of struggling to make scientific breakthroughs on matters of universal physical principles, and using those discoveries to develop the Eurasian continent, you "adopt the mission, as a nation, so that you can actually die with a smile on your face, because you did good.

"That's the problem: *China needs Europe. China needs Russia.* But, if we do not play that role, what does it need us for? If you are useful to China, China will protect you. If you are useful to people and they know it, they are not going to throw you away.

"See, like the great Treaty of Westphalia: You had people who had been killing each other in religious wars in Europe, from 1511 to 1648. And they brought about peace in a great peace treaty, called the Treaty of Westphalia. What was the principle, which brought people who had been killing each other, almost as a profession, to suddenly make peace? It was not fear. It was, they adopted a policy called, 'the advantage of the other.' If you care for what you do for others, and they care for what they do for you—then, you will have peace. Otherwise, you define nationality as a point of conflict. If you define nationality as a mission, to adopt, as a people, a purpose in the planet, for doing something good, and if other nations will take the same view, that they have something good that they must do, then you have peace."

LaRouche at Moscow University

Russia's Great Mission Is Asian Development

Here are Mr. LaRouche's opening remarks to an audience of primarily students at Moscow State University, on April 14, 2004.

Today, I was here for the beginning of a conference, which I had assisted in promoting. It's a conference held by people in memory of the work of Vernadsky, who I suppose you know a good deal about. He was one of the greatest intellects in Russia, during the last century. And his ideas, and the frontier of his ideas, are at the frontier of the problems which face Russia, in particular, and Eurasia as a whole, today.

We're in a very interesting time, especially for you, at your age—because some of us are approaching the end of our lives, and you are in the process of the beginning of your adult lives. And it's of some importance for you to get some idea of what kind of a world we've given you, and some idea of what you can do about it. So, what I shall do, is indicate somewhat the nature of the world situation, but put it in the context of the significance, the practical significance, of the

work of Vernadsky in pointing the way we have to go, especially Russia has to go, in this period of crisis.

'What Kind of Future Have You Given Us?'

Now, obviously, you were born before the collapse of the Soviet Union. You have lived through the crushing of much of Russia, over the period since that time. You have, in your situation in Russia, your own view of a problem which is faced by people of your age-group around the world, especially in the Americas and in Europe. You ask, "Is there a future?" You look at your parents' generation, and you say, "What did you give us?"

It's the same in the United States. But, we have a youth movement, which was sort of organized by me, about four years ago, which has some political significance in the United States. Also, in Mexico, in Argentina, in parts of Western Europe, it has growing significance.

The problem is, that they face—and in a sense, you face—since about four years ago, in the United States, there's been a change in the attitude of people who are between the ages of 18 and 25, toward their parents' generation. You know, when you get to be adolescent or post-adolescent, you enter adulthood; about the age of 18 or so, you have a change in the way you look at the world. You are no longer in any sense, children or adolescents; you have an adult motive. You are not playing any more. And, it's sometimes a bit awesome.

So, at this time, it's like when the chickens or the hens leave the nest, or the birds leave the nest, you look back at the previous generation, and you have a little bit of anger at the previous generation.

This time, it's a little worse than usual. For example, in the United States, there was a regular survey that used to be done, in the United States; the national survey of the attitudes of people of the 18 to 25 [year-old] generation, their attitudes toward their parents' generation. And the change came, to some degree of bitterness, during the past four years.

Because of the things that have happened, up until about the end of the '80s, the world is threatening to disintegrate, at least culturally, as far as the human species is concerned.

A 'Potemkin Planet'

The United States is not a prosperous nation: That's a big lie, that it is prosperous. I guess you would say, the United States is a "Potemkin Village." You have the outside appearance that there's something there; but you look behind, enter the front door, and there's nothing inside. We have 80%, the lower 80% of family-income brackets in the United States are essentially desperate. People are losing their health care, especially older people. Homelessness is an increasing reality. Even people who are regularly employed, can not afford to rent a place in which to live. The price of food in the United States, from stores, has gone up about 50% in the past 12 months.

And everything is, as you see it in Russia, in a sense—Russia has its own, different experience, but there's a world

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pattern here, in which Russia is only a variant of what the pattern is in much of the world. And, very soon, probably this year, the entire world financial-monetary system will disintegrate. This is not a Potemkin Village—it's almost a "Potemkin Planet"! All idea of prosperity, success, in the present systems of the world, is all false—there's nothing really working any more.

