that's a worldwide organization, with affiliations in the United States and other countries, and we have been promoting this idea for a long time. But, of course, nobody in the Bush Administration really is listening to us. And, they have been trying to crush down this movement. But, anyhow, I think that the LaRouche movement has to take a position on arms reduction: Because there's a lot of stuff here, that has to be just wiped out. It's a big waste of economic resources—in the world, not just in the United States, but around the world. And a source of danger, of course, to security.

And then, LaRouche yesterday was talking about this tremendous financial cancer, in terms of short-term forms of various financial paper—like . . . financial derivatives. That really is a recent development. And he quoted the figures, and these figures are really true. What is it? Twenty or 30 times larger in the world, than the world GDP, right? And, that's a cancer! That is one of the cancers of today's world economy. And it's not just stupidity. It's not just a mental case. This is brought about to prolong the major imbalance in the world economy, and also make the financial oligarchy of this world continue deriving its riches.

Now, something has to be done about this, and there have been various suggestions. We haven't explored any of these, but I think we should. There's been a so-called "Tobin tax" proposal: a tax on all financial speculative deals made in the world. So, whenever a bank changes money, and they change money not because they're serving the clients but because they're speculating, they're playing with the market, they have to pay a tax.

Of course, this was discussed, never accepted. But there has to be a program to curtail financial speculation. Whether it's a Tobin tax, or some other tax, I don't know—it's not important. That is one way of driving the resources out of speculation, into physical investment, and investment in real physical, productive economy.

Well, I've been talking too long, but one reason is, that there are very many ideas that are worth, I think, discussing, and I thank you very much for giving me the chance to express these ideas—in addition to all the other ideas that have been expressed here, which are very informative and worth thinking about. Thank you very much.

Dialogue

Here is some of the discussion that followed the concluding seminar panel, on Jan. 13.

Some Positive Features of the Soviet Era

Dr. Yuri Gromyko: [somewhat paraphrased] I have a question to Mr. LaRouche, because it's very important, for the implementation which Mr. Menshikov put on the table. It's exactly the problem of decolonization, decolonizing efforts, including by the Soviet Union. Because Lyndon

LaRouche stressed yesterday, that exactly FDR's initiative was directed against the British, his decolonizing efforts. But then Roosevelt died, it was the Truman period. Also Stalin died

But also, the Soviet Union made a tremendous effort to organize a real decolonizing initiative. Not only an ideological pocket-game. Because, for example, we have the University of Peoples' Friendship. The main target of this university was exactly to develop scientific people, to develop new industry in the Third World, and there were tremendous efforts to achieve some of this. And it was exactly connected to the sovereignty of nations,



Dr. Yuri Gromyko

you see, because it was necessary to develop educational institutions in the Third World, independent from the British, from other countries; industry, and also science.

And it's really important, because it is well known from Immanuel Wallerstein's argument, who exactly said what Professor Menshikov said. He said, that exactly after the collapse of the Soviet Union, there is a different possibility to do something in the world. Desperation in the Arab world appeared, because there had been huge assistance from the Soviet Union.

So, I guess it's very important also for the position of the Russian side, if we are going to have real sovereignty in Russia. We have, till now, in my opinion, the African Institute, South American Institute, Arabic Studies Institute—we are the best experts in these fields. And there was such an idea that it's necessary in the Third World to develop independent industry, science, education, to help these countries to become sovereign countries.

Also, will you speak about the pattern of the so-called American economy? Three key elements of this economy: the first, state central bank, not privatized; long-term investments, the possibility to have long-term investments; and the possibility to plan social development of the common good, the possibility to have social infrastructure.

It's exactly the very important element of so-called "so-cialism" and "social economy."

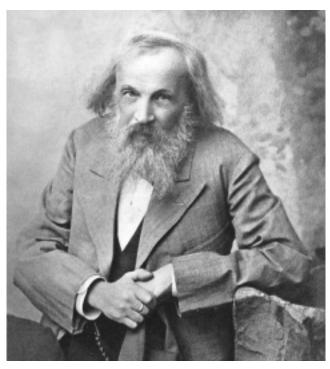
So, what's your understanding of the difference between the so-called pattern of American economy and socialist approaches?

Thank you very much.

Global Cooperation in Raw Materials

Lyndon LaRouche: Let me talk this out, because there are several things—Professor Menshikov also introduced some questions which he wanted some answers to. And we

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Dmitri Mendeleyev's pioneering work on the Periodic Table laid the basis for breakthroughs still to be achieved.

have people here in the room, who can, in a sense, partially address the common features of this problem.

