'Your Generation Can Move the World Forward'

So therefore, this is the area we're dealing with. The challenge of managing the planet, given the fact that we have to have sovereign nation-states—we can not have a globalized society. Can we have cooperation among nation-states, on the basis of consciousness of a division of labor among nation-states? Can Russia, among other things, specialize in this area, for a need of its neighbors to the east and south?

Or, put it another way, which is a more brutal way: Does Russia have a purpose for being in North Asia? What I've just said in outline, today, would suggest, that Russia does have a destiny in North Asia, for this kind of purpose, for which Russian history has particularly qualified Russian science. Particularly, people like Mendeleyev and Vernadsky are examples of this.

Do you, as a Russian, have a sense of participation, in the sense that you have in your hands, potentially, through education, an opportunity to take the contributions of those who went before you, and make them come alive, now, and go further? Do you have a destiny, in involvement in a Russia, which is playing this role in North Asia? Does your life have a meaning for people who come after you live, on the basis of this kind of task? Can you develop a passion, which gives meaning to your life, of saying that you, as a Russian, in this, and other ways, are contributing to the human race in general, by making an essential contribution, in some part?

So, that's the challenge.

Now the question is, can we take this bankrupt system we have, this bankrupt international monetary-financial system, which is parasitical, it's predatory—it stinks!—can you take this mess, and look at the good side, here? Don't concentrate just on the bad side; don't cry, don't weep: Can you take what I just laid out to you, in summary, about the case for Asia, the case for Russia in Asia—can you take that, and say, "There is always a passionate reason, for doing something good"? For discovering what is needed, discovering what you can do, as an individual or a nation, to make the world better? To make your ancestors' lives worthy of having been lived, because of what they gave to you? And what you do with it, for the sake of future generations of all humanity? That's the question.

I can tell you horror stories, real horror stories, about evils you don't even know about. But, the point—I'm not trying to make you pessimistic, if I tell you these things. I'm challenging you to become *optimistic*: Do you want to sit in this sickbed, and die? Or, do you want to get out of the bed, and do something?

Now, you know this, I think, from education. If you've enjoyed education at all, higher education in particular, you know something about this. Have you ever had an experience in a classroom, where you were actually, and passionately excited about an idea? Did you ever stay up discussing it, with three or four, or 15 or 20 people, until 3 o'clock and 4 o'clock in the morning? And get up the next day, at 7 or 8 o'clock and go to class? And to pretend to be splendidly enthusiastic and

vigorous? And, maybe conk out two days later, of exhaustion?

You see, the characteristic of your age-group, in the best situation: You're in an age-interval, where you have the vitality, the youth and the energy, to do that! Most people who accomplish things as professionals in life, lay the foundations for their achievement as adults in that age-interval, or they don't do it at all. Some people do something good in that age-interval, or up to 27 or 30—and then go dead. They keep repeating, like the professor who repeats the same lecture, over, and over, and over again, for 50 years—without any changes! You have the capacity, in your generation, as adults. With this capacity, when you're gripped by an idea, that you want to master, you can move the world forward, in terms of ideas, as very few people in older generations can still do!

Your generation is the most powerful political force in Russia, as you know.

Thank you.

LaRouche at Vernadsky Museum

'Set Fire to Inflammable Material Called Youth'

Mr. LaRouche made these remarks at the close of the conference at the Vernadsky State Geological Museum of the Russian Academy of Sciences on April 16, 2004.

I think that my contribution at this point should be on the subject of education—science and education. And I shall refer to a practical problem, which I'm dealing with. About four years ago, I began to develop a new kind of youth movement inside the United States, which I'm now spreading to other parts of the world.

As you may know, there were studies done in the United States, periodically, on the attitudes of young people toward the previous generation. This study was maintained regularly, by an organization called the Secretaries of State. That is, in every state of the 50 states, there is a secretariat, which handles the internal administrative organization of the state: such things as elections, and so forth. And this organization determined that there had been a phase-shift in the attitude of the generations, or between the generations, now in their fifties and early sixties, and the children of that generation, particularly those in the 18 to 25 age-group, the university eligible age-group: from one of qualified conflict, and friction, which is characteristic of generational relations, to one of hostility.

Now, in the United States today, and also in Europe, there is a growing hostility between the generations of the parents, and of these young people, in the 18 to 25 age.

