THE NOÖSPHERE

# Ukrainian Conference Summons LaRouche in Time of Crisis

by Rachel Douglas

Representatives of Lyndon LaRouche were received with enthusiasm as featured speakers at a conference in Ukraine titled "Physical Economy: Research Methodology and the Global Mission of Ukraine," held April 9 at the Kiev National Economic University (KNEU). In the midst of world economic breakdown, on the heels of the utter failure of the April 2 London Group of 20 summit to address that crisis, and as guests in a large European country (population, 46 million), which has been written off in too many quarters as a "failed state," our delegation encountered, both at the April 9 event, and in smaller seminars and private discussions with politicians, scientists, youth activists and other Ukrainian citizens, and guests from Russia, serious searching for innovative ways to address the national and global systemic crisis. It is coupled with hope that something better will be forthcoming from the United States, than at present.

The quality of these discussions contrasted sharply with the farcical outward face of Ukrainian politics since George Soros's Orange Revolution of December 2004. That period of less than three and a half years has seen three parliamentary elections and four governments, constant squabbling between current President Victor Yushchenko and Prime Minister Yulia Tymoshenko, and a slide into economic depression, especially in eastern Ukraine, with the collapse of the nation's export markets for steel. At the end of 2008, with export revenue falling fast, Ukraine turned to the International Monetary Fund for a loan of $16 billion. As might be expected, it came with strings attached, such as hiring foreign consultants—Soros's Blackstone Group was chosen—to advise on fiscal decisions, and slashing government spending, including pensions. While our delegation was in Ukraine, April 8-14, the Supreme Rada (Parliament) refused to approve budget cuts demanded as a condition for release of the latest small tranche of the IMF credit, so Tymoshenko's cabinet enacted the cuts by decree.

It was the perfect moment to concentrate, in contrast, on the most profound and powerful ideas ever to emerge from Ukraine, those of Academician Vladimir I. Vernadsky (1863-1945) of the Russian and Ukrainian Academies of Science. Thus, the main submissions from the LaRouche movement to the April 9 conference were LaRouche's paper, "The Principle of Mind" (pre-published in *EIR* of April 3, 2009), and the essay by Sky Shields of the LaRouche Youth Movement's Basement team, "Human Creative Reason as a Fundamental Principle in Physics" (*EIR*, Oct. 17, 2008). Both articles will appear in English, with partial translation into Russian, in the conference proceedings. The LaRouche movement delegates in Kiev were Shields and this author, as *EIR* journalist and a longtime representative of LaRouche and the Schiller Institute in north-central Eurasia.

KNEU/Katerina Nushenko

*Rachel Douglas delivers greetings from Lyndon LaRouche to the Podolynsky conference, in Kiev, Ukraine, April 9, where participants were eager to discuss innovative ways of overcoming the national and global crisis.*

## The Decisive Role of Muranivsky

The "Physical Economy" conference was co-sponsored by the KNEU and the Serhiy Podolynsky Scientific Society, founded in 1995. As chairman of the Podolynsky group, Prof. Volodymyr Shevchuk, reported at a 2001 Schiller Institute conference in Bad Schwalbach, Germany, "Our Society came into being, and is developing, hand in hand with the Schiller Institute." Shevchuk traces the Podolynsky Society's agenda of ideas and research topics, in part, to the revival of attention to Podolynsky's writings, by the Russian scientist and industry organizer Pobisk Kuznetsov, and the famous Ukrainian Soviet-period dissident Mykola Rudenko, both now deceased.

But the decisive impulse came from the late Prof. Taras V. Muranivsky, the Ukrainian-born, Moscow-based economist who allied himself with LaRouche, and led the Schiller Institute in Moscow from 1993 until his death in 2000. Born just two years after the horrific 1933 famine known in Ukraine as the Holodomor (death by starvation), which took millions of lives in Ukraine, Moldova, and southern Russia, during the collectivization of agriculture, Muranivsky always held that LaRouche's ideas, and Vernadsky's, were the key to harmonious development of Russia and Ukraine as sister nations. He tirelessly promoted LaRouche's "science of physical economy" in Russia as well as Ukraine, and wrote articles arguing that the best initiatives in the thinking of Podolynsky, Vernadsky, and other associates of the latter, have found their highest realization, to date, in LaRouche's work.