Let's go to the relationship of Russia and China, in the context of what I propose as this primary materials condition for a new world financial-monetary system. Now, where did this idea develop? You have China, which has contributed one thing: It contributed what was natural to China, coming out of its past history, and the struggles of past history, including the case of the famous developments in the 1960s: that China realized, that with a growing population, it had to transform China; it had to use technology to do that; it had to concentrate on large-scale infrastructure development *first*. The Three Gorges Dam is typical of that requirement. Without managing the water, the territory of China, the infrastructure, there is no possibility of solving the mission of China for its own people for the next 60 years. Not possible.

So therefore, China requires not only capital development, technological development; it still now is *importing* a lot of its technology. The policy is a right policy, but there is a dead end to it. You've got to go beyond importing technology in a world which is running out of technology to import, into generating it!

Then go to Russia. Now, Russia's a broken-down country now: It's been raped, looted, it is regularly raped. It gets up in the morning, and it's raped again. I don't care who does it—it's raped—that's the first event in Russian history, every morning. That's been life, since the fall of Gorbachov.

So, the problem is now, there are raw materials in Asia, tremendous amount of primary mineral resources in Asia,



Vladimir Vernadsky's conception of the Noösphere is "the greatest revolution in policy which has been introduced to this planet, in terms of conception of social policy."

compared to the Southern Africa Shield—which has *less* than Asia, much less rich; there's the Patagonian tip in Argentina, which is another great source; underneath the Amazon River system, there are great resources.

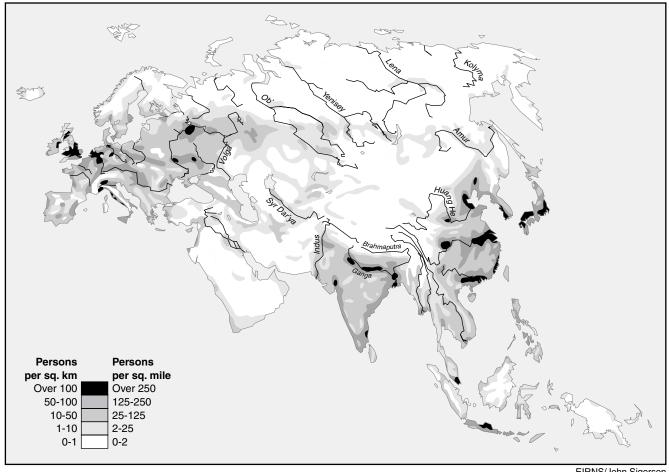
But, what's Russia's position? Does it control this territory, directly or with Kazakstan? Is that what the significance is? No! It's, no one can develop these resources without Russian science! That's the point.

See now, therefore, you have the largest nation of the planet, in population, China; Russia which still represents in a sense, the largest territory of any nation on the planet, if we include Kazakstan. And Russia has science, but China can not develop this area, because it doesn't have that science. In the Vernadsky Geological Museum, we have an assembly of people from various professions, but all dealing on, what? On the theme of Vernadsky!

So, why is Russia absolutely indispensable to the rest of the world to make this work? Because of, particularly, two scientists, two Russian scientists: one, Mendeleyev; the second, his successor, Vernadsky. And Mendeleyev did not really address many of the questions that Vernadsky did. Vernadsky's conception of the Noösphere, is the greatest revolution in policy, which has been introduced to this planet, in terms of conception of social policy.

Now, Jonathan [Tennenbaum], among others, has been involved in this Mendeleyev question: that the development of the so-called Periodic Table by Mendeleyev already represented a great idea; but, what Mendeleyev presented initially was a first approximation. Then, in his later work, Mendeleyev began to raise questions about the so-called "magic

Population Density in Eurasia in 1990, and Major Northern Asia River Systems



EIRNS/John Sigerson

numbers." You can not explain the physics of the Periodic Table by magic numbers, the distribution of neutrons. It doesn't work. It's a fantasy! It's a toy, it's masturbation.

But, the question of what do you do, about these so-called "magic numbers," the fallacy of the Mendeleyev table, as understood, is crucial. Why? Which we dealt with in the 1970s, and 1980s, in part of the work of the Fusion Energy Foundation, of which I was a founding leader. We concentrated on this thing.

The point is, is I attacked the competence of modern science, as practiced. Modern science is essentially Cartesian science. It's reductionist science. It explains everything in terms of little hard balls. It does not understand the universe is a developing universe; that there is no such thing as fixed science. There's a developing process: that man is changing the universe, and man's science must keep up with the changes which man is introducing into the universe.

