

The BRICS Nations and the New World Economic Platform

by Jason Ross

Jason Ross, editor of 21st Century Science & Technology, gave this speech at the Schiller Institute conference in New York City, Jan. 17, 2015. For the rest of the conference speeches, see EIR, Jan. 23, 2015, at larouchepub.com.

Let me give an abbreviated version of what I want to talk about. I'm going to take my main topic, what economics is. The other two topics are more about nuclear fusion, and more about Vladimir Vernadsky and the breakthroughs in science that are going to be made, if we choose to take them up.

So it used to be, or at times it has been, natural to progress. It used to be said that it was natural in the United States for each generation to live better than the one before. That's not the case today. Most Americans, as polls show, are not believing that any more: They are concerned that their children are not going to live as well as they have. Why the change?

It used to be considered natural that we would improve, that things would be better, that we would develop.

Now, let's take up, how we create strategic safety in the world. You know, Jeff [Steinberg] was speaking about the 28 pages, about the need, if you're going to address terrorism at its core, don't overlook, don't leave out, the financing of it, go right for the 28 pages, go right at Saudi Arabia; that's the only way you're going to have a lasting security in that regards. And Mrs. [Helga]



EIRNS/Stuart Lewis

Jason Ross, in his conference presentation, posed the question: What is a truly human economy?

Zepp-LaRouche has spoken frequently about Xi Jinping's understanding that security is not a local matter: that in this world, we will either have global security, or we will not have security. It's not possible to have safety and well-being in one country, while allowing terrorists and irregular warfare to run amok elsewhere to pursue various interests. We have to have a global security order.

Science, Economics, and Global Security

What I'd like to address is how that global security order has to itself be based on and include science as a cooperative means among nations, from the standpoint of economics. Be-

cause creativity, development—this isn't just something that the soul yearns for, that the spirit seeks. It's the basis of why we have economies and animals don't. You may have noticed that animals don't have economies: There aren't banks for squirrels; the International Pigeon Institution doesn't release indicators of inflation; there are not rhinoceroses who measure their manufacturing output. This doesn't happen.

Take an example: If we had a time machine, and you went back 5,000 years, you'd be in a very different world than that of today. You might ask yourself, what could you do in that world? Would you have anything helpful to offer? I don't think you'd be helping people with their iPhones, since there weren't any. Would you be able to help people discover how to turn rocks into

FIGURE 1

Copper and Malachite

Metals and rocks are almost completely opposite physical materials, yet the copper on the left was produced from the rock of malachite on the right.

metal? Could you help people use the stars to navigate? Could you help develop agriculture? Could you design a canal? Or, take someone from 5,000 years ago, and bring them to today. Obviously, it's a very different world.

Now, if you put a kangaroo, a hummingbird, a mosquito in this time machine, they'd get along just fine. Kangaroos don't have to operate any differently now, than they did 5,000 years ago; hummingbirds? There's no difference; it doesn't matter. They're timeless. Time is something that only exists for us, as human beings. We're a species for which *this kind of time* has a meaning. It doesn't exist for the animals. They have one generation to the next, but they're all the same.

So, economics is based on our ability to create history, to discover new true things, to determine how the universe works, and to change our behavior by using that knowledge to live differently. So 5,000 years ago, human beings first turned rocks into metal (**Figure 1**)—this green rock is called malachite; you can turn it into copper. You can add some tin and create bronze. There weren't any pigs doing this; this was people. This developed a new era in history.

FIGURE 2

Maize-Teosinte

John Doebley

Modern maize was developed from teosinte by an intensive process of breeding.

Or think about agriculture: Think about the development of planting seeds, so you would *know* where you would find food in the future. Do animals do that? Or do they walk around hoping they'll find something?

Here you see the development of corn (**Figure 2**). On the left, that's what corn looked like before farming turned it into the modern form of corn that we're familiar with today. Not very appetizing-looking on the left, but that's what it looked like. We develop new forms of life. And this is well before Monsanto, or genetic modification of that sort; this is the genetic modification of breeding, of developing better plants, of creating new kinds of fruits, of grafting trees for example.

