

rectly—economically, physically—or indirectly, in terms of repercussions of it. And it's the first program we have. We have also the possibilities around Sudan, and so forth, of cooperation in that area.

So, all we have to do, is build a railway system from Eurasia, into Africa, which we use as a support for developing this project, such as Transaqua, and that in itself would start a revival in Africa, which otherwise is presently not feasible. These are the kinds of things that can be done. NAWAPA is an example of that. The use of the development of nuclear power, applications of nuclear power, in Asia, particularly, Russia, China, India, and other nations—this is also part of the picture.

As I say, there *are* remedies. They're available: They're known, they're feasible. We have the labor force, which is largely idle, which can do these things. All we need, is governments which will agree, for their own part, and agree for cooperation with others, and these projects can be launched immediately.

We have unemployed people, of high degrees of skill, in the United States, such that we could launch, immediately, employment of 4 million people in the labor force, who are presently either unemployed, or about to be unemployed. We could put them immediately to work, in this project, the NAWAPA project, and its implications, which means completely rebuilding the rail system of the United States, completely rebuilding the water system of the United States. The greatest project that mankind has ever undertaken, is there, and it's ready to go. And we have about 4 million people who need employment, and who have the skills, of various kinds needed, to do this kind of project.

So, I don't want to spread pessimism. There is no reason for pessimism, except pessimism respecting the minds of some of our politicians. If the politicians come to their senses—and now, I'm happy to see that some people in Britain of considerable influence in these matters, now admit that the British policy is clinically insane! They also have declared that the President of the United States and the head of our national banking system, are insane. And that would suggest that changes in those offices are possible, and would lead to results. When key people realize that their nations and their systems, their economic systems, are in danger of general collapse, there is a tendency for readiness to consider options, and I think that time has come.

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## LaRouche to Dubna University

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# Great Projects Will Rescue World Economy

Sept. 27 (EIRNS)—The First International Scientific School—"Project Management of Sustained Innovation-based Development," was held Sept. 20-29 at the Dubna International University of Nature, Society, and Man. Lyndon LaRouche sent greetings and a 15-minute videotaped lecture, which were presented at the event. Besides the University itself, located in the Russia's Moscow Region, the school is sponsored by the Russian Academy of Natural Sciences, with support from the Russian Ministry of Education and Science, the City Government of Dubna, and the Dubna Chamber of Commerce and Industry. The event is dedicated to the memory of Pobisk Georgiyevich Kuznetsov, the scientist and industrial organizer, Lyndon LaRouche's friend, who died in 2000.

In his greeting, recorded Sept. 13, LaRouche noted that he is working, in collaboration with associates in the United States and Europe on a number of major projects, the leading one of which, is the development of the North American Water and Power Alliance (NAWAPA) program, which, he said, "would change and improve the weather, around the planet," and take on the Arctic as a challenge. Similar projects are need in Africa, LaRouche noted, involving Sudan, the Congo River, and Lake Chad, among others.

LaRouche's lecture, entitled, "The Financial Crisis and Sustainable Development," was presented Sept. 27, to a session chaired by Prof. Boris Bolshakov, who also showed the audience two video products of the LaRouchePAC "Basement" scientific team: "From the Moon to Mars: the New Economics-2" and the 3D map tour of the NAWAPA project ([www.larouchepac.com](http://www.larouchepac.com)).

A lively debate followed the screenings, with Dubna students and guests from Kazakstan, especially, supporting LaRouche's proposals. Some Russian environmentalists, who had taken part in campaigns against Siberian river diversion projects in the 1980s, were strongly opposed.

Following is the transcript of LaRouche's Dubna lecture. It was shown with Russian subtitles.



*Lyndon LaRouche delivered a videotaped lecture to Russia's Dubna International University, which was dedicated to the memory of his friend, Dr. Pobisk Georgiyevich Kuznetsov, the scientist and industrial organizer, who died in 2000. LaRouche is shown here, second from left, with Kuznetsov to his right, and Dr. L.M. Suslov, far left, in Moscow, April 1994.*

EIRNS

## **We Are Faced with a Great Challenge**

Greetings! The subject that you have presented for me to respond to, is not going to really fit neatly within the time frame allotted. Therefore, I shall condense the presentation, which shall be largely provocative, on the question of subjects which need to be discussed more deeply, and to indicate some of the opportunities—rewards, which would come to us for addressing and solving this challenge.