Podolynsky (1850-91), half a generation younger than Vernadsky, influenced the latter's thinking about the Biosphere and the science of biogeochemistry, especially through Podolynsky's study of the energetic characteristics of plant life. Current Podolynsky specialists, including some who spoke at the Kiev conference, pay a great deal of attention to Podolynsky's polemics with Karl Marx about the labor theory of value, against which Podolynsky urged that sunlight through plant life, representing a process having "greater than 100% efficiency," as Kuznetsov put it, creates new value. One wing of Podolynsky students even describes him as an extension of the physiocratic school of Quesnay et al., insofar as Podolynsky added to the physiocrats' "bounty of nature," the "bounty of the Sun." Indeed, it was during polemics with Kuznetsov over the quantitative treatment of "energy," that LaRouche decided to shift from saying "negentropy," to "anti-entropy," in an attempt to express the kind of change, and creation of new value, which is accomplished typically by human cognition.

Muranivsky, however, always urged that the most important of Podolynsky's writings was his 1880 essay, "Human Labor and Its Relationship to the Distribution of Energy," which he believed pointed in the direction of LaRouche's view of historical increases in the energy flux-density of human economic processes, through technological advance. "Like LaRouche," Muranivsky wrote in 1993, "Podolynsky analyzes economic processes in their inseparable connection with the development of energy systems (both natural ones, and those involving technology). In particular, he stresses, 'The productivity of human labor is significantly increased by the use of that labor for transforming lower kinds of energy into higher; for example, by raising working cattle, constructing machines, and so forth.'"

## 'Physical Economy' Studied in Ukraine

The term "physical economy" was reintroduced, internationally, by LaRouche, notably in his 1984 book, *So, You Wish to Learn All About Economics?* (Russian and Ukrainian editions, 1993) and the 1994 essay "Physical Economy as the Platonic Epistemological Basis of All Branches of Human Knowledge" (*EIR*,

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*Rachel Douglas (third from left) is joined, before a monument to the great Ukrainian/Russian scientist V.I. Vernadsky, by (left to right): Lyudmila Vorobyova (Kyiv National Economic University); Sky Shields (LaRouche Youth Movement); Alexander A. Ignatenko (Kremenchuk Museum); Katerina Nuzhnenko (KNEU); and Alexandra I. Sheremetyeva (area rural council head).*

Feb. 25, March 4, and March 11, 1994), which Muranivsky brought out in Russian as a book, *Physical Economy,* in 1997. At KNEU, with added emphasis on the heritage of Podolynsky and Vernadsky, and Rudenko's writings, "physical economy" is a topic-area of growing popularity.

Thus, speakers at the April 9 conference reflected the depth of recognition and the authority of LaRouche in Ukraine. Lyudmila Vorobyova, a KNEU lecturer in economic history whose Ph.D. thesis on "The Ukrainian School of Physical Economy" included a chapter on LaRouche's economic writings, made her presentation on "S. Podolynsky's Energy Theory and the Physical Economy of Lyndon LaRouche." Col. Alexander A. Ignatenko (ret.), scientific expert of the Kremenchuk Regional Museum, in his speech on "The Development of Podolynsky's Ideas in the Works of V. Vernadsky," cited LaRouche's accurate forecasts, in order to situate the tasks before Ukraine and mankind in the current crisis: the question of "what we ought to know, and what we ought to be able to do, in order even to dare to hope, in our time of truly cosmic transformations of humanity, a time weighted down, moreover, by the world's having entered that global financial and economic crisis, predicted by Lyndon LaRouche back in 1983, because the old model of economics is exhausted."

Academician Anatoli Pavlenko, rector of the KNEU, opened the conference. He announced the participation of guests from Russia, China, and Belarus, as well as the LaRouche delegation from the U.S.A. A second member of the Ukrainian Academy of Sciences, physicist Ihor Yukhnovsky, then read a message of greeting from President Yushchenko, who hailed the conference as "unique," and affirmed his openness to its proposals.

