 2. Social policies should not be oriented to guaranteeing our future by fostering human creative potential and the dominion of *man* over *nature*; but instead by the increase of a hidden social control and by fostering the dominion of *man* over *man*. This second is what I call the Malthus Axiom.

To better see how wrong these two axioms are, we need to go through such abstract concepts as: *entropy*, cybernetic *negentropy*, and the alternative LaRouchean *antientropy*.

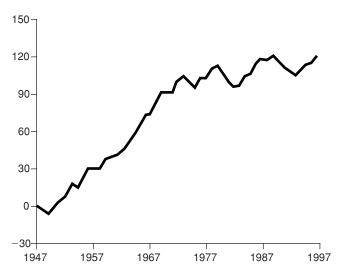
^{1.} Ralf Schauerhammer, "Norbert Wiener: Cybernetics and Social Control in Cyberspace, in *EIR Special Report: Why the New Economy Is Doomed*, June 2000.

^{2.} Lyndon H. LaRouche, Jr., "The Crash of the Nasdaq: Information Society: A Doomed Empire of Evil," *EIR*, April 28, 2000; Jeffrey Steinberg, "From Cybernetics to Littleton: Techniques of Mind Control," *EIR*, May 5, 2000.

FIGURE 4

Growth of Real Median U.S. Family Income (Slowdown since 1970)

(percent change since 1947)



Source: U.S. Census Bureau, Poverty in the United States 1998.

The Real World

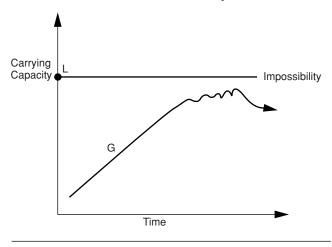
Let me start with few words on what entropy is. (In my articles on Carnot³ and Prigogine⁴ one can find more details if you are interested.) For Leibniz and especially for Lazare Carnot, entropy meant a form of physical "impossibility," or a form of "relative-absolute limit" which we encounter in the material transformation of our world. Such impossibilities or limits, very often take the shape of dramatic catastrophes threatening the existence of entire societies, if they are not solved.

Any technological horizon, and indirectly any discovery or theory behind such technologies, has an intrinsic limitation in time and space, which appears sooner or later as an unavoidable contradiction in the theory and as an unstoppable reduction in physical, social productivity. It is the reduction of social productivity, if not reversed, that brings more and more members of a society below the threshold required for biological survival—e.g., famine, incurable epidemics, etc.

Let me illustrate Carnot's idea with a graphic (**Figure 5**). Here the line (L) represents a calculable socio-ecological limit defined by the rate of reproduction possible under that form of energy or motive power or technological horizon. For any process of expansion or growth (the curve G), inside that space, not only is it impossible to get above that limit, but in

FIGURE 5

Carnot's Conception of How Entropy Places a Limit on Growth in Productivity



reality, with *time*, its *simple expansion* will tend to be less and less efficient, and so declines.

In other words, entropy is a real problem in the physical world, and this is why I defined it as an absolute limit. It appears in this form to any society, based on a given, fixed, energy source or motive power. At the same time, I defined it as relative, because we, and actually the world, seem to have a way to overcome such a limit. But—and here is the crucial point—this can be done only in one single and *necessary* way: Discover or create a "higher" form of energy-space or of motive powers. This, and only this, transforms the previous contradiction and impossibility in simple anomalies, and solves it. "Higher," here, has a precise and calculable meaning, but I do not need to go into the details here.

All this gives fully intelligible meaning to our affirmation that "real evolution" or "progress through discovery of new universal laws of nature" is a necessary condition for conserving existence. The fact that we continue to exist by the creative use of our subjective mind, gives also an objective reality to our subjectivity. Only this process which finds, faces, and solves such "impossibilities" is to be defined as *anti-entropy*. Whether this is a general property or a local property of our universe, is not a matter of our concern for the moment. We know for sure, that without that process, there is no real existence for a human society. An animal society seems to have it easier. Animals exist without the effort of cognition. Well, life does the anti-entropic work for the single animal species; but, for that reason, they also tend to disappear, very often, as single species.

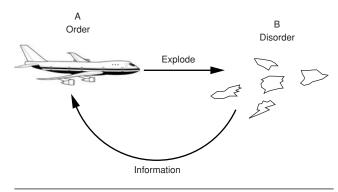
The Cybernetic World

In the later part of the nineteenth century, the concept of entropy became more and more transformed into probabilistic mathematics, and associated with notions such as disorder,

^{3.} Dino de Paoli, "Carnot's Theory of Technology: The Basis for the Science of Physical Economy," *EIR*, Jan. 8, 1999.

^{1.} Dino de Paoli, "Does Time Really Precede Existence? A Reflection on Prigoginism," 21st Century Science & Technology, Spring 2000.

FIGURE 6 Entropy, Understood as Disorder



randomness, and time; alternatively, negentropy became associated with: time-reversal, order, structure, and information.

I will try to make these associations clear, with the following illustration (Figure 6). Imagine an airplane (a structure obtained through work); it explodes into many disordered pieces: This is a form of strong increase of entropy. The pieces move randomly, and we lose all meaningful "information." But, with the patient work of the FBI, sometimes we are able to re-acquire the information, that is piece the airplane back together, and explain the event of the explosion. Something like this capacity to re-acquire meaningful information is sometimes called negative entropy, or negentropy. I do not want to banalize the work of piecing together exploded airplanes, nor the fact that the link between information and entropy was first developed in connection with real physical problems encountered during the transmissions via telegraph. Neither do I underestimate the usefulness of the development of "filters" that are able to reduce the "entropy" of distortions, disturbances, and noise from waves, so that, today, we are able to see satellite images, when, under normal conditions, we would not see anything. My point here, is that such means to overcome "ignorance" or loss of information, such methods of "learning" as expressed by cybernetics, can surely be very useful, but are very insufficient to arrive at the universal meaning of the Docta Ignorantia of Nicolaus of Cusa, or the "I know that I do not know" of Socrates. Moreover, the real evil starts, when someone starts to say that human society has no need to produce enduring evolution through real cognitive discoveries, and can, instead, be satisfied which such socalled negentropic "learning" activities. And this is the cybernetics project, which I want now to better illustrate.

We have to go into issues of time and the future.

Wiener, during the Second World War, helped the English to develop models for radar and for self-targetting shooting devices. The principle of Wiener's work can be shown with two illustrations.

FIGURE 7

Wiener's Concept of the Ballistic, Astronomic, or Deterministic Future

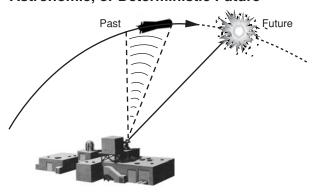


FIGURE 8

Wiener's Concept of the 'Risky' Prediction of the Future

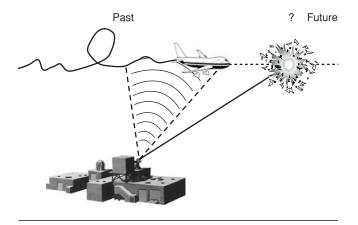


Figure 7 is what I will call the ballistic, astronomic, or deterministic future. We have a missile, with a fixed space trajectory. It is captured on radar, and, with the information we have, we can deduce from its *past* path, the projected *future* path. Such acquired and deduced information will help a shooting device to self-target its shots and hit the missile. All this can, in principle, be automated, given its deductive structure. This is essentially the first of Wiener's ideas, and is also essentially the useful thermostat installed in your house. You see that in this first example, time (except under the concept of speed) plays no real role in the calculation. If the full event were to take place one day later, it would not make any major difference in how to calculate the path.

Let's now see the second level, what I will call, the "risky" prediction of the future; or the time-paths (**Figure 8**). In this

second example, instead of the missile with a fixed orbit, we have now an airplane guided by a pilot. It is obvious that the automatic acquisition of information and adjustment of the shooting becomes more complicated. The presence of the pilot in the system, introduces an independent degree of freedom: The pilot can make decisions. He could suddenly change its path, when and however he wants. Moreover, the pilot will react to the radar, which, in turn, will react to the pilot, which in turn etc., etc. This interrelation is a typical so-called "nonlinear event," so very fashionable today. But does the pilot really have so much freedom? No, not so much, says Wiener. If one knows the constraints of the physical geometry in which he moves, then one knows that, given the high speed, the physical effects of acceleration and deceleration, the timedependent process of any decision-making, etc., the pilot actually has only a limited set of possible maneuvers, and can be shot down by an automatic self-targetting device with a certain amount of probability.

It is the more or less successful attempt to automate the calculation for such non-linear probabilistic systems which makes the bulk of the cybernetics work. And, it is also this, that, at the same time, makes cybernetics useful to the oligarchical utopians. If human societies can be reduced to act as "non-linear" systems, then they, too, can be put under automatic control procedures, non-linear self-adjustments, global planning, etc. Such non-linearities are only in appearance complicated, and only in appearance give the impression of freedom. Indeed human behavior, when acting only inside a real or artificial set of physical or psychological constraints, without being able to change its geometry, is as predictable as an irregularly shaped billiard ball! Only real cognitive creativity, in the form of the anti-entropy that we analyzed before, escapes the trap of determinable probabilistic behaviors.

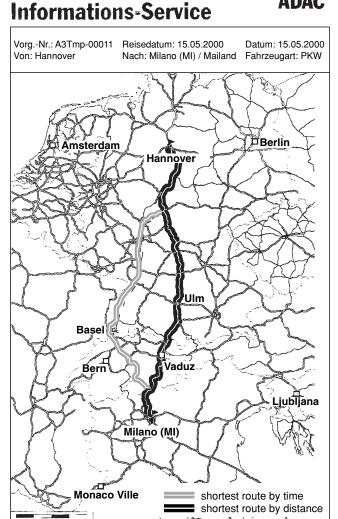
Through the help of "mass psychology" and a set of policies, indeed, a society could indeed be reduced to act in this virtually non-linear way, and be calculable by cybernetics procedures; but to do that, one has precisely to destroy the efficient use of that cognitive creativity, the only means that society has to guarantee its survival in the real world.

But before going into this, let me give another example to clarify this issue of non-linearity and time.

Some time ago, I wanted to go from Hanover to Milan. Out of curiosity, I went to the German automobile club ADAC, to get advice about the best road to take. I asked the new, young employee, who looked at me and said, "Milan! Where is that?" I told him to go to his computer and simply ask for the Hanover-Milan route. And indeed, he came back, smiling, without having learned where Milan was, but with the following printout (**Figure 9**). Here you see the best Hanover-Milan route indicated by the computer. It goes from Hanover to Wurzburg, Ulm, Boden-see, the San Bernardino Pass to Milan. Now, this is indeed the shortest *path*, in terms of space, but not in terms of time! The shortest time is usually achieved by going through *Basel* (I have added this route to the map.) FIGURE 9

The Route from Hanover to Milan

ADAC



How did the computer make such a mistake? Or, is it really a mistake?

How do I know that via Basel is the shortest time? Only statistically! *Usually* that route is shorter, because there is only one border to cross (taking the Ulm route, one has to enter Austria and Switzerland), and because the route is all highway, etc. But this situation can change from one day to another, from one hour to another, from one minute to another. You can have sudden accidents, traffic jams, etc. In brief: Time-based events are very difficult to pre-calculate a priori! The introduction of time, brings with it probabilities, statistically learning from past, non-linear interactions, etc.—in other words, a lot of what cybernetics defines as entropy. To overcome such entropic unpredictability or ignorance, one



Peter Brueghel, The Fall of Icarus

has to introduce nothing other than a constant flow of information, says cybernetics.

And promptly, the information industry is there, ready to sell you systems which update you on the traffic situation every 10 minutes. Or even a satellite guidance system, with a real-time route planner to be installed directly in your car, which will guide you, and even will talk to you, to calm you down when you will nevertheless face the non-predicted traffic-jam!

Now you know why most people get fascinated with cyber-space! Very soon all of us will go around with antennas to get constant updates on world *time-events*, and so, be informed and happy. The most popular sport in Germany is to quickly get the news to outsmart all the other drivers, in attempting to bypass the growing daily intensity of traffic jams. Nobody asks himself any more, why, in fact, there is such increasing breakdown in the traffic. Nobody asks himself any more, how to eventually *change the physical space* of the system to solve the problem!

I hope you see now, how wrong it would be to try to run the world simply by making a universal time-based route-planner. This modern fascination with time per se, these so-called increased needs for quick-response capability based on real-time information, is a fantasy, which forgets a bit too quickly the role of the left-out, unchanged "space." The negentropy of cybernetics always assumes precisely that the characteristic of the physical space-time stays unchanged, and so,

the so-called freedom of the "non-linear" creative behavior become a farce. This is why now, as never before, politicians use words like "creativity," "innovation," "knowledge-based society," blah, blah. But now, as never before, there is so much devolution in the physical base of our society. In the last 30 years, we have reduced our nuclear energy capability, we have sabotaged fusion energy, we have stopped real progress in space exploration, in sub-atomic physics, etc. The only exception seems to have been in biology. There, they now want to make money, as LaRouche says, with the patenting of our genome! But, there, too, we know that the absolute limit, in terms of motive power, for all biological life is represented by the Sun. Biology will disappear with the disappearing of the Sun! So, what is the sense of biological progress, unless we also face the fundamental issues of its physical condition of existence? Unless we start now to see how to recreate or repair the suns in our galaxy!

As I tried to express in a different way, except in the utopia of the oligarchies, no society has the freedom *not* to respect the fundamental geometrical characteristic of our world without suffering the consequences. It is precisely the recognition of such catastrophes, which indicate the road to the necessary change in our way of piloting the airplane. And once in a while, we have even to change the type of flying!

This said, we shall now try to see how to get at the *higher* order, which defines the changes in the physical spaces, which cybernetics wanted to prevent.

As indicated before, cybernetics' other axiom was that, even if real creative cognition should exist, there is no way it could be helped to become a reliable instrument to guarantee our future. It would be, at best, a purely mysterious invisible order, occult, unintelligible for practical needs. This is the Kantian element in cybernetics theory, which LaRouche has attacked so many times.

Paradoxically, no matter how much they have their big talk about communications, they are missing the way the universe really communicates with us. If you have read Leibniz's *Monadology*, you probably have wondered, as I have, what Leibniz really meant, when he said that the *monads* have no windows and cannot communicate *directly* among one another! Sometimes I think I understand it, because I feel the need to close down all my antennas, to avoid being overwhelmed by information! But, probably Leibniz meant something else: Indeed, he indicated that the monads can communicate among themselves, but only through the intermediate of a higher order, and a higher monad, reason, and God.

The universe does hold dialogue with us, and to do it, indeed, it has to use an *ordering* principle, a harmony. Order, then, is very relevant, but not in the sense of cybernetics. If you want to make a good joke, you cannot start by the end! Why? Because the visible order in an artistic composition, or in a joke, has a necessity, an aim: It does not inform you about its structure, it provokes you to get to the unseen higher order. Without that, at best, you only see a mere contradiction.

Let me try to show it with an actual joke, which I stole, because I find it very pedagogical:

A man arrives in Hanover for the Expo and goes to a nice, small hotel in the countryside. He enters, asks the relaxed half-asleep owner for the keys, and starts to go upstairs. But, there, an aggressive-looking dog faces him. Scared, he takes a step back and asks the hotel owner, "Does—does your dog bite?" The half-asleep hotel owner answers, "No, it does not bite." The guest goes up, and, promptly, the dog bites him. Furious, he rushes back to the half-asleep hotel owner and screams, "You, liar! You had told me that your dog does not bite, instead—"And the hotel owner, calmly, and now awake, replies, "But, that one is not my dog!"

Why is this joke pedagogical, although very simple? Because its order shows clearly the arrival of a contradiction and its transformation in an ambiguity. Ambiguity, at which you laugh, as soon as you "get" that the change in geometry solves the paradox. Or, you should laugh, if I were able to make good jokes.

Given that I am bad at jokes, let me try another angle: Let's look at a famous painting by P. Bruegel, *The Fall of Icarus* (**Figure 10**).

The reason I got interested in this painting will become obvious. Icarus as you know, was the son of the scientist Daedalus, who, 2,000 years ago, had to escape from his country. The enemy was waiting along all the probable and improbable paths they could calculate, to shoot at him (under

FIGURE 11



Man-Lion sculpture of 30,000 years ago, from the cave of Hohlenstein-Stadel, near Ulm, Germany.

the advice of N. Wiener). But Daedalus invented, an impossible new path—he invented how to fly and escaped. But also, he had to take with him his son, Icarus. He carefully instructed him about the constraints of the system: The wings would melt if he should go too near to the Sun. They start the flight, and everything functions; but after awhile, Icarus, who thinks he is a creative whiz-kid, forgets the constraints, flies too high, the wings melt, and he falls. Many books and articles have been written (including a disgusting piece by Bertrand Russell) to say that Icarus is the symbol of the arrogance of science. But Bruegel has a different view: Look at the painting. Where is Icarus?

We see that Icarus is represented only by a pair of legs coming out of the seawater! That is all! But now look at the farmers: They seem absolutely unaffected by the *events!* They go on working. Not only that, but now comes the *contradiction*. This farmer is looking in the *opposite direction* from where Icarus fell! He is look up to the sky! So, then, what is the real theme of the painting? Is it Icarus' fall, or something else?

I guess you got it by now: The real theme is the still-flying *Daedalus*, the real scientist.

Daedalus is so much the real theme, that someone made a copy of the painting and thought to literally paint him in. Philippe Messer can tell you all about this, but it is obvious that the copyist had no sense of humor and of metaphor.

This is the same method of composition as the joke above. First, the recognition of a contradiction in the simple visible order, then its transformation in a paradoxical ambiguity as soon the higher order is grasped, by changing the geometry, the space. That process, that provocation is the only real meaning and *information* of the painting.

This use of ambiguities and humor in artistic composition is very old. Take an example from 30,000 years ago, the Man-Lion from the cave of Hohlenstein-Stadel, near Ulm (**Figure 11**). (Now you see why I had secretly programmed the ADAC computer to indicate that from Hanover to Milan, it is better to pass through Ulm!). We do not consider here the specific use of this very old art object. The issue here, is that the artist willfully uses an ambiguous concept man-animal to transmit an idea of invisible order: a man with an animal's face. And this is not because they could not represent humans' or animals' faces.

To Conclude

Indeed, life and existence is team work, not an isolated adventure. At the end of it all, we will get the medal, not if we have been the first in the class, but only if we contributed to bringing the full classroom to safety. But the only efficient way to do it, is to communicate, using the type of "jokes" able to evoke the resources, that, to varying degrees, are within each one of us. You see, a few chimpanzees can transmit some cultural acquisitions to the next generation, but there, it is done only by the mother, who shows the technique to her own kid. In our human world, simple biological mothers are not enough to communicate. To survive, we need also the Socrates and the Bruegels of the past, the present, and of the possible future.

Now, we can also answer Wiener's question about, where is the *assurance* that creativity can be activated when one needs it?

LaRouche, who, you know, is an unchangeable optimist, having probably in mind the Bruegel painting, once wrote: "However, as the greatest Classical tragedians have done, we are capable of rising above the grip of a fixed set of axiomatic assumptions, if we but first recognize them to exist in that way. We then foresee the tragedy which must unfold from adhering to such follies. Aha! But, to see this, is to prompt the will to free ourselves from it! That is true long-range forecasting in economics, in cost accounting, and anything else which the cognitive powers of the individual mind care to see."

Bach and Kepler: The Polyphonic Character of Truthful Thinking

by Jonathan Tennenbaum

The following speech was delivered on May 27 to the ICLC/ Schiller conference in Bad Schwalbach.

In my remarks I will address the fundamental point that Dino has taken up, but from a completely different angle.

Twenty-five hundred years ago, the Chinese philosopher Confucius said he could determine the political and moral character of a nation, just from its music. Imagine if Confucius would be here today, and he would hear the typical kind of music which 95% of young people today are listening to, often all day long [Walkman music plays].

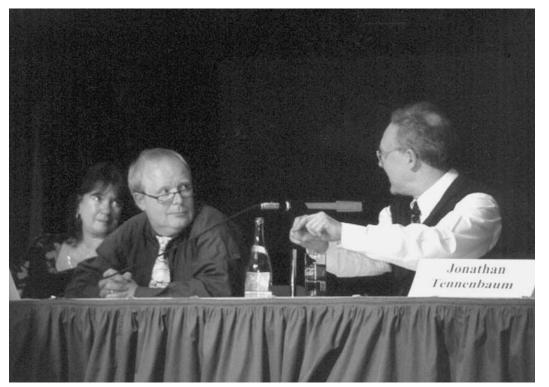
What would Confucius say about this? Surely he would say: "Oh! Oh! Here is a doomed dynasty, a dynasty which is in a late stage of inner collapse." And he would be right. Although we do not exactly have a dynasty in the traditional Chinese sense, we do have a *dynasty of ideas*, of commonly accepted opinions and attitudes, which is collapsing before our eyes. None of the opinions and beliefs, which typify public and private life today, are going to last very long. They will soon be swept away by the onrush of perhaps the greatest crisis in human history.

But what if we were to ask Confucius, how do you *know*, Mr. Confucius, from listening to the music, that the present dynasty is doomed? How can you make such a forecast? He would certainly answer: "Because from the music I can determine the character of the mental processes prevalent in a society, and above all the prevailing conception of Man. Those tell me whether a civilization will develop, or collapse."

Confucius already knew the bare kernel of the method, which was later practiced, with great success, by Johannes Kepler and Carl Friedrich Gauss, in their discovery of a missing planet in the solar system. It is the method of *characteristics*, as Wilhelm Gottfried Leibniz understood the term, which is also equivalent to the conception of a general, anti-Euclidean physical geometry, developed by Bernhard Riemann as a continuation of the work of Kepler, Leibniz, and Gauss. It is also the method of well-tempered counterpoint, as developed by Johann Sebastian Bach. It is the opposite of information theory and cybernetics.

To bring this out most forcefully, I want to focus on a

^{5.} Lyndon H. LaRouche, Jr., "The Becoming Death of Systems Analysis," *EIR*, March 31, 2000, p. 72.



Right to left: Jonathan Tennenbaum, moderator Poul Rasmussen, and Helga Zepp-LaRouche. The truthfulness of Kepler's and Bach's polyphony was established, Tennenbaum says, "to the glory of God and the delight of the human mind."

crucial historical branching point, when the issue of method in musical composition—and implicitly in all of human knowledge—took a particularly drastic and pedagogically useful form.

Bach vs. Rameau

In 1722, Johann Sebastian Bach launched a musical revolution, with his publication of the first book of *The Well-Tempered Clavier*, containing 24 Preludes and Fugues in all keys, and demonstrating for the first time the full potentialities of well-tempered, vocal-based counterpoint. Bach did not add any commentary or theoretical analysis; For him, music was a fully developed language, and Bach said everything he wanted to say, without any ambiguity, in the music itself.

But in that same year, the French organist Jean-Philippe Rameau published his *Treatise on Harmony*, claiming to have discovered the *fundamental law* of all musical harmony and composition, a law based on mathematics. According to Rameau, the principle and basis of all music is located in what he called "*la basse fondamentale*." Rameau promises, by reducing the successions of notes in a piece of music to the single line formed by the "fundamental bass," to make the study of music much easier:

"[My] book contains a special method for learning how to compose music in a very short time. This has already been tested."

Rameau was soon hailed in France as the "Isaac Newton of Music." His fame spread rapidly throughout Europe and

his book became the single most influential writing on the theory of music up to this day. Rameau was the basis of Helmholtz's later work, which in turn was taken as authoritative for all the twentieth-century teaching of music theory. If you study musical harmony at virtually any music conservatory or school today, what you will get, essentially, is Rameau.

From the very beginning, Rameau's theory was strongly promoted by the encyclopedist d'Alembert, Voltaire, and the same British-Venetian salons that sponsored the so-called Enlightenment and promoted the cult of Isaac Newton in France and on the continent generally. The effect in France was so enormous that, 30 years after the publication of Rameau's *Treatise*, Jean-Jacques Rousseau, famous as a music critic, described the situation with the following words:

"The study of composition, which used to require about 20 years, now can be completed in a couple of months; musicians are devouring the theories of Rameau, and the number of students has multiplied. . . . France has been inundated by bad music and bad musicians; everybody thinks he has understood the finesses of art before having learned as much as the rudiments; and everybody tries to invent new harmonies before having trained his ear to distinguish between right and wrong ones."

Rameau's popularity practically meant the end of rigorous musical composition in France and a great part of Europe. Bad music, particularly opera, became a kind of plague, similar to the rock and pop music of our days. Rameau's work was spread into Germany by Marpurg and others, against

the violent resistance of the Bach school, who immediately recognized that Rameau's ideas constituted a deadly assault on the whole Renaissance principle of composition, which had been based on *vocal polyphony*. The ensuing history of music has been a *war* between the continuators of the Bach tradition, and the followers of Rameau—which is essentially the same thing as the *Romantic* school. Mozart and Beethoven, for example, were still rigorously trained in Bach. But by the time of Brahms, the Bach tradition had been uprooted from most musical education, to the point that Brahms himself complained bitterly to his student Jenner, that he, Brahms, had suffered enormously from "bad textbooks" and had to learn everything over again.

Rameau's Theory Per Se

Now, let us briefly look at Rameau's theory and what was wrong with it.

Rameau starts out, very characteristically, by declaring: "Music is the science of sounds; therefore, sound is the main object of music."

Wait a minute! What about the human mind, what about the *ideas* which music is supposed to express? What Rameau says would be like saying, that the principles of poetry can be deduced from the properties of words. The notion, that a musical composition has a *meaning*, plays no role in Rameau's work. Later, in his last musical treatise, Rameau is even more explicit:

"We finally possess the principle of this profound knowledge which will render immortal the glory of mathematics and mathematicians. This principle is in the vibrating body."

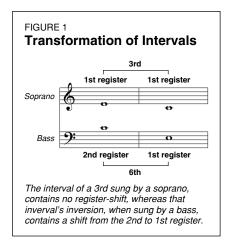
So, for Rameau, it is sense perception and the vibrating body which determine what music is. The human mind plays no role! This is exactly what you find today in a discotheque: vibrating bodies, but no thinking human beings! The only additional factor is what Rameau calls "taste" (*gout*) and "license," which are unexplainable and arbitrary.

Rameau's theory pays no attention to the principles of *vocal counterpoint*, which had been at the center of the development of music since the Renaissance. Instead, he presents a static notion of *vertical harmony* on the basis of *chords*, or momentary constellations of notes that happen to be sounded at the same time.

Start with a vibrating string of some length, which produces some tone. Divide it into 2, 3, 4, and 5 parts, which are the simplest arithmetical divisions. The chords of lengths ½, ½, ¼, and ⅓ produce tones, which together with the original tone form a *chord*. Rameau considers this chord the foundation of music. I will play it on the piano: [demonstration]. The upper tones coincide with the so-called "overtone series," experimentally established by Sauveur and others around the same time.

Now Rameau argues that the relationship of an *octave* — corresponding to division of a string by two, is a kind of *identity*. We hear any tone, and its upper or lower octave, as

being essentially the same note. As a result, according to Rameau, we can replace any note in the fundamental chord by its octave, and we will get a chord which is harmonically equivalent. By such rearrangements, we get a whole series of chords, known inversions.



which are all derived from the same bass tone, or "basse fondamentale," and which Rameau regards as essentially equivalent.

But if you take the standpoint of vocal polyphony, octaves are not at all equivalent: Replacing a note by its octave transforms all the relationships among the different voices! Firstly, I end up in a different *register* of the voice, or even in a *different voice*. Secondly, I transform the *intervals* between the voices. For example: a third becomes a sixth, and a fifth becomes a fourth, and vice-versa [Figure 1].

This sort of *transformation* of intervals, known as *inversion*, was of course known long before Rameau, as a principle of *development* in vocal-based counterpoint. But for Rameau, there is no real change, because the fundamental bass remains the same.

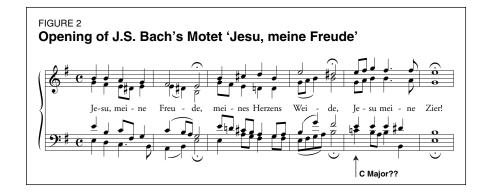
In fact, Rameau thinks of music as a sequence of individual sound effects. He has no conception of a process of transformation, like someone who speaks only in nouns, without verbs.

Let me show you a simple example to see how completely incompetent this so-called theory is: a very simple chorale which Bach uses at the opening and closing of his motet, *Jesu meine Freude*. In **Figure 2**, in the measure marked with an arrow, we see, on the first syllable of the word "Jesu," what Rameau would identify as a perfectly simple consonant chord on C. Perfectly consonant, that is, when we play it or sing it *in isolation*. Similarly, Rameau would identify the notes just before it, at the end of the preceeding measure, as a perfect consonant chord on B-natural.

But, if I play the two in succession, as fundamental chords in Rameau's sense, I get just nonsense. Whereas in the context of the actual chorale, the moment where the supposed "chord" of C sounds, is a moment of great tension, a kind of *dissonance*, which is resolved by the development on the following words, "meine Zier!"

Examples like this demonstrate some obvious points, refuting Rameau's whole approach:

First, human beings don't hear music as a succession of



Friedrich Chopin made a very similar criticism of Berlioz, in a discussion reported by Eugène Delacroix:

"It has become customary now to learn chords ahead of counterpoint, which means, ahead of the sequences of notes by which the chords are formed. Berlioz simply sets down the chords and fills the interstices as best he can."

chords or sound effects, but rather as a process of transformations. It is not the sound of a momentary constellation of notes that determines, for example, whether we hear a given moment as consonant or dissonant, but rather the context, the *process* subsuming those notes.

Second, each of the voices in Bach's chorale has its own characteristics, its own *willful motion*; so that each moment of such a polyphonic composition is like an historical event, in which various different processes intersect and interact with each other. The dramatic moment at the word "Jesu" is especially connected with the upward motion of the bass, which begins in the preceding measure, and is continued by the soprano and alto voices; and with Bach's special use of the half-tone intervals B\(^1\)-C-B\(^1\) and F\(^1\)-G-F\(^1\) in the various registers, which lends this chorale (and the whole motet), a specific *character*.

How To Write Bad Music

These sorts of things were well known to any competent composer in Rameau's time, but he just ignores them and goes on to formulate his instructions on how to write music. First you invent a fundamental bass, according to your own good or bad taste. Rameau advises composers who have no taste, to just choose the fundamental bass at random! Next, you just write down the corresponding chords, choosing whatever distribution of intervals suits your mood. In some places you can omit the fundamental note, and use one of the other note of the chord as the bass note (so-called chordal inversion). Finally, you can add some dissonances according to your arbitrary "taste." Congratulations! You are now a bad composer!

In fact, Robert Schumann criticized a typical product of the Rameau school, the Waverly overture by Hector Berlioz, in the following words:

"Often it is only a series of empty sound-effects, of lumps of chords thrown together, which seems to determine the character of the piece. . . . He shines like a jet of water, but he also leaves a stinky smell of sulfur behind him; he puts forward great propositions and truths, only to fall thereafter into schoolboy-like babbling."

A Revealing Comparison

Let's hear the beginning of a piece by Rameau himself, which he uses as an example in his famous *Treatise on Harmony* of 1722. Rameau calls this a fugue, but it is so, at best, only in a formal sense. And then let's compare that with the opening of a real fugue, Bach's Bminor fugue from *The Well-Tempered Clavier*, written in the same year, and which Beethoven later studied particularly carefully when he was working on his *Hammerklavier* sonata. I am playing the Rameau fugue on a computer, which is perhaps appropriate to the quality of his method [**Figure 3**].

At first hearing, it sounds nice, and you can be fooled by Rameau, who is skillful at creating harmonic sound-effects and putting short counterpoint imitations in. But it is not a fugue, because there is no *dialogue*, no tension between the *voices*. Not surprising, because in Rameau's theory the voices have no real existence; they are essentially devised after the basic outline of the composition has been finished, to fill in the spaces between the chords, as Chopin pointed out.

Now let me play just the opening of Bach's fugue [Figure 4].

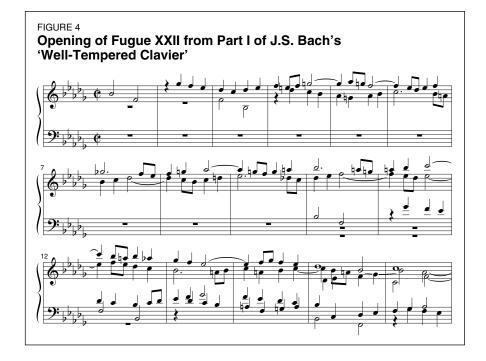
Could there be any greater difference? Bach's fugues are *dramas:* The voices enter like persons in a Shakespeare or Schiller drama; each intervention *changes* the process, and the composition drives forward, with enormous pungency, tension, and force, from one crucial conjucture to the next. This is a typical example of a Keplerian curved space-time, as we shall see at the end of my presentation.

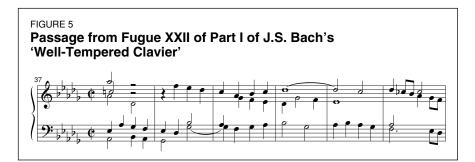
Indeed, Bach's polyphony involves a special sort of harmony, not explicable by Rameau's sort of theory. To emphasize this, I want to play a short passage from later on in the same B-minor fugue [**Figure 5**].

This passage is completely anomalous to either Rameau's theory or the rules of textbook counterpoint. Looked at abstractly or statically, the voices make a jarring series of dissonances without formal resolution. But we do not hear their motion as dissonant! The reason it works, cannot be deduced from the notes per se, but lies in the *intelligible idea* which is guiding the voices. That is why they seem to progress without difficulty toward their respective destinations, like planets travelling along a set of least-action harmonic "orbits," moving in a special curved space-time, which has been created by









the composer in the mind of the listener, not by some fixed *a priori* rules. As a result, Bach is constantly able to do "impossible" things, breaking the rules in a truthful way. In fact, Bach's student Kirnberger reported:

"The great, late J. Seb. Bach used to say: It must be possible to do everything; he never wanted to hear that something was impossible."

Bach's Platonic Polyphony

Now, the key to Bach's special use of harmony, is the way each voice *changes* the way each other voice is heard. Let me do a very simple pedagogical demonstration of this, which was made by Bach's student Kirnberger [Figure 6]. He took the opening phrases of a very simple chorale melody: "Ach Gott und Herr, wie gross und schwer sind mein' begangne Sünden," and wrote 26 different bass lines to it, each bringing out a different *sense* and coloring in the original melody. In doing so, Kirnberger emphasized the conception of harmony, not as a matter of chords, but as a means of *contrapuntal development*. We will just do five of them to give you an

idea of this. (Note that this is not intended to be a real piece ofmusic, but only a laboratory demonstration.)