And, young people, as you know, when you enter the age of adulthood, that is 18 to 25 approximately, the university-age group, you can no longer think of turning to your parents' generation for support. You've been kicked out of the nest! And you're looking at the world now, "Where am I going to get my worms?" See, when the bird is kicked out of the nest, he goes through a crisis. In a sense, you're being kicked out of the nest, your generation. It's normal. So, you ask, what kind of a world you have. This is around the world, and, very clear in European civilization,

which includes, of course, Russia, which is Eurasian; but it's all part of European civilization—North and South America are European civilization. And, we have this crisis.

Now, in every crisis—except certain natural crises, which we have not yet been able to decide how to solve—for every social crisis, there *is* a solution. So, the problem is, do you know what the solution is? Do you have the will to adopt and act on it? That, if we keep going the way we're going, in most of the world, we're just not going to succeed. We could even go into one of those things that are called "dark ages."

The Challenge of China's Development

But, apart from that, without going further into that, there are certain solutions. Let's look at one of the solutions, or one part of the solution, and look at it from the standpoint of Russia's position, in that potential solution.

Now, you probably have heard, or noticed, that in a recent period, Germany, which is a bankrupt nation, but still has some degree of leadership in technology in Western Europe, has been increasingly interested in trade with China, of a special kind.

China's a complicated nation. It's an important nation, of over 1.3 billion people. It has many, tremendously poor people; it has some people in China, who are becoming prosperous; it has a certain part of the population which is becoming quite prosperous, relatively to Asian standards. It is an important nation, in terms of economy, at present. But, its population is concentrated, to a large degree, along the coastal and river areas, which are the traditional areas of



LaRouche challenged Moscow students, "Your generation is the most powerful political force in Russia." (Here, he is at the Moscow Academy of Finance and Law. To the rear is LaRouche's aide and translator, Jonathan Tennenbaum.)

settlement in China.

Now, for China to develop its population, means that it must develop a lot of infrastructure, and, there's a lot of infrastructure being developed in China. The Three Gorges Dam, for example, is a great engineering project. There is a plan for moving water, from the high plateau of Asia, down to the Yellow River, to build up the Yellow River, and thus, develop northern China. There are plans to develop new, modern rail systems, including magnetic levitation systems, which are already in process in China, as from Shanghai to Shanghai Airport.

The optimistic picture for China would be, that the next 25 years or so, would be a period characterized and dominated by great infrastructure projects of this type, great engineering projects. And by gradually moving people who are poorer into some development areas, you have a general uplifting of the conditions of life and productivity of Chinese people. Despite all the debate, in China and outside China, about where China is going, the basic fact is, you must think in terms of 50 years ahead, in order to understand China, today. An initial period dominated by great infrastructure projects, to develop the land-area, for new cities, for new opportunities, for making wasteland into useful land, these kinds of things; and it will take another generation to absorb this benefit.

So, what happens now? On the good side: China is progressing in many areas of technology; it's absorbing technology at a great rate; it is also becoming a factor in generating technology. For example, magnetic levitation, as a method of replacing rails, that is, railroads as such. Which means, the

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ability to move passengers, now, with existing technology at up to 500 kilometers an hour.

And this is a technology that China got, from Germany. Except for experimental track, there is no magnetic levitation system in Germany! But, there is a magnetic levitation system operating, as a system, from Shanghai to the Shanghai Airport. There are plans to extend high-speed rail systems and magnetic levitation systems, either China-built or otherwise, throughout much of China. These follow the lines which were laid out for China, over a century ago, by Sun Yat-sen, the founder of modern China. China has also taken a technology, which was developed in Germany—which is not used in Germany: the high-temperature gas-cooled reactor. Similar things are happening, in terms of China's absorption of advanced technologies, sometimes from countries which develop them, which don't use it itself! China is also developing mass education methods, to upgrade the skills of the population.

So, China, therefore, is becoming more integrated with the rest of the world, through this technological development in China. But, its appetite for growth increases more rapidly than the growth itself. For example, when you raise the standard of living of a poor farmer, to a modern-technology farmer, you increase the farmer's needs. His technology increases. His needs increase, his needs of life, to perform his function at a higher technological level. He can not generate all the technologies and discoveries, that China requires.

So, what was happening, essentially, is, we're getting—in a very awkward way, but a very promising way—a development, not so much of trade of products (though that is happening), as an exchange of *developed technologies*. All right. Now, Germany, which is a bankrupt nation, but the most advanced nation in Europe, is trying to survive by expanding its already-existing, large market with China. China is Germany's largest customer. It is growing, the trade. The intention is, on both sides, to increase it. So therefore, Germany has now an interest in the development of China, as never before.