Academician Yukhnovsky also gave one of the keynote presentations, pleading for new initiatives to reverse the collapse of industry and agriculture in Ukraine. One less than inspiring project he mentioned was an effort by teams of Ukrainian physicists and mathematicians to identify new export markets, to replace the disappeared steel market. But the systemic nature of the global crisis did not figure in Yukhnovsky's remarks. More promising was the presentation by Podolynsky Society head Shevchuk, who said that dealing with the crisis must not be merely a "fashionable" topic. He called to apply the universal ideas of Vernadsky, especially his differentiation of the abiotic, living, and cognitive levels of existence, as an "immortal" gift of Ukrainian science for addressing every problem which may confront humanity. Shevchuk pledged that the conference would generate a package of initiatives for submission to the President of Ukraine as the basis for cooperation with other countries.

After these speeches and that of conference co-chairman Prof. Sergei Stepanenko, vice-rector of the KNEU, came LaRouche's message. I read a Russian translation of LaRouche's greeting, "Science and Soci-

ety Now" (see below), and then showed a Russian-dubbed excerpt from his March 21 webcast, in which LaRouche, in discussing a recent article by the U.S. economist James Galbraith, attacked the fallacy of policy decisions based upon flawed axioms and the past experience of people alive today. That excerpt demonstrated the need for truly creative thinking, as discussed in "The Principle of Mind." There was enough time to read passages from LaRouche's conference paper, including the beginning, the conclusion on "What Is Reality?" and a section in the middle, where LaRouche emphasizes the resonance of Vernadsky's ideas with the policies of his contemporary, U.S. President Franklin Roosevelt: "What is crucial … in the achievements of Academician Vernadsky, is that these have coincided precisely with what had been those of President Franklin Roosevelt's commitment to physical-scientific progress in the domain of a science of physical economy, as his policy was later opposed under the leadership provided by the British-led, fascist opinions and policies of such among Roosevelt's vicious, pro-fascist adversaries as John Maynard Keynes and President Harry S Truman."

The highlight of the afternoon session was LaRouche Basement team leader Sky Shields' report to the conference on the method taken by the LaRouche Youth Movement in the current crisis (see below). Although many conference participants may not have realized it immediately, Shields' presentation was a challenge not only to generally accepted reductionism, but to the systems analysis approaches, rampant in Ukraine and Russia, which purport to be alternatives to reductionism, but are equally hostile to creative thinking.

In closing the April 9 event, Professor Stepanenko pledged to take under consideration the formulation of a conference resolution, including what was presented by this writer in the form of a message from Schiller Institute founder Helga Zepp-LaRouche. "She expressed the hope," I reported to the conference, "that a resolution from this conference, if one is adopted, might exert a healthy influence, while the leaders of almost all countries keep throwing money into a black hole, on the creation of a coalition of countries, intent on finding solutions based on physical economy. It could say that 'the participants of the conference have recognized the systemic nature of the world financial and economic crisis. They call upon scientists, statesmen, and citizens of all nations to seek solutions based on the ideas of physical economy, in the tradition of Leibniz, Hamilton, Carey, List, Mendeleyev, Podolynsky, Vernadsky, and LaRouche.'"

## From the Black Earth to the Cosmos

LaRouche having referred, in his conference greeting, to the historical strength of Ukraine in its agriculture, its industry, and its science, we were delighted to have the opportunity to visit the central Poltava Region, 300 km down the Dniepr River from Kiev. Its second-largest city, Kremenchuk, is where Vernadsky and his teacher, Dokuchayev, conducted soil research in the 1890s, during which time, Vernadsky began to formulate his concepts of the Biosphere and the Noösphere.

We travelled through the great expanses of *chernozyom* (black earth), which is the richest agricultural land on the planet. Like the rich soil in Iowa, it is located in the boundary area of the furthest extent of the last great glaciation, as well as in the basin of an ancient inland sea.

From the *chernozyom*, we stepped into Vernadsky's Noösphere, taking a tour of the regional museum in Kremenchuk. This is the historic heart of Ukraine, where Peter the Great defeated the Hetman Mazepa, who was allied with the Swedes during the Great Northern War, at the turn of the 17th to the 18th Century, and ended the independence of Ukraine. The regional museum was designed on the same principles as the Vernadsky State Geological Museum in Moscow, which LaRouche toured in 2001, and has often mentioned.