Naturally we can also start with a bass voice, and, by adding different soprano voices, transform the meaning of the bass. Thus a real dialogue and drama between the voices becomes possible. Listen, from this standpoint, to the opening of the fifth fugue of Bach's The Art of the Fugue, in which the dialogue is especially clear. In this fugue the subject appears together with its mirror inversion, thereby making it possible to generate a new set of cross-voices [Figure 7].

A useful reflection of Bach's conception is contained in the first (and I think, best) biography of Bach, written by the music director of Göttingen University, Nikolaus Forkel, based on discussions and correspondence with Carl Philipp Emanuel Bach, Kirnberger, and other J.S. Bach students. Forkel characterized Bach's use of harmony in the following way:

"He considered music entirely as a language, and a composer as a poet. . . . [But] so long as the language of music has only simple melodies, or only successive connection of musical tones, it must still be considered poor. . . . Very different is the case,

when two melodies are so interwoven with each other that they, as it were, converse together, like two persons of the same rank and equally well informed. . . . This sort of union of two melodies gives rise to new combinations of tones and consequently to an increase in the variety of musical expressions. When more voices are added, and interwoven with each in the same free and independent manner, the wealth of musical expression increases still further. . . . Harmony must thus be understood not simply as the accompaniment of a simple melody, but as a real means to increase . . . the wealth of our musical language."

Here Forkel is explaining what has since become known as the "cross-voice" principle: New musical ideas are generated, so-to-speak, *between* the voices. So it is, also, in a dialogue of Plato or a drama of Aeschylus, Shakespeare, or Schiller.

Truth in Music

So much for the musical examples. You will hear more tonight in the concert and tomorrow morning in the panel on



Bach. But now I want to start some trouble. In pursuing the diametrical opposition between the methods of Rameau and his followers (the Romantic school) and Bach, we have arrived at a point which is very upsetting to many people.

A: Wait a minute! You and Forkel talk about a musical language, a dialogue, and so forth. But, what is the dialogue about? What are the voices in a Bach fugue *saying* to each other? Can you express it in words?

B: No.

A: Aha, it is a different sort of information.

B: No. Not information.

A: Some message coded in symbolic form?

B: No!

A: Then you are talking about *feelings*. The voices are expressing pure feelings.

B: No!

A: Then surely you do not really mean to say that the voices in Bach's fugues are making an actual dialogue. Surely Bach is just *imitating* a conversation, just like some composers imitate birds or scenes in nature in their compositions.

B: No. It is a dialogue. Classical polyphony is a real language and the compositions of Bach and his school, up to Brahms, have a definite *meaning*.

A: I think you are interpreting too much into the intentions of composers. After all, art is purely subjective and creativity is something mystical. Especially when you get to Brahms, which is the Romantic period.

B: No, nonsense! Brahms was a passionate anti-Romantic, like all the great composers of the Bach school. Just read the book his student Jenner wrote on how Brahms taught him. Brahms was a fanatic on rigor. For example, when Brahms and Jenner were discussing the problems of writing variations on a theme. Brahms advised Jenner: "The fewer variations the better; but then they must say everything that is to be said."

From this and a thousand similar remarks, it is absolutely clear, that when Bach, Mozart, Beethoven, or Brahms wrote a piece of music, they knew *exactly* what they wanted to say.

A: So we are back to my original question. What is the *meaning* of a

Bach fugue? I listen to it again and again and look at the score, but I can't figure it out.

B: The problem is, you are looking in the wrong place. The meaning is *not* in the notes.

A: What? If the meaning is not in the notes, where is it then?

B: In your *mind*. If you have listened to a piece and it was performed properly, then the *idea* Bach is expressing with the help of the dialogue, has already been generated inside your *mind*.

A: That is absurd! If the idea were already in my mind, I would not be asking *you* for it!

B: It *is* in your mind, but you don't recognize it, because you are looking for a literal sort of meaning or interpretation. But the meaning is a *thought-object*, which Forkel and Kirn-



berger, for example, had in mind when they talked about the *character* of a composition, and which derives from the particular method or hypothesis which Bach chooses in generating and resolving the *paradoxes* in the musical dialogue. In fact, not only is Bach expressing musical ideas, but his compositions are also *true*.

- **A:** This is too much for me. How can you claim that a musical composition expresses truth, if you can't even tell me what it is saying? After all, "truth" means to be in agreement with the *facts*.
- **B:** But what about a *thinking process?* Cannot a thinking process be either truthful or fallacious? Irregardless of so-called facts?
 - **A:** Give me an example.
- **B:** Well, for example, you would agree that the world is in the midst of a gigantic economic, financial, political and moral crisis?
 - **A:** Yes, that is why I am here.

- **B:** But what about your friends and neighbors, who have the same facts as you, but don't see any big crisis at all? You see the destruction of the economy, and they see prosperity and growth. What is the reason for that?
- **A:** Something is wrong with their heads.
- **B:** Exactly! Their thinking processes are not *truthful*. That is exactly what Confucius could tell, just by listening to today's popular music. In the same way, the compositions of Rameau are false, they are a facade; whereas Bach's compositions represent truthful thinking.

Bach and Kepler

A: But now something else bothers me. You pointed out that Bach's composition does not follow formal rules, of the sort that Rameau and others tried to define. In fact, Bach constantly breaks the rules. But apart from agreement with facts or with formal logical or other rules, how can you *know* whether Bach's or anyone's thinking processes are truthful? Aren't you opening up the door to purely subjective opinions?

B: Well, the question of truthfulness cannot be addressed simply within music per se. Ultimately it is a matter of physics, or more precisely, of man's active relationship

to the universe as a whole. What processes of the mind lead to an increasing power of mankind, per capita, over the physical universe? To the extent we can identify, in our own minds, the characteristic of such creative processes of generation, assimilation, and application of valid scientific discoveries, we can know the truthfulness of our own mental processes. At the same time, by knowing creative Reason, we can know the principle of creation itself, in the only way we could possibly know it! This is why the development of music, since the very beginning of human culture, has been inseparable from *astronomy*.

A: Astronomy?

B: In fact, there is no doubt that Johann Sebastian Bach's anti-Rameauvian revolution in music, was based directly on the work of Johannes Kepler—exactly the same work which led to the subsequent development of an anti-Euclidean physical geometry by Leibniz, Kästner, Gauss, and Riemann.

A: What could Bach's compositional method have to do

with anti-Euclidean geometry?

B: Everything. In fact, Andreas Werckmeister, probably one of the greatest influences on the young Johann Sebastian Bach, explicitly stated that it was Johann Kepler who provided the astronomical proof for the well-tempered system of vocal polyphony. Werckmeister wrote extensively about this, particularly in a remarkable book entitled *Musikalisches Paradoxon-Discours* (*Discourse on Musical Paradox*), in 1707. So, we can be quite sure that Bach's 1722 *Well-Tempered Clavier* is a musical elaboration and celebration of Kepler's astronomical discoveries.

Incidentally, Abraham Kästner, the teacher who brought the key issues of anti-Euclidean geometry and the work of Kepler to the attention of the young Carl Gauss in Göttingen, came from Leipzig, where he taught at the university at the same time that Johann Sebastian Bach was the main musical figure in the city. A fellow teacher at the Leipzig Thomasschule together with Bach, Johann Winkler, organized the revolutionary experiments on electricity, which made Winkler famous as the "German Benjamin Franklin." Winkler also performed in Bach's cantatas. So, we can be sure that all of these matters were being discussed in Bach's Leipzig circles in the last 15 years of Bach's life.

A: I still don't really see the connection with music.

B: Very simple. First, you should remember that the conception of a *curved* physical space-time is very old. It begins already with the discovery, made by the earliest astronomers of prehistoric times, that our naive sense-perception distorts the universe in a very specific way, leading to the false appearance that the world consists of a collection of discrete objects of an infinitely extended space, or that the elementary form of action is straight-line motion. On the contrary, the ancient astronomers knew that the geometry of the world is not flat in that way, but rather essentially spherical; and that this is reflected in the discovery of a growing array of astronomical cycles governing the motion of the planets and other phenomena. This led into the study of harmonic proportions of the heavens and of living organisms, as reported in Plato's Timaeus; and the notion, that our universe is harmonically ordered as a totality. That is the first form of anti-Euclidean geometry—that is, a geometry which is not based on deductive axioms, but on the discovery of physical principles.

A: Aha. So Bach's polyphony is based on this notion of a curved universe, as opposed to the flat thinking of Rameau and his followers.

B: Exactly. But there is more: You have Kepler coming along beginning in the 1590s, and reworking the whole question; as a first step, Kepler had to eliminate the corrupting influence of Ptolemy's formalist methods (the so-called epicycle method), which had blocked fundamental progress in astronomy for 1,500 years, since the Roman Empire's suppression of Plato.

A: So Rameau was really a successor of Ptolemy.

B: Absolutely. Just like the "information theory" freaks

today, who are practicing pure Ptolemicism.

A: So, what did Kepler accomplish?

B: Briefly, in his first work, *Mystericum Cosmographicum*, Kepler developed a much-improved form of the Platonic hypothesis, that our solar system is pervasively *shaped*, in all its features, by a *unique principle* — a *physical* principle which is reflected, in visual-geometric terms, in the existence of exactly five regular solids in visual space, all of which are derived from a single one (the dodecahedron) in the manner Leonardo da Vinci's teacher Luca Pacioli demonstrated in his book on *The Divine Proportion*.

Kepler drew two very crucial conclusions: First, that the *origin* of the harmonic proportions, found in the forms of living organisms, the motions of the planets as well as in musical system, does not lie in self-evident properties of whole numbers (as the cabalist Fludd tried to claim), but rather in an underlying *physical-geometry* of the universe as a whole. Second, the pervasive presence of the Golden-Mean-related harmonic proportions in the solar system—proportions otherwise found only in living processes and their products—suggests that the solar system had to be seen, not as a fixed entity, but as an *evolving process*.

B: Aha!

A: It was from this standpoint, informed particularly by the work of Nicolaus of Cusa, that Kepler turned to examine the discrepancies in the orbital values, relative to a simple-geometrical determination in terms of the regular solids. He inferred the existence of an *additional*, yet-undiscovered physical principle underlying the organization of the solar system, and focussed his attention on the anomalies in the available astronomical data. After many years of work, Kepler published his *Nova Astronomia* (*New Astronomy*), demonstrating the elliptical orbit of Mars and establishing a new physical principle of *non-constant curvature*, which revolutionized all of science.

B: And Bach's revolution in well-tempered polyphony flows from that?

A: Yes, but not until we have solved the problem, to which Kepler addressed his final work on this subject, his 1619 Harmonices Mundi (Harmony of the World): How to integrate the principle of non-constant curvature, with the harmonic principle he had established 20 years earlier, in his Mystericum Cosmographicum. The problem is very simple: Instead of a solar system governed by simple astronomical cycles, we now have a process which is changing its characteristics from moment to moment, within every interval. What, therefore, is the higher characteristic of change, which subsumes the evolving characteristics of the system?

B: Like the motion of Mars on its elliptical orbit, where the velocity and the curvature of the pathway are different at every point?

A: Yes, but more than that, Kepler is addressing the *entire* solar system as a single process—in which, for example, each planet constantly reacts to the existence of all the other plan-

ets. Kepler demonstrated, that the harmonic values of any pair of planetary orbits—their minimum and maximum angular velocities as seen from the Sun—form *musical* intervals. However, those musical intervals do not constitute a simple harmonic series, like Rameau's fundamental chords; nor do they fit together unambiguously into a single musical scale or tonality. The solar system does not work that way; it is genuinely polyphonic, and it generates *dissonances* in a lawful manner.

B: Did Kepler really say that?

A: Not only did he say it, but he called on the musicians of his day to assimilate his discovery:

"Follow me, you musicians of today, and judge for yourself. According to the principles of your art, which were still unknown to the ancients. . . . Through your polyphonic melodies, through your ears the human spirit—the beloved child of the divine Creator—Nature has revealed her inner Essence. . . . The planetary motions are thus nothing else than a continuing, polyphonic music (perceived by the mind, not the ear); a music, which progresses through dissonant tensions, as if by syncopations and cadences (as Man uses theses, in imitation of those natural dissonances), toward certain predetermined points of completion; and by doing so, sets its various marks onto the immeasurable expanse of time."

The fact, that the orbital values do not fit into a single, simple harmonic series has two profound implications: First, from the standpoint of musical polyphony, we require a welltempered system, because each pair of values must be "heard" not as an isolated interval, but in potential relation to all the other intervals in the system. Second, and more important: We live in a universe which cannot be reduced in a deductive manner to a single principle, as Newton claimed to do with his universal gravitation (itself actually a discovery lifted from Kepler). Rather, human knowledge develops as a growing family of physical principles, such that the discovery of each new principle modifies or tempers all the others. There is a higher characteristic or principle of discovery governing this process, but it is accessible only to the creative processes of the mind, and cannot be represented or communicated in any formal manner.

Finally, I should mention that at the end of his *Harmonices Mundi*, Kepler speaks of dissonances in the array of planetary intervals, as pointing to the possible existence of a "missing planet" between Mars and Jupiter—a possibility he had already discussed in his *Mystericum Cosmographicum* 20 years earlier. Less than a century later, the young Carl Friedrich Gauss, working on the basis of the overall *characteristics* of the solar system, demonstrated by Kepler, determined that the orbit of the asteroid Ceres—whose discovery Gauss himself had made possible—lay exactly in the orbital region Kepler had predicted!

In this way, the truthfulness of Kepler's—and Bach's—polyphony was established, to the glory of God and the delight of the human mind.

Dialogue

In the Footsteps of Bach, Kepler, Leibniz

The following are excerpts from the discussion following the panel on the afternoon of May 27.

Bach and the Principle of Organ Construction

Feride Istogu Gillesberg, ICLC, Stockholm: I have a question concerning organs, because I recently read a biography of Albert Schweitzer, who was very engaged in keeping the old organs alive. He says that the way Bach composed, and what was played on the old organs, is different than the new organs. Do you want to say something about that?

Tennenbaum: I happen to have had some personal experience with this. Bach himself, was very much involved with the principles of organ construction. I think that at that time, in Bach's period and also earlier, from the Renaissance period on, and even before that, the construction of an organ was a masterpiece, a feat of the greatest, highest technology of that time. The organ builders like Trost, Schnitger, and Silbermann, and many others - in my conception, this would be like the aerospace industry, today, in terms of the profundity and the amount of knowledge, involved in constructing these remarkable instruments. But, of course, those were Renaissance principles. The Renaissance principles of the notion of sound were not the Helmholtzian — and, here again, we get to Kepler. What is sound? What is a musical tone? Is a musical tone just a vibration, just a sine wave, as we learn in a physics course? Or, is a musical tone something else? Maybe we can get to that, later, that a musical tone is a kind of soliton. It's kind of a Keplerian process. It's not just a vibration of a string. A musical tone.

So, the principles of organ-construction developed out of discoveries on the principles of the human voice, out of the *bel canto* conception. If you hear a Trost organ or a Silbermann organ, you see they *sing*, these instruments of Bach's time. They were *vocal* instruments. The conception was a vocal conception.

Similarly, also, the entrance of voices: I mentioned, in talking about the drama, the idea that a fugue is a drama, a drama in the sense that the entry of a voice, and a change in the voice, in a process that is already moving forward, is a moment just like when you're on a stage, and something's happening, and suddenly a messenger comes on stage and says, "Now, this has happened." So, the notion of the entrance, particularly of the voice—the voices must be transparent, you must hear the voices, you must hear this dialogue. The organs

were constructed, from this kind of conception.

Now, the details I don't know, but, under the influence of the Romantic school, which entered particularly in the second half of the nineteenth century (I think it started earlier than that, perhaps), there was a great change in the mode of construction of organs, in the whole conception. This was not something secret; this was very explicit. If you take one of the old Bach instruments, for example, when a typical organ-pipe starts, it starts with a "tuh." It doesn't go "oooooo," it goes "tchyuh"! "Jetzt!" "Jetzt bin ich da!" ["Now I am here!"] You have this kind of attack, like when a violinist starts a note. It's an assertion, it's a change.

In the construction, I know just one particular very interesting technical, but not really technical, aspect. Take the sound of an organ-pipe, say a principal pipe. Some organ pipes have tongues, like an oboe, but other organ-pipes have an opening, and a current of air that goes across them. At the beginning of a note, when it starts, the air makes a phasechange and goes into a kind of turbulence, a very well-organized turbulence. And that's what we hear, in the "tchyuh" of the sound starting, in a good, Classical organ. In the Romantic period—and I have played such organs and was greatly disappointed—they took the opening and they filed it, put grooves in, which makes this turbulence start very gradually, so you get this "rrrwwwoooooo." If you listen to some of these socalled Romantic organs, you'll hear this. There were other changes, also. The overall effect was, that instead of this drama, you had a little bit like the sense of Rameau—this, I would say, muddy, or dark, confused sound.

Fortunately, some very devoted people tried to maintain some knowledge. There are many things we don't know. Just as we've lost the knowledge of the *bel canto* principles, at least the scientific knowledge—I think we're behind Leonardo da Vinci, in many ways. But, there were some people who kept some of the original instruments alive. Then, there was a movement (Schweitzer was involved in this) to start to rebuild, and to build again, organs on these old principles.

Refuting Rameau, the Cartesian

Christine Bierre, ICLC, Paris: On this question of Rameau. First of all, I want you to know, as well, that Rameau did not invent hardly anything. He took everything from Descartes. For instance, this idea that a tone is composed of the fundamental bass and the series of overtones, comes directly from Descartes' "Treatise on Music," as well as the idea that music is nothing but agreeable sounds, which is also taken from Descartes. This is the basis for Rameau to reject the logarithmic division of the scale, because the logarithmic division of the scale means irrational numbers, and therefore something which is not "agreeable" to the ear. Therefore, he adopts instead the "natural" division of the scale, which then leads him to have major half-tones, and minor half-tones. This division of the scale would have made it completely impossible to compose The Well-Tempered Clavier or the majority of the works of Bach, simply because it reduces the possibility of composition to about one single scale, in order that there not be distortion as you go through the major halftones to the minor half-tones.

This question of Rameau is extremely destructive for the people who are being trained today, because today they are trained essentially in harmonic composition and not at all in contrapuntal composition. I had the experience, recently, of giving to a very competent musician a canon by Mozart, which was obviously inspired by Bach, and which is all built in terms of cross-voicing and counterpoint. The guy looked at it, and said, "This can only be built harmonically, like filling full chords." He could not see how it could be constructed in a different way. This shows how the culture has been destroyed, and this is very paralyzing.

Tennenbaum: I think that's very relevant, the Descartes connection. There was a promotion of Rameau, which I think would be interesting (perhaps you know more about it, or some people in France have studied more the way it was promoted). I think it was through salon-type networks.

But, one point I wanted to make: Firstly, Andreas Werckmeister, in this book, which (unfortunately, I did not have time to really study it carefully) is an amazing work, starts from the notion of refuting this idea of the so-called "natural" system. He says: Look, we have the solar system, Kepler's solar system proved that the harmonic principle in the solar system is *not* the Rameau principle, not the numbers, not the overtone series. Kepler actually states, in the World Harmony, very explicitly, that the reason for the effect of beauty in music is not the acoustic connection of tones and overtones, but it comes from a deeper principle, namely the geometry of the human mind. Kepler, in his World Harmony, in his works, proves that the so-called natural tuning of vibrating strings is not the tuning of the solar system. It's not the principle of the tuning of the solar system. It's not a question of frequencies, it's a question of the principle involved. When you get to the changing curvature, you're in universe which is developing ambiguities, it's developing new principles, you don't have this fixed, so-called natural tuning. So, the word "natural" is wrong. Basically, that was one of Andreas Werckmeister's main points. He said, "Since man is created in the image of God, we have to follow the harmonic principle of the solar system, which is *not* that of a vibrating string." Even though a vibrating string is in the solar system, too, as a little piece

The other point I'd like to emphasize, for people looking at the music question: If one looks at *The Art of the Fugue*, which we'll hear more about tomorrow, I think it's an interesting point, that in many of the fugues, Bach does not use many different tonalities. Formally speaking, he doesn't modulate very much. Many of the fugues stay just in a couple of tonalities. In principle, you could play them in a *non*-well-tempered system. That, I just say to pose the higher thing: The well-tempered principle of composition is not. . . . You can't define it by saying, "Okay, now people could compose in all 12 keys." It's a notion of geometry. It's a notion of the way

musical composition is done, a method of musical composition. I think we'll have more about this tomorrow, but that's a very interesting point. How are you composing in a well-tempered way, even if you're playing only in one or two keys?

Where Fermi and Prigogine Failed

Q: My question is for Dino de Paoli. I studied some elements of thermodynamics from the book by Fermi. He leaves the reader with the impression that the third principle of thermodynamics is an answer to the problem of minimizing the entropy of systems. I would like to know, how do you criticize this particular principle, in our discussion? And, how do you think the work by Prigogine, on the structure of orders different from those we ordinarily know, can answer this old problem, left by Fermi?

De Paoli: Very briefly, because there is a written article on Prigogine, so you can read about it. But, it's probably relevant that I say clearly, what maybe was not clear before: What is the *big* difference between Lyn and all this?

The first point, is that some of this work, including the work of Fermi, is very useful in terms of machine construction. That said, the point is precisely that this tendency—just "how do you reduce entropy?"—most of this work, applied to society, means what you would call today "recycling." It's a zero-growth theory, which tries to maintain the equilibrium of society by recycling. The mistake is, when this becomes a sociological issue, a sociological theory, and you try to shape the society based on it. That's why cybernetics is so dangerous. Not because of the technical work, per se, but because it becomes a sociological project. That's why Lyn reacted.

Now, the point is—and that's what Lyn did—to identify where the mistake is. The mistake is, that the universe does not try just to *minimize* the entropy. Where do you have the proof? Well, you have to start from the top. The proof is the existence of human beings. You can't go from below. Start from yourself; start from the idea of the individual, the individual capability to go above time, the individual capability to change space. It is the existence of this individual, which defines any universal law—not any specific technological law, but any law which has the pretension of being universal. Once you start from there, you see precisely what Lyn did introduce. And, it's not an arbitrary introduction. It's not something just to make you happy, it's an introduction which responds to natural law.

Why? The second point, is life. Life could not exist, in that same form. So, the existence of human beings, the power of their individuality, what Jonathan tried to express in the music—the single note, as a function—the individual as a function, not arbitrary, but to change precisely the form of the universe. This is the main point of difference, between us and Fermi, and Prigogine, and everybody else, who just try to say

that the issue is to minimize entropy. This is just to say, "We don't want to solve AIDS; we just want to minimize the AIDS effect." Do you want to do that, or do you want to solve it? There is a way to get out of this tragedy, which has been made out of putting some technological issue into a sociological policy, which is this idea that society cannot really increase, only control—and "to control" means to minimize thinking.

This is why neither Prigogine, nor Fermi, nor anybody else has taken the step of saying that the existence of the human individual means something. It is sacred, because it means something. That existence is the starting point, to explain physics, and not the other way around.

Starting a Pedagogical Fight

Q: I have a proposal. The first time I really learned something about music, was in a study-circle with Ulf Sandmark in Stockholm. . . . We talked about the harmony of the spheres, Kepler, and so forth. It was very fascinating, because of the coherence of the solar system with the notes. This got me thinking such a crazy thing, as that there might be a God in the world. . . . My question is for you, Jonathan Tennenbaum, and maybe also Poul Rasmussen [who was chairing the panel]: Why don't you, as such polemical people, write maybe an article or a leaflet, describing this in a very pedagogical way, so young people, my age and younger, can understand that particular thing?

Tennenbaum: Well, I don't want to spare you, also, the interesting work of writing such a leaflet, because you may also know how to address the people of your generation better than such people of — [shout from the audience: "Baby Boomers!" Laughter from the podium]. Exactly — we Baby Boomers, we're already the has-beens, many of us. Maybe we can work together.

Actually, we did do an experiment. Many experiments, but one particularly I remember, when the Voyager spacecraft took these beautiful pictures of the rings of Saturn. If you look at any book on astronomy, before those pictures came out—how they present the rings of Saturn—and you compare with the Voyager pictures, you see that the astronomers, at least most of the astronomers, had *no idea* of what they then saw. A completely different conception! Because you saw that the rings have this beautiful geometry, which seems to be detailed, down to as far as you can see—the smallest, even just a few kilometers, it's already organized.

So, I wrote a leaflet called, "Newton Was Wrong, Kepler Was Right!" With this leaflet, we did a whole campaign on campuses, and it was probably one of the most successful campaigns in terms of getting a big discussion. There must have been about a dozen times, in different universities in Germany, that I went around and had full audiences, packed audiences, and *big* fights.

In one of them, I remember very well, I think it was in Mainz University, the whole auditorium was filled. There must have been 200 people, maybe more, students. And in the front row, was a whole row filled with professors. Just one

^{1.} Dino de Paoli, "Does Time Really Precede Existence? A Reflection on Prigoginism," 21st Century Science & Technology, Spring 2000.

after the other, sitting, looking very mean. I made the point, that it is simply a lie, to say what is written in many of the books, that Newton discovered universal gravitation. I read a quote from Kepler's *Nova Astronomia*, where he says that any two bodies, anywhere in the universe attract each other, and if the Earth did not have its gravitation, then the water of the oceans would fly up to the Moon. This is completely clearly written. One of the professors stood up, sputtering, and said, "Bu . . . bu It's imp-p-possible. G-g-give me that, give me that. It's impossible!" So, we had fun.

I think your call is an absolutely correct one. We should go after it. We should have fun with these issues, and really use them to open up the discussion. We'll work on this, and you'll work on this, too.

The Leibnizian Universal Characteristic

Michelle Rasmussen, ICLC, Copenhagen: ... In the discussion about the systems analysis paper [Lyndon LaRouche, "On the Becoming Death of Systems Analysis," *EIR*, March 31, 2000], in the local in Copenhagen, we did not quite know what the Leibnizian concept of the characteristic, is. Could you explain that? . . .

De Paoli: ... There is an unfortunate misunderstanding on Leibniz, which is due precisely to cybernetics and formal logic. I see that Lyn is coming to the podium, so he can answer even better. Theoretically, these people say that Leibniz would have been looking for a *caracteristica universalis*, in the formal sense, and that he wrote these different books about the "universal characteristic" of the universe. They try to interpret all this is a formal way, to the effect that you can find basically a computer-model project, to make a model of the universe, to have the characteristic of the universe, and they say that's what, supposedly, Leibniz was looking for—*the* general rule of the universe. That is completely false.

In two words—and now we have Lyn himself, so I don't need to speak about him—the real issue of the characteristic of the universe, is precisely what Lyn raised, and, in that sense, I think Lyn is a very modest person. He always says that he is Leibnizian, that he is Riemannian; but in a certain sense, in my opinion, he has gone further than both Leibniz and Riemann, because the precise issue of what is the characteristic of the universe, has to be understood in terms of the individual mind: the individual, living in the universe. How does the individual know, how we reflect this necessity in the universe?

I tried to show, through Wiener, these two approaches. The simple idea that there is a necessity, is what Leibniz was saying. If you make a mistake, you pay. That's a characteristic of the universe. There is a necessary consequence to decision. The issue is, how do we realize this necessary characteristic of what we do? One theory is what I showed with Wiener, this simple determinism. You know the past—that's the future, that's the characteristic of the universe. That's *not*. The alternative to that, is now all this "informatics," all this chaos theory, all this "non-linearity," that *the* characteristic would

be time changes, without space. There is, actually, no more necessity, so there is not actually a *characteristic* any more. It's what Jonathan expressed with Rameau. Once you define freedom just as that which *negates* necessity, there is actually no more freedom, in reality.

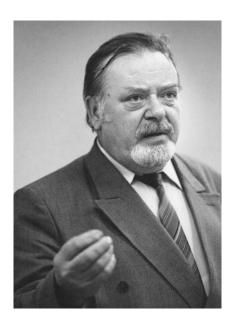
So, how do we find this higher-order necessity? That was my point, with Breughel and art. How do you rediscover in yourself, the Absolute? The Absolute is nowhere else, except the way you rediscover it in yourself. How do you do it? And there, I think, I won't go ahead, because I think the best answer I have had until now, is precisely what Lyn developed. How do you discover this natural law in yourself? That's the real question. That's the role of art. There is no other way. This question of catastrophe, this question of tragedy, is a paradox. Do we really need tragedies? No! But, the tragedies are always looming. We can't stop thinking, otherwise the tragedy is always there. And the difference between tragedy and horror movies, is that the horror movie paralyzes you. The tragedy stimulates you, as I quoted from Lyn. That, I think, is the way we have to approach this issue of Leibniz on the characteristic of the universe.

The Crisis in Russia

Prof. Taras Muranivsky, president of the Moscow Schiller Institute for Science and Culture: It is very good, that my question was moved from yesterday to today, because today I have some news. I was informed, that Illarionov, the adviser of Russian President Putin, is removed from his post. But, don't be very glad. He was removed, and instead got the post of [Presidential Envoy to the G-7 Countries], replacing Livshits. You know, that Illarionov tried many times to "improve" the Russian economy with the help of advice from different Western economists, such as Domingo Cavallo, the author of the currency board, and other people, some people from Chile, who destroyed the pension system in Chile, whom Illarionov introduced as very good and experienced in the development of pension systems.

We had one more person, the Minister of Energy, Kalyuzhny. Kalyuzhny visited Turkmenistan, together with Putin, last week. When Kalyuzhny was asked about his prospects to retain his ministerial post, he replied, "You see, I am together with Putin." But Putin came back to Moscow and removed Kalyuzhny, in spite of that, and appointed one very important person, who lives in the middle of Lukoil [territory], in Siberia. He appointed this not well-known administrator, as Minister of Energy.

Now, when we try to analyze the situation around Putin, we see that one day he acts not bad, and another day, he acts very awfully. But, we try to *hope* that maybe he will be clever, and, in spite of his KGB origins, etc., he may do something not bad. Gorbachov, you remember, held a high post in the Communist Party, and eliminated the Communist Party. Maybe Putin will do something clever. We hope, and we try to see what he does now. Maybe he is very connected with the Family (I have in mind Yeltsin's Family). But, we hope



Prof. Taras Muranivsky

that he will be freed from it, not abruptly, but slowly, slowly, step by step—we hope. We hope, and we believe, and don't believe. It is not clear.

One more thing. The question that I wanted to ask you yesterday, was connected with this division of Russia into seven big districts. . . . Nobody makes this comparison, but I compare this action with Franklin Delano Roosevelt's action, when he divided the United States into 17 districts, because of the crisis. But, when I think about it, I see that Roosevelt had another purpose for this division. He appointed, as I know from history, generals as the heads of these regions, too, but it was done in order to strengthen the state and the influence of the state and the administration, through the Presidency, on the development of the country, and to abolish unemployment—this is known very well—he was not a free-trade advocate.

But Putin, from one side, appointed five generals among the seven leaders of these regions, and he removed former Prime Minister Kiriyenko from the Duma, to one of these regions, which is a good step. I think that Moscow is not the place for Kiriyenko; it is better for him to be some 100 km from Moscow, [this head of] the so-called Union of Right Forces, that were organized as an electoral party, and got some seats in the Duma. From the other side, Putin appointed Gref—you read Tennenbaum's article in *EIR* #14, and issue #15 had my article about Illarionov, where we described these persons as super-liberals. These persons have now been appointed to these posts. I don't understand—what do you think, Lyn, about this division, and about these moves by Putin? . . .

Lyndon LaRouche: Since Dino has spoken (I didn't hear him speak, but I've heard him think—and you can know what he knows in a shorter time, if you hear him think, than if you hear him speak, so I have a great advantage that way),

let me speak from that standpoint, on this question of Putin.

How do we know anything? Russia under Putin, has been a gigantic, cheaply constructed village, a Potemkin Village, covered with a Venetian mask, also cheaply constructed. How do you know, what's going on behind the front of the Potemkin Village, which you're not allowed to look behind, and behind the mask, which you have to look through, to get to the village?

This is a problem, which was addressed by Kepler, in respect to the planets. This is a problem, which I'm sure that Dino has elaborated on somewhat today; I didn't hear, but, as I said, I could hear him thinking, so therefore, I make certain adductions from that. Then you had, at a later point, out of the work of Kepler—and, remember, Kepler's fundamental contribution to astronomy, the fundamental one, apart from being the first modern astrophysicist, was that he ridiculed the work of Tycho Brahe, as well as Claudius Ptolemy, and also Copernicus, as being irrelevant, because they were merely mathematicians and statisticians, who had made and discovered nothing, whereas he discovered something. What was it he discovered? Well, he discovered the implications of an elliptic orbit of Mars, which coincided with something else, which he had learned from Plato earlier, and said, "If you want to find out how the solar system functions, or any part of it functions, you must define what we would call today the characteristic of the system as a whole." You do not try to explain the solar system, by explaining each planetary orbit, and then trying to find the general law, which governs the generation of each orbit. No! What you do, is you define the number of orbits, and their characteristics, which can exist in the solar system, which is what Kepler did. This left some unresolved questions, which he left to future mathematicians.

Among the first responses to this, were by Leibniz, and Leibniz not only developed a calculus—a real calculus, not the phony one, developed by Newton; or, not the phony astrophysics, developed by Galileo. But, in developing the calculus, he developed something else, which is called *analysis situs*. You will find reference to this, specifically, in two papers of Leibniz, one of which was published, I believe, in his *Acta Eruditorum*, and another paper. Then, you find a further explication of this in a logical place to find it, in the work of Riemann—on the question of *analysis situs*, and its treatment by Riemann.

What does all this mean, as it comes to Putin? The way people use the term "non-linear" in the world today, they're a bunch of idiots, and the more degrees they have, the more idiotic they are. You have people who can explain non-linearity. They can tell you now to calculate it, which means they don't understand it; because non-linearity is not a number. Non-linearity is a question mark, which enables you to identify something, like Putin. Putin is a question mark, he's not a number. He may have a number, secretly, but it's not his number. He's a question mark. He lives in a universe, which is called the Russian universe in the world today.



Russian President Vladimir Putin (right), with German Foreign Minister Joschka Fischer.