Or, take the other knowledge we developed: astronomy, navigation, using lodestones, the natural magnetite rocks that you could use as a compass. How did that change our relationship to the entire globe? How about Eratosthenes figuring out how big the Earth was? How does that change your relationship to it? How about developing hydraulic engineering, canals, waterways, irrigation systems; the first creation of a lock, to move up a river past rapids; of a dam to control floods, to control

water heights. Of a mill, to use that flow of water to replace human labor or the labor of oxen or horses, pulling something?

Or windmills: Windmills were a great invention several hundred years ago! They're not, today. But when they were first invented, it was a great breakthrough. You could use them for grinding, you could use them to pump water and move back the sea, as in the Netherlands.

Tools of the Mind

How about the Renaissance? How about the stunningly beautiful conceptions of the beautiful human race, as seen in Florence, as seen in the work of the greatest artists, the greatest musicians? The development of perspective, beauty, music, poetry: We could use these to channel, to celebrate, *to advance*, our view of ourselves, a higher view of what it is to be a human being. This is something that everybody has in his or her mind, whether you're conscious of it or not—what it is to be a member of the human race. The Renaissance, in addition to the scientific aspects, represented a real breakthrough in explicitly developing a way of discussing that in an uplifting and more truthful way: What are we? What are people?

How about the development of the first modern nation-states? How about Joan of Arc, and the creation of Louis XI's France, Henry VII's England? How about modern science, which made tools that weren't made out of stone, like in the Stone Age, or metal or wood, but tools made out of the power of the mind? How about creating that apparatus of scientific thought as a possibility? These tools created by Cusa, Kepler, Fermat, Leibniz, Gauss, Riemann—how did that change us? It allowed us to move forward, solving all sorts of scientific, engineering problems.

Think about the steam engine! That released *tremendous* amounts of power! You could burn a rock, and instead of using that just to cook your food, you could somehow turn burning into motion: That's a phenomenal change! It seems like two completely different sorts of things. So that breakthrough, how did that change what we could do? How much power did we have at our disposal thanks to that?

How about electricity? Now, instead of carrying coal around, you could carry power on a thin piece of metal, on a wire. You could have your engine over here in a power plant, you could have a wire, and you could

have a motor in a factory. How did that change production, how did that change what we were able to do? Electricity allowed us to create new materials as well, by separating metals, for example. Today, throwing away a piece of aluminum foil, that's something that people do, or maybe recycle it—but go back a couple of hundred years: Napoleon used aluminum for his plates, and he served his guests on gold plates, because aluminum was more expensive then. Now it isn't; that's because of electricity.

How about the germ theory of disease? Which I hope everyone's keeping in mind, and washing their hands a lot. The germ theory of disease, vaccination—how many lives have those discoveries saved? How much unnecessary suffering have they averted? How about the development of anesthesia and pain-killers, which made surgeries possible that you would never *think* of having done without those developments! A hip replacement? I don't think anyone would want to do that without anesthesia and pain-killers! It wouldn't happen, right?

Moving to a Fusion Economy

The nuclear era, which brought in a whole new possibility of technologies: medical scans, smoke detectors, power plants, explosives, basic knowledge of the physical world. How much more power will nuclear fusion bring to us, and the fuller development of already existing nuclear fission? What would be the potentials of a fusion economy, where we're using helium-3 mined on the Moon, as China's already moving to do, to have a platform where we would have to worry about many of the things we consider to be natural phenomena today?

Drought—that's considered a natural catastrophe. It shouldn't have to be. There's plenty of water in the oceans, so why is there is a drought in California? Well, we don't control our weather, and we don't have a desalination capability.

Why do we have shortages of power, or of materials? With a fusion torch you could recycle 100% of waste, you could mine even poor-quality soils.

We could move asteroids! There's a 100% guarantee, that an asteroid or a comet will strike the Earth and kill almost everything on it. That will happen. I don't know when, but there's 100% guarantee it will happen. And we're at a point in human development where we need to take that seriously: Under a fusion platform, we

could move these asteroids—we could move them where we wanted them! If we had Obama's plan to visit an asteroid, we could put one where we needed it and use it as the raw materials for building our spaceships and things like that up there, instead of here on Earth, and having to carry them up.