The basement of this museum started with the Paleolithic era, or with the geological formations before that, then, the first signs of human culture in these regions. We went through the stages of development of Ukrainian culture and the battles, and different types of social organization, including a moving display on the Great Patriotic War, World War II. This area was completely devastated; 97% of the buildings were destroyed during the War. But, the top floor of the museum is on the space program. Colonel Ignatenko, who gave us this tour, is not only an expert on Vernadsky, but also, the biographer of the Ukrainian space scientist Kondratiuk, an engineer and visionary, who, in the 1920s, wrote a treatise on interplanetary space flight, in which he proposed that the gravitational field of the planets, the Moon, etc., would be used to give a slingshot effect, a gravitational boost to accelerate a spacecraft. And when it came to the American Moon shots, in the 1960s, there were different plans, such as going with a straight shot, to use as little fuel as possible. But a NASA scien-

EIRNS/Rachel Douglas

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*LaRouche representatives Douglas and Shields traveled through Ukraine's famous* chernozyom *(black earth) regions, the richest agricultural land on the planet. They visited the Teplichny vegetable-growing complex, in Kalinovka, where they viewed the heating units (left); and observed extensive tomato vines, tended by a worker (below).*

tist was tasked with studying everything ever written on potential modes of interplanetary space flight. And in the Library of Congress was this book by Kondratiuk. And it's what we used; it's how we got to the Moon, by using this Ukrainian trajectory.

The presentation of this history by the museum director, with pride and passion in this Ukrainian scientific tradition, summed up the core idea of the dialogue our delegation had throughout the week. We heard technology discussions ranging from electric power generation schemes in the Black Sea, to the use of Ukrainian maglev technologies in Africa. Even tour guides at the museum of the 1986 Chernobyl nuclear plant accident start by stating that there is no alternative to nuclear power.

Other meetings included Kremenchuk city officials (more knowledgeable about President Franklin Roosevelt's 1933 bank holiday policy, than many of their American counterparts), high school students, political party activists, and political analysts. Coverage of LaRouche's intervention at the KNEU/Podolynsky conference appeared on the website of economist Natalia Vitrenko's Progressive Socialist Party of Ukraine, under a headline paraphrasing LaRouche: "The Economists Who Got the World into This Mess Should Shut Up." The People's Democratic League of Youth reported enthusiastically on its site about the coincidence of their own programs for emphasizing youth leadership and creativity, with what Shields presented about the LYM's current activity. On April 24, the Glavred political club published a full transcript of a roundtable discussion with Shields and me, held at the club on April 13. It featured the same excerpt from LaRouche's March 21 webcast, along with our verbal update on what LaRouche had presented on April 11: the urgent requirement to defeat the behaviorist economic school of Larry Summers, Peter Orszag, et al., and get the U.S.A. back on the track of FDR and LaRouche.

Greetings to Kiev Conference

# Science & Society Now

by Lyndon H. LaRouche, Jr.

April 5, 2009

*Lyndon LaRouche's greeting to the Kiev Conference on Physical Economy: Research Methodology and Global Mission of Ukraine, was read by Rachel Douglas.*

This conference proceeds under the conditions of a moment of one of the greatest crises of modern civilization, a global crisis in the most profound meaning of those terms. This is not merely a political, financial, and physical-economic crisis; it is also a crisis which touches the foundations of what mankind has become accustomed to call science.

It is a crisis which touches some of the most fundamental achievements of that great figure of both the Russian and Ukrainian Academies of Science, Vladimir Ivanovich Vernadsky, whose work is both inseparable from his association with the subjects of this conference, here today. These include, prominently, the intertwined issues of the principles of life and physical chemistry, but, also, the matter of remedies for the profound, global political-economic crisis whose victims include both Russia and Ukraine today.

For this occasion, I have submitted a report which touches significantly on the combined political and scientific issues of that crisis, and of that relevant, leading role of the scientific achievements of Academician V.I. Vernadsky and his associates, which bear upon defining urgently required solutions for that globally systemic political-economic and social crisis which grips all nations and peoples on this planet, immediately, today.