What is the question mark, and how do you identify it? What Kepler identified, actually, as analysis situs, was that the solar system as a whole has a coherent, central principle, which defines it as a whole. That's not the end of the matter, because the solar system exists in the universe, and the existence of the solar system is determined by the universe as a whole—which means that in physics, as Gauss showed this for his work, and as Riemann brought this to a conclusion, there is a unique determination of the existence of anything, in any part of the universe. This is called, by Riemann, its characteristic, the characteristic curvature of a physical space-time — its characteristic; just as a planet, in a Keplerian system, or a Gauss-Kepler system, each planet, has a predetermined available orbit. For example, the case of the Ceres orbit. Kepler determined the Ceres orbit's harmonic characteristics, and its necessary existence, before anybody discovered this planet, Ceres, which is in the asteroid belt. How? Because he understood from the harmonic characteristics of the solar system as a whole, that there had to be a planet there, to be consistent with the characteristic of the solar system. He gave the harmonic characteristics for it. And then Gauss, almost two centuries later, determined the fact that Ceres was an asteroid, that had exactly the characteristics of the missing planet between Mars and Jupiter. That's the meaning of a characteristic; that a whole process has certain characteristics in it, and you can identify the object, by the characteristic within the system, in which that characteristic is expressed.

Now, you can understand Putin. Why? Because you have a kind of politician which is rather commonplace today, so it

should be rather easy to recognize and identify them. Their purpose and motive, and governing principle in power, is to gain, hold, and increase power. For what purpose? For the purpose of gaining and holding power.

Now you have a government in Russia, and you say: Well, how can you determine what Putin's policy is? Well, I can't determine what Putin's policy is. Maybe *Putin* doesn't know what his policy is. I *can* determine what is missing. I can determine what, if he *understood* the situation, he would have to be committed to. And he's not committed to it. I see a man, who is committed to many different, conflicting options, as options. I don't see a man, who has a clear conception.

Russia is about six months to eighteen months away from total destruction. And all the policies

in process are leading toward that. All the conciliations, made with the British government and others, are leading toward that. The Russian people have no clear sense of direction, of where they're going. There's an attempt to bring back Russia as a sense of national power, a sense of patriotism, to bring the Church back in, to bring other constituencies back in, into a consolidation of power. But, where's the action?

What is *missing*, is the key. What you're seeing, is a situation, where they were determined to get rid of Primakov. It was an Anglo-American job: "Get rid of Primakov!" And they got rid of him, with the help of Al Gore, by pulling a swindle, and because Clinton was busy with other matters, they got the Balkan War they wanted, they got rid of Primakov. They created a vacuum. They were faced with the Europeans, from continental Europe; from within the United States, from the International Republican Institute in the United States (the Bush crowd), from Britain, the policy was to establish a Pinochet option in Russia. This Pinochet option would permit Russia to have a strong dictator, to consolidate political power over the country, on condition that Russia continue, in a more refined way, the policies which we had earlier, in terms of the use, the sale of the natural resources of Russia on the foreign market, at the expense of the development of Russia's industry and agriculture, and so forth.

What do I see? Exactly that. What you see is a man, Putin, who came to power because the Anglo-Americans allowed him to come to power. The Anglo-Americans, under my nose and with my watching eyes, orchestrated the situation to get

Primakov out, and to create an opportunity to select a man to fill the position, which had been labelled "the Pinochet option for Russia." Putin took the job. What's he going to do with the job? If he's going to do the job, he's going to try to consolidate support, consolidate power, increase power, and exert power. For what purpose? For the purpose of gaining, consolidating, and increasing power!

What difference is the government of Germany? Putin has got a clearer head than [German Chancellor Gerhard] Schröder, but the motive is the same. You have the Foreign Minister of Germany, who has no head at all, just a sort of a shrunken prune.

What do you have in France? France is a police-state. It's been a police state for a long time. It has more policemen than citizens. That's the nature of the French government. It's called democracy. What are they concerned about in France? To hold and maintain power! And to keep from being thrown out, and thrown into jail, or thrown into prison on some scandal or something. To cover up for Crédit Lyonnais—that's the only national purpose of France's existence, right now.

What about the United States? In the United States, you have no conception of policy. You have some people, who think they're going to have an Anglo-American world empire. But the people who are running as top candidates in parties—they have no conception of anything. They have one conception: Grab, hold, consolidate, and exert power! For what purpose? For the purpose of grabbing, holding, and consolidating power!

We have a characteristic. We have a *world*, which is governed like a Ship of Fools, and every fool is trying to get the best stateroom, on the sinking ship.

Yes, there is a lawful aspect to the Putin option. There's someone in power. There's a vacuum. All of Russia is in agony, wanting to become Russia again, wanting to survive. But there's no *policy* for Russian survival. Just a man, who says Russia will survive, for the sake of his acquiring and holding power. So, why should we mystify ourselves with unnecessary questions, when the question has answered the question? There *is* no leadership of Russia, right now. There are many people in Russia, who, if assembled in the proper way, as we saw earlier with the Primakov option, you could bring together people, who could make a difference and knew what to do, at least in approximation, and would go in a certain direction. They're no longer going in that direction.

My policy is this: How do you *change* the characteristic of the Russian situation? Russia is not an independent entity. It's living in an Anglo-American-dominated New World Order. It is something, put under the category by the British, of "Pinochet Option for Russia — Russia Division of the Anglo-American World Empire." And Putin is trying to get the best bed in the Empire Train. Yes, it's good to have a government of Russia, it's good to have a solid government of Russia, rather than chaos. But, there's no solution in sight. We have

to provide the solution. There are people in Russia, who are capable of doing what has to be done, if they are given the opportunity, if they are given a clear vision, of what needs to be done. We must supply that clear perspective and vision, and let the Russians choose it.

What is going to happen with Putin's options, on the day when what he believes will not happen, will happen? When, in the weeks ahead, this system disintegrates—the system, to which he's adapted. The Cavallos, all these other strange fellows, these cast-off sons of the former *nomenklatura*, the useless sons of the old *nomenklatura*, who are now called liberals, because they *steal* liberally. They say, "Ah! You want us to join the capitalist system? Now we'll become thieves. Bob Strauss told us how to do that, when he was Ambassador."

So, I think the answer is, that we have to provide an intellectual conception of both the nature of the crisis, of the imbecility of the existing governments and political institutions. We have to provide a clear picture of what the world is, and what it might become. We have to hope, that others will study that, and adapt to it. We would hope that the present government of Russia will reform itself, in conformity with the reality, which we know exists. And, therefore, that would change the characteristic of Russia.

This is always the case, in history. History is made by a special kind of missionary, who goes in and finds a baboon, and says to the baboon: "Baboon, stop being a baboon. I'll teach you how to become human. Actually, you were human; you just thought you were a baboon." And the baboon says, "Oh! I thought I was a baboon." "You're not a baboon, you weren't a baboon; somebody told you, and you believed it. So, become human." And the missionary is someone, who, essentially, does not dictate to people what to do, but seeks and helps them to find in themselves, what it is they must do. To find out who they are, and what their fundamental interest is.

I think it's very clear, this Putin thing, in that respect. If he understood the situation, he could not act the way he's acting, in the main. It's what he's not doing, which reveals because there's only one consistent feature to this whole regime. It's the same thing, in the regime in Germany. It's more pitiful in Germany. Or in Italy, they don't have a government; they keep electing a new one, but they never get a government, in the process. In France, you have the same thing. So, the world is a mess. The United States government is disgusting. There are no competent governments, anywhere in the world, for dealing with the global situation. Therefore, you have to present the ideas which are needed, and you have to act like a missionary, to try to convey these necessary ideas to people, who should respond to them, and hope that you can convince some people, who think they're baboons, to stop being baboons, and be human beings, instead. And then we shall get together, and we shall fix this world. I think it's the only answer.

Bach's Musical Revolution

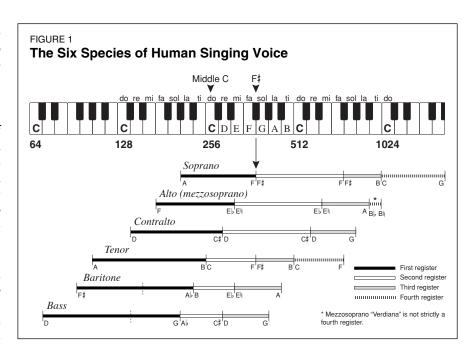
by Anno Hellenbroich

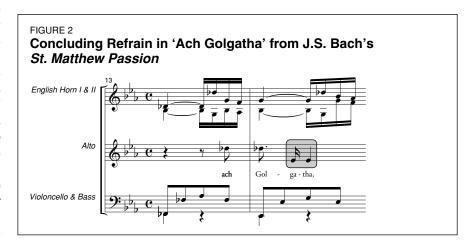
This speech opened the conference panel on May 28. Mr. Hellenbroich is an Executive Committee member of the International Caucus of Labor Committees. Foonotes have been added.

In his 1680 "Rules for the Promotion of the Sciences," Gottfried Wilhelm Leibniz wrote an idea to which he attached a metaphor which would seem funny to us today, an idea which is now more important than ever: "Those who walk around in the Sun, take on a different color, and so likewise will a musician, having observed in the compositions of capable people thousands upon thousands of beautiful cadences and, so to speak, phrases of music, will, thus equipped with this beautiful material, be himself enabled to inspire his own fantasy." And, as a good teacher, who does not want to discourage those who are willing to learn, Leibniz adds: "There are even such people who are musicians by nature, and compose beautiful melodies."

To recognize something in the observation of thousands of musical phrases "which inspires one's own fantasy." This is the Classical-humanist method of teaching, which challenges those who are willing to learn to relive, from the sources of great compositions, the discovery for themselves, whether these be discoveries in the natural sciences or new artistic creations.

Johann Sebastian Bach (1685-1750) did exactly that when he was a child, and he became a genius. Mozart and Beethoven wrote down "new counterpoint





phrases" from the works of their predecessors, but especially from those of Bach, in order to make the new musical "idea" or "thought-object" their very own, as LaRouche described it in his

groundbreaking essay, "Mozart's 1782-1786 Revolution in Music" in 1992.

As it seems, it is only today, 250 years after Bach's death, that we are better able to understand the musical revo-

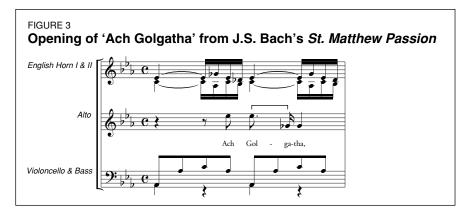
^{1.} Lyndon H. LaRouche, Jr., "Mozart's 1782-1786 Revolution in Music," *Fidelio*, Winter 1992.

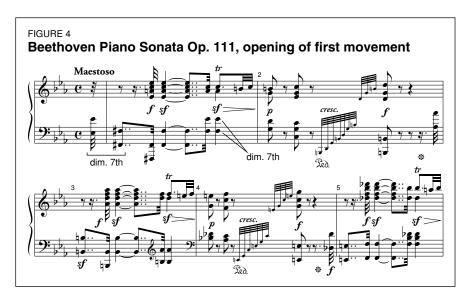
lutions which Mozart and Beethoven recognized in Bach's late works, especially in *A Musical Offering* (1747), and in *The Art of the Fugue*.

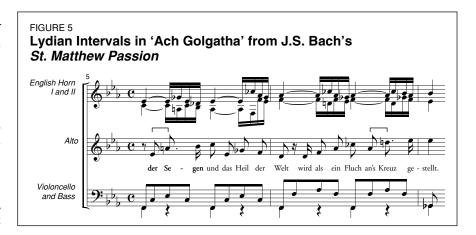
Many of ethe ideas which Leibniz, some 40 years older, articulated in his late work *The Monadology* and in *Principles of Reason in Nature, and Grace*, can help to make Bach's way of thinking, of composing, more intelligible today. We can obtain a deeper insight into Bach's intellectual principles of composition, which so fundamentally revolutionized Classical thinking, from remarks which Leibniz made with respect to music, his comparison to the principles of construction in nature, the divine order of creation, and the lawfulness of musical harmony.

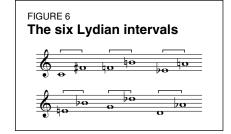
In his Principles of Reason, for example, Leibniz speaks about the growing joy in the knowledge of the perfection of the universe God created, the same joy which arises from the beauty of a musical work of art, which sounds harmonic: "Since God is the most perfect and the happiest, and consequently the most worthy of love of all substances, and since truly pure love consists in an emotional condition which allows of the perception of desire for the perfection and happiness of that which one loves, this love gives us the greatest desire of which one can be capable, as soon as God is its object. Thus do we take joy in music, although its beauty seemingly only consist in the concord of numbers and in counting - of which we are not conscious - of the waves and vibrations of sounding bodies, which take on certain intervals."

In order to avoid misunderstanding: Leibniz sees—as did Kepler and Cusa before him—in numbers and counting a characteristic of the cosmos ordered by God, a measuring, an aspect of a fundamental lawfulness which characterizes us and our universe. In particular, Leibniz makes the important remark that "music pleases us by means of the concord of numbers and counting, of which we are not conscious." Is Leibniz speaking about our souls, perhaps as the midwife of Reason, in which beauty is un-









consciously perceived? (Friedrich Schiller develops this idea in his essay on the aesthetic education of the beautiful soul.)

In another passage of the Principles of Reason, Leibniz formulates the principle of "the best of all possible worlds" in the following way: "It follows from the highest perfection of God that, when he created the universe, He selected the best possible plan, in which there was the greatest multiplicity in the framework of the greatest order, in which space, position, and time are best employed, so that He achieved the greatest effect with the simplest of means, endowing the creatures with the greatest power, the highest knowledge, the greatest happiness and the greatest good, of which the universe was capable."

"Greatest multiplicity in the framework of the greatest order": Is not the immense work of Johann Sebastian Bach's life permeated by this principle?

Bach wrote all of his works "to God alone the glory," Soli Deo Gloria, hundreds of spiritual and secular Lieder, cantatas, motets, the powerful Passions and the large fugal works, and not least the later work with the royal theme "Musical Offering" as a "painful and tedious work." Each of his works attests to the attempt to generate the largest multiplicity in a unity, a perfection, to create the greatest effect by employment of the simplest means. Bach's development of polyphony, the fugue, his use of the organ point, are noticeable elements of this principle of the greatest effect with the simplest means.

That is why we concern ourselves with Classical music, from the Augustinian tradition to Leonardo's researches FIGURE 7



 $Bach's\ manuscript\ of\ "Ach\ Golgatha"\ from\ the\ St.\ Matthew\ Passion.$

on the bel canto human voice, to Bach's revolutionary invention of the well-tempered system—because we are convinced of the fundamental intelligibility of creative thinking. For both in researches in the physical-natural sciences, as well as in investigating our powers of thinking, our creative thinking processes in the forming of works of art, we run up against the paradox today more than ever: lawful development and discontinuity, which we have to solve.

Bach: Master of Song

It took a long time for Bach's actually magnificent discovery of the characteristics of the six registers of the human voice (**Figure 1**)—for example in choral singing and in the choral passages of the Passions—to be adequately appreciated.

Today, we have to rediscover the characteristics of hearing and singing of Bach's time, the heritage of the Bach family extending over six generations, about which Bach's great son, Carl Philipp Emanuel, reports.

I want to provide one example to illustrate this, in the brief form of this introduction to our panel.

In the second part of the great St. Matthew Passion, which was probably first performed in 1727 (rediscovered and performed anew 100 years later by the young Felix Mendelssohn Bartholdy in Berlin), Bach composes a recitativo for the alto voice and two alto oboes (Oboe da Caccia in F) "Ach Golgatha," which represents a prelude for a magnificent alto aria. These two alto solos are situated following the scene of the crucifixion of Jesus, before Jesus dies on the cross. "Ach Golgatha" reflects the great paradox for all Christians as expressed in the text of the aria, which says: "'Twas there the Lord of glory was vilely rejected," and it peaks in the cry of agony, "...the innocent must die, as do the guilty. Ah! how this grief afflicts my soul!" The following aria, placed at this prominently dramatic passage of the Passion, takes up the idea of salvation ("See ye, see the Savior's outstretched Hands!"/He would draw us to Himself. Come."). Compositionally, the aria echoes the interjected calls, which one can hear in the introductory double chorus of the *St. Matthew Passion*.

Compositionally, Bach employed the special characteristics of the alto (or mezzosoprano) voice, to represent this painful paradox. This becomes clear, for example in the concluding refrain of "Ach Golgatha" (Figure 2), which drops from a D in the middle register to the E in the chest register, before Bach ends the alto voice in the middle register on the shallow-sounding G, polyphonically set against the oboe voices. With the oboes and the accompanying pizzicato bass, which are polyphonically singing with the human voice, Bach created one of the most gripping of vocal compositions. This is also true with respect to its harmonic boldness, which anticipates the paradoxes of the later theme of his A Musical Offering.

The opening interval "Ach Golgatha" (Figure 3), which consists of a diminished seventh E' to G'=F#, was later "used" by Mozart and Beethoven, for example in Beethoven's Piano Sonata Opus 111 (Figure 4). The paradoxes of the poetic text are characterized by a succession of Lydian intervalleaps and combinations. Each Lydian interval sung by the soloist also introduces a new degree of poetic tension in the text. For example, in the lines "der Segen und das Heil der Welt/wird als ein Fluch an's Kreuz gestellt" ("The blessing and the salvation of the world / is being, as if a curse, put up on the cross"), the contraries "Der Segen" and "an's Kreuz" are both sung on Lydian intervals (Figure 5). This is a peculiarity which Mozart discovered based on A Musical Offering in 1782-83, as a new tool of composition. In earlier times, this Lydian interval was outright "cursed" as Tritonus, the "devil" (Diabolus) in music.



One of the special characteristics of the Lydian interval is connected with the matrix of the six types of voices. The natural shift in the register upwards or downwards occurs either at distances of the octave or Lydian interval. So one can say: The Lydian interval is the smallest interval-unit which effects a register shift in all of the voices. There are only six Lydian intervals, and they remain the same upwards or downwards, i.e., also in the inversion (**Figure 6**).

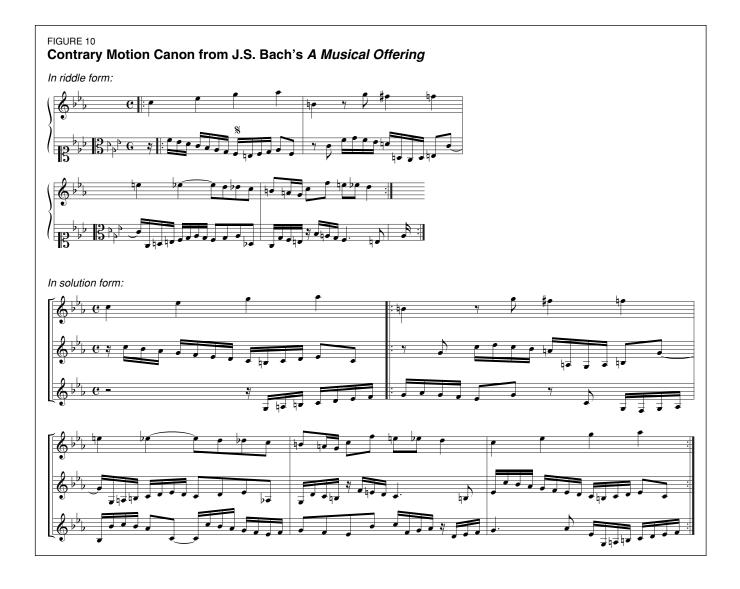
This particularly impressive recording is from the year 1954, under the direction of Wilhelm Furtwängler with the Vienna Philharmonic orchestra, one of the very few performances of the

Passion under Furtwängler.² Furtwängler died that year. The alto is Marga Hoeffgen. In this performance, the young Dietrich Fischer-Dieskau sang the words of Christ (**Figure 7**).

One characteristic of all Classical music, as you can perceive it in the interpretation of this segment of the *St. Mathhew Passion*, is carried by the fundamental idea of the Passion, the love— $agap\bar{e}$ —in the Christian sense. In other words, the essential musical emotion is

not sensuousness, but agapē, as Plato and the Apostle Paul define that emotion. In true contrapuntal polyphony, the essential ideas of the composition are chiefly defined in two ways. First, as physical principles are defined in science, by ontological paradoxes. In music, the relevant paradoxes are posed by the metaphorical forms of transitions, lawfully generated dissonances, generated within the composition. Second, by explicit or implied quotation from ideas stated in other compositions, either by the same, or other composers. For this reason, the two late works, A Musical Offering and The Art of the Fugue, about which we shall learn more from Professor Vyaskova, have their promi

^{2.} Furtwingler's 1954 recording of the *St. Matthew Passion* is available on EMI 7243 5 65509 2 6, performed by the Vienna Philharmonic, Wiener Singakademie, Wiener Sängerknaben.



nent importance for the succeeding musical revolutions.

Bach's 'A Musical Offering'

I shall play three short examples from *A Musical Offering* to illustrate this. What is striking in the basic theme of *A Musical Offering*, is the seemingly paradoxical F[#] in the C-minor key area, that F[#] in the second part of the royal theme, along with the already-mentioned diminished seventh A^{\(\beta\)} to B^{\(\beta\)}, which Bach put on the first accentuated beat of the bar. With the entrance of the second voice, that allows for the development of lawful dissonances, which were so inspiring for the succeeding gen-

erations of composers. Then we shall hear two further canons, the very compressed short form of *A Musical Offering* by Bach, with the characteristics of the simultaneous upward and downward movements of the same counterpoint-voice, thus the ambiguity of the intervals, which Bach formulated as the simple movement and then the inversion of the movement (**Figures 8, 9,** and **10**).

In a letter written to Nicolaus Hartsöcker (around 1711), Leibniz wrote the following on the subject of dissonances: "The imperfections which exist in the universe are like the dissonances in an excellent composition, which, in the opinion of those who well



understand the connection, contribute to make this [the composition] more perfect." And to Goldbach (a correspondent mathematician from St. Petersburg), he wrote about the sparing use of dissonances: "Dissonances are pleasing as an occasional accompanying element and are employed to great effect: they are inserted between the harmonious sounds [Wohlklänge] like shadows in the order and in the light, so that we all take great joy in the great order."

Mozart's 'Great Mass' in C-minor

Mozart understood this revolution which Bach had introduced, and he, in turn, revolutionized his method of composition with the principle of "Motiv-führung." One fruit of this effort to extend the C-minor/F# paradox which he recognized in Bach, is represented by Mozart's incomplete Mass in C-minor, where the use of the four-voice chorus, especially the fugal part, is built on a variation of the second part of the royal theme, the towering polyphonies of the "Kyrie" introductory chorus (Figure 11).

This work, which was composed some 35 years after Bach's A Musical Offering and The Art of the Fugue, opened the way to a new freedom of musical expression. Another 50 years would pass, until, with the immense Missa Solemnis of Beethoven, written in 1824 and performed for the first time in St. Petersburg, Bach's revolutionary discovery would be brought to a new culmination point in the art of composition. If we can follow and relive the progressions of such magnificent "musical thought-objects" today in the year 2000, which commemorates Bach's anniversary; and if we can make this musical revolution really intelligible, then we can take the branches of human knowledge—the natural science and the science of art, which, thanks to the immoral Immanuel Kant were artificially divided—once again back to their single source: the creative Reason of man.

The Riddles and the Meaning of J.S. Bach's 'The Art of the Fugue'

by Prof. Yelena Vyazkova

Professor Vyazkova is a musicologist from the Gnesin Academy of Music in Russia. Her speech was translated from the Russian by Rachel Douglas. Footnotes have been added.

Greetings to the participants in the conference, in the name of the Gnesin Academy of Music in Russia. My presentation resonates to Mr. LaRouche's ideas, about the saving role of culture, art, and creativity, for the future of our civilization and our planet, and about the special role of Classical music in this regard.

My area of scientific interest is the creative process—more precisely, the strategy of creativity. My research began with deciphering the sketchbooks of Beethoven, a composer who expressed on paper almost the entire process of creation of a work (with all the initial forays, probes, different versions, and doubts). I continued, researching the sketches of other composers, which made it possible to observe a certain typology of creative processes. I intend to develop that theme in a seminar setting, while my topic today is a different one.

This year, the world marks the 250th anniversary of the death of the great German composer Johann Sebastian Bach. Coinciding with this anniversary, is the anniversary of his most remarkable last work, the cycle *Die Kunst der Fugue* (*The Art of the Fugue*). This date, the Bach Year, prompted my choice of topic for this conference.

There are certain works in the history of music, whose lot it is to remain unsurpassed peaks, for long centuries. J.S.

Bach's cycle, *The Art of the Fugue*, is such a rare work. Infinite, endlessly profound, this work becomes accessible to the understanding gradually, allowing penetration into previously uncomprehended depths, upon each contact with it. The philosophical comprehension of earthly and, perhaps, cosmic being; a grasping and reflection of the laws of the universe—this could best be called the "theme" of this amazing work, revealed in the language of music.

There is a halo of mystery around the cycle: It remained unfinished, and the final fugue breaks off literally in midmeasure. In the autograph, at that point there is a notation by Bach's son: "[Working] on this fugue, where the name BACH enters in the countersubject, the composer died." Although this phrase is not accurate—Bach died almost eight months later—the impression made by this unfinished character, remains literally stunning: Death, unexpected and inexorable, interrupts the life and creative work of the great musical thinker and artist....

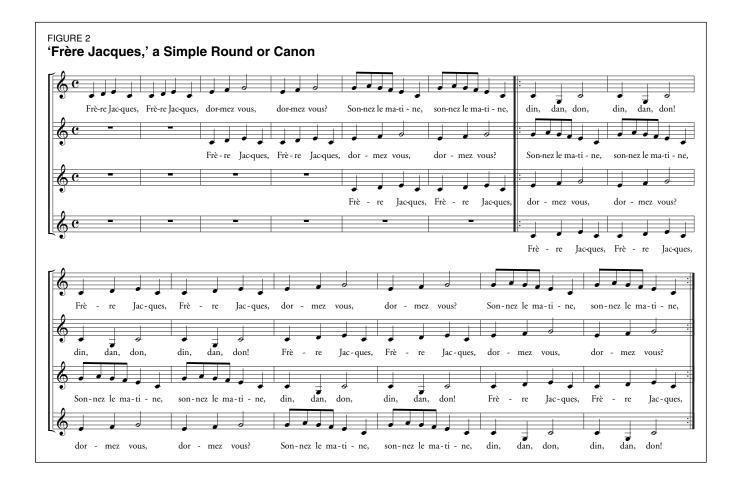


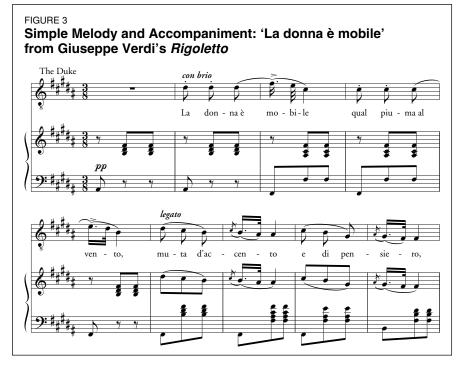
Prof. Yelena Vyazkova

If people could hear, understand, and take into themselves, what the great Bach said in his final work, the world would be a better and more perfect place—of that, I am absolutely convinced.

The Art of the Fugue is a cycle of fugues and canons, written on a single theme. As you know, a fugue is a polyphonic composition, in which the main theme is introduced repeatedly in all the







voices. All the voices are equal in weight. For example, see **Figure 1.** There, the theme has entered three times, in the various voices.

A canon is a more complex musical form, in which all the voices sing the same meolody at once, but they enter in turn, with a certain delay. Here, for example, is the well-known children's song, "Frère Jacques" (Figure 2). This is, of course, a more complex musical technique than a melody with accompaniment (Figure 3).

Let us turn to the cycle. Its main theme sounds very serious (**Figure 4**).

All of the fugues and canons are written in the same key.

This theme is characterized in the literature, with language ranging from "profoundly expressive" to "colorless." Albert Schweitzer characterized it in the following strange and almost inaccurate

way: "Really, this theme cannot be called interesting; it seems not to have been born of some intuitive genius, but rather invented for the sake of its subsequent thorough development and inversion. And yet, it transfixes the attention of anyone who hears it. A quiet world opens before us, a serious world, desert-like, deathly cold, colorless, gloomly without motion, it does not gladden or entertain. And yet, we cannot tear ourselves away from the theme."

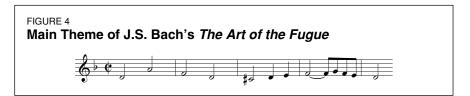
The only thing that can be called accurate here, are the following words: "And yet, it transfixes the attention of anyone who hears it." "And yet, we cannot tear ourselves away from the theme."

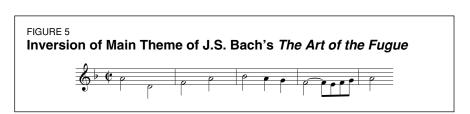
It seems to me, that this theme *was* born of intuitive genius, and that there is profound meaning in its content (about which I shall speak, later).

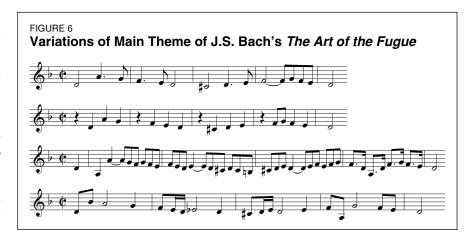
Throughout the cycle, the theme is varied: Here is the form it takes in inversion (where the melody becomes like a mirror reflection: What went upwards, now goes downwards, and vice versa) (**Figure 5**). Please pay particular attention to this, because it is an important element to understand for some of the ideas I shall be developing.

There are also more complex melodic variations (**Figure 6**).

It is known, that Bach took part in preparing the cycle for publication: He even produced (recopied, in calligraphy) some of the pages. One part of the cycle (#1 through 11) was numbered by him, while the other (from #12 to the Final Fugue) remained unnumbered. Nonetheless, I have found indirect evidence that Bach gave instructions for this part, as well. It is also evident, however, that at the last moment the publishers were left without his guidance, and then they included in the first, Original Edition, all the material that Bach had left, related to this cycle, without regard for the order conceived by Bach.







This decision by the publishers had its pluses and its minuses. It is good, that in this way all the precious pages of Bach's music were preserved. It is bad, because total disorder arose in the sequencing of pieces in the second half of the cycle, violating the author's conception.

Ever since then, publishers and performers have been arbitrarily changing the order of the fugues and canons, while researchers attempt to restore the sequence as Bach conceived it. (How many versions have been proposed! Several pages in the multi-volume book by Walter Kolneder are devoted just to enumerating them.)

This question of the correct sequence, is identified in the literature as one of the most important. In order to imagine how important it is, consider an

analogy: In a novel with a dense plot, would it be possible to change the order of the chapters? Could a work like The Four Seasons be performed in a different order, with summer coming directly after winter, and then spring, or with May being followed by December, and then August? Of course not. The Art of the Fugue, as Bach conceived it, has a remarkable dramatic composition: Bach leads the listener, logically, consistently, step-by-step developing his thought. If Bach's ordering is violated, the cycle loses its wonderful organization, and becomes a free assemblage of pieces, which are beautiful, but not arranged into a single organism. A truly perfect dramatist such as Bach, could never permit such a thing.

I have been studying this amazing cycle for around thirty years. As a result

^{1.} In Albert Schweitzer, *Johann Sebastian Bach*, *1685-1750* (Leipzig: Breitkopf and Härtel VEB, 1969), p. 316.

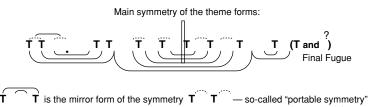
TABLE 1
Ordering of Pieces in The Art of the Fugue

No.	Part I (follows Original Edition)		No.	Part II		Orig. Ed.
1 2 3 4	The Simple Fugues	T T	12/1 12/2 13/1 13/2	4-part Mirror Fugue (rectus) 4-part Mirror Fugue (inversus) 3-part Mirror and Counterfugue (rectus) 3-part Mirror and Counterfugue (inversus)	T	12/2 † 12/1 †
				Variants of Fugue No. 10		
5 6 7	The Counter- fugues	T T	14 15 16 17	CANONS in Augmentation and Inversion at the Octave at the Tenth at the Twelfth	T	same
				Two Fugues for 2 Claviers— variants of Fugues No. 13, 1 & 2		
8 9 10 11	Triple Fugue Double Fugue Double Fugue Triple Fugue	т	18	Unfinished (Quadruple) Final Fugue	T (?)	

T = theme in normal form = theme in inverted form

Non-repetition of the combination "T" and " " within the same fugue group:





of my research, I can substantiate solutions for all of the controversial questions "around" this cycle: the number of pieces, their ordering, and the significance of the concluding, unfinished fugue (which some authors do not even consider to be a part of this cycle).

I have made a detailed analysis of the text of *The Art of the Fugue*, of its manuscript (which was, happily, published in Germany by H. Hoke), both from the standpoint of someone observing the creative process of the composer, and from the standoint of a specialist in polyphony (counterpoint). The manuscript makes it possible to imag-

ine, that you are as if present with the composer in his creative process, at the moment of creation. You see how he writes, and then corrects what he has written; it seems that the composition is finished, but then suddenly he adds two measures. This is an extremely engrossing task-to understand, why he did it this way, and not some other way, or what a new version gives, by comparison with the first draft, or why the fugues are ordered in the autograph, differently from their order in the finished cycle, even in the first part, which Bach sanctioned. Why are some of them written out in a strange way, not in succession, but one under the other?

I was very interested in trying to answer all of these questions, and it seems to me that, in the course of thirty years, I have managed to understand something. It is striking, that Bach's text contains answers to all the questions: It is necessary only to study it very closely.

For example, the unusual names of the fugues help to answer the question of the ordering: Bach does not call them fugues, but "counterpoints." This means that it is necessary to research the species of counterpoint, and to understand the logic of their succession. After the works of the Russian composer and scholar S.I. Taneyev, this is not difficult to do: It is quite possible to avoid the type of subjective factor, which played a role in the judgment of previous researchers. In other cases, and even certain mistakes during publication, suggest answers to controversial questions.

I won't exhaust you with the details of this analysis, but will just show you in this table [Table 1] what I have observed, namely, that only slight changes are required in the Original Edition, in order to turn it into a cycle, corresponding to Bach's conception. (I should explain, that the majority of scholars are of another opinion. They consider the second half of the cycle to be totally wrong—they put the canons before the mirror fugues, and distort the ordering within the groups.) I have been able to find indirect evidence, that while preparing the cycle for publication, Bach was giving instructions to his assistants almost until the last moment. Therefore, any rearrangement is a violation of the will of the author.

There are six groups of fugues in the cycle. The sixth "group" consists of the unfinished, Final Fugue, which would have been a very big fugue. I should say that this "six" is not just picked out of a hat. With Bach, no number is devoid of meaning.

In the table, you can see the errors in the second half of the cycle. There is an extra fugue, which is a variation of the tenth fugue. The fugue for two claviers is

also interpolated, with repeats of fugues 13/1 and 13/2. The table reproduces the ordering of the pieces in the original edition (OE) but I have numbered only those that ought to be included in the cycle, leaving unnumbered those, which in one form or another repeat pieces that are already present in the cycle, and which should therefore be removed from the cycle. For a long time, the conventional practice has been to put these in an appendix to the cycle (they are indicated with arrows), while the ordering of the rest of the pieces has constantly been violated by editors, publishers, and performers down to the present day.