First of all, we are in a general situation, in which the entire world economy, considered as a physical economy, as well as a monetary system, is in the process of disintegration. It would be remarkable, or require some remarkable development, to prevent a general breakdown crisis of the entire planet, which would last for some decades, coming as early as the beginning of the year or even earlier.

So, we are faced with a very great challenge, from mistakes which date, in large degree, from various points: from the death of President Franklin Roosevelt, where a very bad gentleman [Harry Truman] came in, and a lot of mistakes were made. Then, the war, which was done in Vietnam and Indo-China, by the United States—one of the great follies, which was made pos-

sible by the assassination of U.S. President Kennedy. Otherwise, that war would not have happened. And similar kinds of things.

So, we have seen, over a period, we've seen a process which is described by Nietzsche, in his *Also Sprach Zarathustra*, a process of what is called “creative destruction”—the doctrine of a fascist, Nazi co-thinker, Sombart, and also of Joseph Schumpeter. It's relevant to know that the policy of the present Obama Administration, as well as the policy of the British United Kingdom and Empire, is that of “creative destruction.” And we are seeing the effects of a prolonged period of “creative destruction,” in which there has been more tear-down of economy—as people know from the history of the Soviet Union's break-up, and what followed—than there has been of progress.

Now, we're at a point where we have to undertake certain great projects, because we have to have a very broad and sudden effect of an improvement in the productive powers of labor, as it pertains to the standard of living and future of mankind. So, therefore, very large, very thoroughgoing, fundamental changes in the practice of economy must be introduced now.

In my view, these policy changes must come, in

part, from the United States, because if the United States collapses, then the entire world will go into a collapse. There is no way in which a collapse of the United States, presently, would not be a chain-reaction collapse of the entire world system for some decades to come. So, changes have to come in the United States, as well as elsewhere.

Now, what I've determined, is, we do have a project in the United States, which is getting increasing support, especially from among relevant scientific layers. It's called the NAWAPA project. It's a very large project. It's not a simple copy of the highly successful Tennessee Valley Authority under Roosevelt. It's a much more ambitious, much more fundamental change.

It's a change in space policy, because we're looking, in the NAWAPA project, at the way in which the ozone layer provides a protection for the existence of life on the planet below. And, therefore, when we're looking at things that affect the maintenance or the history, the pre-history of the development of the ozone layer, and what follows, and things like that, we're getting into an area of physical chemistry, which is much more interesting to the followers of Vernadsky, than to anyone else. But, that's the situation we're in. And the NAWAPA project, which would mean a sudden change in the United States policy, under NAWAPA, which would mean we'd be putting three to four million people [to work], usually based on high-technology projects of major construction, over a period of some 30 or 40 years.

### **An Immediate Economic Recovery**

But this would mean an immediate economic recovery of the United States, which could not occur unless Obama is thrown out. But the ouster of Obama is now becoming increasingly probable. Not in his next term, but now, this year. It's there. It's not guaranteed, but it's there as a potential. If it occurs, if the Glass-Steagall legislation is re-enacted, then the United States will go through a recovery.

If the NAWAPA project is orchestrated and chosen as a policy, we will launch the greatest leap in scientific progress, globally, the world has ever seen. Because there are projects in Siberia and elsewhere, which have a similar nature: the linking of the NAWAPA project to the Bering Strait tunnel, and to the development of the rail systems of Siberia, the development of the long-

promised Arctic program for the former Soviet Union. These things will click in.

The policy for the development of northern Africa, an area of Sudan, by bringing water from the Congo, across the mountains into the area of Chad, to rebuild Lake Chad; the development of large-scale railway systems, to enable us to integrate and develop economies: These are the kinds of things which are possible in the immediate future, and they must be done, if the planet is to survive.

And these are things for which Russia, with its relationship with China and India, and the United States, are the natural partners for the initiative for such an effort.

So, we have much more to say, than merely talking about scientific progress for the future. We are talking about a cooperation among nations on new conceptions of practice, which can save the planet from what is presently a great breakdown crisis, which has actually been in progress: We can date various points, from the death of Franklin Roosevelt, in one sense, from the death, the assassination of Kennedy and the war in Vietnam, in another sense, and so forth and so on.