Now, the question of raw materials: We're talking about the transmutation, on a grand scale, of mineral materials—in

particular. Transmutation, mass transmutation. This is what is buried in the second phase of the Mendeleyev work, which is unresolved. This question is posed on a higher level, from a different standpoint by Vernadsky. So therefore, you need the people in Russia who have more knowledge than they know they have.

Because, they were trained—the Soviet system was essentially, a philosophically reductionist system in science. The crippling of Soviet scientists, was the fact of the influence of official reductionism: so-called historical materialism, Marxism-Leninism. It crippled science.

But, nonetheless, despite that, because, in the case of the development drive, in the Soviet Union, which considered itself a backward country whose very existence depended upon technological progress; therefore, with a strong tradition in certain areas of scientific work in Russia—especially around metallurgy, the byproducts of the study of metallurgy, typified by Mendeleyev in particular, and his real successor Vernadsky. That, in Russia you had an economic system,

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which was a bummer! Because of Marxism-Leninism. It did not believe in scientific progress. It did not believe in a Platonic conception of the way the universe is organized. It was so-called "anti-idealist." But, when it came to building a *military* system, and the supporting civilian system, to make the Soviet Union a power, relative to Western Europe and the United States combined, which had *much* more resources for this thing, that Russia *outpaced* Western Europe and the United States in certain areas of scientific application, *under the guise of military mission*.

So therefore, the Russian scientific community, which is now mostly in its 70s and 80s, still represents embedded within it, a capability which is more than what it really knows. And we got, in this meeting we had recently in Moscow with the Vernadsky Geological Museum, we had a sampling of these kinds of scientists, mostly in their 70s and 80s: *They are the people who know how to manage the world's raw materials*.

Now therefore, the fact that Russia, in this role, and Russia with its access, in cooperation with Kazakstan, to the richest concentrations of deposits on this planet, *knows how to manage things in that area*. Nobody else does. They don't know it perfectly, but they have the base knowledge.

Then, also, this involves simultaneously, large projects which the ecologist movements crushed, in Russia—like the Ob [River] development, to move part of the water from the Ob down into the Lake Aral area, to transform the whole character of Central Asia. So, large-scale water management. Dealing with the *tundra areas*, which you have to deal with, to get at this raw material problem. It's a Russian problem. The Russians have done the most work on this thing, even though the work's not completed.

So therefore, now you have China, whose very existence beyond two generations depends upon this. India's probably not as conscious of this, yet, in the way that China is. But therefore, you have Russia, which has the means, in terms of giving the vector for development in this direction—it's the basis for defining a global system of cooperation. Because, the great crisis which affects all economy, as it's now defined, is access to so-called categories of raw materials, including petroleum. And petroleum is the least important of them.

All these minerals: You have a grab by powers, to grab control of the world's raw materials. Not to *use* it, but *to monopolize it*, as a kind of monopoly—*against* the human race; to control world politics, by control or monopoly of raw materials. We have to break that.

So therefore, you have a situation in which two countries, each with a different impulse: China has to deal with a population question, and a territory question—that requires mineral development, and scientific development. Russian has a monopoly, in a sense, on giving the impetus to the development, which in the area proximate to China, can address that problem. So there, we take the problem. We say: Well, India may

not be concerned with this much, right yet—but they will be! Because if you have 70% of the Indian population that is increasingly *desperately poor*, despite those who have a better life, then this problem has to be solved. You look at Southwest Asia, Southeast Asia—the same thing. Pakistan is *desperate*, to save that country from self-destruction.

So therefore, you have Asia.

Now, Europe needs this. Europe has run out of so-called raw materials of this type, relative to its population. Therefore, Europe needs not just access to raw materials, it needs a *science-driver program*, to go beyond the limitations faced by Mendeleyev, in the later part of his work on the Periodic Table. We have to deal with the systemic management of the resources of the planet. Western Europe can only survive, by a combination of Europe through Russia, with the India-Russia-China cooperation.

The Key Is the Development of Ideas

Therefore, the question is forced on us. I think that's the way history functions. The problem here, which is what Professor Menshikov touched upon, as in the youth role: What I've done in the case of the youth role, is not simply start a youth movement. Many people have tried to start youth movements, and they didn't work, and they won't work. Because they don't know what a youth movement is.

The basis of the youth movement that I developed, was the concept of ideas. Now, in universities today, there are no ideas. Ideas may stumble out of some mind, here or there. But the universities are not organized to promote the ability of students to develop and master ideas. They're to master textbooks, or to master existing doctrine. Or to learn how to run a computer, which is a sort of an infinite loop effort—you just play with numbers, to the extreme. It's a nightmare.

