Let's Industrialize the Moon Now as a Base for Future Space Exploration

by Lyndon H. LaRouche, Jr. in 2009

The following is an edited transcript of excerpts from a December 3, 2009 speech by Lyndon H. LaRouche, Jr. presented by video to the Schiller Institute Conference in New York on October 5.

But we have to do something else. We have to mobilize the population and its imagination. Because only the desire for a better future, only goals for a better future, can mobilize a population to be motivated, to do what has to be done. When you put this Mars question: We have to industrialize the Moon, which is already a project that's understood: Ten nations are actually concerned, with the idea of industrializing the Moon; ten nations that are Moon-landing oriented. We have to take the Moon, and make the Moon a baseline, for going into space.

In other words, you don't want to build up tremendous weight in apparatus on Earth and have to pump that stuff up to the Moon! What you do is, you take your technology to the Moon, and then you find the raw materials on the Moon, which you use to build the craft. Now you build the craft which will actually take you, or take whatever you want to send, to Mars, in that direction. So you have to build an industrialization of the Moon.

Remember, this is not a new idea! The space pioneers, as early as the immediate post-war period, in the 1950s in the United States, were already talking about that, as they were in the Soviet Union, and in other places. The Mars objective was the objective, the planet Mars. Getting there is going to be complicated; it's going to take a lot of science, a lot of development, but that's our mission. We're thinking ahead: We're not thinking about what we're going to get tomorrow; we're thinking about what our people are going to have, two or three generations ahead.

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A Purpose in Life

And we're thinking about the purpose in life, which we're giving to young people today, who are coming out of adolescence—the purpose in life, for them! When they ask themselves, "To what purpose am I living? Am I living to my satisfaction? Am I an animal? Or am I living for the sake of my coming generations? Am I living for the joy of my old age? Am I living to do the things that will give me joy in my old age?" It will take a grandfather, who will tell his grandson, "I helped build that! And here's what you're going to do, in your time."

It's that force of imagination, when that becomes the policy of nations, to develop the imagination in this way, the scientific imagination, the cultural imagination, where do we want to go? What do we want to promise to our grandchildren, and their grandchildren? What do we expect as goals that we think we can realize in this term of life? How do we have to educate our people, what do we have to do now, to give a *meaning* to life? I mean, are we animals? That we just eat, and have pleasure, from one moment to the other? Or, are we people, who are thinking about humanity, about future generations, are thinking about what we owe to past generations, and what we owe to future generations? Do our lives have meaning? Do they have purpose? Or are we just silly pleasure-seekers, or something? Entertainment-seekers?

And the problem we have today, is a cultural problem, which is a moral problem: Is that under a zero-growth society, a zero technological growth society, a greenie society, mankind becomes *less* than an animal in moral value. . . .

The population requirements that we must anticipate *right now*, is a world level of population of 7 billion. We have to anticipate that *now*, in this coming generation. And we have to prepare to be able to meet that challenge. And we can! The point is, as you make people creative, you inspire them to be creative. Inspire them to see objectives beyond what their habits are today, and they *will* be creative, and they will create the ability to satisfy these goals. And mankind is not going to stick around as being just in the nook of this Earth, just some corner of the Solar System: Mankind is going out into the universe. If we can have a constantly accelerated flight within our galaxy, men, in their own lifetime, can explore some distant parts of this galaxy. We can do it.

We're not going to do this tomorrow, but our perspective has to be in that direction. It's what we have to tell our children, and our grandchildren: "This is what we must do." And when you capture the imagination of people, in a realistic way, this way, then they become moral, because they become inspired to do good. . . .

Power of High Energy-Flux Density

So therefore, we don't want this nonsense anymore. What we need is high energy-flux density power, and high energy-flux density is the *measurement of effectiveness* of production. The higher the energy-flux density—and this means you go from incident sunlight, you go up the scale toward nuclear power, and then to thermonuclear power, and beyond that. . . .

Well, for example: If you wanted to take a ship, and you wanted the ship to take you from Earth-orbit, as in, from the Moon to Mars orbit, with people in it—if you wanted to have that ship travel at a speed which gives a gravitational effect for the inhabitants of the capsule, you will have a tank attached to it, as big as the Moon, just to contain the fuel. It's not a very good idea.

So therefore, what you need, is you need a much higher energy-flux density thing; you need *fusion thrust*. And where do you get the fusion thrust? Well, you go to the Moon. That's your filling station. You'll find at the filling station on the Moon, there's helium-3, an isotope of helium. Helium-3 is the best fuel for thermonuclear fusion, it's the most efficient. So if you wanted to have a ship go, so the one-gravity effect on the passengers and the crew, between Earth orbit and Mars orbit, you would want to have thermonuclear

fusion as your propellant. And it would come from helium-3, picked up from the gas station on the Moon.

And most of the equipment you would fly in, would also be built on the Moon, from raw materials which are present on the Moon. And once we get into that racket, we find that we're not limited to the Moon. Once we become gatherers of raw materials and so forth, in various parts of the Solar System, then, we find that we have many more kinds of resources to deal with.

So, in general, the point is, is we have to go to this kind of development. Therefore, we want a space orientation. We want a power/space orientation combined, to complement the development of a railway system. Now, in this process, when you start to build the railway system, of the type we're talking about, you're going to have to recreate the machine-tool production, and so forth, that you need.

Increase the Powers of Labor

So, essentially, in my view, in the United States, what we would do by tradition: We would take a large-scale project, like the Tennessee Valley program, or our developing a railway system, the transcontinental railway system—you would take that project, and you would assign Federal responsibility for creating the credit, and authorizing this, to build this system. You would then go to private contractors, along the way, who would pick up on filling out subcontractors on these projects, which is the way things always work in the United States, when they worked. And thus, you take a driver, some scientific project, like a space program, or a railway program, a water program, building power plants—these things now become the stimulus, which spin off the subcontracts and opportunities for expanding industry again.

So, now we want to increase the productive powers of labor, per capita and per square kilometer. We take the large projects as drivers. We take the offshoots of the large projects, which are largely national projects, as stimulants for the smaller level, for people who do the things that are necessary to support the major projects out there. Now, you can expand, raise the level, with aid of education, which is stimulated by this, to increase the productive powers of labor per capita in physical terms.

And that's what we used to do, in our best time! That's what we did under Roosevelt, with a lot of improvisation. Do it again! That's the solution for Asia, as well! You have to have the process of self-development of a population, through the kinds of goals and stimulants which will enable that to occur in a lawful way. And you have to have a people-carry orientation—that's to say, when you've got little kids out there, young people, who have no future, who are extremely poor, with no significant prospect of getting a better life—this is the way you approach that problem. You transform people who have no future, and you give them a future, by creating this process, where they're assimilated into the process of the general growth of the society.

CONFERENCE KEYNOTE

Space Travel Brings Out Our Identity As Creative Beings

by Helga Zepp-LaRouche

This is the edited transcript of the keynote address, an interchange with the audience, and concluding remarks presented by Schiller Institute founder and President Helga Zepp-LaRouche to the institute's conference in New York titled, "Mankind as a Galactic Species: The Necessary Alternative to War," held on October 5, 2019 in New York.

Schiller Institute

Helga Zepp-LaRouche

Hello! I am very happy to address you, even if it's only via the internet and video. Today is a truly joyous day! All around the world, and actually above—on the International Space Station—there are celebrations of the International Observe the Moon Day. All the people who are celebrating have caught a very healthy disease—Moon Fever. The annual celebration of Moon Day began only 10 years ago. This year there are 1,564 events taking place all over the world: 526 in the United States, 298 in Europe, 268 in India, 67 in