I would propose that we reflect upon the relevance for the present crisis of the world at-large, of the great agricultural, industrial power, and role in science, in Ukraine, during past times. I also propose that we reflect on the crucially important role of the past scientific and related contributions of Ukraine and Russia which bear on the great mission of Asian development which will confront us all, globally, if we permit civilization to continue its present slide toward the brink of the abyss of a planetary "new dark age."

I would emphasize a fact which may be known to those of you assembled for this conference, but is, presently, rarely recognized in the world at-large, of the revolutionary advances in the physical condition of all mankind which exist still, as among the relevant remedies for this presently onrushing general, physical breakdown-crisis of the planet, remedies which are to be found as crucially important contributions in the signal contributions by the great V.I. Vernadsky and his collaborators of his lifetime.

Sky Shields

# Economic Progress Begins With Creative Discovery

*LaRouche Youth Movement leader Sky Shields delivered this speech, on April 9, to the Kiev Conference on Physical Economy: Research Methodology and Global Mission of Ukraine.*

I would like to now give you a picture of the political and economic role of the LaRouche Youth Movement internationally. In particular, the unique and important role in it of the works of Vladimir Ivanovich Vernadsky.

You have heard from LaRouche's statement of greeting to this conference, that what we face now is an economic and strategic crisis. It is also, by that very definition, a scientific crisis. The economic progress of humankind is not the management of flows of scarce resources. It is exactly that definition of economics which has created the crisis which we now face; it is that definition of economics which has created the current speculative looting of the physical economy, as a necessary, predicated epiphenomenon.

The true definition of physical economic progress begins not at the point of production. Nor does it begin at the point of extraction of raw resources. It begins with the act of creative discovery which makes those raw materials into resources in the first place. It begins with the activities of creative human individuals, who possess the capability of wielding irony and metaphor, in their physical, scientific expression to discover—

KNEU/Katerina Nuzhnenko

*LaRouche Youth Movement leader Sky Shields (right) reports to the conference on the Basement project, led by Lyndon LaRouche. The "Basement," Shields declared, "is dedicated to a revival of the sort of scientific ideas which represent the anti-reductionist trend in physical science—the sole source of progress in all of human history." Rachel Douglas is translating into Russian.*

and create, lawfully—new laws which govern the behavior of the universe around them. Not least among these—in fact, the greatest among these—are the class of discoveries which create the laws governing human activity, and the fostering of this type of creative mentation among the greatest possible number of human individuals.

This definition of physical economy is what has been lost. In it, the most valuable natural resource is the human individual, viewed not as a source of mere manual labor, but as a source of potential creative activity and discovery, actively transforming the means in which he and others labor. It is for this reason that there is no resolution to the current economic crisis, unless currently prevailing reductionist trends in scientific and cultural thought are also, forcefully, overturned. This is the mission of the LaRouche Youth Movement—in this way we seek to create the scientific, cultural, and political leadership of a new era, capable of lifting us upwards, out of the current threat of a global new dark age.

## The 'Basement': The 'Narrow Path'

I have the privilege and the pleasure to be working in Mr. LaRouche's "Basement." While this is, in fact, a basement, it is also currently the center of our scientific activities internationally—dedicated to a revival of the sort of scientific ideas which represent, and have represented the opposing, anti-reductionist trend in physical science, which has been the sole source of progress in all of human history. LaRouche's program for us centered upon what he called the "narrow path," from Johannes Kepler, to Carl Friederich Gauss, to Bernhard Riemann, and culminating with the work of Albert Einstein, and the advances upon Einstein's work made by V.I. Vernadsky.

This process began with a thorough working through, by one of my colleagues, Jason Ross, of one of the works of the figure who possibly best embodies this ideal of the creative, rigorous, non-reductionist, humanist thinker—Johannes Kepler. In this work, the *New Astronomy*, Kepler presents arguably the most complete, detailed, and exciting exposition of the process of a creative thought process leading to a discovery ever presented in human history. Sadly, this process has been intentionally suppressed in the standard treatment of Kepler in schools, and he has been reduced to a sadly non-representative set of "three laws."