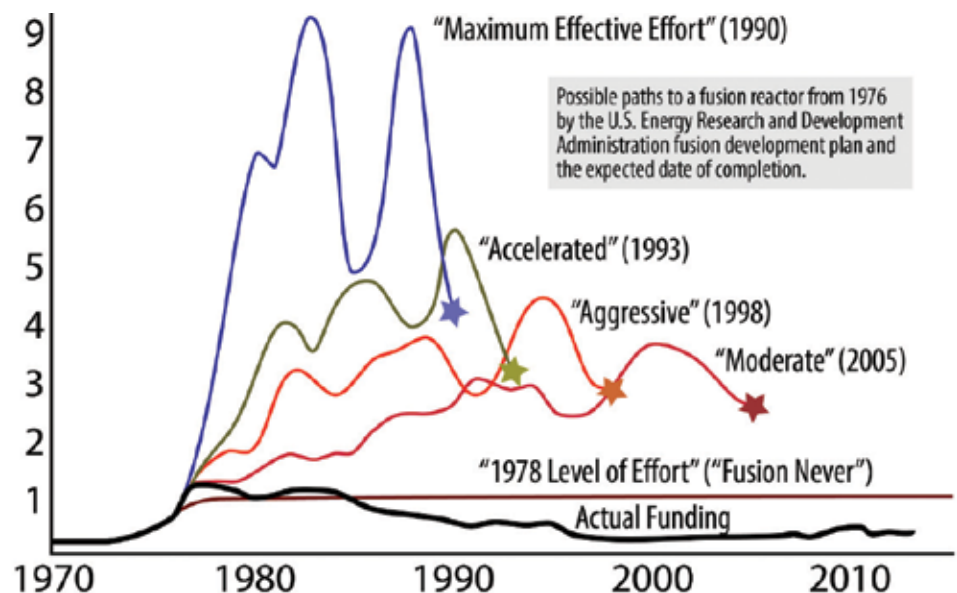
Also, we wouldn't have to worry about Saudi Arabia manipulating the price of oil. (But, then again, we wouldn't have empires.)

So, that's economy. Those kinds of changes? That's economy, that's moving the human species forward. Those are chapters in a history book. What happens on Wall Street? That's not economy, that's stealing, that's gambling, it's empire, it's money! Money's not economy. We use money, but it's not what the economy is. Food is an essential part of the economy; having a place to live is an essential part of the economy. Gambling? That's not an essential part of the economy, that's not one of the basic needs of human beings, or of us as a social species.

So, let's take the opportunity to enjoy understanding this heritage of human development. We're a part of that, that's our common ancestry, our common past. We can all develop a greater understanding of that, and use that to act to create a better future. We also have, just very, very briefly, before us—can we get the chart of the fusion energy budgets (**Figure 3**)? Why isn't this happening right now? Why are polls saying truthfully that Americans don't believe that the next generation will live better?

Here's one example. Back in the late '70s, several ideas were developed about how financing of nuclear fusion research would change the expected date that nuclear fusion would be a reality. You can see these different colored lines. You can see that maroon line, which people then expected meant that we would never achieve fusion. The black line is the actual U.S. funding for fusion: So a decision was made to stop that real eco-

FIGURE 3
Funding for Fusion Energy, 1970-2010



Credit: graphic design by Geoffrey M. Olynik, incorporating 1976 projections from the U.S. Energy Research and Development Administration, "Fusion Power by Magnetic Confinement: Program Plan," by S.O. Dean.

Fusion has been held back deliberately, through brutal under-funding.

nommic process; they discussed it as part of a shift towards Wall Street.

We don't need Wall Street. We don't need monetary economics. We need physical economics.

So let me leave with a teaser, and an announcement about a couple of events for young people; I see some young people here in the audience. One of them is about the work that Mr. LaRouche has initiated on moving science forward, and I'll just point people toward the website of [21st Century Science & Technology](http://21stCenturyScience.com), for more on fusion, for more on Vernadsky, and how life sciences can transform our idea of physics.

So let me leave you with those things: On the larouchepac.com website, there's a [video](#) I just produced about putting fusion power in the context of these overall changes. And I'll end with an announcement: that if you are a young person (if you're wondering whether you're young, I would not consider myself to be young, so if you're younger than me), please, after this conference is over, we're going to meet; look for me by the elevator bank, and we're going to discuss an event that we're going to be having tomorrow in New Jersey from 11 to 3, and also possibly an event tonight, for more on these developments.