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A Cultural Downshift

Now, I understood the reason for it. Back during the middle of the 1960s, the United States and Europe underwent a cultural downshift, a phase downshift. For example: During the period from Roosevelt's inauguration in 1933, March of 1933, there was, despite all the evils that were done over this period, there was a general increase in productivity, in the United States, up into about the time of the Kennedy assassination, and slightly beyond. Since that time, the United States has undergone a cultural downshift, from a producer society, which had been the leading producer society of the world, into a post-industrial society. And all of this is shown in the decay of the economy, which is largely the result of a cultural phase downshift, which is reflected also in certain things like innovations in science. The "new mathematics," which was introduced in the United States and England, during the late 1950s. It was a corrosive destruction of science, an attitude toward science, and practice of science, especially physical science, around the world. There has been a substitution of the emphasis upon von Neumann's trends in mathmematics—the Russell-von Neumann trend in mathematics—at the expense of physical science.

Also, in general, there has been a moral breakdown in the existing culture of the United States and Western Europe, which has spilled over, of course, into Russia. It's worldwide. We are on the edge of a potential dark age, with the oncoming crash—which could occur at any time. A general monetary-financial collapse is *imminent*. That is, it could occur now at any time.

The real cause for that collapse is not simply economic. It's not the laws of statistics, or something of that sort. It's a result of the cumulative effect of a certain degeneration in values of our society, away from those values which enable us to maintain more productive societies. As here in Russia, for example, despite coming out of the Second World War, the rebuilding period of great sacrifice, is an example of how attitude and culture will often determine how a nation goes.

A Youth Movement Oriented to Truth

So, I had to deal with this, and I proposed a remedy. The problem, as I diagnosed it, is that the cultural breakdown is a loss of a sense of truth. In the United States, the prevailing opinion is that *opinion*, not truth, should be the determination of policy. In other words, if an opinion trend appears to be apparent, you must submit to it as authority, and you use this kind of opinion, as a substitute for truth.

Now, of course, in science, we have a fairly good definition of truth, especially in physical science, experimental science. Because we say, we make a discovery of a principle, or an amplification of a principle, qualification of a principle. We test this by appropriate experimental methods, generally in the direction defined by Riemann as called "unique experiments." That is, the type of experiment which is required to test a principle, as opposed to a technology or a technique.

That was truth—that is a standard of truth. We've gone away from it. We don't have it in the teaching of science any more. We don't have it in politics, in political determination, any more.

So, what I did is, I set up a program: The youth came to me—we organized a youth movement—the youth came to me, and said, "All right. What do we do for our education?" These are young people, 18 to 25.

I said, "Well, you do two things. First of all, you take the 1799, first major paper by Carl Gauss, on *The Fundamental Theorem of Algebra*, which attacks specifically Euler and Lagrange, on the question of the complex domain, implicitly, the complex domain. And let that be for you, proof of that, reliving Gauss's proof, let that be your introduction to a standard of truthfulness in scientific work."

Why? The significance of that paper is that, what Gauss did, as a student of Kästner and of Zimmerman, who had grounded him in anti-Euclidean geometries, actually. That is, some people call it non-Euclidean, but these are actually anti-Euclidean: a rejection of the idea of a Euclidean geometry, instead of a non-Euclidean. This reverts back to the foundations of European scientific culture, as European culture, coming out of the shadows of the Great Pyramids of Giza. From astronomy, or, as they called it in ancient Greece, "spherics," where the angular relationship among positions in the heavens, not absolute measurements, were the standard of knowledge. And to look at certain discoveries of principle, of physical principle, reflected as geometry, as a standard of science, which became known as the Pythagorean standard, before the idea of "energy" was introduced; in which the discovery of a universal principle, and its proof, were considered a power, a power which distinguished man from the beast, because no beast can discover a universal physical principle and use it. Only man can do that.

By our discovery of principles, and working from that to the technologies that we derive from that, we are able to increase man's power to exist in the universe: to change the Earth, to change the circumstances of existence, to increase the potential population-density of a society, to raise the standard of living and productivity, per capita; to change areas that are deserts, into areas of prosperity; perhaps to change the Mendeleyev Table, to begin to crack some of the problems we have on minerals down the line in the future. These kinds of challenges.

And these were examples of physical principle: Can you double a line in a single, linear universe? You can't, by construction. Can you double a square, by geometric methods, instead of approximation? Can you double a cube? And then, of course, the fourth great discovery, is how many polygons, regular polygons, can you construct, in a sphere? These were the four great concepts of power, of physical power reflected as geometric concepts, on which the foundations of modern European science were founded by people, such as the Pythagoreans, and others.

