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## Greetings to Kiev Conference

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# 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.

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## Sky Shields

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# 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 intention-

ally 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 multi-pronged. 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 Fundamen-

tal 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.