### **Second Law of Thermodynamics—Bunk**

Now, what we are talking about, of course—the context, here, for the discussion—is the memory of our mutual friend, Pobisk Kuznetsov. He and I agreed on many things, including the concept of physical economy, rather than monetary economy. But, we disagreed on his defense of the so-called Second Law of Thermodynamics, which, for me, is bunk.

Now, the problem with this Second Law of Thermodynamics, is it's based on the assumption of a mathematical physics, not a physical chemistry.

In real life, as we knew in our work in the Fusion Energy Foundation, of which I was one of the founders, our work, as the work of some Soviet scientists, who were working in the same area, with whom we were in intellectual collaboration on this matter—that the point was the development of an increase of what was called the energy-flux density. In other words, that the Second Law of Thermodynamics is bunk: throw it away!

If we don't have an increase in energy-flux density, in economy, which has been also the history of mankind, so far—mankind is a creature of fire. The only

animal that uses fire, willingly, is mankind. Mankind is inherently Promethean, and the progress of mankind is greater use of more energy-flux density of various forms of fire.

Now, as we progress in economy, we are using up what are called natural resources. That's a bad term, because it hides the fact that the resources on which we depend, like mineral resources, on this planet, are things that have been created by living processes long before man appeared on this planet. We now consume iron, where it was deposited by the dead bodies of certain animals, long ago. We take the richest of these sources first. Then, our productivity drops, so thus, we go either to better resources, which are again rich, or, if we run out of that, then we have to go to an increase in the energy-flux density as a platform of production.

And that is what defines progress.

Therefore, with the planet in the present stage, with something approaching 7 billion people on this planet, with the condition in which the planet is no longer able to support a growing population of 7 billion people under current international economic policy trends, we must resort to creating the platforms in the organization of the economy—and the NAWAPA project is typical of such platforms.

The possibility of continuing the tradition of Mendeleyev, in respect to Siberia, is another one of these platforms. The connecting of the NAWAPA project to the Siberian project in the former Soviet Union, is another one of these platforms. The development of northern Africa, by using the Congo waters and bringing them across the mountains to transform Chad, and putting Sudan and Chad, and other countries of that region into collaboration, with the aid of railroad systems which come in from various parts of Europe and from Asia, to change the condition of life in Africa. These are the things we must do.

### **Back to Bernhard Riemann**

The principle for this thing takes us back, again, to Bernhard Riemann, with this one, most remarkable thing ever written, I think, in terms of the intensity of the ideas and the brevity with which they are expressed. And I would refer especially, looking at the whole of Riemann—it's a short work, and all of it is indispensable and accessible—is to turn to the third section, the third and concluding section of that habilitation disser-

tation, in which the principle is located.

The first thing that he emphasizes, in defining that third section, is the principle that there are two areas of experience, in which mankind's reliance on sense perception fails. This is the area of the very large, and the very small.

In the universe: you can not encompass the universe within sense perception. You can not encompass the processes within the very small, the microscopic, sub-microscopic, in terms of sense perception.

And then he concluded, in that whole section, with another point, a concluding sentence—one of the most beautiful sentences in all scientific literature—which said we must conclude this now, because what we are talking about, is physics. And, since we're in the department of mathematics, we're forbidden to continue the discussion within the department of mathematics, because this belongs to the department of physics.

The same thing as here: The principle of production, the principle of development, is the mandatory obligation to raise the level of energy-flux density, applied to production and life itself, in creating the infrastructural platforms, on which organized human life depends, and increasing the energy-flux density of the primary resources, such as going from pre-nuclear levels, or nuclear fission levels, to thermonuclear fusion, and so forth, and on.

We must constantly increase the energy-flux density of the primary, controlled sources of power for development and transformation of the economy. And we must take what we have in the United States, Russia, China, and India: There is a very strong commitment, historically, and presently in some of these countries, to developing nuclear power, thermonuclear power, and beyond.

This is the platform: The supply of increasing energy-flux density of power is the platform on which the rescue and progress of this planet depends.

My proposal is, we can get Obama out, we can get a new Presidency in, and under a new Presidency in this crisis in the United States, the United States will be disposed to cooperate with Russia, China, India, and other countries, in a coalition for increased energy-flux density to bring mankind to safety, from the processes of controlled destruction, so-called "creative destruction" of the Nazi tradition, which we are suffering under today.

Thank you.