So, they said, "How do we start a youth movement?" I started first, and I said, "You start with Gauss. With Gauss's 1799 attacking Euler and Lagrange (among others, as well d'Alembert and so forth). The attack, the denunciation, of Euler as a fraud, of Lagrange as a fraud, of Cauchy as a fraud, of d'Alembert as a fraud, of Voltaire as a fraud, his whole network a fraud—is key to civilization today. Because, the idea of empiricism, which is the prevalent ideology of liberalism, is, "We will allow scientific progress to occur, as technological progress, but we'll not allow people to know how to generate scientific progress."

So therefore, I said, "Okay. You've got to know what an idea is. So, let's take this, and let's take Gauss's attack on Euler and Lagrange in particular, and implicitly Cauchy and all the others of the same type; and take that, and once the youth understand what an idea is, then, they can understand everything else, from the standpoint of the *history of ideas*. Of actual ideas."

Now, what happened, with the case of the Mendeleyev case, is, Mendeleyev's discovery of the Periodic Table, as it's called, was an act of genius in insight. But the effort was,

particularly after the death of Alexander II in Russia, it was an attempt to crush, from the outside and inside—an attempt to crush the scientific impulse in Russia. And the history of Vernadsky is typical of that particular history: He was in the school, when the crushing program came down, politically. And he becomes an international figure of this type.

So, the crushing of the idea of ideas, of scientific ideas, is what the problem is.

And today, we're in a society, where people say, "You have to learn in the same way, that in the medieval period, you're taught a lie, called the astronomy of Claudius Ptolemy"—which was not a mistake, it was a lie, an intentional lie. Because the knowledge of Aristarchus of Samos existed. And in fact, the fraud of Claudius Ptolemy was based in large degree on faking a reworking of the work of Aristarchus of Samos.

So, the problem today, is a cultural problem. And in the youth movement, the two things I've emphasized, are two sources of

ideas: One, man looking at physical nature, the individual mind looking at the natural processes, which we call physical science. The second, is how the mind deals with the fact that, to accomplish anything in life, you have to work through society, through human beings, social processes. And therefore, I took this question of Bach's Jesu, meine Freude, as an example of a very advanced scientific conception of communication, which many people don't even begin to understand—even professional musicians. Even though some stumble upon it by good taste, by accident almost.

So, the key thing here: We need a society which is based on ideas. We have to use the challenges, such as the challenge of China's challenge to the world by its development. The challenge to Russia, of finding the role to play in respect to China and other countries, on this issue, which is a global issue. And realize, that in all these areas, we're talking about a revolution in the physical composition of the planet. We're talking about developing what is possible: systemic transmutation of material; inventing *new kinds* of materials, which are not used now, so that we can guarantee to the entire human race in the future, that whatever they need, *we will be able to provide*.

So, what we need to do, is start from the top down, not from political authority, and scientists begging at the doors of political authority. We have to have movements, which are based upon movements of ideas among people. Especially young generations, upcoming. As they come into about the age of 18, where they pass over from adolescence to young adulthood, is the time of the richest development of the future



The LaRouche Youth Movement chorus sings Bach's motet "Jesu, meine Freude." LaRouche chose this advanced choral work, along with Gauss's Fundamental Theorem of Algebra, as the foundations of intellectual work for his youth movement.

adult personality. We have to imbed in the core of the youth of that generation, its commitment to a *growing*, *changing universe*, in which man is willfully changing the universe, as man was intended to do. That's the difference between man and a beast; and this idea.

And so therefore, we say: Go backwards. We take the Russia paradox, take the China paradox, put the two together, and look at the world in terms of the relationship of Russian and China; and then at the Eurasian relationship in that—and, suddenly!—it's all clear, what we must do! But, what will make it work, is a commitment to *driving fundamental scientific progress*, and getting rid of the stranglehold of the reductionists—the ones who stopped the continuation of the work of Mendeleyev, on the Periodic Table for the second phase; those who've tried to block the work of Vernadsky. And that was deliberate: In the post-war period, even after Vernadsky was dead, he was classified by Rand Corp. as the most dangerous person in the Soviet Union, even after he was dead: Because—

Q: Really?!

LaRouche: Official, yes! Because his ideas were so powerful.

And I use Vernadsky here, because Vernadsky represents, in his treatment of the Noösphere, precisely those conceptions which people pass over, or try to comment on, but don't really understand. Vernadsky is the frontier of applied science, that is, *as* science.

And that's the way this has to be approached. We have to change the human race, from the way it is now, into a human race which is based on ideas.