Vast Potential of Eurasia

Now, look at the other parts of the world. You have, in North Asia, places like Russia's Far East, you have Korea, you have Japan: That's East Asia and China. You have Southeast Asia, which is a large population area, with great river systems, including Indonesia, and a large population. To the south, you have India, which is already over a billion people. You have Myanmar, formerly called Burma. You have Pakistan. You have a large nation, Bangladesh. This is the rim of Asia: South Asia, Southeast Asia, Northeast Asia—the rim of Asia. Now, what do you have? You have, in the middle, you have, with Iran, you have a number of countries, which were formerly part of the Soviet Union, which are now fragmented, and like the Caucasus, they've become the playground of various foreign powers who are making trouble.

You have, in the north, you have Kazakstan and north Russia, Asian Russia.

In this northern area, Kazakstan and north Russia, from semi-desert to tundra, there's a vast store of minerals, but it's in very thinly populated, poorly developed areas. Or, under the tundra, which is not exactly habitable in the mosquito time, or in the Winter time. To have a process of development in Asia, typified by China's development, and its appetite for development, with Southeast Asia, with great projects—great river projects, water-management projects, coming out of south China, running through the entire area. To the north of India, in China, you have the Brahmaputra River, one of the great rivers of Asia. The water accumulated in the "Roof of the World," part of it comes pouring down this river, the Brahmaputra River, into India; it comes through a great declivity, one of the greatest power projects, water and hydroelectric power projects in the world, is scheduled for that area, in China, but affecting, also, India and Bangladesh. Then, you have India, which is also one of the great powers, in terms of the Asian development potential.

How can a decaying Western Europe, which is desperate to prevent itself from collapsing now, how can it cooperate with the potential development, in the markets of East, Southeast, and South Asia? How do you get from Germany to China? What are the land routes you have to travel? To move freight across Asia? You must go through Russia and Kazakstan.

Now, what does that mean? That means that we have to build, first of all, a very modern, high-speed rail-type transport system, from the Atlantic Ocean in Europe, to the Pacific Ocean, across Russia and Kazakstan. This means that Russia has a very special role here, in the future of Eurasia.

This involves some other things.

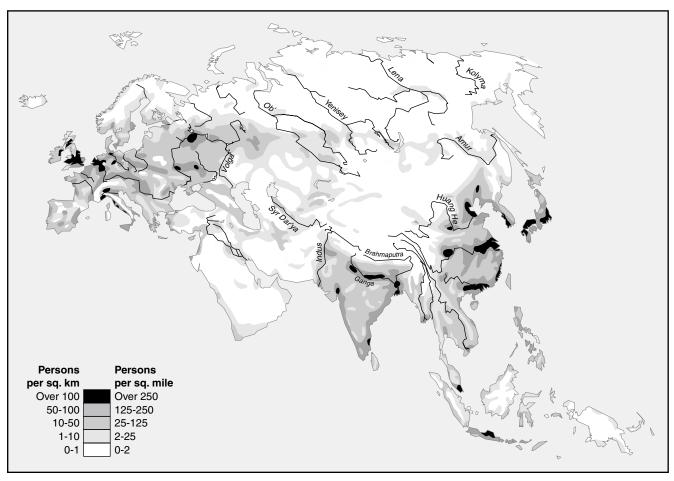
These large populations of Asia, as they develop, are increasingly *hungry for minerals*. There are minerals in Asia. There are minerals in North Asia and Central Asia. But these areas are very thinly populated, and very poorly developed. Under the Soviet Union, in the best periods, these areas were areas of growth and development. Remember, the Battle of Stalingrad was won, because Zhukov led a force out of Asia, to outflank von Paulus's army, outside Stalingrad, and went on at Kursk, to begin the process of freeing Russia from the invasion.

So, what happened to Russia's development of Asian Russia? What has happened over the past ten years? It almost doesn't exist, except for a few spots—the Far East.

How can we, dealing with a hungry Asian rim, to the East and South, how can Europe, with Russia's participation, provide the transport system, through Russia and Kazakstan, into these areas—down to India, to the Pacific Coast, into China? How can it do that, if there's no development of Russian Asia? How can the mineral development, or the mineral potential, of Central and North Asia be developed, if there are no Russians there to develop it? And, it's not just putting

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



EIRNS/John Sigerson

people there: You have to put in the infrastructure, you have to build the cities.

You have to take some of the great rivers of Asia, take some of the great rivers of Russian Asia, and you have to start moving some of the water toward Central Asia, for example. Take Lake Aral, for example: This is an area that was taken by Russian troops in the 19th Century. It became a great cotton-producing area for Russia. Lake Aral is almost a dead lake! The ecology of the region is ruined, by the fact that the water system is collapsed, the ecology is ruined. So therefore, in order to develop Asia, or North Asia, for the purposes involved, vast engineering development works have to be installed.