The resulting version is shown in **Table 2.** With the one additional change indicated, namely, to reverse the order of fugues 12/1 and 12/2, which are mirror inversions of each other, I believe this shows the correct order.

Even a non-musician can see in the table, that Bach deliberately thinks through the ordering of his use of the theme in its direct and mirror-inverted forms (grouping the fugues, he never repeats the way they are combined). (See Table 1, bottom section.) The "T" symbol is the direct form of the fugue. The inverted "T" is in inversion.

When we write out, horizontally, all the themes—marking whether they are the direct form of the main theme, or its inversion—we see a remarkable symmetry. First there is symmetry on the left side, then a symmetry, pivotted on the center of the cycle, and then another symmetry at the end. It is unknown, what would have been on the far right, since the Final Fugue remained unfinished. Symmetry, of course, is a fundamental principle of nature, and Bach's use of it is a highly significant hint, for determining the organization of the cycle.

Bach's mastery can be seen in these diagrams, of course, but it is even more noticeable when the music of this marvellous cycle is played.

I shall now discuss another extremely important problem: the idea and meaning of this mysterious work, and the problem of its ending. Essentially,

TABLE 2

Corrected Ordering of Pieces in The Art of the Fugue

No.	Part I (follows Original Edition)		No.	Part II		Orig. Ed.
1 2 3 4	Simple Single-theme Fugues	T	12/1 12/2 13/1 13/2	4-part Mirror Fugue (rectus) 4-part Mirror Fugue (inversus) 3-part Mirror and Counterfugue (rectus) 3-part Mirror and Counterfugue (inversus)	T T	12/2 12/1
5 6 7	Counterfugues (with counter- subject in inversion)	T T	14 15 16 17	Canon in Augmentation and Inversion Canon at the Octave Canon at the Tenth Canon at the Twelfth	T -	same
8 9 10 11	Triple Fugue Double Fugue Double Fugue Triple Fugue	т	18	Concluding fugue (unfinished, quadruple)	_	→

T = theme in normal form

= theme in inverted form

this will be a discussion about the meaning of the musical information. Music is always "informative"—what's important, being what it conveys. What ideas, does this work of Bach convey?

The amazing unity and dramatic wholeness of this cycle, have naturally prompted attempts to search out the hidden thought-content of the conception. The version suggested by the Romantic notation of C.P.E. Bach at the end of the autograph became logically connected with the idea of the finiteness of human life (although, as I mentioned, it does not correspond to what actually happened).

Erich Schwebsch made the next attempt: He considered that the cycle embodies the birth of the personality and self-consciousness, personified by the theme B-A-C-H.²

It is a monogram of the name, "Bach." Bach placed this musical theme-symbol of his name at the end of the work, like a kind of author's signature (**Figure 7**), but he prepared this moment throughout the entire cycle, introducing this theme in more or less covert form.

Schwebsch's idea was further developed in the conception of Erich Bergel on the polarity and unity of two spiritual spheres—the human and the divine, the cosmic, incarnated by the chromatic (in the BACH theme), and this diatonic music of the main theme.

Hans Heinrich Eggebrecht looked at the BACH theme in the Final Fugue, together with its continuation. This researcher especially emphasized the theme's striving toward the main tonic of the cycle-"D." While Schwebsch had written about this as follows: "Just as Bach himself stood at the threshold in 1750, so The Art of the Fugue is spiritually located between the Cosmos and 'I'-ness [individuality]. Only someone with the heart of Bach would, in the face of death, dare to place his 'I' as representative of the center of a universal development. His further elaboration of this central kernel shows that Bach was acting with all the seriousness of a universal artistic mind"; Eggebrecht suggests, that "here Bach's intention was not to say I, BACH, composed this, but rather he wanted to indicate: I, BACH, am bound up with the tonic and will attain it."

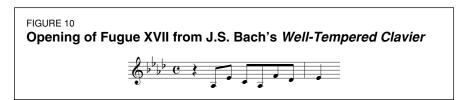
Eggebrecht explains the significance

^{2.} In musical notation, German uses the letter H where English uses B^{\natural} .

'B-A-C-H' Theme in J.S. Bach's *The Art of the Fugue*







of this tonic ("God") ["D"—Deo], with reference to the chorale "Vor Deinem Thron tret ich hiermit" ("I come before Thy throne"), which expresses the idea of the transit from this world to the next. Although this chorale is really not a part of this cycle, it was attached to the unfinished cycle by the publishers "for the satisfaction of friends of Bach's music," as they wrote in an introduction.

Allow me to make a small digression, on the problem of the unfinished fugue. Most researchers believe that the cycle remained unfinished, due to Bach's illness and death (for which the

aforementioned notation by Bach's son Carl Philipp Emanuel on the last line of the unfinished Final Fugue gave some grounds). Therefore, they undertook many attempts to complete that fugue, writing it out after Bach's death.

It is my view (for which I have a whole array of evidence), that Bach deliberately left the fugue unfinished. I have encountered the idea, that Bach might have intentionally written the Final Fugue as unfinished, only in the writings of the German researcher Joseph Müller-Blattau, but he also explains this in purely biographical terms: "It is no

less significant, that Bach did not dictate the last fugue any farther, but left it unfinished. Although the picture of how everything should be was before his mind's eye, it seems that he came to the realization, that his own path was finished."

The character of the cycle is, of course, not biographical, but philosophical and having to do with worldview, but it does seem that each of the versions I have mentioned contains some grain of truth.

To explain my idea, let us return to the main theme of the cycle. The theme is comprised of two elements (**Figure 8**). It turns out, that these are elements from Protestant chorales. For Bach, the motif from a chorale is a "signifier" of a certain idea, a guide for the listener's understanding.

The theme of *The Art of the Fugue* is composed from elements of two chorales: the Christmas chorale, "Wie schön leuchtet der Morgenstern" ("How beautifully shines the morning star"), except that the chorale is in the major mode instead of minor (**Figure 9**).

You may know the theme of the A^b major fugue from *The Well-Tempered Clavier*, which is also a variation of this theme (**Figure 10**). It is in major, but a minor version of the theme is later introduced.

The second element, is from the Easter cantata "Christ lag in Todesbanden" ("Christ Lay in Death's Bands"). Combined together, it is as if they denote the extreme points of life-birth and death—as if concentrating the entirety of a life into the minute of the theme's sounding. In each fugue, the theme receives new life, a new form, while preserving unchanged a certain constant essence: It is born and, having sounded, dies, only to be born again in the next fugue. The cycle becomes an expression of the idea of the infinite life of the soul, which is repeatedly born, and continues to exist after death in some other world, the expression of which is the theme in inversion.

In effect, the idea of the immortality of the soul, the idea of reincarnation, is

expressed in this way. This originally Eastern idea, which was adopted by Pythagoras and Plato, was originally interpreted in the works of Leibniz (whom Bach knew personally, and Leibniz's books were in Bach's library): Although Leibniz himself wrote about the "metamorphoses" of the soul, not about its reincarnations, his teaching did potentially contain this idea, and his followers necessarily came to this idea. (The Russian philosopher N. Lossky studied this problem.) It is not to be excluded, that among these followers was Johann Sebastian Bach.

In this context, the gradual increase in complexity of the work with the theme in this cycle, reflects the gradual development and perfection of the soul. Its final stage—the return to its divine source—remains a mystery for humanity: It is at this moment, when the invisible, eternal depths are revealed, that the Final Fugue stops. Therefore, the cycle is *deliberately* unfinished. It is an expression of those invisible depths, before which man is powerless.

Not only the main version of the theme, but also its variations and the other themes, allow us to see a certain logic of associations, going in the same direction. Thus, the second variation of the theme may be connected with the theme of the chorale, "Was willst du dich, o meine Seele" ("What wilt thou, o my soul") (Figure 11). This theme, incidentally, perhaps not by accident, echoes the theme of the Sanctus in one of the masses by the sixteenth-century composer Palestrina.

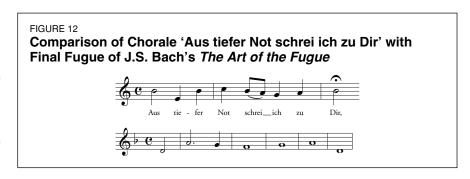
These associations, of course, are not accidental.

The theme of the Final Fugue evokes the following associated images: The first theme evokes the chorale, "Aus tiefer Not schrei ich zu Dir" ("Out of the depths I have cried to Thee") (**Figure 12**).

The German musicologist Wilhelm Keller showed the resemblance of the main theme of *The Art of the Fugue* taken in inversion (Figure 5), with this chorale, as well.

Comparison of The Art of the Fugue with Chorale 'Was willst du Dich, o Meine Seele,' and a work by Palestrina

Was willst du dich, o mei - ne See - le, krän - ken?



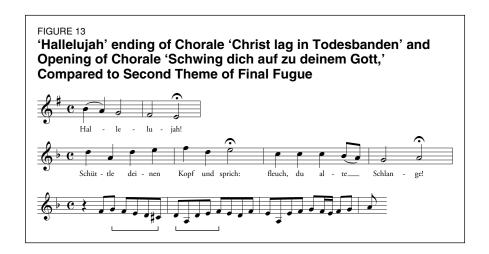
The second theme of the Final Fugue, it seems to me, also is comprised of elements of two chorales: the ending of the chorale "Christ lag in Todesbanden," and the opening of the chorale "Schwing dich auf zu deinem Gott" ("Lift thyself up unto thy God") (Figure 13).

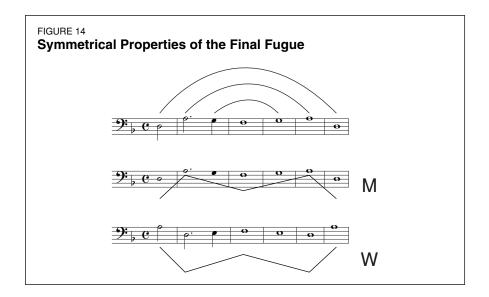
There is one additional idea in the theme itself of the Final Fugue. It is symmetrical; it reads the same, backwards and forwards, left to right or right to left. Its graphic representation (the theme in direct and inverted form) gives mutually reflected pictures of the letters "W" and "M"; "W"=Welt (world), and by the mystical relationship of Russian and German orthography, the same word, in Russian, begins with the letter "M" (mir). You don't have to be a musician, to see this in the notes (Figure 14).

These associations are not accidental. The symbolic language of the epoch

should be borne in mind, in order correctly to interpret the ideas of Bach's works.

Music often reflects universal laws. before science discovers them. It is possible that The Art of the Fugue is a philosophical conceptualization of the laws of the universe, expressed by means of music. And perhaps, in this connection, the numerical symbology of the main theme of the cycle is also no accident. It contains 12 tones (12 is a holy number: the number of the Church, the 12 apostles; adding across, 12 = 1 + 2 = "3," which is the number of the Trinity). The alpha-numerical symbology of the theme [D is the fourth letter, therefore "4," A is "1," F is "6," and the "numbers" of the notes in the theme may be added across] includes the concepts of "law" (10) and "God," "wholeness," "being" (1). Thus it symbolizes the idea of the laws of the world and of existence, laws, given to us by God: Evidently, this is





how Bach elucidates the circle of ideas in his composition.

This interpretation of the content of the cycle (the concept of the infinite development, unity, and mutual reflection of worlds) is hypothetical, of course, but quite lawful: In the last years of his life, Bach said that only now had he comprehended the internal spirit of music, and that he wanted to investigate it anew. *The Art of the Fugue*, most likely, is this study.

It is also not accidental, that Schumann said about Bach, that "he knew a million times more, than we can imagine."

In any event, the cycle occasioned the remark by one German musicologist, Ernst Meier: "Here Bach, the 'Prometheus Unbound' of thinking, acts in a truly revolutionary way. He is a true enlightener, who, together with the natural science and philosophy of his time, opens a new future: the victory of active, investigating thought, over dogma."

The Art of the Fugue is a work of genius, a bequest to posterity, infinite in its depth of thought, and each generation of people, with the development of knowledge and consciousness, will discover in it more and more new ideas.

Beyond Bach: Aspects of Beethoven's Studies in Bach

by Ortrun Cramer

All great Classical composers after Bach studied his works and learned from them, but no one succeeded, as Mozart and Beethoven did, in grasping and further developing Bach's science of composition in such a way, that something entirely new emerged, again pointing into the future.

Ludwig van Beethoven had been familiar with Bach's art of composition since his early youth. In 1783, an article appeared in *Cramers Magazin der Musik*, which stated that young Beethoven "could become a second Mozart." The proof of his extraordinary talent was: "He plays most of *The Well-Tempered Clavier* by Sebastian Bach, which Mr. Neefe has placed in his hands. Anyone who knows this collection of preludes and fugues (which one could almost call the *non plus ultra*) will know what that means. . . ."

In 1783, The Well-Tempered Clavier existed only in private or commercial manuscripts; the first printed editions were published, first in 1799 in England, and in 1800-01 in Leipzig-Vienna, Bonn and Zürich. Beethoven's teacher Christian Gottlob Neefe, who was in contact with Bach's son Carl Philipp Emanuel, served as a proofreader of the edition of the Simrock publishing house in Bonn. From the essay in Cramers Magazin der Musik, one can conclude that the copies must have been circulated rather widely among music lovers.

When Beethoven started his studies with Haydn in Vienna—the hoped-for studies with Mozart had been rendered impossible by the latter's early death—he was welcomed and received by the admirers of Johann Sebastian Bach's music in Vienna. There was the well-

known Baron Gottfried van Swieten, in whose house the musical elite of Vienna would gather every Sunday, and where, according to Mozart, "nothing was played but Händel and Bach," and whose library Mozart described as "although in quality a very large store of good music, yet in quantity a very small one." And there were more admirers of Bach among the musicians, poets, publishers, personalities from the nobility and from economic life.

In an essay recently published in our Ibykus and Fidelio magazines on "Moses Mendelssohn and the Bach Tradition," Steven Meyer pointed to the special role of the family of the Jewish banker Daniel Itzig from Berlin.1 Frequent cultural gatherings at his house were attended by (among others) Moses Mendelssohn and Gotthold Ephraim Lessing, by Wilhelm Friedemann and Carl Philipp Emanuel Bach. Itzig's daughter, Sara Levy, had studied piano with Wilhelm Friedemann Bach; she became a key figure in the networks defending Bach's music. Her sister, Babette Salomon, was Felix Mendelssohn's grandmother; she gave him a copy of the full score of Bach's St. Matthew Passion. Two other daughters of Itzig, Fanny von Arnstein and Cäcilie Eskeles, were married in Vienna. Fanny von Arnstein was a co-founder of the Gesellschaft der Musikfreunde (Musical Friends Society) in Vienna; Beethoven wrote a small composition into Cäcilie's album: "Edel sei der Mensch, hilfreich und gut" ("Let man be noble, helpful and good").

Of special value for Beethoven was the library of his student, friend, sponsor, and protector, the Archduke Rudolph, son of Emperor Leopold II, halfbrother of Franz I. Archduke Rudolph, who later became Cardinal and Archbishop of Olmuez, was a highly talented musician. He played the piano part in the first performance of Beethoven's Violin Sonata Op. 96, and composed 40 variations on a theme by Beethoven, which he dedicated to his teacher. He had an impressive library, which Beethoven could use, which contained a large number of works by Johann Sebastian Bach in print, hand-written copies or manuscripts, as well as many theoretical works on music with further Bach pieces. In Rudolph's library were: The Art of the Fugue, The Well-Tempered Clavier, all four parts of the Clavierübung, the Two- and Three-Part Inventions, the French and English Suites, Motets, Masses, the Four-Part Choral Songs, and many more.

For Beethoven, this library was of great value; it enabled him to pick out what was "most appropriate" for his studies, as he declared in a letter to the Archduke. It is remarkable, that Beethoven dedicated to the Archduke a whole series of his greatest compositions, which are most clearly influenced by his Bach studies, among them the Piano Sonatas Op. 106 and 111, and the *Great Fugue* Op. 133. What Beethoven considered his greatest work, the *Missa Solemnis*, was originally intended to be performed on the occasion of Rudolph's enthronement as Archbishop of Olmuez.

In his correspondence with his publishers, too, Beethoven showed his constant concern with the work of Johann

^{1.} Fidelio, Summer 1999.

FIGURE 1



Bach's manuscript of "Wenn ich einmal soll scheiden," from the St. Matthew Passion.

Sebastian Bach: On the one hand, he constantly requested copies of newly published editions, for example, a copy of the *B-Minor Mass*, from the publishers Breitkopf and Härtel in Leipzig, and

Nägeli in Zürich. He thanked Breitkopf and Härtel for sending him Bach compositions, writing, "For the beautiful things of Sebastian Bach, I thank you very much indeed, I shall preserve them and study them." Beethoven welcomed the planned project for a complete edition of Bach's works, at the beginning of the nineteenth century, as "what does my heart good, my heart which beats fully for the elevated, great art of this original father of harmony."

In Beethoven's sketchbooks, interspersed among work on his own compositions, there are numerous entries of short or long passages out of Bach's works, among them, the *Chromatic Fantasy*, fugues from *The Well-Tempered Clavier* and *The Art of the Fugue*.

The method of noting down association of ideas right away, Beethoven explained in 1823 in a letter to Archbishop Rudolph, whom he advised the following: "Right at the piano, quickly, fleetingly write down your ideas. ... Through this, not only will your imagination be strengthened, but one also learns how to fix the remotest ideas in an instant. ... Gradually, the ability emerges to present precisely and only what we wish/feel, which is such an essential need of noble men."

If Beethoven copied out long passages or special transitions from Bach's compositions, for study and for later use, he was following a method which Johann Sebastian Bach had already applied, who only achieved his science of composition through the study of good fugue writers, and "only through my own reflections," as Carl Philipp Emanuel Bach reported. Only through the conscious replication of the creative discoveries of great predecessors, does the student reach true knowledge-as opposed to obtuse, rote learning. (It would be useless, to condemn composition students to copy The Well-Tempered Cla*vier* ten times over!)

The Art of the Four-Voice Song

In Beethoven, this enduring dialogue with Johann Sebastian Bach—and with the works of Mozart which Bach's discoveries take up and develop further—leads to a fundamental further development in the late compositions.

In an interview with Ibykus maga-

zine, Norbert Brainin, the primarius of the unforgettable Amadeus Quartet (whom we will see shortly in a film clip), explained where the decisive progress of Beethoven over Johann Sebastian Bach's composition method, lies: "Beethoven writes in his late quartets, a kind of four-voice setting, in which the four voices are played, that is, sung, together. All the voices sing something which is important - and, that is, all equally important. The balance is perfect; the voices need not be concerned with how loudly or how softly they sing, because everything is so perfectly composed. The most important element here, is the Motivführung [the thorough-composition], because the motifs that Beethoven uses, all originate from the piece and are related to one another." However, Brainin added, "It must be sung correctly, with the right voice . . . I assume, that a bel canto-trained singer, would recognize this immediately."

In order to investigate this idea further, we will use the following musical examples.

The four-voice choral phrases by Johann Sebastian Bach, appeared in print in 1784. Carl Philipp Emanuel Bach became accustomed, by his father, he said, "not to see anything as a master work," the works were to serve conoisseurs and those eager to learn the art of composition, to study the "very special arrangement of the harmony and the natural flowing of the middle voices and the bass." Johann Sebastian Bach did not treat his own students with "dry counterpoint," but rather - after having initially worked through the pure four-voice general bass—led them into the chorales, such that he "first set the bass to it," and then his students "had to discover the alto and tenor voices themselves." Later, "he taught them to write the bass voice themselves."

Let us listen to an example of a four-voice chorale, perhaps the best known four-voice Bach chorale composition: "Wenn ich einmal soll scheiden" ("Should I at some time depart"), from the St. Matthew Passion [Figure 1]. We will hear a performance by the Wiener



Singverein (Vienna Singing Group), conducted by Wilhelm Furtwängler, from 1954. After the "rediscovery" and performance of the *Passion* under the direction of the young Felix Mendelssohn in 1829 in Berlin, it has become traditional among conductors to perform this chorale a capella, that is, without instrumental accompaniment, and this is how it is performed in this example.

The chorale comes immediately after the presentation of Christ's death, in the *Passion*, and signifies a point of self-reflection for the listener, on one's



own death and on eternal life. That this moves one's feelings most deeply, is obvious.

Let us now investigate, how Beethoven decisively further developed the art of the four-voice song—which also, as we heard in the earlier contribution, is shaped by Bach also in a very polyphonic manner.

For Beethoven, the sense and aim of the study of his predecessors, was indeed his own further development, towards new idea-manifolds. Beethoven described this very clearly in a letter to the Archbishop Rudolph, in which he explicitly names Bach and Händel as the only true geniuses, among his predecessors: "The aim of the world of art, as indeed in the whole creation, is freedom, progress; if we moderns have not the same firmness as our ancestors, yet the refinement of our manners has in many ways enlarged our sphere of action."

What this expansion involved, can be heard in two examples, taken from Beethoven's late string quartets.

In autumn 1995, Norbert Brainin demonstrated the thorough-composition method in Beethoven's late string quartets, during a master-class of the Schiller Institute in Dolna Krupa, Slovakia.² I would like to show a film clip from this master class. Let us first listen to a short passage from the slow movement of the quartet Op. 127; the piece should be performed Adagio molto espressivo [Figure 2]. We will hear it performed by the Auer Quartet from Budapest. [She shows video excerpt of master class. During the demonstration, Brainin remarks: "This is perfect counterpoint. If you were told that it was by Bach, you would believe it."]

Now, to the third movement of the string quartet in A-minor, Op. 132, which was composed in 1825, and, like the quartets Op. 127, 130, and 131, was written for Russian Count Nikolai Galitzin. The movement of the quartet is entitled, "Heiliger Dankgesang eines Genesenden an die Gottheit" ("Holy Song of Thanks, from a Convalescent, to the Godhead"). We have already heard about the importance of the "Lydian interval" for the decisive condensation of the well-tempered system, of the 24 major and minor keys. Quartet Op. 132 begins in the first movement (which we are not considering here) with a dense series of Lydian and double Lydian chords, as preparation for the development of the later composition, and especially this third movement. (On the significance of Op. 132, a number of articles have been published in our *Ibykus* over the past years, for example,

^{2.} A report on the master class appears in "The Principle of Motivführung: Reviving the Classical Ideal in Slovakia," *Fidelio*, Winter 1995.

by Bruce Director and Anno Hellenbroich.)³

The "Heilige Dankgesang" is to be counted among the high points of Beethoven's compositional art. The listener cannot escape the overwhelming effect of the self-fulfilling development process. The composition bears autobiographical traits: In 1825, Beethoven was seriously ill, and was forced to interrupt work on the quartets, for some time. The composition did not leave him alone, as one can see in his conversation notebooks, how involved with it he was. This reaches from short sketches for the quartet and sketches on the title "Dank-Hymne eines Kranken an Gott bey seiner Genesung" ("Hymns of Thanks to God, from an Invalid in his Convalescence"); "Gefühl neuer Kraft und wiedererwachtem Gefühl" ("The Feeling of New Strength and Reawakened Feeling"); up to ironic jokes, such as the sketched canon for Danish composer Kuhlau during an excursion: "Kuehl, nicht lau," ("Cool, not Lukewarm"), which is a pun on the name, composed on the B-A-C-H (B\(A \) C B-\(\frac{1}{2} \)) motif. Beethoven often uses this form of irony, when he is dealing with the most serious, even fundamental problems.

Noteworthy is also the emphasis that Beethoven lays on the correct reproduction of the dynamic signs in the proof copy of the voices. In the first performance of Op. 132, he reportedly played a phrase of the second violin himself, in order to demonstrate the correct expression. After the performance, the violinist Holz wrote, in Beethoven's conversation notebook, "I am happy now to be able to say, that I have received a violin lesson from Beethoven." Keep in mind, that Beethoven was entirely deaf at this time!

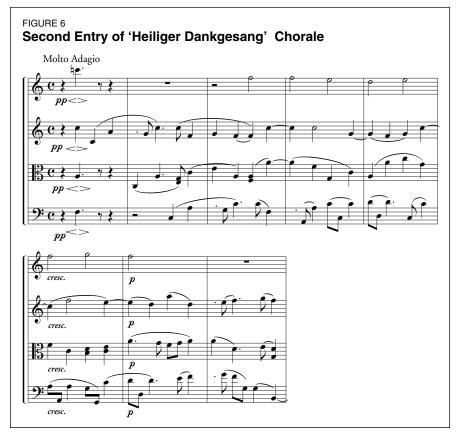
The "Heiliger Dankgesang" begins as a simple, four-voice, Lydian chorale

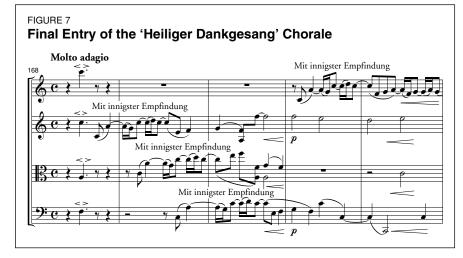




(from F), with a short introduction and short contrapuntal interludes, which are redefined in the further development. Let us first hear the beginning of the "Heilige Dankgesang," in a performance by the Amadeus Quartet [Figure 3]. After the first strophe of the chorale, a new element, a second subject, is intro-

^{3.} In English, see Lyndon H. LaRouche, Jr., "The Substance of Morality," *EIR*, June 26, 1998, and an appendix, by many of LaRouche's collaborators, "The Case of Classical Motivic Thorough-Composition," *EIR*, Sept. 4, 1998. Both of these were also published in *Fidelio*, Winter 1998.





duced into the composition, an part in D-major: "Neue Kraft fühlend" ("Feeling New Strength"), which initially appears to be in the most marked contrast to the chorale. Then, the chorale returns, in an altered form, with accompanying voices after the *Andante*, thence followed by the *Andante* part in altered form. Finally, the chorale appears a third time, but this time

in a completely different form, in an incredible intensification with altered, accompanying motifs which have become fully independent voices, and a tightly led, repeated presentation of the chorale through all voices.

Let us consider a short film clip from Norbert Brainin's presentation of the principle of composition. In this part of the master class in Dolna Krupa, he demonstrated the works alone, without other players, and marked the voices of all the instruments involved [Figures 4, 5, and 6].

[In the video, Brainin makes the following comments:

"Now we are in the dominant of D-major.

"Now comes 'Neue Kraft fühlend.'

"Then there are trills again, the first violin trills so beautifully there.

"Now comes a real—such a fervent song (measures 67-70). Here is written: *Cantabile espressivo*, but only in the first violin!

- "Now the others begin to play along.
- "And so forth, it is all thematic.

"Now, again the same, but in a completely different form. The contrapuntal moment here is found in the second violin, viola, and 'cello. I can not play it for you as beautifully as it actually should sound. I can only play one voice at a time. But they are all very independent, and nonetheless together."

And, in conclusion, the last part of the "Heilige Dankgesang," where Beethoven has characterized four voices with the additional remark: "Mit innigster Empfindung" ("with deepest, innermost feeling") [Figure 7].

This conclusion suggests that we think back once again, to Johann Sebastian Bach. In 1738, Bach composed a short study on the thorough-bass, which only exists in a copy by one of his students. In this, is written: "The original cause of finish and end of all music, also of the thorough-bass, should be nothing other than to be for the worship of God and recreation of the spirit. Where this is not taken into consideration, is not music, but rather a diabolical bawling and mindless singsong."

Bad Schwalbach 2000 Participants





stitute, ICLC · International Conference

Participants in the conference include J.S. Bach (upper left), speakers Anno Hellenbroich (above), Dino de Paoli (left), and Lyndon H. LaRouche, Jr. (below, left). Pianist Prof. Günter Ludwig (below, right), in concert on May 27, performed Bach's Partita in B_{\flat} -major, Haydn's Two Themes with Variations in F, and Schubert's Sonata in B_{\flat} -major.







Dialogue

Bringing Great Music to All the World

Here are excerpts from the discussion following the panel on May 28. Dr. Jozef Miklosko was vice prime minister in the first post-communist government of Czechoslovakia, and is now vice rector of the University of Trnava, Slovakia. Dr. Ladislav Mokry is a Professor of Music History in Bratislava. Anno Hellenbroich is an Executive Committee member of the ICLC in Wiesbaden, Germany and leads the music research; soprano Liliana Gorini takes a leading role in the ICLC's music work in Europe.

Working on Bach during the Communist Era

Dr. Jozef Miklosko: My first question to Professor Vyazkova, is whether you did all of this analysis of the Bach works just alone, "by hand," or if you used a computer to analyze the scores and the composition, as has become possible today.

My second question is, that with Bach one must speak about God and eternity, and the soul, and so forth. How was it possible, in the communist period, to study and to convey this in work with students? In Czechoslovakia, one had only to utter the word "God," and things became problematic. How could you work on these themes?

Prof. Yelena Vyazkova: On the first question, on whether I worked on all this alone, or not: In 1974, an edition of The Art of the Fugue was published in Russia, edited by Kopchevsky. In his introduction to that edition, he noted the main controversial questions, the things that were not understood. He wrote that there was an autograph, kept in Berlin, which had the following ordering of the fugues and canons, but that it was not understood why that was the ordering, rather than some other ordering. He himself, unfortunately, used the edition of Graeser, the well-known editor, whose conception was hegemonic for 50 years or so in musicology abroad, but somehow gave an incorrect ordering of the pieces. My ideas, to some extent, were born in debate with him. At the same time, it was through him that I found out for the first time, in 1974, that such a problem existed, although I had been working on the analysis of the cycle since somewhat earlier. The first publication about it, in Russian, was that introduction. Nobody in Russia was studying The Art of the Fugue, and I had the good fortune to delve more deeply into this problem, on my own, without any help from the outside—with the exception of Bach's own hints.

I think that it was always possible to study Bach, despite the themes of "God," "the soul," and so forth. These themes were not particularly raised. People began to study Bach more thoroughly, later, in the 1980s. What you had earlier, was on the level of what we call "musical literature," which is descriptive, concerning how something is structured, in general terms, not specialized language, so that the it would be accessible to non-specialists.

Things were more difficult, with Beethoven. Our musicologist Fishman, when he first published a book of Beethoven's sketches, which included Beethoven's sketches for *Christ on the Mount of Olives*. Natan Lvovich Fishman wrote almost nothing about that oratorio, just ten pages. He told me, in a personal conversation, that it would be impossible to develop that theme thoroughly in our time. The whole publication could have been stopped. That was in the early 1960s. But things were always calmer, with Bach. The historical gap was too big, between our time and Bach's, between our time and the Baroque era, so there were essentially no forbidden areas.

Miklosko: And, about using a computer?

Vyazkova: No, everything is by hand. We don't have computers like that. Do you? I'll have to come visit you!

Celebrate Bach's 250th Anniversary

Prof. Ladislav Mokry: I would like to situate the four speeches that we heard yesterday and today, in a larger process, which is ongoing, and that is the new image of Bach. Since 1950, more or less, as we gained access to the source material, we tried not only to understand Bach better, but also to lend new meaning to his work. And, in this sense, I think this conference has made an essential contribution, from many points of view, in every case, very useful and very fundamental.

So, I am very grateful that we have, in this manner, carried forward the task which today's musicology has to fulfill. The first to be undertaken, is the study of the manuscripts, which had remained unknown for a long period of time. This was done by Philipp Spitta, who published the biography of Bach that was considered the ultimate that could be said about Bach. The new Bach edition that was completed in 1900, was also considered the last word on Bach. Today, there is a new edition, which is essentially different because Bach is understood better. Some things had sometimes been wrongly interpreted, are better understood now, for example. . . .

It is often the case that Bach, naturally many times reformulated elements in a way that is very deep. The "O Haupt voll Blut und Wunden," which Ortrun played for us, was originally a soldiers' song. What came out, was part of the artistic maturity which Bach achieved, not only in this case, but more generally.

It is therefore, today, the task to present the new image of Bach, with so many manifolds and so much significance, that one not only thereby understands Bach better, but also can disseminate his works much better.

For this reason, in my country, we have put a certain process into motion: We want, on July 28, the 250th anniversary of the death of Bach, to hold 250 concerts of his music. And in every concert, the *Jesu Meine Freude* will be presented. There are three different versions of this: one for the small church organ, and two others, which are more difficult; through them one can understand the connections of this work. This will be presented in 250 places, not only to hold concerts, but also to make people aware that Bach exists, and that not only can one work with his music today, but one should.

Interestingly, this initiative, though not yet realized, has become well known, and the Council of Europe has endorsed our initiative, and we are looking, so to speak, at the last minute, to organize 250 more concerts in Europe. We have made contact with a publisher, who has published the three different versions of the *Jesu Meine Freude* in a pamphlet, and made it available to us free of charge. So if any of you want to have this, we can send it to you.

Anno Hellenbroich: I am very thankful that Professor Mokry made these remarks, because he had suggested a while ago, that the international Schiller Institute prepare a seminar; one fruit, is this panel this morning, at the international conference. We have to think, how we can pick up his suggestion, this year.

I might make one remark, concerning a different aspect, to which Dr. Mokry referred, which is how we can have an impact on the general public, in terms of the understanding of this history of music, of which some examples were shown this morning. I want to refer to this project, which LaRouche launched a while ago, together with his friends in Italy, with Dr. Arturo Sacchetti and others, concerning the "Verdi Year," next year. I actually would like Liliana to say, very briefly, where we are, because I think it is very relevant for the general music development. That will happen next year, and it is centered around the question of the *bel canto* voice studies, the traditional studies in this respect. I would like Liliana to introduce this.

The Campaign for a Lower Tuning

Liliana Gorini: The project, as people who were in Oberwesel last year may remember, because we presented it with Maestro Sacchetti (the former artistic director of Vatican Radio, who has developed a youth orchestra), was launched actually by Mr. LaRouche. The idea was, for the first time in history, to perform an opera by Verdi in the original key, which means in the lower tuning, which has not been used since Verdi introduced, in 1884, the lower tuning (A=432) as law, in Italy. After that, Verdi has always

been performed a quarter- to a half-tone higher. Actually, in Berlin, Salzburg, and other cities, even more than that, because they went higher, to A=450.

The project consists in presenting the idea of the lower tuning, with a conference, and then performing an opera. Actually, the idea is to perform even two of Verdi's operas from the time when he did this law (so these would be youth operas), with the youth orchestra, which will be trained by Maestro Sachetti. This means at least six months of work with these young people, to teach them to play at the lower tuning, which means, for them, educating their ear, and also their sense of music, the interpretation. Sacchetti is an expert in that, because he has a very good idea, while Carlo Bergonzi, who is the tenor who gives a master class for Verdi voices in [Verdi's hometown] Busseto, will teach the singers to sing lower, which is easier for the singer. Actually, for the singer it is much better, because they are getting killed by the high tuning.