This is a conception of truth. It has two features: It empha-

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sizes not only the principle of discovery of the nature of the universe, by man. It also emphasizes the nature of man: *No animal can do this*. And therefore, man is sacred. And therefore, all science of this type is *humanistic*. The object is the improvement of the condition of man, and man's appreciation of himself, and of others.

And this is what they needed.

The Study of Universal History

My second point was to say, "Now study history. Use Gauss, and this one paper, his first paper, 1799. And use this as, when he was a youth, as you are a youth now. And use that as a standard of truthfulness. Now, let's approach all questions from that standpoint. Let's look at the history of mankind, as the history of the emergence and development of those ideas, which correspond to truth by this standard of truthfulness, which is reflected by Gauss in this one paper—as in other works. Or the great paper of Riemann, which is one of my beloved objects, the habilitation dissertation, which, with a very simple and bold declaration, defines a new era in physics."

So, therefore, if we could develop youth, who see themselves in history, starting to look back at history from the time of the Pythagoreans to the present in Europe, develop themselves as looking at the world from the standpoint of the development and transmission of ideas, and their application to change the world, for the benefit of mankind. To change human relations for the benefit of mankind. Then we can take these youth, whose parents' generation have *no conception of truth*, as a generation. They don't believe in truth; they believe in opinion. They borrow their opinions from their neighbors, like borrowing sugar from the house next door. They don't have a conception of truth, but only of opinion.

"But we are told this. We are taught this. We are told to appreciate this. We are told that is bad. We are told that is good." They know nothing. They are proud of knowing nothing. They are proud of reflecting the fact that they are copying other people's opinions, which they choose to copy, and they don't have any regard for truth.

A New System of Education

Now, we need a new system of education around the world. But to get a new system of education, we have to have a thrust of direction of policymaking in education. I propose that the 18 to 25 generation is the starting point. Because they think of themselves as young adults. They don't have much time, but they have tremendous energy. When they're inspired, and you inspire them, they'll stay up until 3 and 4 o'clock in the morning, and turn up for class in the morning. Because they're inspired to master ideas.

We want to set fire to this inflammable material called youth, by inspiring them with examples, hoping that some of these things that they're inspired by, will take off, and they

will become specialists and contributors in that way. We would hope that by these youth, who will work all kinds of hours, do all kinds of things, who will do political organizing in the society, that these youth will bring back a spark of life to their parents' generation. And thus, us old fellows, who are looking for a future for mankind—because we're getting older, and we want somebody to pick up the torch—and why don't we just say, education is matter of getting some people to pick up the torch? Get some young people. Give them something more than this blab, that they tend to get in education today, textbook blab. Let them go through the experience of knowing what a discovery is. Let them get the excitement of sharing, in a classroom of 15 to 25 people, no more, no less. Of going through ideas, and giving themselves self-education. Use the method of Gaspard Monge, when he mobilized brigades in France, during the period after the French Revolution. Use that method! Let's create an army of young people, who will organize society, and organize their parents' generation, to come back to life, to come back to enjoy life—as we used to enjoy life, when we were embarked on the initial phases of our experience of the excitement of discovery.

The Task in Russia

That's what we need. I think the task here, specifically, the task in Russia—I had a chance to talk to about 70 youth at the Moscow University the other day. And since I was here, I used this subject of what we were discussing here, as a theme of my presentation, and provocation, shall I say, to these youth.

Because I wanted to provoke them, on the question of the role, looking at the situation of Russia today, and looking at what the problems are, in terms of Russia's position in Eurasia; and looking at the fact that the mineral deposits of Central and North Asia are crucial for the future of humanity in this hemisphere: that that is obviously the mission of Russia, because we have a scientific tradition, in Russia, especially of more than two centuries, of development in this direction, where the idea of attacking this thing of mineral development, of the Biosphere, and the Noösphere, is characteristic of this tradition. Why not take Russia's special aptitude, capability of this area, mobilize it to give Russia an orientation, for its place in Eurasia, under this new challenge? To say, when people say, "What about scarce resources?": "We will deal with how we can manage scarce resources. We will deal with it. That's our job: is to define the possibilities of action, which society can adapt to, to deal with the question of where are the resources going to come, to meet the challenge of a growing population in Eurasia?"

And this, in a sense, is a mission of Russia, in particular. And I think that Russia, of course, needs a mission, a sense of mission, rather than just saying, "How do we manage the mess?" Why not say, "Why don't we conquer a new area, and put our mark back on the history of this planet again?"

Thank you.

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