Jason's work was to remedy that omission, by "animating" the ideas presented by Kepler in that book, and using them to create an educational program, deployable throughout our movement, and then, more broadly, to revive the methodological approach which lay behind this most important of human discoveries—the creation of astrophysics as a physical science (see http://www.wlym.com/~animations/). The material on the website, contained also, as supplementary material, on the DVD which I am now showing you, is an interactive aid to a direct study of Kepler's *New Astronomy,* featuring no simplifications of, or substitutions for, the actual text of Kepler's book; it is only a sort of amplification, stating

what Kepler himself might have, if given access to multimedia capabilities. It follows the text, chapter by chapter, with added elements of background, which would have been familiar to Kepler's audience, but which would otherwise be foreign to the modern reader.

The necessity of this multimedia treatment became even more clear with the second phase of this project. While the ability to work through Kepler's *New Astronomy* was deployed throughout the movement, in the form of the website and video classes given by Jason and others, a team was deployed to similarly "animate" Kepler's magnum opus, *The Harmonies of the World.* This work of Kepler's is most hated by the reductionists, and since it draws so heavily on the science of harmony, and musical relationships, I think it is really safe to say that, until our multimedia treatment of it, the true content of the material could not be revealed—at least not to as wide an audience as is truly necessary. We now have the capability of taking the thought process of this great mind, in his greatest work, and making it intelligible enough to form the intellectual basis of a global political-economic youth movement.

With that work done, we had the ability to open up the work of another thinker, who was in his work not so forthcoming as Kepler was. This was Carl Friedrich Gauss, who is often claimed by the mathematical reductionists to be "the prince of mathematics." While he may be deserving of this title, our mission was to demonstrate that its aptness was not at all understood by anyone who was not aware of Kepler's own epistemological outlook.

This project was continued, in a sense, into the culminating work of Bernhard Riemann, and its expression in the works of the two great scientists Albert Einstein and V.I. Vernadsky. Outside of his own work in economics, LaRouche has repeatedly stressed, no one has gone further, conceptually, than the work of Riemann and that expression of Riemannian ideas which occurs in the works of these two great thinkers. Our approach to the animation of their work has been multipronged. It has included the production of pedagogical material largely in the form of video product, as well as the ongoing project of the translation of much of Vernadsky's later works into English.

## Riemannian Dynamics

The paper which I have submitted for this conference, titled, "Human Creative Reason as a Fundamental Principle in Physics," details the results of pursuing a reference of Vernadsky's, in one of these translations, to the gestalt psychological studies of Wolfgang Köhler. As well, we recently concluded a conference which featured a dialogue between members of our national movement on questions of science and culture, developing the ideas which were subsequently deployed into their respective regions. These youth conferences will be an ongoing project, in which we hope youth from here in Kiev will soon also be interested in taking part.

The central mission of all of this, is to present a concept of Riemannian dynamics as it appears, among other places, in physical economic processes and in the work of V.I. Vernadsky on determining the characteristics of the fundamentally distinct, but interrelated phase spaces of the non-living (or pre-biotic), the living (biotic), and cognitive, or noetic processes. The fact that the behavior of these two higher phase spaces escapes description by all mechanistic models is our hint that the standard models of even the supposedly abiotic, lower domain are greatly in error. Our presentation of the evidence of this case, and the experimentally demonstrable distinction of these three phase spaces, now begins to form the basis for a fundamental revolution in the concepts which govern economic policy today.

Erroneous economic models, premised upon ideas irresponsibly carried over in the form of mathematical models from reductionist attempts to describe processes in abiotic physics, must now be eliminated from their positions of prominence. These include such models as free trade, on the one side, and so-called "sustainable development," on the other. These two idols clearly stem from thermodynamic misconceptions which have no place in the description of living processes, to say nothing of the dynamic interrelations of the anti-entropic development of a healthy human economy.

With this conceptual underpinning as the thrust of our political activity, we are intervening into the current global crisis facing us today. The evident failure of the nominal leadership of the United States and elsewhere has now placed LaRouche and his movement center stage, simply by necessity. And we are forcing the sort of cultural transformation which will be uniquely capable of turning humanity back onto the road of progress—and prevent the collapse of civilization, globally, for generations yet to come.