After this work, which is done separately—the orchestra will work with Maestro Sacchetti and the singers with Carlo Bergonzi—the whole thing comes together with the performance of an opera in this beautiful Verdi theater in Busseto, which was inaugurated a few months ago. It has been renovated, and it will be put at the disposal of this project by the city of Busseto. The mayor and the cultural minister have endorsed the project, and will also endorse the conference.

The idea is not only to do this in the Verdi Year, for which the celebrations will start on Jan. 27, which is the death day of Verdi, but also to establish this as a permanent school for Verdi voices and Verdi instruments. As Sacchetti said, we have Baroque orchestras which do that repertoire, but we have never developed an orchestra which can perform operas at the lower tuning. So, this is the project, and obviously it will not only happen, but it should also be recorded, and taped, and remain as a very historic event, because this will be the first time an opera of Verdi will be performed in the real color, and in the real key Verdi wanted. It's a good way to celebrate this year.

Hellenbroich: I would like to add that I invite music professionals and others, to give support to this internationally, because we know that there are some people around the Toscanini Foundation, I guess, who don't like this initiative so much. I think we have to overwhelm them, with the fact that people want to have, in the country where Verdi was born and Verdi's music is known, this performed in the original. I would like to invite those who are here, to get from Liliana the best addresses to which to send a letter of support and demand, to have this done. . . .

^{1.} The scientific reasons behind the campaign for a lower tuning are explained in John Sigerson and Kathy Wolfe, eds., *A Manual on the Rudiments of Tuning and Registration*, Book I (Washington, D.C.: Schiller Institute, 1992).

The book that will unleash a musical revolution—

A Manual on the Rudiments of

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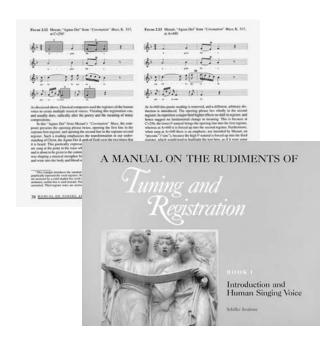
Book I focuses on the principles of natural beauty which any work of art must satisfy in order to be beautiful. First and foremost is the bel canto vocalization of polyphony, sung at the "natural" or "scientific tuning which sets middle C at approximately 256 cycles per second. Copious musical examples are drawn from the Classical musical literature to show how the natural registration of each species of singing voice, along with natural tuning, is the composer's indispensible "raw material" for the rigorous creation of poetic ironies without which no work of art can rightly be called "Classical."

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—Norbert Brainin, founder and first violinist, Amadeus Quartet

"... without any doubt an excellent initiative. It is particularly important to raise the question of tuning in connection with bel canto technique, since today's high tuning misplaces all register shifts, and makes it very difficult for a singer to have the sound float above the breath... What is true for the voice, is also true for instruments."

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EXECONOMICS

BIS Crash Warnings Remain Blacked Out in United States

by Marcia Merry Baker

As of the time this issue of *EIR* goes to print, there has been no significant coverage in the United States of what properly made headline news June 5 and thereafter in Europe and worldwide. The Bank for International Settlements (BIS) warned in its 70th annual report released that day, that the U.S. running trade deficit, combined with the U.S. rate of speculation and indebtedness, means there will be a "hard landing" in the near future. (Below are excerpts from the BIS 200-page report, whose release we covered in the last issue.)

In effect, the BIS report said that the U.S. financial bubble is about to pop. BIS president Urban Bäckström, speaking in "bankerese" at a June 5 press conference, warned that the current U.S. expansion was "unsustainable," and that "a soft landing is by no means assured." His point was immediately picked up in the major European financial press on June 6. "Warning of Global Hard Landing," was the headline of the front-page article in the London *Financial Times*. "Dangerous Dynamic on Financial Markets," and "The World Economy Is Threatened with Shock," were the headlines of articles in Germany's financial daily *Handelsblatt* and France's daily *Le Monde*, respectively.

International coverage of the crash warning continues. On June 11, the London *Sunday Observer* ran the story, "The Bubble that Has To Be Burst." Writer William Keegan summarized the BIS report, noting that the BIS was one of the few official institutions that sounded the alert about the so-called Asian crisis in 1997. But, the article says, "its biggest worry now is the continuing euphoria about the U.S. economy, and the dangers of a hard landing via a collapse of Wall Street and the dollar."

In the United States, there has been a blackout. The very extent of the cover-up reveals intervention by Wall Street and the White House. The politics of that, are clearly the attempt to try to "manage" the timing of any blow-out until after the

November elections—an insane goal in itself. Moreover, the pervasive lunacy in the United States is typified by the slant of the very few commentaries that were eventually published on the BIS crash evaluation. A June 8 CBS MarketWatch online newswire, by Paul Erdman, ridiculed the BIS report for being anti-United States and pro-Europe! He sneered, "Where would you rather have your money? New York or Paris?"

Then, on June 13, Alan Greenspan, chairman of the Federal Reserve Board, came out with an unprecedented, "What, Me Worry?" formulation in a speech to the New York Association for Business Economics. Making reference to alleged productivity gains of U.S. workers, Greenspan said that the U.S. economy is in a new paradigm, where henceforth no harm can ever occur. He attributed productivity gains to the Information Age, saying that "information technology raises output per hour in the total economy principally by reducing hours worked on activities needed to guard productive processes against the unknown and the unanticipated."

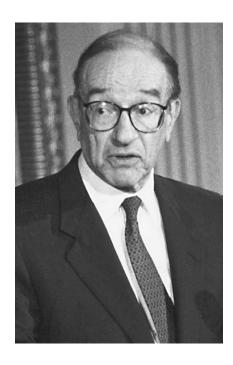
Apparently assuring financial marketeers that they need not worry about an unanticipated systemic meltdown, Greenspan claimed these alleged productivity gains are "irreversible"! "Having learned to employ bar code and satellite technologies, for example, we are not about to lose our capability in applying them," he said.

Take Cover

Back on Earth, as of mid-June, the signs are everywhere that the present financial *system* is soon going to be history. In the United States, you see the hyper-volatility on stock markets, the inflationary run-up of gas, food, and other commodities prices, the prospects for a near-term dollar plunge, and the unprecedented U.S. current-account and trade deficits.

In various regions around the globe, the impetus for new

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Federal Reserve Chairman Alan Greenspan. Don't worry, says Greenspan, the "New Economy" is invincible.

regional initiatives to cut loose from the Washington, D.C. insanity, and start up national-interest measures to protect economic priorities, are being strengthened. Earlier this spring, the 11 member-nations of the Association of Southeast Asian Nations, plus China, Japan, and South Korea (known as ASEAN Plus Three), made a mutual currency-defense pact, and other pledges. In Europe, France and Germany have re-asserted certain national prerogatives over Euro-banking policy, and other "European reflex" moves are under way. There are similar impulses in Ibero-America and elsewhere.

However, in the blacked-out, lunatic atmosphere currently enforced in the United States, many U.S. Congressmen and Administration officials are still groping around for supply-and-demand "explanations" for what is occurring sector-by-sector: soaring gas prices, health care breakdown, housing costs, and so on.

LaRouche: 'At the Boundary Condition'

Democratic Presidential pre-candidate Lyndon LaRouche emphasized on June 14, that the best way to understand the scale and timing of what we face, is to take a look at history, at the period of hyperinflation, March through November 1923, in Weimar Germany.

At that time, after a period when financial categories of values (debts, war reparations, credits, etc.) grew to unpayable, unsupportable levels, moves were made to simply vastly expand the money supply. At a certain point, the volume of money even *exceeded* the volume of unpayable financials! The system blew out. This episode is documented in detail in this section by Richard Freeman.

LaRouche made the point: "In summary, the present IMF

[International Monetary Fund] system as a whole, is presently caught in a global hyperinflationary spiral whose only near comparison is, presently, that peculiar to Germany of March-November 1923. This spiral, which has been set into motion through the continuation of hyperinflationary policy-decisions made during the Washington, D.C. monetary conference of October 1998, has now reached the threshold of a global hyperinflationary commodity-price inflation.

"The current trends in petroleum prices have nothing to do with supply-demand or costs of production of petroleum for world markets; these current inflationary trends, flanked by parallel price-rise trends in primary-materials and realestate categories, are entirely a result of the effects of nearly two years, since the August-September 1998 Wall Street bailout of the Long Term Capital Management (LTCM) scam, of monetary pump-priming efforts to prevent a deflationary chain-reaction collapse of the world's bubble of financial-asset-price inflation." He noted that 22 months of such insanity have brought us to the point of "a terminal boundary condition" of the whole system itself.

Price Shocks in the U.S.

The Federal Reserve policies of money-pumping, raising interest rates, and other maneuvers to save the expiring system, have created hyperinflationary conditions, empirically manifest for anyone looking.

A new U.S. Department of Housing and Urban Development report released a first-ever compilation of home cost trends, which the agency said showed "staggering jumps." The cost of buying a house has gone up more than 18% since 1995, in seven of the top ten hot "high-tech," "info-tech" regions.

Gas pump prices are soaring. In Michigan, for example, a gallon cost \$1.65 in late May; as of mid-June, it is \$2.07. In the Bay Area in California, gas is around \$2.10, after reaching \$2.17 in March. In many locales, pump prices change by the hour, and radio stations have started new segments, broadcasting which gas stations have the lowest prices. Internationally, crude oil is over \$32 a barrel (July futures), rising a full \$1 on the New York market on June 14.

The latest U.S. Bureau of Labor Statistics report shows price spikes in various food products. These are not prices paid to farmers, but rather cartel-controlled high prices charged to consumers. The May Consumer Price Index, released on June 15, shows food prices were up overall 0.5% in the month, after also rising in April. Beef, poultry, vegetables—all highly cartelized in processing, and marketing—went up for the biggest jump since October 1998.

Then there are the specialty minerals and metals. On June 13, the price of gold suddenly soared by \$7 an ounce in both London and New York; it did the same on June 15.

What does it all mean? As LaRouche summarized the situation on June 14, "The point is, that such symptoms, like a fever of 107°F, warn us that the patient exhibiting these

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circumstances may soon be dead. In any case, the present IMF system is already as bad as dead. The only important question to be deliberated, is, how shall a decent interment be arranged, if anyone cares to undertake that venture?"

Documentation

'The Quicker the Bubble Deflates, the Better'

Excerpts from the BIS Annual Report, released June 5 in Basel, Switzerland, from section "VIII. Conclusion." A subhead has been added.

There seems to be a widespread perception that the global economy now stands on the brink, but the brink of what remains the question. . . . Many now see better economic prospects than at any time since the early 1980s. . . . Yet, even if this longer-term vision is accepted, policymakers can still expect a few bumps along the way. Consistent with previous historical episodes of structural change and associated new promise, the last decade has been characterized by rapid credit expansion in many economies, and a growing appetite for risk among lenders. Concentration ratios have risen in financial markets while liquidity has sometimes fallen noticeably. These developments imply not only that the global economy may have become more exposed to macroeconomic shocks, but also that the dynamic response of markets to such shocks may be harder to predict than in the more regulated past. Finally, it must also be asked whether, with a more globalized financial system, policymakers have all the tools required both to avert problems and to manage them should they arise. This is never an easy task since liquidity injections, which may be needed to help manage one crisis, can also encourage imprudent behavior, simply leading to the next. . . .

The principal macroeconomic vulnerabilities are well known, not least among them the possibility of rising inflation in the countries most advanced in the business cycle. But it is the potential interactions between these vulnerabilities that may require more attention. Stock prices in many countries still seem high by historical standards, even after stripping out "new era" stocks, for which new valuation criteria could conceivably apply. The U.S. dollar also appears to be stronger than is compatible with the stabilization of longer-term external debt ratios. Given the increased extent to which projected returns on equity have driven international capital flows in recent years, the possibility of a simultaneous adjustment in both markets would seem greater than historical correlations might indicate. The likely implication of such an outcome would be slower demand due to wealth effects, even as infla-

tion rose in response to both internal and external pressures. Whether the former would be judged useful or not, since it would help offset the inflationary pressures, would of course very much depend on how big and orderly the wealth adjustment proved to be. Neither a hard nor a soft landing could logically be ruled out. . . .

'This Could All Go in Reverse'

The market dynamics conditioning the response of the global financial system to a continued tightening of policy rates also deserve attention. Higher policy rates have for the most part been viewed as helpful in sustaining economic growth while heading off inflation. Growth has been positive for stock prices and for credit spreads, and low inflation has perhaps constrained the upward movement in bond rates. Yet, if the authorities were suddenly judged to be "behind the curve," this could all go into reverse, with potentially contractionary effects. In addition, equity price movements could be exaggerated by the growing use of leverage and margined debt, portfolio insurance strategies, and the increased dependence of blue-chip profits on stock gains in the high-tech area. These are all interwoven elements with potential for mischief. Similarly, fixed income markets might also react uncharacteristically, given the changing status of benchmarks in both the U.S. and European bond markets, and the growing reluctance of large firms to commit capital to a market-making function...

One point on which virtually everyone would agree is that the current rate of expansion of domestic demand in the United States is unsustainable and potentially inflationary, and that a similar, if less extreme state of affairs prevails in some of the other English-speaking countries. With all talk of fiscal action in the United States moving resolutely in the other direction, the recent trend towards monetary tightening is most welcome even if some asset prices currently look quite vulnerable. Were monetary policy to back off at the first signs of declining equity prices, the risks of moral hazard would be great. In any event, if we really have entered a "new era," the likelihood of a sharp and sustained reaction in equity markets would be much reduced. And if we have not, then it could be argued that the sooner the bubble deflates, the better.

This is not to say that a significant reaction in the stock market, or in financial markets more generally, should not elicit a measured policy response. Disinflation can go both too far and too fast. This danger is not inconsequential in the United States, nor in a number of other countries advanced in the cycle. Given recent low rates of saving and heavy investment in housing and durable goods, it would now be very easy to postpone prospective expenditures. But once it has become apparent that certain investments will never yield their expected rates of return, the misguided investors should be allowed to pay the price, and quickly, so that capacity can be reduced and longer-term profitability rapidly restored. This may be the principal lesson from the 1990s in Japan.

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Why Larry Summers Drove Joseph Stiglitz Out of the World Bank

by William Engdahl

Within days of his being sworn in a year ago as U.S. Treasury Secretary, Larry Summers put all his considerable weight behind a drive to have World Bank Chief Economist Joseph Stiglitz ousted from that post. The background to what might seem to be just another case of Washington political infighting, demonstrates what is wrong with much of current U.S. Treasury Department policy, and why earlier calls for a major shakeup of the International Monetary Fund (IMF), for founding a New Bretton Woods system, or even the far milder call by President Clinton in 1998 for creation of a "new architecture" for international finance, have totally disappeared from Administration discussion. Summers, as Stiglitz recently pointed out, is little more than a proxy in government for the traditional interest of Wall Street financial houses and major banks. For them, return on investment comes first, even at the expense of the standard of living of hundreds of millions of innocent victims.

Stiglitz's criticism of Treasury's support for Wall Street policy interests, as well of the IMF role in developing country financial emergencies, comes a full quarter-century after *EIR* founder Lyndon LaRouche launched a campaign to end the role of the IMF as "debt enforcer" for London and Wall Street interests in developing countries, charging that IMF policies were "100 times worse than Hitler."

Despite the lateness of his conversion to the ranks of IMF opponents, however, Stiglitz's campaign is highly useful, in that it reinforces LaRouche's call for a New Bretton Woods conference to replace the bankrupt IMF system.

Serving Wall Street 'Special Interests'

In an interview with the May 25 Australian Financial Review, the American Stiglitz accused the Summers Treasury of acting as the battering ram for Wall Street. He charged that the problems arising from the recent Asia crisis are the result of "broad economic policy being determined by special interests. When the Treasury pushes for Wall Street, people sometimes think it's the high-minded, good policy, and they don't see it for what it is, which is financial markets' interests, which may or may not be good policy."

The background to Stiglitz's remarks sheds light on why, as one of his first priorities upon taking over Treasury in July 1999, Summers set out to drive Stiglitz as far from the public stage as possible. Indications are that Summers has failed

badly, given Stiglitz's numerous public comments since leaving the World Bank.

The policy fights between Stiglitz and Summers go back to the early days of the Clinton Administration. Stiglitz was a prominent academic economist who came to the Clinton White House to serve as chairman of the President's Council of Economic Advisors (CEA). Summers was brought to Washington as Harvard's youngest tenured economics professor, to serve as Assistant Treasury Secretary for International Economic Affairs.

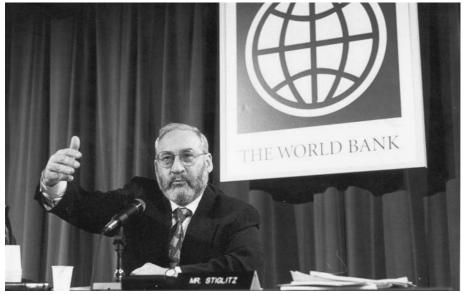
In late 1993, for example, Summers and Treasury were pressing within the Clinton Administration to force South Korea to accelerate liberalizing its domestic financial and economic markets, including lifting capital controls. CEA chairman Stiglitz opposed Summers's move, arguing that gradual liberalization was needed. Summers and Wall Street won out. "Most people now agree," Stiglitz said, that "it was rapid capital-market liberalization that was at the root of the [Asian economic] problem, and Larry and I had a very big fight in 1993 when I was in the White House." Stiglitz argued that it was not in U.S. national interest to push Korea to open up its markets faster. "This was not number one on our priorities.... This was not going to create a lot of jobs for Americans," Stiglitz said. "Second, it was simply bad policy. This is pursuing special interests over national interests. And Larry pushed this through, reflecting the interests of Wall Street."

In 1996, President Clinton nominated Stiglitz as Chief Economist and Vice President of the World Bank. Whether the assignment was part of Summers's covert effort to get Stiglitz out of the White House, any thought Summers may have entertained that that would have ended Stiglitz's role in Administration policy, was shattered during the 1997 Asian crisis. By 1998, Stiglitz began writing signed newspaper commentaries, including in the *Wall Street Journal*, opposing the IMF role in the Asian events. In the April 17 *New Republic* magazine, Stiglitz wrote, "I was chief economist at the World Bank from 1996 until last November, during the gravest global economic crisis in half a century. I saw how the IMF, in tandem with the U.S. Treasury Department, responded. And I was appalled."

Noting that the crisis had been made possible as a result of Summers's earlier efforts to force Asian countries to lift capital controls, leaving them vulnerable to a sudden flight of

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Joseph Stiglitz (right), former chairman of the President's Council of Economic Advisers, was forced out as Chief Economist of the World Bank by Treasury Secretary Lawrence Summers (left). The policy championed by Summers, compelling Asian nations to liberalize their markets, "was simply bad policy. This is pursuing special interests over national interests. And Larry pushed this through, reflecting the interests of Wall Street," said Stiglitz.

short-term capital, Stiglitz recounted that Summers called for using the IMF to deal with the Thai currency crisis, much as the IMF had dealt with Ibero-America in the 1980s. "So in 1997," he recalled, "the IMF imposed the same demands on Thailand. Austerity, the Fund's leaders said, would restore confidence in the Thai economy. As the crisis spread to other East Asian nations—and even as evidence of the policy's failure mounted—the IMF barely blinked, delivering the same medicine to each ailing nation that showed up on its doorstep. I thought this was a mistake."

Stiglitz recounted how he tried to press for a policy change. "I talked to Stanley Fischer . . . the IMF's first deputy managing director. I met with fellow economists at the World Bank who might have influence within the IMF. . . . Changing minds at the IMF was virtually impossible." He said that, when he pressed IMF officials as to why they refused to change, they only replied, "pressure coming from the IMF board of executive directors." The largest voting director on the IMF board is the U.S. government, with 18% of the vote. It is represented by the U.S. Treasury.

"By January 1998," Stiglitz continued, "things had gotten so bad that the World Bank's vice president for East Asia, Jean Michel Severino, invoked the dreaded r-word ('recession') and d-word ('depression') in describing the economic calamity in Asia. Lawrence Summers, then Deputy Treasury Secretary, railed against Severino for making things seem worse than they were, but what other way was there to describe what was happening? Output in some of the affected countries fell 16% or more. Half the businesses in Indonesia were in virtual bankruptcy or close to it. . . . Unemployment soared as much as tenfold and real wages plummeted."

He added, "Not only was the IMF not restoring economic confidence in East Asia, it was undermining the region's social fabric. Then, in spring and summer of 1998, the crisis spread beyond East Asia to the most explosive country of all—Russia."

Stiglitz directly blames Treasury, going back to the early Clinton years, for manipulating what at the time was a genuine debate over what economic policy should be urged upon the former Soviet Union. Stiglitz and economist Kenneth Arrow were part of one group of regional experts. "This group emphasized the importance of the institutional infrastructure of a market economy—from legal structures that enforce contracts to regulatory structures.... Arrow and I had both been part of a National Academy of Sciences group that had, a decade earlier, discussed with the Chinese their transition strategy.... We favored a more gradual transition to a market economy."

Unfortunately, a second group won the policy debate over Russia. "The second group consisted largely of macroeconomists whose faith in the market was unmatched by an appreciation of the subtleties of its underpinnings—that is, of the conditions required for it to work effectively. These economists typically had little knowledge of the history or details of the Russian economy, and didn't believe they needed any. . . . Shock therapy works for countries in transition to a market economy: The stronger the medicine, so the argument goes, the quicker the recovery."

Stiglitz said, "The Treasury Department and the IMF made sure there was no open debate. . . . The IMF and Treasury had rejiggered Russia's economic incentives—but the wrong way. By paying insufficient attention to the institu-

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tional infrastructure that would allow a market economy to flourish—and by easing the flow of capital in and out of Russia—the IMF and Treasury had laid the groundwork for the oligarchs' plundering. While the government lacked the money to pay pensioners, the oligarchs were sending money obtained by stripping assets and selling the country's precious national resources into Cypriot and Swiss bank accounts."

He added, "The United States was implicated in these awful developments. In mid-1998, Summers, soon to be named Robert Rubin's successor as Secretary of the Treasury, actually made a public display of appearing with Anatoli Chubais, the chief architect of Russia's privatization. In so doing, the United States seemed to be aligning itself with the very forces impoverishing the Russian people. No wonder anti-Americanism spread like wildfire."

Ending the 'Washington Consensus'

It is no secret in Washington that Summers's campaign was behind Stiglitz's resignation from the World Bank in November of that year. Stiglitz has subsequently identified Summers's personal role, as has *New York Times* senior journalist Louis Uchitelle, who wrote that Summers forced Stiglitz to resign. The accusations made by Stiglitz explicitly citing the pernicious policy role of Summers since 1993, all were made after Stiglitz had left public service and resumed a tenured teaching post and part-time position with the Brookings Institution. Ironically, since leaving the World Bank, in many respects Stiglitz appears freer to launch pointed attacks on Treasury's wrong-headed policy under Summers.

Yet, the reason why Summers moved obsessively to force Stiglitz out of the Bank, was the fact that Stiglitz, in speeches delivered around the world, repeatedly assailed the IMF's fundamental policy flaws in the handling crisis since 1997.

Stiglitz's attack on the IMF role was centered around the so-called "Washington Consensus." While most of the general public has never even heard of such a concept, it is known in official IMF and international economic policy circles as the Magna Carta of IMF policy.

In 1990, John Williamson, an economist at the Washington Institute for International Economics, and who was involved in the disastrous 1980s Ibero-American debt crisis, published for the annual IMF/World Bank Washington meeting, a menu of ten "idiot simple" policy reforms that should be the basis of IMF and World Bank policy toward Ibero-American debtor nations. This Washington Consensus, which subsequently became official IMF policy, mandated that a victim-country impose ten measures in order to receive IMF help: fiscal discipline (i.e., slash public spending, even on food subsidies for the poor); redirect public spending for high economic return; broaden the tax base; liberalize interest rates; let the exchange rate be "competitive"; liberalize trade; permit free foreign investment flows; privatize state companies; deregulate, especially to foreign entry of capital; and secure property rights.

'Still Waiting for Development'

Such medicine, Stiglitz indicated, was worse than the disease. In a speech to a conference of the Ministry of Land Reform in Brasilia, Brazil in July 1998, in the midst of the Asian crisis, yet before the August eruption of the Russia default and the early-1999 Brazil crisis, Stiglitz, still in the World Bank Chief Economist post, declared, in reference to the economies of Ibero-America during the 1980s and early 1990s: "These countries have followed the dictums of the Washington Consensus — bringing down inflation and budget deficits, liberalizing trade, privatizing state-owned enterprises, and 'getting the prices right'—but are still waiting for development. If it is coming at all, it is coming too slowly. The reason for the failure of the Washington Consensus to fulfill its promises is that it not only pursued too narrow a set of objectives — an increase in GDP per capita — but that it saw development from too narrow a perspective in two senses.

"First, the instruments it chose to focus on — trade liberalization, privatization, and macroeconomic stability-although important, sometimes confused means with ends, and in any case ignored other equally important instruments." Stiglitz contrasted the negative Ibero-American experience in implementing the IMF Washington Consensus, the so-called IMF "conditionalities," with the example of China. "China accounts for two-thirds of the increase in the total income of low-income countries over the last 20 years," Stiglitz said. "Yet China did not follow the dictums of the Washington Consensus. It emphasized competition over privatization: Standard economic theory says both are required for an effective market economy. The Washington Consensus emphasized one; China the other. We see the track record. It should not be surprising. . . . Privatizing a government monopoly is often likely to create a private monopoly with high prices and continued inefficiency.... Topics left out by the Washington Consensus are perhaps even more telling: financial markets, competition and regulation, transfer of technology, development of institutions—to name but a few whose importance has been increasingly recognized."

However useful Stiglitz's public campaign over the past several years to foster a genuine public policy debate over the failure of the IMF might be, it is far from sufficient. At least in his public pronouncements to date, he has stopped short of the most fundamental critique of the IMF and Summers's Treasury policies, namely, their failure to recognize the urgent necessity for a comprehensive new global monetary order, as Lyndon LaRouche has put forward in his proposal for a New Bretton Woods system. That is now the next step required to secure a sane, moral global economic framework that would ensure real per-capita, per-hectare rising standards of living and longevity. To take that on, as Japan, Malaysia, and other nations well know, means taking on the power behind the IMF: the power of a global financial oligarchy centered in London and New York, which has backing from every major bank and insurance group in continental Europe and Japan.

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The World Is Now Hurtling into Weimar-Style Hyperinflation

by Richard Freeman

Concerted action by Federal Reserve Board Chairman Alan Greenspan, in conjunction with U.S. Treasury Secretary Lawrence Summers, to print large volumes of money to bail out the world financial system's mountain of worthless financial assets, has caught the world in a global hyperinflationary spiral. This spiral is governed by the identical underlying principle, and will soon have the same devastating effect, as the hyperinflation which ravaged Weimar Germany starting in 1922, and reached gale force from March through November 1923.

This is cause for alarm, but most alarming is the silence of world leaders, especially U.S. President Bill Clinton, in response to this crisis. The sole exception is Democratic Presidential pre-candidate Lyndon LaRouche.

Since August-September 1998, Greenspan has injected liquidity into the financial system, both through the Federal Reserve's federal funds window and by minting new dollar bills, on a prodigious scale. During August-September 1998, the world financial system crossed a boundary condition, and so, accordingly, did Greenspan's wild-eyed, no-holds-barred running of the printing presses.

Bailouts, and More Bailouts

On Aug. 17, 1998, when the world was already overburdened by \$300 trillion in short-term, unpayable obligations, the Russian government announced a 90-day suspension of payments on GKO short-term Treasury bills, and on categories of Russian corporate and bank debt. The world's biggest banks and hedge funds had been heavily speculating in the GKOs, which promised upwards of 90% rates of return. Within weeks, large financial institutions, from Bank of America to Salomon Brothers to J.P. Morgan, were reporting official losses in the Russian market of \$100-400 million apiece. Indications were that many losses went unreported.

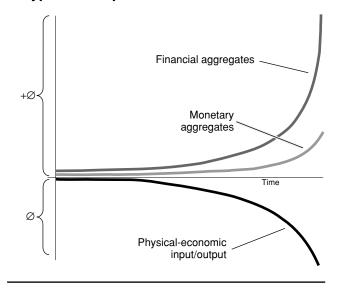
For reasons in part related to the Russian crisis, on Sept. 23, 1998, the Long-Term Capital Management hedge fund, with its Nobel Prize-winning Black-Scholes formula, collapsed, and was bailed out.LTCM had \$1.25 trillion in derivatives contracts, and had borrowed at least \$120 billion from the world's leading banks to invest in those derivative positions, which had now gone bad. Between the Russian debt suspension and the LTCM blowout, the world faced a sys-

temic financial meltdown. Greenspan took his dollar printing and liquidity injections to another level, and he has continued that policy ever since, including during the week of April 10-14 of this year, when the Nasdaq stock market plunged 25%. Greenspan and Summers, through their roles in the President's Working Group on Financial Markets (known as the "Plunge Protection Team"), coordinated pumping in large sums to hold up the stock market.

The general form that Greenspan's dangerous actions take is captured by LaRouche's Triple Curve, or "A Typical Collapse Function" (Figure 1). The graph is a heuristic diagram, in which the upper curve represents the financial aggregates, the mass of speculative paper financial instruments and property titles, which have grown at an hyperbolic rate. The middle curve represents the monetary aggregates, principally the money supply, which Greenspan has increased at an accelerating rate to prevent a deflationary chain-reaction collapse of the financial aggregates bubble, including stocks and derivatives. The lower curve represents the real, physical economy, which over years has been contracted by the burgeoning

FIGURE 1

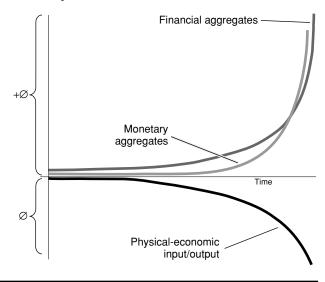
A Typical Collapse Function



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FIGURE 2

The Collapse Reaches a Critical Point of Instability



financial claims of the upper two curves.

However, this highly unstable condition could not long remain. In the 20 months since August-September 1998, Greenspan and Summers have so pumped up the monetary aggregates, that they have crossed a boundary condition, where "the rate of monetary expansion rises more rapidly than the rate of financial expansion," as LaRouche presented this in his paper "Regional Organization Under a New Bretton Woods" (*EIR*, June 9, 2000). This is a singularity of truly groundbreaking importance, representing the process of generation of a hyperinflation (**Figure 2**). As will be seen, this process is governed by a Riemann shock front.

While President Clinton has stubbornly denied reality, and prattled about the wonders of the disastrous "New Economy," the emergence of this hyperinflation is already evident in trends in raw-materials and real-estate prices, and has become the governing reality of the world economy. Though Greenspan would deny it, his money-pumping has created a hyperinflationary spiral that will be every bit as, or more destructive than what befell Weimar Germany.

We now look at a study of Weimar Germany to demonstrate how this process unfolded.

Weimar Reparations

At the April-May 1919 peace conference at the Versailles palace, outside of Paris, France, terms were imposed, drawn up by Britain and the City of London-Wall Street oligarchical financiers, that created the conditions which generated the Weimar hyperinflation. They enforced reparations designed to rip apart Germany.

The reparations had two prongs, which were imposed in

two stages. First, physical economy capacities were taken away from Germany. The nation was stripped of 13.5% of its land, 10% of its population, 15% of its arable land, 12% of its livestock, 15.7% of its coal, 48% of its iron ore, 63% of its zinc ore, 24% of its lead mines, and 42% of its smelting steel capacity—at least 16% of its entire physical capacity was taken away.

As well, Germany had to give away 90% of its merchant marine fleet, with 5 million tons of gross weight displacement. Germany's railroads — 10,000 locomotives, 225,000 freight cars, 8,000 passenger cars — were taken out of the country.

This plan was instituted to pulverize Germany's economy, and the bottom curve of the Triple Curve function was forcibly contracted.

The second prong came on May 5, 1921, at the London reparations conference, where it was announced that on top of the physical reparations, there would also be financial reparations. The financial reparations, which had been discussed at Versailles, were now finalized at a staggering 132 billion golden marks, and a payment schedule was laid down. The demand for reparations now fuelled the growth of financial aggregates curve, the upper curve of the Triple Curve function.

Thus, the lower curve of the Triple Curve function had been collapsed downward, and the upper curve was sent upward at a hyperbolic rate of growth. Thus, the disastrous condition that exists in many parts of the world today, was imposed on Germany by treaty.

The conditions of the reparations were destructive. There were two ways that Germany could attempt to meet the payments: first, increase exports over imports, and use the foreign exchange earnings to pay off the debt (which, because of the conditions imposed on the economy, was not possible); and second, increase taxes. In 1922, heavy new taxes were imposed, but these were being imposed on a physical economy which had been forcibly contracted, and on a population that had suffered five years of war, and whose living standards were falling.

The reparations payments schedule could not be met, and so, the printing presses were turned on. From the May 1921 London reparations conference, but especially from late 1922 onward, the growth of monetary aggregates was increased at dramatically higher rates.

Indeed, this tendency was further intensified when, in January 1923, French and Belgian troops, egged on by the British, occupied the Rhur to collect on reparations, further looting German industrial capacity.

Monetary Aggregates Expansion

Table 1 and **Figure 3** show the monetary aggregates, or in other words, the German paper marks in circulation. We look at their explosive growth, first, relative to the financial aggregates, and second, relative to themselves.

To compare the monetary aggregates to the financial ag-

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TABLE 1

Weimar Hyperinflation: Total Issue of Paper Currency, June 1922-November 1923

(billions of marks)

1922	
June	180
July	203
August	252
September	332
October	485
November	770
December	1,295
1923	
January	2,000
February	3,536
March	5,543
April	6,581
May	8,610
June	17,341
July	43,814
August	668,703
September	28,244,406
October	2,504,995,700
November	400,338,326,400

gregates, we must first determine the size of the financial aggregates by approximation, since no single figure, or figures, exist.

We look at the principal elements of the financial aggregates in 1922:

First, there is the reparations debt, which was imposed at Versailles to destroy Germany, which was 132 billion golden marks;

Second, there is the debt of the German government outstanding, apart from the reparations debt, which was approximately 95 billion golden marks;

Third, there is the German corporate and household indebtedness, estimated at roughly 110 billion golden marks;

Fourth, there is the German stock market, whose value is estimated at roughly 45 billion golden marks.