Now, there's another problem here. I referred to the fact that Asia is becoming *hungry* for minerals. Technological progress is *hungry* for minerals. But, those minerals are finite. They're, some vast, but they're limited. We're talking about billions of hungry people, hungry for these minerals—not to

eat, but to use for things that may affect the way they're able to eat, right? So therefore, we have to think about the danger of using up some of these minerals resources. This one of the things we're dealing with, in this conference on the Vernadsky theme, in Moscow, this week.

Russia's Unique Role

Russia has a very special capability, historically determined, for dealing with this kind of problem. There's a little place in Saxony, on a mountain area: It's called Freiberg. And this city was a mining center, centuries ago. Toward the end of the 17th Century and the beginning of the 18th Century, Freiberg Academy was developed. It was an area which was very much influenced by the work of Leibniz. It became one of the leading educational centers in Europe.

And you had an important person from Russia visiting there, twice, once as prince, and a second time, about a decade later, as tsar: Peter. He went to this place, and each time he

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went there, a new academy dealing with geology and similar subjects was established, once in Petersburg and once in Moscow. And, as Russia's influence and development moved more into Siberia and across the Urals, there was more and more important work done on various kinds of archeology, related to many things, including mineralogy!

And then, you had another tsar, who was not exactly unimportant in Russia: Alexander II. In Petrograd, under the influence of his monarchy, a very important educational institution was developed. And two names from that, are outstanding for our purposes here: Mendeleyev, and a person who studied under Mendeleyev at the time, there, who later became an independent, leading creative thinker in his own right: Vernadsky.

So, Russia has an historically determined specialty in these areas: geology, metallurgy, related things, all related, largely, to the development across the Ur-

als, into Siberia. And so, the catalogue of achievement of Russian science, included a very large emphasis on this area of studies and related areas of science.

The Importance of Vernadsky's Work

There is also another field, [which greatly involved] Mendeleyev and Vernadsky. And Vernadsky is one of my heroes, particularly his last work: He was the inventor of nuclear power in Russia. Back in the 1920s—1924-25, he was one that first proposed the development of nuclear power for Russia.

Now, he became especially significant, for his work on a field that was called "geobiochemistry." In other words, he dealt with three areas, which were known in Classical Greece already, but he dealt with them from a modern scientific standpoint, and from the standpoint of precedents set by people like Mendeleyev. This area was dealing with things which, experimentally—that is, when you conduct experimental investigations, as to principle, some things you test for, the assumption they are "abiotic," they are not living. Then, you have the second experimental area, a specific, experimental test of principle, of things that we consider living processes, which are different than non-living ones. That's the "bio." You have the "geo," the abiotic, which from an experimental standpoint, you assume that the Earth was originally uninhabitable—although that view is changing rapidly over the years, now; we're finding things that are very ancient forms of life. Then, you find another area, an area where effects occur *only* under the influence of the human intellect, never under living processes or non-living processes, otherwise.

As many of you know, the work of Vernadsky dealt with



The audience at Moscow State University. "When you're gripped by an idea that you want to master," LaRouche told them, "you can move the world forward, in terms of ideas, as very few people in older generations can still do!"

the fact that the Earth has three layers in it, from this experimental standpoint. One is in Earth, in which there is either life, or no apparent evidence of life. A second, is the area of the sedimentary part of the Earth, where living processes have left their dead bodies, and given us something on top of the so-called "abiotic Earth." For example: The oceans and the atmosphere are products of life; they are fossils. So, as the Earth becomes older, a larger percentile of the total Earth is dominated by products of living processes, and living processes. Then, on top of it, we have changes that are made in that Earth, by the action of man. And, the activity of man is now changing the Earth, whereas life was taking over the Earth and tending to dominate non-life, now the *human* product, the produce of the human mind, is now beginning to have physical effects, which are dominating every other aspect of the Earth. And this is what Vernadsky called the Noösphere.

Three layers: The abiotic Earth; and Biosphere, living processes and their products; the Noösphere, there's a planet being transformed *by human*, *willful*, *creative activity*.

Now, the question is, therefore, from the standpoint of this work and the implications of Vernadsky's last writings on the subject of the Noösphere, can we control the Earth's Periodic Table? In other words, can we change, can we modify, the abiotic Earth—its elements, its composition? Can we manage the resources we find, which today we call "minerals," to recycle mineral resources, so we have them available? We don't use them up? We can increase the ratio of more important minerals, by transmutation? Can we create synthetic kinds of materials, which we can use in case of scarce minerals?

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'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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