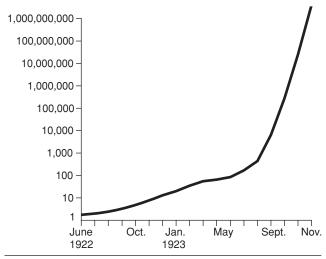
Taking these four, the most significant elements of the financial aggregates, as a whole, in 1922 they totalled 382 billion golden marks.

Now, let us compare the financial aggregates to the monetary aggregates.

During June-September 1922, the monetary aggregates nearly doubled, rising from 180 billion to 332 billion marks. This reflects the fact that the monetary expansion, while it would explode during March-November 1923, was already

FIGURE 3

Paper Currency Rose Astronomically in Weimar Hyperinflation, June 1922-November 1923



seriously under way during late 1922. Then, during October 1922, the monetary aggregates increased almost 50% in one month, rising to 485 billion marks—compared to the financial aggregates of roughly 382 billion marks.

This presents an extraordinary picture. The monetary aggregates, which had been increased to prevent a catastrophic fall in the financial aggregates, had now taken on a life of their own, and became greater than the financial aggregates. In Weimar Germany, it is not just that the rate of growth of the monetary aggregates zoomed above the financial aggregates, but the absolute amount of the monetary aggregates zoomed above the financial aggregates. This happened principally because of the attempt to pay the insane reparations payments. So, the monetary aggregates were expanded to support the financial aggregates, but became much bigger than the instruments they are supposed to support.

But, the second part of this process was even more turbulent.

We look at the rate of increase of the monetary aggregates. During 1922, the monetary aggregates increased by one order of magnitude. To situate the importance of this: Based on U.S. figures, monetary aggregates normally increase by one order of magnitude over 20-30 years. In Weimar Germany, monetary aggregates grew by one order of magnitude in 1922 alone.

In June 1923, the monetary aggregates grew to 17.34 trillion marks, up from 8.61 trillion marks in May. During June 1923, the monetary aggregates had grown by one order of magnitude. Then, between July and August, the monetary aggregates grew from 43.8 trillion to 668.7 trillion marks,

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another order of magnitude. During September, they grew by another two orders of magnitude; during October, they grew by another two orders of magnitude; and during November, they grew by another two orders of magnitude, ending November at 400 quintillion paper marks. This is like a series of hyperbolic horns, each growing out of its predecessor. During June-November, the monetary aggregates grew by eight orders of magnitude, with most of that increase—seven orders of magnitude—occurring in only four months. As we said, this compares to a relatively normal growth of the monetary aggregates of one order of magnitude every 20 to 30 years. During March-November 1923, the German currency in circulation had grown 100 million times—an astronomical rate.

The Next Step

The question remains: What characterized the relationship of the monetary aggregates to the financial aggregates during 1923, after they had surpassed the level of the financial aggregates in 1922? It is difficult to estimate the financial aggregates for 1923, because of the difficulty in determining one of its four principal elements: the level of government debt outstanding. In 1923, compared to all earlier years, the size of the German government debt outstanding (the result of newly incurred government deficits, which were not covered by taxes, but resulted in new government debt issues), became enormous. But, rough estimates yield a picture which completely confirms LaRouche's conception.

From 1919 forward, the German government financed its operations, primarily not by issuing longer-term notes and bonds, but by issuing very short-term "discounted treasury bills." Taxes were collected to pay them down, but whatever were not paid were added to the outstanding debt at the end of the year.

But, during 1923, relatively very little tax revenue was collected, compared to an exponential level of discounted treasury bills that were issued. As a result, the German government debt outstanding was growing by a very large sum every month. At the start of 1923, the unfunded German government debt was growing by several hundred billion marks each month, and by mid-year, the unfunded German government debt was growing by tens of trillions of marks each month.

This set the tone for one of the key elements that was different in 1923. When the government debt—one of the leading elements of the financial aggregates—steeply expanded each month, the financial aggregates in turn expanded much more than in any previous year.

The characteristic action that took over in 1923, is that both the monetary and the financial aggregates grew at hyperbolic rates. The monetary aggregates aggravated the growing instability, and undermined the monetary and financial order. They could not be slowed, and had shed entirely their character of supporting the financial aggregates.

Thus, there were two inter-linked phases in this develop-

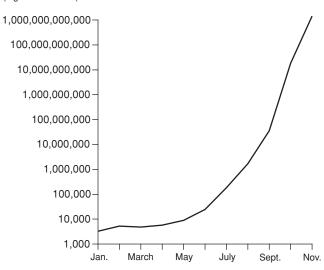
TABLE 2
Weimar Hyperinflation in 1923: Wholesale
Prices (1913 = 1)

0.000
3,286
5,257
4,827
5,738
9,034
24,618
183,510
1,695,109
36,223,771
18,700,000,000
1,422,900,000,000

FIGURE 4

Weimar Hyperinflation in 1923: Wholesale Prices (1913 = 1)

(logarithmic scale)



ment. During 1922, the monetary aggregates, which had been expanded to support the financial aggregates, became bigger than the instruments they were supposed to support. During 1923, the expansion of monetary aggregates shifted higher still, to a hyperbolic rate of growth, which brought down the German financial system.

Price Explosion

There was now a great increase in prices (**Table 2** and **Figure 4**), resembling the growth of monetary aggregates,

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Table 1 and Figure 3. Prices grew by one order of magnitude during June 1923, one order of magnitude during July, one order of magnitude during August, and one order of magnitude during September. During October, prices grew by three orders of magnitude, and then by another two orders of magnitude during November. During March-November 1923, prices grew by nine orders of magnitude. Prices in November were 1 billion times the price levels in March.

The unprecedented increase in prices must be sought elsewhere than the common explanation given for inflation. The reader must be free of the false hereditary principles of "action at a distance" and strict "pairwise interaction."

In his paper "New Accounting Practices Are Imperative: The Becoming Death of Systems Analysis" (*EIR*, March 31, 2000), Lyndon LaRouche says: "The crude notion of 'action at a distance,' as attributable to Galileo, typifies the axiomatic incompetence of the employment of common statistical methods in financial accounting and related practice. It is the intrinsic absurdity of that assumption of 'action at a distance,' which is the kernel of our treatment of the issue of 'non-linearity.'"

The common conception of supply-and-demand involves just such action at a distance. Under this false idea, if something is in short supply, its price goes up, and if it is too abundant, its price falls. Another conception is that the price of a car, for example, is the sum of the prices of steel, rubber, glass, tin, etc. If the price of the steel, rubber, etc. rise by 5%, then the price of a car will rise by 5%. While this idea starts from a real process of production, it incorrectly assumes that price is strictly the costs at the point of production. It does not account for the collapsed state of infrastructure, the lack of scientific development and of the cognitive development of the mind of the labor force, the burgeoning insurance and finance costs—resulting from merger and acquisition indebtedness, such as junk bonds, or the spiralling growth of derivatives et al., all of which add on to the final price of all goods.

A Riemannian Shock Front

But all of these standard conceptions — whether they have limited or, mostly, no validity — break down completely in explaining a hyperinflation. One must reject them, and start from reality: The monetary aggregates are wildly pumped up to circulate the mass of speculative financial aggregates, which have been growing hyperbolically. Both the monetary and financial aggregates suck dry the physical economy, upon which human existence and the financial aggregates depend. In the attempt to keep this process going, to prevent the financial bubble from collapsing, it reaches a boundary condition, in which a shock front of self-aggravating instability is generated, which drives forward the hyperinflation.

The shock front operates according to non-linear laws, comparable in the domain of mathematical physics, to the Riemannian shock wave front (see "On the Propagation of

Plane Air Waves of Finite Magnitude," *Bernhard Riemanns gesammelte Mathematische Werke*, H. Weber, ed. [New York: Dover Publications reprint, 1953]). The shock front operates such as the transsonic front when a plane exceeds the sound barrier.

The shock front is the highest governing force, determining everything else that happens in the economy, including prices. It renders ridiculous all other explanations. For example, in Weimar Germany, could one explain that it was a shortage of wheat that caused the price of bread to rise? Nonsense, supply and demand figured not at all into the price of bread. Or, was it that the price of wheat had risen 10%, the price of grinding grain had risen 25%, and the price of salt had increased 20%, and this increased the price of bread? No, the price of bread was increasing at the rate of 100 to 10,000 times per month.

Under current conditions, all "normal" conceptions of inflation fail. Unless one can conceptualize the Riemann shock front, unleashed by the forces that LaRouche has described from the standpoint of the transformation of the Triple Curve, the nature of the crisis cannot be grasped. It is this shock front which determines prices from the top down, not the cost of wheat and of grinding the wheat, or supply and demand acting in pair-wise interaction, which determines prices from the bottom up.

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Australia Dossier by Robert Barwick

Southwest Pacific Blows Up

Australia is "going for the gold"—and not only at the Sydney Olympics.

Less than three weeks into the ongoing coup crisis in Fiji, the Pacific rim again erupted in violence, when a similar coup was staged against the government of the Solomon Islands, located to Fiji's northwest. On June 4, a militia group calling itself the Malaita Eagle Force, arrested Solomon Island's Prime Minister Bartholomew Ulufa'alu and its Governor-General, cut telephone lines from the island, closed the airport, and issued an ultimatum for the Prime Minister to resign.

The coup seemingly caught Australia flat-footed, as had also apparently happened in Fiji. This has provoked a sharp debate in Parliament and the media, about the "failure of Australia's foreign policy in the region." In reality, Australia has succeeded only too well, in carrying out *British* foreign policy in the Southwest Pacific, which mandates breaking up nation-states and seizing raw materials.

The Solomons coup was ostensibly triggered by tensions over competing land claims on the main island of Guadalcanal. The population of natives from the island of Malaita, brought to Guadalcanal as labor during World War II, had grown, and their increased occupation of land around the capital, Honiara, sometimes by squatting, had in recent years provoked a backlash by the native, "indigenous" Guadalcanalese. Eighteen months ago, violence had broken out between the militias representing the two groups, the Malaita Eagle Force, and the indigenous Istabu Freedom Movement. The conflict divided the Solomons' police force, and, with civil war brewing, Prime Minister Ulufa'alu, himself a Malaitan, urgently requested armed police reinforcements from Australia and New Zealand.

Incredibly, this request was refused, despite warnings by former Fijian Prime Minister and Commonwealth mediator Sitiveni Rabuka, that a coup was clearly under way. "The situation in the Solomons was predicted for some time," Rebuka told *The Australian* on June 8. Rabuka's appointment by the Crown-controlled Commonwealth as a "mediator" in the Solomons was most curious, since he himself had led two "indigenous" coups in Fiji in 1987, and is deeply involved in the current one as well (see *EIR*, June 9).

Defending his government's decision to ignore the request for police, Australian Prime Minister John Howard said that such a deployment would place Australians in a position of "unacceptable risk." Moreover, "Australia can't be held responsible for everything that goes wrong in the region," he said. However, Howard was singing a different tune last year in East Timor, when he "sent in the Marines" to "preserve democracy," after having provoked the East Timor crisis in the first place, by demanding immediate elections.

Australia now faces an arc of crisis to its north, stretching from the Indonesian province of Aceh in the northwest, through the Indonesian provinces of Maluku, North Maluku, and West Papua (the former Irian Jaya); through Papua New Guinea, P.N.G.'s secessionist-wracked island-province of Bougainville; and on across the Solomons eastward to Fiji.

As documented in the Jan. 28,

2000 EIR report, "Queen Breaks Up Nation-States To Steal Raw Materials," this region holds some of the richest raw materials deposits on earth, including massive oil and natural gas reserves in Aceh, Timor, and P.N.G.; the world's richest gold and copper mine in Grasberg in West Papua; and two of the world's ten richest gold mines, and its fifth- and eighth-largest copper mines, in P.N.G. The Solomons is also home to Gold Ridge, a gold mine which accounts for more than 30% of the Solomons' Gross Domestic Product (just as the Grasberg gold mine in West Papua accounts for 30% of Indonesia's export income). With the crisis in the Solomons, the share price of Gold Ridge's owners, Delta Gold, has suddenly collapsed, making it a takeover target for the British-controlled world minerals cartel.

Australia's foreign policy, like its intelligence services, is directed by Her Majesty's Privy Council, the ruling body of the British Empire, now renamed the Commonwealth (see EIR, Jan. 20, 2000). That body's strategic perspective was outlined by Prince Philip's religious affairs adviser, Martin Palmer, in a discussion with an American journalist on Sept. 16, 1999: "We are seeing the final denouement of the processes unleased in 1914," he exulted. "It is the break-up of huge empires. Russia is breaking up. . . . In Indonesia, East Timor is the fault line. If East Timor goes, then Aceh will go the same way, and then, what about the other islands? The fact is, Indonesia has no logic for existence." Moreover, he said, "It is absolutely fundamental to British policy to encourage the break-up of empires. British policy, for the last 200 years, has been based on one central idea: the break-up of other empires....Perfidious Albion is alive and well.... The British Foreign Office has a certain agenda, which is continued divide and rule."

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Inter-Korean Summit: 'Open the Roads, Re-Link the Rails!'

by Kathy Wolfe

South Korean President Kim Dae-jung and North Korean National Defense Commission Chairman Kim Jong-il on June 13-14 pledged to promote Korea-wide reconciliation and economic reconstruction, at the first meeting between North and South Korean heads of state in Pyongyang, North Korea. "Let's open up the roads that have been blocked for half a century. Let's unite and re-link the broken railways. Let's open new sea lanes, communication and air routes," Kim Dae-jung told the Northern leadership in a June 13 dinner speech. "When that happens, all Koreans will be able to travel freely between the two sides and work toward reconciliation, cooperation, and eventual reunification. . . . It is my desire that, through this visit, the 70 million Koreans will be liberated from the fear of war."

Such an infrastructure-based renaissance, the obvious move to any Korean patriot, also parallels the concept of "The Eurasian Land-Bridge: The 'New Silk Road' - Locomotive for Worldwide Economic Development," EIR's 290-page 1997 Special Report on Eurasian infrastructure needs for the 21st century, which has been widely circulated in Korea. In "Summit Prompts Projects in N. Korea," the June 13 Korea Times reported that "the South Korean government is seeking to construct a comprehensive high-speed railway system to connect major cities across the Korean peninsula." The article details a complete peninsula- and Northeast Asian-wide grid, including "a massive line linking Pusan [at the southern tip of the peninsula] and Shinuiju [on the North Korean-Chinese border] via Seoul and Pyongyang. . . . The Seoul government is ambitiously seeking to set up a railroad network that will be connected to major lines in China and Russia." At a June 14 summit dinner, the two Koreas signed an accord pledging "to reconnect the railway and severed roads and open sea and air routes" (see text below).

This bold plan requires a new *global* monetary system to become reality. Happily, the Inter-Korean Summit comes in

the broader context of the Chiang Mai Initiative for East Asian monetary cooperation and currency defense, launched by Korea, Japan, China, and members of the Association of Southeast Asian Nations (ASEAN) nations in Chiang Mai, Thailand on May 6-8 (see *EIR*, May 19, 26, and June 2). Asian leaders hope that the Chiang Mai currency fund will evolve into a well-funded Asian Monetary Fund, able to provide billions in long-term development credits for heavy industrial projects.

'Asia Has Stood Up'

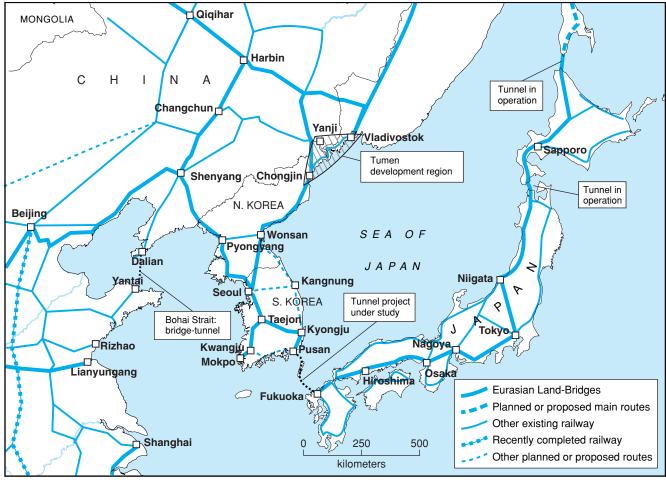
"This could be a good time for Asia to stand up," as one South Korean Finance Ministry official told *EIR* on June 14, underlining that a new level of cooperation between the two Koreas, and second, with China and Japan, was at the heart of the developments. "It's an historic opportunity. Kim Daejung could become the father of his country." The reality is that Korea's economy, like the economies of Indonesia, Thailand, and even Japan and China, devastated by the global financial crisis which broke out in Asia in 1997, cannot be rebuilt under today's world financial system, he said. Today's system, dominated by International Monetary Fund (IMF) shock therapy and unstable hot-money gyrations, threatens another crisis at any time, making long-term investments in rail lines and basic industry impossible.

"Under the current system, we can't even support our own people, many of whom are unemployed," the Seoul financial official said. "If we try to feed another 25 million North Koreans, it will only raise our taxes to the point of national bankruptcy, as happened in Germany," after the 1990 reunification. Under the current system, he said, most credit would go to pay already-existing bad debts, and investment would be only short-term, to suit hot money and its quick profits.

This was precisely what was done to East Germany and Russia, which were forced to pay old communist debts with

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Pan-Korean High-Speed Rail Projects Proposed by EIR, 1996



Many of these lines are now being discussed in Seoul as a result of the Inter-Korean Summit.

high-interest, hot-money loans, and by selling most of their industry and infrastructure for scrap. Today, they are industrial garbage heaps with mass unemployment.

"Instead, we need to maximize our 20- to 30-year long-term investment in capital goods" such as high-speed rail, electric power, and other industrial technologies, the Seoul official said, as *EIR* has proposed in the Eurasian Land-Bridge approach. "You are right, we should build [high-speed] bullet trains from Pusan to Pyongyang. But to do this, we would need a new monetary system to reorganize the debts, get rid of the short-term debts, control speculation, and maximize long-term capital investment."

In fact, South Korean President Kim Dae-jung urged creation of a "new international financial architecture," in a May 15 videotaped speech to a Washington conference. "I believe that we must firmly establish a new international financial architecture as soon as possible," Kim stated. "In the interna-

tional financial markets, where more than \$1 trillion are being transacted every day, the efforts of any single nation are not enough to help maintain financial stability. This was proven by the crises in Asia, South America, and Russia."

Kim also repeated recent key warnings by Japanese Finance Minister Kiichi Miyazawa that the Wall Street bubble is a threat to the rest of the world. "Recently, moreover, we have witnessed a prominent phenomenon: world stock markets, including those in Asia, often act in concert with the New York Stock Exchange."

"I insist that a hedge fund and short-term capital-monitoring channel must be set up," Kim stated.

'I've Missed You!'

The events of June 13-14, largely blacked out in the American media, had much the same emotional effect in Asia as the fall of the Berlin Wall in 1989—further reason to make

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sure that Korea does not end up in Germany's sad state. After the first direct flight from Seoul to Pyongyang since 1945, Kim Dae-jung landed in Pyongyang and received a surprise, personal reception by Kim Jong-il, who walked out on the tarmac to the steps of the plane to shake hands. "Nice to meet you; I've missed you" (literally, "I've longed to see you"), South Korea's Kim said, as crowds filling the airport chanted both their names.

"It was not just once or twice that I plunged into deep despair thinking I would never step on the soil of the North in my lifetime. But now, I have attained my lifelong wish," Kim Dae-jung said at the ceremony. "The 70 million Korean people in the South and North are also ardently hoping to attain their wish as soon as possible. Compatriots in the North, we are one people. We share the same fate. Let us hold hands firmly. I love you all."

The scene stunned millions of South Koreans glued to TV screens in crowded public plazas and at home for the first live broadcast ever from Pyongyang.

In a second surprise, the two then entered Kim Jong-il's limousine, and drove together to the Baekhwawon State Guest House. More than 600,000 North Koreans were estimated lining the route, waving paper flowers and calling for national unification.

Earlier in the morning of June 13, thousands of South Koreans had lined Seoul streets and waved the national flag as the motorcade carrying President Kim Dae-jung had left for the airport. The streets were so crowded that Kim had to stop twice to shake hands as tearful elderly people gave him dog-eared black and white photographs of their relatives in North Korea, not seen since the 1945 division.

There are 1.23 million first-generation South Koreans over age 60 who are separated from families in the North. Counting their children, the number totals 7.67 million.

Kim Jong-il stressed his interest in expediting the reunion of separated families, which would be a total shift in North Korean policy. "I watched South Korean television programs deep into the night, including MBC and Seoul Broadcasting System," he told the Southern leader after his arrival. "They said that all South Koreans welcomed the summit and, especially, separated family members and North Korean defectors are waiting for good news with the expectations to hear from their relatives."

The North Korean Chairman's popularity in South Korea skyrocketted. "The airport greeting was one of the most touching scenes I have ever seen in my life. I am proud that our President stands in Pyongyang," one 73-year-old Seoul man with family in the North said after Kim landed. "I don't know how to express my deep emotion. Many who had to leave their North Korean hometowns during the Korean conflict were in tears, watching the leaders of the two Koreas shake hands at the airport," said another Seoul resident, whose hometown is Chungkangjin, in the far north of North Korea.

North Korean Chairman Kim Jong-il joked that "President Kim's visit liberated me from a hermit life." The North-

ern Kim, long demonized in Southern media, has been suddenly humanized in what Seoul dailies are calling "Kim Jongil shock." The happy and respectful manner in which he greeted President Kim Dae-jung and the invitation to ride in his personal car, had some in Seoul expressing remorse for their previous hatred. "It was truly impressive. His unexpectedly respectful manner of receiving President Kim at the airport was far from my image of him as a rude and ruthless man," one Seoul resident born in the North said. Seoul commentators noted that the Northern Kim may look up to the Southern Kim as a father figure, since he is the same age as North Korean leader Kim Il-sung who died in 1994.

'By the Koreans, for the Koreans'

The historic summit was engineered "by the Koreans, for the Koreans, as Mr. Lincoln would say," a South Korean Ministry of Foreign Affairs official told *EIR* on June 14. "The best thing about this is that now, Korea has stood up, and we don't need any third parties telling us how to work with our brother Koreans," he added, an allusion to the saying, "China has stood up," after the end of the 19th-century foreign occupation of China.

"Now, we don't have to eavesdrop any more on U.S. intelligence agencies to find out what is going on in the North," said the official, who, like many career foreign service professionals, had previously had a long, deep hostility to Pyongyang. "I have changed my feeling about the North; we are much more comfortable working with them now. We have our own connections in Pyongyang. I have my own direct contacts with my counterparts in the North Korean Foreign Ministry."

"We have to develop our future ourselves," South Korean President Kim Dae-jung said at one dinner in Pyongyang. "I was deeply moved by the remark reportedly made by Chairman Kim Jong-il when he visited China recently, that the Korean problem should be resolved by the Koreans. . . . If we do not take the initiative on our own, we will not be able to get cooperation from neighboring countries or the international community. We need to have a burning love as compatriots, but at the same time, we have to be practical and try to settle things one by one, taking the easier issues first. To survive the fierce international competition, the North and South must become united as one and join forces. I would like to quote a proverb that says, 'United strength and mind wins over heaven.' When all the Korean people [unite] forces, there is nothing we can not achieve."

The Seoul official laughed at a report in *AsiaWeek* on May 25 that Kim Dae-jung has ignored Secretary of State Madeleine Albright and her demands for the South to upbraid the North over its missile and nuclear weapons programs. "Despite the U.S. demands, as far as I know, President Kim is not bringing up anything divisive like that at the summit," he said. In advance of the summit, Kim Dae-jung had sent South Korean Foreign Minister Lee Joung-binn to Beijing to brief China, and Vice Foreign Minister Ban Ki-moon to

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North-South Korean Accord Easing Five Decades of Tension

Signed in Pyongyang, North Korea on June 14, the core provisions are as follows:

To avoid armed aggression and to ensure the lowering of tension and establishment of peace.

To realize multifaceted exchanges and cooperation to promote the interests and prosperity of the entire Korean people.

To recognize and respect each other's political systems and not to interfere in each other's internal affairs, not to slander or defame each other and to refrain from acts of sabotage or insurrection.

To transform the present state of armistice into firm state of peace between the two sides and to abide by the present Military Armistice Agreement until a state of peace is realized.

To establish and operate a South-North liaison office at the truce village of Panmunjom, as well as a South-North political committee.

To establish a South-North Military Commission to implement and guarantee non-aggression.

To install and operate a telephone link between the military authorities of each side to prevent the outbreak and escalation of accidental armed clashes.

To establish a South-North subcommittee within the framework of the South-North high-level negotiations.

To engage in economic exchanges and cooperation.

To implement freedom of inter-Korean travel and contact among the Korean people — permitting free correspondence, movement between the two sides, meetings and visits between dispersed family members and other relatives.

To reconnect the railway and severed roads and open sea and air routes and to guarantee confidentiality of inter-Korean mail and telecommunications.

Washington. Albright was so furious about being made to play second fiddle to China, that she refused to meet with Ban.

AsiaWeek reported that there is "a growing distance between South Korea and the U.S.," and an "accelerating rapprochement" between Seoul and Beijing.

While refusing to comment on China relations, the South Korean official indicated that "no longer would Seoul jump and run" at every photograph produced by the U.S. Pentagon proporting to show North Korean military preparations to invade the South.

He also pointed out that while Kim Dae-jung was accompanied by 130 Korean officials and businessmen and 50 South Korean journalists, North Korea has excluded Western and all non-Korean reporters from the trip. Foreign media are following the events from the official South Korean press center at a hotel in Seoul, where wall-to-ceiling television screens are broadcasting live footage from Pyongyang.

'Let Us Meet in Seoul'

At the summit's conclusion on June 14, the two Korean leaders signed a landmark four-point accord, aimed at paving the way for full-fledged dialogue between officials of the two countries (see box). The four points are to promote inter-Korean reconciliation and unification, ease tension and promote peace on the Korean peninsula, help reunite separated family members, and broaden exchanges in economic, social, cultural, and other fields.

"The sun is rising at last for national reunification, reconciliation, and peace," South Korean President Kim Dae-jung told a televised state banquet in Pyongyang the evening of

June 14. "The talks were successful. I express my thanks to Chairman Kim Jong-il for helping to reach the accord."

He then invited the North Korean leader and his entire delegation to visit Seoul. "Chairman Kim, Leaders of the North: Let us meet in Seoul!" he concluded.

The four-point accord is a mixture of two previous accords the Koreas signed—the 1972 South-North Joint Communiqué highlighting the unification of the divided country under the principle of self-rule, peace, and grand national unity, and the 1991 "Basic Accord," featuring inter-Korean reconciliation, cooperation, exchanges, and nonaggression.

Defending Asia's Existence

The Korean peninsula is one of the most dangerous places on earth, and anything, including assassinations, nuclear terrorism, and even war, could derail these plans without notice, courtesy of the long arm of intelligence networks employed by certain Western financial circles. In 1994, North Korean founder Kim Il-sung died suddenly of a heart attack, which collapsed the original Inter-Korean summit planned for that year, and led the region to the brink of war.

Yet, while Asian leaders must proceed with care, the Pyongyang and Chiang Mai developments have to be taken as one. Together, these moves indicate that regional intellectuals have made some fundamental decisions "to defend their own economic and financial existence" from the dangers of the current global financial order, *EIR* founder Lyndon LaRouche on commented June 14. "People in Japan, China, and Korea have recognized what bankrupt condition the IMF system is in," he said, and to what degree of aggressivity

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Western financiers who wish to maintain the current system will go.

However, the more the Anglo-Americans threaten and shout, the more it is apparent in Asia just how weak they are, LaRouche added, with the massively over-inflated Wall Street stock bubble being one major Achilles' heel. Chinese, Japanese, and Korean leaders are showing a courage not seen previously; while they avoid open revolt, nevertheless, a real revolt is on. Nullifying the "rogue state" concept, which relies on a caricature of North Korea as a crucial prop, humanizing the North Korean leadership, by contrast, will be a key part of this move for Asian independence. Russia is supporting this initiative, by President Vladimir Putin's scheduled trip to North Korea, as China supported it by hosting North Korean leader Kim Jong-il the week before the summit and hosting inter-Korean pre-summit talks all this year. The stage is being set for advancing the entire Eurasian Land-Bridge.

Documentation

South Korean Media Report Progress on Infrastructure

Korea Times, "Summit Prompts SOC [Infrastructure] Projects in N. Korea," Seoul, June 13 (excerpts):

"Prodded by the inter-Korean summit, South and North Korea are moving to expand the social overhead capital (SOC) facilities like railways and roads linking both Koreas. As the relevant projects are essential to back the envisaged brisk exchange of people and cargo, President Kim Dae-jung and his North Korean counterpart Kim Jong-il allocated a portion of their tête-à-tête meeting to discuss how to make progress on the matter.

"Further opening of air and sea routes are expected soon as it will be possible through institutional revision. The two Koreas are poised to press projects for the construction of railways and roads in preparation for full-fledged inter-Korean economic and personnel exchanges. For example, the Kyongeui Line linking Seoul and Shinuiju, the 12 km-long Munsan and Changdan route in the South and the 8 km-long Changdan and Bongdong line in the North will be reestablished at the initial stage. Concerning the Kyongwon Line linking Seoul and Wonsan, the 16.2 km-long route connecting Shintanjin and the Demilitarized Zone (DMZ) will also be rebuilt. In the North, the route will be extended from the DMZ to Pyongyang. In the case of the Mt. Kumgang Line linking Seoul and the mountain, the 24.5 km stetch between Cholwon and the DMZ and the 50.8 km-long DMZ-Kisong route will be built.

"The South Korean government has already completed construction of the four-lane road extending to the joint security area as a preliminary step to recover the No. 1 national road stretching to Kaesong City via the border village of Panmunjom. The southern part of the No. 3 national road extending to Pyongyang has already been paved. Projects have steadily been pushed ahead to revamp the No. 5 and No. 7 roads. Other projects for ground routes connecting southern provinces like Yanggu and Shincholwon to northern areas like Jangjin and Keundong have also begun to gain momentum chiefly thanks to the summit talk.

"The South Korean government is seeking to construct a comprehensive high-speed railway system to connect major cities across the Korean peninsula. One program features a massive line linking Pusan and Shinuiju via Seoul and Pyongyang while another is designed to connect Mokpo, Chollanamdo and Rajin via Seoul and Wonsan. Based on the railway program, the Seoul government is ambitiously seeking to set up a railroad network that will be connected to major lines in China and Russia.

"The Ministry of Maritime Affairs and Fisheries (MO-MAF) is stepping up efforts to develop ports in the North in preparation for expanded inter-Korean economic exchanges. With Hyundai poised to build a massive industrial complex along the western coastal area, the ministry is planning to construct ports in the relevant areas. 'While pushing for the port construction program, we will consider using the North's existing facilities and manpower,' said a MOMAF official."

Chosun Ilbo News, "\$65 Billion Needed for Infrastructure in N. Korea Next 10 Years," Seoul, June 14:

"With the inter-Korean summit likely to achieve good results, the focus now is on social overhead capital (SOC) projects in North Korea. By 1998 standards, North Korea's SOC infrastructure is estimated to be equal to those of the South in 1975, and to bring them up to 1990 in the next 10 years will require some 73 trillion won (\$65.5 billion) in investment. The Construction Economy Research Institute of Korea (CERIK) laid out these figures in a report last month, saying the biggest problem in the construction industry's inroad into the North is funding and every means to solve the problem should be tapped.

"Power generation capacity would have to be doubled, highways expanded by 5% and railroads 7%. In the next five years, the South would have to build three large industrial complexes encompassing some 75 square kilometers, along with support facilities ranging from power generation to harbors. Kim Tae-hwang, a researcher with CERIK, said all kinds of financial sources should be tapped to secure funds for these projects, including project financing. Joint ventures with foreign capital would be one way. He called for an orderly launch of SOC projects in the North beginning with power generation, harbor and industrial complexes, with highway, railroad, and airport linkages to follow."

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The Death of Syria's Assad and the New War Danger in the Mideast

by Dean Andromidas

The war danger in the Middle East escalated with the death of Syrian President Hafez al-Assad on June 10. The danger does not derive from possible civil war in Syria, but from the determination, on the part of a desperate Anglo-American faction, in cahoots with the Zionist lobby, to respond to the collapse of the global financial system, with a new Middle East war. As neither Israel nor Syria is capable or willing, at this time, to fight such a war, the Anglo-American drive would more likely launch war against the "rogue states" Iran or Iraq.

The loudest voices for war, ostensibly against Syria, if it refuses to withdraw from Lebanon, are coming from the foreign policy groupings behind the Bush campaign, shared by their counterparts behind Al Gore (see next article). At the same time, the drumbeat for action against the so-called "rogue states," has become louder. For example, the mysterious disappearance of computer disks from the Los Alamos National Laboratory in New Mexico, containing nuclear secrets, could be the stuff to fabricate a terrorism incident (with or without weapons of mass destruction), that could serve as a pretext for military action against an alleged rogue state.

The stage for war was set, before Assad's demise, by U.S. President Bill Clinton's failure to follow through on his Middle East peace initiatives. The collapse of the Clinton-Assad summit in Geneva last March did not signal a "hardening of the Syrian position"; quite the contrary, Clinton went to the summit promoting the hard-line Zionist territorial position against returning the Golan Heights to Syria, which he knew-or should have known-the ailing Assad could not accept. Had Clinton presented an approximation of a viable program for overcoming the underlying issue of conflict, which is water; had he proposed a plan for production of new water supplies through massive application of desalination, there could have been progress. Instead, Clinton offered nothing but intransigence, and demonstrated that he had essentially handed over Middle East policy to Secretary of State Madeleine Albright. It must be understood, that Clinton's commitment to the Presidential campaign of Vice President Gore, and his wife Hillary's New York campaign for the U.S. Senate, precludes any initiatives that might alienate the Zionist lobby, whose decisive political weight both candidates are avidly courting.

This failure not only collapsed the Syria-Israel talks but weakened the leadership of both countries.

Power Vacuum: Damascus

Assad's death occurred in the midst of a reorganization in the Syrian regime, to prepare for Assad's son, Bashar, to take over. The reorganization began in the 1990s, when Assad sought to broaden the base of his government, from the tight circle of leaders from his own Alawite minority, to a much broader regime encompassing political, economic, and military circles among Syria's Sunni Muslim majority. A peace agreement with Israel would have consolidated this process and ensured stability in Syria following his death.

Although virtually all Arab states, in a demonstration of support for Bashar, were represented at the funeral by their respective heads of state, only France, among the Western nations, sent its head of state, President Jacques Chirac. Even Russia failed to send a senior delegation. The United States sent Secretary Albright, reportedly out of concern that the presence of Clinton or Gore might offend the Zionist lobby. The net result, is that, except for France, no Western power has established ties with the new leader in Damascus.

Bashar's assumption of power, has been organized according to the rules: First, the Constitution was amended by Parliament, to allow a person under the age of 40 to rule (Bashar is 34); then, Bashar was to be named head of the Baath Party at its congress, scheduled for June 17-18; and, on June 25, the Parliament is to formally nominate him as President, followed shortly by a popular referendum on his candidacy. Despite the orderly transition, the absence of a peace agreement, and Assad's untimely death, leaves the succession open to provocations. The most visible has come from Hafez Assad's half-brother, Rifaat, who, after his death, released a statement challenging the legitimacy of Bashar's ascendency to the Presidency.

Living in exile in Marbella, Spain, Rifaat has no popular base or influence among ruling circles in Syria. Nonetheless, as head of a massive international drug- and gun-running operation, Arab sources have indicated, he has the capability to create terrorist provocations. Moreover, Rifaat, through his criminal activities, maintains links with right-wing Israeli networks, which would be eager to create provocations of their own. Israeli strongman Ariel Sharon reportedly met with Rifaat recently, in Spain. Rifaat, through his son, owns a satel-

lite TV station, the Arab News Network, which, not coincidentally, is located in London.

Another provocation is the great show of concern about Syria's so-called overlordship of Lebanon, as expressed by recent statements from Secretary Albright, and other Anglo-American and Israeli circles. In reality, this is pure hypocrisy. Syria's presence in Lebanon was the result of agreements brokered during the shuttle diplomacy days of Henry Kissinger in the 1970s. Kissinger, who engineered the brutal Lebanese civil war, then negotiated several treaties and agreements to legitimize both Israeli and Syrian occupation of Lebanon, in order to sabotage any lasting Middle East peace. Syria's presence was again legitimized by the Bush administration in 1990, in order to gain its support for Bush's war against Iraq.

Even Israeli sources admit that Syria has been trying to militarily disengage from Lebanon since 1991, but they will never do it as a dictate from Israel or any other power. The absence of comprehensive peace agreements between Israel, Lebanon, Syria, and the Palestinians, including Israeli withdrawal from the Golan Heights, precludes any attempt to force a unilateral withdrawal from Lebanon by Syria. In fact, at Assad's funeral, the very visible presence of the top Lebanese political leadership, and its participation in the ceremonies, underlined the fact that Syrian-Lebanese relations are being further strengthened.

The real concern of the Anglo-Americans is Syria's alliance with Iran, the principal target of the Anglo-Americans in the Middle East. One Israeli intelligence source told *EIR* that the current Syrian leadership would never give up this alliance in return for "promises" from the West. In his view, "They might consider it if a major regional Marshall Plan were implemented in the Middle East to underpin a comprehensive regional settlement."

Thus, those who are theatening Syria's position in Lebanon, even with military intervention, seek to force it to break its strategic alliance with Iran, and even to support war against Iraq or Iran.

Power Vacuum: Israel

While many fear a power vacuum in Damascus, the real power vacuum exists in Israel. If the Syrian President is dead, Israeli Prime Minister Ehud Barak's government coalition is comatose.

On June 13, the right-wing religious Shas Party announced it would leave Barak's coalition government, over an ongoing dispute on state financial support for the latter's private school system. Their withdrawal would lead to a collapse of Barak's coalition, leaving Barak to either create a minority government, which would eventually lead to early elections, or go for national unity government with the rightwing Likud, whose leader, Sharon, is known as the Butcher of Lebanon. Sharon made known on June 15, that a national unity coalition with Barak's One Israel, was out of the ques-

tion. In either case, the peace process has been sacrificed.

With the absence of a strong government, it would be impossible for Barak to come to the final agreements with the Palestinians by the September deadline, after which Palestinian National Authority President Yasser Arafat has declared he will unilaterally declare independence.

Barak has been seriously weakened by Clinton's failing. A peace agreement with Syria, had been at the center of his political strategy of reaching peace agreements with all his Arab neighbors, including the Palestinians and the Lebanese. The collapse of the Syrian initiative forced him to withdraw unilaterally from southern Lebanon, without a negotiated peace agreement. The Lebanese withdrawal has yet to be recognized as in compliance with relevant United Nations resolutions. Thus, it continues to be a tinder box for a regional conflict.

Water or War

On June 13, the Israeli state water company, Mekorot, issued a report that Israel faces a water emergency. It stated that by the end of this summer, the level of the Sea of Galilee, which provides 60% of Israel's water resources, will drop below the lowest red line discussed so far, -214 meters. In addition, the mountain aquifer which is under the West Bank and along the Lebanese-Syrian border, will drop to a level that could cause the Sea of Galilee to become saline, making the entire lake unusable. If Israel suffers another drought next year, it will suffer a shortage of drinking water of some 130 million cubic meters, even if the allocation of water to farmers is completely halted. Ze'ev Golani, a hydrological consultant for Mekorot, was quoted by the daily Ha'aretz as saying, "Tel Aviv will be like a Third World city. Some streets will not have water part of the time, or some cities will not have water for a few hours each day."

Syria, Jordan, the West Bank, and the Gaza Strip are also suffering dramatic water emergencies.

The emergence of water as a potential flashpoint is another bitter fruit of the collapse of the Syria-Israel peace talks, in which both water, especially the Sea of Galilee, and land were the key issues. As part of an agreement, a regional water authority was to have been established to develop the entire Jordan River basin, which is shared by Israel, Syria, Jordan, the Palestinian National Authority, and Lebanon. Such an arrangement could have only worked with massive U.S. economic involvement.

The U.S. President could still act to revive the peace process. This would require supporting the cooperation among various countries in the region, to ensure the sovereignty and territorial integrity of Lebanon, and to redefine the question of Syrian withdrawal from Lebanon, as a component in an overall peace agreement. Such a peace agreement could function, only to the extent that a serious regional infrastructure development perspective were proposed, pivoted on the crucial issue of creating new sources of water.

U.S. Zionist Mafia Is Pressing for War in the Middle East

by Jeffrey Steinberg

A self-professed "bipartisan" group of neo-conservatives and other right-wing Zionist lobby notables, with strong ties to both the Al Gore and George W. Bush Presidential campaigns, have called for the United States to go to war against Syria, in their latest effort to drown the Middle East peace process in a sea of blood. As preposterous as this may sound, the June 9 issue of *Forward*, a New York-based Zionist lobby, neo-conservative weekly, reported that an outfit called the Lebanon Study Group has issued a report, demanding that the Clinton Administration and the United Nations Security Council take all available actions to drive Syria out of Lebanon immediately, including waging a "Gulf War-style campaign to oust Syria's troops."

The *Forward* story motivated a new Mideast war against Syria: "The fact that a bipartisan group is calling for such measures underscores an emerging consensus on the dangers posed by the Damascus regime and its troops in Lebanon, which have remained after the withdrawal of Israeli forces. With Israeli troops gone, the possibility of Hezbollah attacks on Israel's northern border have become a pressing matter in Washington."

The term "bipartisan" is highly misleading. The participants in the so-called Study Group, while they include both Democrats and Republicans, are all people whose dominant allegiances are with the neo-conservative, hard-core right wing of the Israeli lobby, including at least one individual who has been long suspected of having been part of the Jonathan Pollard spy ring, that operated inside the Reagan Administration during the early 1980s, funnelling vital U.S. national security secrets on to Israel, and, in some cases, to the Soviet KGB.

Richard Perle, who is a senior foreign policy adviser to George W. Bush's Presidential campaign, and who is a director of the Canada-based Hollinger Corp., owners of the *Jerusalem Post* and the London *Telegraph* newspapers, was one of a dozen Reagan Administration Pentagon officials, suspected of being part of the "X Committee" of Israeli spies, who steered the Pollard espionage ring, from top posts inside the U.S. national security establishment.

Joining Perle in the Lebanon Study Group were: U.S. Sen. Jesse Helms (R-N.C.), Chairman of the Senate Foreign Relations Committee; former Reagan Ambassador to the United Nations Jeane Kirkpatrick; Daniel Pipes, editor of the

Middle East Quarterly; and two U.S. Representatives, Eliot Engel (D-N.Y.) and Steven Rothman (D-N.J.).

EIR's own investigation into the call for war revealed that the Study Group was initiated by a two-year-old Project Democracy front group called the United States Committee for a Free Lebanon, which is an even nastier nest of "X Committee" operatives. In addition to the above-named individuals, the USCFL includes: Angelo Codevilla, who is also a director of a Washington- and Jerusalem-based think-tank, the Institute for Advanced Strategic and Political Studies, closely aligned with Likud party chairman Ariel Sharon, the "Butcher of Lebanon," and with former Israeli Prime Minister Benjamin Netanyahu; Elliott Abrams, former Reagan State Department chief of Latin American affairs and a primary figure in the George Bush/Oliver North Iran-Contra gunsfor-drugs apparatus; Douglas Feith and Frank Gaffney, both Reagan Pentagon officials who were, along with Perle, on a list of "X Committee" suspects prepared for the Defense Department's general counsel; David Steinmann, ex-president of the Jewish Institute for National Security Affairs; and David Wurmser, of the American Enterprise Institute.

'Rogue States' Targetted

It is probably the case that the threats against Syria are not aimed at starting a new Mideast war on Lebanese or Syrian soil. Rather, the aim is to force the new Syrian regime to once again "play ball" with British and American operations, targetted against Iraq and, perhaps, Iran—as Hafez al-Assad played ball with George Bush and Margaret Thatcher in the 1991 Operation Desert Storm.

The idea that the United States is in grave danger of attack by terrorists using "weapons of mass destruction" deployed by "rogue states," is being peddled by precisely the Zionist mafia also peddling the "get Syria out of Lebanon" line. Two years ago, the very same individuals, and many of the same groups, were instrumental in pushing through Congress the Iraq Liberation Act, which has created a "Contra"-type force, to overthrow Saddam Hussein, with nearly \$100 million in U.S. taxpayers money, for starters.

The 'Get Clinton' Mafia

President Clinton knows very well that the USCFL and the other groups involved in the latest war cries, are made up,

almost exclusively, of his worst enemies from the right-wing Anglo-Zionist camp. With the exception of Engel and Rothman, everyone else involved in the Lebanon Study Group has been a hard-core operative in the "Get Clinton" apparatus behind the failed impeachment drive. People like Kirkpatrick, Perle, *New Republic* publisher and Al Gore mentor Martin Peretz, and Tufts University professor and "former" Mossad officer Uri Ra'anan (who helped place Pollard in his U.S. Naval Intelligence job), worked hand-in-glove with Sharon in targetting President Clinton, the late Israeli Prime Minister Yitzhak Rabin (who was assassinated by a Jewish underground apparatus nurtured and bankrolled by Sharon), and former Prime Minister Shimon Peres, in an unabashed effort to wreck any hope for Middle a East peace.

Given that these are his enemies, it is particularly disturbing that President Clinton, who labored so long for Mideast peace, now appears to be accommodating to this Zionist mafia, out of fear that, under a Republican President, he and his wife, Hillary Rodham Clinton, will be thrown in jail, as the final chapter in the "Get Clinton" treason—unless she wins the U.S. Senate race in New York, and Gore avoids a landslide defeat in November.

Capitulation to his worst enemies is no solution for President Clinton's dilemma. His best recourse is to redouble his commitments to achieve a comprehensive Mideast peace in the final months of his Presidency. This would require the kind of bold move that he made in 1994, when the Korean peninsula was on the verge of exploding into war, over allegations that "rogue state" North Korea was close to having nuclear weapons and long-range missiles. The President, at that time, offered the North Koreans light-water nuclear reactors, to satisfy their energy requirements, in return for their shutting down their existing nuclear reactors, abandoning production of weapons-grade nuclear material. The breakthrough summit between the leaders of North and South Korea (see *International* lead story) was, in large measure, the fruit of the President's bold diplomacy in 1994.

One component of such a bold new move for Mideast peace by the President could center around creating the legitimate conditions for the neutralization of Lebanon, with the active cooperation of Jordan, Israel, and Syria, under its new President, Bashar Assad. Such an effort would necessarily place great emphasis on providing adequate fresh water for the entire region, under conditions of rapid real economic growth.

Gore, Bush and the Zionist Lobby

Above all, to avert throwing out seven years of effort at Mideast peace, President Clinton would have to break with Gore and the extreme-right Zionist Ring around Gore's neck.

When it comes to war in the Middle East and the Persian Gulf, Gore and "Dubya" Bush are birds of a feather. For example, senior campaign advisers for both candidates were involved, in 1996, in a so-called "Presidential task force"

of the Washington Institute for Near East Policy (WINEP), which demanded all-out war to overthrow Saddam Hussein, and similar hawkish policies toward other Muslim "rogue states." On May 19, WINEP sponsored a policy "conversation" between Bush's top Mideast policy adviser, Robert Zoellick, and Al Gore's alter ego and chief national security aide Leon Fuerth. Although there was a bit of political jousting on issues of Mideast policy, the Bush and Gore representatives were in total lock-step, particularly on the issue of Saddam Hussein. Both men railed that there can be no peace in the Mideast until Saddam is gone.

A few days later, candidates Bush and Gore both showed up at the annual policy conference of the American Israeli Public Affairs Committee, which bills itself as "America's Pro-Israel Lobby." Each tripped over himself to prove he was the more pro-Israel and more militant against Iraq, Iran, and any other force threatening Israel's existence—real or imagined.

Dubya, speaking on May 22, went on at length about his visit to Israel, singling out Sharon for special praise. "A few years ago, on a trip to Israel, General Sharon took me on a helicopter flight over the West Bank. And what a trip that was. . . . It is sobering to think," he said, "that while the distance between Dallas and Galveston is 270 miles, the distance between Israel and Saddam Hussein's Iraq is only 250 miles. . . . The Gulf War showed the world the danger posed to the family of democracy by rogue states armed with missiles."

The next morning, Gore went one step further, promising that, under a Gore Presidency, the United States will never pressure Israel. "We must not and would not in any way try to pressure Israel to agree to measures that they themselves did not see were in their own best interests." At a WINEP speech on Oct. 22, 1999, Gore had defined the ouster of Saddam Hussein as one of his top foreign policy priorities, and said that one of his proudest moments in the Senate was when he broke ranks with a majority of Democrats and threw his support behind George Bush's Operation Desert Storm.

As if to buttress those words, Gore has assembled, on his Foreign Advisory Group (FAG), a collection of policymakers who come, almost exclusively, from the Anglo-Zionist stable. Fuerth, a member of the Principles Committee at the White House, has been suspected for years of having questionably close ties to Israeli intelligence (see accompanying article).

The entire FAG was handpicked by two Senior Coordinating Advisers, Bruce Jentleson and Ambassador Marc Ginsberg. Jentleson was a member of the WINEP "Presidential Study Group" that peddled the dual containment policy targetting so-called "rogue states" Iran and Iraq, that opposed the lifting of sanctions against Iraq, and that demanded a deployment of larger U.S. military forces into the Gulf to "inflict as much damage" on Iraq as possible. And Ambassador Ginsberg has conducted at least two Middle East fact-finding trips for WINEP, in 1998 and 1999—even as he was putting Gore's foreign policy team together.

What Is the Israeli Blackmail on Clinton?

by Edward Spannaus

To understand President Bill Clinton's capitulation to the right-wing Israeli lobby in the United States, and his abandonment of his previous commitment to forging a durable Arab-Israeli peace in the Middle East, it is essential to take into account the persistent reports of both Israeli spying and blackmail against President Clinton, and of Israeli penetration into the highest levels of the White House.

Such reports fall into two categories: indications of Mossad espionage, in the form of interception of electronic commmunications, and, secondly, the placement of a high-level agent within the Administration. That agent is often referred to by the code-name "Mega."

Who Is Leon Fuerth, Really?

A prime candidate for the designation as "Mega," is Leon Fuerth, Vice President Al Gore's foreign policy mentor and his National Security Adviser. In a story which received remarkably little attention, the *Washington Post* reported in mid-1998 that "some officials in the State Department believe he [Fuerth] is the conduit by which inside information is passed to Isreali Prime Minister Binyamin Netanyahu."

As background, one should also take note of the *New York Times* report of this last April. Going back to Gore's 1988 campaign, it reported that "Fuerth helped him formulate an uncritical pro-Israeli line," and that Gore even criticized the Reagan Administration for putting pressure on then-Prime Minister Yitzhak Shamir to go along with a peace initiative calling upon Israel to withdraw from the land it occupied in 1967, in exchange for peace with its Arab neighbors.

The *Times* reported that it was Fuerth who was responsible for Gore's break with his fellow Senate Democrats in 1991, to vote in favor of President George Bush's Gulf War; Fuerth also drafted Gore's speech calling for the removal of Saddam Hussein.

'Mega' and Monica

The story of "Mega" is closely intertwined with both President Clinton's initiatives on the Middle East peace process, and the attacks on Clinton's Presidency, which culminated in the Monica Lewinsky affair and the 1998-99 impeachment.

First, the time-frame of the Lewinsky affair should be considered.

- 1. Lewinsky became an unpaid intern in the White House in the summer of 1995, and Clinton's first improper contact with her was in mid-November 1995.
- 2. President Clinton's partner in the Middle East peace process, Israeli Prime Minister Rabin, was assassinated on Nov. 4, 1995, which then allowed Netanyahu to become Prime Minister in May 1996.
- 3. Just as the Lewinsky affair was breaking in the news media in mid-January 1998, Netanyahu visited Washington, and publicly insulted the President by meeting with some of Clinton's worst enemies, including televangelists Jerry Falwell and Pat Robertson. Netanyahu carried out this affront over the stated objections of both President Clinton and moderate Jewish leaders in the United States.

What happened between 1995 and early 1998?

According to independent counsel Kenneth Starr's report on the Lewinsky affair, President Clinton told Lewinsky, in March 1997, that he suspected a foreign embassy was tapping his telephone conversations.

This coincides with a report published in the Washington Post in early May 1997, that U.S. intelligence agencies had opened an investigation months earlier, to determine if a senior Clinton Administration official was passing information to the Israeli government. That investigation, according to the *Post* and other sources, was launched in January 1997, after the U.S. National Security Agency (NSA) had intercepted a phone conversation between a Mossad officer posted at the Israeli Embassy in Washington, and Danny Yatom, the Mossad chief, in Tel Aviv. The Mossad officer was seeking clarification as to whether he should attempt to obtain a copy of a private letter from then-Secretary of State Warren Christopher, to Palestinian leader Yasser Arafat. He told Yatom that "the Ambassador wants me to go to Mega to get a copy of this letter." Yatom told the officer that under no circumstances should "Mega" be approached, as he was the top Israeli penetration agent inside the Clinton inner circle. "This is not something we use Mega for."

An extensive FBI counterintelligence probe to determine the identity of the high-level Israeli mole in the U.S. government was triggered by the NSA intercept, and, according to a later affidavit of a CIA employee, a number of Jewish foreign policy and defense specialists were suspended from their jobs during this investigation.

The Real Lewinsky Tapes

What happened to the "Mega" investigation? According a number of published accounts, and information provided to *EIR*, the spy hunt was called off as a result of Mossad blackmail of Clinton using tapes of his telephone conversations with Lewinsky.

According to these reports, as soon as the NSA intercept was discovered, an emergency meeting of top Israeli intelli-

gence officials took place, and a Mossad electronic-bugging team was dispatched to Washington. One of their targets was the home telephone of Lewinsky.

As a result of this operation, the Mossad obtained wiretap tapes of about 30 hours of "X-rated conversations between the President and Lewinsky. These tap"es, according to the sources, were hand-carried back to Tel Aviv, and were then used to blackmail the Clinton Administration into calling off the search for "Mega"; the threat was that, if the investigation were not shut down, the Israelis would begin leaking material from the tapes.

Curiously, the reporter who first started investigating the Lewinsky story, Michael Isikoff, says that he first learned about a story involving the President and "an intern" in March-April 1997.

Gordon Thomas, the author of a book which describes these events, told the *New York Post* in March 1999 that "Mega" was probably still active, deep within the White House. "So far as anyone knows," Thomas said, "the Israeli agent MEGA—a much more important spy than the imprisoned CIA traitor Jonathan Pollard, and probably his controller—is still in place at the White House."

A tantalizing sidelight to this affair, is the fact that Kenneth Starr's controller and a prime orchestrator of the assault on Clinton from 1993 on, Washington lawyer Theodore Olson, was also the lawyer for Jonathan Pollard during Pollard's appeals, running through at least late 1993.

A Footnote

On May 5 of this year, a sequel to this story began circulating in a few media outlets in the United States, Britain, and Israel. This was that the White House internal telephone system had been penetrated by Israeli intelligence in 1997, when an Israeli-owned telecommunications company helped install new telephone lines in the White House.

The story was published by the *Washington Times*-affiliated *Insight* magazine, which reported that more than two dozen U.S. intelligence and law-enforcement officials told the magazine that the FBI believes that Israel has intercepted telephone and modem communications of the U.S. government on an on-going basis.

The story was picked up by the Rupert Murdoch-owned Fox News and the London *Sunday Times*. The *Sunday Times*, in a May 21 story filed from Tel Aviv, elaborated by reporting that Israeli agents had obtained access to the White House computer system, and that information was transferred to Tel Aviv two or three times a week.

As with "Mega" and other such stories, a flurry of denials were quickly issued, and the story died down. But, it may shed additional light on some of the factors responsible for President Clinton's strange capitulation to hard-line forces in Israel and to their lobbyists in his own circles, including Al Gore and Leon Fuerth.

Nigeria Rolls Back IMF Fuel Price Hike

by Lawrence K. Freeman

After five days of a general strike, led by the Nigerian Labor Congress (NLC), which brought the country to a standstill, Nigerian President Olusegun Obasanjo agreed to roll back 80% of a 10 naira (roughly 10¢) per liter fuel price increase which he had imposed just days before. In the wee hours of the morning on June 13, after hours of negotiations with NLC leaders, the government capitulated, realizing that the people of Nigeria were in full support of the NLC's general strike, which had begun on June 8. The rollback lowered the price of fuel to 22 naira.

It is an open secret both in Nigeria and abroad, that the Obsasanjo government had caved in under extreme pressure from the International Monetary Fund (IMF), when, on June 1, the government imposed a 50% increase in the price of Premium Motor Spirit fuel, raising it from 20 naira per liter to 30 naira per liter. NLC President Adams Oshiomole immediately told the government, that such a price hike was completely unacceptable to the Nigerian population, who a month earlier had finally their minimum monthly wage raised from 3,000 naira to 5,500 naira. On June 6, Oshiomole called for a national general strike, to commence on June 8. All of the unions, and the non-unionized senior staff civil servant association SESCAN, supported the NLC's call. The strike also received full support of Nigerians, who made their feelings about the IMF dictating their nation's policy known, by shutting down all domestic production and trade, forcing the government to bring the military in to replace the air-traffic controllers, after airport traffic had been brought to a standstill for two days.

The nationwide strike was considered the most "disruptive" action taken since the elected government of Obasanjo took office just over one year ago, on May 29, 1999. Not only did both the Nigerian Senate and the House of Representatives adopt resolutions calling on the government to suspend the price hike, but Obasanjo's own party, the People's Democratic Party, dissociated itself from his actions.

Acting on Whose Advice?

The day before the strike action ended, with the government reducing the price increase to 10%, or 2 naira, one of Nigeria's leading dailies, the *Vanguard*, editorialized: "President Obasanjo [was] acting on the advice of the World Bank,

the International Monetary Fund, the technocrats now occupying the innermost corridors of power, and on his own instincts which favor the trickle down theory of economic development."

Another commentary compared President Obasanjo's "constant deference to the globalization hegemony of the West, the World Bank, and the IMF on economic matters" to former President Ibrahim Babangida, "who allowed the World Bank/IMF to pull a fast trick on the country in the form of a structural adjustment program, or SAP, which the people of Nigeria are still reeling from [that] disaster."

The government rationalized its dramatic increase in the fuel price, imposed on 110 million poorly paid Nigerians, many of whom are living in poverty, by claiming that it has been subsidizing the domestic price by selling oil to the staterun Nigerian National Petroleum Corp. (NNPC) for domestic fuel consumption at \$9.50 barrel, far below the international

market price. This is compounded by the fact that the NNPC has to import 80-95% of its domestic refined fuel requirements, because the country's four refineries operate at approximately 20% of capacity, worse production levels than under Gen. Sani Abacha. Aside from the known reality in Nigeria, that millions of dollars are made through the importation of refined fuel, there is little excuse the government can give for not acting immediately to upgrade the functioning of the refineries, in Kaduna, Warri, and Port Harcourt.

However, the real reason for the price hike, which President Obasanjo contemplated last December before the NLC forced the government to abandon such plans at that time, lies elsewhere.

While President Obasanjo has been making speeches around the world accurately attacking the huge unpayable debt strangling Nigeria and other poor nations, the IMF/World Bank, acting on behalf of the financial oligarchy,

Italian Senators Probe Abuses of U.S. Voting Rights Act, LaRouche

On June 14, a group of Italian Senators from across the political spectrum presented an inquiry in the Senate, asking the Italian Foreign Minister to comment on the violations of the 1965 Voting Rights Act in the United States. The initiative was discussed with Amelia Boynton Robinson during her recent visit to Rome. Here is the text of the inquiry:

Senate of the Republic

Inquiry requesting a written answer to the Minister of Foreign Affairs, Rome, Italy

Whereas:

Mrs. Amelia Boynton Robinson, collaborator of Martin Luther King in the movement for the right to vote of African-Americans in the 1960s, and recipient of the Martin Luther King Medal for Freedom in 1990, informed members of the Parliament and government representatives of the incredible decision by the U.S. Supreme Court, abolishing the Voting Rights Act, which since 1965 has guaranteed the right of each American citizen to participate in the election process, both as a voter and as a [candidate's] delegate, declaring it "unconstitutional," and upholding an earlier decision taken in the same vein by a local court;

The Italian Parliament was already aware of a decision by the U.S. Supreme Court, a decision equally racist and profoundly unjust, regarding the death penalty, inclusively in cases of doubt concerning the innocence of the condemned person;

Following the decision by the Supreme Court which nullifies, unbeknownst to the public, 35 years of advancement by the movement for civil rights in the U.S.A., there have been a number of cases of violations of the right to vote, and of the respect for the right to vote, against some American Presidential candidates, among them, Democratic candidate Lyndon H. LaRouche, as documented by Mrs. Robinson, as official observer in the Democratic Party primaries in the State of Michigan, and as brought to the attention of the Office for Democratic Institutions and Human Rights [of the Organization for Security and Cooperation in Europe] in Warsaw, due to the fact that they violate the fundamental principles of democratic right as stated in the OSCE Conference on the Human Dimension of 1990;

We ask:

Whether or not the government is informed of the extremely grave decision to abolish the right to vote for those Americans who are deemed undesirable by the leaderships of the parties, and what the Italian government thinks regarding this.

Rome, June 12, 2000

Signed: Sen. Giovanni Russo Spena, Sen. Ersilia Salvato, Sen. Fausto Cò, Sen. Aurelio Crippa, Sen. Antonio Carcarino, Sen. Francesca Scopelliti, Sen. Athos De Luca

stepped up its campaign against the newly elected Nigerian leader. The Presidency had been under severe pressure from these global financial robber barons to cut all subsidies, especially in the petroleum sector, and all indications are that the unilateral decision to raise fuel prices by 50% was one of the unwritten prerequisites demanded by the IMF and World Bank for obtaining a \$1 billion loan, that they have been dangling in front of the President since before he took office. This has been part and parcel of their "globalization" campaign throughout the developing sector, for deregulation, privatization, and the elimination of subsidies.

Enter Summers on Behalf of the Banks

After being unable to enter Nigeria because of the strike, U.S. Treasury Secretary Lawrence Summers finally spoke in Abuja, the nation's capital, on June 12, to let President Obasanjo know that, if Nigeria wants relief from its \$31 billion debt, it will have to adopt the stringent conditionalities of the IMF and World Bank. According to Summers, the United States would support "generous" debt relief from the Paris Club of creditors, if Nigeria made "significant progress on meaningful economic and financial reforms under the appropriate arrangements with the IMF and the World Bank." In other words, he delivered an ultimatum: The Nigerian nation must cease any resistance to "globalization," "deregulation," and "privatization" by the "market forces," if Nigeria wants to get minimal relief from its crippling foreign debt.

The Nigerian people made clear that they cannot absorb any more economic hardships; the fuel price hike was simply too much. President Obasanjo miscalculated badly, but has he learned from this bitter lesson? He cannot court the favors of the IMF, World Bank, Summers, and Western investors by implementing draconian austerity policies that will gouge the already meager economic existence of the population, and at the same time represent the real interests of Nigerians.

There is still a feeling of good will toward the administration, which is reflected in a statement by NLC President Oshiomhole. "President Obasanjo has good intentions for the country but his advisers are insincere," Oshiomole said.

However, as long as the Nigerian President foolishly believes that Nigeria must prostrate itself before the Western banking establishment to win their "favors," Obasanjo will unwittingly, or not, help create the conditions for further destabilizations of Nigeria, and a possible coup. As Lyndon LaRouche has often said, in this period, when the entire global financial and monetary system is in the process of blowing out, patriotic leaders committed to securing the welfare of their citizens must decide what side they are on: that of the people, or that of the banks. The people of Nigeria are hopeful that President Obasanjo makes the right choice.

NED Demands: Fox Must Win in Mexico

On July 2, Mexico will hold general elections to choose its next President, Governor of Mexico City, and other critical posts. The current front-runner, according to most polls, is the candidate of the ruling Institutional Revolutionary Party (PRI), Francisco Labastida, who has a small but growing margin over the National Action Party's (PAN) Vicente Fox.

But the U.S. National Endowment for Democracy (NED) and its army of associated international non-governmental organizations which are deployed by London and Wall Street, will have none of it. As far as they are concerned, if their man Fox doesn't win, "it ain't democracy." And they are hotly deployed to impose their will, much as they were in the case of Peru's elections earlier this spring, where they unsuccessfully tried to topple the government of President Alberto Fujimori.

As in Peru, their objective is to shatter the national institutions and carve up its territory, the better to impose a Colombia-style "narco-republic." And, in a virtual replay of the approach taken in Peru, the international media are now intensifying their drumbeat about the "corrupt" and "anachronistic" ruling PRI party, predicting its defeat in the July 2 elections. The polls inside Mexico, however, reveal that PRI candidate Labastida is likely to win, an event which is slated to trigger cries of "fraud" by the same "impartial" international observer missions which had tried to force the popular Fujimori to yield up his victory in Peru.

Soros and the Pro-Drug Push

Although Fox has been careful not to take a public stance on drug legalization, he is surrounded by advisers and backers who have done precisely that. One is influential PAN leader Fernando Canales Clariond, Governor of Nuevo León state bordering the United States. Another is Jorge Castañeda, erstwhile "leftist" and theoretician for Fidel Castro's São Paulo Forum, who today serves as one of Fox's top campaign advisers—and controllers. Indeed, Castañeda serves a similar purpose in the Fox campaign that Diego García Sayán, another outspoken drug legalization proponent, does with defeated opposition Presidential candidate Alejandro Toledo in Peru. So important is Castañeda to Fox, that the PAN candidate brought his adviser along on a March 2000 visit to the halls of power in Washington, D.C.

In its Sept. 6, 1999 edition, *Newsweek International* published a guest commentary by Castañeda, which is lifted straight from the script of George Soros's drug legalization team at the Open Society Institute (OSI): "The time is

uniquely propitious for a wide-ranging debate between North and Latin Americans on this absurd war [on drugs] that no one really wants to wage.... Such a debate should start with a cold-blooded evaluation of what has worked and what has failed.... Legalization of certain substances may be the only way to bring prices down, and doing so may be the only remedy to some of the worst aspects of the drug plague: violence, corruption, and the collapse of the rule of law."

Two months later, Castañeda signed an open letter drafted jointly by the OSI's Lindesmith Center (which runs Soros's dope-legalization campaigns) and an OSI asset, the Washington Office on Latin America, denouncing military prosecution of the war on drugs and demanding "a total change of policy," including abandoning "the domestic focus dominated by criminalization."

The Ibero-American Solidarity Movement (MSIA) in Mexico, the LaRouche co-thinker group in that country, is currently circulating a leaflet which not only denounces this plan to "Colombianize" Mexico, but which also charges that the globalization mafia intends to impose "rightist" Fox in the Presidency, while imposing "leftist" Andrés Manuel López Obrador (of the Democratic Revolutionary Party) in the post of Mexico City Governor—widely considered the second most powerful post in the country.

We reprint below excerpts from the two sections of that pamphlet, which is now circulating in the hundreds of thousands in Mexico, backed up by tours of the country by members of the MSIA's National Executive Committee.

The Foreign Money Spigot into Mexico's Elections

The following article is circulating in Mexico, as part of an Ibero-American Solidarity Movement pamphlet:

The international globalist mafia is intervening massively in the electoral process, with the goal of installing Vicente Fox (Alliance for Change) in the Presidency, and Andrés Manuel López Obrador (Alliance for Mexico) as governor of the nation's capital, which his Democratic Revolutionary Party (PRD) has misgoverned for the past three years.

This paradoxical scenario—after all, it is said that Fox is the "right," and López Obrador, the "left"—stems from the fact that the London-run international financial oligarchy, bent on destroying the sovereign nation-state, seeks to deliver the *coup d'grâs* to what might remain of the patriotic and nationalist resistance within the ruling Institutional Revolutionary Party (PRI). Their first aim, was to impose the compulsive liar Fox, as the single candidate of the failed National

Opposition Alliance. When that approach failed, the old and new agents of the U.S. National Endowment for Democracy (NED), of the Inter-American Dialogue, of mega-speculator George Soros, and of the Carter Center in Atlanta, Georgia, were deployed out of the two main opposition fronts, the Alliance for Change and the Alliance for Mexico. The narco-democratic networks of the São Paulo Forum are deployed behind López Obrador.

Those networks are working overtime to ensure that if they do not win at the polls, no one will win. As in the case of Peru, the globalist drug-legalization mafia is poisoning the process with the line that "democracy is when the PRI loses." If the PRI wins, as is highly probable, they will charge "fraud!," and begin escalating violence in which there will be no winners or losers, but the institutions and the nation itself will be thrown into civil war.

To their cries of "We've already won," and "We are not going to permit them to snatch it away from us," Fox and his adviser Jorge Castañeda, erstwhile theoretician for Fidel Castro's São Paulo Forum, added the line that it is international bodies which will decide if the elections are clean, and, like true gangsters, they are calling for civil disobedience before the elections. They seek to replace Truth and the law, by *vox populi:* lies and plunder.

The NED and Inter-American Dialogue's Boys

The existence of dozens of so-called citizens' groups dedicated to democracy, would be impossible without the hundreds of thousands of dollars poured in by the NED, to weave that dense network of agents encrusted in the national political process. For almost two decades, a true nazi-communist network has been financed, a network dedicated to "getting the PRI out of *Los Pinos*" (the Presidential residence), to the benefit of the globalization mafia.

Figure 1 outlines the connections among the "right" and the "left," directed from the Inter-American Dialogue, the NED, Soros, agents of the genocial International Monetary Fund, and the São Paulo Forum, that are at the service of the globalist mafia's offensive to legalize drugs and dismantle the sovereign nation-state.

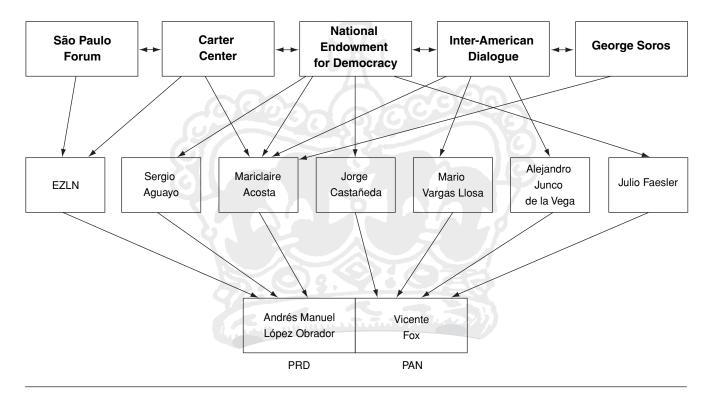
First, the ubiquitous Mariclaire Acosta Urquidi is one of oldest and most active agents in the network. A member of the Dialogue, she provides her services to the Carter Center, receives funding from the NED, participates in the mobilization for the legalization of drugs which Soros finances through his Lindesmith Center, and heads the Mexican Commission for the Defense and Promotion of Human Rights, which serves as a "national" facade.

The **Council for Democracy** of the PAN's **Julio Faesler**, through which Porfirio Muñoz Ledo, Ricardo Valero, and Castañeda—currently singers in Fox's chorus—also benefit from NED funds.

The Citizen's Movement for Democracy, also financed

FIGURE 1

London and Wall Street's Destabilization Apparatus of Mexico's Elections



by the NED, joins together Castañeda, Adolfo Aguilar Zinzer, Demetrio Sodi, Carlos Heredia, Elio Villaseñor, among others, who are tied to the Zapatista National Liberation Army (EZLN), and divided between "left" and "right."

The pearl in the crown is the **Civic Alliance** of **Sergio Aguayo**, decorated by the NED in 1995 for his services to the Anglo-American empire. The activities on the EZLN's behalf by the PRD and the PAN, by Aguayo, Rogelio Gómez Hermosillo, and Enrique Carlderón Alzati, would be impossible without the NED's money. The Civic Alliance runs the "citizen's referendums" which have been set up to keep the authorities from enforcing the law, as in the case of Chiapas, and recently in the so-called citizen's referendum of May 14 to legitimize the candidacy of López Obrador.

Now, add in the members of the powerful **Inter-American Dialogue**, the long arm of the U.S. State Department. Members of the group include the owners of the pro-Fox newspaper, *Reforma*, Alejandro Junco de la Vega, PAN leader Carlos Castillo Peraza, and the renegade Peruvian and porn-writer, Mario Vargas Llosa, who deployed recently to Mexico to support Fox.

Also identified in Figure 1 is the other side of the Anglo-American coin: the **São Paulo Forum**, founded in 1990 by Castro, to which the PRD and more than a hundred narcoterrorist parties and organizations of South America belong. The connections between the financial masters and their shocktroop base are there to be seen, by anybody who cares to see them. New York Stock Exchange president Richard Grasso's embrace of Raúl Reyes, *Subcomandante* of Colombia's narco-terrorist FARC, illustrates the *modus operandi* of the New Opium War declared by the globalist oligarchy against the sovereign nation-state.

Castañeda, together with the Brazilian Roberto Mangabeira, both friends of Castro and Mexico's former President Carlos Salinas de Gortari, brag of being the authors of the supposed turn to the "center-left" by the puppet with the head of Play-doh, Fox. At the same time, Castro's networks in the São Paulo Forum maintain close ties with the PRD, which put up López Obrador as its candidate to rule the capital of the Republic. Standing out among his supporters, are the Zapatistas' Gilberto López y Rivas, a confessed KGB agent, Carlos Heredia, Mariclaire Acosta, and Homero Aridjis, who all appear alongside Milton Friedman, Soros, and former U.S. Secretary of State George Shultz in an infamous advertisement in the June 8, 1998 New York Times, demanding the legalization of drugs,

It goes without saying, that these are the same people who have been fattened by the NED's dollars.

Documentation

In His Own Words: How Fox Would Wipe Out Mexico

The following is excerpted from the MSIA's pamphlet, currently in circulation throughout Mexico).

- 1. Fox plans to eliminate the peso and dollarize the country. "I'm a firm believer that, by the year 2020 or 2030, there will only be six or seven trading blocs in the world, each with its respective currency," he states in his book To Los Pinos, taking up as his own one of the central goals of the oligarchy's globalizers.
- 2. Fox plans to deepen one of the most treasonous policies carried out by former President Carlos Salinas (1988-94), the North American Free Trade Agreement, whose only purpose has been to financially loot the country, brutally exploit our workers, launder dirty money, and erode our national sovereignty. "NAFTA," the PAN candidate asserts, "is producing results, and this is the moment to move on to a second phase: a North American common market."
- 3. Fox plans to sell off the national patrimony at firesale prices. In May 1996, before the Council of the Americas, Fox stated that "businessmen are much more capable of making the state oil company Pemex run profitably. . . . From my point of view, what should be done and what is best for Mexico's interests is to open it up to the private sector." The Council of the Americas is made up of 194 multinational companies, a number of which would be delighted to take over Pemex and whatever else Fox is willing to hand over to them, such as the Federal Electricity Commission (FEC), which Fox proposes to privatize "in two phases: first, opening it up to private investment, so that within two years the FEC would stop being a public company owned by the state, and would also become a market public company."
- 4. Fox plans to splinter the country. Fox has expressed his "sympathy and support" for the so-called Zapatista National Liberation Army, and has promised "the immediate withdrawal of the troops that the Mexican Army maintains in Chiapas" [the state where the EZLN has its stronghold], in order to better negotiate with Sub-Commander Marcos's narco-terrorists. This would be nothing less than a Mexican version of the treason being committed by President Andrés Pastrana of Colombia, who has demilitarized entire regions of the country and handed them over to the FARC and ELN narco-terrorists. All he has achieved with that, is to separate off entire chunks of the national territory, where mini-states have been established, ruled by armed bands financed by

the drug trade.

- 5. Fox plans to dismantle the national armed forces, which are the guarantors of our sovereignty. Besides his promise to hand over Chiapas, Fox says that he will subject the Mexican Army to "such redefinitions as should be concretized in a globalized world and in the times that the country now faces."
- 6. Fox plans to eliminate national sovereignty. He not only affirms that he will grant "financial and political autonomy to the states and the municipalities," so that they can participate freely in the global market, but at the same time he intends to erase the country's borders. The central point of his foreign policy will be to "construct an appropriate agenda with the United States and Canada so that, after 20-25 years, we will achieve a common market where there will be not only free transit of goods, services, and capital, but also of people."
- 7. Undoubtedly, among the products that will circulate freely in such a "globalized" North America, will be drugs. Fernando Canales Clariond, the governor of the state of Nuevo León and a leader of Fox's PAN party, has matter of factly proposed to legalize drugs, which is the central demand of international mega-speculator George Soros, who is one of the big financiers of the "democratic" assault now ongoing throughout Ibero-America.

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ERNational

LaRouche: DNC Chair Should Step Down To Save the Party

by Michele Steinberg

On June 16, Democratic Presidential pre-candidate Lyndon LaRouche called for Democratic National Committee (DNC) Chairman Joe Andrew to immediately step down as chairman of the party. LaRouche issued the comments following reports that a lying, slanderous letter by Andrew had been sent out to officially disqualify all of LaRouche's delegates who had been elected in the Presidential primaries.

LaRouche's statement, issued from Germany, where the candidate is engaging in high-level meetings with representatives from many nations, on the nature of the current global financial and strategic crises, said:

"Joe Andrew has shown himself to be a liar, a racist, and a fascist. He should be asked to resign his position as Chair of the DNC. If he is permitted to continue as DNC Chair, the Democratic Party will not only lose the Presidency, but will be dealt a crushing defeat in the Congress. Removing Andrew now is the only way to save the party from a disaster come November. I don't know what the personal motivation behind Joe Andrew's behavior is, but it is irrelevant. His continuing public performance as a liar, a racist, and a fascist is not only unacceptable, it is comparable to that of Adolf Hitler, although one might argue that Hitler may have been smarter."

LaRouche's statement comes just days after seven leading members of the Italian Senate in Rome, called for an official inquiry into the mistreatment of candidate LaRouche and his elected delegates by the Gore machine (see article, p. 77).

The behavior of Andrew reflects the increasing panic and irrationality of the DNC's chosen candidate, Al Gore, Jr., who fired his campaign chairman, former Congressman Tony Coelho, on June 15, the same day that LaRouche's elected delegates began receiving letters nullifying their election.

Panic over LaRouche

The first reports of the letters from Gore lackey Andrew came from Arkansas Democrats who had filed to run as Dem-

ocratic National Convention delegates pledged to LaRouche at the June 24 Arkansas Democratic Convention. These delegates received letters from Arkansas Democratic Chairman Vaughn McQuary on June 15, informing them that they would not be seated at the State Convention, nor would they be permitted to go to the National Convention as delegates pledged to LaRouche, despite the fact that LaRouche polled over 22% of the vote in that state's primary election, thereby entitling him to 22% of the 48 delegates Arkansas will send to the National Convention in August.

Although Arkansas party officials had hinted to the press, that they would disregard the votes of more than 53,000 Arkansas Democrats who cast their votes for LaRouche, the letter from McQuary represents the first official statement that the state party would disregard the state's election code. McQuary writes: "The Democratic Party of Arkansas has received paperwork that you plan to attend the special state convention on June 24, 2000, and that you are planning to participate on behalf of Lyndon H. LaRouche. Please be advised per directive of the Democratic National Committee, delegates pledged to Lyndon LaRouche will not be seated or allowed to participate in the June 24, 2000 special convention."

McQuary's letter is accompanied by a copy of a letter addressed to "State Party Chairs" from DNC Chairman Andrew, in which Andrew orders them to "disregard any votes that might be cast for Mr. LaRouche." The Andrew letter was first issued on Jan. 18, and included what were known to be lies, accusing LaRouche of subscribing to views that "are explicitly racist and anti-Semitic."

Andrew's Jan. 18 edict had already been denounced by more than 1,000 Democratic elected officials, who responded to the slander against LaRouche with "shock and disgust," in an open letter that appeared in newspapers across the nation. The fact that Andrew *reissued* the same lying charges has shocked even more loyal Democrats into questioning Gore's

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Arkansas LaRouche delegate The Rev. Robert Aycock (right) filing at Democratic Party headquarters in Little Rock on June 6.

motives, and state of mind.

Andrew's latest mailing states that, should his orders be challenged, and by chance, reach the Credentials Committee of the 2000 Democratic National Convention, he will order the Credentials Committee "to resolve that any such [LaRouche] delegate not be seated at the convention."

At the same time that the Arkansas Democrats were notified that they would be barred from any participation at the convention, Max Dean, a well-known attorney from Flint, Michigan who serves as LaRouche's authorized representative in that state, and who had filed a challenge to the Michigan Party's decision to exclude LaRouche supporters from that state's delegation selection caucuses, despite the fact that LaRouche won the Michigan Democratic primary, received notification from the DNC's Rules and Bylaws Committee that, "after reviewing the challenge, the answer to the challenge," and the Andrew order, "we have determined that there is no genuine issue of material fact between the parties."

The decision, which is signed by committee co-chairs James Roosevelt, Jr. and Carol Khare, maintains that since the DNC chairman holds sole and absolute authority "to determine whether a person is recognized as a candidate for the Democratic nomination for President," the Michigan Democratic Party "appropriately disregarded votes cast for LaRouche during the Michigan caucuses." Finally, it concludes that "any challenge to the delegate selection process brought on [LaRouche's] behalf is without merit and therefore fails to present any genuine issues of material fact."

A spokesman for LaRouche's campaign confirmed that campaign representatives are meeting with attorneys to consider emergency action to stop these continuing violations of state and Federal law. A temporary restraining order may be sought to prevent the June 24 Arkansas Special Convention from going forward.

On June 15, as LaRouche delegates were being illegally

disenfranchised, the unstable Gore dumped his Presidential campaign chairman, Tony Coelho, and announced that he is hiring Commerce Secretary William Daley.

The reported reason was Coelho's "health problems" involving an "inflamed colon," and other maladies. But, forget the official story from the Gore 2000 campaign. EIR has published detailed reports of the fact that Coelho is facing criminal investigations that include: 1) a State Department Inspector General's probe into misuse of U.S. Government funds for a private foundation that he established while serving as Ambassador in charge of the U.S. Pavillon at the World Exposition of 1998; 2) two Securities and Exchange Commission investigations into questionable practices in businesses linked to legalized gambling; and, 3) a General Accounting Office investigation, which was requested by a Congressman, into whether Coelho had abused

his position as Democratic co-chair of the U.S. Census Monitoring Board to write a report covering up for his misuse of government funds in the Lisbon Expo '98. It had gotten so bad, reported columnist Robert Novak, that Coelho could not appear on television without being hit with questions that were seriously jeopardizing Gore's election campaign.

Observors in Washington stress that Gore is not making a power play: He's in a panic! He has not held a press conference in months, especially after being confronted at town meetings by LaRouche supporters about stealing LaRouche's delegates. Gore is shutting down all discussion and debate. For example, the DNC has eliminated platform hearings, as part of the fanatical commitment to deliver the nomination to Gore without discussion or dissent. And, in what could trigger a tidal wave of opposition, *all free speech* will be banned at the convention.

A labor-linked Democratic leader reported his shocking discovery to the LaRouche campaign. He was given a tour of the convention site, the Staples Center in Los Angeles, by a honcho from the Convention Committee, and was told that the convention would be totally "wired." This means that there will be no microphones on the floor. Instead, each state will have a computer terminal. Communication between the state delegations and the podium will be conducted by *totally controlled* e-mail, routed through a message center, screened by interns, and then passed on to members of the Gore convention team. Gore's thugs will then decided whether to send it to the podium.

On June 16, reporter Howard Fineman, who had just interviewed Gore on Air Force Two, said, "Replacing one campaign chairman with another won't make any difference. The problem is not the campaign, but the candidate." That's an understatement, about a candidate who spits in the face of 53,000 Democratic voters in just one state, and tells them that their votes *don't count*.

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Interview: Dr. Stephen C. Cohen

HMOs Fail Because They Abuse Patients

Dr. Cohen is Executive Vice President of the National Organization of Physicians Who Care, based in San Antonio, Texas. He was interviewed by Marianna Wertz on June 5.

EIR: Can you tell me what the Physicians Who Care are doing with respect to managed care? I work with Lyndon LaRouche, and he, in his Presidential campaign, has said that managed care should be abolished, that emendations of it are not going to work, that it's fundamentally flawed.

Cohen: I would agree with that. We have been fighting managed care at every possible level you can. We try primarily to educate patients about the dangers of managed care. We try to educate physicians about the dangers of managed care. We try to steer them to insurance programs that are less invasive into their lives. We try to help them with individual clinical decision-making, when they have a problem, when they're being abused. We tell them where to go and what resources are available for them to fight the people who are making medical decisions on the basis of economics.

We support candidates who are for patient protections, who are opposed to managed care. So, we have met with a number of Congresspersons.

EIR: Is that just in Texas or nationwide?

Cohen: We have members in a lot of different states, so we try to go through whatever local access we have to Congressmen. For instance, with Patients Who Care, we have people who've met with Congress in Washington and we have webpages. We have a webpage that's called The HMO Page (www.hmopage.org), where we answer questions. We have the Patients Who Care Page (www.PWC.org). We have an MSA page (www.msapage.org) [which promotes the idea of Medical Savings Accounts], where we encourage people to go into insurance where they primarily run the show, as opposed to insurance companies. We have a Patients Who Care page (www.pwc.org/patients-htm), where we try to basically influence patients to understand the dangers of managed care and try to give them information available on that and what their resources are and basically how to deal with this, which is a horror for everybody's life.

EIR: You say you that agree that managed care ought to be abolished. What would it take to do it?

Cohen: I agree that it ought to be abolished because I think

it's bad for health care. At the same time, I don't know that I think it ought to be abolished, because, as a basically conservative person, I believe there may be people who want to do that, and I don't think they should be deprived of their right to do that. So, from that point of view, I don't think it would be right to have dictatorial legislation saying you can't have HMOs. I just think that they ought to be monitored in a way, and restricted in a way that is good for everybody who would be in the program. And therefore, it won't work! It will die from its own weight, which is what is happening now, actually. This is a program that is in retreat in every city and every state in the country.

EIR: I saw that, in Texas, they're mostly losing money.

Cohen: They're losing money in almost every environment. The more Congress looks at them, to protect the citizenry, the more they fail, because they have been abusing their patients. If they do the right thing for the patient, this [managed-care] concept adds a whole layer of costs that are unnecessary and not beneficial. So, they are falling by the wayside. Cigna announced this week the withdrawal of 104,000 people from the Medicare program.

EIR: How are HMOs affecting people on Medicare?

Cohen: It's going to have a major impact for a period of time, but people are going to be happier on the outside. They're going to have to pay more out of pocket, but the care is going to be of better quality, with people taking care of them who have a better interest in their personal needs, rather than physicians who make decisions based on economics.

Doctors have been criticized because they do things and they make money. Now, we're criticized because we don't do things and we make money. The latter is much worse, it's much more egregious, especially for capitalism! We think it's better to overdo things, than not to do them, on the basis of financial gain. That's basically our philosophy. You should be doing the right thing at the right time for the right reason. That reason shouldn't be economics on either side of the bar. The doctor ought to do things because it's the right thing to do medically, and he should make that decision with his patients and the family. If it costs money, so be it. If it costs money not to do it, which is what happens a lot of times when you don't do certain services—until you needed managed care and health maintenance, they did none of that. What they hoped was that you'd go into another program if you got sick.

EIR: And Governor Bush? What's his record?

Cohen: I think Governor Bush has not really been very sympathetic. We tried to get a Patients Protection Act passed, and he vetoed it. He says HMOs are bad, but he doesn't have a very good proposal. And he did reject the state's legislation on patient protections; he did not sign that. On the other hand, we do have legislation in the state where HMOs can't hide anymore: They can be sued, and he didn't reject that.

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Profile: Gov. Tom Ridge

Pennsylvania Governor, a Nuremberg Criminal

by Philip Valenti

Pennsylvania Gov. Tom Ridge, now considered a likely vice-presidential running mate for Texas Gov. George W. Bush, was the target of a large-scale impeachment campaign, spear-headed by Lyndon LaRouche in 1996. This made Ridge too politically "radioactive" for then-Republican Presidential nominee Bob Dole, who dropped him in favor of Jack Kemp.

But Bush's handlers seemed to have made a number of "shrewd political calculations." Ridge's "working class roots" in Erie are supposed to make voters forget that Bush, like his father, was "born with a silver foot in his mouth." Vietnam veteran Ridge is supposed to counter Bush's image as an elitist draft dodger, and Ridge the Catholic is supposed to balance Bush's close association with the Protestant "Religious Right." The fact that Ridge is a renegade "pro-choice" Catholic (and prohibited from even speaking at any Roman Catholic function in his home diocese), may also be considered a "nice twist," given Bush's "anti-abortion" profile.

However, Ridge's main "claim to fame," ironically, is his role in reintroducing practices which the moral and legal standards of the postwar Nuremberg Tribunals of Nazi war criminals were designed to prevent from recurring: The budget-cutting and "privatizing," whose deadly consequences U.S. officials such as Ridge, "knew or should have known."

LaRouche, campaigning for the Democratic Presidential nomination, called for Ridge's impeachment on May 16, 1996, the day after Ridge rammed a "welfare reform" bill through the state legislature, which eliminated state health care benefits for more than 220,000 poor and disabled. Ridge's Act 35 led to deaths and injuries of innocent people, just as LaRouche had warned.

Ridge "knew or should have known," that innocent people would die, LaRouche said, and therefore had to be held personally responsible for the consequences of his official actions, based on the Nuremberg Tribunals.

"This is murder, Governor Ridge!" LaRouche declared. "Murder! Plain mass murder; and you cannot do it and put yourself in any other category, but the same category which the Nazis we hung at Nuremberg belong to."

Within a few days, this writer had drafted an impeachment resolution against Ridge, based on the Nuremberg Tribunal standards and the Pennsylvania Constitution. LaRouche's political action committee printed and distributed hundreds of thousands of pamphlets, entitled "Impeach Governor Ridge for Nazi Crimes Against Humanity," while rallies were organized all over the state, culminating in a 150-person rally in the State Capitol Rotunda on June 4, which was covered widely in the press and broadcast live on state-wide cable TV.

LaRouche, who visited Pennsylvania several times during his 1996 campaign, addressed an audience of almost 1,000 people in Philadelphia on July 4. His half-hour television program calling for Ridge's impeachment was so devastating to the Governor, that TV stations across the state refused to *sell* his committee the time to air it!

Case Studies of Deaths

The first publicized casualty resulting from Ridge's medical cuts was Wilzon Lescay, 51, a legal Cuban immigrant under treatment for schizophrenia and depression. On July 29, 1996, Lescay was informed that he no longer qualified for benefits, because of Act 35; on Aug. 7, he hanged himself at his residence in South Philadelphia.

"I don't have any doubts, really," said Sister Angela Newman, manager of the residence house for once-homeless men, where Lescay had lived since 1993. "I think he became so severely depressed at the thought of not being able to obtain benefits, that it became too much for him. . . . He just couldn't get over it."

Forty-eight hours after the Lescay story hit the newsstands, Ridge's Public Welfare Secretary announced that three provisions of Act 35 were being suspended as unconstitutional, including the clause denying benefits to immigrants. Ridge and his minions cynically offered "retroactive payments" for any immigrant cut off—no mention was made of Lescay's death.

It later emerged that the Ridge administration was *warned in advance* that the denial of benefits to non-citizens was unconstitutional, but went ahead anyway, in order to remain in lockstep with the immigrant-bashing line pushed by the Gingrichite Republican leadership.

Within weeks of Lescay's death, State Rep. Harold James, then-Chairman of the state Legislative Black Caucus, issued a report, "The Deadly Impact of Gov. Ridge's Medical and Health Care Cuts—Case Studies of Deaths, Injuries, and Threats to Life." James's report documented dozens of examples of "inhumane treatment of innocent persons, wrongful deaths, injuries, and threats to life," including those resulting from Ridge's plan to force the remaining medical assistance recipients into health maintenance organizations (HMOs).

One of Ridge's top moneymen is Leonard Abramson, founder of the notorious US Healthcare HMO, which merged with Aetna in 1996. Abramson received close to \$1 billion in cash and Aetna stock that year, as his share of the merger deal. Abramson is a member of the "board of directors" of Ridge's elite Governor's Club, which includes those contributing at least \$50,000 to Ridge over four years. Another big contributor is US Healthcare Senior Vice President David F. Simon, who was appointed by Ridge as a consultant to the state Department of Health.

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Congressional Closeup by Carl Osgood

Senate Panel Votes To Overthrow Mugabe

On June 7, the Senate Foreign Relations Committee voted unanimously for a bill that essentially calls for the government of Zimbabwe to be overthrown. Bill Frist (R-Tenn.), who introduced the bill the day before, alleged that Zimbabwe President Robert Mugabe is orchestrating the invasions of white-owned farms in order "to disguise behind the veil of a racial drama his relentless attack on the democratic institutions and rule of law in Zimbabwe."

The bill places responsibility for the crisis in Zimbabwe entirely on President Mugabe, and claims that Zimbabwe's involvement in the war in the Democratic Republic of the Congo is only exacerbating the crisis there. The bill prohibits U.S. bilateral assistance to Zimbabwe, and sets conditions respecting democracy and land reforms for resuming such aid. It also withholds U.S. support for debt relief unless the conditions for resuming U.S. aid are met.

However, the bill makes no mention of British manipulations to destabilize the country (see our interview with Zimbabwe Ambassador Dr. Simbi V. Mubako, *EIR*, June 16), or even of the fact that Zimbabwean troops in the Congo were invited in, to oppose the invaders from Rwanda and Uganda.

Frist made clear that the intent of his bill is the overthrow of Mugabe. He declared that the best chance to resolve the crisis is "through support for the democratic forces challenging a leader whose increasingly destructive acts imperil the continent." Foreign Relations Committee Chairman Jesse Helms (R-N.C.) was even more blunt. "Mugabe's departure from power is long overdue," he said in June 8 statement, "and it is my sincere hope that

this legislation will contribute to hastening that."

Estate Tax Repeal by House Favors the Rich

The GOP agenda prevailed again on June 9 when the House voted 279-136 to repeal the estate tax, which the Republicans have been calling "the death tax." The bill would phase out the tax over ten years, by decreasing the top rate, currently 55%, until it reaches zero in 2010. The Republicans argue that it is necessary to eliminate the tax to make it easier for farmers and small business owners to pass their estates on to their children when they die.

Democrats who opposed the bill made hav out of the fact that it would directly benefit very few people, about 2% of those who die each year. The present estate tax only affects estates over \$675,000, and there are additional exemptions for small businesses and farms that bring that figure up to \$1.3 million. The tax is payable over ten years. Of those estates that do pay the tax, about 50% of the total estate tax revenue in 1998 was paid by fewer than 3,000 estates, out of less than 48,000 that were subject to the tax. Those 3,000 represented estates each valued at \$5 million or more. This fact led John Olver (D-Mass.) to label the bill "the Billionaire Protection Bill."

Democrats argued that problems in the estate tax law could be fixed without repealing the tax as a whole. They offered a substitute that would have almost completely exempted family farms and small businesses, by increasing the small businesse exemption from \$1.3 million to \$2 million and closing some loopholes. The result, said Ben Cardin (D-Md.), would have been a bill that cost \$22 billion over ten years, instead of the GOP ver-

sion which cost \$105 billion over ten years and \$50 billion a year thereafter. The Democratic substitute was defeated by a vote of 222-196.

President Clinton has threatened to veto the GOP bill. However, about 65 Democrats voted for it, meaning that a veto might be overridden.

Medicare Prescription Drug Plan Offered by GOP

On June 13, Bill Thomas (R-Calif.), the chairman of the Health Subcommittee of the House Ways and Means Committee, presented the GOP's Medicare prescription drug benefit program, which he hopes to have marked up by the full committee within a week. Thomas told reporters that the plan would be both voluntary and universal because "it is the government's responsibility to make sure that every senior in the United States gets the ability to avail themselves of this program."

The proposal is built around the \$40 billion allotment that the GOP leadership provided in this year's budget resolution. Thomas claimed that that money is available "from savings that we've already accrued from Medicare" reforms. The program would create a Medicare Benefits Administrator whose responsibility would be to ensure "that benefits are structured and delivered, especially those benefits that require a degree of negotiation and competition." The program would be structured along the lines of private insurance industry risk-spreading models, including the selling of risk in the credit markets.

President Clinton criticized the GOP plan. "We need a bottom-line, simple, and straightforward plan that all seniors have a chance to buy into,"

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he said. He said that his budget proposal provides for that, and warned that the GOP proposal "relies on a private insurance model that has already failed rural America." Instead, "We ought to ensure that any plan benefits the people who need prescription drugs as much as it benefits the companies which sell the drugs."

Some members of the House Democratic Caucus support the GOP plan. Two Democrats, Ralph Hall (Tex.) and Collin C. Peterson (Minn.), accompanied Thomas when he presented his plan to the media. Thomas praised both of them for their support despite pressure from the Democratic leadership. Hall said, "I am here because I want a bill, and I want a bill this year."

Defense Bill Threatened With 'Blue Slip'

On June 8, Sen. John McCain (R-Ariz.) succeeded in adding to the fiscal 2001 Defense Authorization bill an amendment to require that political organizations operating under section 527 of the tax code be required to disclose the names of their contributors. McCain warned that these organizations are operating under a recently discovered loophole in the tax code which allows them "to fund their election work with undisclosed and unlimited contributions at the same time as they claim exemption from both Federal taxation and the Federal election laws.'

While he had the support of Democrats, McCain was immediately blasted by several of his fellow Republicans, not over the issue of campaign finance per se, but rather his tactic of attaching it to the Defense bill. Armed Services Committee Chairman John

Warner (R-Va.) warned that McCain's amendment could "torpedo this bill and send it to the bottom of the sea where only Davy Jones could resurrect it." The issue Warner raised was McCain's attaching of a provision affecting the tax code to an authorization bill. He warned that the House could exercise its Constitutional prerogative as the originating chamber for tax bills and kill the bill by using a parliamentary procedure known as the "blue slip."

McCain said that the amendment "in no way raises any revenue nor does it change in any way the amount of revenue collected by the Treasury." McCain asked unanimous consent to make the amendment in order on the next appropriate piece of legislation, to which Warner objected. McCain called Warner's objection "a defense of a corrupt system which has made a mockery of existing campaign finance laws, which has caused Americans to become alienated from the system."

Majority Leader Trent Lott (R-Miss.) raised a point of order that the amendment was a Constitutional violation, but it was defeated by a vote of 57-42. Lott later said that everybody involved, including McCain and Minority Leader Tom Daschle (D-S.D.), all agreed that it would be better to get the disclosure amendment off the Defense Authorization bill and onto some other legislative vehicle.

Veto Threat Remoralizes Bankruptcy Bill Opponents

On June 9, President Clinton sent a letter to Democratic and Republican leaders of both Houses warning that the negotiations on the bankruptcy reform bill were making a wrong turn. Among his concerns were that the bill

may not "adequately" address the problem of wealthy debtors who abuse the homestead exemption to shield assests from creditors, may weaken credit card disclosure provisions, may eliminate protections for reasonable retirement pensions, and may include provisions protecting abusive debt collection practices on bounced checks. "I sincerely hope," Clinton wrote, "that balanced bankruptcy reform will be completed this year, but I will not hesitate to veto unfair legislation that fails the test of balance."

Sen. Pat Leahy (D-Vt.), one of the negotiators, said, "The President's criticisms of the bill are constructive, they are right on the merits, and they come at a critical time in the negotiations."

The bill, which is strongly backed by the banking industry, passed by wide margins in both Houses, but some Democrats may be re-thinking their support. Sen. Paul Wellstone (D-Minn.) and Rep. Jerrold Nadler (D-N.Y.), both strong opponents of the bill, welcomed the President's letter. In a June 13 press conference, Wellstone said, "This is a much stronger letter than we've seen before and we're very pleased about this." He noted that the President pointed out that "we must also ensure that a reasonable fresh start is available for those who turn to bankruptcy as a last resort when facing divorce, unemployment, illness, and uninsured medical bills." He endorsed Clinton's concern about abuse by wealthy debtors. "It would be a little outrageous," he said, "if while you're taking away a basic safety net for middle-income people, you're allowing people to shield several million dollars for a home that they own in Texas, Florida, or wherever."

However, it's still an uphill fight to stop the bill.

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Editorial

Who Foresaw the Pyongyang Summit?

Many of you read Lyndon LaRouche's paper, "Regional Organization Under a New Bretton Woods," in the June 16 *EIR*, where LaRouche explained how the current terminal-collapse phase of the monetary system, and the insane aggressions of Larry Summers and others who think they can prolong its existence at all costs, are causing groups of nations to coalesce together in self-defense. He wrote that the needed new monetary system can be built on the bases of hard-currency agreements for expanding trade, among such national groupings.

It's clear today, that aside from those directly involved, in Japan, China, and Korea, only those of us who read and understood that article of LaRouche, were prepared for the explosive June 13-14 Inter-Korean Summit. Only those who grasped that article can understand the significance of the summit. Even President Clinton and his closest associates, though their earlier work helped prepare the summit, have made it clear that they have no idea of what actually happened in Pyongyang, or its significance.

Why can't they understand it? Because they have now suppressed their own earlier understanding that the present world monetary system is collapsing, in order to drug themselves with the delusion of perpetual prosperity under the "new economy" and the Internet.

The global strategic picture is an absolutely fascinating one. Every essential feature, politically, strategically, and in the financial-economic area, demonstrates that we're exactly where LaRouche has been saying we are, namely, at the terminal disintegration phase of the global financial system. One crucial indicator of this is the reconciliation process in Korea. This is of the utmost importance, but it must be situated in the context of the May 8 Chiang Mai Initiative for Asian economic selfdefense. It means that people in Japan, China, and Korea have recognized what condition the system is in, and to what degree of aggressivity those who want to keep this system going, will go to. While being threatened and bullied by the Anglo-Americans, at the same time they see how weak the bullies really are. These Chinese, Japanese, and Koreans are showing a courage not seen so far: Despite the fact that they still recoil from an open revolt, nevertheless, a real revolt is on. And there are echoes of Germany and Central Europe, 1989, in Korea today, although the situation is not the same.

People in Japan and Korea (with support from one faction in the United States), are determined not only to defend their own economic and financial existence, but also to nullify the "rogue state" concept, which relies on a caricature of North Korea as a crucial prop. Russia is supporting this through President Putin's scheduled trip to North Korea, as China supported it, inclusively by hosting North Korean leader Kim Jong-Il before the summit. This is the context in which the proposals of *EIR*'s *Eurasian Land-Bridge* report are surfacing widely in Korea now.

On a smaller scale, and in a much more oblique fashion, continental Europe has realized that it is under assault, and has begun to set up some defensive measures. But much more important than the continental Europeans' moves to take more control over the Maastricht apparatus and the European Central Bank, is the initiative of the seven Italian Senators for LaRouche and the U.S. Voting Rights Act, reported in this issue.

People must realize, as anyone who can think straight can realize, that this Summer 2000, is comparable to the Summer of 1923 in Germany. This is proven, not only by the revolt in Asia referred to above, but also by the degree of insanity which Alan Greenspan showed in his June 13 speech, in which he gave up the phony posture of balanced objectivity, and committed himself to the frenzied "Information Society" ideology, saying that there has been an irreversible paradigm shift, and pretending that information technologies have produced productivity gains in the "old economy," or real economy—contrary to what LaRouche, and anyone else who knows anything about economics, has said.

The massive manipulation of the U.S. Consumer Price Index for May, to show only a 0.1% increase, despite everything, was a crude piece of fakery, to back up the same point being made by Greenspan's lying.

The future lies with Lyndon LaRouche and his ideas.

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